

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**California Independent System     ) Docket Nos. ER06-615-\_\_\_ and  
Operator Corporation             )                     ER08-\_\_\_-000**

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION  
FILING OF FOURTH REPLACEMENT VERSION OF  
FERC ELECTRIC TARIFF**

**VOLUME 7 OF 7**

**December 21, 2007**

## CAISO TARIFF APPENDIX C

### Locational Marginal Price

The CAISO shall calculate the price of Energy at Generation PNodes, Scheduling Points, and Aggregated Pricing Nodes, as provided in the CAISO Tariff. LMPs can be set by Bids to sell or purchase Energy. The CAISO establishes Trading Hub prices and LAPs as provided in the CAISO Tariff. The LMPs at PNodes, including Scheduling Points, and Aggregated Pricing Nodes include separate components for the marginal cost of Energy, Marginal Cost of Congestion, and Marginal Cost of Losses. As provided in Sections 6.5.3.2.2 and 6.5.5.2.4, Day-Ahead Market LMPs are calculated and posted on a Day-Ahead basis for each hour of the Day-Ahead Market for Energy and for each Dispatch Interval for the Real-Time LMPs.

#### A. LMP Composition

In each hour of the Day-Ahead Market for Energy, the CAISO calculates the LMP for each PNode, which is equal to the marginal cost of Energy available at the PNode in the hour, based on the Bids of sellers and buyers selected in the Day-Ahead Market for Energy and specified in the Day-Ahead Schedule. The CAISO designates a Reference Bus,  $r$ , for calculation of the System Marginal ~~Energy Cost~~ **Energy Cost** (SMEC $_r$ ). The CAISO uses a distributed Reference Bus to define an aggregate value of Energy for the CAISO Control Area. For each bus other than the Reference Bus, the Transmission Provider determines separate components of the LMP for the marginal cost of Energy, Marginal Cost of Congestion, and Marginal Cost of Losses relative to the Reference Bus, consistent with the following equation:

$$LMP_i = SMEC_r + MCC_i + MCL_i$$

$$LMP_r = SMEC_r$$

where:

- SMEC $_r$  is the LMP component representing the marginal cost of Energy (also referred to as  $\lambda$ ) at the Reference Bus,  $r$  (System Marginal Energy Cost).
- MCC $_i$  is the LMP component representing the Marginal Cost of Congestion (also referred to as  $\rho$ ) at bus  $i$  relative to the Reference Bus.

- $MCL_i$  is the LMP component representing the Marginal Cost of Losses (also referred to as  $\gamma$ ) at bus  $i$  relative to the Reference Bus.

### **B. The System Marginal Energy Cost Component of LMP**

The SMEC shall be the same for each location throughout the system. SMEC is the sensitivity of the power balance constraint at the optimal solution. The power balance constraint ensures that the physical law of conservation of Energy (the sum of Generation and imports equals the sum of Demand, including exports and Transmission Losses) is accounted for in the network solution. For the designated reference location the CAISO will utilize a distributed Reference Bus for which constituent PNodes are weighted in pre-specified proportions, referred to as Reference Bus distribution factors. The distribution factors are based on actual Demand at each PNode that represents Load. Once the Reference Bus is selected, and Demand has dictated the distribution factors, the cost of economically providing the next increment of Energy, based on submitted Bids, at that Reference Bus becomes the System Marginal Energy Cost.

### **C. Marginal Congestion Component Calculation**

The CAISO calculates the Marginal Costs of Congestion at each bus as a component of the bus-level LMP. The Marginal Cost of Congestion ( $MCC_i$ ) component of the LMP at bus  $i$  is calculated using the equation:

$$MCC_i = -\left(\sum_{k=1}^K PTDF_{ik} * FSP_k\right)$$

where:

- $K$  is the number of thermal or interface transmission constraints.
- $PTDF_{ik}$  is the Power Transfer Distribution Factor for the generator at bus  $i$  on interface  $k$  which limits flows across that constraint when an increment of power is injected at bus  $i$  and an equivalent amount of power is withdrawn at the Reference Bus. The industry convention is to ignore the effect of losses in the determination of PTDFs.
- $FSP_k$  is the constraint Shadow Price on interface  $k$  and is equivalent to the reduction in system cost expressed in \$/MWh that results from an increase of 1MW of the capacity on interface  $k$ .

The Shadow Price at a given binding constraint is the value per MW of the next increment of generation that would flow across the constrained path by relaxing the binding constraint. The PTDF of a PNode with respect to a transmission path (and direction on the path) measures the change in the power flow

through the path (positive or negative, with respect to the designated direction on the path) as a result of an incremental injection at the Node, balanced by incremental change of Load at the Reference Bus.

#### **D. Marginal Losses Component Calculation**

The CAISO calculates the Marginal Cost of Losses (MCL<sub>*i*</sub>) at each bus *i* as described in Section 27.1.1.2.

The MCL component of the LMP at any bus *i* within the CAISO's Control Area is calculated using the equation:

$$MCL_i = MLF_i * SMEC_r$$

Where:

- MLF<sub>*i*</sub> is the marginal loss factor for PNode *i* to the system Reference Bus, based on an AC power flow solution. The marginal loss factor at a PNode is the incremental change in the quantity (MW) of transmission losses in the network resulting when serving an increment of Load at the PNode from the Reference Bus.
  - MLF<sub>*i*</sub> is equal to  $1 - \partial L / \partial G_i$ , where: L is system losses, G<sub>*i*</sub> is "generation injection" at PNode *i*,  $\partial L / \partial G_i$  is the partial derivative of system losses with respect to generation injection at bus *i*, that is, the incremental change in system losses associated with an incremental change in the generation injections at bus *i* holding constant other injection and withdrawals at all buses other than the Reference Bus and bus *i*.
- SMEC<sub>*r*</sub> is the SMEC at the Reference Bus, *r*.

#### **E. Trading Hub Price Calculation**

The CAISO calculates Existing Zone Generation Trading Hub prices, as provided in Section 27.3, based on the LMP calculations described in this Attachment and in Section 27.2.

$$EZ \text{ Gen Trading Hub Price}_j = \sum_{i=1}^{NG} WG_{ist} * LMP_i$$

where:

- NG is the number of Generation buses defined in the Existing Zone Generation Trading Hub *j*.
- WG<sub>*ist*</sub> is the generation-weighting factor for bus *i* for season *s* for time period *t* representing peak or off-peak period in Existing Zone Generation Trading Hub *j*. The sum of the weighting factors

must add up to 1. These weights are based on the previous years actual generation output as described in Section 27.3.

#### **F. Load Zone Price Calculation**

The CAISO calculates LAP prices based on the LMPs for a set of buses that comprise the LAP. These LAP prices represent the weighted average of the LMPs at the set of buses that comprise the LAP. The LAP bus weight is equal to the fractional share of each Load bus in the total Load in the LAP during the hour.

The price for LAP  $j$  is:

$$\text{LAP Price}_j = \sum_{i=1}^{NZ} WZ_i * \text{LMP}_i$$

where:

- $NZ$  is the number of Load buses in LAP  $j$ .
- $WZ_i$  is the load-weighting factor for bus  $i$  in LAP  $j$ . The sum of the weighting factors must equal 1 (i.e., 100 percent). These weights are based on State Estimator results for similar day.

Each LAP one includes only the buses of Market Participants who are in the LAP and who have Load that is represented by that LAP's definition. Market Participants that have metered Load must either be settled at a Default LAP or a Custom LAP created for each Load point of the Market Participant (nodal Settlement).

#### **G. Scheduling Point Price Calculation**

The CAISO calculates LMPs for Scheduling Points, which are PNodes or an aggregation of PNodes that exist external to the CAISO ~~Control-Balancing Authority~~ Area through the same process that is used to calculate LMPs within the CAISO ~~Control-Balancing Authority~~ Area. A Scheduling Point typically is physically located at an "outside" boundary of the CAISO Controlled Grid (e.g., at the point of interconnection between a Control Area utility and the CAISO Controlled Grid). CAISO Controlled Grid that is external to the CAISO ~~Control-Balancing Authority~~ Area connects some Scheduling Points to the CAISO ~~Control-Balancing Authority~~ Area, and in these cases the Scheduling Points are within external Control Areas. In both of these cases, the CAISO places injections and withdrawals at the Scheduling

Points, which represent Bids and Schedules whose physical location is unknown, and the LMPs for Settlement of Interchange schedules are established by the Scheduling Point's PNodes. The CAISO's FNM includes a full model of Embedded Control Areas and Adjacent Control Areas. The CAISO may place injections and withdrawals within the Embedded Control Areas and Adjacent Control Areas, which represent Bids and Schedules for the Embedded Control Areas' and Adjacent Control Areas' impact on transmission flows, to ensure the accuracy of power flow calculations and Congestion Management within the CAISO ~~Control~~ Balancing Authority Area. The CAISO models the ~~e~~Congestion and losses in Embedded Control Areas and Adjacent Control Areas as described in Section 27.5.3. The CAISO will establish PNodes for the Embedded Control Areas' and Adjacent Control Areas' Scheduling Points through consultation with the Embedded Control Areas and Adjacent Control Areas. The CAISO will use Intertie scheduling ~~e~~Constraints to limit the quantity of scheduled Energy and AS on a specified Intertie. An Intertie ~~e~~Constraint is scheduled quantity limit as opposed to a flow based limit.

**[Docket No. ER06-615 August 3, 2007 Compliance filing pending FERC Order. See Table.]**

**[Docket No. ER08-\_\_\_ Amendment Filing pending FERC Order. See Table.]**

**[Ministerial tariff language revision shown in BOLD – Docket ER06-615, September 21, 2006 Order.]**

## **CAISO TARIFF APPENDIX D**

### **Black Start Generating Units**

#### **Appendix D - Black Start Generating Units**

**[Ministerial tariff language revisions shown in BOLD – Docket ER06-615, September 21, 2006 Order.]**

The following requirements must be met by Generating Units providing Black Start (~~“Black Start Units”~~):

- (a) Black Start **Generating** Units must be capable of starting and paralleling with the CAISO Controlled Grid without aid from the CAISO Controlled Grid;
- (b) Black Start **Generating** Units must be capable of making a minimum number of starts per event (to be without aid from the CAISO Controlled Grid as determined by the CAISO);
- (c) Black Start **Generating** Units must be equipped with governors capable of operating in the stand alone (asynchronous) and parallel (synchronous) modes.

- (d) Black Start **Generating** Units must have **sStart-uUp** load pickup capabilities at a level to be determined by the CAISO, including total **sStart-uUp** load (MW) and largest **sStart-uUp** load (MW) for such power output levels as the CAISO may specify.
- (e) All Black Start **Generating** Units must be capable of producing **R**reactive Power (boost) and absorbing **R**reactive Power (buck) as required by the CAISO to control system voltages. This requirement may be met by the operation of more than one Black Start **Generating** Unit in parallel providing that:
  - (i) the Black Start **gG**eneration supplier demonstrates that the proposed Generation resource shares reactive burden equitably;
  - (ii) all Participating Generators associated with the proposed Black Start source are located in the same general area.

Buck/boost capability requirement shall be dependent on the location of the proposed resource in relation to Black Start load.

- (f) All Black Start **Generating** Units must have the following communication/control requirements:
  - (i) dial-up telephone;
  - (ii) backup radio;
  - (iii) manning levels which accord with Good Utility Practice.

## CAISO TARIFF APPENDIX E

### Verification of Submitted Data for Ancillary Services

#### Appendix E

### Verification of Submitted Data for Ancillary Services

**[Ministerial tariff language revisions shown in BOLD – Docket ER06-615, September 21, 2006 Order.]**

The CAISO shall use the following procedures for verifying the Bid information submitted by Scheduling Coordinators for Ancillary Services.

1. Bid File and Schedule Format. The CAISO shall verify that the Bids conform to the format specified for the type of Ancillary Service Bid submitted. If the Bid file does not conform to specifications, it shall be annotated by the CAISO to indicate the location of the errors, and returned to the Scheduling Coordinator for corrections. Any changes made by a Scheduling Coordinator shall require a new submittal of ~~h~~**B**id information, and all validity checks shall be performed on the re-submitted Bid .
2. Generation Bids.

2.1. Quantity Data. The CAISO shall verify that no Scheduling Coordinator is submitting a Bid quantity for Regulation, Spinning Reserve, or Non-Spinning Reserve which exceeds available capacity for Regulation and Operating Reserves on the Generating Units, Loads and resources scheduled for that Settlement Period.

2.2 Location Data. The CAISO shall verify that the Location data corresponds to the CAISO Controlled Grid Interconnection data.

2.3. Operating Capability. The CAISO shall verify that the operating capability data corresponds to the CAISO Controlled Grid Interconnection data for each Generating Unit, Load or other resource for which a Scheduling Coordinator is submitting an Ancillary Service Bid..

3. [Not Used]

4. Notification of Validity or Invalidity of Ancillary Services Bids. The CAISO shall, as soon as reasonably practical following the receipt of competitive Bids or ~~sSelf-p~~Provided Ancillary Service Self-Schedule, send to the Scheduling Coordinator who submitted the Bid the following information:

(a) acknowledgment of receipt of the competitive Bid or ~~sSelf-p~~Provided Ancillary Service Self-Schedule;

(b) notification that the Bid has been accepted or rejected for non-compliance with the rules specified in this Appendix. If a Bid is rejected, such notification shall contain an explanation of why the Bid was not accepted;

(c) a copy of the Bid or Self-sSchedule as processed by the CAISO.

In response to an invalid Bid, the Scheduling Coordinator shall be given a period of time to respond to the notification. The Scheduling Coordinator shall respond by resubmitting a corrected Bid. If the Scheduling Coordinator does not respond to the notification within the required time frame, the CAISO shall proceed without that Scheduling Coordinator's Bid.

5. Treatment of Missing Values.

5.1 Missing Location Values. Any Bid submitted without a Location Code shall be deemed to have a zero ~~b~~Bid quantity for that Settlement Period.

5.2 Missing Quantity Values. Any Bid submitted without a quantity value shall be deemed to have a zero ~~b~~Bid quantity for Ancillary Service capacity for that Settlement Period.

5.3 Missing Price Values. Any Bid submitted with non-zero quantity value, but with a missing price value, shall be rejected.

6. Treatment of Equal Price Bids. The CAISO shall allow these Scheduling Coordinators to resubmit, at their own discretion, their Bid no later than two (2) hours the same day the original Bid was submitted. In the event identical prices still exist following resubmission of Bids, the CAISO shall determine the merit order for each Ancillary Service by considering applicable eConstraint information for each Generating Unit, Load or other resource, and optimize overall costs for the Trading Day. If equal Bids still remain, the CAISO shall proportion participation in the Day-Ahead Schedule or HASP Schedule (as the case may be) amongst the bidding Generating Units, Loads and resources with identical ~~b~~Bids to the extent permitted by operating eConstraints and in a manner deemed appropriate by the CAISO.

7. Receipt of Bids. The CAISO shall maintain an audit trail relating to the receipt of Bids and the processing of those Bids.



## **CAISO TARIFF APPENDIX F**

### **Rate Schedules**

## **CAISO TARIFF APPENDIX F**

### **Schedule 1**

#### **Grid Management Charge**

##### **Part A – Monthly Calculation of Grid Management Charge (GMC)**

The Grid Management Charge consists of eight separate service charges: (1) the Core Reliability Services – Demand Charge, (2) the Core Reliability Services – Energy Exports Charge; (3) Energy Transmission Services Net Energy Charge, (4) the Energy Transmission Services Uninstructed Deviations Charge, (5) the Forward Scheduling Charge, (6) the Congestion Management Charge, (7) the Market Usage Charge, and (8) the Settlements, Metering, and Client Relations Charge.

1. The rate in \$/MW for the Core Reliability Services – Demand Charge will be calculated by dividing the GMC costs, as determined in accordance with Part C of this Schedule 1, allocated to this service category in accordance with Part E of this Schedule 1, by the total of the forecasted Scheduling Coordinators' metered non-coincident peak hourly demand in MW for all months during the year (excluding the portion of such Demand associated with Energy Exports, if any, as may be modified in accordance with Part F of this Schedule 1), reduced by thirty-four (34) percent of the sum of all Scheduling Coordinators' metered non-coincident peaks occurring during the hours ending 0100 through 0600, or during the hours ending 2300 through 2400, every day, including Sundays and holidays; provided that if a Scheduling Coordinator's metered non-coincident peak hour during the month occurs during the hours ending 0100 through 0600, or during the hours ending 2300 through 2400, every day, the rate shall be sixty-six (66) percent of the standard Core Reliability Services – Demand rate.
2. The rate in \$/MWh for the Core Reliability Services – Energy Export Charge will be calculated by dividing the GMC costs, as determined in accordance with Part C of this Schedule 1, allocated to this service category in accordance with Part E of this Schedule 1, by the total of the forecasted Scheduling Coordinators' metered volume of Energy Exports in MWh, as may be modified in accordance with Part F of this Schedule 1, for all months during the year.
3. The rate in \$/MWh for the Energy Transmission Services Net Energy Charge will be calculated by dividing the GMC costs, as determined in accordance with Part C of this Schedule 1, allocated to this service category in accordance with Part E of this Schedule 1, by the total annual forecasted Metered Control Area Load.
4. The rate in \$/MWh for the Energy Transmission Services Uninstructed Deviations Charge will be calculated by dividing the GMC costs, as determined in accordance with Part C of this Schedule 1, allocated to this service category in accordance with Part E of this Schedule 1, by the absolute value of total annual forecasted net uninstructed deviations (netted within a Settlement Interval summed over the calendar month) in MWh.
5. The rate in \$ per Schedule for the Forward Scheduling Charge will be calculated by dividing the GMC costs, as determined in accordance with Part C of this Schedule 1, allocated to this service category in accordance with Part E of this Schedule 1, by the annual forecasted number of non-zero MW Final Hour-Ahead Schedules, as may be

modified in accordance with Part F of this Schedule 1, including all awarded Ancillary Service bids; provided that the Forward Scheduling charge attributable to Final Hour-Ahead Schedules for Inter-Scheduling Coordinator Energy and Ancillary Service Trades for each Scheduling Coordinator is fifty (50) percent of the standard Forward Scheduling Charge.

6. The rate in \$/MWh for the Congestion Management Charge will be calculated by dividing the GMC costs, as determined in accordance with Part C of this Schedule 1, allocated to this service category in accordance with Part E of this Schedule 1, by the total annual forecasted Scheduling Coordinators' inter-zonal scheduled flow (excluding flows pursuant to Existing Contracts) per path in MWh.
7. The rate in \$/MWh for the Market Usage Charge will be calculated by dividing the GMC costs, as determined in accordance with Part C of this Schedule 1, allocated to this service category in accordance with Part E of this Schedule 1, by the annual forecasted total purchases and sales (including out-of-market transactions) of Ancillary Services, Supplemental Energy, Instructed Imbalance Energy, and net Uninstructed Imbalance Energy (with uninstructed deviations being netted within a Settlement Interval summed over the calendar month) in MWh.
8. The rate for the Settlements, Metering, and Client Relations Charge will be fixed at \$500.00 per month, per Scheduling Coordinator Identification Number ("SC ID") with an invoice value other than \$0.00 in the current trade month.

The rates for the foregoing charges shall be adjusted automatically each year, effective January 1 for the following twelve months, in the manner set forth in Part D of this Schedule.

#### **Part B – Quarterly Adjustment, If Required**

Each component rate of the Grid Management Charge will be adjusted automatically on a quarterly basis, up or down, so that rates reflect the annual revenue requirement as stated in the CAISO's filing or posting on the CAISO Website, as applicable, if the estimated billing determinant volumes for that component, on an annual basis, change by 5% or more during the year. Such adjustment may be implemented not more than once per calendar quarter, and will be effective the first day of the next calendar month.

The rates will be adjusted in accordance with the following formula:

According to the formulae listed in Appendix F, Schedule 1, Part A with the billing determinant(s) readjusted on a going-forward basis to reflect the 5% or greater change from the estimated billing determinant provided in the annual informational filing.

#### **Part C – Costs Recovered through the GMC**

As provided in Section 8 of the CAISO Tariff, the Grid Management Charge includes the following costs, as projected in the CAISO's budget for the year to which the Grid Management Charge applies:

- Operating costs (as defined in Section 8.2.2)
- Financing costs (as defined in Section 8.2.3), including Start-Up and Development costs and
- Operating and Capital Reserve costs (as defined in Section 8.2.3)

Such costs, for the CAISO as a whole, are allocated to the eight service charges that comprise the Grid Management Charge: (1) Core Reliability Services - Demand Charge, (2) Core Reliability Services – Energy Export Charge, (3) Energy Transmission Services Net Energy Charge, (4) Energy Transmission Services Uninstructed Deviations Charge, (5) Forward Scheduling Charge, (6) Congestion Management Charge, (7) Market Usage Charge, and (8) Settlements, Metering, and Client Relations Charge, according to the factors listed in Part E of this Schedule 1, and

**adjusted annually for:**

- any surplus revenues from the previous year as deposited in the Operating and Capital Reserve Account, as defined under Section 8.5, or deficiency of revenues, as recorded in a memorandum account;

**divided by:**

- forecasted annual billing determinant volumes;

**adjusted quarterly for:**

- a change in the volume estimate used to calculate the individual Grid Management Charge components, if, on an annual basis, the change is 5% or more.

The Grid Management Charge revenue requirement formula is as follows:

Grid Management Charge revenue requirement =

- Operating Expenses + Debt Service + [(Coverage Requirement x Senior Lien Debt Service) and/or (Cash Funded Capital Expenditures)] - Interest Earnings - Other Revenues - Reserve Transfer

Where,

- Operating Expenses = O&M Expenses plus Taxes Other Than Income Taxes and Penalties  
O&M Expenses = Transmission O&M Expenses (Accounts 560-574) plus Customer Accounting Expenses (Accounts 901-905) plus Customer Service and Informational Expenses (Accounts 906-910) plus Sales Expenses (Accounts 911-917) plus Administrative & General Expenses (Accounts 920-935)
- Taxes Other Than Income Taxes = those taxes other than income taxes which relate to CAISO operating income (Account 408.1)
- Penalties = payments by the CAISO for penalties or fines incurred for violation of WECC reliability criteria (Account 426.3)
- Debt Service = for any fiscal year, scheduled principal and interest payments, sinking fund payments related to balloon maturities, repayment of commercial paper notes, net payments required pursuant to a payment obligation, or payments due on any CAISO notes. This amount includes the current year accrued principal and interest payments due in April of the following year.
- Coverage Requirement = 25% of the Senior Lien Debt Service.
- Senior Lien Debt Service = all Debt Service that has a first lien on CAISO Net Operating Revenues (Account 128 subaccounts).
- Cash Funded Capital Expenditures = Post current fiscal year capital additions (Accounts 301-399) funded on a pay-as-you-go basis.
- Interest Earnings = Interest earnings on Operating and Capital Reserve balances (Account 419). Interest on bond or note proceeds specifically designated for capital projects or capitalized interest is excluded.
- Other Revenues = Amounts booked to Account 456 subaccounts. Such amounts include but are not limited to application fees, WECC reliability coordinator reimbursements, and fines assessed and collected by the CAISO.
- Reserve Transfer = the projected reserve balance for December 31 of the prior year less the Reserve Requirement as adopted by the CAISO Governing Board and FERC. If such amount is negative, the amount may be divided by two, so that the reserve is replenished within a two-year period. (Account 128 subaccounts)
- Reserve Requirement = 15% of Annual Operating Expenses.

A separate revenue requirement shall be established for each component of the Grid Management Charge by developing the revenue requirement for the CAISO as a whole and then assigning such costs to the seven service categories using the allocation factors provided in Appendix F, Schedule 1, Part E of this Tariff.

## **Part D – Information Requirements**

### **Budget Schedule**

The CAISO will convene, prior to the commencement of the Annual Budget process, an initial meeting with stakeholders to: (a) receive ideas to control CAISO costs; (b) receive ideas for projects to be considered in the capital budget development process; and, (c) receive suggestions for reordering CAISO priorities in the coming year.

Within 2 weeks of the initial meeting, the ideas presented by the stakeholders shall be communicated in writing to the CAISO's officers, directors and managers as part of the budget development process, and a copy of this communication shall be made available to stakeholders.

Subsequent to the initial submission of the draft budget to the finance committee of the CAISO Governing Board, the CAISO will provide stakeholders with the following information: (a) proposed capital budget with indicative projects for the next subsequent calendar year, a budget-to-actual review for capital expenditures for the previous calendar year, and a budget-to-actual review of current year capital costs; and, (b) expenditures and activities in detail for the next subsequent calendar year (in the form of a draft of the budget book for the CAISO Governing Board), budget-to-actual review of expenditures and activities for the previous calendar year, and a budget-to-actual review of expenditures for the current year. Certain of this detailed information which is deemed commercially sensitive will only be made available to parties that pay the CAISO's GMC (or regulators) who execute a confidentiality agreement.

The CAISO shall provide such materials on a timely basis to provide stakeholders at least one full committee meeting cycle to review and prepare comments on the draft annual budget to the finance committee of the CAISO Governing Board.

At least one month prior to the CAISO Governing Board meeting scheduled to consider approval of the proposed budget, the CAISO will hold a meeting open to all stakeholders to discuss the details of the CAISO's budget and revenue requirement for the forthcoming year. To the extent that such a meeting will deal with complex matters of budgetary and policy import, the CAISO will endeavor to host a workshop on the CAISO's budget preparation process in advance of the meeting to better prepare stakeholders.

Prior to a final recommendation by the finance committee of the CAISO Governing Board on the CAISO's draft annual budget, the CAISO shall respond in writing to all written comments on the draft annual budget submitted by stakeholders and/or the CAISO shall issue a revised draft budget indicating in detail the manner in which the stakeholders' comments have been taken into consideration.

The CAISO will provide no fewer than 45 days for stakeholder review of its annual budget between initial budget posting and final approval of the budget by the CAISO Governing Board.

### **Budget Posting**

After the approval of the annual budget by the CAISO Governing Board, the CAISO will post on the CAISO Website the CAISO operating and capital budget to be effective during the subsequent fiscal year, and the billing determinant volumes used to develop the rate for each component of the Grid Management Charge, together with workpapers showing the calculation of such rates.

### **Annual Filing**

If the Grid Management Charge revenue requirement for Budget Year 2008~~75~~ does not exceed \$248.4195 million or its revenue requirement for Budget Year 2006 does not exceed \$221.7 million, the CAISO shall not be required to make a Section 205 filing to adjust the GMC charges calculated in accordance with this Schedule 1 to collect such Revenue Requirement. In order for the CAISO to adjust the GMC charges to collect a Grid Management Charge revenue requirement for Budget Year 2009~~75~~ that exceeds \$248.4195 million or Budget Year 2006 that exceeds \$221.7 million, the CAISO must submit an application to the FERC under Section 205. In any event, the CAISO shall submit a filing under Section 205 for approval of the GMC charges to be effective as the earlier of January 1, 2009~~87~~ or the effective date of amendments to the ISO Tariff implementing a new market design based on a nodal system of Congestion Management employing locational marginal pricing, such as the ISO's Market Redesign and Technology Upgrade ("MRTU"). In such filing, the CAISO may revise the GMC rates set forth in this Schedule 1, but shall not be required to do so.

**[Docket No. ER06-1281 Amendment Filing accepted by FERC. See Table.]**

**[Docket No. ER08-135 Amendment Filing accepted by FERC. See Table.]**

### **Periodic Financial Reports**

The CAISO will create periodic financial reports consisting of an income statement, balance sheet, statement of operating reserves, and such other reports as are required by the CAISO Governing Board. The periodic financial reports will be posted on the CAISO's Website not less than quarterly.

### **Part E – Cost Allocation**

1. The Grid Management Charge revenue requirement, determined in accordance with Part C of this Schedule 1, shall be allocated to the eight service charges specified in Part A of this Schedule 1 as follows, subject to Section 2 of this Part E. Expenses projected to be recorded in each cost center shall be allocated among the eight charges in accordance with the allocation factors listed in Table 1 to this Schedule 1, subject to Section 2 of this Part E. In the event the CAISO budgets for projected expenditures for cost centers are not specified in Table 1 to Schedule 1, such expenditures shall be allocated based on the allocation factors for the respective CAISO division hosting that newly-created cost center. Such divisional allocation factors are specified in Table 1 to this Schedule 1.

Debt service expenditures for the CAISO's year 2000 (or subsequently refinanced) bond offering shall be allocated among the eight charges in accordance with the allocation factors listed in Table 1 to this Schedule 1, subject to Section 2 of this Part E. Capital expenditures shall be allocated among the eight charges in accordance with the allocation factors listed in Table 2 to this Schedule 1, subject to Section 2 of this Part E, for the system for which the capital expenditure is projected to be made.

Any costs allocated by the factors listed in Table 1 and Table 2 to the Settlements, Metering, and Client Relations category that would remain un-recovered after the assessment of the charge for that service specified in Section 8 of Part A of this Schedule 1 on forecasted billing determinant volumes shall be reallocated to the remaining GMC service categories in the ratios set forth in Table 3 to this Schedule 1.

2. The allocation of costs in accordance with Section 1 and Tables 1 and 2 of this Part E shall be adjusted as follows:

Costs allocated to the Energy Transmission Services category in the following tables are further apportioned to the Energy Transmission Services Net Energy and Energy Transmission Services Uninstructed Deviations subcategories in 80% and 20% ratios, respectively.



<b>1400</b>	<b>Information Services Division</b>	<b>38.25%</b>	<b>7.16%</b>	<b>9.74%</b>	<b>4.78%</b>	<b>9.23%</b>	<b>30.85%</b>	<b>100%</b>
1411	Chief Information Officer	38.25%	7.16%	9.74%	4.78%	9.23%	30.85%	100%
1422	Corporate & Enterprise Applications	33.28%	7.06%	1.16%	25.28%	12.58%	20.63%	100%
1424	Asset Management	35.30%	6.12%	10.91%	4.88%	10.50%	32.29%	100%
1431	End User Support	37.80%	14.44%	8.29%	3.5%	9.32%	26.65%	100%
1432	Computer Operations and Infrastructure Services	34.15%	9.21%	11.76%	3.08%	8.69%	33.11%	100%
1433	Network Services	43.38%	11.88%	9.39%	2.61%	9.23%	23.51%	100%
1441	Outsourced Contracts	42.25%	10.62%	10.25%	2.53%	9.07%	25.28%	100%
1442	Production Support	25.09%	0.17%	17.98%	2.62%	7.52%	46.62%	100%
1451	Information Support Services	25.09%	0.17%	17.98%	2.62%	7.52%	46.62%	100%
1461	Control Systems	96.44%	2.44%	0%	0%	0.56%	0.56%	100%
1462	Field Data Acquisition System (FDAS)	21.43%	0%	0%	0%	0%	78.57%	100%
1463	Operations Systems Services	50.44%	2.91%	6.01%	1.21%	5.95%	33.49%	100%
1466	Enterprise Applications	47.98%	7.30%	1.19%	1.34%	3.47%	38.72%	100%
1467	Settlement Systems Services	27.34%	11.20%	1.83%	2.05%	5.32%	52.25%	100%
1468	Corporate Application Support and Administration	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
1469	Analytical and Reporting Applications	10%	0%	0%	65%	25%	0%	100%
1471	IT Planning	25.09%	0.17%	17.98%	2.62%	7.52%	46.62%	100%

1481	Markets and Scheduling System Services	46.85%	2.86%	23.68%	2.5%	17.64%	6.48%	100%
1482	Market Systems Support Services	44.94%	1.05%	18.51%	6.17%	23.78%	5.54%	100%
<b>1500</b>	<b>Grid Operations Division</b>	<b>66.71%</b>	<b>33.29%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>100%</b>
1511	VP Grid Operations	66.71%	33.29%	0%	0%	0%	0%	100%
1542	Outage Coordination	95.11%	4.89%	0%	0%	0%	0%	100%
1543	Loads and Resources	48.95%	51.05%	0%	0%	0%	0%	100%
1544	Real-Time Scheduling	60%	40%	0%	0%	0%	0%	100%
1545	Grid Operations	67.47%	32.53%	0%	0%	0%	0%	100%
1546	Security Coordination	100%	0%	0%	0%	0%	0%	100%
1547	Engineering and Maintenance	46.42%	53.58%	0%	0%	0%	0%	100%
1548	OSAT Group - General	93.2%	6.80%	0%	0%	0%	0%	100%
1549	Operations Training	50.48%	49.52%	0%	0%	0%	0%	100%
1554	Special Projects Engineering	42.86%	57.14%	0%	0%	0%	0%	100%
1555	Operations Support Group	55.56%	44.44%	0%	0%	0%	0%	100%
1558	Transmission Maintenance	58.46%	41.54%	0%	0%	0%	0%	100%
1559	Operations Application Support	60%	40%	0%	0%	0%	0%	100%
1561	Operations Engineering South	65.32%	34.68%	0%	0%	0%	0%	100%
1562	Operations Engineering North	55.15%	44.85%	0%	0%	0%	0%	100%
1563	Operations Coordination	74.55%	25.45%	0%	0%	0%	0%	100%
1564	Operations Scheduling	100%	0%	0%	0%	0%	0%	100%
1565	Pre-Scheduling and Support	76.92%	23.08%	0%	0%	0%	0%	100%



1566	Regional Coordination - General	100%	0%	0%	0%	0%	0%	100%
<b>1600</b>	<b>Legal and Regulatory Division</b>	<b>35.80%</b>	<b>21.78%</b>	<b>3.73%</b>	<b>7.18%</b>	<b>16.97%</b>	<b>14.54%</b>	<b>100%</b>
1611	VP General Counsel - General	35.80	21.78%	3.73%	7.18%	16.97%	14.54%	100%
1631	Legal and Regulatory	44.01%	21.51%	3.78%	4.61%	10.45%	15.63%	100%
1641	Market Analysis	15.32%	26.33%	0%	19.90%	31.38%	7.07%	100%
1642	Market Surveillance Committee	25%	25%	0%	25%	25%	0%	100%
1651	CAISO Governing Board	44.01%	21.51%	3.78%	4.61%	10.45%	15.63%	100%
1661	Compliance - General	21.90%	20.37%	11.90%	0%	28.50%	17.33%	100%
1662	Compliance - Audits	8.33%	0%	0%	0%	50%	41.67%	100%
<b>1700</b>	<b>Market Services Division</b>	<b>17.14%</b>	<b>2.43%</b>	<b>9.46%</b>	<b>9.39%</b>	<b>20.35%</b>	<b>41.23%</b>	<b>100%</b>
1711	VP Market Services - General	17.14%	2.43%	9.46%	9.39%	20.35%	41.23%	100%
1721	Billing and Settlements- General	25%	0%	0%	0%	0%	75%	100%
1722	Business Development Support	0%	0%	0%	0%	0%	100%	100%
1723	RMR Settlements	80.30%	19.70%	0%	0%	0%	0%	100%
1724	BBS - PSS	0%	0%	0%	0%	0%	100%	100%
1725	BBS - FSS	0%	0%	0%	0%	0%	100%	100%
1731	Contracts and Special Projects	43.17%	6.83%	0%	0%	0%	50%	100%
1741	Client Relations	0%	0%	0%	0%	0%	100%	100%
1751	Market Operations - General	30.66%	0%	15.33%	15.33%	34.85%	3.83%	100%

1752	Manager of Markets	27.31%	5.46%	27.31 %	21.84 %	18.08%	0%	100%
1753	Market Engineering	21.32%	0%	0%	28.43 %	43.15%	7.11%	100%
1755	Business Solutions	5.91%	0%	47.27 %	11.82 %	29.10%	5.91%	100%
1756	Market Quality - General	0%	0%	0%	0%	70.93 %	29.07%	100%
1757	Market Integration	7.38%	0%	29.52%	29.52%	26.20 %	7.38%	100%
<b>1800</b>	<b>Corporate and Strategic Development Division</b>	<b>44.04%</b>	<b>21.49%</b>	<b>3.62%</b>	<b>4.21%</b>	<b>10.31%</b>	<b>16.33%</b>	<b>100%</b>
1811	VP Corporate and Strategic Development - General	44.04%	21.49%	3.62%	4.21%	10.31%	16.33%	100%
1821	Communications	44.01%	22.51%	3.78%	4.61%	10.45%	15.63%	100%
1831	Strategic Development	44.01%	22.51%	3.78%	4.61%	10.45%	15.63%	100%
1841	Human Resources	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
1851	Project Office	44.01%	21.51%	3.78%	4.61%	10.45%	15.63%	100%
1861	Regulatory Policy	44.01%	21.51%	3.78%	4.61%	10.45%	15.63%	100%
<b>Other Revenue and Credits</b>								
	SC Application and Training Fees	0%	0%	0%	0%	0%	100%	100%
	WECC Reimbursement/NERC Reimbursement	100%	0%	0%	0%	0%	0%	100%
	Interest Earnings	36.64%	12.29%	9.34%	4.97%	11.47%	25.30%	100%
<b>Debt Service Related Allocations</b>		<b>33.49%</b>	<b>7.93%</b>	<b>15.26%</b>	<b>5.19%</b>	<b>9.44%</b>	<b>28.69%</b>	<b>100%</b>

**Table 2****Capital Cost Allocation Factors**

<b>System</b>	<b>CRS</b>	<b>ETS</b>	<b>FS</b>	<b>CM</b>	<b>MU</b>	<b>SMCR</b>	<b>Total</b>
ACC Upgrades (Communication between CAISO & IOUs)	100%	0%	0%	0%	0%	0%	100%
Ancillary Services Management (ASM) Component of SA	15%	0%	40%	0%	45%	0%	100%
Application Development Tools	23.46%	0.18%	21.78%	2.68%	6.86%	45.04%	100%
Automated Dispatch System (ADS)	50%	0%	25%	0%	20%	5%	100%
Automated Load Forecast System (ALFS)	70%	0%	10%	0%	20%	0%	100%
Automatic Mitigation Procedure (AMP)	85%	0%	0%	0%	15%	0%	100%
Backup systems (Legato/Quantum)	23%	0%	22%	3%	7%	45%	100%
Balance of Business Systems (BBS)	0%	0%	0%	0%	0%	100%	100%
Balancing Energy Ex Post Price (BEEP) Component of SA	50%	0%	20%	10%	20%	0%	100%
Bill's Interchange Schedule (BITS)	85%	0%	0%	0%	15%	0%	100%
CaseWise (process modeling tool)	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
CHASE	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
Common Information Model (CIM)	100%	0%	0%	0%	0%	0%	100%
Compliance (Blaze)	19.17%	16.27%	9.5%	0%	32.83%	22.23%	100%
Congestion Management (CONG) (Component of SA)	10%	0%	0%	65%	25%	0%	100%

Congestion Reform-DSOW	50%	0%	0%	50%	0%	0%	100%
Congestion Revenue Rights (CRR)	0%	0%	0%	80%	20%	0%	100%
DataWarehouse	24.46%	18.27%	6.40%	8.74%	24.30%	17.82%	100%
Dept. of Market Analysis Tools (SAS/MARS)	15.32%	26.33%	0%	19.90%	31.38%	7.07%	100%
Dispute Tracking System (Remedy)	0%	0%	0%	0%	0%	100%	100%
Documentum	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
Electronic Tagging (Etag)	100%	0%	0%	0%	0%	0%	100%
Energy Management System (EMS)	100%	0%	0%	0%	0%	0%	100%
Engineering Analysis Tools	60%	40%	0%	0%	0%	0%	100%
Evaluation of Market Separation	0%	0%	0%	50%	50%	0%	100%
Existing Transmission Contracts Calculator (ETCC)	25%	0%	20%	15%	20%	20%	100%
FERC Study Software	0%	0%	0%	0%	100%	0%	100%
Firm Transmission Right (FTR) and Secondary Registration System (SRS)	0%	0%	15%	60%	15%	10%	100%
Global Resource Reliability Management Application (GRRMA)	75%	15%	0%	0%	10%	0%	100%
Grid Operations Training Simulator (GOTS)	56%	44%	0%	0%	0%	0%	100%
Hour-Ahead Data AnalysisTool, Day-Ahead Data AnalysisTool,	0%	0%	100%	0%	0%	0%	100%
Human Resources	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%

IBM Contract	37.26%	14.44%	9.54%	3.52%	9.10%	26.13%	100%
Integrated Forward Market (IFM)	10%	0%	35%	0%	55%	0%	100%
Internal Development	23.46%	0.18%	21.78%	2.68%	6.86%	45.04%	100%
Interzonal Congestion Management reform - Real Time	50%	0%	0%	50%	0%	0%	100%
Land and Building Costs	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
Local Area Network (LAN)	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
Locational Marginal Pricing (LMPM)	10%	0%	35%	0%	55%	0%	100%
Market Transaction System (MTS)	0%	0%	0%	0%	100%	0%	100%
Masterfile	20%	0%	20%	0%	55%	5%	100%
MD02 Capital	6.95%	0%	13.86%	10.91%	28.38%	39.90%	100%
Meter Data Acquisition System (RMDAPS)	0%	0%	0%	0%	0%	100%	100%
Miscellaneous (2004 related projects)	23.46%	0%	21.78%	2.68%	6.86%	45.04%	100%
Monitoring (Tivoli)	23.46%	0%	21.78%	2.68%	6.86%	45.04%	100%
New Resource Interconnection (NRI)	100%	0%	0%	0%	0%	0%	100%
New System Equipment (replacement of owned equipment)	23.46%	0.18%	21.78%	2.68%	6.86%	45.04%	100%
NT/web servers	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
NT-servers	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
Oracle Enterprise Manager (OEM)	27%	0.0%	18%	5%	9%	41%	100%
Office Automation - desktop/laptop (OA)	44%	27%	4%	4%	10%	17%	100%
Office equipment (scanner, printer, copier, fax, Communication)	44%	21%	4%	4%	10%	17%	100%

Equipment)							
Open Access Same Time Information System (OASIS)	10%	0%	25%	10%	35%	20%	100%
Operational Meter Analysis and Reporting (OMAR)	0%	0%	0%	0%	0%	100%	100%
Oracle Corporate Financials	44%	21%	4%	4%	10%	17%	100%
Oracle Licenses	27%	0%	18%	5%	9%	41%	100%
Oracle Market Financials BBS	0%	0%	0%	0%	0%	100%	100%
Out of Sequence Market Operation Settlements Information System (OOS)	5%	5%	0%	0%	90%	0%	100%
Outage Scheduler (OS)	50%	0%	10%	20%	20%	0%	100%
Participating Intermittent Resource Project (PIRP)	0%	0%	93.92%	0%	6.08%	0%	100%
Physical Facilities Software Application/Furniture/Leasehold Improvements	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
Process Information System (PI)	80%	0%	0%	0%	10%	10%	100%
Rational Buyer	100%	0%	0%	0%	0%	0%	100%
Real Time Energy Dispatch System (REDS)	100%	0%	0%	0%	0%	0%	100%
Real Time Nodal Market	35%	0%	10%	0%	55%	0%	100%
Reliability Management System (RMS)	100%	0%	0%	0%	0%	0%	100%

Remedy (related to Transmission Registry, New Resource Interconnection, and Resource Registry)	100%	0%	0%	0%	0%	0%	100%
Remote Intelligent Gateway (RIG) & Data Processing Gateway (DPG)	100%	0%	0%	0%	0%	0%	100%
Resource Register (RR)	100%	0%	0%	0%	0%	0%	100%
RMR Application Validation Engine (RAVE)	100%	0%	0%	0%	0%	0%	100%
Scheduling & Logging for CAISO California (SLIC)	65%	0%	15%	5%	15%	0%	100%
Scheduling Architecture (SA)	23.96%	0%	19.84%	25.87%	30.33%	0%	100%
Scheduling Infrastructure (SI)	0%	0%	93.92%	0%	6.08%	0%	100%
Scheduling Infrastructure Business Rules (SIBR)	0%	0%	93.92%	0%	6.08%	0%	100%
Security Constrained Economic Dispatch (SCED)	40%	0%	0%	0%	60%	0%	100%
Security- External/Physical	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
Security-ISS (CUDA)	23%	0%	22%	3%	7%	45%	100%
Settlements and Market Clearing	0%	0%	0%	0%	0%	100%	100%
Sign Board (Symon Board maint.)	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
Startup Costs through 3/31/98, Working Capital-3 months	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
Storage (EMC symmetrix)	18.67%	9.55%	13.71%	4.21%	11.77%	42.09%	100%
System Equipment Buyouts (lease buyouts)	43.27%	1.02%	7.34%	1.79%	11.03%	35.56%	100%

Telephone/PBX	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%	100%
Training Systems	23.46%	0.18%	21.78%	2.68%	6.86%	45.04%	100%
Transmission Constrained Unit Commitment (TCUC) Must Offer Obligation	100%	0%	0%	0%	0%	0%	100%
Transmission Map Plotting & Display	50%	50%	0%	0%	0%	0%	100%
Trustee Costs, Interest-Capitalized, User Groups	53.60%	0.55%	10.62%	15.74%	17.48%	2%	100%
Utilities – System i.e. Print drivers	23.46%	0.18%	21.78%	2.68%	6.86%	45.04%	100%
Vitria (Middleware)	23.46%	0.18%	21.78%	2.68%	6.86%	45.04%	100%
Wide Area Network (WAN)	40.80%	2.14%	18.68%	1.31%	7.60%	29.48%	100%
Capital Expenditures for Systems not Specified	32.20%	7.40%	15%	5.50%	10.60%	29.30%	100%

**Table 3**

**Reallocation Factors for Projected Unrecovered Portion of Settlements, Metering, and Client Relations Revenue Requirement**

	<b>CRS</b>	<b>ETS</b>	<b>FS</b>	<b>CM</b>	<b>MU</b>	<b>SMCR</b>	<b>Total</b>
<b>Functional Association of Settlements, Metering, and Client Relations</b>	0.0%	70.34%	0.0%	8.23%	21.43%	0.0%	100.0%

**Part F – Other Modifications to the Rates**

Consistent with a Settlement Agreement accepted by the FERC in Docket Nos. ER04-115-000, et al., GMC rates and charges shall be calculated consistent with the following additional requirements during the period that the GMC rates and charges specified in that Settlement Agreement remain in effect:

1. The GMC chargeable to a Scheduling Coordinator for transactions representing transfers from the Mohave generation facility to the Loads of the Mohave co-owners located outside of the CAISO Control Area, will be reduced by excluding 65 percent of those Loads from the Energy Transmission Services Net Energy Charge and the Core Reliability Services – Energy Exports Charge. Such excluded



Load shall not be included in the denominators used to calculate the rates for the Energy Transmission Services – Net Energy Charge and the Core Reliability Services – Energy Export Charge.

2. The Forward Scheduling Charge assessed against Schedules submitted by PG&E solely in its role as Path 15 facilitator will be reduced by excluding 65 percent of the number of such Schedules from the Forward Scheduling Charge. Such excluded Schedules shall not be included in the denominator upon which the Forward Scheduling Charge is calculated.

~~3. Modesto Irrigation District (MID) is a Scheduling Coordinator and also is responsible for a portion of the GMC charges payable by another Scheduling Coordinator, Pacific Gas and Electric Company (PG&E) pursuant to a contract between them. MID and PG&E have agreed that MID shall pay the CAISO directly \$75,000 each month, in lieu of any payments to PG&E for its share of the GMC charges payable by PG&E and the CAISO shall credit a portion of the amount received from MID to PG&E as an offset to PG&E's obligation for GMC charges. Any difference, positive or negative, between the amount credited to PG&E and the amount paid by MID to the CAISO under this provision shall be reflected in the Operating and Capital Reserves Account. The payment arrangement described in this paragraph is subject to the conditions, and will be implemented pursuant to the procedures, set forth in the Offer of Partial Settlement accepted by the FERC in Docket Nos. ER04-115-000, et al. This arrangement shall not apply to MID's obligation for GMC charges as a Scheduling Coordinator, which shall be governed by the provisions of this Schedule 1 and the other applicable provisions of the CAISO Tariff, except that in the event that MID accepts responsibility for scheduling any load currently scheduled by PG&E under SCID PGAB, the CAISO will not charge any additional GMC at the tariffed GMC rate, but rather will attribute such schedules and load to the fixed \$75,000.00 per month payment set forth above, provided that MID schedules such load under a new and separate SCID and the CAISO shall not assess GMC charges to such SCID.~~

**[Docket No. ER06-1281 Amendment Filing accepted by FERC. See Table.]**

**CAISO TARIFF APPENDIX F  
Schedule 2  
[Not Used]**

**CAISO TARIFF APPENDIX F  
Schedule 3  
High Voltage Access Charge and Wheeling Access Charge**

**1. Objectives and Definitions.**

**1.1 Objectives.**

- (a)** The Access Charge will remain utility-specific until a New Participating TO executes the Transmission Control Agreement, at which time the Access Charge will change as discussed below.
- (b)** The Access Charge is the charge assessed for using the CAISO Controlled Grid. It consists of three components, the High Voltage Access Charge (HVAC), the Transition Charge and the Low Voltage Access Charge (LVAC).
- (c)** The HVAC ultimately will be based on one CAISO Grid-wide rate. Initially, the HVAC will be based on TAC Areas, which will transition 10% per year to the CAISO Grid-wide rate.

In the first year after the **TAC** Transition Date described in Section 4.2 of this Schedule 3, the HVAC will be a blend based on 10% CAISO Grid-wide and 90% TAC Area.

- (d) New High Voltage Facility additions and capital additions to Existing High Voltage Facilities will be immediately included in the CAISO Grid-wide component of the HVAC. The Transmission Revenue Requirement for New High Voltage Facilities will not be included in the calculation of the Transition Charge.
- (e) The LVAC will remain utility-specific and will be determined by each Participating TO. The LVAC of Non-Load-Serving Participating TOs may also be project specific. Each Participating TO will charge for and collect the LVAC, subject to Section 26.1 of the CAISO Tariff and Section 13 of this Schedule 3.
- (f) The cost-shift associated with transitioning from utility-specific rates to one CAISO Grid-wide rate will be mitigated in accordance with the CAISO Tariff, including this schedule.
- (g) The Wheeling Access Charge is paid by Scheduling Coordinators for Wheeling as set forth in Section 26.1.4 of the CAISO Tariff. The CAISO will collect the Wheeling revenues from Scheduling Coordinators on a Trading Interval basis and repay these to the Participating TOs based on the ratio of each Participating TO's Transmission Revenue Requirement to the sum of all Participating TOs' Transmission Revenue Requirements.

**[Docket No. ER06-1395 Amendment Filing accepted by FERC. See Table.]**

**[Ministerial tariff language revision shown in BOLD – Docket ER06-615, September 21, 2006 Order. NOTE: (g) moved from Appendix N, Part F-1]**

## 1.2 Definitions

### **(a) ~~Master Definition Supplement~~**

Unless the context otherwise requires, any word or expression defined in the Master Definition Supplement shall have the same meaning where used in this Schedule 3.

### **(b) ~~Special Definitions for this Appendix~~**

When used in this Schedule 3 with initial capitalization, the following terms shall have the meanings specified below.

**"High Voltage Utility-Specific Rate"** means a Participating TO's High Voltage Transmission Revenue Requirement divided by such Participating TO's forecasted Gross Load.

**"TAC Benefit"** means the amount, if any, for each year by which the cost of Existing High Voltage Transmission Facilities associated with deliveries of Energy to Gross Loads in the PTO Service Territory is reduced by the implementation of the High Voltage Access Charge described in Schedule 3 to Appendix F. The Tac Benefit of a New Participating TO shall not be less than zero.

**"Transition Date"** means the date defined in Section 4.2 of this Schedule.

**[Docket No. ER06-615 August 3 Compliance filing pending FERC Order. See Table. The above terms added to Appendix A - MASTER DEFINITIONS SUPPLEMENT]**

## **2. Assessment of High Voltage Access Charge and Transition Charge.**

All UDCs and MSS Operators in a PTO Service Territory serving Gross Loads directly connected to the transmission facilities or Distribution System of a UDC or MSS Operator in a PTO Service Territory shall pay to the CAISO a charge for transmission service on the High Voltage Transmission Facilities included in the CAISO Controlled Grid. The charge will be based on the High Voltage Access Charge applicable to the TAC Area in which the point of delivery is located and the applicable Transition Charge. A UDC or MSS Operator that is also a Participating TO shall pay, or receive payment of, if applicable, the difference between (i) the High Voltage Access Charge and Transition Charge applicable to its transactions as a UDC or MSS Operator; and (ii) the disbursement of High Voltage Access Charge revenues to which it is entitled pursuant to Section 26.1.3 of the CAISO Tariff.

## **3. TAC Areas.**

- 3.1** TAC Areas are based on the Control Areas in California prior to the CAISO Operations Date. Three TAC Areas will be established based on the Original Participating TOs: (1) a Northern Area consisting of the PTO Service Territory of Pacific Gas and Electric Company and the PTO Service Territory of any entity listed in Section 3.3 or 3.5 of this Schedule; (2) an East Central Area consisting of the PTO Service Territory of Southern California Edison Company and the PTO Service Territory of any entity listed in Section 3.4, 3.5 or 3.6 (as indicated therein) of this Schedule 3; and (3) a Southern Area consisting of the PTO Service Territory of San Diego Gas & Electric Company. Participating TOs that are not in one of the above cited PTO Service Territories are addressed below.
- 3.2** If the Los Angeles Department of Water and Power joins the CAISO and becomes a Participating TO, its PTO Service Territory will form a fourth TAC Area, the West Central Area.
- 3.3** If any of the following entities becomes a Participating TO, its PTO Service Territory will become part of the Northern Area: Sacramento Municipal Utility District, Western Area Power Administration - Sierra Nevada Region, the Department of Energy California Labs, Northern California Power Agency, City of Redding, Silicon Valley Power, City of Palo Alto, City and County of San Francisco, Alameda Bureau of Electricity, City of Biggs, City of Gridley, City of Healdsburg, City of Lodi, City of Lompoc Utility Department, Modesto Irrigation District, Turlock Irrigation District, Plumas County Water Agency, City of Roseville Electric Department, City of Shasta Lake, and City of Ukiah or any other entity owning or having contractual rights to High Voltage or Low Voltage Transmission Facilities in Pacific Gas and Electric Company's Control Area prior to the CAISO Operations Date.
- 3.4** If any of the following entities becomes a Participating TO, its PTO Service Territory will become part of the East Central Area: City of Anaheim Public Utility Department, City of Riverside Public Utility Department, City of Azusa Light and Water, City of Banning Electric, City of Colton, City of Pasadena Water and Power Department, The Metropolitan Water District of Southern California and City of Vernon or any other entity owning or having contractual rights to High Voltage or Low Voltage Transmission Facilities in Southern California Edison Company's Control Area prior to the CAISO Operations Date.
- 3.5** If the California Department of Water Resources becomes a Participating TO, its High Voltage Transmission Revenue Requirements associated with High Voltage Transmission Facilities in the Northern Area would become part of the High Voltage Transmission Revenue Requirement for the Northern Area while the remainder would be included in the East Central Area.
- 3.6** If the City of Burbank Public Service Department (Burbank) and/or the City of Glendale Public Service Department (Glendale) become Participating TOs after or at the same time as the Los Angeles Department of Water and Power becomes a Participating TO, then the PTO Service Territory of Burbank and/or Glendale would become part of the West Central Area. Otherwise, if

Burbank or Glendale becomes a Participating TO, prior to Los Angeles, its PTO Service Territory will become part of the East Central Area. Once either Burbank or Glendale are part of the East Central Area, they will not move to the West Central Area if such area is established.

- 3.7** If the Imperial Irrigation District or an entity outside the State of California should apply to become a Participating TO, the CAISO Governing Board will review the reasonableness of integrating the entity into one of the existing TAC Areas. If the entity cannot be integrated without the potential for significant cost shifts, the CAISO Governing Board may establish a separate TAC Area.

**4. TAC Transition Date.**

- 4.1** New Participating TOs shall provide the CAISO with a notice of intent to join and execute the Transmission Control Agreement by either January 1 or July 1 of any year and provide the CAISO with an application within 15 days of such notice of intent.

- 4.2** The **TAC Transition Period** shall begin on either January 1 or July 1 after the date the first New Participating TO's execution of the Transmission Control Agreement takes effect (**TAC Transition Date**). The **TAC Transition Date** shall be the same for the Northern Area, East Central Area and the Southern Area. The **TAC Transition Date** shall also be the same for the West Central Area, should it come into existence in accordance with Section 3.2 of this Schedule 3, unless the CAISO provides additional information demonstrating the need for a deferral. The 10-year **TAC Transition Period described defined** in Section 5.8 of Schedule 3 shall start from that date. If the West Central TAC Area is created after the **TAC Transition Date**, the applicable High Voltage Access Charge shall transition to a CAISO Grid-wide High Voltage Access Charge over the **TAC Transition Period** remaining from the **TAC Transition Date**, on the same schedule as the other TAC Areas.

- 4.3 Application to Additional TAC Areas.** For any TAC Areas other than those specified in Section 4.2 of this Schedule 3, created after the **TAC Transition Date**, including any TAC Area created as a result of the application of Section 3.7 of this Schedule 3, whether and over what period the applicable High Voltage Access Charge shall transition to a CAISO Grid-wide charge shall be determined by the CAISO Governing Board.

- 4.4 Application to Wheeling Access Charges.** The transition described in this Section 4 shall also apply, on the same schedule, to High Voltage Wheeling Access Charges.

- 4.5 Conversion of Existing Rights.** During the process by which a New Participating TO executes the Transmission Control Agreement, the CAISO and potential New Participating TO that has an obligation to serve Load shall determine the **IFM Congestion Credit** to be allocated to the New Participating TO in accordance with Section 4.3.1.2 of the CAISO Tariff for each Existing Right that the New Participating TO converts to Converted Rights. In making that determination, the CAISO will consider the amount of contracted transmission capacity, the firmness of the contracted transmission capacity, and other characteristics of the contracted transmission capacity.

**5. Determination of the Access Charge.**

- 5.1** The Access Charge consists of a High Voltage Access Charge (HVAC) that is based on a TAC Area component and a CAISO Grid-wide component, a **Transmission-Transition** Charge, and a Low Voltage Access Charge (LVAC) that is based on a utility-specific rate established by each Participating TO in accordance with its TO Tariff.

- 5.2** Each Participating TO will develop, in accordance with Section 6 of this Schedule 3, a High Voltage Transmission Revenue Requirement (HVTRR<sub>PTO</sub>) consisting of a Transmission Revenue Requirement for Existing High Voltage Facility (EHVTRR<sub>PTO</sub>) and a Transmission Revenue

Requirement for New High Voltage Facility (NHVTRR<sub>PTO</sub>). The HVTRR<sub>PTO</sub> includes the TRBA adjustment described in Section 6.1 of this Schedule 3.

**5.3** The Gross Load amount in MWh shall be established by each Participating TO and filed at FERC with each Participating TO's Transmission Revenue Requirement (GL<sub>PTO</sub>).

**5.4** The HVAC applicable to each UDC or MSS Operator serving Gross Load in the PTO Service Territory, shall be based on a TAC Area component (HVAC<sub>A</sub>) and a CAISO Grid-wide component (HVAC<sub>I</sub>).

$$\text{HVAC} = \text{HVAC}_A + \text{HVAC}_I$$

**5.5** The Existing Transmission Revenue Requirement for the TAC Area component (ETRR<sub>A</sub>) is the summation of each Participating TO's EHVTRR<sub>PTO</sub> in that TAC Area. The Gross Load in the TAC Area (GL<sub>A</sub>) is the summation of each Participating TO's Gross Load in that TAC Area (GL<sub>PTO</sub>). The TAC Area component will be based on the product of Existing Transmission Revenue Requirement for the TAC Area (ETRR<sub>A</sub>) and the applicable annual transition percentage (%TA) in Section 5.8 of this Schedule 3, divided by the Gross Load in the TAC Area (GL<sub>A</sub>).

$$\text{ETRR}_A = \sum \text{EHVTRR}_{\text{PTO}}$$

$$\text{GL}_A = \sum \text{GL}_{\text{PTO}}$$

$$\text{HVAC}_A = (\text{ETRR}_A * \%TA) / \text{GL}_A$$

**5.6** The Existing Transmission Revenue Requirement for the CAISO Grid-wide component (ETRR<sub>I</sub>) will be the summation of all TAC Areas' ETRR<sub>A</sub> multiplied by the applicable annual transition percentage (%IGW) in Section 5.8 of this Schedule 3. The New Transmission Revenue Requirement (NTRR) is the summation of each Participating TO's NHVTRR<sub>PTO</sub>. The CAISO Grid-wide component will be based on the ETRR<sub>I</sub> plus the NTRR, divided by the summation of all Gross Loads in the TAC Areas (GL<sub>A</sub>).

$$\text{ETRR}_I = \sum \text{ETRR}_A * \%IGW$$

$$\text{HVAC}_I = (\text{ETRR}_I + \text{NTRR}) / \sum \text{GL}_A$$

The foregoing formulas will be adjusted, as necessary to take account of new TAC Areas.

**5.7** The Transition Charge shall be calculated separately for each Participating TO by dividing (i) the net difference between (1) the Participating TO's payment responsibility, if any, under Section 26.5 of the CAISO Tariff and Section 7 of this Schedule 3; and (2) the amount, if any, payable to the Participating TO in accordance with Section 26.5 of the CAISO Tariff and Section 7 of this Schedule 3; by (ii) the total of all forecasted Gross Load in the PTO Service Territory of the Participating TO, including the UDC and/or MSS Operator. If greater than zero, the Transition Charge shall be collected with the High Voltage Access Charge. If less than zero, the Transition Charge shall be credited with the High Voltage Access Charge. The amount of each Participating TO's NHVTRR shall not be included in the Transition Charge calculation.

**5.8** The High Voltage Access Charge shall transition over a 10-year **TAC Transition p**Period from TAC Area to CAISO Grid-wide. The transition percentage to be used for each year will be based on the following:

Year	TAC Area	CAISO Grid-Wide
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	<b>High Voltage (%TA)</b>	<b>High Voltage (%IGW)</b>
1	90%	10%
2	80%	20%
3	70%	30%
4	60%	40%
5	50%	50%
6	40%	60%
7	30%	70%
8	20%	80%
9	10%	90%
10	0%	100%

**5.9** After the completion of the **TAC #1** Transition **pp** Period described in Section 4 of this Schedule 3, the High Voltage Access Charge shall be equal to the sum of the High Voltage Transmission Revenue Requirements of all Participating TOs, divided by the sum of the Gross Loads of all Participating TOs.

**6. High Voltage Transmission Revenue Requirement.**

**6.1** The High Voltage Transmission Revenue Requirement of a Participating TO will be determined consistent with CAISO procedures posted on the CAISO Website and shall be the sum of:

- (a) the Participating TO's High Voltage Transmission Revenue Requirement (including costs related to Existing Contracts associated with transmission by others and deducting transmission revenues actually expected to be received by the Participating TO related to transmission for others in accordance with Existing Contracts, less the sum of the Standby Transmission Revenues); and
- (b) the annual high voltage TRBA adjustment, which shall be based on the principal balance in the high voltage TRBA as of September 30, ~~which~~ and shall be calculated as a dollar amount based on the projected Transmission Revenue Credits as adjusted for the true up of the prior year's difference between projected and actual credits. ~~For a Participating TO that is not a UDC, MSS or a Scheduling Coordinator serving End Use Customers and that does not have Gross Load in its TO Tariff in accordance with Appendix F, Schedule 3, Section 9, the A Non-Load-Serving Participating TO shall include any over- or under-recovery of its annual High Voltage Transmission Revenue Requirement in its high voltage TRBA. If the annual high voltage TRBA adjustment involves only a partial year of operations, the Non-Load-Serving Participating TO's over- or under-recovery shall be based on a partial year revenue requirement, calculated by multiplying the Non-Load-Serving Participating TO's High Voltage Transmission Revenue Requirement by the~~

number of days the High Voltage Transmission Facilities were under the CAISO's Operational Control divided by the number of days in the year.

**[Docket No. ER06-1395 Amendment Filing accepted by FERC. See Table.]**

**7. Limitation.**

- (a) During each year of the **TAC** Transition Period described in this Schedule 3, the increase in the total payment responsibility applicable to Gross Loads in the PTO Service Territory of an Original Participating TO attributable to the total for the year of (i) the amount applicable for the Original Participating TO under Section 26.5 of the CAISO Tariff; plus (ii) the amount applicable to the implementation of the High Voltage Access Charge shall not exceed the amount specified in paragraph (b) of this section. This limitation shall be calculated individually for each Original Participating TO, provided that, if the net effect of clauses (i) and (ii) of this paragraph is positive for one or more Original Participating TOs for any year, the combined net effect shall be allocated among all Original Participating TOs in proportion to the amounts specified in paragraph (b) of this section. This limitation shall be applied by the CAISO's calculation annually of amounts payable by New Participating TOs to Original Participating TOs such that the combined effect of clauses (i) and (ii) of this paragraph, and the payments received by each Original Participating TO shall not exceed the amounts specified in paragraph (b) of this section. The amount receivable by the Original Participating TO from the New Participating TOs to implement the limitation in paragraph (b) of this section, shall be credited through the Transition Charge established pursuant to Section 5.7 of this Schedule 3. Payment responsibility under this section, if any, shall be allocated among New Participating TOs in proportion to their TAC Benefits.
- (b) The maximum annual amounts for Original Participating TO shall be as follows:
- (i) For Pacific Gas and Electric Company and Southern California Edison Company, the maximum annual amount shall be thirty-two million dollars (\$32,000,000.00) each; and
  - (ii) For San Diego Gas & Electric Company, the maximum annual amount shall be eight million dollars (\$8,000,000.00).

**8. Updates to High Voltage Access Charges.**

**8.1** High Voltage Access Charges and High Voltage Wheeling Access Charges shall be adjusted: (1) on January 1 and July 1 of each year when necessary to reflect the addition of any New Participating TO and (2) on the date FERC makes effective a change to the High Voltage Transmission Revenue Requirements of any Participating TO. Using the High Voltage Transmission Revenue Requirement accepted or authorized by FERC, consistent with Section 9 of this Schedule 3, for each Participating TO, the CAISO will recalculate on a monthly basis the High Voltage Access Charge and Transition Charge applicable during such period. Revisions to the Transmission Revenue Balancing Account adjustment shall be made effective annually on January 1 based on the principal balance in the TRBA as of September 30 of the prior year and a forecast of Transmission Revenue Credits for the next year.

**8.2** For service provided by a Participating TO prior to the **TAC** Transition Date, no refund ordered by FERC or amount accrued to that Participating TO's Transmission Revenue Balancing Account related to such service shall be reflected in the High Voltage Access Charge, Low Voltage Access Charge, the High Voltage Transmission Revenue Requirement, or the Low Voltage Transmission Revenue Requirement of a Participating TO. For service provided by a Participating TO following

the **TAC** Transition Date, any refund associated with a Participating TO's Transmission Revenue Requirement that has been accepted by FERC, subject to refund, shall be provided as ordered by FERC. Such refund shall be invoiced separately from the **CAISO** Market Invoice.

**8.3** If the Participating TO withdraws one or more of its transmission facilities from the CAISO Operational Control in accordance with Section 3.4 of the Transmission Control Agreement, then the CAISO will no longer collect the TRR for that transmission facility through the CAISO's Access Charge effective upon the date the transmission facility is no longer under the Operational Control of the CAISO. The withdrawing Participating TO shall be obligated to provide the CAISO with all necessary information to implement the withdrawal of the Participating TO's transmission facilities and to make any necessary filings at FERC to revise its TRR. The CAISO shall revise its transmission Access Charge to reflect the withdrawal of one or more transmission facilities from CAISO Operational Control.

## **9. Approval of Updated High Voltage Revenue Requirements.**

**9.1** Participating TOs will make the appropriate filings at FERC to establish their Transmission Revenue Requirements for their Low Voltage Access Charges and the applicable High Voltage Access Charges, and to obtain approval of any changes thereto. All such filings with the FERC will include a separate appendix that states the HVTRR, LVTRR (if applicable) and the appropriate Gross Load data and other information required by the FERC to support the Access Charges. The Participating TO will provide a copy of its filing to the CAISO and the other Participating TOs in accordance with the notice provisions in the Transmission Control Agreement.

**9.2** Federal power marketing agencies whose transmission facilities are under CAISO Operational Control shall develop their High Voltage Transmission Revenue Requirements pursuant to applicable federal laws and regulations, including filing with FERC. All such filings with FERC will include a separate appendix that states the HVTRR, LVTRR (if applicable) and the appropriate Gross Load data and other information required by the FERC to support the Access Charges. The procedures for public participation in a federal power marketing agency's ratemaking process shall be posted on the federal power marketing agency's website. The federal power marketing agency shall also post on the website the Federal Register Notices and FERC orders for rate making processes that impact the federal power marketing agency's High Voltage Transmission Revenue Requirement. The Participating TO will provide a copy of its filing to the CAISO and the other Participating TOs in accordance with the notice provisions in the Transmission Control Agreement.

## **10. Disbursement of High Voltage Access Charge and Transition Charge Revenues.**

**10.1** High Voltage Access Charge and Transition Charge revenues shall be calculated for disbursement to each Participating TO on a monthly basis as follows:

- (a) the amount determined in accordance with Section 26.1.2 of the CAISO Tariff ("Billed HVAC/TC");
- (b)
  - (i) for a Participating TO that is a UDC or MSS Operator and has Gross Load in its TO Tariff in accordance with Appendix F, Schedule 3, Section 9, then calculate the amount each UDC or MSS Operator would have paid and the Participating TO would have received by multiplying the High Voltage Utility-Specific Rates for the Participating TO whose High Voltage Facilities served such UDC and MSS Operator times the actual Gross Load of such UDCs and MSS Operators ("Utility-specific HVAC"); or



- (ii) for a Non-Load-Serving Participating TO ~~that is not a UDC or MSS Operator and that does not have Gross Load in its TO Tariff in accordance with Appendix F, Schedule 3, Section 9,~~ then calculate the Non-Load-Serving Participating TO's portion of the total Billed HVAC/TC in subsection (a) based on the ratio of the Non-Load-Serving Participating TO's High Voltage Transmission Revenue Requirement to the sum of all Participating TOs' High Voltage Revenue Requirements.
- (c) if the total Billed HVAC/TC in subsection (a) received by the CAISO less the total dollar amounts calculated in Utility-specific HVAC in subsection (b)(i) and subsection (b)(ii) is different from zero, the CAISO shall allocate the positive or negative difference among those Participating TOs that are subject to the calculations in subsection (b)(i) based on the ratio of each Participating TO's High Voltage Transmission Revenue Requirement to the sum of all of those Participating TOs' High Voltage Transmission Revenue Requirements that are subject to the calculations in subsection (b)(i). This monthly distribution amount is the "HVAC Revenue Adjustment";
- (d) the sum of the HVAC revenue share determined in subsection (b) and the HVAC Revenue Adjustment in subsection (c) will be the monthly disbursement to the Participating TO.

**[Docket No. ER06-1395 Amendment Filing accepted by FERC. See Table.]**

**10.2** If the same entity is both a Participating TO and a UDC or MSS Operator, then the monthly High Voltage Access Charge and Transition Charge amount billed by the CAISO will be the charges payable by the UDC or MSS Operator in accordance with Section 26.1.2 of the CAISO Tariff less the disbursement determined in accordance with Section 10.1(d) **of this Schedule 3**. If this difference is negative, that amount will be paid by the CAISO to the Participating TO.

**11. Determination of Transmission Revenue Requirement Allocation Between High Voltage and Low Voltage Transmission Facilities.**

**11.1** Each Participating TO shall allocate its Transmission Revenue Requirement between the High Voltage Transmission Revenue Requirement and Low Voltage Transmission Revenue Requirement based on the Procedure for Division of Certain Costs Between the High and Low Voltage Transmission Access Charges contained in Section 12 of this Schedule.

**12. Procedure for Division of Certain Costs Between the High and Low Voltage Transmission Access Charges.**

**12.1** Division of Costs:

(a) Substations

Costs for substations and substation equipment, including transformers:

- (i) If the Participating TO has substation TRR information by facility and voltage, then the TRR for facilities and equipment at or above 200 kV should be allocated to the HVTRR and the TRR for facilities and equipment below 200 kV should be allocated to the LVTRR;
- (ii) If the Participating TO has substation TRR information by facility but not by voltage, then the TRR for facilities and equipment should be allocated to the HVTRR and to the LVTRR based on the ratio of gross substation investment allocated to HVTRR to gross substation investment allocated to LVTRR pursuant to Section 12.1(a)(i); or

- (iii) If the Participating TO does not have substation TRR information by facility or voltage, then the TRR for facilities and equipment should be allocated to the HVTRR and to the LVTRR based on the Participating TO's transmission system-wide gross plant ratio. The system-wide gross plant ratio is determined once the costs that can be split between High Voltage **Transmission Facilities** and Low Voltage **Transmission Facilities** for all facilities has been developed in accordance with Sections 12.1(a) through (c), then the resulting cost ratio between High Voltage **Transmission Facilities** and Low Voltage **Transmission Facilities** shall be used as the system-wide gross plant ratio.
  - (iv) Costs of transformers that step down from high voltage (200 kV or above) to low voltage, to the extent the Participating TO does not have the revenue requirement information available on a voltage basis, should be allocated consistent with the procedures for substations addressed above.
- (b) Transmission Towers and Land with Circuits on Multiple Voltages  
 For transmission towers that have both High Voltage **Transmission Facilities** and Low Voltage **Transmission Facilities** on the same tower, the cost of these assets should be allocated two-thirds to the HVTRR and one-third to the LVTRR. If the transmission tower has only High Voltage **Transmission Facilities**, then the costs of these assets should be allocated entirely to the HVTRR. If the transmission tower has only Low Voltage **Transmission Facilities**, then the TRR of these assets should be allocated entirely to the LVTRR. Provided that the Participating TO does not have land cost information available on a voltage basis, in which case the costs should be allocated based on the bright-line of the voltage levels, the costs for land used for transmission rights-of-way for towers that have both **H**high **V**voltage and **L**low **V**voltage wires should be allocated two-thirds to the HVTRR component and one-third to the LVTRR.
- (c) Operation and Maintenance, Transmission Wages & Salaries, Taxes, Depreciation and Amortization, and Capital Costs  
 If the Participating TO can delineate costs for transmission operations and maintenance (O&M), transmission wages and salaries, taxes, depreciation and amortization, or capital costs on a voltage basis, the costs shall be applied on a bright-line voltage basis. If the costs for O&M, transmission wages and salaries, taxes, depreciation and amortization, or capital costs, are not available on voltage levels, the allocation to the HVTRR and the LVTRR should be based on the Participating TO's system-wide gross plant ratio defined in Section 12.1(a).
- (d) Existing Transmission Contracts  
 If the ~~t~~**T**ake-~~o~~**O**ut ~~p~~**P**oint for the Existing Contract is a High Voltage Transmission Facility, the Existing Contract revenue will be credited to the HVTRR of the Participating TO receiving such revenue. Similarly, the Participating TO that is paying charges under such an Existing Contract may include the costs in its HVTRR. If the ~~t~~**T**ake-~~o~~**O**ut ~~p~~**P**oint for the Existing Contract is a Low Voltage Transmission Facility, the Existing Contract revenue will be credited to the HVTRR and the LVTRR of the receiving Participating TO based on the ratio of the Participating TO's HVTRR to its LVTRR, prior to any adjustments for such revenues. The Participating TO that is paying the charges under the Existing Contract will include the costs in its HVTRR and LVTRR in the same ratio as the revenues are recognized by the Participating TO receiving the payments.
- (e) Division of the TRBA **Adjustment** between HVTRR and LVTRR
- (i) Wheeling revenues associated with transactions exiting the CAISO Controlled Grid at **High Voltage** Scheduling Points or Take-Out Points **that are at High Voltage Transmission Facilities** shall be reflected as **H**high **V**voltage **TRBA adjustment** components;

- (ii) Wheeling revenues associated with transactions exiting the CAISO Controlled Grid at ~~Low Voltage~~ Scheduling Points or Take-Out Points **that are at Low Voltage Transmission Facilities** shall be attributed between ~~H~~high ~~V~~voltage and ~~L~~low ~~V~~voltage **TRBA adjustment** components based on the High Voltage and Low Voltage Wheeling Access Charge rates assessed to such transactions by the CAISO and/or the Participating TO;
- (iii) Any Low Voltage Access Charge amounts paid pursuant to Section 26.1 of the CAISO Tariff for the Low Voltage Transmission Facilities of a Non-Load-Serving Participating TO shall be reflected as a component of the low voltage TRBA adjustment associated with the Low Voltage Access Charge;
- (iv~~ii~~) CRR revenues **from CRRs allocated to Participating TOs** shall be assigned to ~~H~~high ~~V~~voltage or ~~L~~low ~~V~~voltage **TRBA adjustment** components based on the voltage of the path related to the CRR; and,
- (iv) Other Transmission Revenue Credits shall be allocated between ~~H~~high ~~V~~voltage and ~~L~~low ~~V~~voltage **TRBA adjustment** components on a gross plant basis.

**[Docket No. ER06-1395 Amendment Filing accepted by FERC. See Table.]**

**13. Low Voltage Access Charge for a Non-Load-Serving Participating TO.** Pursuant to Section 26.1 of the CAISO Tariff, the provisions of this Section 13 of this Schedule 3 shall apply to a Non-Load-Serving Participating TO that has Low Voltage Transmission Facilities.

**13.1 Low Voltage Transmission Revenue Requirement.** The Low Voltage Transmission Revenue Requirement of a Non-Load-Serving Participating TO shall be calculated separately for each individual project that includes one or more Low Voltage Transmission Facilities or shall be calculated for a group of Low Voltage Transmission Facilities if all are part of projects directly connected to the facilities of the same Participating TO(s). The Low Voltage Transmission Revenue Requirement will be determined consistent with CAISO procedures posted on the **CAISO Home Page Website** and shall be the sum of:

- (a) the Non-Load-Serving Participating TO's Low Voltage Transmission Revenue Requirement for the relevant Low Voltage Transmission Facility or group of facilities; and
- (b) the annual low voltage TRBA adjustment for the relevant Low Voltage Transmission Facility or group of facilities, which shall be based on the principal balance in the low voltage TRBA as of September 30 and shall be calculated as a dollar amount based on the projected Transmission Revenue Credits as adjusted for the true up of the prior year's difference between projected and actual credits. In accordance with Section 26.1 of the CAISO Tariff, the Non-Load-Serving Participating TO shall include any over- or under-recovery of its annual Low Voltage Transmission Revenue Requirement in its low voltage TRBA. If the annual low voltage TRBA adjustment involves only a partial year of operations, the Non-Load-Serving Participating TO's over- or under-recovery shall be based on a partial year revenue requirement, calculated by multiplying the Non-Load-Serving Participating TO's Low Voltage Transmission Revenue Requirement by the number of days the Low Voltage Transmission Facilities were under the CAISO's Operational Control divided by the number of days in the year.

**13.2 Updates to Low Voltage Access Charges.** Unless otherwise agreed by the affected Participating TOs, a Non-Load-Serving Participating TO shall adjust its Low Voltage Access Charges and Low Voltage Wheeling Access Charges (1) when necessary to reflect any new transmission addition directly connecting a Participating TO to the Low Voltage Transmission Facilities of the Non-Load-Serving Participating TO; (2) on the date FERC makes effective a

change to the Low Voltage Transmission Revenue Requirement of the Non-Load-Serving Participating TO; and (3) on the date FERC makes effective a change to Gross Load of a Participating TO directly connected to the Non-Load-Serving Participating TO. Using the Low Voltage Transmission Revenue Requirement accepted or authorized by FERC, consistent with Section 9 of this Schedule 3, for the Non-Load-Serving Participating TO, the ISO will recalculate on a monthly basis the Low Voltage Access Charge applicable during such period. Revisions to the low voltage TRBA adjustment shall be made effective annually on January 1 based on the principal balance in the low voltage TRBA as of September 30 of the prior year and a forecast of Transmission Revenue Credits for the next year.

For service provided by a Non-Load-Serving Participating TO following the **TAC** Transition Date, any refund associated with a Non-Load-Serving Participating TO's Transmission Revenue Requirement that has been accepted by FERC, subject to refund, shall be provided as ordered by FERC. Such refund shall be invoiced separately from the **CAISO** Market Invoice.

If the Non-Load-Serving Participating TO withdraws one or more of its transmission facilities from the **CAISO** Operational Control in accordance with Section 3.4 of the Transmission Control Agreement, then the **CAISO** will no longer collect the TRR for that transmission facility through the **CAISO**'s Access Charge effective upon the date the transmission facility is no longer under the Operational Control of the **CAISO**. The withdrawing Non-Load-Serving Participating TO shall be obligated to provide the **CAISO** will all necessary information to implement the withdrawal of the Participating TO's transmission facilities and to make any necessary filings at FERC to revise its TRR. The **CAISO** shall revise its transmission Access Charge to reflect the withdrawal of one or more transmission facilities from **CAISO** Operational Control.

**13.3 Approval of Updated Low Voltage Transmission Revenue Requirement.** A Non-Load-Serving Participating TO will make the appropriate filings at FERC to establish its Transmission Revenue Requirement for its Low Voltage Access Charge, and to obtain approval of any changes thereto. All such filings with the FERC will include a separate appendix that states the LVTRR and other information required by the FERC to support the Low Voltage Access Charge. The Non-Load-Serving Participating TO will provide a copy of its filing to the **CAISO** and the other Participating TOs in accordance with the notice provisions in the Transmission Control Agreement.

Federal power marketing agencies whose transmission facilities are under **CAISO** Operational Control shall develop their Low Voltage Transmission Revenue Requirements pursuant to applicable federal laws and regulations, including filing with FERC. All such filings with FERC will include a separate appendix that states the LVTRR and other information required by the FERC to support the Access Charges. The procedures for public participation in a federal power marketing agency's ratemaking process shall be posted on the federal power marketing agency's website. The federal power marketing agency shall also post on the website the Federal Register Notices and FERC orders for rate making processes that impact the federal power marketing agency's Low Voltage Transmission Revenue Requirement. The Non-Load-Serving Participating TO will provide a copy of its filing to the **CAISO** and the other Participating TOs in accordance with the notice provisions in the Transmission Control Agreement.

**13.4 Disbursement of Low Voltage Access Charge Revenues.** Unless otherwise agreed by the affected Participating TOs, Low Voltage Access Charge revenues of a Non-Load-Serving Participating TO shall be calculated for disbursement to that Non-Load-Serving Participating TO on a monthly basis as the sum of Low Voltage Access Charges billed by the **CAISO** to the UDCs or MSS Operators of Participating TOs pursuant to Section 26.1 of the **CAISO** Tariff.

**13.5 Payment of Low Voltage Access Charge.** Notwithstanding the separate accounting for the Low Voltage Access Charge specified in Section 26.1 of the **CAISO** Tariff and this Section 13 of this Schedule 3, if the same entity is both a Participating TO and a UDC or MSS Operator, then the monthly High Voltage Access Charge and Transition Charge amount, and any Low Voltage

Access Charge amount pursuant to this Section 13 of this Schedule 3, billed by the CAISO will be the charges payable by the UDC or MSS Operator in accordance with Sections 26.1.2 and 26.1 of the CAISO Tariff less the disbursement determined in accordance with Section 10.1(d) of this Schedule 3. If this difference is negative, that amount will be paid by the CAISO to the Participating TO.

**[Docket No. ER06-1395 Amendment Filing accepted by FERC. See Table.]**

**14. Wheeling Access Charges.**

**14.1 CAISO Charges on Scheduling Coordinators for Wheeling. The CAISO will charge Scheduling Coordinators scheduling for a Wheeling Out or a Wheeling Through transaction, the product of the Wheeling Access Charge and the total of the hourly Schedules or awards of Wheeling in MWh for each Trading Interval at each Scheduling Point associated with that transaction pursuant to Section 26.1.4 of the CAISO Tariff.**

**14.2 Wheeling Access Charge. The Wheeling Access Charge for each Participating TO shall be as specified in Section 26.1.4 of the CAISO Tariff.**

**14.3 CAISO Payments to Transmission Owners for Wheeling. The CAISO will pay all Wheeling revenues to Participating TOs on the basis of the ratio of each Participating TO's Transmission Revenue Requirement ("TRR") (less the TRR associated with Existing Rights) to the sum of all Participating TOs' TRRs (less the TRRs associated with Existing Rights) as specified in Section 26.1.4.3 of the CAISO Tariff and in the applicable Business Practice Manual. The Low Voltage Wheeling Access Charge shall be disbursed to the appropriate Participating TO in accordance with the applicable Business Practice Manual.**

**14.4 Weighted Average Rate for Wheeling Service. The weighted average rate payable for Wheeling over joint facilities at each Scheduling Point shall be calculated as set forth in the applicable Business Practice Manual, follows, applying the formula separately to the applicable Wheeling Access Charges:**

**[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.**

**NOTE: 14.1-14.4 moved from Appendix N, Part F-2.1, F-2.1.1 and F-2.2; and Appendix H.]**

**CAISO TARIFF APPENDIX F  
Schedule 4**

**Participating Intermittent Resources Forecasting Fee**

A charge up to \$.10 per MWh shall be assessed on the metered Energy from Participating Intermittent Resources **as a Forecast Fee**. The amount of the charge shall be specified in the CAISO Tariff.

**Participating Intermittent Resources Process Fee**

A process fee charge shall be assessed, for each calendar quarter, to each Exporting Participating Intermittent Resource that exported Energy in the quarter. On an annualized basis, the aggregate quarterly charges shall total to \$10,000. The charge is not volumetric, and shall be calculated as follows:

$$(\$10,000/4)/N = \$\text{quarterly charge}$$

N = number of Participating Intermittent Resources exporting Energy in the quarter

### **Participating Intermittent Resources Export Fee**

A Participating Intermittent Resources Export Fee shall be assessed to Exporting Participating Intermittent Resources each calendar quarter. The Participating Intermittent Resources Export Fee shall be calculated as the product of (1) the sum of all ~~s~~Settlement costs avoided by Participating Intermittent Resources for the preceding calendar quarter, or portion thereof, consisting of Charge Types 1597 [FERC Must-offer Obligation Capacity Payment System Allocation], 1697 [Tier 1 MLCC Allocation for System Needs], 1797 [Tier 1 MLCC Allocation of Resource Adequacy for System Needs], 1897 [Tier 1 MLCC Allocation of RCST for System Needs], and 4487 [Allocation of Excess Cost for Instructed Energy], but excluding charges for Uninstructed Energy associated with Charge Type 4407 and Transmission Loss Obligation associated with Charge Type 4450, (2) by the ratio of the total MW/h generated by an Exporting Participating Intermittent Resource during the calendar quarter, or portion thereof (based on metered output), by the total MW/h generated by all Participating Intermittent Resources during the calendar quarter, or portion thereof (based on metered output), and (3) by the percentage of the Exporting Participating Intermittent Resource's capacity deemed exporting under **EIRP** Section 5.3 of the **EIRP** or **PIR** Export Percentage.

Participating Intermittent Resources Export Fee per Participating Intermittent Resource =

$$\frac{\text{Program Costs} \times (\text{MW/h individual Participating Intermittent Resource} / \text{MW/h all Participating Intermittent Resources}) \times \text{PIR Export Percentage}}{\text{PIR Export Percentage}}$$

**[Docket No. ER07-142 Amendment and Compliance Filings accepted by FERC. See Table.]**

### **CAISO TARIFF APPENDIX F**

#### **SCHEDULE 5**

#### **STATION POWER CHARGES**

The **CAISO** shall assess a charge of \$500 to the Scheduling Coordinator representing the owner of one or more Generating Units that submits an application to establish a Station Power Portfolio or to change the configuration of Station Power meters or the generating facilities included in a Station Power Portfolio. If the generating facilities in a single Station Power Portfolio are scheduled by more than one Scheduling Coordinator, then the Scheduling Coordinator representing the most installed capacity shall be assessed the application charge.

A charge of \$200 will be assessed to the **Scheduling Coordinator** of Generating Units that have Station Power meters each time the **CAISO** is required to shift ~~m~~**Meter d**Data to a unique ~~i~~**Load** identifier pursuant to the Station Power Protocol. For example, if a Scheduling Coordinator has two Station Power meters, and both Remote Self Supply and Third Party Supply is attributed to each Station Power meter in a single Netting Period, then the **CAISO** must shift ~~m~~**Meter d**Data to a total of four unique ~~i~~**Load** identifiers and the charge would be \$800 in that month (2 meters ~~Xx~~ 2 ~~i~~**Load** IDs ~~Xx~~ \$200).

All revenue collected by the **CAISO** pursuant to this Schedule 5 shall be considered "Other Revenues" and applied as a credit to the Grid Management Charge revenue requirement in accordance with Schedule 1 of Appendix F.

**[Docket No. ER05-849 Compliance Filing pending FERC Order. See Table.]**

**[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]**

**CAISO TARIFF APPENDIX G**

**[Docket No. ER06-615-015 Compliance Filing pending FERC Order. See Table.]**

**Pro Forma Reliability Must-Run Contract**

**\*\*\***

**PRO FORMA**

**MUST-RUN SERVICE AGREEMENT**

**dated \_\_\_\_\_, 20\_\_**

**between**

**[OWNER NAME]**

**and**

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

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## **MUST-RUN SERVICE AGREEMENT**

THIS MUST-RUN SERVICE AGREEMENT is made as of the \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, between \_\_\_\_\_, a [corporation/limited liability company/municipal corporation] organized under the laws of the State of \_\_\_\_\_ (the "Owner"), and the CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION, a nonprofit public benefit corporation incorporated under the laws of the State of California (the "CAISO").

### **RECITALS**

- A. Owner is the owner or lessee of, or is otherwise entitled to dispatch and market the Energy and Ancillary Services produced from and provided by, the electrical generating Units located at the Facility described in Schedule A to this Agreement;
- B. Under Section 345 of the California Public Utilities Code, CAISO is responsible for the efficient use and reliable operation of the CAISO Controlled Grid;
- C. CAISO has determined that it needs the ability to dispatch Units under the terms and conditions of this Agreement to have Owner deliver Energy into or provide Ancillary Services to the CAISO Controlled Grid when required by CAISO to ensure the reliability of the CAISO Controlled Grid; and
- D. Each Unit covered by this Agreement has been designated as a Reliability Must-Run Unit. In consideration of the covenants and agreements contained in this Agreement, the Parties agree as follows:

### **ARTICLE 1 DEFINITIONS**

Terms, when used with initial capitalization in this Agreement and the attached schedules shall have the meanings set out below. The singular shall include the plural and vice versa. "Includes" or "including" shall mean "including without limitation." References to a section, article or schedule shall mean a section, article or schedule of this Agreement, unless another agreement or instrument is specified. Unless the context otherwise requires, references to any law shall be deemed references to such law as amended, replaced or restated from time to time. Unless the context otherwise requires, any reference to a "person" includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal identity. References to "Owner" or "CAISO" shall, unless the context otherwise requires, mean Owner and CAISO respectively and their permitted assigns and successors. References to sections or provisions of the CAISO Tariff include any succeeding sections or provisions of the CAISO Tariff.

**"Adjusted RMR Invoice"** is defined in Section 9.1(b).

**"ADR"** means alternative dispute resolution pursuant to Section 11.1 and Schedule K.

**"Agreement"** means this Must-Run Service Agreement, including schedules, as amended from time to time.

**"Ancillary Services"** means those ancillary services identified in Schedule E.

**“Applicable UDC Tariff”** means the applicable retail tariff(s), of the utility distribution company in whose service territory the Unit is located, under which the Unit is eligible to purchase power to meet its auxiliary power requirements, whether or not the Unit actually purchases auxiliary power under the tariff(s). The Applicable UDC Tariff for the Facility is set out on Schedule A.

**“Availability”** means, in relation to a Unit, the maximum quantity of Energy or Ancillary Services, measured at the Delivery Point, the Unit is capable of producing at any given time assuming adequate time to ramp the Unit to that maximum quantity. For hydroelectric Units, Availability measures the extent to which the Unit is capable of producing Energy or providing Ancillary Services, given sufficient usable water to produce Energy or provide Ancillary Services. The Availability of a Unit is measured in MW.

**“Availability Deficiency Factor”** is calculated as set forth in Section 8.5.

**“Availability Payment”** means the payment to Owner described in Section 8.1 for Condition 1 and 8.2 for Condition 2.

**“Availability Test”** means a test of a Unit’s Availability requested by CAISO or Owner pursuant to Section 4.9(a).

**“Bid Sufficiency Test”** means the test described in Section 4.1(c).

**“Billable MWh”** is defined in Section 8.3(a).

**“Billing Month”** is defined in Section 9.1(b).

**“Black Start”** means the ability of a Unit to start without an external source of electricity or the process of doing so.

**“Business Day”** means any of Monday through Friday, excluding any day which is a Federal bank holiday.

**“CAISO Availability Notice”** means a notice given by CAISO to Owner modifying the Availability of the Unit under Section 4.9 (a)(vi) or Section 5.4 (b).

**“CAISO Controlled Grid”** means the system of transmission lines and associated facilities that from time to time are under CAISO’s operational control.

**“CAISO Invoice”** is defined in Section 9.1(b).

**“CAISO’s Repair Share”** is defined in Section 7.5 (g).

**“CAISO Settlements Calendar”** is defined in Section 9.1(b).

**“CAISO Tariff”** means the California Independent System Operator Tariff on file with FERC and in effect from time to time.

**“Calculation Hour”** is defined in Section 8.3(c)(i)(A).

**“California Agency”** means the agency or agencies responsible for representing the State of California in FERC proceedings involving the rates, terms and conditions of service under this Agreement.

**“Capital Item”** means an addition or modification to, change in or repair, replacement or renewal of plant, equipment or facilities used by Owner to fulfill Owner’s obligations under this Agreement. A Capital Item does not include Repairs to such plant, equipment or facilities. A Capital Item does not include an Upgrade, unless recovery of costs of the Upgrade has been approved by CAISO. For purposes of this Agreement, Capital Items are “retirement units” or other items the costs of which are properly capitalized in accordance with the FERC Uniform System of Accounts, 18 C.F.R. Part 101.

**“Closed”** is defined in Section 2.5.

**“Collateral”** is defined in Section 9.7.

**“Comparable RMR Unit”** is defined in Section 4.7 (f).

**“Competitive Constraint Run”** is defined in Appendix A to the CAISO Tariff.

**“Condition 1”** means the terms of this Agreement applicable to a Unit providing service under Condition 1 as described in Section 3.1.

**“Condition 2”** means the terms of this Agreement applicable to a Unit providing service under Condition 2 as described in Section 3.1.

**“Confidential Information”** is defined in Section 12.5.

**“Contract Service Limits”** for a given Unit means the Maximum Annual MWh, Maximum Annual Service Hours, Maximum Annual Start-ups, and, if applicable, the Maximum Monthly MWh as stated in Section 13 of Schedule A.

**“Contract Year”** means a calendar year; provided, however, that the initial Contract Year shall commence on the Effective Date and expire at the end of the calendar year in which the Effective Date occurred. If the Agreement terminates during a calendar year, the last Contract Year shall end on the termination date.

**“Counted MWh”** is defined in Section 5.3.

**“Counted Service Hours”** is defined in Section 5.3.

**“Counted Start-ups”** is defined in Section 5.3.

**“Credit Carryforward”** is defined in Section 9.1(e) and Section 9.1(f).

**“Day Ahead Schedule”** is defined in Appendix A to the CAISO Tariff.

**“Deliver”** means to deliver Energy into the CAISO Controlled Grid or Distribution Grid (at the Delivery Point or such other point as the Parties may otherwise agree) or to provide Ancillary Services (whether or not any Energy is Delivered as part of the Ancillary Service) pursuant to a Dispatch Notice (including deliveries for which a Dispatch Notice has been issued under Section 4.5 and deliveries in substitute Market Transactions under Section 5.2) and the terms “Delivered” and “Delivering” shall be construed accordingly.

**“Delivered Ancillary Services”** means the type and, if applicable, the MW of Ancillary Services Delivered by Owner.

**“Delivered MWh”** means the MWh of Energy Delivered by Owner and shall be equal to the sum of Billable MWh, Hybrid MWh, MWh deemed Delivered under Section 5.1 (f); and MWh Delivered from Substitute Units under Section 5.1 (c) or Section 5.1 (d).

**“Delivery Point”** means the point identified in Section 4 of Schedule A where Energy and Ancillary Services are to be Delivered.

**“Direct Contract”** means a contract between Owner and one or more identified persons for the sale of Energy or Ancillary Services other than under this Agreement, and shall in no event include a transaction in a market run by CAISO.

**“Dispatch Notice”** means a notice delivered by CAISO to Owner’s Scheduling Coordinator on a daily, hourly or real-time basis requesting dispatch of one or more Unit(s) to provide Energy or Ancillary Services under this Agreement. Dispatch Notices include: (a) Day-Ahead Schedules and Real-Time Dispatches where the RMR Unit or Units are flagged as RMR Dispatches as a result of the Market-Power Mitigation and Reliability Requirements Determination processes pursuant to the CAISO Tariff, (b) Manual RMR Dispatch Notices, (c) notices deemed to have been given by CAISO for the Energy actually Delivered by a Unit that starts or increases Energy output as a result of a “system emergency” as defined in the CAISO Tariff whether the start or increase occurs automatically (for Units specified in Section 2 of Schedule A as having the ability to Start-up or ramp automatically) or pursuant to a standing written order of the CAISO, and (d) Test Dispatch Notices given by CAISO under Section 4.9 other than Test Dispatch Notices issued at Owner’s request to test Availability or heat input of the Unit.

**“Distribution Grid”** means the radial lines, distribution lines and other facilities used to transmit or distribute Energy from the Facility other than the CAISO Controlled Grid.

**“Due Date”** means the date which is the 30th day after the date on which a Party submits an invoice to the other Party. Notwithstanding the above, the Due Dates for the Revised Estimated RMR Invoice, the Revised Adjusted RMR Invoice, and the CAISO Invoice shall be as specified in Section 9.1(b). If the 30th day, or other Due Date as specified in Section 9.1(b), is not a Business Day, the Due Date shall be the next Business Day.

**“Effective Date”** means the date this Agreement becomes effective pursuant to Section 2.1 thereof.

**“Energy”** means electrical energy.

**“Estimated RMR Invoice”** is defined in Section 9.1(b).

**“Existing Contractual Limitation”** means a contractual limitation on the Start-up or operation of a Unit existing prior to the date the Unit was designated as a Reliability Must-Run Unit. All Existing Contractual Limitations are described in Section 14 of Schedule A.

**“Facility”** means the electrical generating facility described in Schedule A. A hydroelectric facility may include one or more electric generating facilities which are hydraulically linked by a common water system.

**“Facility Trust Account”** is defined in Section 9.2.

**“FERC”** means the Federal Energy Regulatory Commission, any successor agency, or any other agency to whom authority under the Federal Power Act affecting this Agreement has been delegated.

**“Final Invoice”** is defined in Section 9.10(a).

**“Financing Agreement”** means agreements for financing the Facility or any portion of the Facility.

**“Fixed Option Payment Factor”** is set forth in Section 2 of Schedule B.

**“Force Majeure Event”** means any occurrence beyond the reasonable control of a Party which causes the Party to be unable to perform an obligation under this Agreement in whole or in part and which could not have been avoided by the exercise of Good Industry Practice. Force Majeure Event includes an act of God, war, civil disturbance, riot, strike or other labor dispute, acts or failures to act of Governmental Authority, fire, explosion, flood, earthquake, storm, drought, lightning and other natural catastrophes. A Force Majeure Event shall not include lack of finances or the price of fossil fuel.

**“Forced Outage”** means a reduction in Availability of a Unit for which sufficient notice is not given to allow the outage to be factored into CAISO’s day-ahead or hour-head scheduling process.

**“Good Industry Practice”** means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric power industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in the light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Industry Practice does not require use of the optimum practice, method, or act, but only requires use of practices, methods, or acts generally accepted in the region covered by the Western Systems Coordinating Council.

**“Governmental Authority”** means the government of any nation, any state or other political subdivision thereof, including any entity exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to a government.

**“Hourly Metered Total Net Generation”** means the electric generation in MWh for the Unit in any Settlement Period as measured by the Unit’s electrical meter described in Schedule A,

Section 5, “Metering and Related Arrangements”, minus any auxiliary loads metered on the load side of such electrical meter for that Settlement Period in accordance with the CAISO Tariff.

**“Hybrid MWh”** is defined in Section 8.3(b).

**“Hydroelectric Dependable Capacity”** is the amount of MWh forecast to be produced by a hydroelectric Facility in an adverse hydrologic year.

**“Interest Rate”** means the lesser of the rate of interest per annum calculated in accordance with 18 C.F.R. 35.19a of the FERC’s Regulations or the maximum rate permitted by law.

**“Local Capacity Area”** is defined in Appendix A to the CAISO Tariff.

**“Long-term Planned Outage”** means a planned interruption, in whole or in part, in the electrical output of a Unit to permit Owner to perform a major equipment overhaul and inspection or for new construction work but only if the outage is scheduled to last 21 consecutive days or more (which may span more than one Contract Year) and either (a) is scheduled in accordance with the CAISO’s outage coordination protocol prior to the beginning of the Contract Year or (b) was scheduled as a Long-term Planned Outage for the last quarter of the expiring Contract Year but, with approval of the CAISO Outage Coordination Office, was postponed and rescheduled into the new Contract Year.

**“Manual RMR Dispatch Notice”** is a Dispatch Notice issued other than as a result of the Market Power Mitigation and Reliability Requirements Determination process as described in the CAISO Tariff.

**“Market Power Mitigation and Reliability Requirements Determination” or “MPM-RRD”** is as defined in the CAISO Tariff.

**“Market Schedule”** is defined in Section 8.3(c)(i)(C).

**“Market Transaction”** means a delivery of Energy or provision of Ancillary Services from a Unit pursuant to a Direct Contract or bids into markets run by the, CAISO or any similar entity.

**“Maximum Annual MWh”** means, for each Unit, the maximum MWh of Energy that Owner may be obligated to Deliver from the Unit in each Contract Year without becoming entitled to charges for excess service under Schedule G. The Maximum Annual MWh for each Unit is set out in Section 12 of Schedule A. The rules for counting MWh are set out in Section 5.3.

**“Maximum Annual Service Hours”** means, for each Unit, the maximum Service Hours that Owner may be obligated to provide service from the Unit in each Contract Year without becoming entitled to charges for excess service under Schedule G. The Maximum Annual Service Hours for each Unit is set out in Section 12 of Schedule A. The rules for counting Service Hours are set out in Section 5.3.

**“Maximum Annual Start-ups”** means, for each Unit, the maximum number of times Owner may be obligated to Start-up the Unit in each Contract Year without becoming entitled to charges for Start-ups under Schedule G. The Maximum Annual Start-ups for each Unit is set out in Section 12 of Schedule A. The rules for counting Start-ups are set out in Section 5.3.

**“Maximum Monthly MWh”** means, for each hydroelectric Unit, the maximum MWh of Energy that Owner may be obligated to Deliver from the Unit without becoming entitled to charges for



excess service under Schedule G. The Maximum Monthly MWh for each hydroelectric Unit is set out in Section 12 of Schedule A. The rules for counting MWh are set out in Section 5.3.

**“Maximum Net Dependable Capacity”** means the amount shown in Section 1 of Schedule A as the Maximum Net Dependable Capacity of a Unit.

**“Minimum Load”** means, for each Unit, the higher of (1) the lowest level in MW at which the Unit can maintain stable continuous operations, or (2) the Minimum Load for the Unit as shown in Section 9 of Schedule A.

**“Minimum Off Time”** means, for each Unit, the minimum time following Shutdown that the Unit must remain off line before initiation of the next Start-up. The Minimum Off Time for each Unit is shown in Section 11 of Schedule A.

**“Minimum Run Time”** means, for each Unit, the minimum time the Unit must remain Synchronized following Start-up. The Minimum Run Time for each Unit is shown in Section 10 of Schedule A.

**“Month”** means a calendar month.

**“Monthly Option Payment”** is defined in Section 8.1(a) for Condition 1 and Section 8.2(a) for Condition 2.

**“Motoring Charge”** means the payment in accordance with Schedule E for the Energy required to spin a generator or condenser that is electrically connected to the CAISO Controlled Grid or Distribution Grid to provide Ancillary Services in circumstances where the generator is not producing Energy.

**“MW”** means one megawatt.

**“MWh”** means one megawatt hour.

**“Net Repair Costs”** is defined in Section 7.5(a).

**“New Responsible Utility”** is defined in Section 9.4 (f).

**“Nonmarket Transaction”** means a Delivery of Energy or Ancillary Services other than Hybrid MWh from a Unit pursuant to a Dispatch Notice.

**“Non-Performance Penalty”** means a penalty computed pursuant to Section 8.5.

**“Other Outage”** means any reduction in the Availability of a Unit as reflected in an CAISO Availability Notice or Owner’s Availability Notice (whether characterized by the North American Electric Reliability Council (“NERC”) as a “forced outage”, “planned outage” or “maintenance outage”) other than a Long-term Planned Outage.

**“Owner’s Availability Notice”** means a notice given under Section 4.9(a)(vii) or Section 7.3(b) by Owner to CAISO notifying CAISO of the Availability of a Unit.

**“Owner’s Repair Cost Obligation”** is an allowance for Repairs to be made during the Contract Year calculated pursuant to Section 7.5 (k). Owner’s Repair Cost Obligation is set out in Section 13 of Schedule A.

**“Party”** means either CAISO or Owner, and “Parties” means CAISO and Owner.

**“Penalty Period”** is defined in Section 8.5 (a).

**“Pre-empted Dispatch Payment”** is defined in Schedule E.

**“Prepaid Start-ups”** is defined in Section 8.4.

**“Prepaid Start-up Charge”** means the payment to Owner for Prepaid Start-ups described in Section 8.1.

**“Prepaid Start-up Cost”** is defined in Schedule D.

**“Prior Period Change(s)”** is defined in Section 9.1(g).

**“Prior Period Change Examples”** is defined in Section 9.1(l).

**“Prior Period Change Guidelines”** is defined in Section 9.1(l).

**“Prior Period Change Worksheet”** is defined in Section 9.1(g).

**“Ramp Rate”** is the applicable Ramp Rate as stated in Section 8 of Schedule A.

**“Ramping Constraint”** means the limits on ramping a Unit to higher or lower output as set out in Section 7 of Schedule A.

**“Real-Time Dispatch”** is defined in Appendix A of the CAISO Tariff.

**“Recalculation Settlement Statement”** is defined in Appendix A of the CAISO Tariff.

**“Reliability Must-Run Unit”** means a “reliability must-run unit” as defined in Appendix A of the CAISO Tariff.

**“Repair”** means repairs or replacement required to remedy or prevent any loss or damage that impairs the capability of the Unit to Deliver Energy or Ancillary Services, the cost of which is properly treated as an expense in accordance with the FERC Uniform System of Accounts, 18 C.F.R. Part 101.

**“Repair Payment Factor”** is determined pursuant to Section 7.5(g).

**“Requested Ancillary Services”** means the type and, if applicable, the MW of Ancillary Services CAISO requests Owner to Deliver from a Unit pursuant to a Dispatch Notice.

**“Requested MW”** means the MW of Energy CAISO requests Owner to Deliver pursuant to a Dispatch Notice.

**“Requested MWh”** means the product of the Requested MW of Energy and the time in hours (or fraction thereof) during which the Dispatch Notice requested Delivery of the Requested MW. This includes ramping energy calculated pursuant to the CAISO Tariff.

**“Requested Operation Period”** means the time during which CAISO requests that a Unit Deliver Energy or Ancillary Services pursuant to a Dispatch Notice.

**“Response Notice”** is defined in Section 14.3(b)(ii).

**“Responsible Utility”** is an entity which, under the CAISO Tariff, is responsible for paying all or part of the costs incurred by CAISO under this Agreement.

**“Responsible Utility Facility Trust Account”** is defined in Section 9.2.

**“Revised Adjusted RMR Invoice”** is defined in Section 9.1(b).

**“Revised Estimated RMR Invoice”** is defined in Section 9.1(b).

**“RMR Dispatch”** is as defined in Appendix A of the CAISO Tariff.

**“RMR Invoices”** means the four invoices issued each Billing Month by Owner to CAISO pursuant to Section 9.1 for payment of charges under this Agreement. The four invoices are the Estimated RMR Invoice, Revised Estimated RMR Invoice, Adjusted RMR Invoice, and Revised Adjusted RMR Invoice.

**“RMR Invoice Template”** is defined in Section 9.1(d).

**“RMR Owner Facility Trust Account”** is defined in Section 9.2.

**“RMR Payments Calendar”** means the calendar issued by CAISO pursuant to Section 11.13 of the CAISO Tariff.

**“Scheduling Coordinator”** means an entity certified by CAISO for the purposes of undertaking the functions specified in Section 4.5 of the CAISO Tariff with respect to a unit.

**“Scheduling Coordinator Revenues”** is defined in Section 9.1(f).

**“Service Hours”** means the amount of time (measured in hours or fractions thereof) a Unit is Delivering Energy or Ancillary Services pursuant to a Dispatch Notice.

**“Settlement Period”** means the period beginning at the start of the hour and ending at the end of the hour.

**“Shutdown”** means the condition of a Unit when it is not Synchronized and not in Start-up.

**“Small Project Estimate”** is defined in Section 7.4 (b).

**“Start-up”** means the action of bringing a Unit from Shutdown to Minimum Load and the terms “Starts-up”, “Started-up” and “Starting-up” shall be construed accordingly.

**“Start-up Lead Time”** means, for each Unit, the amount of time required to Start-up the Unit, as shown in Section 6 of Schedule A.

**“Start-up Payment”** is defined in Schedule D.

**“Substitute Unit”** means a generating unit or combination of units, other than the Unit identified in the Dispatch Notice (whether or not located at the Facility, whether or not designated as a Reliability Must-Run Unit and whether or not owned by Owner), which, under the circumstances existing at the time, is capable of providing system reliability benefits equivalent to the system reliability benefits provided by the Unit identified in the Dispatch Notice. In the case of Units providing Ancillary Services, a Substitute Unit must (i) be certified to provide the requested type of Ancillary Service, (ii) provide the same or higher ramp rate and MW of capacity and, (iii) is located in the same Local Capacity Area as the Unit identified in the Dispatch Notice.

**“Surcharge Payment”** means the payment to Owner for Capital Items described in Section 8.1 for Condition 1 and Section 8.2 for Condition 2.

**“Surcharge Payment Factor”** means the percentage of the cost of a Capital Item that CAISO is obligated to pay.

**“Synchronized”** means the condition where a Unit is electrically connected to and capable of delivering Energy to the CAISO Controlled Grid or Distribution Grid.

**“Termination Fee”** means amounts determined pursuant to the termination fee formula contained in Section 2.5(b).

**“Termination Fee Invoice”** is defined in Section 9.9(a).

**“Test Dispatch Notice”** means a notice issued to test a Unit pursuant to Section 4.9.

**“Trading Day”** means the day on which Energy or Ancillary Services are to be Delivered.

**“Unit”** means an individual electricity generating unit which has been designated a Reliability Must-Run Unit and is part of the Facility identified in Schedule A.

**“Unit Availability Limit”** means for any hour the maximum MW which Owner is obligated to make available to CAISO from a Unit. The Unit Availability Limit shall be the lower of (a) the Maximum Net Dependable Capacity of the Unit or (b) the Availability of the Unit as stated in the currently effective Owner’s Availability Notice or CAISO Availability Notice.

**“Unplanned Capital Item Notice”** is defined in Section 7.6(b).

**“Unplanned Repair Notice”** is defined in Section 7.5(b).

**“Upgrade”** means any change or modification to the Facility that increases the nameplate capacity rating of an existing Unit or adds a new unit.

**“Variable Cost Payment”** means the payment to Owner for Billable MWh described in Schedule C.

## **ARTICLE 2 TERM**

### **2.1 Term**

- (a) This Agreement shall become effective on the later of March 31, 2008, or the date it is permitted to become effective by FERC, and shall continue in effect for one Contract Year.
- (b) CAISO may extend the term of this Agreement for an additional calendar year as to one or more Unit by notice given not later than October 1 of the expiring Contract Year. CAISO may extend the term for less than a full calendar year as to one or more Unit but only if CAISO gives notice not less than 12 months prior to the date to which it proposes to extend the term.

### **2.2 Termination**

- (a) Subject to any necessary authorization from FERC, this Agreement may be terminated as to one or more Unit in accordance with this Section 2.2; provided, however, that if this Agreement applies to a Facility having hydroelectric Unit, this Agreement may be terminated only as to all hydroelectric Units at the Facility. If this Agreement terminates as to fewer than all Units, the Agreement shall remain in effect as to the remaining Units. If this Agreement terminates as to all Units, the Agreement shall terminate.
- (b) This Agreement may be terminated as to one or more Units:
  - (i) by CAISO pursuant to Section 11.4 in the event of default by Owner;
  - (ii) by Owner pursuant to Section 11.4 in the event of default by CAISO;
  - (iii) by Owner pursuant to Section 7.4 (f), 7.5 (i) or 7.6 (h);
  - (iv) by Owner or CAISO, if the Unit is condemned by a Governmental Authority; or

- (v) by Owner or CAISO, if Owner's authorization from a Governmental Authority (including, where applicable, licenses under Part I of the Federal Power Act) that is necessary to site, operate or obtain access to such Unit is terminated or expires or is reissued or modified so that it becomes illegal, uneconomical or otherwise impractical for the Owner to continue operating the Facility. Owner shall be obligated to use its best efforts to renew and keep effective its licenses and authorizations and to oppose conditions or modifications which would make continued operation illegal, uneconomical or otherwise impractical.
- (c) To the extent that Owner transfers the right to control the dispatch of the Facility or Unit which right is necessary to satisfy its obligations under this Agreement, Owner shall assign this Agreement to the transferee in accordance with Section 13.1.
- (d) If CAISO terminates the Agreement or does not extend the term of the Agreement as to a Unit, CAISO shall not redesignate the same Unit, or designate another non-reliability must-run unit at the same Facility, as a Reliability Must-Run Unit during the one year period following termination or expiration of the Agreement as to that Unit unless (i) CAISO demonstrates that the unit is required to maintain the reliability of the CAISO Controlled Grid or any portion thereof and the need to designate the unit as a Reliability Must-Run Unit is caused by an extended outage of a generation or transmission facility not known to CAISO at the time of the termination or expiration or (ii) the unit is selected through an CAISO competitive process in which Owner participated. For purposes of the foregoing, CAISO's need for spinning reserves, nonspinning reserves, replacement reserves or regulation as defined in the CAISO Tariff shall not be grounds for redesignating the Unit or designating another unit at the Facility as a Reliability Must-Run Unit.
- (e) Subject to any necessary authorization from FERC, this Agreement shall terminate as to any Unit leased by Owner in the event that, for any reason, the lease expires or is terminated unless Owner acquires ownership of such Unit upon such expiration or termination. Any termination under this Section 2.2 (e) shall not affect any right CAISO may have thereafter to designate such Unit as a Reliability Must-Run Unit and the conditions in Section 2.2 (d) shall not apply to such redesignation.

### **2.3 Effective Date of Expiration or Termination**

If FERC authorization is required to give effect to expiration or termination of this Agreement as to one or more Units, the effective date of the expiration or termination shall be the date FERC permits the expiration or termination to become effective. Owner shall promptly file for the requisite FERC authorizations to terminate service under this Agreement as of the proposed effective date of expiration or termination; provided, that nothing in this Agreement shall prejudice the right of either Party to contest the other Party's claim that a termination or expiration has occurred. If FERC authorization is not required to terminate service under this Agreement, the effective date of expiration or termination shall be the later of (i) the date specified in CAISO or Owner's notice of termination or (ii) the date that all conditions to the termination or expiration have been satisfied.

### **2.4 Effect of Expiration or Termination**

Expiration or termination of this Agreement shall not affect the accrued rights and obligations of either Party, including either Party's obligations to make all payments to the other Party pursuant to this Agreement or post-termination audit rights under Section 12.2.

### **2.5 Termination Fee**

- (a) CAISO shall pay Owner a Termination Fee calculated pursuant to Section 2.5 (b) if the Unit is Closed within six months after the Unit ceases to be subject to this Agreement as a result of termination pursuant to Sections 2.2 (b) (ii), (iii), (iv) or (v) or because CAISO does not extend the term under Section 2.1 (b). Within 60 days after the Unit is Closed, Owner will send CAISO a notice stating (i) the date the Unit Closed and (ii) the amount of the Termination Fee due Owner pursuant to this Section 2.5 including detailed calculations of each component of the formula in Section 2.5(b) identifying the source of

each input used. For purposes of this Section, "Closed" shall mean that the Unit is not producing Energy or providing capacity and there are no Direct Contracts obligating any entity to deliver Energy or provide capacity from the Unit during the 36 month period beginning at the date the Unit Closed. A Unit shall cease to be Closed if, during the 36 month period beginning at the date the Unit Closed, any entity: (i) sells Energy or capacity; (ii) executes a Direct Contract for service or (iii) obtains a new permit from any Governmental Authority for operations, in each case that would involve use of the Capital Item for which a Termination Fee is being paid.

(b) The Termination Fee shall be determined using the following formula:

$$T = \text{NCI} + \text{CWIP} - S$$

Where:

T = Termination Fee (\$)

NCI = Undepreciated portion of the cost of Capital Items which constitute part of the Closed Unit which were approved in accordance with Section 7.4 or 7.6 and were in service at the date the Unit Closed with the cost and depreciation rates determined under Section 7.4 or 7.6, as applicable. In calculating NCI, the undepreciated cost of each Capital Item shall be multiplied by the Surcharge Payment Factor applicable to that Capital Item.

CWIP = The actual cost, at the date the Unit Closed, of Capital Items for the Closed Unit which were approved in accordance with Section 7.4 or 7.6, as applicable, but were not in service at the date the Unit Closed, plus the cost to pay or terminate any remaining obligations incurred in connection with installation of the Capital Items. In calculating CWIP, the cost of each Capital Item shall be multiplied by the Surcharge Payment Factor applicable to that Capital Item.

S = The salvage value, if any, of the Capital Items included in the calculation of either NCI or CWIP.

The cost for each Capital Item shall be determined by agreement or ADR pursuant to Section 7.4 or 7.6. Except for those items for which a ten-year depreciation life is specified in Section 7.4 of this Agreement, the depreciation rate for each Capital Item shall be determined by agreement or ADR in connection with the applicable Capital Item approval process under Section 7.4 or 7.6.

(c) The Termination Fee shall be payable in 36 equal monthly installments calculated using the following formula:

$$M = T \left[ \frac{r}{1 - (1 + r)^{-36}} \right]$$

Where

M = the monthly payment,

T = Termination Fee under Section 2.5(b), and

r = an annual discount rate equal to the interest rate used by FERC for the calculation of refunds (as set forth in 18 C.F.R. § 35.19a) in effect on the date that Owner provides notice to the CAISO pursuant to Section 2.5(a) of this Agreement, divided by 12.

(d) If the Unit ceases to be Closed at any time within 36 months following the date the Unit Closed, CAISO shall cease payment of Termination Fee installments as of the Month in which the Unit ceased to be Closed, but Owner shall not be obligated to refund installments for any Month in which the Unit was Closed. Once a Unit has ceased to be Closed, CAISO shall not be required to pay any remaining Termination Fee installments even if the Unit again Closes.

(e) Any dispute regarding an element of the Termination Fee (e.g. salvage value) not resolved at the time the Capital Item was approved shall be subject to ADR. If the

amount of the Termination Fees associated with a single termination or expiration is \$5 million or more as billed by Owner, the Responsible Utility shall have the same rights as CAISO to receive notice that the Unit(s) Closed and to initiate or participate in ADR.

### **ARTICLE 3**

#### **CONDITIONS OF MUST-RUN AGREEMENT**

#### **3.1 Conditions Under Which Units Will Operate**

This Agreement includes two conditions of service under which Owner may provide service from its Unit(s). By way of general description and subject to the specific provisions set forth in this Agreement:

- (i) A Unit under Condition 1 may participate in Market Transactions and Owner will retain all revenues from participation in Market Transactions;
- (ii) A Unit under Condition 2 shall bid in accordance with Section 6.1 (b) to participate in Market Transactions when CAISO has issued a Dispatch Notice for the Unit and Owner will not retain revenues from participation in Market Transactions. A Unit under Condition 2 shall not participate in a Market Transaction when CAISO has not issued a Dispatch Notice for the Unit.

Owner shall begin operating each Unit under the Condition designated by Owner prior to the Effective Date and thereafter may transfer the Unit to a different Condition pursuant to Section 3.2.

#### **3.2 Transfer Between Conditions**

- (a) Except for a hydroelectric Unit, Owner may, from time to time, transfer a Unit from one Condition to the other Condition, provided that it may not do so without CAISO's consent unless, as of the transfer date, the Unit will have been subject to its existing Condition for at least twelve months. If a transfer is to become effective at the beginning of a Contract Year, Owner shall provide CAISO at least 30 days prior notice of the transfer. For a transfer to become effective at any other time, Owner shall give CAISO notice at least 90 days prior to the transfer. If a Unit is transferred from Condition 1 to Condition 2 during a Contract Year, Owner shall credit to CAISO on the first invoice after the transfer is effective an amount computed by multiplying (i) the positive difference, if any, of the Prepaid Start-ups minus the Counted Start-ups by (ii) the Prepaid Start-up Cost. If a Unit is transferred from Condition 2 to Condition 1, CAISO shall not be required to pay a Condition 1 Prepaid Start-up Charge for the remainder of the Contract Year in which the transfer occurred, but shall pay, for each Start-up, the Condition 1 Start-up Payment calculated pursuant to Equation D-1 in Schedule D.
- (b) A hydroelectric Unit may only operate under Condition 1.
- (c) CAISO may not transfer a Unit from one Condition to the other Condition.
- (d) Any transfer of a Unit from one Condition to the other Condition shall be effective on the first day of the Month following expiration of the applicable notice.
- (e) If a Unit is transferred from Condition 1 to Condition 2, Surcharge Payments for Capital Items shall be changed prospectively from the effective date of the transfer to reflect a Surcharge Payment Factor of 1.0. If a Unit is transferred from Condition 2 to Condition 1, Surcharge Payments for Capital Items shall be changed prospectively from the effective date of the transfer to reflect the Condition 1 Surcharge Payment Factor previously determined for the Capital Item, or if the factor was not previously determined, the Surcharge Payment Factor agreed to by CAISO and Owner. If Owner and CAISO do not agree on the Surcharge Payment Factor, the Surcharge Payment Factor shall be determined through ADR in accordance with Schedule B.

## **ARTICLE 4 DISPATCH OF UNITS**

### **4.1 CAISO's Right to Dispatch**

- (a) Subject to the limitations set forth in this Agreement, CAISO shall direct dispatch of a Unit by delivering a Dispatch Notice to Owner's Scheduling Coordinator in accordance with the CAISO Tariff.
- (b) Dispatch Notices for Energy, other than Energy associated with Ancillary Services, shall be issued solely for purposes of meeting local reliability needs or managing congestion on non-competitive paths. For purposes of dispatching Energy, local reliability needs do not include Energy required to manage congestion on competitive paths. CAISO shall issue Dispatch Notices to meet local reliability needs or manage congestion on non-competitive paths, whenever market bids cannot be used to meet those needs or manage such congestion or such market bids cannot be used to meet those needs or manage such congestion without taking a bid out of merit order or requiring CAISO to decrement another supplier's schedule to accommodate the unit which provided the bid. CAISO may not issue a Dispatch Notice to fill a need for imbalance energy.
- (c) Except as needed for black start or voltage support required to meet local reliability needs, to meet operating criteria associated with the Potrero power plant, or as outlined below, CAISO may issue Dispatch Notices for Ancillary Services only if the available bids in Ancillary Service capacity markets do not provide sufficient capacity to meet CAISO's requirements.
  - (i) If the CAISO determines on a Trading Day that it needs additional Ancillary Service on that Trading Day, CAISO shall use the following procedures:
    - (A) CAISO shall communicate such needs to all Scheduling Coordinators as quickly as possible after such needs are identified.
    - (B) After completing (A), CAISO shall attempt to procure those additional Ancillary Services from the CAISO's Real-Time market (in the appropriate region if CAISO is procuring Ancillary Services on a regional basis) that have not closed, subject to the Bid Sufficiency Test described below.
    - (C) CAISO shall not issue a Dispatch Notice for Ancillary Services for any hour of the Trading Day before the earlier of (a) the time at which the real-time market for that hour closes or (b) if a Start-up would be required to provide the Ancillary Service, such earlier time as is necessary to comply with the applicable Start-up Lead Time and Ramping Constraints on Schedule A.
  - (ii) CAISO shall not be required to accept any bid for an Ancillary Service above applicable bid caps then in effect under the CAISO Tariff before issuing a Dispatch Notice for Ancillary Services.
  - (iii) Bid Sufficiency Test
    - (A) The Bid Sufficiency Test may only be applied:
      - (1) To purchases from the real-time market;
      - (2) If CAISO has fully complied with its obligation to promptly notify Scheduling Coordinators of its need to acquire additional ancillary services from the real-time market; and
      - (3) To the extent that the approved CAISO Tariff does not preclude such a test.
    - (B) The Bid Sufficiency Test shall be applied on an individual hourly basis and for an individual Ancillary Service type. The test result shall be considered "insufficient" in real-time market if, and only if - (1) bids in the real-time market for the particular Ancillary Service (including any bids that can be used to satisfy that particular Ancillary Services requirement under Section 8.2.3.5 of the CAISO Tariff) represent less than two times such remaining Ancillary Service requirement; or (2) there are fewer than



two unaffiliated bidders to provide such remaining Ancillary Service requirement. If the application of the Bid Sufficiency Test results in a determination of "insufficiency", the CAISO may issue a Dispatch Notice to satisfy its needs for that hour and that individual Ancillary Service.

- (C) If the result of the Bid Sufficiency Test is a finding that available bids are "insufficient", CAISO may nonetheless accept available market bids if it determines in its sole discretion that the prices bid and the supply curve created by the bids indicate that the bidders were not attempting to exercise market power.

#### **4.2 Timing of Dispatch Notices**

Subject to the terms and conditions of this Agreement, CAISO shall issue Manual RMR Dispatch Notices promptly after it makes a determination that it will require Energy or Ancillary Services under this Agreement.

#### **4.3 Form and Content of Dispatch Notices**

- (a) All Dispatch Notices shall be in writing if circumstances permit. If circumstances require that a Dispatch Notice be given or changed orally, the Dispatch Notice shall be confirmed in writing within 24 hours after the oral notice or change was given.
- (b) Each Dispatch Notice shall specify the Unit from which CAISO requests Owner to Deliver Energy or Ancillary Services, the time of commencement and termination of the Requested Operation Period and, for each hour of the Requested Operation Period, the Requested MW or the Requested Ancillary Services. A Dispatch Notice for a hydroelectric Facility must request that Owner Deliver Energy from the entire Facility rather than from a specific Unit. However, CAISO may request that Owner Deliver Ancillary Services from specific Units in a hydroelectric Facility; provided that Energy associated with such Ancillary Services shall be Delivered from the Facility and not the specified Units. CAISO may issue Dispatch Notices in real time without specifying the time the Requested Operation Period is to terminate and may adjust the Requested MW or Requested Ancillary Services in real time if CAISO provides all such information in writing as provided in Section 4.3(a).

#### **4.4. Non-complying Dispatch Notices**

Owner shall not be obligated to comply with a Dispatch Notice that does not comply with Section 4.3 or 4.6 and Owner shall not be liable, suffer any penalties or suffer any reduction in payments for failure to comply with a Dispatch Notice which is not in compliance with those Sections, provided that Owner promptly notifies CAISO that the notice does not comply with Section 4.3 or 4.6 and provides the reasons the Dispatch Notice does not comply. Owner may provide such notice after the Requested Operation Period if the notice concerns a Dispatch Notice given during, or less than one-half hour prior to, the Requested Operation Period. Compliance with a Dispatch Notice shall not be deemed a waiver of objections to the Dispatch Notice.

#### **4.5 Intentionally left blank.**

#### **4.6 Limitations on CAISO's Right to Dispatch**

CAISO's Dispatch Notice may not request Owner to, and Owner shall not be obligated to:

- (i) Provide service from a Unit at less than the Minimum Load for the Unit;
- (ii) Provide service from a Unit for less than the Minimum Run Time;
- (iii) Start-up a Unit after less than the Minimum Off Time;
- (iv) Start-up a Unit unless the time between the delivery of the Dispatch Notice requesting such Start-up and the commencement of the applicable Requested Operation Period equals at least the Start-up Lead Time for the Unit and the Dispatch Notice provides sufficient time to satisfy the Ramping Constraint of the Unit;
- (v) Provide service from a Unit in excess of its Unit Availability Limit;

- (vi) Provide service from a Unit when to do so would violate environmental limitations applicable to the Unit as set forth in Section 3 of Schedule A;
- (vii) Start-up or provide service from a Unit in violation of any applicable law, regulation, license or permit; or
- (viii) Start-up or provide service from a Unit to the extent that doing so would cause a breach of an Existing Contractual Limitation; or
- (ix) Deliver Energy or Ancillary Services to the extent such Delivery would cause a breach of a contract for capacity made available through an Upgrade or a Capital Item or Repair for which CAISO is not obligated to make a Surcharge Payment or pay CAISO's Repair Share.

#### **4.7 Dispatch in Excess of Contract Service Limits**

- (a) CAISO shall use its best efforts in accordance with Good Industry Practice not to issue a Dispatch Notice that would cause a Unit's Counted Start-ups, Counted MWh, or Counted Service Hours to exceed any of the Unit's Contract Service Limits.
- (b) CAISO may issue a Dispatch Notice requiring a Unit to Deliver Energy or Ancillary Services after the Unit has exceeded a Contract Service Limit only if the Requested MWh or Requested Ancillary Services cannot be obtained by CAISO either (i) by accepting market bids in accordance with Section 4.1 or (ii) from Comparable RMR Unit(s) without exceeding the contract service limits or violating other operational limitations under CAISO's agreement with the Comparable RMR Unit(s). Owner shall use its best efforts, in accordance with Good Industry Practice, to comply with such Dispatch Notice.
- (c) If Owner of a hydroelectric Facility complies with a request to exceed the Maximum Monthly MWh, Owner may reduce the Maximum Monthly MWh for remaining Months of the Contract Year to reflect the accelerated use of available water. Not later than 15 days after any delivery in excess of Maximum Monthly MWh, Owner shall provide CAISO a notice showing revised Maximum Monthly MWh for remaining Months of the Contract Year.
- (d) If the Owner does not comply with a Dispatch Notice under Section 4.7(b), Owner at CAISO's request shall provide a written explanation.
- (e) If Owner, in compliance with a Dispatch Notice, Starts-up a Unit and the Counted Start-ups for the Contract Year exceed the Maximum Annual Start-ups for the Unit, CAISO shall pay for each such excess Start-up at the rate set out in Schedule G. If Owner, in compliance with a Dispatch Notice, Delivers Energy and the Counted MWh for the Unit for the Contract Year exceeds the Maximum Annual MWh, the Counted Service Hours from the Unit for the Contract Year exceed the Maximum Annual Service Hours, or if applicable, the Counted MWh for the Month exceed the Maximum Monthly MWh, CAISO shall pay for the Billable MWh Delivered in response to such Dispatch Notice and exceeding the Contract Service Limit at the rates set forth in Schedule G.
- (f) For purposes of this Section 4.7:
  - (i) "Best efforts" does not require Owner to provide service inconsistent with the limitations set forth in Section 4.6 or if Owner reasonably believes providing the service might cause significant physical harm to the Unit.
  - (ii) The term "Good Industry Practice" shall not be applied to permit CAISO to consider the relative costs of Comparable RMR Units when determining whether to request dispatch of a Unit in excess of the Contract Service Limits.
  - (iii) "Comparable RMR Unit" means a unit which has been designated a Reliability Must-Run Unit and which, in CAISO's reasonable judgment, is capable of providing system reliability benefits to CAISO equivalent to the system reliability benefits provided by the Unit which otherwise would be subject to the Dispatch Notice. In the case of Units providing Ancillary Services, a Comparable RMR Unit must: (A) be certified to provide the Requested type of Ancillary Service, (B) provide the same or higher ramp rate and MW capacity and (C) is located in the same Local Capacity Area as the Unit which otherwise would be subject to the Dispatch Notice.

- (g) CAISO and Owner shall have the right to dispute the other Party's actions or inactions under this Section 4.7 and any dispute shall be subject to resolution through ADR.

#### **4.8 Air Emissions**

If CAISO determines that it is necessary to reserve MWh to satisfy potential dispatches under this Agreement without violating present or future limitations on the discharge of air pollutants or contaminants into the atmosphere specified by any federal, state, regional or local law by any regulation, air quality implementation plan, or permit condition promulgated or imposed by any Governmental Authority, the terms and conditions of such reservation shall be set out on Schedule P.

#### **4.9 Test Dispatch Notices**

##### **(a) Availability Tests**

- (i) CAISO may from time to time test the Availability of a Unit by requiring the Unit to Deliver Energy pursuant to a Test Dispatch Notice provided to Owner's Scheduling Coordinator using the procedures described in Section 4.2 and 4.3. CAISO, without cause, may request one Availability Test each Contract Year. CAISO may request additional Availability Tests if the Unit fails to comply fully with a Dispatch Notice. CAISO shall not request an Availability Test for a hydroelectric Unit during periods of constrained water availability. Lack of available water shall not be deemed to result in a failed test and reduction of the Unit Availability Limit for a hydroelectric Unit.
- (ii) Owner may request an Availability Test at any time. CAISO shall issue a Test Dispatch Notice within three days after receipt of Owner's request, but for good cause, CAISO may reschedule the test to a date acceptable to Owner. Owner's request shall state the amount of Energy to be produced. The effect of operations pursuant to such a request is set out in Section 5.3.
- (iii) The Test Dispatch Notice shall be marked "Availability Test Dispatch Notice." The Test Dispatch Notice shall specify a Requested Operation Period of four hours of continuous operations at the requested output plus any applicable Start-up Lead Time, time to satisfy Ramping Constraints and time for Shutdown (or for hydroelectric Units the time sufficient water is available, if that is less).
- (iv) Subject to the other conditions or restrictions expressed in this Agreement, Owner shall provide service from the Unit and Deliver the Requested MWh in accordance with the Availability Test Dispatch Notice; provided, however, that Owner, in response to such Test Dispatch Notice, may deliver all or part of the Requested MWh in a Market Transaction by complying with the procedures set forth in Section 5.2.
- (v) An Availability Test shall be treated as having been successfully completed if the average MW Delivered at the Delivery Point during the Availability Test was not less than 99% of the Requested MW for the Requested Operation Period. The average MW Delivered during the Availability Test shall be computed by dividing (i) the total MWh produced during the four-hour period immediately following completion of the ramp up, multiplied by the appropriate ambient temperature correction factors for the Unit as set out in Section 3 of Schedule A, by (ii) four hours.
- (vi) If a Unit fails an Availability Test, CAISO may issue a CAISO Availability Notice restating the Availability of the Unit to a level not less than the average MW Delivered during the Availability Test. Following the notice, Owner shall not issue an Owner's Availability Notice increasing the Availability of the Unit above the level determined through such failed Availability Test until (A) the Unit has successfully completed a subsequent Availability Test, (B) the Unit has delivered in Market Transactions, pursuant to a Dispatch Notice or in a combination of the two, during a continuous four hour operating period, average MW in excess of those determined in the Availability Test or (C) Owner has otherwise

demonstrated to CAISO's reasonable satisfaction that the Availability of the Unit has been restored.

(vii) If the average MW Delivered during the Availability Test exceed 101% of the Unit Availability Limit in effect prior to the Availability Test, Owner may issue an Owner's Availability Notice setting Availability retroactive to the time the request was received by CAISO to the lesser of (A) the average MW Delivered during the Availability Test or (B) the Maximum Net Dependable Capacity.

(b) Emissions Test

If it is necessary for Owner to operate a Unit to fulfill regulatory requirements for emissions testing, Owner may request CAISO to issue a Dispatch Notice for such operation. Owner shall provide a request specifying the test date at least seven days in advance of the emissions test. CAISO shall issue a Dispatch Notice to schedule the requested operation on the date specified in Owner's request, or for good cause, CAISO may cause the test to be rescheduled to a date acceptable to Owner, provided that CAISO shall not delay the test by more than seven days without Owner's consent. The Test Dispatch Notice shall be marked "Emissions Test Dispatch Notice".

(c) Black Start Test

CAISO may from time to time test Unit(s) designated to provide Black Start service by requiring the Unit to deliver Black Start service pursuant to a Test Dispatch Notice provided to Owner's Scheduling Coordinator using the procedures described in Sections 4.2 and 4.3. Such Test Dispatch Notice shall be marked "Black Start Test Notice." The Black Start Test shall be performed in accordance with the Ancillary Services Requirements Protocol in the CAISO Tariff. CAISO shall not request a Black Start Test for a hydroelectric Unit during periods of constrained water availability.

(d) Heat Input Test

Not more frequently than once each Contract Year, Owner may, by giving at least seven days' prior notice to CAISO, request CAISO to issue a Test Dispatch Notice in order for Owner to determine the heat input of a Unit. CAISO shall not unreasonably refuse to issue a Test Dispatch Notice for a heat input test. The Test Dispatch Notice shall be marked "Heat Input Test Notice." The heat input test shall be conducted in accordance with testing standards and procedures agreed to by CAISO and Owner. In the absence of such agreement, the standards and procedures shall be determined through ADR before such test may be conducted. The arbitrator shall specify procedures for testing which are consistent with Good Industry Practice. Following such a heat input test, Owner shall be permitted to make a filing under Section 205 of the Federal Power Act limited to modifying the heat inputs used in the Variable Cost Payment, Start-up Payment, Preempted Dispatch Payment and Mandatory Energy Bid in Schedules C, D, E and M, respectively, to reflect the results of such test.

#### **4.10 Forecasts Of CAISO's Requirements**

Not later than November 15 of each year, CAISO shall provide Owner and the Responsible Utility with a non-binding forecast representing CAISO's then current best estimate of the monthly MWh, monthly peak day MW, and monthly Service Hours that CAISO will require each Unit to provide each month during the ensuing Contract Year ("Annual Forecast"). In addition, not later than June 15 of each year, CAISO shall provide Owner and with a non-binding forecast ("Update") representing CAISO's then current best estimate of the monthly MWh, monthly peak day MW, and monthly Service Hours that CAISO will require each Unit to provide each month from June through the end of the Contract Year. Each Annual Forecast and Update will take into account the Long-term Planned Outages. The Annual Forecasts and Updates shall be treated as confidential pursuant to Section 12.5 and shall not be binding.

#### **4.11 Determination of Contract Service Limits**

(a) If CAISO has extended the term of this Agreement pursuant to Section 2.1 (b), then not later than October 31 of the expiring Contract Year Owner shall make a filing under Section 205 of the Federal Power Act limited to revising Schedule A to reflect the Contract Service Limits for all Units other than hydroelectric Units for the ensuing

Contract Year. The Contract Service Limits for each year after the initial Contract Year shall be determined through application of the following rules:

- (i) Maximum Annual MWh for each Unit shall be the average annual MWh produced in Market and Nonmarket Transactions by the Unit during the 60 month period ending June 30 of the expiring Contract Year;
- (ii) Maximum Annual Service Hours for each Unit shall be the average annual Service Hours the Unit operated in Market and Nonmarket Transactions during the 60 month period ending June 30 of the expiring Contract Year; and
- (iii) Maximum Annual Start-Ups shall be the number of Start-ups of the Unit for Market and Nonmarket Transactions during the year selected by CAISO. CAISO may select any of the five preceding years to determine Maximum Annual Start-Ups but shall select the same year for all Units at the Facility. For purposes of the foregoing sentence only, a year shall mean a 12-month period ending June 30. Thus, by way of example, CAISO may determine Maximum Annual Start-ups for calendar year 2002 based on the Maximum Annual Start-ups during any of the following five periods: (A) 12 months ended June 30, 2001; (B) 12 months ended June 30, 2000; (C) 12 months ended June 30, 1999; (D) 12 months ended June 30, 1998; or (E) 12 months ended June 30, 1997.

Owner shall provide the information necessary to determine the Contract Service Limits to CAISO and the Responsible Utility not less than 15 days prior to the filing. CAISO shall give notice to Owner and Responsible Utility identifying the year to be used to determine Maximum Annual Start-ups not later than five Business Days after it receives the information from Owner.

- (b) If CAISO has extended the term of this Agreement pursuant to Section 2.1 (b), then not later than 15 days prior to the beginning of the ensuing Contract Year, Owner of a hydroelectric Facility shall make a filing under Section 205 of the Federal Power Act to reflect the revised Contract Service Limits to be in effect during the ensuing Contract Year for the hydroelectric Facility. Such filing shall be based on Owner's current water management forecast and shall reflect the water expected to be available for electric generation above the Hydroelectric Dependable Capacity. Such filing, if accepted or approved, shall set the Maximum Monthly MWh in Schedule A for the ensuing Contract Year, subject to adjustment in accordance with the notice described below giving revised Monthly Maximum MWh. The Maximum Monthly MWh in Schedule A of this Agreement on the Effective Date reflects the Hydroelectric Dependable Capacity. Not later than April 15 of each Contract Year, Owner shall provide notice to CAISO giving revised Maximum Monthly MWh for each remaining Month of the Contract Year based on its then current water management forecast. If, during any Contract Year, Owner determines that drought conditions jeopardize its ability to supply Hydroelectric Dependable Capacity, Owner shall promptly give notice to the CAISO of this determination, including revised Maximum Monthly MWh for each remaining Month of the Contract Year. Following such a determination, Owner shall provide CAISO with weekly updated water management forecasts until the earlier of the end of the Contract Year or Owner's determination that its ability to supply the Hydroelectric Dependable Capacity is no longer jeopardized by such conditions. CAISO acknowledges that the accuracy of a water management forecast may be substantially affected by a Force Majeure Event at any time after the Owner provides the forecast and consequently Owner shall not be liable for the accuracy of the water management forecast or any reliance on it other than a Monthly Maximum MWh amount.

## **ARTICLE 5**

### **DELIVERY OF ENERGY AND ANCILLARY SERVICES BY OWNER**

#### **5.1 Owner's Delivery of Energy and Ancillary Services**

- (a) Subject to the limits in this Agreement, and subject to the CAISO's Real-Time Dispatch instructions whether flagged as an RMR Dispatch or not, Owner shall provide service from the Units and Deliver the Requested MWh or Requested Ancillary Services in

accordance with each Dispatch Notice. To the maximum extent practical, and except for regulation, Owner shall Deliver at each moment of each hour during the Requested Operation Period not less than the Requested MW or Requested Ancillary Services. If Owner has disputed a Dispatch Notice under Section 4.6 (i) (Minimum Load) (ii) (Minimum Run Time) (iii) (Minimum Off Time) (iv) (Start-up Lead Time and Ramping Constraint), or (v) (Unit Availability Limit) and such dispute is not resolved prior to the time for delivery, Owner will use reasonable efforts to comply with the Dispatch Notice, but shall not be liable to CAISO if it is unable to do so and Owner prevails in the dispute.

- (b) If Owner has disputed a Dispatch Notice under Section 4.6 (vi) (environmental), (vii) (violation of law), (viii) (Existing Contractual Limitations) or (ix) (Upgrade Contract), Owner shall not be required to Deliver Energy or Ancillary Services pending resolution of the dispute as to whether the Dispatch Notice violated such Section; provided, however, that Owner shall not be relieved from any liability that it would otherwise have for failure to comply with the disputed Dispatch Notice if it subsequently is determined that the Dispatch Notice did not violate Section 4.6 (vi), (vii), (viii) or (ix).
- (c) Subject to CAISO approval, if Owner cannot Deliver the Requested MWh or Requested Ancillary Services by providing service from the Unit identified in a Dispatch Notice, Owner may Deliver the requested services by providing service from a Substitute Unit. Owner shall provide oral or written notice to CAISO as soon as possible in advance of the first Real-Time Dispatch of the Requested Operation Period stating why it cannot provide the requested service from the Unit identified in the Dispatch Notice, identifying the Substitute Unit, describing the services it will provide from the Substitute Unit and specifying the charges applicable to service from the Substitute Unit. CAISO may deny approval only if the proposed unit does not qualify as a Substitute Unit or if there is insufficient time to accommodate the request prior to the running of the MPM-RRD process and the operator determines that the substitution would affect the MPM-RRD results, in which case the substitution request will be accommodated for any remaining portion of the Requested Operation Period, if the unit is otherwise acceptable. The total cost to CAISO for service from the Substitute Unit shall be at the rate specified by the Owner, provided that the total cost will not exceed the total costs for the same amount of service from the Unit specified in the Dispatch Notice.
- (d) If Owner can Deliver the Requested MWh or Requested Ancillary Services by providing service from the Unit identified in the Dispatch Notice, Owner may Deliver the requested services by providing service from (i) the Unit identified in CAISO's Dispatch Notice or (ii) with CAISO's consent, a Substitute Unit. Owner of a hydroelectric Unit will Deliver the Requested MWh from the Facility and will Deliver the Voltage Support and Black Start requested in a Dispatch Notice from the specified Unit or a Substitute Unit. If Owner proposes to satisfy its delivery obligations by providing service from a Substitute Unit, Owner shall provide oral or written notice to CAISO prior to the Requested Operation Period identifying the Substitute Unit, describing the services it will provide from Substitute Unit and specifying the charges applicable to service from the Substitute Unit. Owner may Deliver the agreed services from the Substitute Unit and will be paid at the agreed rates if CAISO accepts Owner's proposal, or CAISO and Owner otherwise agree on the services and applicable rates for service from a Substitute Unit. CAISO's decision shall not be subject to ADR.
- (e) Owner shall Deliver the Requested MWh or Requested Ancillary Services at the Delivery Point or such other point(s) reasonably acceptable to CAISO and shall comply with the metering and related arrangements set forth in Section 5 of Schedule A to this Agreement or as otherwise specified in Owner's applicable Meter Service Agreement.
- (f) If Owner would have been able to Deliver the Requested MWh or Requested Ancillary Services but for an outage in the CAISO Controlled Grid or Distribution Grid beyond Owner's reasonable control, Owner shall be deemed to have complied with the Dispatch Notice for purposes of Sections 5.4 and 8.5.

## **5.2 Substitution of Market Transactions for Dispatch Notices**

- (a) Owner may satisfy, in whole or in part, its obligation to Deliver Energy, but not Ancillary Services, during a Requested Operation Period by delivering Energy under a Market Transaction from the Unit identified in a Dispatch Notice if Owner complies with the requirements and procedures of this Section 5.2.
- (b) Owner shall give notice of its intent to substitute a Market Transaction through the submission of bids in the CAISO's Markets. Any dispatch level that clears the Competitive Constraint Run of the MPM-RRD process through the submission of Economic Bids or Self-Schedules, and is reflected in the Day-Ahead Schedule or Real-Time Dispatch, shall be deemed a Market Transaction.
- (c) Owner may substitute a Market Transaction only if the deadline for bids into the market selected by Owner has not passed.
- (d) Intentionally left blank.

## **5.3 Rules for Calculating Counted Start-ups, Counted MWh and Counted Service Hours**

- (a) The following rules shall govern calculation of Counted Start-ups:
  - (i) Except as limited below, all Start-ups successfully completed in compliance with a Dispatch Notice shall be included in Counted Start-ups for the Unit for which the Dispatch Notice was issued.
  - (ii) If a Start-up required by a Dispatch Notice is canceled by CAISO after the Start-up is initiated, Counted Start-ups shall include a fractional Start-up computed by dividing (i) the lesser of (a) the time elapsed between initiation of the Start-up and cancellation or (b) the Start-up Lead Time by (ii) the applicable Start-up Lead Time for the Unit.
  - (iii) For Units under Condition 1, if a Dispatch Notice is issued pursuant to Section 4.5 for a period in which the Unit is scheduled to operate or is operating in a Market Transaction for which a Start-up was required, or Owner substitutes a Market Transaction under Section 5.2 for a Requested Operation Period for which a Start-up was required, Counted Start-ups shall include one-half of the Start-up for the Unit for which the Dispatch Notice was issued. No Start-up shall be counted more than once.
  - (iv) For Units under Condition 2, Counted Start-ups shall include each Start-up whether the Energy is Delivered to the CAISO in a Nonmarket Transaction or is delivered in a Market Transaction pursuant to bids made under Section 6.1 (b).
  - (v) If Owner complies with a Dispatch Notice by Delivering the Requested MWh or Ancillary Services from a Substitute Unit, any Start-ups of the Substitute Unit will not be included in Counted Start-ups for the Unit specified in the Dispatch Notice or the Substitute Unit.
  - (vi) Except as provided in Section 5.3(a)(iii), any Start-up not required to comply with a Dispatch Notice will not be included in Counted Start-ups.
- (b) The following rules shall govern calculation of Counted MWh:
  - (i) Except as limited below, all MWh Delivered in compliance with a Dispatch Notice shall be included in Counted MWh for the Unit for which the Dispatch Notice was issued.
  - (ii) For Units under Condition 1, if a Dispatch Notice is issued pursuant to Section 4.5 for a period in which a Unit is scheduled to operate or is operating in a Market Transaction or if Owner, in response to a Dispatch Notice, substitutes a Market Transaction under Section 5.2 for all or part of the Requested MWh, MWh equal to the sum of (A) Billable MWh plus (B) 50% of the Hybrid MWh, will be included in Counted MWh for the Unit for which the Dispatch Notice was issued.
  - (iii) If a Unit operating under Condition 2 sells Energy pursuant to bids made under Section 6.1 (b), the Billable MWh shall be included in Counted MWh for the Unit.
  - (iv) Intentionally left blank.

- (v) If Owner Delivers Requested MWh or Energy associated with Ancillary Services from a Substitute Unit, the MWh Delivered from the Substitute Unit will not be included in Counted MWh for the Unit specified in the Dispatch Notice or the Substitute Unit.
- (c) The following rules shall govern calculation of Counted Service Hours:
  - (i) Except as limited below, all Service Hours expended in compliance with a Dispatch Notice other than Service Hours expended for Ancillary Services during which the Unit is not Synchronized shall be included in Counted Service Hours for the Unit for which the Dispatch Notice was issued.
  - (ii) For Units under Condition 1, if a Dispatch Notice is issued pursuant to Section 4.5 for a period in which a Unit is scheduled to operate or is operating in a Market Transaction or if Owner, in response to a Dispatch Notice, substitutes a Market Transaction under Section 5.2 for all or part of the Requested MWh, one-half of the Requested Operation Period will be included in Counted Service Hours for the Unit for which the Dispatch Notice was issued.
  - (iii) If a Unit operating under Condition 2 sells Energy pursuant to bids made under Section 6.1 (b), each Service Hour expended by the Unit to produce the Energy shall be included in Counted Service Hours.
  - (iv) If Owner Delivers Requested MWh or Ancillary Services from a Substitute Unit, the Service Hours expended by the Substitute Unit will not be included in Counted Service Hours for the Unit specified in the Dispatch Notice or the Substitute Unit.
- (d) Counted MWh, Counted Service Hours and Counted Start-ups for the Contract Year ending December 31, 1999 shall include MWh, Service Hours and Start-ups for the period January 1, 1999 through the Effective Date under the reliability must-run rate schedule which is superseded by this Agreement using the rules set out in this Section 5.3 as if this Agreement had been in effect during that period. Owner's initial report under Section 5.5 shall show the MWh, Service Hours and Start-ups for the period January 1, 1999 through the Effective Date calculated using the rules set out in this Section 5.3.

#### **5.4 Owner's Failure To Deliver Requested MWh or Requested Ancillary Services**

- (a) Owner shall promptly notify CAISO if Owner will not be able to Deliver all or part of the Requested MWh or Requested Ancillary Services from the Unit identified in the Dispatch Notice or from the Substitute Unit previously accepted by CAISO.
- (b) If a Unit fails to Deliver the full amount of Requested MWh or Requested Ancillary Services, CAISO may issue an CAISO Availability Notice restating the Availability to a level not less than the Availability indicated by the actual deliveries. If CAISO has issued an CAISO Availability Notice under this Section 5.4(b), Owner shall not issue an Owner's Availability Notice increasing the Availability of the Unit until (i) the Unit has successfully completed an Availability Test, (ii) the Unit has delivered in Market Transactions or in a combination of Market Transactions and Nonmarket Transactions pursuant to a Dispatch Notice during a continuous four hour operating period, average MW in excess of those shown in the CAISO Availability Notice, or (iii) Owner has otherwise demonstrated to the CAISO's reasonable satisfaction that the Availability of the Unit has been restored. CAISO's only other remedies for Owner's failure to Deliver Requested Ancillary Services or Requested MWh are as set out in Sections 8.5, 11.3 and 12.6.



## **5.5 Reports**

Not less than two days prior to the beginning of every Month during the Contract Year, Owner or Owner's Scheduling Coordinator shall provide CAISO and the Responsible Utility a report for each Unit setting forth as of the day before the date of the report the Counted MWh, Counted Service Hours and Counted Start-ups for the current Contract Year. All reports shall be treated as confidential pursuant to Section 12.5.

## **ARTICLE 6 MARKET TRANSACTIONS**

### **6.1 Right To Engage In Market Transactions**

- (a) In addition to the right to substitute a Market Transaction pursuant to Section 5.2, if a Unit is operating under Condition 1, Owner may enter into Market Transactions for Energy or Ancillary Services at any level outside of a Requested Operation Period. If CAISO has issued a Dispatch Notice for Energy to a Unit under Condition 1, Owner may enter into Market Transactions for Energy at any level during the Requested Operation Period, and may enter into a Market Transaction for Ancillary Services at any level that does not preclude compliance with the Dispatch Notice. If CAISO has issued a Dispatch Notice for Ancillary Services to a Unit under Condition 1, Owner may enter into Market Transactions for Energy or Ancillary Services at any level that does not preclude compliance with the Dispatch Notice.
- (b) If CAISO issues a Dispatch Notice for a Unit operating under Condition 2, Owner shall submit bids in succeeding available Energy and Ancillary Services markets for the Requested Operation Period in accordance with the following requirements:
- (i) If the next available market is an Energy market, Owner shall bid all Energy the Unit can produce, up to the Unit Availability Limit, in excess of the higher of (A) Energy or Ancillary Services capacity cleared in a prior market; or (B) capacity required to Deliver Requested Ancillary Services. Owner shall bid all Energy at the bid price calculated using the formula in Part I of Schedule M.
  - (ii) If the next available market is an Ancillary Services market, Owner shall bid all available capacity, up to the Unit Availability Limit, in excess of the higher of the capacity needed to (A) deliver Energy and Ancillary Services cleared in a prior market or (B) Deliver the Requested MWh or Ancillary Services different from the Requested Ancillary Service.
  - (iii) If the markets are concurrent, Owner shall bid in the Ancillary Services market all available capacity, up to the Unit Availability Limit, in excess of the higher of the capacity needed to (A) deliver Energy and Ancillary Services cleared in a prior market or (B) Deliver the Requested MWh or Ancillary Services different from the Requested Ancillary Service.
  - (iv) Owner shall bid all Ancillary Service capacity at the bid price calculated using the formula in Part II of Schedule M.
  - (v) Owner shall not bid Energy or Ancillary Services in excess of the quantities the Unit can provide during the Requested Operation Period given the Unit's ramp rates, Ramping Constraints and any other applicable operating limitations, with due allowance for a Unit's ability to change output during the Requested Operation Period.
  - (vi) Neither Owner nor Owner's Scheduling Coordinator shall bid Energy or Ancillary Services to the extent that participating in a Market Transaction would conflict with a contract entered into prior to the Effective Date. Owner shall include in Section 14 of Schedule A a description of all contract restrictions affecting Owner's ability to participate in Market Transactions.

CAISO may order Owner not to bid to participate in a Market Transaction if CAISO determines that participation in Market Transactions would cause a Unit to exceed Contract Service Limits or impair CAISO's ability to dispatch the Unit to meet reliability needs at other times during the Contract Year. A Unit operating under Condition 2 shall not otherwise engage in Market Transactions.

## **ARTICLE 7 OPERATION AND MAINTENANCE**

### **7.1 Owner's Obligation**

Owner shall fuel, operate and maintain each Unit, or cause the Unit to be fueled, operated and maintained, in accordance with applicable law and Good Industry Practice and with due regard for the reliability purpose of this Agreement. Owner is not required to have or maintain fuel oil burning capability, fuel oil inventories, or permits to burn fuel oil and shall not be required to burn fuel oil to respond to a Dispatch Notice unless, and then only to the extent that, the Unit's primary fuel is distillate fuel oil or Schedule H requires Owner to maintain fuel oil capability.

### **7.2 Outages and Overhauls**

- (a) Owner shall be entitled to take a Unit out of operation or reduce the Availability of the Unit to repair and maintain the Unit in accordance with Good Industry Practice and the requirements of the CAISO Tariff. The dates and times of the outages and any changes to those dates and times shall be determined in accordance with the CAISO Tariff. For purposes of complying with the requirements of the CAISO Tariff, Other Outage shall be separated between "maintenance outage" and "forced outage," as defined in the CAISO Tariff.
- (b) Owner shall have the right to curtail or discontinue, in whole or in part, Deliveries of Energy or Ancillary Services from a Unit for so long as, and to the extent that, a Forced Outage affecting the Unit continues or when, in Owner's judgment in accordance with Good Industry Practice, operating conditions at the Unit so require. Curtailment or discontinuance under this Section shall give rise to applicable remedies under Article 8.

### **7.3 Reports and Notices**

- (a) As soon as practical after commencement of a Forced Outage, Owner shall give CAISO notice of the Forced Outage, the expected duration of the outage, and the expected time when the Unit will be available to generate electricity and the expected Availability during and following the Forced Outage. Owner shall keep CAISO informed of any developments that will affect either the duration of the Forced Outage or the Availability of the Unit during or after the end of the Forced Outage.
- (b) Owner shall keep CAISO advised of the Availability of each Unit by promptly issuing Owner's Availability Notices any time Owner becomes aware that the Unit's Availability changed in accordance with Section 9 of the CAISO Tariff. Owner may not reduce a Unit's Availability due to the cost of fuel. An Owner's Availability Notice shall become effective when issued, provided, however, that if Owner becomes subject to a Non-Performance Penalty under Section 8.5, any Owner's Availability Notice given during the Penalty Period shall not become effective until 72 hours after the Owner's Availability Notice is given. An Owner's Availability Notice or CAISO's Availability Notice shall continue in effect until it is superseded by a subsequent Owner's Availability Notice or CAISO's Availability Notice.

### **7.4 Planned Capital Items**

- (a) On or before March 1 of each year, Owner shall provide CAISO a preliminary report in the form required by this Section 7.4 showing Owner's proposed Capital Items for the next Contract Year and a five-year forecast of anticipated Capital Items in the Form attached as Schedule L-1, assuming the Agreement will be extended. Owner shall submit a final report in the form required by this Section 7.4 reflecting updated information by August 1 of each year. Owner may, but shall not be obligated to, include an Upgrade as a proposed Capital Item in either the preliminary or final report.
- (b) The preliminary and final reports for proposed Capital Items for the next Contract Year shall be submitted on the form attached as Schedule L-1. Owner shall provide additional information requested by the CAISO necessary to evaluate the proposal. Each preliminary and final report shall separately list individual projects expected to cost more than \$500,000 and shall include two "Small Project Estimates." One Small Project

Estimate shall identify Capital Items (projected to cost less than \$500,000 each) required to maintain or enhance reliability. The second Small Project Estimate shall identify all other Capital Items projected to cost less than \$500,000 each. Individual Capital Items projected to cost more than \$50,000 shall be identified separately in one of the two Small Project Estimates. All Capital Items covered by the Small Project Estimate will be depreciated over 10 years.

- (c) Within 60 days after submission of the final report, CAISO will notify Owner of the proposed Capital Items CAISO has approved and the Capital Items it has not approved. If CAISO fails to provide notice within such 60 day period, all Capital Items included in the final report shall be deemed approved as proposed by Owner. Approval constitutes CAISO agreement that the CAISO's share of the estimated cost of the Capital Item will be recovered through Surcharge Payment under Article 8 and will be eligible for recovery through a Termination Fee pursuant to Section 2.5. If the actual cost of the Capital Item exceeds the estimated cost, CAISO may initiate ADR to determine whether the additional costs were reasonable and shall not be obligated to pay through Surcharge Payments or as a Termination Fee any portion of the overrun found to be unreasonable in such ADR proceeding. If CAISO contests the additional costs, Owner shall have the burden of proving that the additional costs were reasonable. If CAISO does not initiate ADR or makes a separate agreement with Owner, the additional costs shall be deemed reasonable and CAISO shall be obligated to pay CAISO's share of the actual costs through Surcharge Payments or as a Termination Fee.
- (d) If a proposed Capital Item is not approved, CAISO shall provide Owner a detailed statement of the reasons for the disapproval and, if the proposal would be acceptable with modifications, a detailed list of the proposed modifications. Owner may accept the modifications proposed by CAISO, or CAISO or Owner may initiate an ADR proceeding to review CAISO's rejection or proposed modification if the Capital Item is necessary for Owner to meet its obligations under this Agreement. In such proceeding, CAISO may not support its disapproval on any basis not shown in its detailed statement of the reasons for disapproval. Any Capital Items approved through such ADR proceeding shall be recovered by Owner through Surcharge Payments under Article 8 and will be eligible for recovery through a Termination Fee pursuant to Section 2.5. Owner shall not be obligated to install any Capital Item unless CAISO is obligated to pay a Surcharge Payment for the Capital Item.
- (e) The preliminary and final reports and all additional information about proposed Capital Items provided to CAISO shall be treated as Confidential Information in accordance with Section 12.5.
- (f) If CAISO rejects a proposed Capital Item, such rejection is not reversed by ADR and it would be uneconomical, impractical or illegal to continue operation without the Capital Item, then Owner, subject to obtaining authorization from FERC (if required by law to do so), may terminate this Agreement with respect to the affected Unit without cost or liability therefor, except as provided in Section 2.4.

## **7.5 Unplanned Repairs**

- (a) In the event of any loss or damage to the Facility that impairs the capability of one or more Units to Deliver Energy or Ancillary Services, Owner shall, without additional charge, make necessary Repairs, to the extent that:
  - (i) the total cost (net of proceeds received by Owner from Insurers and other third parties pursuant to applicable insurance, warranties and other contracts in connection with all Repairs and excluding costs covered by clause (ii)) of all Repairs for all Units ("Net Repair Costs") during the Contract Year does not exceed Owner's Repair Cost Obligation for the Facility; or
  - (ii) the loss or damage impairing the Unit's capability to produce Energy or Ancillary Services was caused by Owner's failure to comply with Good Industry Practice or by any wrongful act or omission by Owner. The reference to "Units" in clause (i) includes all Reliability Must-Run Units located at the Facility, but no other Reliability Must-Run Units. Except as provided above, Owner shall not be

obligated to make any Repairs unless CAISO is obligated to pay CAISO's Repair Share for the Repairs.

- (b) If the Net Repair Costs incurred by Owner for all Repairs since the beginning of the Contract Year exceed Owner's Repair Cost Obligation, then Owner shall provide a notice thereof ("Unplanned Repair Notice") in the form attached as Schedule L-1 to CAISO. Owner shall provide such additional information as CAISO may reasonably require to evaluate such proposed Repairs.
- (c) CAISO shall submit a written acceptance or objection to Owner's proposal within 21 days of receipt of an Unplanned Repair Notice. CAISO shall be deemed to have accepted Owner's proposal in the Unplanned Repair Notice if CAISO does not submit a written objection within 21 days after receipt of the Unplanned Repair Notice, as provided above. Any objection shall be based on one or more of the following grounds:
  - (i) the loss or damage was caused by Owner's failure to comply with Good Industry Practice;
  - (ii) the loss or damage was caused by a wrongful act or omission by Owner;
  - (iii) the Repairs are not required or are more extensive than required in order to make good the loss or damage concerned or to comply with applicable law;
  - (iv) the Net Repair Costs for the Contract Year will not exceed or has not exceeded the Owner's Repair Cost Obligation;
  - (v) the estimated cost of Repairs exceeds that which is reasonably necessary to effect such Repairs;
  - (vi) the Repair will not result in benefits to CAISO as compared to alternatives available to CAISO;
  - (vii) Owner's proposals for carrying out the Repairs or the proposed CAISO's Repair Share are unreasonable;
  - (viii) Owner's proposal includes estimated costs which are not properly treated as an expense under FERC's Uniform System of Accounts; or
  - (ix) Owner has not provided sufficient information to evaluate Owner's proposal. In addition to providing the basis of the objection, any objection of CAISO shall include a list of all changes CAISO contends should be made to Owner's proposal and justification of all such changes.
- (d) If CAISO submits an objection to an Unplanned Repair Notice, the Parties shall attempt to reach agreement on changes to Owner's proposal. If the Parties have not reached agreement within 30 days after CAISO's receipt of the Unplanned Repair Notice, Owner or CAISO may refer the matter to ADR under a schedule (specified by the arbitrator if the participants cannot agree) requiring a decision within 30 days following appointment of the arbitrator. The ADR decision will be effective without delay.
- (e) Owner shall proceed with the Repairs if it is agreed or determined pursuant to ADR that CAISO will pay CAISO's Repair Share or that Owner is otherwise obligated to make the Repairs. Owner shall keep full and detailed records of the cost of the Repairs and shall make them available to CAISO for inspection upon reasonable request.
- (f) If the actual cost of the Repairs exceeds the estimated cost, CAISO may initiate ADR to determine whether the additional costs were reasonable and shall not be obligated to pay any portion of the additional cost found to be unreasonable in such ADR proceeding. Owner shall have the burden of proving that the additional costs were reasonable.
- (g) If it is agreed or determined pursuant to ADR that CAISO will pay for a Repair, CAISO shall pay CAISO's Repair Share of the actual cost as a lump sum within 60 days after the later of (i) the completion of the Repair and (ii) the effective date of authorization by FERC, if any is necessary, for Owner to charge such cost to CAISO. "CAISO's Repair Share" means the Repair Payment Factor for the Repair at issue multiplied by the amount by which (i) the agreed or determined cost of Repairs at issue plus the Net Repair Costs of all prior Repairs for the Contract Year minus the cost of all prior Repairs for which CAISO is obligated to pay CAISO's Repair Share during the Contract Year exceeds (ii) Owner's Repair Cost Obligation. The Repair Payment Factor shall be as agreed to by Owner and CAISO. If Owner and CAISO do not agree on the Repair Payment Factor, the Repair Payment Factor shall equal the Fixed Option Payment

Factor, unless the Owner demonstrates in ADR that it would not have made the proposed Repair in accordance with Good Industry Practice but for its obligations under this Agreement, in which case the Repair Payment Factor shall be as determined in ADR.

- (h) Owner shall use commercially reasonable efforts to recover its full entitlements under applicable insurance policies, warranties and other contracts even after CAISO has paid CAISO's Repair Share. Owner shall keep CAISO informed of the status of such recovery efforts and will refund to CAISO any portions of CAISO's Repair Share payment that is later recovered from any other party as a credit to CAISO on the next invoice with interest at the Interest Rate from the date such proceeds are received by Owner to the Due Date of such next invoice, or if this Agreement is terminated, as a payment upon submission of the Final Invoice.
- (i) If Owner is not obligated to make a Repair and does not do so, and if it would be uneconomical, impractical or illegal to continue operation without the Repair, then Owner, subject to obtaining authorization from FERC (if required by law to do so), may terminate this Agreement with respect to the affected Unit without cost or liability therefor, except as provided in Section 2.4.
- (j) If Owner makes a Repair notwithstanding that CAISO is not obligated to pay for the Repair, Owner shall not be entitled to recover the costs of the Repair from CAISO unless FERC approves recovery of the costs.
- (k) Owner's Repair Cost Obligation shall be an amount computed as follows:
  - (i) Intentionally left blank
  - (ii) The Owner's Repair Cost Obligation shall be equal to 3% of the fixed operation and maintenance costs for all Units at the Facility, underlying the rates in effect at the beginning of the Contract Year.

## **7.6 Unplanned Capital Items**

- (a) To the extent a Capital Item is required to remedy or prevent impairment of the Unit's capability to Deliver Energy or Ancillary Services and the impairment was caused by Owner's failure to comply with Good Industry Practice or by any wrongful act or omission by Owner, Owner shall install such Capital Item at Owner's expense. Otherwise, Owner shall not be obligated to install any Capital Item unless CAISO is obligated to pay a Surcharge Payment for the Capital Item. The issue of whether Owner is obligated to install a Capital Item is subject to ADR.
- (b) If, during the Contract Year, Owner determines it is necessary to install Capital Items not approved under Section 7.4 and Owner has expended all amounts covered by the approved Small Project Estimates under Section 7.4, Owner shall provide a notice thereof ("Unplanned Capital Item Notice") on the form attached as Schedule L-1 to CAISO. Owner shall provide such information as CAISO may reasonably require in order to evaluate the proposed Capital Items.
- (c) CAISO shall submit a written acceptance or objection to Owner's proposal within 21 days after receipt of a complete Unplanned Capital Item Notice provided that if the proposal does not involve either loss or damage to the Facility or a Capital Item required by law or regulation, CAISO shall respond within 60 days. If CAISO fails to provide notice within such period, Owner's proposal in the Unplanned Capital Item Notice shall be deemed approved. Any objection shall be based on one or more of the following grounds:
  - (i) the impairment being remedied or prevented was caused by Owner's failure to comply with Good Industry Practice;
  - (ii) the impairment being remedied or prevented was caused by a wrongful act or omission by Owner;
  - (iii) the Capital Item is not required or is more extensive than required in order to remedy or prevent impairment to the Facility or to comply with applicable law;
  - (iv) the estimated cost of the Capital Item exceeds that which is reasonably necessary;
  - (v) installation of the Capital Item will not result in benefits to CAISO as compared to alternatives available to CAISO;
  - (vi) Owner's proposals for installing or testing the Capital Item are unreasonable;

- (vii) Owner's proposals for depreciation of the cost of the Capital Item or calculation of the Annual Capital Item Cost and Surcharge Payment Factor are unreasonable; or
- (viii) Owner has not provided sufficient information to evaluate Owner's proposal. In addition to providing the basis of the objection, any objection of CAISO shall include a list of all changes CAISO contends should be made to Owner's proposal and justification of all such changes.
- (d) If CAISO submits an objection to an Unplanned Capital Item Notice, the Parties shall attempt to reach agreement on changes to Owner's proposal. If Owner's proposal involves either loss or damage to the Facility or the Capital Item is required by law and the Parties have not reached agreement 30 days after CAISO's receipt of the Unplanned Capital Item Notice, either Owner or CAISO may refer the matter to ADR under a schedule (specified by the arbitrator if the participants cannot agree) requiring a decision within 30 days following appointment of the arbitrator. The ADR decision will be effective without delay. Failure to agree on other proposed Capital Items may also be referred to ADR but without an expedited schedule.
- (e) Owner shall proceed to install the Capital Item if it is agreed or determined pursuant to ADR that CAISO will pay a Surcharge Payment for the Capital Item or that Owner is otherwise required to install the Capital Item. Owner shall keep full and detailed records of the cost of the Capital Item and shall make them available to CAISO for inspection upon reasonable request.
- (f) If the actual cost of the Capital Item exceeds the estimated cost, CAISO may initiate ADR to determine whether the additional costs were reasonable and shall not be obligated to pay any portion of the additional cost found to be unreasonable in such ADR proceeding. Owner shall have the burden of proving that the additional costs were reasonable.
- (g) If it is agreed or determined pursuant to ADR that CAISO will pay for the Capital Item, CAISO shall be deemed to have agreed that the cost of the Capital Item will be recovered through a Surcharge Payment under Article 8 and will be eligible for recovery through a Termination Fee pursuant to Section 2.5. The costs included in Surcharge Payments and Termination Fees to be paid by CAISO shall be net of all proceeds received by Owner from insurers and other third parties pursuant to applicable insurance, warranties and other contracts after deducting all costs Owner incurred to collect the proceeds. Owner shall use commercially reasonable efforts to recover its full entitlements under applicable insurance policies, warranties and other contracts. Owner shall keep CAISO informed of the status of such recovery efforts and will adjust future Surcharge Payments to reflect proceeds later recovered from any other party.
- (h) If the capability or performance of a Unit is impaired, if Owner is not obligated to install a Capital Item to remedy such impairment under Section 7.6(a) and does not do so, and if it would be uneconomical, impractical or illegal to continue operation without the Capital Item, then Owner, subject to obtaining authorization from FERC (if required by law to do so), may terminate this Agreement with respect to the affected Unit without cost or liability therefor except as provided in Section 2.4.
- (i) If Owner installs a Capital Item notwithstanding that CAISO is not obligated to pay for the Capital Item, Owner shall not be entitled to recover the costs of the Capital Item from CAISO unless FERC approves recovery of the costs.
- (j) Notwithstanding any other provision of this Agreement, if a Capital Item is required to remedy impairment of the Facility, the Unit's Monthly Option Payment shall not be decreased for any of the period of time during which Owner is waiting for CAISO's response to an Unplanned Capital Item Notice or during which ADR concerning an Unplanned Capital Item Notice is pending unless it is determined that Owner is required to install the Capital Item pursuant to Section 7.6 (a).

## **7.7 Adjustments to Performance Characteristics**

- (a) If Owner installs any Capital Item or makes any Repairs the costs of which are paid by CAISO under this Agreement, Owner shall modify the Maximum Net Dependable Capacity, Unit Availability Limit, and performance characteristics of the affected Unit to

reflect the resulting changes in operating costs effective as of the date CAISO's payment of CAISO's Repair Share of the Repairs is made, or in the case of a Capital Item, the date the cost of the Capital Item is included in a Surcharge Payment or the rates paid by CAISO.

- (b) If FERC authorization is required to permit Owner to recover the CAISO's Repair Share from CAISO or to include the costs of a Capital Item in a Surcharge Payment or the rates paid by CAISO hereunder, Owner shall make a Section 205 filing limited to recovery of the costs and implementation of related changes to performance characteristics, shall request that the filing become effective as of the date the Capital Item or Repair was placed in service and request expedited consideration of the filing. If CAISO has approved the Capital Item or Repair, CAISO shall intervene in support of such filing including support of requests to place the change in effect without suspension or hearing.
- (c) If Owner makes Repairs or installs a Capital Item when not required to do so and CAISO has not agreed or is not required by ADR to pay for such Repair or Capital Item, Owner may either:
  - (i) make an appropriate adjustment to the Maximum Net Dependable Capacity, Unit Availability Limit and performance characteristics of the affected Unit to reflect the capability the Unit would have had if the Capital Item had not been installed or the Repairs had not been made; or
  - (ii) make appropriate adjustment to the Maximum Net Dependable Capacity, Unit Availability Limit and performance characteristics of the affected Unit to reflect the Repairs or installation of the Capital Item.
- (d) Any adjustment to the Heat Input characteristics of the Unit shall be made in accordance with Section 4.9(d).

## **7.8 Upgrades of Generating Units**

Owner may Upgrade any Unit at the Facility, provided that no Upgrade shall release Owner from Owner's performance obligations under this Agreement. CAISO shall secure no rights under this Agreement to any capacity or services increased or enhanced by any Upgrade unless the Parties agree as to the terms of CAISO's rights and the amount of CAISO's payment for such Upgrade. If the Parties so agree, the Maximum Net Dependable Capacity, Unit Availability Limit and performance characteristics of the affected Unit shall be adjusted to reflect CAISO's agreed upon rights to the Upgrade provided that any adjustment in heat input shall be made in accordance with Section 4.9(d). If FERC authorization is required to permit Owner to recover the portion of the Upgrade cost CAISO has agreed to pay for the agreed revisions to the Unit characteristics, Owner shall make a Section 205 filing limited to recovery of the costs and implementation of related changes to the Maximum Net Dependable Capacity, Unit Availability Limit and performance characteristics, shall request that the filing become effective as of the date CAISO begins paying its agreed portion of the cost of the Upgrade and request expedited consideration of the filing. CAISO shall intervene in support of such filing including support of requests to place the change in effect without suspension or hearing.

## **7.9 Third-Party Participation in CAISO Review Process**

- (a) Subject to fulfillment of the requirements of Section 7.9 (b), CAISO shall consult with the Responsible Utility and the California Agencies prior to approving Capital Items or Repairs. CAISO may approve Capital Items or Repairs aggregating less than \$5,000,000 for the Facility in a Contract Year without approval of the Responsible Utility or the California Agencies. After Capital Items and Repairs aggregating \$5,000,000 for the Facility in a Contract Year have been approved by CAISO, CAISO's approval of all other Capital Items and Repairs for that Contract Year shall not be effective unless the Responsible Utility has consented to such Capital Item or Repair.
- (b) The requirements of Section 7.9 (a) relating to Responsible Utilities shall apply only if and to the extent that the Responsible Utility agrees to waive its right to challenge before the FERC Owner's recovery of approved costs of Repairs or Capital Items. The requirement of Section 7.9 (a) relating to the California Agency shall apply only if and to the extent that each California Agency agrees to waive its right to challenge Owner's recovery of

costs associated with the proposed Repairs or Capital Item on any grounds not set out in written objections provided by the California Agencies to CAISO and Owner within 30 days of the California Agencies' receipt of the preliminary and final reports under Section 7.5 or Section 7.6.

- (c) Provided that the California Agencies and Responsible Utility are bound by the provisions of the Confidentiality and Non-disclosure Agreement attached as Schedule N and make the waivers required in Section 7.9 (b), Owner will provide copies of the required reports and notices under Section 7.4, Section 7.5 or Section 7.6, and any additional information provided to the CAISO pursuant to Sections 7.4, 7.5 and 7.6, as the case may be, to the California Agencies and Responsible Utility at the same time as the reports, notices and information are provided to CAISO, and CAISO will provide copies of all information provided to Owner pursuant to such Sections to the California Agencies and Responsible Utility.

## **ARTICLE 8 RATES AND CHARGES**

### **8.1 Condition 1**

When a Unit is under Condition 1, CAISO shall pay Owner each Month for each Unit the sum of:

- (a) the Monthly Option Payment which shall be equal to the Monthly Availability Payment plus the Monthly Surcharge Payment, minus the sum of all Non-Performance Penalties for the Month. In no event shall (i) the Monthly Option Payment for any month be less than zero, (ii) the sum of the Monthly Availability Payments for a Contract Year exceed the Annual Fixed Revenue Requirement for the Contract Year, or (iii) the sum of the Monthly Surcharge Payments for the Contract Year exceed the Annual Capital Item Cost (as defined in Schedule B) for the Contract Year. The Monthly Availability Payment and the Monthly Surcharge Payment shall each be computed in accordance with Schedule B. The Non-Performance Penalties for the Month shall be calculated in accordance with Section 8.5;
- (b) the Variable Cost Payment computed in accordance with Schedule C;
- (c) one-twelfth of the Prepaid Start-up Charge as set out on Schedule D;
- (d) the sum of the Start-up Adjustments calculated in accordance with Schedule D for each Start-up during the Month which was a Prepaid Start-up;
- (e) the sum for all Settlement Periods in the Month of the Pre-empted Dispatch Payments and Motoring Charges calculated in accordance with Schedule E;
- (f) once the Counted MWh for the Contract Year equals the Maximum Annual MWh, the Counted Service Hours for the Contract Year equals the Maximum Annual Service Hours, or the Counted MWh for hydroelectric units for the Month equals the Maximum Monthly MWh, a payment for each subsequent Billable MWh at the rate set out on Schedule G;
- (g) once the Counted Start-ups for the Contract Year equals the Maximum Annual Start-ups, a payment for each additional Start-up calculated in accordance with Schedule G; and
- (h) charges for services Delivered from Substitute Units pursuant to Sections 5.1(c) and (d).

### **8.2 Condition 2**

When a Unit is operating under Condition 2, CAISO shall pay Owner the sum of:

- (a) the Monthly Option Payment, which shall be equal to the Monthly Availability Payment plus the Monthly Surcharge Payment, minus the sum of all Non-Performance Penalties for the Month. In no event shall (i) the Monthly Option Payment for any month be less than zero, (ii) the sum of the Monthly Availability Payments for a Contract Year exceed the Annual Fixed Revenue Requirement for the Contract Year or (iii) the sum of the Monthly Surcharge Payments for the Contract Year exceed the Annual Capital Item Cost (as defined in Schedule B) for the Contract Year. The Monthly Availability Payment and the Monthly Surcharge Payment shall each be computed in accordance with Schedule B. The Non-Performance Penalties for the Month shall be calculated in accordance with Section 8.5.



- (b) the Variable Cost Payment computed in accordance with Schedule C;
- (c) the sum of all Start-up Payments for the Month until Counted Start-ups equal Maximum Annual Start-ups computed in accordance with Schedule D;
- (d) the sum for all Settlement Periods in the Month of Motoring Charges calculated in accordance with Schedule E;
- (e) once the Counted MWh for the Contract Year equals the Maximum Annual MWh or the Counted Service Hours for the Contract Year equals the Maximum Annual Service Hours, a payment for each subsequent Billable MWh at the rate set out on Schedule G;
- (f) once the Counted Start-ups for the Contract Year equals the Maximum Annual Start-ups, a payment for each additional Start-up calculated in accordance with Schedule G; and
- (g) charges for services Delivered from Substitute Units pursuant to Section 5.1(c) and (d).

### **8.3 Determination of Billable MWh and Hybrid MWh**

- (a) "Billable MWh" shall be determined by application of the following rules:
  - (i) If a Unit under Condition 1 or Condition 2 Delivers MWh only in Nonmarket Transactions during a Settlement Period, the Billable MWh shall be the lesser of (A) the Hourly Metered Total Net Generation or (B) the Requested MWh.
  - (ii) If a Unit under Condition 1 delivers MWh in both Market and Nonmarket Transactions during a Settlement Period:
    - (A) If the Hourly Metered Total Net Generation during the Settlement Period is equal to or greater than the Requested MWh applicable to the Settlement Period, the Billable MWh shall be (1) the Requested MWh minus (2) the Hybrid MWh, but shall never be less than zero.
    - (B) If the Hourly Metered Total Net Generation during the Settlement Period is less than the Requested MWh applicable to the Settlement Period, the Billable MWh shall be (1) Hourly Metered Total Net Generation minus (2) the Hybrid MWh, but shall never be less than zero.
  - (iii) If a Unit is under Condition 2, the Billable MWh shall be the lesser of (A) the Hourly Metered Total Net Generation or (B) the sum of (1) Requested MWh and (2) the amount, if any, by which the total MWh for which Owner's bids pursuant to Section 6.1 (b) cleared the market exceeds the Requested MWh.
- (b) "Hybrid MWh" shall be the sum of the MWh scheduled in Market Transactions which were substituted for Requested MWh under Section 5.2 and the MWh scheduled in Market Transactions for which CAISO issued a Dispatch Notice pursuant to Section 4.5 provided that Hybrid MWh shall never exceed the Hourly Metered Total Net Generation.

### **8.4 Determination of Prepaid Start-ups**

Prepaid Start-ups for Condition 1 shall be the Maximum Annual Start-ups. There shall be no Prepaid Start-ups for Condition 2.

### **8.5 Non-Performance Penalty**

- (a) If a Unit fails to comply fully with a Dispatch Notice and such failure is not due to a Force Majeure Event under this Agreement, the Unit shall be subject to a Non-Performance Penalty computed in accordance with this Section 8.5.
- (b) The Non-Performance Penalty shall be calculated for each hour of the Penalty Period in which Owner is not deemed to be in full compliance with a Dispatch Notice and is not excused from performance. The Non-Performance Penalty shall be the sum of the amounts calculated for each Settlement Period in the Month by multiplying (i) the Availability Deficiency Factor for the Settlement Period by (ii) the sum of the Hourly Penalty Rate and the Hourly Surcharge Penalty Rate for the Unit as set forth on Schedule B; provided that the Non-Performance Penalty for any Month shall not exceed the sum of the Condition 1 Availability Payment and Condition 1 Surcharge Payment (for Units on Condition 1), or the sum of the Condition 2 Availability Payment and Condition 2 Surcharge Payment (for Units on Condition 2) for the Month. For purposes of this calculation:

- (i) an Availability Deficiency Factor shall be calculated for each hour of the Penalty Period as one minus the number determined by dividing (a) the Delivered MWh for the hour in question by (b) the product of the Unit Availability Limit and the percentage of the hour (up to 100%) that the Unit was subject to a Dispatch Notice;
  - (ii) the Penalty Period shall be the 72 hour period beginning at the time Owner fails to comply fully with a Dispatch Notice, provided that if Owner in accordance with Section 7.2(a) had scheduled an outage to begin during the 72 hour period, the Penalty Period will terminate at the time the outage was scheduled to begin.
  - (iii) the Unit Availability Limit shall be the Unit Availability Limit as it existed at the time CAISO issued the Dispatch Notice with which Owner failed to comply but reduced to eliminate the effect of any Force Majeure Event affecting deliveries during the Penalty Period.
- (c) For purposes of this Section 8.5 and Section 4.9(a)(i), a Unit shall be deemed to be in full compliance with a Dispatch Notice if the Unit Delivers (i) at least 97 percent of the Requested MW or (ii) not more than 2 MW less than the Requested MW.

### **8.6 Long-term Planned Outage Adjustment**

Not later than 60 days after the end of each Contract Year, Owner shall submit to CAISO a statement showing the Long-term Planned Outage Adjustment for the Contract Year. The Long-term Planned Outage Adjustment shall equal (a) the Hourly Availability Charge plus each Hourly Capital Item Charge, as shown in Schedule B, multiplied by (b) the difference, if positive, of (i) the hours scheduled for performance of Long-term Planned Outages minus (ii) the actual hours spent performing Long-term Planned Outages during the Contract Year. Owner shall credit any Long-term Planned Outage Adjustment on the next invoice or, if this Agreement has terminated, shall pay any Long-term Planned Outage Adjustment to the CAISO upon submission of the Final Invoice.

## **ARTICLE 9 STATEMENTS AND PAYMENTS**

### **9.1 Invoicing**

- (a) The billing, invoicing and payment of charges under this Agreement shall be as specified in this Article 9, Schedule O to this Agreement and Section 11.13 of the CAISO Tariff. CAISO shall not modify any provision of Section 41 of the CAISO Tariff or Section 11.13 as they apply to this Agreement without Owner's consent, provided that Owner's consent shall not be required for a change of allocations of RMR costs among market participants under the CAISO Tariff. Notwithstanding anything in this Agreement to the contrary, invoices either due or from the RMR Owner or Responsible Utility for an amount less than \$10.00 will be adjusted to \$0.00 and no amounts will be due to or from that RMR Owner or Responsible Utility for that invoice.
- (b) Owner will submit to CAISO RMR Invoices for each Month during the term of this Agreement, which are defined in this Section 9.1(b) as follows: (i) Estimated RMR Invoice; (ii) Revised Estimated RMR Invoice; (iii) Adjusted RMR Invoice; and (iv) Revised Adjusted RMR Invoice. In the event there are no revisions to the Estimated RMR Invoice or the Adjusted RMR Invoice, Owner shall submit an e-mail to CAISO with a copy to the Responsible Utility indicating that the Estimated RMR Invoice or the Adjusted RMR Invoice shall be deemed to be the Revised Estimated RMR Invoice or the Revised Adjusted RMR Invoice.
  - (i) Within 14 days after the end of each Month during the term of this Agreement (and, if this Agreement does not expire or terminate at the end of a Month, within 14 days after the end of the Month in which the Agreement expires or terminates), Owner shall submit an estimated invoice ("Estimated RMR Invoice") to CAISO for all charges and credits due under this Agreement for the Month ("Billing Month"). Each Estimated RMR Invoice shall reflect actual data for the

Billing Month to the extent actual data is available and shall otherwise reflect estimated data.

- (ii) By the date specified on the RMR Payments Calendar, Owner shall submit a revised estimated invoice ("Revised Estimated RMR Invoice") to CAISO, which will include appropriate revisions based on the CAISO's validation of the Estimated RMR Invoice. The Due Date of the Revised Estimated RMR Invoice shall be the 30th day after the date on which Owner submitted the Estimated RMR Invoice to CAISO, or if such date is not a Business Day, the Due Date shall be the next Business Day.
  - (iii) By the date specified on the RMR Payments Calendar, CAISO shall submit an invoice ("CAISO Invoice") to the Responsible Utility, with an e-mail notification to Owner and the Responsible Utility, which specifies the payment due from the Responsible Utility to CAISO and from CAISO to Owner on the basis of the Revised Estimated RMR Invoice. However, in the event the payment is due from Owner to CAISO and from CAISO to the Responsible Utility, then CAISO shall submit the CAISO Invoice to Owner with an e-mail notification to Owner and the Responsible Utility.
  - (iv) Within 7 days of receipt by Owner of the Recalculation Settlement Statement for the last day of the Billing Month, Owner shall submit an adjusted invoice ("Adjusted RMR Invoice") to CAISO, reflecting actual data for the Billing Month.
  - (v) By the date specified on the RMR Payments Calendar, Owner shall submit to CAISO an invoice reflecting actual data for the Billing Month and including appropriate revisions based on the CAISO's validation of the Adjusted RMR Invoice ("Revised Adjusted RMR Invoice"). The Due Date of the Revised Adjusted RMR Invoice shall be the 30th day after the date on which Owner submitted the Adjusted RMR Invoice to CAISO, or if such date is not a Business Day, the Due Date shall be the next Business Day.
  - (vi) By the date specified on the RMR Payments Calendar, CAISO shall submit an CAISO Invoice to the Responsible Utility, with an e-mail notification to Owner and the Responsible Utility, which specifies the payment due from the Responsible Utility to CAISO and from CAISO to Owner on the basis of the Revised Adjusted RMR Invoice. However, in the event the payment is due from Owner to CAISO and from CAISO to the Responsible Utility, then CAISO shall submit the CAISO Invoice to Owner with an e-mail notification to Owner and the Responsible Utility.
- (c) If the day on which any RMR Invoice is due to be issued is not a Business Day, such RMR Invoice shall be issued on the next succeeding Business Day.
  - (d) Each RMR Invoice shall use the template posted on the CAISO Website in accordance with Schedule O ("RMR Invoice Template"). Each RMR Invoice shall set out detailed calculations and breakdowns of the amounts due, shall identify the source of each input used in the calculations, and shall identify all relationships among data in different invoice levels.
  - (e) This section 9.1(e) applies to all Condition 1 Units. Any amounts received by or due to Owner's Scheduling Coordinator for Billable MWh and Ancillary Services Delivered in Nonmarket Transactions during the Billing Month shall be subtracted from the amount otherwise due under each RMR Invoice. If subtraction of the Energy and any Ancillary Service amounts for a Unit under Condition 1 results in a credit to CAISO on an RMR Invoice, the credit shall be carried forward ("Credit Carryforward") to the RMR Invoices for each succeeding Billing Month in that Contract Year until extinguished; provided that Owner shall not be required to carry any such credit into a later Contract Year or to pay any part of such credit to CAISO.
  - (f) This section 9.1(f) applies to all Condition 2 Units. All amounts received by or due to Owner's Scheduling Coordinator in connection with Market Transactions and Nonmarket Transactions during the Billing Month ("Scheduling Coordinator Revenues") shall be subtracted from the amount otherwise due under each RMR Invoice. If subtracting the Scheduling Coordinator Revenues results in a credit to CAISO on an RMR Invoice, the credit shall be carried forward ("Credit Carryforward") to the appropriate RMR Invoices for

each succeeding Billing Month in that Contract Year until extinguished. If there is an unextinguished credit balance remaining at the end of the Contract Year, Owner shall refund to CAISO an amount equal to the lesser of (i) the remaining balance of Scheduling Coordinator Revenues or (ii) the total amounts due Owner pursuant to Section 8.2 for the Contract Year minus all Scheduling Coordinator Revenues previously credited to Owner during such Contract Year. Such refund amount will be included on December's Adjusted RMR Invoice, or the Final Invoice if the Agreement is terminated.

- (g) In the event any corrections, surcharges, credits, refunds or other adjustments pertaining to a Billing Month are discovered after the Revised Adjusted RMR Invoice for such Billing Month has been issued ("Prior Period Changes"), then such Prior Period Changes shall be included in a worksheet for the prior period ("Prior Period Change Worksheet") and submitted for payment in the next allowed Billing Month for Prior Period Changes. The allowed Billing Months for Prior Period Changes are as follows. Any Prior Period Changes pertaining to the months of January through June of a Contract Year which are discovered prior to the submission of the December Estimated RMR Invoice for such Contract Year shall be included in a Prior Period Change Worksheet submitted with the December Estimated RMR Invoice. Any Prior Period Changes pertaining to the months of July through December of a Contract year which are discovered prior to the submission of the May Estimated RMR Invoice for the subsequent Contract year shall be included, subject to Section 9.8, in a Prior Period Change Worksheet submitted with the May Estimated RMR Invoice for the subsequent Contract Year. Any Prior Period Changes pertaining to a Billing Month for a prior Contract Year which are discovered after the first opportunity to submit a Prior Period Change Worksheet has passed, shall be included in a Prior Period Change Worksheet submitted with the Estimated RMR Invoice for the next December or May Billing Month, whichever comes first. Any Prior Period Changes pertaining to the time when the Facilities were under a superseded rate schedule using Conditions of Must Run Agreement A, B, and C, shall be calculated through a separate process and not included on RMR Invoices issued under this Agreement unless the Prior Period Changes result from the Revenue Requirements Settlements outlined in the Stipulation and Agreement approved on May 28, 1999, in FERC Docket No. ER98-441-000, et al.
- (h) Owner shall send a copy of each RMR Invoice and any Prior Period Change Worksheet(s) to the Responsible Utility at the time it sends such invoices to CAISO.
- (i) Owner shall provide supporting detail with the Prior Period Change Worksheets to identify the relevant Contract Year and provide clear calculations by Facility, by Billing Month, and such other detail as necessary to support the Prior Period Change(s). This level of detail shall be consistent with the level of detail originally required to perform the computation(s) that are being corrected in the Prior Period Change Worksheet. Prior Period Change Worksheets, when required, shall include all identified Prior Period Changes for each applicable prior Contract Year, and shall be computed as specified in section 9.1(j).
- (j) A Prior Period Change Worksheet shall contain the following information and calculations for each Billing Month in the relevant Contract Year(s), commencing with the Billing Month pertaining to the Prior Period Change(s):
  - (i) The Revised Adjusted RMR Invoice for the Billing Month or, if such Billing Month has previously been submitted on a Prior Period Change Worksheet, the most recent revision of such RMR Invoice.
  - (ii) A revision of the RMR Invoice specified in paragraph (1) above which shows the RMR Invoice revised to incorporate the Prior Period Change(s) as if such Prior Period Change(s) had been invoiced in the Billing Month which gave rise to the Prior Period Change(s). Such revision shall incorporate the impact of the Prior Period Change(s) on RMR payments, including any impact resulting from the Credit Carryforward calculation for the current or previous Billing Months in the Contract Year. For Condition 2 Units, such calculation shall include a recalculation of the refund described in Section 9.1(f).

(iii) The difference between the amounts calculated under paragraph (2) above and paragraph (1) above. The amount due to or from Owner as a result of this calculation shall be clearly specified, with interest shown separately from any other amount due. Interest shall be calculated at the Interest Rate from the Due Date of the Revised Estimated RMR Invoice for the Billing Month to the date payment of the amount due is made.

Owner shall total for all Billing Months which are included on the Prior Period Change Worksheet, the amount due as a result of the calculation in paragraph (3) above for each Billing Month. Owner shall also total for all Billing Months which are included on the Prior Period Change Worksheet, the interest due as a result of the calculation in paragraph (3) above for each Billing Month. The total amount due and interest due shall be transferred from the Prior Period Change Worksheet to the appropriate Estimated RMR Invoice, and such amounts shall be due as specified on the Estimated RMR Invoice.

(k) Any time a Unit switches from Condition 1 to Condition 2 or Condition 2 to Condition 1 during a Contract Year, the provisions of Section 9.1(e) shall apply to the months when the unit was on Condition 1 and the provisions of Section 9.1(g) shall apply to the months when the unit was on Condition 2.

(l) CAISO shall separately post on the CAISO Website examples ("Prior Period Change Examples") developed and agreed to by the RMR Invoice Task Force created under Schedule O of the calculations described in Sections 9.1(e), 9.1(f), 9.1(g) and 9.1(j) to provide guidance on the correct treatment of Prior Period Changes and to show the correct preparation of the Prior Period Change Worksheet and transfer of amount due to the appropriate Estimated RMR Invoice. Additionally, the RMR Invoice Task Force shall develop and agree to, and CAISO shall post on the CAISO Website, guidelines ("Prior Period Change Guidelines") underlying the calculations described in Sections 9.1(e), 9.1(f), 9.1(g) and 9.1(j). The Prior Period Change Worksheet shall be prepared, and the amount due shall be calculated and transferred to the Estimated RMR Invoice, in accordance with the RMR Invoice Template, the Prior Period Change Examples, and the Prior Period Change Guidelines posted on the CAISO Website. In the event of a dispute regarding the treatment of Prior Period Changes, all Parties to such dispute shall refer to the Prior Period Change Examples and Prior Period Change Guidelines posted on the CAISO Website for guidance.

## **9.2 Facility Trust Accounts**

CAISO shall establish two segregated commercial bank accounts under the "Facility Trust Account" referred to in Sections 11.13 and 41 of the CAISO Tariff for each Responsible Utility. One commercial bank account, the "RMR Owner Facility Trust Account", shall be held in trust by CAISO for Owner. The other commercial bank account, the "Responsible Utility Facility Trust Account", shall be held in trust by CAISO for the Responsible Utility. Payments received by CAISO from a Responsible Utility in connection with this Agreement, including payments following termination of this Agreement, will be deposited into the RMR Owner Facility Trust Account and payments from CAISO to Owner will be withdrawn from such Account, all in accordance with Sections 11.13 and 41 of the CAISO Tariff and this Article 9. Any payments received by CAISO from Owner in connection with this Agreement, including payments following termination of this Agreement, will be deposited into the Responsible Utility Facility Trust Account. Any payments to a Responsible Utility of funds received from Owner under this Agreement will be withdrawn from the Responsible Utility Facility Trust Account, all in accordance with Section 11.13 and 41 of the CAISO Tariff, and this Agreement. Neither the RMR Owner Facility Trust Account nor the Responsible Utility Facility Trust Account shall have other funds commingled in it at any time.

## **9.3 Payment**

(a) CAISO shall pay Owner all invoiced amounts due on Revised Estimated RMR Invoices, Revised Adjusted RMR Invoices, and Final Invoices whether or not disputed by CAISO or the Responsible Utility except to the extent that CAISO (i) is entitled to a refund on a Revised Estimated or Revised Adjusted RMR Invoice or Final Invoice against such

payment under this Agreement or (ii) is entitled to deduct an amount under Section 9.6. All payments shall be made from the RMR Owner Facility Trust Account on or before the Due Date by wire transfer in accordance with instructions from Owner. If Owner is also the Responsible Utility, at the discretion of Owner payments to it may be made by memorandum account instead of wire transfer. Owner shall establish and maintain a settlement account at a commercial bank located in the United States and reasonably acceptable to CAISO which can effect money transfers via Fed-Wire where payments to and from the Facility Trust Accounts shall be made in accordance with Section 9.2 and Section 11.13 of the CAISO Tariff. Owner shall notify CAISO of its settlement account details prior to the Effective Date. Owner may from time to time change its settlement account details, provided that, Owner shall give CAISO 15 days notice before making changes. In the event there is a refund amount due to CAISO, Owner shall refund the amount due CAISO in accordance with Section 9.2 and Section 11.13 of the CAISO Tariff.

- (b) If a Revised Adjusted RMR Invoice is less than the amount paid by CAISO on the Revised Estimated RMR Invoice, the difference shall be paid by Owner to CAISO with interest at the Interest Rate from the Due Date of the Revised Estimated RMR Invoice to the Due Date of the Revised Adjusted RMR Invoice, or, if the Agreement is terminated, shall be paid to CAISO on submission of the Final Invoice. If a Revised Adjusted RMR Invoice is greater than the amount paid by CAISO under the Revised Estimated RMR Invoice, CAISO shall pay Owner the difference with interest at the Interest Rate from the Due Date of the Revised Estimated RMR Invoice to the Due Date of the Revised Adjusted RMR Invoice by CAISO.

#### **9.4 Payment Default**

- (a) Except as provided in Section 9.4 (b), Owner, in addition to any other remedy it may have, may pursue all claims against CAISO and the Collateral, as defined in Section 9.7 below, if CAISO fails to pay any invoice in full by the Due Date as required under Section 9.3. CAISO, in addition to any other remedy it may have, may pursue all claims against Owner if Owner fails to pay any invoice in full by the Due Date as required under Section 9.3. The parties' remedies shall be subject to the limitations set forth in Article 11.
- (b) If the amounts CAISO has not paid have been invoiced by CAISO to the Responsible Utility and the Responsible Utility has not paid such amounts to CAISO, Owner shall cause execution to issue against, and shall collect solely from the Collateral or the Responsible Utility, and not CAISO, if all of the following conditions have been satisfied:
  - (i) The Responsible Utility is **[INSERT SCE, PGE or SDGE, as applicable]**
  - (ii) CAISO has invoiced via the CAISO Invoice **[INSERT SCE, PGE or SDGE, as applicable]** for costs (net of any applicable credits, all as shown on the Revised Estimated or Revised Adjusted RMR Invoice) after deducting only amounts permitted to be deducted under Section 9.6.
  - (iii) The CAISO Tariff expressly requires **[INSERT SCE, PGE or SDGE, as applicable]** to pay all amounts shown on the CAISO Invoices without offset, recoupment or deduction (except to the extent that Section 41 of the CAISO Tariff permits deduction of amounts that are due the Responsible Utility after resolution of a dispute) and, to the extent that **[INSERT SCE, PGE or SDGE, as applicable]** disputes any amounts due under the CAISO Invoices, to pay the disputed amounts under protest and subject to refund with interest; and
  - (iv) **[INSERT SCE, PGE or SDGE, as applicable]** fails to pay all or a portion of the amounts due under the CAISO Invoices and did not have the right to have such amount deducted under Section 41 of the CAISO Tariff.
- (c) Notwithstanding the provisions of Section 9.4 (b), Owner may cause execution to issue against, and collect from, CAISO, the Responsible Utility, the Collateral or insurance maintained by CAISO pursuant to Section 12.1(a), if notwithstanding the requirement to pay CAISO Invoices without offset, recoupment or deduction (except to the extent that Section 41 of the CAISO Tariff permits deduction of amounts that are due the

Responsible Utility after resolution of a dispute), a Responsible Utility nonetheless offsets amounts unrelated to this Agreement or withholds amounts based on a breach or default by CAISO of any of its obligations to the Responsible Utility.

- (d) The CAISO Invoices shall separately show the amounts due for services from each Facility. If the Responsible Utility withholds any portion of the amount due under the CAISO Invoices, CAISO shall inform Owner of the specific Facility and time periods for which the Responsible Utility withheld payments.
- (e) As a condition for Owner's agreement not to seek to recover amounts from CAISO under Section 9.4(b), CAISO agrees to include and retain in the CAISO Tariff provisions expressly recognizing that Owner is a third party beneficiary of, and has all rights that CAISO has under the CAISO Tariff, at law, in equity or otherwise, to enforce the Responsible Utility's obligation to pay all sums invoiced to it in the CAISO Invoices but not paid by the Responsible Utility, to the extent that, as a result of the Responsible Utility's failure to pay, CAISO does not pay Owner on a timely basis amounts due under this Agreement. Owner recognizes that its rights as a third party beneficiary are (i) no greater than CAISO's rights against the Responsible Utility, and (ii) subject to Section 13 of the CAISO Tariff regarding dispute resolution. Either CAISO or Owner (but not both) will be entitled to enforce any claim arising from unpaid CAISO Invoices, and only one party will be a "disputing party" under Section 13 of the CAISO Tariff with respect to such claim so that the Responsible Utility will not be subject to duplicate claims or recoveries. Owner shall have the right to control the disposition of claims against the Responsible Utility for non-payments which result in payment defaults by CAISO under this Agreement. To that end, CAISO agrees that in the event of nonpayment by the Responsible Utility of amounts due under the CAISO Invoices, CAISO will not take any action to enforce its rights against the Responsible Utility unless CAISO is requested to do so by Owner. CAISO shall cooperate with Owner in a timely manner as necessary or appropriate to most fully effectuate Owner's rights related to such enforcement, including using its best efforts to enforce the Responsible Utility's payment obligations if, as, to the extent, and within the time frame, requested by Owner. CAISO shall intervene and participate where procedurally necessary to the assertion of a claim by Owner.
- (f) If a Responsibility Utility was not the Responsible Utility on April 1, 1998 (a "New Responsible Utility") and if:
  - (i) The senior unsecured debt of the New Responsible Utility is rated or becomes rated at less than A- from Standard & Poors ("S&P") or A3 from Moody's Investment Services ("Moody's), and
  - (ii) Such ratings do not improve to A- or better from S&P or A3 or better from Moody's within 60 days,

CAISO shall then require the New Responsible Utility to issue and confirm to CAISO an irrevocable and unconditional letter of credit in an amount equal to three times the highest monthly payment invoiced by CAISO to the New Responsible Utility (or the prior Responsible Utility) in connection with services provided under this Agreement during the last 3 months for which invoices have been issued. The letter of credit must be issued by a bank or other financial institution whose senior unsecured debt rating is not less than A from S&P and A2 from Moody's. The letter of credit shall authorize CAISO or Owner to draw on the letter of credit for deposit solely into the RMR Owner Facility Trust Account in an amount equal to any amount due and not paid by the Responsible Utility under the CAISO Invoices.

## **9.5 Interest**

If CAISO or Owner fails to make any payment by the Due Date, the amount due but not paid shall accrue interest at the Interest Rate from the Due Date until the amount is paid.

## **9.6 Disputed Amounts**

- (a) If CAISO or the Responsible Utility disputes a Revised Estimated or Revised Adjusted RMR Invoice or Final Invoice or part thereof submitted by Owner under this Agreement, or if the Responsible Utility disputes an CAISO Invoice or part thereof that relates to an

RMR Invoice or Final Invoice submitted by Owner to CAISO under this Agreement, and if such dispute is based in whole or part on an alleged error or breach or default of Owner's obligations to CAISO under this Agreement, then CAISO promptly shall give written notice to Owner of the reasons for the dispute and the amount in dispute. CAISO shall pay Owner the disputed amount without offset, recoupment or reduction of any kind or nature. Such payment may, however, be made by CAISO under protest with reservation of the right to seek a refund with interest at the Interest Rate from the date of the disputed payment to the date of repayment. If CAISO notifies Owner that CAISO or the Responsible Utility disputes any amount of Owner's RMR Invoice or Final Invoice, Owner shall at its own cost provide CAISO with all information and assistance CAISO reasonably requires to resolve the dispute and shall join with CAISO in any discussions and negotiations with the Responsible Utility to resolve the dispute. The dispute shall be subject to ADR provided that in such ADR proceeding only one entity (CAISO or Responsible Utility) will be the disputing party with respect to such claim. Owner shall be obligated to refund to CAISO as a result of resolution of such dispute only if, and to the extent, the resolution determines the amount invoiced by Owner exceeded the amounts due Owner under this Agreement for the period covered by the RMR Invoices(s) and/or Final Invoice. Any amount agreed or determined to be owed by Owner to CAISO under this Section 9.6 (a) shall be refunded by Owner to CAISO with interest, by Owner's inclusion of such refund (including interest) in a Prior Period Change Worksheet included with the next appropriate May or December Estimated RMR Invoice as specified in Sections 9.1(g) through 9.1(l) of this Agreement. If Owner does not include such refund (including interest) in the appropriate RMR Invoice, then such refund shall be made by CAISO's deduction of such amount from the next Revised Estimated and Revised Adjusted RMR Invoice(s) and Final Invoice submitted by Owner to CAISO under this Agreement until such amount is extinguished, or, if this Agreement has terminated, by paying such amount to CAISO. Interest shall be at the Interest Rate unless it is determined through ADR that the amount invoiced by Owner was submitted without a good faith basis in fact or law, in which case interest shall be at twice the Interest Rate.

(b) It is expressly understood that the Responsible Utility shall, to the extent set forth herein, be a third party beneficiary of, and shall have all rights that CAISO has under this Agreement, at law, in equity and otherwise, to dispute an RMR Invoice or Final Invoice submitted to CAISO by Owner under this Agreement and to enforce Owner's obligation to make any required payment to CAISO under this Agreement to the extent CAISO does not make a related deposit into the Responsible Utility Facility Trust Account as a result of Owner's failure to make the required payment. The rights of the Responsible Utility as third party beneficiary shall be no greater than CAISO's rights against Owner and shall be subject to the ADR provisions of this Agreement. Either CAISO or the Responsible Utility, but not both, will be entitled to enforce any claim arising from a related set of facts, and only one such entity will be a disputing party under Article 11 of this Agreement with respect to any such claim so that Owner shall not be subject to duplicate claims or recoveries. If the Responsible Utility is not the Owner, the Responsible Utility shall control the disposition of all claims against Owner for non-payment described in this Section 9.6, including the choice of disputing party. The CAISO shall have the right to intervene for the purpose of participating in the proceeding even if it is not the disputing party. CAISO shall cooperate with the Responsible Utility in a timely manner as necessary or appropriate to most fully effectuate the Responsible Utility rights related to such enforcement, including using its best efforts to enforce Owner's payment obligations if, as, to the extent, and within the time frame, requested by Responsible Utility. Subject to the foregoing, CAISO shall intervene and participate where procedurally necessary to the assertion of a claim by the Responsible Utility.

## **9.7 Payment Security**

To secure all of CAISO's payment obligations to Owner under this Agreement, CAISO agrees to grant Owner a security interest and lien in the following collateral (collectively, the "Collateral"): (a) all past, present and future accounts and other amounts



Responsible Utility owes CAISO at any time pursuant to Section 41 of the CAISO Tariff attributable to invoices submitted by Owner under this Agreement (collectively, the "Accounts"), (b) the RMR Owner Facility Trust Account, all funds in the RMR Owner Facility Trust Account at any time, and all funds paid on account of any Accounts, (c) all proceeds of the Collateral, if any, and (d) all of CAISO's right, title and interest in the Collateral. CAISO represents and warrants to Owner that (a) CAISO has the authority to grant such security interest, (b) CAISO will have good, marketable and exclusive title to all of the Collateral, (c) such security interest and lien will at all times be a valid, enforceable and first-priority lien on the Collateral, and (d) such security interest will be duly perfected by the filing of a financing statement under the California Uniform Commercial Code describing the Collateral in the office of the Secretary of State of California and the delivery of a written notice of Owner's security interest to the bank with which the RMR Owner Facility Trust Account is maintained. If CAISO defaults on its obligation to pay under this Agreement, Owner shall be entitled to enforce such security interest, to exercise its rights in the Collateral, to collect the Accounts from Responsible Utility, to collect all funds in the RMR Owner Facility Trust Account, and to exercise all other rights and remedies under the California Uniform Commercial Code. CAISO agrees to promptly execute and deliver all financing statements and other documents Owner reasonably requests, including but not limited to a written notice of Owner's security interest in the Collateral to the bank with which the RMR Owner Facility Trust Account is maintained, in order to maintain, perfect and enforce such security interest.

#### **9.8 Errors**

If a Party discovers an error in the amount of an invoice or payment under this Agreement and notifies the other Party within 60 days after discovering the error, the error shall be corrected as specified in Sections 9.1(g) through 9.1(l) of this Agreement; provided that a Party shall not be entitled to have an error corrected unless the Party notifies the other Party within 12 months after the date of the applicable Revised Adjusted RMR Invoice or Final Invoice, or within 60 days after issuance of the final report with respect to an audit pursuant to Section 12.2(g), whichever is later.

#### **9.9 Payment of Termination Fee**

- (a) Within 14 days after the end of each Month during the period in which any Termination Fee is payable under Section 2.5, Owner shall submit an invoice ("Termination Fee Invoice") to CAISO and a copy to the Responsible Utility for all Termination Fee amounts due for the Month. Each Termination Fee Invoice shall: (i) be broken down by Unit and (ii) clearly identify the source of each input used.
- (b) CAISO shall pay Owner amounts invoiced under this Section 9.9 in accordance with Sections 9.3 through 9.8. If CAISO or, if applicable, the Responsible Utility, has disputed the amount of a Termination Fee stated in a Termination Fee Invoice, then neither CAISO nor the Responsible Utility shall be required to give notice of the same disputed amount as to subsequent Termination Fee Invoices.

#### **9.10 Payment of Final Invoice**

- (a) Within 7 days of receipt by Owner of the Recalculation Settlement Statement for market transactions for the effective date of termination of this Agreement, Owner shall submit an invoice ("Final Invoice") to CAISO and a copy to the Responsible Utility for all charges and other amounts then due under this Agreement. Amounts then due shall include: (i) charges for all Billable MWh and Ancillary Services provided under this Agreement and not previously invoiced; (ii) the Long-term Planned Outage Adjustment under Section 8.6. and (iii) refunds described in section 9.1(f) for Condition 2 Units. Calculation of the Long-term Planned Outage Adjustment shall be made by deeming the effective date of termination to be the end of the Contract Year, and by assuming that all Long-term Planned Outages scheduled to occur after the termination date occur as scheduled. The Final Invoice shall not include remaining Monthly payments of a Termination Fee under Section 2.5, which shall continue to be paid monthly until the obligation is extinguished.

- (b) CAISO shall pay Owner the amount stated in the Final Invoice in accordance with Section 9.3 through 9.8.

## **ARTICLE 10 FORCE MAJEURE EVENTS**

### **10.1 Notice of Force Majeure Events**

If either Party is unable to perform its obligations under this Agreement due to a Force Majeure Event, the Party unable to perform shall notify the other Party of the Force Majeure Event promptly after the occurrence thereof. The Party's notice may be given orally but shall promptly be confirmed in writing or electronically.

### **10.2 Effect of Force Majeure Event**

- (a) If a Force Majeure Event prevents a Party from performing, in whole or in part, its obligations under this Agreement, such Party's obligations, other than obligations to pay money (unless the means of transferring funds is affected), shall be suspended and such Party shall have no liability with respect to such obligations; provided, that the suspension of the Party's obligations is of no greater scope and of no longer duration than is required by the Force Majeure Event.
- (b) If a Force Majeure Event (other than a flood, storm or drought affecting a hydroelectric Unit) reduces the Availability of a Unit, the Availability shall be determined as if the Unit were available up to the Unit Availability Limit in effect prior to the Force Majeure Event through the earlier of the 120th day following the Force Majeure Event or until the Unit's Availability is restored, whichever occurs first. If a flood or storm Force Majeure Event reduces the Availability of a hydroelectric Unit, the Availability shall be determined as if the Unit were available up to its Unit Availability Limit in effect prior to the Force Majeure Event through the earlier of the 120th day following the Force Majeure Event or until the Unit's Availability is restored, and as if the Unit were available up to one-half of such Unit Availability Limit from the 120th day through the earlier of the 240th day or the date on which the Unit's Availability is restored. If a drought Force Majeure Event reduces the Availability of a hydroelectric Unit, the Availability shall be determined as if the Unit were available up to its Unit Availability Limit in effect prior to the Force Majeure Event until the Unit's Availability is restored following the end of the drought Force Majeure Event.

### **10.3 Remedial Efforts**

The Party that is unable to perform by reason of a Force Majeure Event shall use commercially reasonable efforts to remedy its inability to perform and to mitigate the consequences of the Force Majeure Event as soon as reasonably practicable; provided, that no Party shall be required to obtain replacement power or to settle any strike or other labor dispute on terms which, in the Party's sole discretion, are contrary to its interest and, except to the extent that the Unit's primary fuel is distillate fuel oil or Schedule H expressly requires Owner to maintain fuel oil capability for the Unit, Owner shall not be required to obtain or use fuel oil to operate a Unit. The Party unable to perform shall advise the other Party of its efforts to remedy its inability to perform and to mitigate the consequences of the Force Majeure Event, and shall advise the other Party of when it believes it will be able to resume performance of its obligations under this Agreement.

## **ARTICLE 11 REMEDIES**

### **11.1 Dispute Resolution**

The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. Unless this Agreement expressly provides that a particular type of dispute is not subject to ADR, the Parties shall use ADR procedures to resolve all disputes which are not otherwise settled. Owner and CAISO will promptly join with all other owners of Reliability Must-Run Units and all Responsible Utilities to jointly develop ADR procedures to be used in connection with such disputes. Following unanimous agreement of Owner, CAISO and

Responsible Utilities to the ADR procedures, such procedures shall be posted on CAISO Website. Until there is unanimous agreement on such procedures, the Parties shall use the ADR procedures contained in Schedule K.

## **11.2 Waiver of Damages**

- (a) Except for the obligations set forth in Section 11.4 (Termination for Default) and Section 12.6 (Indemnity), neither Party shall be liable to the other Party for any claim, loss or damage of any nature arising out of or relating to the performance or breach of this Agreement including replacement power costs, loss of revenue, loss of anticipated profits or loss of use of, or damage to, plant or other property, personal injury, or death; provided, however, that this waiver of liability shall not include or cover any claim, damage or loss arising out of the willful misconduct of either Party. Amounts that are specifically payable or reimbursable by the other Party under the terms of this Agreement shall not be considered "claims, losses or damages" for purposes of this Section.
- (b) Neither Party shall be liable to the other for any special, indirect, incidental or consequential damages suffered by the other Party or by third parties arising out of, or relating to, this Agreement or the performance of, or breach of any obligation under, this Agreement, or the negligence of any Party. This limitation shall apply even if the Party is advised of the possibility of these damages.
- (c) Except for the obligations to make or adjust payments or pay penalties expressly provided in Section 2.5 (Termination Fee), Section 7.4 (Planned Capital Items), Section 7.5 (Unplanned Repairs), Section 7.6 (Unplanned Capital Items), Section 7.8 (Upgrades of Generating Units), Article 8 (Rates and Charges) and Article 9 (Statements and Payments), of this Agreement, either Party's maximum aggregate liability for any and all claims arising out of or relating to performance or breach of this Agreement during the Contract Year, whether based upon contract, tort (regardless of degree of fault or negligence), strict liability, warranty, or otherwise, including any liability for Owner's failure to Deliver Requested MWh or Requested Ancillary Services shall not exceed \$20 million.

## **11.3 Injunctive Relief**

In addition to any other remedy to which a Party may be entitled by reason of the other Party's breach of this Agreement, the Party not in default shall be entitled to seek temporary, preliminary and permanent injunctive relief from any court of competent jurisdiction restraining the other Party from committing or continuing any breach of this Agreement.

## **11.4 Termination For Default**

- (a) If either Party shall fail to perform any material obligation imposed on it by this Agreement and that obligation has not been suspended pursuant to Section 10, the other Party, at its option, may terminate this Agreement by giving the Party in default notice setting out specifically the circumstances constituting the default and declaring its intention to terminate this Agreement. If the Party receiving the notice disputes the notice, it shall notify the other Party within 14 days after receipt of the notice setting out specifically the grounds of such disputes. Time is of the essence in remedying a default. If the Party receiving the notice does not, within 30 days after receiving the notice, remedy the default or refer the dispute to ADR, the Party not in default shall be entitled by a further notice to terminate this Agreement. The Party not in default shall have a duty to mitigate damages.
- (b) Termination of this Agreement pursuant to this Section 11.4 shall be without prejudice to the right of Owner or CAISO to collect any amounts due to it prior to the time of termination. If CAISO terminates this Agreement as to any Unit(s) due to Owner's default, Owner shall reimburse to CAISO the amount, if any, by which costs incurred by CAISO as a direct result of the termination through the end of the then current Contract Year exceed the costs which CAISO would have incurred absent such termination.

### **11.5 Cumulative and Nonexclusive**

Except as provided in Section 5.4(b), each remedy provided for in this Agreement shall be cumulative and not exclusive.

### **11.6 Beneficiaries**

Except as is specifically set forth in this Agreement, nothing in this Agreement, whether express or implied, confers any rights or remedies under, or by reason of, this Agreement on any persons other than the Parties and their respective successors and assigns, nor is anything in this Agreement intended to relieve or discharge the obligations or liability of any third party, nor give any third person any rights of subrogation or action against any Party. The owner of title to a Unit that is leased to Owner is an intended beneficiary of Section 2.2(e).

## **ARTICLE 12 COVENANTS OF THE PARTIES**

### **12.1 Insurance**

- (a) The CAISO shall maintain (i) an errors and omissions insurance policy and (ii) director and officer insurance, with combined aggregate coverage of at least \$150 million under the two policies and an operating reserve of at least \$15 million. The CAISO may reduce the level of insurance coverage, but may not do so unless it provides Owner at least 90 days notice of its intent to reduce the insurance coverage. At Owner's request, CAISO shall provide Owner with evidence of the insurance coverage it has in place. This Section 12.1 shall not be construed to require CAISO to maintain any level of coverage for any period after termination of the Agreement.
- (b) Owner and CAISO will secure and maintain in effect during the term of this Agreement the insurance required by Schedule I. Self-insurance may be utilized by mutual agreement. Owner shall name CAISO as an additional insured on its general commercial liability insurance policies. CAISO shall name Owner as an additional insured on its errors and omissions insurance policies. Owner and CAISO will each certify or cause its respective insurance agent to certify that it is insured under a major risk management program, including self-insured retentions, and except for policies covered by Section 12.1 (a), such insurance will remain in effect in amounts meeting the requirements of Schedule I.

### **12.2 Books And Records**

- (a) For a period of 36 months from creation of the records, Owner shall maintain and make available for audit by CAISO complete operations records for each Unit. Such records shall include:
- (i) information for each Settlement Period on the Availability of the Units, Delivered MWh and Delivered Ancillary Services,
  - (ii) outages,
  - (iii) Facility licenses and permits,
  - (iv) copies of operating and maintenance agreements for the Unit,
  - (v) a list of citations filed against the Unit by any environmental, air quality, health and safety, or other regulatory agency in the last 36 months,
  - (vi) a list of any resolved and unresolved WSCC log items from the last 36 months pertaining to the Unit,
  - (vii) maintenance, overhauls and inspections performed, and
  - (viii) books, accounts and all documents required to support Owner's statements, invoices, charges and computations made pursuant to this Agreement.
- CAISO may audit Owner's books, accounts and documents relating to invoices, statements, charges and computations no more frequently than once each Contract Year, and only one time following expiration or termination of this Agreement.
- (b) The Responsible Utility shall have the right to participate jointly with CAISO in auditing books, accounts, documents and operating records of the Facilities to the extent required

to verify the accuracy and correctness of all Owner's statements, invoices, and computations underlying all Owner charges passed through by CAISO to the Responsible Utility in connection with services rendered by Owner under this Agreement.

- (c) For a period of 36 months from the creation of the records, CAISO shall maintain and make available for audit by Owner all operations records required to permit Owner to verify that CAISO has complied with its obligations to Owner under this Agreement.
- (d) In addition to the audit rights under Section 12.2 (a) and (b), if Owner's rates are determined pursuant to the formula contained in Schedule F, representatives of CAISO and the Responsible Utility shall have the right jointly to audit the records, accounts and supporting documents of Owner to verify (i) the accuracy of any arithmetic calculation and (ii) application of the formula.
- (e) If Owner's rates are determined pursuant to the formula contained in Schedule F, the California Agency shall have the right to audit the records, accounts and supporting documents of Owner or CAISO to verify the accuracy of any arithmetic calculation and application of the formula, including the accuracy of allocation to accounts under the FERC Uniform System of Accounts, 18 C.F.R. Part 101. If there is more than one California Agency, only one audit shall be conducted by the California Agencies and such audit shall be binding on all the California Agencies.
- (f) Any entity exercising its right to audit under this Section 12.2 shall give the audited entity not less than 30 days prior written notice of the audit. Books or records requested in any audit shall be available for inspection by the auditing entity at the offices of the entity being audited between 9:00 A.M. and 5:00 P.M. on Business Days. Any audit under this Section 12.2 shall be completed not more than 36 months after the records were created. Any audit right herein shall be limited to the books and accounts of Owner or CAISO and shall not extend to the books and accounts of the parent or any other affiliate of Owner or CAISO. The expense of any audit shall be borne solely by the auditing Party or entity.
- (g) No adjustments to payments shall be required as a result of an audit unless, and then only to the extent that, CAISO, Owner, or another entity making such an audit under this Section 12.2 takes written exception to the books and accounts and makes a claim upon Owner or CAISO for any discrepancies disclosed by such audit within 60 days following issuance of the final audit report.
- (h) All information provided during the course of an audit shall be treated as Confidential Information in accordance with Section 12.5.
- (i) Nothing in this Agreement shall override any obligation Owner or CAISO may have under applicable law to maintain books and records for periods longer than 36 months nor shall this Agreement override any obligation Owner or CAISO may have to make books and records available for audit by FERC or any other entity. Nothing in this Agreement is intended to limit in any manner (i) the authority of FERC to audit the books and records of Owner or CAISO or the manner in which such audit is noticed or conducted or (ii) CAISO's right to audit market participants (including Owner) under the CAISO Tariff.

### **12.3 Representations And Warranties**

- (a) CAISO represents and warrants to Owner as follows:
  - (i) CAISO is a validly existing corporation with full authority to enter into this Agreement.
  - (ii) CAISO has taken all necessary measures to have the execution and delivery of this Agreement authorized, and upon the execution and delivery of this Agreement shall be a legally binding obligation of CAISO.
- (b) Owner represents and warrants to CAISO as follows:
  - (i) Owner is a validly existing [limited liability company][corporation] [municipal corporation] with full authority to enter into this Agreement.
  - (ii) Owner has taken all necessary measures to have the execution and delivery of this Agreement authorized, and upon the execution and delivery this Agreement shall be a legally binding obligation of Owner.

#### **12.4 Responsibilities**

Each Party shall be responsible for protecting its facilities from possible damage by reason of electrical disturbances or faults caused by the operation, faulty operation, or non-operation of the other Party's facilities. The other Party shall not be liable for any damages so caused.

#### **12.5 Confidentiality**

- (a) Except as may otherwise be required by applicable law, all information and data provided by the Parties to one another pursuant to this Agreement and marked "Confidential" or otherwise identified with specificity in writing as confidential at the time of disclosure ("Confidential Information") shall be treated as confidential and proprietary material of the providing Party and will be kept confidential by the receiving Party and used solely for purposes of this Agreement. Confidential Information will not include information that is or becomes available to the public through no breach of this Agreement, information that was previously known by the receiving Party without any obligation to hold it in confidence, information that the receiving Party receives from a third party who may disclose that information without breach of law or agreement, information that the receiving Party develops independently without using the Confidential Information, and information that the disclosing Party approves for release in writing. The receiving Party shall keep such information confidential and shall limit the disclosure of any such Confidential Information to only those personnel within its organization with responsibility for using such information in connection with this Agreement. The receiving Party shall assure that personnel within its organization read and comply with the provisions of this Section 12.5 and any Confidentiality Agreement implementing this Section 12.5. The Parties shall use all reasonable efforts to maintain the confidentiality of the Confidential Information in any litigation, shall promptly notify the providing Party of any attempt by a third party to obtain the Confidential Information through legal process or otherwise. A Party or third party beneficiary under Article 9 which has received Confidential Information may use that information in litigation or regulatory proceedings related to this Agreement but only after notice to the other Party and affording the other Party an opportunity to obtain a protective order or other relief to prevent or limit disclosure of the Confidential Information.
- (b) The Parties may provide any Confidential Information (i) to the Responsible Utility pursuant to provisions of this Agreement under which information is to be provided to that Responsible Utility and as required for settlement and billing; (ii) to any entity with audit rights under Section 12.2 or review rights specified in other provisions of this Agreement, (iii) on a need-to-know basis, to Owner's Scheduling Coordinator, financial institutions, agents, lessors of the Unit and potential purchasers of interests in a Unit; and, (iv) as required for settlement and billing, to Scheduling Coordinators responsible for paying for services provided under this Agreement. As a condition to receiving any Confidential Information under this Section 12.5, the recipient shall execute a Confidentiality Agreement in the applicable form contained in Schedule N and thereby agree to be subject to the non-disclosure and other obligations contained in this Section 12.5.
- (c) The obligation to provide confidential treatment to Confidential Information shall not be affected by the inadvertent disclosure of Confidential Information by either Party.

#### **12.6 Indemnity**

Subject to the limitations in Section 11.2 (b), each Party shall indemnify, defend and hold harmless the other Party and its officers, directors, employees, agents, contractors and sub-contractors, from and against all third party claims, judgments, losses, liabilities, costs, expenses (including reasonable attorneys' fees) and damages for personal injury, death or property damage, caused by the negligence or willful misconduct related to this Agreement or breach of this Agreement of the indemnifying Party, its officers, directors, agents, employees, contractors or sub-contractors, provided that this indemnification shall be only to the extent such personal injury, death or property damage is not attributable to the negligence or willful misconduct related to this Agreement or breach of this Agreement of the Party seeking indemnification, its officers,

directors, agents, employees, contractors or sub-contractors. This indemnification shall not include or cover any claim covered by any workers' compensation law. This indemnification shall be for an amount not exceeding the deductible of the indemnifying Party's commercial general liability insurance in the case of Owner and errors and omission insurance in the case of CAISO. The indemnified Party shall give the other Party prompt notice of any such claim. The indemnifying Party shall have the right to choose competent counsel, control the conduct of any litigation or other proceeding, and settle any claim. The indemnified Party shall provide all documents and assistance reasonably requested by the indemnifying Party. Section 14 of the CAISO Tariff shall not apply to this Agreement.

## **12.7 Owner Financial Requirements**

- (a) Through the term of the Agreement, Owner shall maintain an investment grade rating by Moody's or Standard and Poor's or provide documentation from a financial institution or corporate owner acceptable to the CAISO that there is an equity position described below. The CAISO shall not unreasonably withhold acceptance of the documentation.
- (i) An equity to debt ratio of at least 30%, or
  - (ii) An equity to total asset ratio of at least 30% or
  - (iii) Demonstrate to the CAISO's reasonable satisfaction that other factors, including, without limitations, commercial financing arrangements, and working capital positions, mitigate the risk of Owner failing to meet the performance requirements under this Agreement.
- (b) If the Owner does not possess and maintain an investment grade rating, an equity position or make other arrangements as described in Section 12.7 (a), then it must provide one of the following:
- (i) Proof of insurance to cover the financial exposure to the CAISO for one year of Capital Items, Repairs, fuel and any other operating expenses; or
  - (ii) Security to cover the financial exposure to the CAISO for one year of Capital Items, Repairs, fuel and any other operating expenses in one of the following forms:
    - (A) standby letter of credit;
    - (B) corporate guarantee;
    - (C) cash deposit; or
    - (D) security bond.

## **ARTICLE 13 ASSIGNMENT**

### **13.1 Assignment Rights and Procedures**

Neither Party shall assign its rights or delegate its duties under this Agreement without the prior written consent of the other Party, which shall not be unreasonably withheld. CAISO shall be entitled to deny consent to a proposed assignment by Owner only if the assignee does not meet the financial criteria set out in Section 13.2 (a) or the technical criteria set out in Section 13.2 (b). Notwithstanding the foregoing, if FERC approves an assignment, then the non-assigning Party shall be deemed to have consented to the assignment, subject to the non-assigning Party's right to seek judicial review of a FERC decision. Each Party shall give the other Party prompt notice of any proposed assignment or delegation, together with such information as the other Party may reasonably request with respect to the proposed assignment or assignee. Each Party shall be deemed to consent to the assignment or delegation unless it submits a written objection to the assignment or delegation within 14 days of receiving the notice and all financial and technical information as required in Sections 13.2(a) and 13.2(b). In the event of an assignment of this Agreement pursuant to a Financing Agreement, CAISO will execute for the benefit of the bank, financial institution or other entity with an interest in the Financing Agreement, a consent to such assignment reasonably acceptable to CAISO and Owner. An assignment of this Agreement by Owner in connection with the sale of a Unit shall terminate Owner's rights and obligations under this Agreement prospectively from the effective date of the assignment.

### **13.2 Limitation on Right to Withhold Consent**

- (a) CAISO shall not withhold consent to assignment of this Agreement on financial grounds if the assignee meets the financial requirements in Section 12.7(a) or provides financial security pursuant to Section 12.7(b).
- (b) CAISO shall not withhold consent to an assignment on grounds that the assignee is not technically qualified if the assignee was an Owner of a Reliability Must-Run Unit as of May 1, 1999 or the assignee submits appropriate documentation to the CAISO to establish that it has sufficient resources and expertise to be able to:
  - (i) Secure the necessary fuel and transportation for the fuel for the Facility;
  - (ii) Secure all necessary support services, including water supply, communications, waste disposal, etc. for the Facility;
  - (iii) Provide service from the Facility in compliance with the terms of this Agreement;
  - (iv) Provide the engineering and other technical services required to support operation and maintenance of the Facility;
  - (v) Obtain as necessary, and comply with all permits or licenses required to operate or maintain the Facility; and
  - (vi) Provide environmental services required for the operation and maintenance of the Facility.
- (c) The proposed assignee shall provide the last two years' annual audited financial statements and quarterly financial statements (unaudited) prior to the proposed date of purchase. If the proposed assignee is a new company and there are no historical financial statements, then a financial institution or corporate owner must provide pro forma financial statements in a form acceptable to the CAISO.

### **13.3 Transfer of Conditions Following Assignment**

If this Agreement is assigned to a new Owner pursuant to Section 13.1, the new Owner may transfer one or more Units to a different Condition by giving CAISO at least seven days prior notice provided that such notice is given not later than 30 days after the effective date of the assignment. The transfer shall become effective on the first day of month following the later of (i) seven days after the effective date of the assignment or (ii) seven days after the date CAISO receives the new Owner's transfer notice. This section shall not apply to assignment to a new Owner which is an affiliate of Owner as defined in 18 C.F.R. Section 161.2.

## **ARTICLE 14 MISCELLANEOUS PROVISIONS**

### **14.1 Notices**

Except as otherwise expressly provided in this Agreement or required by law, all notices, consents, requests, demands, approvals, authorizations and other communications provided for in this Agreement shall be in writing and shall be sent by personal delivery, certified mail, return receipt requested, facsimile transmission or by recognized overnight courier service, to the intended Party at such Party's address set forth in Schedule J. Any notices which may be given orally and are given orally shall be confirmed in writing. All such notices shall be deemed to have been duly given and to have become effective: (a) upon receipt if delivered in person or by facsimile; (b) two days after having been delivered to an air courier for overnight delivery; or (c) seven days after having been deposited in the United States mail as certified or registered mail, return receipt requested, all fees pre-paid, addressed to the applicable address(es) set forth in Schedule J.

### **14.2 Effect of Invalidation**

Each covenant, condition, restriction and other term of this Agreement is intended to be, and shall be construed as, independent and severable from each other covenant, condition, restriction and other term. If any covenant, condition, restriction or other term of this Agreement is held to be invalid by any court or regulatory body having jurisdiction, the invalidity of such covenant, condition, restriction or other term shall not affect the validity of the remaining covenants,



conditions, restrictions or other terms hereof unless the invalidity has a material impact upon the rights and obligations of the Parties. If an invalidity has a material impact on the rights and obligations of the Parties, the Parties shall make a good faith effort to renegotiate and restore the benefits and burdens of this Agreement as they existed prior to the determination of an invalidity.

### **14.3 Amendments**

- (a) Any amendments or modifications of this Agreement shall be made only in writing and, except for changes authorized by the FERC under Sections 205 or 206 of the Federal Power Act, shall be duly executed by both Parties. To the extent that any amendments or modifications are subject to FERC approval, such amendments or modifications shall become effective when permitted to be effective by FERC. For purposes of this Agreement, transfer of any Unit from one condition to the other condition or termination of the Agreement as to less than all Units shall not constitute a modification or amendment to this Agreement.
- (b) Where Owner's rates are not subject to FERC jurisdiction, either CAISO or Owner may, not later than 90 days prior to the end of each Contract Year, serve a notice on the other Party and the Responsible Utility stating that it requires a review of the terms of this Agreement, including any rates, prices and charges contained therein ("Review Notice").
  - (i) The Review Notice shall, as a minimum requirement, set forth the following:
    - (A) the precise nature of the proposed revisions (indicating, where possible, the relevant Article, Section and Schedule); and
    - (B) justification for each proposed revision.
  - (ii) The Party in receipt of the Review Notice shall respond to such notice within 30 days of its receipt by issuing a notice in response ("Response Notice"). The Response Notice shall, as a minimum requirement, set forth the following:
    - (A) those revisions set forth in the Review Notice that are accepted as proposed;
    - (B) those revisions set out in the Review Notice that are not accepted;
    - (C) alternative proposals (if any) to the proposed revisions set out in the Review Notice;
    - (D) any revisions required by the responding party not covered by (A) through (C) above; and
    - (E) its justification for any of the matters raised under Sections 14.3 (b) (ii) (B) (C) or (D).
  - (iii) Any Party failing to respond to a Review Notice shall be deemed to have accepted the revisions set out in the Review Notice.
  - (iv) Following receipt of the Response Notice the duly authorized representatives of the Parties shall meet to negotiate in good faith any revisions to this Agreement.
  - (v) In the event that the Parties are unable to reach agreement on the revisions to be made to this Agreement within 60 days of the date of the Review Notice, either Party may refer the matter for resolution through ADR. The arbitrator shall determine the revisions, if any, to the Agreement on the basis that:
    - (A) the purpose of the Agreement is to maintain the reliability of CAISO Controlled Grid; and
    - (B) costs and charges payable by CAISO should reflect the costs of providing services to the CAISO.
  - (vi) In the event that the Parties agree to the revisions, or such matters are determined through ADR, or a Party fails to respond to a Review Notice, the agreed, determined or deemed accepted revisions shall take effect and the rights and obligations of the Parties shall be amended as from the beginning of the ensuing Contract Year or from such other date and time agreed between the Parties or determined through ADR, and following such time the Parties shall act in accordance with the terms and conditions of this Agreement as amended.

#### **14.4 Filings Under Sections 205 or 206 of the Federal Power Act**

Nothing contained in this Agreement shall be construed as affecting the right of Owner unilaterally to make application to FERC for a change in rates, terms and conditions under Section 205 of the Federal Power Act and pursuant to FERC rules and regulations promulgated thereunder. CAISO may challenge such application or may submit complaints concerning Owner's rates, terms and conditions under Section 206 of the Federal Power Act and pursuant to FERC rules and regulations promulgated thereunder.

#### **14.5 Construction**

The language in all parts of this Agreement shall in all cases be construed as a whole and in accordance with its fair meaning, and shall not be construed strictly for or against either of the Parties.

#### **14.6 Governing Law**

This Agreement shall be interpreted and construed under and pursuant to the laws of the State of California, without regard to conflicts of laws principles.

#### **14.7 Parties' Representatives**

Both Parties shall ensure that throughout the term of this Agreement, a duly appointed Representative is available for communications between the Parties. The Representatives shall have full authority to deal with all day-to-day matters arising under this Agreement. If a Party's Representative becomes unavailable, the Party shall promptly appoint another Representative. Acts and omissions of Representatives shall be deemed to be acts and omissions of the Party. Owner and CAISO shall be entitled to assume that the Representative of the other Party is at all times acting within the limits of the authority given by the Representative's Party. Owner's Representatives and CAISO's Representatives shall be identified on Schedule J.

#### **14.8 Merger**

This Agreement and the Stipulation and Agreements filed April 2, 1999 and August 14, 2000 in Docket Nos. ER98-441-000 et al. constitute the full agreement of the Parties with respect to the subject matter hereto and supersede all prior agreements, whether written or oral, with respect to such subject matter.

#### **14.9 Independent Contractors**

Nothing contained in this Agreement shall create any joint venture, partnership or principal/agent relationship between the Parties. Neither Party shall have any right, power or authority to enter into any agreement or commitment, act on behalf of, or otherwise bind the other Party in any way.

#### **14.10 Conflict with CAISO Tariff**

The CAISO Tariff shall govern matters relating to the subject matter of this Agreement which are not set forth in this Agreement. In all other circumstances, this Agreement shall govern. In the event of a conflict between the terms and conditions of this Agreement and any terms and conditions set forth in the CAISO Tariff the terms and conditions of this Agreement shall prevail.

#### **14.11 Waiver**

The failure to exercise any remedy or to enforce any right provided in this Agreement shall not constitute a waiver of such remedy or right or of any other remedy or right provided herein. A Party shall be considered to have waived any remedies or rights hereunder only if such waiver is in writing.

#### **14.12 Assistance**

During the term of this Agreement, each Party shall provide such reasonable assistance and cooperation as the other Party may require in connection with performance of the duties and obligations of each Party under this Agreement, including, but not limited to, assistance in securing any necessary regulatory approvals and in facilitating necessary financing.

**14.13 Headings**

Article and section headings used in this Agreement are inserted for convenience only and are not intended to be a part hereof or in any way to define, limit, describe or to otherwise be used in interpreting the scope and intent of the particular provisions to which they refer.

IN WITNESS WHEREOF, this Agreement has been executed as of the date first above written.  
[OWNER]

By: \_\_\_\_\_

Name:

Title:

The California Independent System Operator Corporation

By: \_\_\_\_\_

Name:

Title:

**FERC**

**RELIABILITY MUST-RUN SCHEDULES**

Schedule A Unit Characteristics, Limitations and Owner Commitments

Schedule B Monthly Option Payment

Schedule C Variable Cost Payment

- Part 1 for Thermal Units
- Part 2 for Geothermal Units
- Part 3 for Conventional Hydro Units
- Part 4 for Pumped Storage Hydro Units
- Part 5 for Biomass Generation Units

Schedule D Start-up Payment

- Part 1 for Condition 1 Units
- Part 2 for Condition 2 Units

Schedule E Ancillary Services Payment

- Part 1 for Condition 1
- Part 2 for Condition 2
- Part 3 for Black Start Services

Schedule F Determination of Annual Revenue Requirements of Must-Run Generating Units

Schedule G Charges for Service in Excess of Contract Service Limits

Schedule H Fuel Oil Service

Schedule I Insurance Requirements

Schedule J Notices

Schedule K Dispute Resolution

Schedule L-1 Request for Approval of Capital Items or Repairs

Schedule L-2 Capital Item and Repair Progress Reports

Schedule M Mandatory Market Bid for Condition 2 Units  
When Dispatched by the CAISO

Schedule N-1 Non-Disclosure and Confidentiality Agreement for Responsible Utilities

Schedule N-2 Non-Disclosure and Confidentiality Agreement for Entities Other than Responsible  
Utilities

Schedule O Owner's Invoice Process

Schedule P Reserved Energy for Air Emissions Limitations

## **Schedule A**

### **Unit Characteristics, Limitations and Owner Commitments**

#### **1. Description of Facility**

Provide the following information for all units at the Facility, regardless of their RMR designation status. Information regarding units not designated as Reliability Must-Run Units is required only if and to the extent that the information is used to allocate Facility costs between Reliability Must-Run Units and other units.

Unit	RMR (Y/N)	Maximum Net Dependable Capacity (includes CAISO-paid Upgrade capacity)*	Fuel Type

For this Facility, the Owner will use \_\_\_\_\_ [insert either MW, MWhs, or service hours] in Schedule B to allocate Annual Fixed Revenue Requirements to and among Units. This election shall be applicable to all Facilities containing Reliability Must Run Units subject to any "RMR contract" as defined in the CAISO Tariff executed by Owner or any of its affiliates as defined in 18 CFR § 161.2.

\* Maximum Net Dependable Capacity shall reflect any transformer or line loss to the Delivery Point.

**2. Description of RMR Units**

Provide the address(es) of the Units at the Facility and the following tabular information:

	Unit
Type (fossil, combustion turbine, etc.)	
Synchronous Condenser Capability (Y/N)	
Power Factor Range (lead to lag)	
Maximum Reactive Power Leading, MVar	
Maximum Reactive Power Lagging, MVar	
Load at Maximum MVar Lagging, MW	
Load at Maximum MVar Leading, MW	
Black Start Capable (Y/N)	
Automatic Start or Ramp (Y/N)*	
Upgrade Capacity Paid by CAISO, MW	

\* If "Y", describe the conditions under which the Unit will start or ramp automatically.

**3. Operational and Regulatory Limitations of RMR Units:**

Air Emissions Limitations

List applicable NO<sub>x</sub>, CO, SO<sub>2</sub>, particulate, and other appropriate emissions limits; note the name and address of the lead agency; the agency's applicable rule number(s); and note those pollutants for which an emissions cap applies.

**Monthly Reserved MWh for Air Emission Limitations**

Operating Limits related to Ambient Temperatures

Ambient Temperature Correction Factors for Availability Test

Provide a curve or table showing the Ambient Temperature Correction Factors for each Unit (the relationship between Ambient Temperature and Maximum Net Dependable Capability).  
FERC License Conditions (hydroelectric Units)

Other Limits (e.g., cooling water discharge)

**4. Delivery Point**

Unit	Transmission Node (Station Name)	Voltage

**5. Metering and Related Arrangements**

Unit	Meter Location	Meter (Manufacturer & Model No.)

**6. Start-up Lead Times**

Non-hydroelectric Units

Unit	Start-up Segment Number	Generating Unit Down Time (Minutes)	Generating Unit Start-up Time (Minutes)
	1		
	2		
	n		

“X<sub>max</sub>” used in Schedules C and D shall be equal to or less than the hours in the heading of this column. The Start-up Lead Time shall be the Startup time as defined and submitted by the Owner through the process outlined in the CAISO Tariff Schedules and Bids Protocol Section 6.6 or its successor.

Hydroelectric Start-up Lead Times

Unit	Time from notification to Minimum Load - Normal work hours	Time from notification to Minimum Load - Outside Normal Work hours

**7. Ramping Constraint**

Describe any constraints the Unit incurs between Minimum Load and PMax.

**8. Ramp Rate**

Unit	Ramp Rate Segment Number	Output of Point Range (MW)	Minimum Ramp Rate (MW/Minute)	Maximum Ramp Rate (MW/Minute)
	1			
	2			
	n			

Separate Ramp Rates will be shown for each load range and will describe any special restrictions affecting Ramp Rates at various load points, e.g., feed pump operation, heat soaks, etc.

The Ramp Rate shall be the Operational Ramp Rate submitted by the Owner through the process described in the CAISO Tariff. On the Effective Date, the values in the CAISO Master File shall be set equal to the values shown in the table above.

**9. Minimum Load**

Unit	Manual (MW)	AGC (MW)

**10. Minimum Run Time**

Unit	Hours

**11. Minimum Off Time**

Unit	Hours

**12. Contract Service Limits**

Unit	Maximum Annual MWh	Maximum Annual Service Hrs	Maximum Annual Start-ups

Maximum Monthly MWh (Hydroelectric Units only)

MWh

Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

**13. Owner's Repair Cost Obligation**

Owner's Repair Cost Obligation for the current Contract Year is \$ .

**14. Existing Contractual Limitations and Other Contract Restrictions on Market Transactions**

**15. Applicable UDC Tariff(s)**

[List each Tariff and schedule to which it applies]

**Schedule B  
Monthly Option Payment**

The formulas and values used to compute the Monthly Option Payment in accordance with Section 8.1 and Section 8.2 for each Unit for each Month are set forth in Equation B-1 below:

**Equation B-1**

$$\text{Monthly Option Payment} = \text{Monthly Availability Payment} + \text{Monthly Surcharge Payment} - \text{Monthly Nonperformance Penalty}$$

The Monthly Option Payment can never be less than zero.

1. The Monthly Availability Payment is calculated in accordance with Equation B-2 below:

**Equation B-2**

$$\text{Monthly Availability Payment (\$)} = \text{lesser of } \left[ \begin{array}{l} \text{Current Monthly Availability Payment (\$)} \\ \text{or} \\ \text{100\% of AFRR minus Cumulative Monthly Availability Payments Excluding Current Monthly Availability Payment (\$)} \end{array} \right]$$

2. The Current Monthly Availability Payment is calculated in accordance with Equation B-3 below:

**Equation B-3**

$$\text{Current Monthly Availability Payment (\$)} = \text{Sum for all hours} \left[ \begin{array}{l} \text{Hourly Availability Charge (\$/hr)} * \frac{\text{Unit Availability Limit (MW)}}{\text{Maximum Net Dependable Capacity (MW)}} \end{array} \right]$$

Where:

A. Hourly Availability Charge is calculated in accordance with Equation B-4 below:

**Equation B-4**

$$\text{Hourly Availability Charge} = \text{Hourly Availability Rate} * \text{Fixed Option Payment Factor}$$

Where:

- Hourly Availability Rate is calculated in accordance with Equation B-5 below.

**Equation B-5**

$$\text{Hourly Availability Rate} = \frac{\text{Annual Fixed Revenue Requirement}}{\text{Target Available Hours}}$$

Annual Fixed Revenue Requirement is set forth in Section 7 below.

Target Available Hours are set forth in Section 6 below.

- For Units under Condition 1, the Fixed Option Payment Factor is set forth in Table B-0 below:

Table B-0
-----------



Unit	Fixed Option Payment Factor

For Units under Condition 2, the Fixed Option Payment Factor is 1.

The Hourly Availability Charges for the Contract Year are set forth in Table B-1 below:

Table B-1		
	Condition 1	Condition 2
Unit 1		

B. Unit Availability Limit is defined in Article 1 of the Agreement.

C. Maximum Net Dependable Capacity is shown in Section 1 of Schedule A.

3. The Monthly Surcharge Payment is calculated in accordance with Equation B-6 below:

**Equation B-6**

$$\text{Monthly Surcharge Payment (\$)} = \text{lesser of } \left[ \begin{array}{l} \text{Current Monthly Surcharge Payment (\$)} \\ \text{or} \\ 100\% \text{ of Sum of all Annual Capital Item Costs minus Cumulative Monthly Surcharge Payments Excluding Current Monthly Surcharge Payment (\$)} \end{array} \right]$$

4. The Current Monthly Surcharge Payment is calculated in accordance with Equation B-7 below:

**Equation B-7**

$$\text{Current Monthly Surcharge Payment (\$)} = \text{Sum for all hours} \left[ \begin{array}{l} \text{Sum of all Hourly Capital Item Charges (\$/hr)} * \\ \frac{\text{Unit Availability Limit (MW)}}{\text{Maximum Net Dependable Capacity (MW)}} \end{array} \right]$$

Where:

A. The Hourly Capital Item Charge for each Capital Item approved pursuant to Sections 7.4 or 7.6 is calculated in accordance with Equation B-8 below:

**Equation B-8**

$$\text{Hourly Capital Item Charge} = \text{Hourly Capital Item Rate} * \text{Surcharge Payment Factor}$$

Where:

- Hourly Capital Item Rate is calculated in accordance with Equation B-9 below:

Equation B-9

$$\text{Hourly Capital Item Rate} = \frac{\text{Annual Capital Item Cost}}{\text{Target Available Hours}}$$

- Annual Capital Item Cost is the amount recoverable by Owner under this Agreement in a Contract Year for each Capital Item approved pursuant to Section 7.4 or Section 7.6.
- Target Available Hours are shown in Section 6 below.
- For Units under Condition 1, the Surcharge Payment Factor for all Capital Items covered by the Small Project Budget shall be the Fixed Option Payment Factor. For all other Capital Items, the Surcharge Payment Factor shall be as agreed to by Owner and CAISO. If the Owner and CAISO do not agree on the Surcharge Payment Factor, the Surcharge Payment Factor shall equal the Fixed Option Payment Factor, unless the Owner demonstrates in ADR that it would not have installed the proposed Capital Item in accordance with Good Industry Practice but for its obligations to the CAISO under this Agreement, in which case the Surcharge Payment Factor shall be as determined in ADR.
- For Units under Condition 2, the Surcharge Payment Factor is 1.

The Hourly Capital Item Charges for the Contract Year are set forth in Table B-2 below:

Unit	Capital Item Project No.	Annual Capital Item Cost	Condition 1 Surcharge Payment Factor	Condition 1 Hourly Capital Item Charge	Condition 2 Hourly Capital Item Charge

- B. Unit Availability Limit is defined in Article 1 of the Agreement.
- C. Maximum Net Dependable Capacity is shown in Section 1 of Schedule A.

5. The Monthly Nonperformance Penalty is calculated pursuant to Section 8.5 using the following variables:

A. Hourly Penalty Rate

A Unit's Hourly Penalty Rate for each Contract Year is the lesser of (a) the Unit's Hourly Availability Rate for the Contract Year (calculated pursuant to Item 2.A above), or (b) three times the Unit's Hourly Availability Charge for the Contract Year (as shown in Table B-1 above).

The Hourly Penalty Rates for the Contract Year are set forth in Table B-3 below:

Unit	Condition 1	Condition 2
Unit 1		

B. Hourly Surcharge Penalty Rate

A Unit's Hourly Surcharge Penalty Rate for each Capital Item for each Contract Year is the lesser of (a) the corresponding Hourly Capital Item Rate for the Contract Year (calculated pursuant to Item 4.A above), or (b) three times the applicable Hourly Capital Item Charge for the Contract Year (as shown in Table B-2 above). The Hourly Surcharge Penalty Rates for the Contract Year are set forth in Table B-4 below:

Table B-4				
Unit	Capital Item Project No.	Hourly Capital Item Rate	Condition 1 Hourly Surcharge Penalty Rate	Condition 2 Hourly Surcharge Penalty Rate

6. Target Available Hours

A Unit's Target Available Hours for each Contract Year are calculated in accordance with the Equation B-10 below:

Equation B-10

$$\text{Target Available Hours (TAH)} = \text{Hours in the Calendar Year} - (\text{Average Other Outage Hours} + \text{Long-Term Planned Outage Hours})$$

Average Other Outage Hours means the average annual Other Outage Hours for the Unit during the 60-month period ending June 30 of the previous calendar year.

Long-term Planned Outage Hours means the Long-term Planned Outage Hours for the Contract Year scheduled with CAISO pursuant to Section 7.2(a). For periods prior to December 31, 1998, Other Outage Hours shall exclude a planned interruption, in whole or in part, in the electrical output of a Unit to permit Owner to perform a major equipment overhaul or inspection or for new construction work, but only if the outage lasted 21 or more consecutive days.

Long-term Planned Outage Hours scheduled for a Contract Year shall be subject to the Long-term Scheduled Outage Adjustment pursuant to Section 8.6 of the Agreement.

The Average Other Outage Hours, Long-term Planned Outage Hours and Target Available Hours for each Unit for the Contract Year are shown in Table B-5 below:

Table B-5			
Unit	Average Other Outage Hours	Long-term Planned Outage Hours	TAH

For the purposes of calculating Target Available Hours for the Contract Year ending December 31, 1999, (a) Average Other Outage Hours shall be calculated using the average annual Other Outage Hours for the Unit during the 60-month period ending December 31, 1998, and (b) Long-term Planned Outage Hours shall be calculated using the hours scheduled for performing Long-term Planned Outages as if the Agreement had become effective on January 1, 1999.

7. Annual Fixed Revenue Requirement (AFRR)

The Annual Fixed Revenue Requirement for each Unit is set forth in Table B-6 below. For any Contract Year commencing on or after January 1, 2002, the Annual Fixed Revenue Requirement shall be determined by the Formula Rate set forth in Schedule F, unless Owner files a superseding rate schedule under Section 205 of the Federal Power Act.

Table B-6	
Unit	Annual Fixed Revenue Requirement

8. Limited Section 205 Filing for an Extension of Contract Term

If CAISO has extended the term of this Agreement pursuant to Section 2.1(b), then not later than October 31 of the expiring Contract Year, Owner shall make a filing with FERC under Section 205 of the Federal Power Act containing the values in Tables B-1 through B-6 for the ensuing Contract Year.

In the event that a Long-term Planned Outage that is scheduled for the last quarter of the expiring Contract Year is postponed or rescheduled after October 31 of such year to the ensuing Contract Year, Owner shall make an additional Section 205 filing to revise the values in Tables B-1 through B-5 to reflect such rescheduled Long-term Planned Outage Hours.

**SCHEDULE C**

**Variable Cost Payment  
Part 1 for Thermal Units**

The Variable Cost Payment for each Unit for the Billing Month shall be the amount calculated in accordance with the following formula:

$$\text{Variable Cost Payment} = \begin{matrix} \text{A. CAISO Unit Monthly Billed Fuel Cost +} \\ \text{B. CAISO Unit Monthly Fuel Imbalance} \\ \text{C. Charge +} \\ \text{D. CAISO Monthly Other Fuel Related Cost +} \\ \text{E. CAISO Monthly Emissions Cost +} \\ \text{F. CAISO Monthly Variable O\&M Cost +} \\ \text{G. CAISO Scheduling Coordinator Charge +} \\ \text{CAISO ACA Charge} \end{matrix}$$

Each component of the Variable Cost Payment for thermal Units will be calculated as described below:

**A. CAISO Unit Monthly Billed Fuel Cost**

The CAISO Unit Monthly Billed Fuel Cost is calculated in accordance with Equation C1-0.

Equation C1-0

$$\left( \begin{matrix} \text{CAISO} \\ \text{Unit} \\ \text{Monthly} \\ \text{Billed} \\ \text{Fuel Cost} \\ (\$) \end{matrix} \right) = \frac{\begin{matrix} \text{Monthly sum of the} \\ \text{CAISO Unit Hourly Cap Heat} \\ \text{Input} \\ \text{for this Unit} \\ \text{(MMBtu)} \end{matrix}}{\begin{matrix} \text{Monthly sum of the CAISO} \\ \text{Unit Hourly Cap Heat Input} \\ \text{for all Units at the Facility} \\ \text{(MMBtu)} \end{matrix}} * \left( \begin{matrix} \text{CAISO} \\ \text{Facility} \\ \text{Monthly} \\ \text{Billed} \\ \text{Fuel Cost} \end{matrix} \right)$$

Where:

- CAISO Unit Hourly Cap Heat Input for each Unit is calculated in accordance with Equation C1-6;
- The CAISO Facility Monthly Billed Fuel Cost is calculated in accordance with Equation C1-1.

## 1. The CAISO Facility Monthly Billed Fuel Cost

The CAISO Facility Monthly Billed Fuel Cost is calculated in accordance with Equation C1-1.

### Equation C1-1

$$\left( \begin{array}{l} \text{CAISO} \\ \text{Facility} \\ \text{Monthly} \\ \text{Billed} \\ \text{Fuel Cost} \\ (\$) \end{array} \right) = \text{Lesser of} \left( \begin{array}{l} \text{CAISO} \\ \text{Facility} \\ \text{Cumulative} \\ \text{Actual} \\ \text{Fuel Cost} \\ (\$) \end{array} \right) \text{ or } \left( \begin{array}{l} \text{CAISO} \\ \text{Facility} \\ \text{Cumulative} \\ \text{Cap} \\ \text{Fuel Cost} \\ (\$) \end{array} \right) - \left( \begin{array}{l} \text{CAISO Facility} \\ \text{Cumulative} \\ \text{Billed} \\ \text{Fuel Cost} \\ (\$) \end{array} \right)$$

Where:

- The CAISO Facility Cumulative Actual Fuel Cost is the sum of all CAISO Unit Monthly Actual Fuel Costs for all Units at the Facility since the start of the Contract Year, including the current Month. CAISO Unit Monthly Actual Fuel Costs for each Unit is calculated in accordance with Equation C1-2.
- The CAISO Facility Cumulative Cap Fuel Cost is the sum of all CAISO Unit Monthly Cap Fuel Costs for all Units at the Facility since the start of the Contract Year, including the current Month. CAISO Unit Monthly Cap Fuel Cost is the sum of the CAISO Unit Hourly Cap Fuel Cost (calculated pursuant to Equation C1-5) for each hour of the Month for each Unit.
- The CAISO Facility Cumulative Billed Fuel Cost is the sum of all CAISO Unit Monthly Billed Fuel Costs for all Units at the Facility since the start of the Contract Year, excluding the current Month. CAISO Unit Monthly Billed Fuel Cost for each Unit is calculated in accordance with Equation C1-0.

## 2. CAISO Unit Monthly Actual Fuel Cost

The CAISO Unit Monthly Actual Fuel Cost is calculated in accordance with Equation C1-2.

### Equation C1-2

$$\left( \begin{array}{l} \text{CAISO} \\ \text{Unit} \\ \text{Monthly} \\ \text{Actual} \\ \text{Fuel Cost} \\ (\$) \end{array} \right) = \frac{\text{Monthly sum of the CAISO Unit Hourly Cap Heat Input for the Unit (MMBtu)}}{\text{Monthly sum of the Unit Hourly Cap Heat Inputs for all units at the Facility metered by the Fuel Meter (MMBtu)}} * \left( \begin{array}{l} \text{Monthly} \\ \text{Metered} \\ \text{Fuel} \\ \text{MMBtu} \end{array} \right) * \left( \begin{array}{l} \text{CAISO} \\ \text{Monthly} \\ \text{Fuel} \\ \text{Price} \\ (\$/\text{MMBtu}) \end{array} \right) - \left( \begin{array}{l} \text{Monthly} \\ \text{Start-up} \\ \text{Fuel Cost} \\ (\$) \end{array} \right)$$

Where:

- CAISO Unit Hourly Cap Heat Input is calculated in accordance with Equation C1-6.
- Unit Hourly Cap Heat Input is calculated in accordance with either Equation C1-7a or C1-7b.
- Monthly Metered Fuel is the non-duplicative sum of the quantities of fuel for the Month as measured by all gas metering systems or fuel oil measuring systems, as applicable ("Fuel Meters"), for the Unit.
  - (a) If the fuel is natural gas, the Owner may select from one of three options for the Fuel Meter:

- (i) the revenue meter used by the entity providing natural gas to measure gas delivered to one or more Units (“Fuel Custody Meter”);
- (ii) a gas metering system installed at the Facility to measure gas used in one or more Units that meets the measurement accuracy standard in the tariff of the local gas distribution company in whose service area the Facility is located and the measurement accuracy standards set forth below, and is subject to an annual accuracy test performed under the CAISO’s direction, as described below; or
- (iii) a gas metering system installed at the Facility by the local gas distribution company in whose service area the Facility is located and maintained by the local gas distribution company to the same standards as revenue meters of the local gas distribution company.

For the selected Fuel Meter option, the Owner shall provide the required information for all Units, both RMR and non-RMR, connected to the specific Fuel Custody Meter.

If the Owner selects option (ii), the Owner shall assure the overall accuracy of the gas metering systems<sup>1</sup> in use for the Units are within acceptable industry and regulatory standards.<sup>2</sup> Gas metering systems shall be designed, installed, calibrated and maintained according to standards set forth by the American Gas Association (AGA), the American National Standards Institute (ANSI) and the California Public Utilities Commission (CPUC). An audit trail of all calibration records and measurement parameters used in volume and heating-value calculations as recorded electronically by the flow computer shall be maintained and all data shall be in no-longer-than-hourly intervals. All equations and calculations performed by the flow computer may be reviewed for accuracy and completeness, including compressibility, volumetric flow and energy flow, by the CAISO or its agent. A consistent base pressure (14.73 psi) and base temperature (60 ° F) shall be used at all times. If the Facility has multiple sources of fuel gas, a gas chromatograph (“GC”) shall be installed which analyzes all constituents of the blended gas, with the sampling point downstream of the individual supplies such that proper mixing occurs prior to sampling. The GC speed loop shall permit analysis of the gas in “real time”.

In order to ensure the accuracy of a gas metering system selected under option (ii), an initial acceptance test shall be conducted by Owner and shall be witnessed by the CAISO or its agent to assure the installation meets applicable industry standards. Such a test shall be conducted at five load points (maximum load, minimum load, and three evenly spaced load points), under steady state conditions (i.e., off Automatic Generation Control), and for a minimum of one hour at each load point. Analysis of the test results shall consist of a side-by-side comparison of volumetric flow, energy flow, gas-specific gravity and mole percents, and other factors mutually agreed to by the CAISO and Owner for the Fuel Custody Meter and the meter installed at the Facility under option (ii). The gas metering system installed under option (ii) shall be deemed acceptable if the side-by-side energy flow comparison for the period shall be within +1 percent to –2 percent. The gas-metering system shall meet the required accuracy throughout the entire operating range of the RMR Unit. Following CAISO acceptance, an annual routine test shall be conducted at a time chosen by the CAISO to verify and confirm the performance of Owner’s gas-metering system. With the exception that the test shall be conducted at one load point specified by the CAISO, such a test shall be conducted in a similar fashion to the initial acceptance test and shall include

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<sup>1</sup> The gas metering system includes the primary measurement element (orifice, turbine meter, etc.); secondary elements such as pressure, temperature and heating-value measurement devices; the gas chromatograph, the flow computer or other data-collection and storage device; and the communication or output system.

<sup>2</sup> The American Gas Association (AGA) and the American National Standards Institute (ANSI) publish industry standards that gas utilities and gas transportation companies use for gas metering. Applicable standards include: AGA Report No. 3, Orifice Metering of Natural Gas; AGA Report No. 7, Measurement of Gas by Turbine Meters, AGA Report No. 8, Compressibility Factors of Natural Gas; AGA Report No. 9, Measurement of Gas by Multipath Ultrasonic Meters; ANSI B109.2, Diaphragm Type Gas Displacement Meters; and ANSI B109.3 Rotary Type Gas Displacement Meters. Also, CPUC General Order 58-A requires customer meters to register accurately to within – 2% to 1%.

inspection of the primary flow element; instrument end-to-end calibration; confirmation of integrity of sensing lines (meaning there shall be no leaks); confirmation of proper GC operation; and proper flow-computer operation and data handling. All systems and sub-systems utilized during the initial acceptance test, including, but not limited to, (a) all primary devices, including the differential producing device of the gas metering system, the GC, and differential pressure (“dP”) and temperature instruments; (b) all secondary devices and circuits, including dP and temperature transmitters and circuits, sensing lines, GC sampling line and secondary circuits; and (c) all electronic devices, flow computers and devices, shall be sealed with an CAISO-certified seal and no maintenance work or modifications and changes, including making any changes to flow computer programming, shall be permitted without prior approval by the CAISO.

If any part of the option (ii) gas-metering system requires either routine or emergency maintenance, the Owner shall notify the CAISO immediately by telephone or other means specified by the CAISO. The Owner shall inform the CAISO of the time period during which such maintenance is expected to occur. The CAISO may, at its discretion, require gas-metering systems which are changed or modified during maintenance or repair to undergo re-certification, including acceptance testing. If the maintenance activity is necessary due to concerns that the gas-metering system is not operating in accordance with the required accuracy standards, such maintenance work shall be completed within 2 business days from the time when the concern was first noted.

A V-cone meter may not be used under option (ii), unless the meter was installed prior to January 1, 1997.

If, as a result of a change in the use of fuel gas from a supplier other than the local distribution company, the properties of the fuel gas change materially (Higher Heating Value (HHV) or Specific Gravity (SG) varies more than –3 percent to +3 percent due to the addition of new gas constituents) following the installation of a gas metering system under option (ii) or option (iii), Owner shall notify the CAISO within twenty-four (24) hours. Acceptance testing shall be conducted to verify the metering accuracy due to the change in fuel gas supply and to test whether Owner’s gas metering system meets the technical requirements of this specification. Owner shall be obligated to install any equipment necessary to bring its gas metering system into compliance. Owner shall not enter into any third-party agreements for non-pipeline grade fuel gas without the prior approval of the CAISO. Such approval shall not be granted until the CAISO has evaluated Owner’s gas metering system, including the effect of the non-pipeline grade fuel gas on metering accuracy.

If an Owner selects option (iii) and the Facility has multiple sources of fuel gas, the local gas distribution company shall install a GC which analyzes all constituents of the blended gas, with the sampling point downstream of the individual supplies such that proper mixing occurs prior to sampling. The GC speed loop should permit analysis of the gas in “real time”.

(b) If the fuel is other than natural gas, the Fuel Meter value shall be determined monthly by measuring the fuel oil consumed during the month using, at Owner’s one-time election, either (i) a metering process which is acceptable to the Owner and CAISO or (ii) a calculation acceptable to the Owner and CAISO based on a tank-volume measurement process performed on the day immediately prior to the beginning of the Month and the last day of the Month and fuel oil deliveries during the Month. The metering or measurement process adopted shall comply with, or be comparable to, one or more applicable American Petroleum Institute (“API”) Manual of Petroleum Measurement Standards.<sup>3</sup> If Owner and CAISO cannot agree on an acceptable process, it shall be determined through ADR pursuant to Schedule K to this Agreement. Owner shall be permitted to change its election between metering as

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<sup>3</sup> The applicable API Manual of Petroleum Measurement Standards are: Chapter 2.2A (Measurement and Calibration of Upright Cylindrical Tanks by the Manual Strapping Method); Chapter 3.1B (Standard Practice for Level Measurement of Liquid Hydrocarbons in Stationary Tanks by Automatic Tank Gauging); Chapter 3.3 (Level Measurement of Liquid Hydrocarbons in Stationary Pressurized Storage Tanks by Automatic Tank Gauging); Chapter 5.2 (Measurement of Liquid Hydrocarbons by Displacement Meters); and Chapter 5.3 (Measurement of Liquid Hydrocarbons by Turbine Meters).

described in (i) above or tank volume measurement described in (ii) above only to reflect changes in the physical circumstances of the Unit or a change in the type of fuel burned at the Unit.

During any period in which the Fuel Meter fails to accurately measure gas flow, the Owner shall provide information to the CAISO sufficient to estimate the gas flow during such failure. This information may include unit electric-generating history, accurate recorded gas flow based on another meter and heat input characteristics of all Units served by the failed meter. This information will be used to estimate the gas flow during the failure period to the mutual satisfaction of the CAISO, the Responsible Utility and the Owner.

If a Fuel Meter serves RMR Units as well as other units, the heat input characteristics of the other units will be included in Table C1-7a or C1-7b, as applicable, and the Monthly sum of the Unit Hourly Cap Heat Inputs for all units at the Facility metered by the Fuel Meter used in Equation C1-2 will include Hourly Cap Heat Inputs for such other units calculated using Equation C1-7a or C1-7b, whichever is applicable.

- CAISO Monthly Fuel Price is calculated in accordance with Equation C1-3.
- Monthly Start-Up Fuel Cost is the sum of the Start-Up Fuel Costs for all Start-ups (for Market and Nonmarket Transactions) in the Month for all units metered by the Fuel Meter with the Start-up Fuel Costs for each Unit calculated in accordance with Equations D-1a or D-1b in Schedule D, as applicable. If a Start-up is initiated but is not successfully completed, the Start-up Fuel Costs shall be adjusted in accordance with Equation C1-2a:

**Equation C1-2a**

$$\text{Adjusted Start-up Fuel Cost for Canceled Starts (\$)} = \frac{\text{Number of hours committed to the Start-up}}{\text{Applicable Start-up Lead Time in hours shown in Section 6 of Schedule A}} * \text{Start-up Fuel Costs (\$)}$$

Where:

- The “number of hours committed to the Start-up” is the lesser of (a) time elapsed between the initiation of the Start-up and the cancellation or (b) the Applicable Start-up Lead Time as shown in Section 6 of Schedule A.

**3. CAISO Monthly Fuel Price**

The CAISO Monthly Fuel Price is calculated in accordance with Equation C1-3.

**Equation C1-3**

$$\text{CAISO Monthly Fuel Price (\$/MMBtu)} = \frac{\text{Monthly sum of CAISO Unit Hourly Cap Fuel Cost (\$)}}{\text{Monthly sum of CAISO Unit Hourly Cap Heat Input (MMBtu)}}$$

Where:

- CAISO Unit Hourly Cap Fuel Cost (\$) is calculated in accordance with Equation C1-5;
- CAISO Unit Hourly Cap Heat Input (MMBtu) is calculated in accordance with Equation C1-6.



**4. Intentionally Omitted** (There is no Equation C1-4.)

**5. CAISO Unit Hourly Cap Fuel Cost**

For each hour, the CAISO Unit Hourly Cap Fuel Cost is calculated in accordance with Equation C1-5.

**Equation C1-5**

$$\text{CAISO Unit Hourly Cap Fuel Cost (\$)} = \text{CAISO Unit Hourly Cap Heat Input (MMBtu)} \times \text{Hourly Fuel Price (\$/MMBtu)}$$

Where:

- The Hourly Fuel Price is calculated in accordance with Equation C1-8;
- The CAISO Unit Hourly Cap Heat Input (MMBtu) is calculated in accordance with Equation C1-6.

**6. CAISO Unit Hourly Cap Heat Input**

For each hour, the CAISO Unit Hourly Cap Heat Input is calculated in accordance with Equation C1-6.

**Equation C1-6**

$$\text{CAISO Unit Hourly Cap Heat Input} = \text{Unit Hourly Cap Heat Input (MMBtu)} \star \frac{\text{Billable MWh}}{\text{Hourly Metered Total Net Generation (MWh)}}$$

Where:

- Unit Hourly Cap Heat Input is calculated in accordance with either Equation C1-7a or C1-7b.

**7. Unit Hourly Cap Heat Input (MMBtu)**

The Unit Hourly Cap Heat Input to a Unit for any load is given by the following equations and shall be determined either by a polynomial equation (C1-7a) or exponential equation (C1-7b):

**Equation C1-7a**

$$\text{Unit Hourly Cap Heat Input} = 1.02 \star (AX^3 + BX^2 + CX + D) \star E$$

**Equation C1-7b**

$$\text{Unit Hourly Cap Heat Input} = 1.02 \star \frac{(A \star (B + CX + De^{FX})) \star E}{E}$$

Where:

- X is Unit's Hourly Metered Total Net Generation, MWh;
- e is the base of natural logarithms;
- A, B, C, D are coefficients given for Equation C1-7a in Table C1-7a and given for Equation C1-7b in Table C1-7b;
- The coefficient E is applicable only when burning fuel oil. At all other times, it shall be set to 1.0.
- F is a coefficient given in Table C1-7b.

<b>Table C1-7a</b>					
	A	B	C	D	E

<b>Table C1-7b</b>						
	A	B	C	D	E	F

## **8. Hourly Fuel Price**

The Hourly Fuel Price for Units shall be the same for each hour of a given day and is calculated in accordance with Equation C1-8.

### **Equation C1-8 (Gas)**

Hourly Fuel Price (\$/MMBtu) = Commodity Price (\$/MMBtu) + Intrastate Transportation Rate (\$/MMBtu)

### **Equation C1-8 (Oil)**

Hourly Fuel Price (\$/MMBtu) = Commodity Price (\$/MMBtu) + Transportation Rate (\$/MMBtu)

## **Commodity Price for Natural Gas**

For the Facilities within the service area of SCE or SDG&E, the Commodity Price shall be the product of 1.02 and the simple average of the following indices:

Gas Daily, SoCal Gas, Large Packages index (midpoint)  
BTU Daily Gas Wire, SoCal Border index, Topock  
NGI Daily Gas Price Index, Southern California Border (average)

For the Facilities within the service territory of PG&E, the Commodity Price shall be the product of 1.02 and the simple average of the following indices:

Gas Daily, PG&E Citygate index (midpoint)  
NGI Daily Gas Price Index, PG&E Citygate (average)

The indices to be used for each Settlement Period in a given day are shown in Table C1-8. Where more than one day's index is shown for a Trading Day, the average of the two daily indices should be used. If an applicable index for a day, which is used to compute the index's average for a Trading Day, is not published, then that index will not be used to compute the Commodity Price for that trading day. If no index for a day is published, then the average of applicable indices on the Index Publication Date preceding and the Index Publication Date following such day will be substituted for the Index Publication Date index for that day in Table C1-8. In the event that an index ceases to be published, Parties shall agree on a replacement index.

Table C1-8  
Natural Gas Price Indices

Trading Day	Index Publication Date*		
	Gas Daily **	Btu Daily ** Gas Wire	NGI Daily ** Price Index
Tuesday	Tuesday/ Wednesday	Monday/ Tuesday	Tuesday/ Wednesday
Wednesday	Wednesday/ Thursday	Tuesday/ Wednesday	Wednesday/ Thursday
Thursday	Thursday/ Friday	Wednesday/ Thursday	Thursday/ Friday
Friday	Friday/ Monday	Thursday/ Friday	Friday/ Monday
Saturday	Monday/ Tuesday	Friday/ Monday	Monday/ Tuesday
Sunday	Monday/ Tuesday	Friday/ Monday	Monday/ Tuesday
Monday	Monday/ Tuesday	Friday/ Monday	Monday/ Tuesday

\* The Index Publication Date is the date of the publication which contains the prices for the applicable Trading Day.

\*\* Where more than one day's index is shown for a Trading Day, the average of the two daily indices should be used.

Gas Daily: The "Flow Date(s)" column should match the Trading Day.

Btu Daily: The Index Publication Date should be the day prior to the Trading Date in the Table above, except for Sunday and Monday, where Friday should be used as the Index Publication Date.

NGI Daily: The Index Publication Date should be the same as the Trading Date in the tables above, except for Saturday and Sunday, where Monday should be used as the Index Publication Date.

### **Commodity Price for Distillate Fuel Oil**

The Commodity Price for Distillate Fuel Oil shall be the simple average of the midpoint of the ranges for CARB No. 2 Diesel and for Jet as published in Platt's Oilgram United States West Coast Product Assessments (page 22). If the Unit can burn only Jet, the Commodity Price shall be the midpoint of the range for Jet.

In an event the index ceases to be published, the Parties shall agree on a replacement index.

For distillate fuel, the index will be for the last day prior to the RMR Transaction Day.

### **Commodity Price for No. 6 Residual Fuel Oil**

The fuel price shall be the prudent actual replacement cost of the fuel consumed, or, if the fuel is consumed and not replaced, then the fuel price will be "last-in-first-out" (LIFO) inventory price of the fuel consumed.

Where conversion from barrels of Fuel to MMBtu is required, the following conversion coefficients shall be used:

- No. 1 Distillate Fuel Oil - 5.754 MMBtu per barrel;
- No. 2 Distillate Fuel Oil - 5.796 MMBtu per barrel;
- Jet Fuel - 5.650 MMBtu per barrel;
- No. 6 Residual Fuel Oil - 6.258 MMBtu per barrel.

### **Intrastate Transportation Rate for Gas**

The Intrastate Transportation Rate for Gas shall be the applicable intrastate transportation rate determined as follows:

Units served by SDG&E: The Southern California Gas Company intrastate transportation rate (currently GT-SD) plus the volumetric component of the SDG&E gas transportation rate for electric generation service, including the ITCS<sup>4</sup> (currently GTUEG - SD), or any successor rate for electric generation service applicable to deliveries to the Facility, divided by one minus the applicable in-kind shrinkage allowance, if any.

Units served by Southern California Gas: The Southern California Gas Company intrastate transportation rate for firm electric generation service, including the ITCS (GT-F) plus the G-ITC Wheeler Ridge Interconnection Access fee, if applicable, or any successor rate for firm electric generation service applicable to deliveries to the Facility, divided by one minus the applicable in-kind shrinkage allowance, if any.

Units served by PG&E: The PG&E intrastate transportation charge stated in Rate Schedule G-EG, or any successor rate for electric generation service applicable to deliveries to the Facility, divided by one minus the applicable in-kind shrinkage allowance, if any.<sup>5</sup>

### **Transportation Rate for Distillate Fuel Oil**

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<sup>4</sup> ITCS means Interstate Transition Cost Surcharges.

<sup>5</sup> If the Facility does not qualify for service under Rate Schedule G-EG, the applicable rate shall be given by Rate Schedule G-NT.

The Transportation Rate for Distillate Fuel Oil shall be . There shall be no Transportation Rate for No. 6 Residual Fuel Oil.

## **B. CAISO Monthly Fuel Imbalance Charge**

### **Levels of Responsibility**

Each month, the Owner is responsible for all Nonmarket fuel imbalance charges incurred up to and including 2.25 percent of the CAISO Facility Monthly Billed Fuel Cost.

The Monthly Fuel Imbalance Charge is equal to 75% of 1st Tier Imbalance plus 100% of 2nd Tier Imbalances;

Where:

The **1st Tier Imbalances** is that portion of the Monthly Sum of Daily Imbalance Charges which exceeds 2.25 percent of the CAISO Facility Monthly Billed Fuel Cost for the Month and is less than or equal to 10.0 percent of the CAISO Facility Monthly Billed Fuel Cost for the Month.

The **2nd Tier Imbalances** is that portion of the Monthly Sum of Daily Imbalance Charges which is greater than 10.0 percent of the CAISO Facility Monthly Billed Fuel Cost for the Month.

The Monthly Sum of Daily Imbalance Charges is the sum for all days in the month of imbalance charges and similar fees and penalties imposed on Owner (or its fuel supplier and paid by Owner) by transportation providers delivering gas to the Units because deliveries were in excess of or less than scheduled for a given day, but only to the extent that (i) the imbalance was caused by Owner compliance with a Dispatch Notice issued after (or less than 30 minutes prior) to the Transporter's deadline for scheduling transportation, and (ii) Owner issued a notice to the CAISO as soon as possible after the Owner became aware it might incur imbalance charges advising CAISO of such possible charges.

In any month in which Owner incurs a 1<sup>st</sup> Tier or 2<sup>nd</sup> Tier Imbalance charge, Owner will provide the CAISO with a report showing the allocation of the imbalance charges between Market Transactions and Nonmarket Transactions. If CAISO or the Responsible Utility disagree on allocation, the dispute will be resolved through ADR.

To receive payment for a 2nd Tier Imbalance, Owner must document in an informational filing with FERC that the charges were appropriately allocated to Nonmarket Transactions and it was commercially reasonable to incur them. As used in this context and for purposes of calculating imbalance charges, "commercially reasonable" does not mean that Owner is required to acquire storage to avoid imbalances. If either the CAISO or Responsible Utility disagree with the imbalance charges, desires a formal review and gives such notice to the Owner within 30 days of the informational filing, the Owner must file under Section 205 of the Federal Power Act to collect any 2<sup>nd</sup> Tier Imbalance charges.

Pursuant to the above, the Monthly Fuel Imbalance Charge is calculated in accordance with Equation C1-9.

**Equation C1-9**

$$\text{Monthly Fuel Imbalance Charge} = 0.75 * \left[ \text{Monthly Sum of Daily Imbalance Charges} - 0.0225 * \text{CAISO Facility Monthly Billed Fuel Cost} \right] + 0.25 * \left[ \text{Monthly Sum of Daily Imbalance Charges} - 0.10 * \text{CAISO Facility Monthly Billed Fuel Cost} \right]$$

Note that if either of the two bracketed portions of the equation yields a value less than or equal to zero, then that portion of the equation is set to zero.

**C. CAISO Monthly Other Fuel Related Cost**

The CAISO Monthly Other Fuel Related Cost is calculated in accordance with Equation C1-10.

**Equation C1-10**

$$\text{CAISO Monthly Other Fuel Related Cost} = \frac{\text{Monthly sum of Billable MWh}}{\text{Monthly sum of Total Hourly Metered Net Generation}} * \left[ \text{Other Gas Tariff Charges} + \text{Applicable Taxes} \right]$$

Where:

- Other Gas Tariff Charges are those intrastate gas transportation tariff charges not included in Transportation Rate Charges set forth in Section A.8 of this Schedule listed below:

[Insert applicable charges]

- Applicable taxes and fees are:
  - [Insert applicable local utility user taxes]
  - [Insert applicable G-SUR fee]

All other fuel related taxes and fees are intended to be covered by the two percent adder in Hourly Fuel Cost and are the Owner's responsibility.

**D. CAISO Monthly Emissions Cost**

**Part 1 for SCAQMD-Jurisdictional Thermal Units**

The CAISO Monthly Emissions Cost for each Unit shall be the sum, for all hours in the month, of the CAISO Hourly Emissions Cost. These costs apply to a Facility within the South Coast Air Quality Management District (SCAQMD).

**The CAISO Hourly Emissions Cost shall be calculated in accordance with Equation C1-11.**

**Equation C1-11**

$$\text{CAISO Hourly Emissions Cost (\$/hr)} = \begin{aligned} & \text{a. CAISO Hourly RECLAIM Trading Credit Cost (\$/hr) +} \\ & \text{b. CAISO Hourly NOx Emissions Cost (\$/hr) +} \\ & \text{c. CAISO Hourly Organic Gases Emissions Cost (\$/hr) +} \\ & \text{d. CAISO Hourly Sulfur Oxides Emissions Cost (\$/hr) +} \\ & \text{e. CAISO Hourly Particulate Matter Emissions Cost} \\ & \text{f. (\$/hr) +} \\ & \text{g. CAISO Hourly Carbon Monoxide Emissions Cost} \\ & \text{(\$/hr) +} \\ & \text{CAISO Hourly Sulfur Dioxides Trading Credit Costs} \\ & \text{(\$/hr)} \end{aligned}$$

**a. CAISO Hourly RECLAIM Trading Credit Cost**

For each hour, the CAISO Hourly RECLAIM Trading Credit (“RTC”) Cost for NOx emissions required for the Unit to generate the Billable MWh is calculated in accordance with Equation C1-12.

**Equation C1-12**

$$\text{CAISO Hourly RECLAIM Trading Credit Cost (\$/hr)} = \text{Hourly NO}_x \text{ Emissions (lbs/hr)} * \text{RECLAIM NO}_x \text{ Trading Credit Rate (\$/lb)} * \frac{\text{Billable MWh}}{\text{Hourly Metered Total Net Generation}}$$

**Where:**

- Hourly NOx Emissions is calculated in accordance with Equation C1-13.

**Equation C-13**

$$\text{Hourly NO}_x \text{ Emissions (lbs/hr)} = AX^2 + BX + C$$

**Where:**

- X is the Hourly Metered Total Net Generation for the hour.
- Coefficients A, B, and C are given in Table C1-13 for each Unit.

<b>Table C1-13</b>			
<b>Description of Unit</b>	<b>A</b>	<b>B</b>	<b>C</b>

The RECLAIM NOx Trading Credit Rate (\\$/lb) will be equal to the 13-week sales-weighted average sales price for RTCs calculated as of the last day of the Month from sales records available from the SCAQMD for all actual sales in the SCAQMD during the thirteen preceding weeks, including the Settlement Period.

**b. CAISO Hourly NOx Emissions Cost**

For each hour, the CAISO Hourly NOx Emissions Cost for the Billable MWh is calculated in accordance with Equation C1-14.

**Equation C1-14**

$$\text{CAISO Hourly Nox Emissions Cost (\$/hr)} = (5 \times 10^{-4}) \times \text{Hourly Nox Emissions (lbs/hr)} \times \text{NOx Emissions Fee (\$/ton)} \times \frac{\text{Billable MWh}}{\text{Hourly Metered Total Net Generation}}$$

**Where:**

- $(5 \times 10^{-4})$  is the conversion factor from lbs to tons.
- Hourly NOx Emissions is calculated in accordance with Equation C1-13.
- NOx Emissions Fee is obtained from Table III of SCAQMD Rule 301(e). The fee is dependent upon the Cumulative Tons of Pollutant (NOx), which is calculated in accordance with Equation C1-15. The Cumulative Tons of Pollutant is reset to zero each July 1st.

**Equation C1-15**

$$\text{Cumulative Tons of Pollutant (tons/hr)} = \text{Tons of Pollutant From the prior July 1<sup>st</sup> to the Previous Hour} + \text{Tons of Pollutant For Current Hour}$$

**Where:**

- Tons of Pollutant for Current Hour is in accordance with Equation C1-16.

**Equation C1-16**

$$\text{Tons of Pollutant for Current Hour (tons/hr)} = (4.76 \times 10^{-7}) \times (AX^3 + BX^2 + CX + D) \times \text{Pollutant Emissions Amount for Natural Gas}$$

**Where:**

- $(4.76 \times 10^{-7})$  is the conversion factor from lbs. to tons (1 ton/2000 lbs.) and from mmcf to MMBtu (1 mmcf/1050 MMBtu).
- X is the Hourly Metered Total Net Generation, MWh.
- Coefficients A, B, C, and D are the coefficients of the hourly heat rate curve given in Table C1-16 for each Unit.

Table C1-16			
Description of Unit	A	B	C

Pollutant Emissions Amount For Natural Gas is the applicable pollutant from SCAQMD General Instruction Book (for the latest year), Annual Emissions Reporting Program, Appendix A - Common Emission Factors For Combustion Equipment, Table 1 - Common Emission Factors For Combustion Equipment for Forms B1 and B1U.



**c. - f. CAISO Hourly Organic Gases Emissions Cost, CAISO Hourly Sulfur Oxides Emissions Cost, CAISO Hourly Particulate Matter Emissions Cost, and CAISO Hourly Carbon Monoxide Emissions Cost**

The CAISO Hourly Organic Gases (OG) Emissions Cost, CAISO Hourly Sulfur Oxides (SOx) Emissions Cost, CAISO Hourly Particulate Matter (PM) Emissions Cost, and CAISO Hourly Carbon Monoxide (CO) Emissions Cost are each calculated in accordance with Equation C1-17.

**Equation C1-17**

$$\text{CAISO Hourly Applicable Emissions Cost (\$/hr)} = (4.76 \times 10^{-7}) \times \text{CAISO Unit Hourly Cap Heat Input (MMBtu/hr)} \times \text{Associated Emissions Factor (lbs/mmcf)} \times \text{Associated Emissions Fee (\$/ton)}$$

Where:

- CAISO Hourly Applicable Emissions Cost is the CAISO Hourly OG Emissions Cost, CAISO Hourly SOx Emissions Cost, CAISO Hourly PM Emissions Cost, or CAISO Hourly CO Emissions Cost.
- $(4.76 \times 10^{-7})$  is the conversion factor from lbs. to tons (1 ton/2000 lbs.) and from mmcf to MMBtu (1 mmcf/1050 MMBtu).
- Associated Emissions Factor is the associated OG Emissions Factor, SOx Emissions Factor, PM Emissions Factor or CO Emissions Factor from Table 1 from General Instruction Book for the SCAQMD (for the latest year) Annual Emissions Reporting Program.
- Associated Emissions Fee is the associated OG Emissions Fee, SOx Emissions Fee, PM Emissions Fee, or CO Emissions Fee from Table III of SCAQMD Rule 301(e), and is dependent upon the Cumulative Tons of Pollutant pursuant to Equation C1-15.

**g. CAISO Hourly Sulfur Dioxides Trading Credit Costs**

Beginning in the year 2000, certain Units will be subject to Title IV of the Federal Clean Air Act for providing SO<sub>2</sub> Allowances to cover related trading costs. Prior to 2000, the CAISO Hourly Sulfur Dioxides Trading Credit Cost will be zero. The Owner may make a filing under Section 205 of the Federal Power Act limited to recovering applicable CAISO Hourly Sulfur Dioxides Trading Credit Costs when such costs are incurred.

**Part 2 for Ventura County Air Pollution Control District<sup>6</sup>**

Beginning in the year 2000, certain Units will be subject to Title IV of the Federal Clean Air Act for providing SO<sub>2</sub> Allowances to cover related trading costs. Prior to 2000, the CAISO Hourly Sulfur Dioxides Trading Credit Cost will be zero. The Owner may make a filing under Section 205 of the Federal Power Act limited to recovering applicable CAISO Hourly Sulfur Dioxides Trading Credit Costs when such costs are incurred.

<sup>6</sup> Ventura County APCD, where Mandalay Generating Station is located, does not require payment of emissions fees, but rather permit renewal fees. The permit renewal fees are included in the fixed O&M costs.

**E. CAISO Monthly Variable O&M Cost**

The CAISO Monthly Variable O&M Cost for each Unit shall be the product of the Unit's Billable MWh for the Billing Month and the Unit's Variable O&M Rate. Variable O&M Rate for each Unit shall be:

Table C1-18	
Unit	Variable O&M Rate (\$/MWh)

**F. CAISO Scheduling Coordinator Charge**

The CAISO Scheduling Coordinator Charge for each Unit shall be the product of \$0.31 and the Unit's Billable MWh for the Billing Month.

**F. CAISO ACA Charge**

The CAISO ACA Charge is the product of the Unit's Billable MWh for the Billing Month and the applicable annual charge for short-term sales under 18 CFR Section 382.201 of the FERC Regulations.

**SCHEDULE C**

**Variable Cost Payment for All Conditions  
Part 2 for Geothermal Units**

For each Unit each Month, the Variable Cost Payment for Billable MWh from the Unit pursuant to Nonmarket Transactions during that Month shall be the amount calculated in accordance with the following formula:

$$\text{Variable Cost Payment} = \begin{matrix} \text{A.} & \text{CAISO Monthly Billed Fuel Cost} & + \\ \text{B.} & \text{CAISO Monthly Variable O\&M Cost} & + \\ \text{C.} & \text{CAISO Scheduling Coordinator Charge} & \\ \text{D.} & + & \\ & \text{CAISO ACA Charge} & \end{matrix}$$

Each component of the Variable Cost Payment for geothermal Units is calculated as described below:

**A. CAISO Monthly Billed Fuel Cost [for Geysers Main only]**

The CAISO Monthly Billed Fuel Cost is given by Equation C2-1.

**Equation C2-1**

$$\text{CAISO Monthly Billed Fuel Cost} = \text{Billable MWh} \times \text{Steam Price (\$/MWh)}$$

Where:

- Steam Price is \$16.34/MWh.
- For purposes of Equation C2-1, Billable MWh is all Billable MWh Delivered after cumulative Hourly Metered Total Net Generation during the Contract Year from all Units

exceeds the Minimum Annual Generation given by Equation C2-2.

### Equation C2-2

$$\text{Minimum Annual Generation} = (\text{Annual Average Field Capacity} * 8760 \text{ hours} * 0.4) - (A+B+C)$$

Where:

- Annual Average Field Capacity is the arithmetic average of the two Field Capacities in MW for each Contract Year, determined as described below.

Field Capacity shall be determined for each six-month period from July 1 through December 31 of the preceding calendar year and January 1 through June 30 of the Contract Year. Field Capacity shall be the average of the five highest amounts of net generation (in MWh) simultaneously achieved by all Units during eight-hour periods within the six-month period. The capacity simultaneously achieved by all Units during each eight-hour period shall be the sum of Hourly Metered Total Net Generation for all Units during such eight-hour period, divided by eight hours. Such eight-hour periods shall not overlap or be counted more than once but may be consecutive.

Within 30 days after the end of each six-month period, Owner shall provide CAISO and the Responsible Utility with its determination of Field Capacity, including all information necessary to validate that determination.

- A is the amount of Energy that cannot be produced (as defined below) due to the curtailment of a Unit during a test of the Facility, a Unit or the steam field agreed to by CAISO and Owner.
- B is the amount of Energy that cannot be produced (as defined below) due to the retirement of a Unit or due to a Unit's Availability remaining at zero after a period of ten Months during which the Unit's Availability has been zero.
- C is the amount of Energy that cannot be produced (as defined below) because a Force Majeure Event reduces a Unit's Availability to zero for at least thirty (30) days or because a Force Majeure Event reduces a Unit's Availability for at least one hundred eighty (180) days to a level below the Unit Availability Limit immediately prior to the Force Majeure Event.
- The amount of Energy that cannot be produced is the sum, for each Settlement Period during which the condition applicable to A, B or C above exists, of the difference between the Unit Availability Limit immediately prior to the condition and the Unit Availability Limit during the condition.

### A. CAISO Monthly Billed Fuel Cost [for Geysers Units 13 & 16 only]

The CAISO Monthly Billed Fuel Cost is given by Equation C2-1.

### Equation C2-1

$$\text{CAISO Monthly Billed Fuel Cost} = \text{Billable MWh} * \text{Steam Price (\$/MWh)}$$

Where:

- Steam Price is \$11.25/MWh, which includes the cost of steam condensate re-injection.

**B. CAISO Monthly Variable O&M Cost**

The CAISO Monthly Variable O&M Cost for each Unit is given by Equation C2-3 and is the product of the sum of Billable MWh for the Billing Month and the Unit's Variable O&M Rate. Variable O&M Rate for each Unit is shown in Table C2-1:

**Equation C2-3**

$$\text{CAISO Monthly Variable O\&M Cost} = \text{Monthly sum of Billable MWh} * \text{Variable O\&M Rate}$$

Table C2-1	
Unit	Variable O&M Rate (\$/MWh)

**C. CAISO Scheduling Coordinator Charge**

The CAISO Scheduling Coordinator Charge for each Unit shall be the product of \$0.31 and the Unit's of Billable MWh for the Billing Month.

**D. CAISO ACA Charge**

The CAISO ACA Charge is the product of the Unit's Billable MWh for the Billing Month and the applicable annual charge for short-term sales under 18 CFR Section 382.201 of the FERC Regulations, to the extent payable by Owner for Billable MWh.

**SCHEDULE C**

**Variable Cost Payment for All Conditions  
Part 3 for Conventional Hydro Units**

For each month and each Unit, the Variable Cost Payment for Billable MWh from the Unit pursuant to Nonmarket Transactions during that Month shall be the amount calculated in accordance with the following formula:

$$\text{Variable Cost Payment} = \text{A. CAISO Scheduling Coordinator Charge} + \text{CAISO ACA Charge}$$

**A. CAISO Scheduling Coordinator Charge**

The CAISO Scheduling Coordinator Charge for each Unit shall be the product of \$0.31 and the Unit's Billable MWh for the Billing Month.

**B. CAISO ACA Charge**

The CAISO ACA Charge is the product of the Unit's Billable MWh for the Billing Month and the applicable annual charge for short-term sales under 18 CFR Section 382.201 of the FERC Regulations.

**SCHEDULE C**

**Variable Cost Payment for All Conditions**

#### **Part 4 for Pumped Storage Hydro Units**

For each month and each Unit, the Variable Cost Payment for Billable MWh from the Unit pursuant to Nonmarket Transactions during that Month shall be the amount calculated in accordance with the following formula:

$$\text{Variable Cost Payment} = \begin{array}{l} \text{A. CAISO Monthly Billed Fuel Cost +} \\ \text{B. CAISO Scheduling Coordinator} \\ \text{C. Charge +} \\ \text{CAISO ACA Charge} \end{array}$$

#### **A. CAISO Monthly Billed Fuel Cost**

The CAISO Monthly Billed Fuel Cost is given by Equation C4-1:

##### **Equation C4-1**

$$\text{CAISO Monthly Billed Fuel Cost} = \text{Year-to-Date CAISO Fuel Cost} - \text{Sum of Previous Months' CAISO Monthly Billed Fuel Cost in the Contract Year}$$

Where:

- Year-to-Date CAISO Fuel Cost is given by Equation C4-2.
- Sum of Previous Months' CAISO Monthly Billed Fuel Cost in the Contract Year shall be the sum of the CAISO Monthly billed Fuel Cost for each Month from January 1 of the Contract Year<sup>7</sup> through the end of the Month in the Contract Year before the Billing Month.

##### **Equation C4-2**

$$\text{Year-to-Date CAISO Fuel Cost} = (\text{YTD Pumping Cost} / \text{YTD Energy Produced}) * \text{Variable O\&M Rate}$$

Where:

- YTD Pumping Cost = Total cost of Energy purchased by Owner for pumping, including transmission charges, from January 1 of the Contract Year through the end of the Billing Month.
- YTD Energy Produced = Total Energy produced by the Facility for Market and Nonmarket Transactions from January 1 of the Contract Year through the end of the Billing Month.
- YTD Billable MWh = Total Billable MWh from January 1 of the Contract Year through the end of the Billing Month.

#### **B. CAISO Scheduling Coordinator Charge**

The CAISO Scheduling Coordinator Charge for each Unit shall be the product of \$0.31 and the Unit's Billable MWh for the Billing Month.

<sup>7</sup> For purposes of Equations C4-1 and C4-2 as applied in 1999, Contract Year includes those months in the year, beginning in January 1999, when the same services as under this Agreement were provided to ISO under a predecessor rate schedule, as well as months when such services are provided under this Agreement.

**C. CAISO ACA Charge**

The CAISO ACA Charge is the product of the Unit's Billable MWh for the Billing Month and the applicable annual charge for short-term sales under 18 CFR Section 382.201 of the FERC Regulations.

**Schedule C**

**Variable Cost Payment for All Conditions  
Part 5 for Biomass Generation Units**

For each month and each Unit, the Variable Cost Payment for Billable MWh from the Unit pursuant to Nonmarket Transaction during that Month shall be the amount calculated in accordance with the following formula:

$$\text{Variable Cost Payment} = \begin{matrix} \text{A.} & \text{CAISO Monthly Billed Fuel Cost +} \\ \text{B.} & \text{CAISO Variable O\&M Cost +} \\ \text{C.} & \text{CAISO Scheduling Coordinator} \\ & \text{Charge} \end{matrix}$$

**A. CAISO Monthly Billed Fuel Cost**

The CAISO Monthly Billed Fuel Cost is given by Equation C5-1:

**Equation C4-1**

$$\text{CAISO Monthly Billed Fuel Cost} = \text{Billable MWh} * \text{Monthly Average Fuel Cost (\$/MWh)}$$

Where:

- Monthly Average Fuel Cost (\$ / MWh) = Negotiated Cost Based Amount.

**B. CAISO Monthly Variable O&M Cost**

The CAISO ACA Charge is the product of the Unit's Billable MWh for the Billing Month and the applicable annual charge for short-term sales under 18 CFR Section 382.201 of the FERC Regulations.

**Equation C5-2**

$$\text{CAISO Monthly Variable O\&M Cost} = \text{Monthly Sum of billable MWh} * \text{Variable O\&M Rate}$$

Table C5-1	
Unit	Variable O&M Rate (\$/MWh)

**C. CAISO Scheduling Coordinator Charge**

The CAISO Scheduling Coordinator Charge for each Unit shall be the product of \$0.31 and the Unit's Billable MWh for the Billing Month.

**SCHEDULE D**

**Part 1**

**Start-up Payment for Condition 1 Units**

**1. Prepaid Start-up Charge**

Prepaid Start-up Charge for each Unit operating under Condition 1 for each Contract Year will be calculated as the Prepaid Start-up Cost times the number of Prepaid Start-ups. The number of Prepaid Start-up equals the Maximum Annual Start-ups per Unit. The Prepaid Start-up Cost will be calculated in accordance with Equation D-1 for Start-up Cost with the following assumptions:

- a. Hourly Fuel Price: For the initial Contract Year the Hourly Fuel Price shall be the simple average of the applicable index prices from Table C1-8 of Schedule C for the period beginning on the later of the initial publication date of such indices or January 1, 1998 and ending December 31, 1998, plus the applicable Transportation Rate under Equation C1-8 as in effect on April 1, 1999. For each subsequent Contract Year, the Hourly Fuel Price shall be agreed upon by CAISO and Owner; if there is no agreement, the Hourly Fuel Price shall be the simple average of the Hourly Fuel Prices for the twelve months ending the prior June 30 as calculated in accordance with Equation C1-8 of Schedule C;
- b. Energy Price shall be based on the [insert Applicable UDC Tariff rate], including applicable demand charges, provided that the Applicable UDC Tariff rate shall only be the energy charge rate at those Facilities where Units have the capability to use Energy from other units at the same Facility to effect Start-ups or where generation from other units is otherwise permitted under the CAISO Tariff to be netted against auxiliary power needed to effect Start-up of the Unit. For the initial Contract Year, the Energy Price shall be calculated as the total auxiliary power (including Energy for Start-ups) costs charged to the Facility by its supplier of end-use Energy for the six-month period ending December 31, 1998 divided by the auxiliary power (including Energy for Start-ups) consumed at the Facility for that same time period. For Facilities that have not been charged for auxiliary power for the six-month period ending December 31, 1998, the Energy Price for the Initial Contract Year shall be the simple average of the prices for Energy for varying times of day shown in the Applicable UDC Tariff. For each subsequent Contract Year, the Energy Price shall be calculated as the total auxiliary power (including Energy for Start-ups) costs charged to the Facility by its supplier of end-use Energy for the twelve months ending the prior June 30 divided by the auxiliary power (including Energy for Start-ups) consumed at the Facility for that same twelve-month period;
- c) All Start-ups are assumed to be from maximum time off line as shown by value XMax in Table D-1, and
- d) Other Start-up Costs shall be zero (\$0) for non-hydroelectric Units; for hydroelectric Units, other Start-up costs shall be the cost shown in Table D-2 for Normal Work Hours.

The Prepaid Start-up Cost and Prepaid Start-up Charge for the current Contract Year are set forth in Table D-0:

Table D-0			
Unit	Number of Prepaid Start-ups	Prepaid Start-up Cost	Prepaid Start-up Charge
Unit			

## 2. **Start-up Cost**

The cost for a Start-up shall be calculated in accordance with Equation D-1:

### Equation D-1

$$\begin{array}{l} \text{Start-up} \\ \text{Cost} \\ (\$) \end{array} = \begin{array}{l} \text{Start-up} \\ \text{Fuel Cost} \\ (\$) \end{array} + \begin{array}{l} \text{Start-up} \\ \text{Power Cost} \\ (\$) \end{array} + \begin{array}{l} \text{Other} \\ \text{Start-up Costs} \\ (\$) \end{array} + \begin{array}{l} \text{Shutdown} \\ \text{Power Cost} \\ (\$) \end{array}$$

Each component of the Start-up Cost in Equation D-1 is set forth below.

#### a. **Start-up Fuel Costs**

The Start-up Fuel Cost shall be calculated in accordance with Equation D-1a:

### Equation D-1a

$$\begin{array}{l} \text{Start-up} \\ \text{Fuel Cost} \\ (\$) \end{array} = \left[ \begin{array}{l} \text{A} \\ (\text{MMBtu/hr}) \end{array} * \begin{array}{l} \text{x} \\ (\text{hrs}) \end{array} + \begin{array}{l} \text{B} \\ (\text{MMBtu}) \end{array} \right] * \begin{array}{l} \text{Hourly} \\ \text{Fuel Price} \\ (\$/\text{MMBtu}) \end{array}$$

Where:

- “x” equals the number of hours since the Unit ceased operation and cannot exceed “x<sub>Max</sub>”.
- The Hourly Fuel Price is calculated pursuant to Schedule C Equation C1-8 for the hour in which the Start-up began.
- The values A, B and x<sub>Max</sub> for each Unit are given in Table D-1 below.

#### b. **Start-up Power Costs**

The Start-up Power Cost shall be calculated in accordance with Equation D-1b:

### Equation D-1b

$$\begin{array}{l} \text{Start-up} \\ \text{Power Cost} \\ (\$) \end{array} = \left( \begin{array}{l} \text{C} \\ (\text{MWh/hr}) \end{array} * \begin{array}{l} \text{x} \\ (\text{hrs}) \end{array} + \begin{array}{l} \text{D} \\ (\text{MWh}) \end{array} \right) * \begin{array}{l} \text{Energy} \\ \text{Price} \\ (\$/\text{MWh}) \end{array}$$

Where:

- “x” is equal to the hours since the Unit ceased operation and cannot exceed “x<sub>Max</sub>”.
- The Energy Price shall be equal to the total auxiliary power (including Energy for Start-ups) costs charged to the Facility by its supplier of end-use Energy for the billing cycle in which the Start-up was initiated divided by the total auxiliary power (including Energy for Start-ups) consumed at the Facility during such billing cycle.
- The values C, D and x<sub>Max</sub> are given in Table D-1 below.



**c. Shutdown Power Costs**

The Shutdown Power Cost shall be calculated in accordance with Equation D-1c:

**Equation D-1c**

$$\text{Shutdown Power Cost (\$)} = \text{Shutdown Power Requirement (MWh)} * \text{Energy Price (\$/MWh)}$$

The Energy Price shall be equal to the total auxiliary power (including Energy for Shutdowns) costs charged to the Facility by its supplier of end-use Energy for the billing cycle in which the Shutdown was initiated divided by the total auxiliary power (including Energy for Shutdowns) consumed at the Facility during such billing cycle. The Shutdown Power Requirement is given in Table D-1 below.

**d. Other Start-up Costs for Hydroelectric Only**

Other Start-up Costs are the cost of labor to start hydroelectric Units that require an operator to manually parallel, and reflect the labor costs to travel to the site. If the Start-up of a hydroelectric Unit occurs outside normal work hours, the Start-up Costs include the minimum work hours and labor rates as set by the applicable collective bargaining agreement(s).

The Other Start-up Costs shall be calculated in accordance with Equation D1-d. The values for E are provided in Table D-2 for normal work hour and outside of normal work hour situations.

**Equation D-1d**

$$\text{Other Start-up Costs (\$)} = E$$

Once a Unit has been given a Dispatch Notice to Start-up, other Start-up Costs are incurred.

<b>Table D-1, Start-Up Costs</b>						
	X <sub>Max</sub>	A	B <sup>8</sup>	C	D	Shutdown Power Requirement
Unit	(Hrs)	(mmBtu)/hr	(mmBtu)	(MWh)/hr	(MWh)	(MWh)

<b>Table D-2, Other Start-Up Costs – Hydroelectric Units</b>		
Unit	E (Normal Work Hours) (\$)	E (Outside Normal Work Hours) (\$)

<sup>8</sup> Includes fuel consumed from the time Unit reaches Synchronization to the time Unit reaches Minimum Load.

### 3. **Monthly Start-up Adjustment**

For each Start-up successfully completed in compliance with a Dispatch Notice during the Billing Month, and each Start-up initiated in compliance with a Dispatch Notice but not successfully completed because it is canceled or rescinded by CAISO, until the total Counted Start-ups for the Contract Year equals the number of Prepaid Start-ups for the Contract Year, the Monthly Start-up Adjustment, which shall be a credit or payment, is the sum of Prepaid Start-up Adjustments, and Prepaid Start-up Adjustments for Canceled Start-ups calculated in accordance with Equations D-2 and D-3:

#### **Equation D2**

Prepaid Start-up Adjustment = Prepaid Start-up Cost calculated in accordance with Section 1 minus the actual Start-up Cost calculated in accordance with Equation D-1.

#### **Equation D-3**

Prepaid Start-up Adjustment for Canceled Start-up =  $\frac{\text{Number of hours committed to the Start-up}}{\text{applicable Start-up Lead Time (hrs) as shown in Schedule A, Section 6}} \times \text{Prepaid Start-up Adjustment calculated in accordance with Equation D-2}$

Where:

- The “number of hours committed to the Start-up” is the lesser of (a) time elapsed between the initiation of the Start-up and the cancellation and (b) the applicable Start-up Lead Time.

## **SCHEDULE D**

### **Part 2**

#### **Start-up Payment for Condition 2 Units**

##### **1. Start-up Payment**

The Start-up Payment for each Start-up successfully completed for each Unit operating under Condition 2 equals the Start-up Cost calculated using Equation D-1.

##### **2. Payment for Canceled Start-up**

If Start-up is initiated under a Dispatch Notice but is not successfully completed because it is canceled or rescinded by the CAISO, the Start-up Payment is calculated in accordance with Equation D-4:

#### **Equation D-4**

$$\text{Start-up Payment for Canceled Start-up (\$)} = \frac{\text{Number of hours committed to the Start-up}}{\text{applicable Start-up Lead Time (hrs) as shown in Schedule A, Section 6}} * \text{Start-up Cost calculated in accordance with Equation D-1 (\$)}$$

The “number of hours committed to the Start-up” is the lesser of (a) time elapsed between the initiation of the Start-up and the cancellation or (b) the applicable Start-up Lead Time.

**SCHEDULE E**

**Ancillary Services  
Part 1 for Condition 1**

The CAISO may call upon the Unit to provide the following Ancillary Services as defined in the CAISO Tariff:

- Regulation
- Spinning Reserve
- Nonspinning Reserve
- Replacement Reserve
- Voltage Support (including synchronous condenser operation)
- Black Start

If the Unit is otherwise generating, the Owner shall be required to operate the Unit within the Power Factor range of the Unit specified in Schedule A to provide Ancillary Services without additional compensation.

Certain Units (hydroelectric and synchronous condensers) can provide Ancillary Services without generating Energy. Under this Condition, Owner will be compensated for Motoring Charges if the Unit is providing Ancillary Services while synchronized without generating Energy.

**Motoring Charge**

When Units are operated as synchronous condensers (i.e., motored using electric power) to provide Ancillary Services, if applicable, the payment for that service is given by the following formula:

$$\text{Motoring Charge} = \frac{\text{(Power consumption rate (MWh/hr))}}{\text{(MWh/hr)}} * \text{(hours operated)} * \text{(Energy Price)}$$

Where the Power consumption rate is given by the following table:

Unit	Power consumption rate (MWh/hour)
------	-----------------------------------

The Energy Price shall be equal to the total power costs charged to the Facility by its supplier of end-use Energy under the Applicable UDC Tariff for the billing cycle in which the Motoring Charge was incurred divided by the total power consumed at the Facility under such tariff during such billing cycle.

## **Pre-empted Dispatch Payment**

If the CAISO issues a Dispatch Notice to:

- (i) decrease a Unit's scheduled output of Energy in a Market Transaction to provide Ancillary Services;
- (ii) decrease a Unit's scheduled provision of Ancillary Services capacity in a Market Transaction in order to provide Regulation, Spinning Reserve, Nonspinning Reserve, or Replacement Reserve pursuant to a Dispatch Notice,
- (iii) decrease a Unit's scheduled provision of Ancillary Service capacity in a Market Transaction in order to provide Energy pursuant to a Dispatch Notice, the CAISO shall pay the appropriate Pre-empted Dispatch Payment described below. The Pre-empted Dispatch Payments are intended to make an Owner whole with respect to the original Market Transaction.

### **A. For Pre-empted Energy Market Transactions:**

Pre-empted Dispatch Payment = Imbalance Energy Charge – Cost Savings

- Imbalance Energy Charge =  $(X_o - X_n) \square$  Penalty Price
- Penalty Price = Unrestricted Imbalance Energy Price + additional penalties (per MWh) imposed by the CAISO for failure to comply with Market Schedules due to compliance with Dispatch Notice.
- Cost Savings = Fuel Cost Savings + Emissions Savings + Other Savings

Where:

- $X_o$  = Original Total Schedule in Market and Nonmarket Transactions;
- $X_n$  = New Total Schedule in Market and Nonmarket Transactions;

For fossil fuel Units, the Fuel Cost Savings is calculated as follows:

- Fuel Cost Savings = Fuel Savings x Hourly Fuel Price
- Fuel Savings =  $( (AX_o^3 + BX_o^2 + CX_o + D) - (AX_n^3 + BX_n^2 + CX_n + D) ) \star E$
- or
- Fuel Savings =  $[ ( A \star ( B + CX_o + De^{FX_o} ) ) - ( A \star ( B + CX_n + De^{FX_n} ) ) ] \star E$
- A, B, C, D, E and F are the coefficients from Table C1-7a or C1-7b, as applicable;
- Hourly Fuel Price is calculated in Equation C1-8.

For geothermal Units, the Fuel Cost Savings is calculated by the following formula:

$$\text{Fuel Cost Savings} = (X_o - X_n) \star \text{Hourly Fuel Price}$$

Where:

- Hourly Fuel Price is the Steam Price identified in Equation C2-1 in Schedule C. However, for purposes of this Pre-empted Dispatch Payment calculation, the value for

the Steam Price will be set to zero for Geysers Main Units until the cumulative Hourly Metered Total Net Generation for the Contract Year from all Units exceeds the Minimum Annual Generation given in Equation C2-2.

For pumped storage hydroelectric Units, the Fuel Cost Savings is calculated by the following formula:

$$\text{Fuel Cost Savings} = (X_o - X_n) * \text{Hourly Fuel Price}$$

Where:

- Hourly Fuel Price is YTD Pumping Cost / YTD Energy Produced; and YTD Pumping Cost and YTD Energy Produced are as defined in Equation C4-2.

For conventional hydroelectric Units, the Fuel Cost Savings is zero.

Other Savings =  $(X_o - X_n) * (\text{Variable O\&M Rate} + \text{applicable annual charge for short-term sales under 18 CFR 382.201 of the FERC Regulations})$

Emissions Savings = RECLAIM Savings + NOx Emissions Fee Savings + Organic Gases Fee Savings + Sulfur Oxides Fee Savings + Particulate Matter Savings + Carbon Monoxide Fee Savings

$$\text{RECLAIM Savings} = ((AX_o^2 + BX_o + C) - (AX_n^2 + BX_n + C)) * \text{RECLAIM NOx Trading Credit Rate}$$

Where:

- A, B and C are the coefficients from Table C1-13;
- $X_o$  = Original Total Schedule in Market and Nonmarket Transactions;
- $X_n$  = New Total Schedule in Market and Nonmarket Transactions;

$$\text{NOx Emissions Fee Savings} = \frac{((AX_o^2 + BX_o + C) - (AX_n^2 + BX_n + C))}{2000} * \text{NO}_x \text{ Emissions Fee;}$$

Where:

- A, B and C are the coefficients from Table C1-13;
- $X_o$  = Original Total Schedule in Market and Nonmarket Transactions;
- $X_n$  = New Total Schedule in Market and Nonmarket Transactions;

Organic Gases Fee Savings =

$$4.76 * 10^{-7} * \text{Gas Fuel Savings} * \text{Associated Emission Factor for Organic Gases} * \text{Associated Emissions Fee for Organic Gases}$$

Sulfur Oxides Fee Savings =

$4.76 \times 10^{-7} \times \text{Gas Fuel Savings} \times \text{Associated Emission Factor for Sulfur Oxides} \times \text{Associated Emissions Fee for Sulfur Oxides}$

Particulate Matter Oxides Fee Savings =

$4.76 \times 10^{-7} \times \text{Gas Fuel Savings} \times \text{Associated Emission Factor for Particulate Matter} \times \text{Associated Emission Fee for Particulate Matter}$

Carbon Monoxide Fee Savings =

$4.76 \times 10^{-7} \times \text{Gas Fuel Savings} \times \text{Associated Emission Factor for Carbon Monoxide} \times \text{Associated Emission Fee for Carbon Monoxide}$

All Emissions Fees and Emission Factors are determined in accordance with Schedule C.

[If applicable, insert emission cost savings formula for fuel other than natural gas.]

The Owner will be entitled to retain all payments received from the Owner's Scheduling Coordinator for the Unit's scheduled output.

**B. For Pre-empted Ancillary Services Market Transactions:**

CAISO shall pay Owner the product of (i) the difference between the MW of the Ancillary Service Owner had scheduled to provide in a Market Transaction and the MW of Ancillary Services Owner is able to provide after complying with the Dispatch Notice and (ii) the Market Clearing Price the Owner pays to buy back its commitment to deliver the preempted MW of Ancillary Services (if the Owner actually incurs such a cost), or the penalty the Owner pays for failure to deliver the preempted MW of Ancillary Services (if the Owner actually incurs such a cost) for the applicable Ancillary Service, market, and hour. In addition, if compliance with the Dispatch Notice causes reduction of a market regulation transaction, the CAISO shall also pay the Owner the product of the Regulation Energy Payment Adjustment (REPA) amount, if applicable, and the MW of Regulation which Owner had scheduled but is unable to provide because of its compliance with the Dispatch Notice.

**Schedule E**

**Ancillary Services  
Part 2 for Condition 2**

The CAISO may call upon the Unit to provide the following Ancillary Services as defined in the CAISO Tariff:

Regulation  
Spinning Reserve  
Nonspinning Reserve  
Replacement Reserve  
Voltage Support (including synchronous condenser operation)  
Black Start

The Owner shall be required to operate the Unit within the Power Factor range of the Unit specified in Schedule A to provide Voltage Support without additional compensation.

The Owner shall receive no payment for any Ancillary Services Capacity provided. However, operation of a Unit in synchronous condenser mode will be compensated as shown below.

**Motoring Charge**

When Units are operated as synchronous condensers (i.e., motored using electric power) to provide Ancillary Services, if applicable, the payment for that service is given by the following formula:

$$\text{Motoring Charge} = (\text{Power consumption rate (MWh/hr)} ) * (\text{hours operated}) * (\text{Energy Price})$$

Where the Power consumption rate is given by the following table:

<u>Unit</u>	<u>Power consumption rate (MWh/hour)</u>
-------------	--

The Energy Price shall be equal to the total power costs charged to the Facility by its supplier of end-use Energy under the Applicable UDC Tariff for the billing cycle in which the Motoring Charge was incurred divided by the total power consumed at the Facility under such tariff during such billing cycle.

**Schedule E**  
**Ancillary Services**  
**Part 3 for Black Start Services**

For those Units with Black Start capability, the cost of maintaining such capability is included in this Agreement and no additional costs shall be charged to the CAISO for maintaining such capability. The CAISO will pay for Black Start service, including for a Black Start Test Dispatch Notice, at the rates and prices in this Agreement for Start-Ups and Delivery of Energy in connection with the Black Start service. Owner shall maintain the Black Start capability of the Unit and the Facility and provide Black Starts in accordance with the CAISO Ancillary Services Requirements Protocol and the CAISO Dispatch Protocol, which shall be deemed incorporated by reference into this Agreement.

When the CAISO first gives written notice to the Owner that it has obtained adequate Black Start service through an auction or a separate agreement with Owner or other Generators and Black Start service under this Agreement is no longer required, the CAISO shall not be entitled to call upon this Unit to provide Black Start service. Once the CAISO has given this notice, the Owner may remove Black Start service from this Agreement by filing unilaterally a change in rate schedule with FERC. Such filing shall not be required to include any reduction in rate or revenue solely because Black Start service is removed. The CAISO shall not oppose the absence of any rate or revenue reduction that results solely from removing such service.

**Schedule F**

**Determination of Annual Revenue Requirements  
of Must-Run Generating Units**

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**Article I. Purpose and General Procedures**

**Part A. Determination of Rates and Charges**

This Schedule F establishes the procedures and methodology for determining the Annual Fixed Revenue Requirements (in dollars) and Variable O&M Rates (in \$/MWh) for facilities designated for must-run service for purposes of calculating certain charges for such service under the RMR Contract.

The Annual Fixed Revenue Requirements and the Variable O&M Rate for each designated must-run generating facility shall be determined annually. The Annual Fixed Revenue Requirements and the Variable O&M Rate for each such facility that shall be used for calculating charges to the CAISO during each calendar year shall be determined by application of the Formula set forth in Article II hereof to the Owner's costs incurred during the twelve-month period ended on June 30 of the prior calendar year. Each twelve-month period ending on June 30 of each year is hereinafter referred to as the "Cost Year" relating to the rates and charges that are effective during the succeeding calendar year.

**Part B. Informational Filings**

In connection with the determination of rates and charges for each calendar year, reflecting costs incurred during the June 30 Cost Year as described in the foregoing Part A of this Article I, the Owner shall provide to the CAISO an Information Package detailing and supporting all calculations involved in such determination. A single Information Package may contain all such informational materials pertaining to all of the Owner's designated must-run facilities. On or before October 1, 2001, the Owner shall provide to the CAISO the Information Package relating to the rates and charges to become effective on January 1, 2002. Thereafter, on November 1 of each year, the Owner shall provide to the CAISO the Information Package relating to the rates and charges to be effective during the calendar year beginning on the following January 1.

Each such Information Package shall be in a clear and readable format and shall contain:

1. detailed workpapers showing the derivation of costs under the Formula for the relevant Cost Year along with supporting schedules showing the data used in applying the formula, presented in a format consistent with the presentation of information in the FERC Form No. 1;
2. a clear identification of the depreciation rates reflected in claimed costs for the Cost Year and the rate of return and every other stated item (i.e., any item which appears as a numerical value in the Formula and which only may be changed by a filing with the FERC);
3. a comparison of the major components of the resulting revenue requirements for the relevant Cost Year with the corresponding components of the revenue requirements that result from the application of the Formula using costs from the Owner's FERC Form No. 1 relating to the preceding calendar year;
4. such additional documentation as to specific items of costs required by the Formula.

The Owner shall provide each Information Package to the CAISO in printed form and a suitable electronic format. The CAISO shall post the Information Package on its website. A suitable electronic format shall be any format that the FERC permits for electronic filings.

Coincident with providing each such Information Package to the CAISO, the Owner shall also submit the Information Package to the FERC in an informational filing so as to allow for review of the related rates

and charges by the FERC staff and affected parties. As to the informational filing relating to rates and charges to be effective during calendar year 2002, (i) discovery requests by the FERC staff and affected parties shall be made within 45 days of the filing, with responses by the Owner due within 60 days of the filing, and (ii) protests, if any, by affected parties shall be filed with the FERC within 75 days of the filing. As to each subsequent informational filing, (i) discovery requests by the FERC staff and affected parties shall be made within 20 days of the filing, with responses by the Owner due within 35 days of the filing, and (ii) protests, if any, by affected parties shall be filed with the FERC within 45 days of the filing. In the event that the need arises during the discovery process for the nondisclosure or confidentiality of information, the Owner and affected parties, other than FERC Staff and state regulatory agencies, shall utilize the procedures contained in Schedules N-1 and N-2 of the RMR Contract. If the Owner seeks the confidentiality or nondisclosure of information provided to FERC or state regulatory agencies, it shall follow the applicable rules, regulations and statutory provisions of those agencies.

Protests to the Information Package challenging arithmetic calculations or conformity to the Rate Formula, not resolved by summary disposition of the FERC, shall be resolved by the use of the Alternative Dispute Resolution procedures in Schedule K of the RMR contract. In such a proceeding, the Owner will bear the burden of proof as in a proceeding under Section 205 of the Federal Power Act (FPA). If it is found that an erroneous calculation or non-conforming formula element has been used, refunds shall be ordered. The amount of refunds shall restore the parties to the positions they would have occupied had the erroneous calculations or non-conforming formula elements not been used, with interest calculated pursuant to Section 35.19a of the Commission's regulations, 18 C.F.R. Section 35.19a.

If a matter is set for hearing, additional discovery shall be permitted in accordance with the Commission's Rules of Practice and Procedure. Under hearings established pursuant to this provision, refund rights will be as in a proceeding under Section 205 of the FPA. Any refunds due as the result of a final Commission order will be credited or paid to the CAISO with interest in accordance with 18 C.F.R. 35.19a.

In addition to the discovery provided above, affected parties shall have the ability to audit the Owner's books and records as provided in Section 12.2 of the RMR Contract. To the extent that an audit discloses that the formula was not correctly applied for a particular year, the affected prior billings shall be corrected, and appropriate refunds or credits shall be provided to the CAISO, with interest determined in accordance with 18 C.F.R. 35.19a.

Notwithstanding the above procedures, all parties retain full rights to make filings at any time under Sections 205 and 206 of the FPA, as appropriate.

## **Article II. Formula for Determination of Annual Revenue Requirements**

### **Part A. Purpose and Overview**

The purpose of this Formula For Determination of Annual Revenue Requirements ("Formula") is to specify the method for determining the Annual Revenue Requirements, and certain components thereof, of particular must-run generating units for each Cost Year.

Part B of this Formula contains the specifications for the components of costs that may be included in the Annual Revenue Requirements of individual designated must-run generating units (*i.e.*, for each "Subject Resource").

Part C of this Formula sets forth (i) general instructions for the use and application of the Formula, and (ii) certain general definitions of terms used herein.

### **Part B. Determination of Annual Revenue Requirements**

#### **Section 1. Annual Fixed Revenue Requirements and Variable O&M Rate**

##### **(A) Annual Fixed Revenue Requirements**

The "Annual Fixed Revenue Requirements" for the Subject Resource is the amount determined as the following difference:

1. Total Annual Revenue Requirements, as defined below; less
2. Total Annual Variable Costs, as defined below.

**(B) Variable O&M Rate**

The "Variable O&M Rate" for the Subject Resource is the rate (in \$/MWh) determined as the follows:

$$\text{Variable O\&M Rate} = [\text{Annual Variable O\&M Expenses}]/[\text{Annual Net Generation}]$$

where "Annual Variable O&M Expenses" is defined hereinbelow, and "Annual Net Generation" is the net generation (in MWh) of the Subject Resource during the Cost Year.

Notwithstanding the foregoing, whenever the Annual Net Generation of the Subject Resource is zero or negative, the Variable O&M Rate shall be deemed to be zero.

**(C) Total Annual Revenue Requirements**

The "Total Annual Revenue Requirements" for the Subject Resource is the amount that is the sum of the following amounts:

1. Operating Expenses, determined pursuant to Section 2 below; and
2. Return and Income Tax Allowance, determined pursuant to Section 3 below.

**Section 2. Operating Expenses**

"Operating Expenses" for the Subject Resource is the quantity that is the sum of the following amounts:

1. Total O&M Expenses, as defined below;
2. Depreciation Expenses, as defined below;
3. Taxes Other Than Income Taxes, as defined below; and
4. Revenue Credits, as defined below.

**(A) Total O&M Expenses**

"Total O&M Expenses" is the amount of expenses arising from the operation and maintenance of the Subject Resource, including Production O&M Expenses, Transmission O&M Expenses, Distribution O&M Expenses, and Administrative & General Expenses, all as defined below.

**(1) Production O&M Expenses:** Expenses incurred directly in operating and maintaining the Subject Resource:

**(a) Steam Production O&M:** For steam units only, amounts properly recorded in Accounts 500-515.

- (b) Hydro Production O&M:** For hydro units only, amounts properly recorded in Accounts 535-545.
  - (c) Other Power Generation O&M:** For other types of units, amounts properly recorded in Accounts 546-554.
  - (d) Other Power Supply Expenses:** Amounts properly recorded in Accounts 555-557, if any, that are reasonably assignable or allocable to the Subject Resource.
- (2) Transmission O&M Expenses:** Expenses incurred directly in operating and maintaining the transmission facilities associated with the Subject Resource, as properly recorded in Accounts 560-573 and reasonably assignable or allocable to the Subject Resource.
  - (3) Distribution O&M Expenses:** Expenses incurred directly in operating and maintaining the distribution facilities associated with the Subject Resource, as properly recorded in Accounts 580-598 and reasonably assignable or allocable to the Subject Resource.
  - (4) Administrative and General (A&G) Expenses:** Those portions, if any, of administrative and general expenses, as properly recorded in Accounts 920-935, that are reasonably related to the operation of the Subject Resource, determined from appropriate direct assignment or reasonable allocation. Such expenses shall exclude (i) franchise fees related solely to the Owner's retail sales, (ii) retail regulatory expenses, (iii) assessments under 18 CFR Section 382.201 of the FERC Regulations, (iv) association dues, and (v) general advertising expenses.

Notwithstanding the foregoing, O&M Expenses hereunder shall exclude all Scheduling Coordinator Charges as charged under the CAISO Tariff, irrespective of in which Account or Accounts such charges are included.

## **(B) Depreciation Expenses**

"Depreciation Expenses" are provisions for depreciation and amortization for the Subject Resource, as properly recorded in Accounts 403, 404, 405, 406, and 407, including only:

- (1) Production Plant Depreciation:** Depreciation and amortization, if any, of investment in the Subject Resource;
- (2) Transmission Plant Depreciation:** Depreciation and amortization, if any, of investment in the transmission facilities associated with the Subject Resource, as reasonably assignable or allocable to the Subject Resource;
- (3) Distribution Plant Depreciation:** Depreciation and amortization, if any, of investment in the distribution facilities associated with the Subject Resource, as reasonably assignable or allocable to the Subject Resource;
- (4) General and Intangible Plant Depreciation:** Depreciation and amortization, if any, of general and intangible plant investments that are reasonably assignable or allocable to the Subject Resource.

Notwithstanding the foregoing, costs recorded in Accounts 405, 406 and 407 shall be included hereunder only if, and to the extent that, FERC shall have permitted the inclusion of such costs for ratemaking purposes for the Owner under the RMR Contract.

**(C) Taxes Other Than Income Taxes**

"Taxes Other Than Income Taxes" are taxes other than income and revenue taxes, as properly recorded in Account 408.1, that are reasonably assignable and allocable to the Subject Resource, including for example:

1. Property and Property-Related Taxes;
2. Payroll and Labor-Related Taxes;
3. Other Taxes, if any, identifiable as reasonably assignable or allocable to the Subject Resource.

Taxes Other Than Income Taxes assignable and allocable to the Subject Resource shall not include any taxes related solely to, or arising solely from, the Owner's retail sales.

**(D) Revenue Credits**

"Revenue Credits" are those revenues, if any, that are (i) properly recorded in Account 451 (Miscellaneous Service Revenues), Account 453 (Sales of Water and Water Power), Account 454 (Rent From Electric Property), Account 455 (Interdepartmental Sales), and Account 456 (Other Electric Revenues), and (ii) directly related to, or reasonably allocable to, the Subject Resource. Such Revenue Credits shall be treated as negative values hereunder.

**(E) Treatment of Capital Leases**

The foregoing components of Operating Expenses may include expenses associated with capital leases as approved by the Commission, as set forth more fully under Article II, Part B, Section 4(A) of this Formula.

**Section 3. Return and Income Tax Allowance**

"Return and Income Tax Allowance" is the quantity that is the sum of:

1. the product of:
  - a. Allowable Pre-Tax Rate of Return, and
  - b. Net Investment,as both such quantities are hereinafter defined; and
2. the quantity equal to:

$$[ITC \text{ Amortization}]/(1-t)$$

where:

- a. "t" is the effective, combined state and federal income tax rate.
- b. "ITC Amortization," is amortization, if any, of investment tax credits, as properly recorded in Account 411.4, that are reasonably assignable or allocable to the Subject Resource and to those portions of general and intangible plant investments that are reasonably assignable or allocable to the Subject Resource. Notwithstanding the foregoing, this term shall include only those amounts of

amortization of investment tax credits which the Owner shall have elected to receive under Section 46(f)(1) of the Internal Revenue Code. ITC Amortization amounts that reduce net income shall be treated as negative values hereunder, while ITC Amortization amounts, if any, that increase net income shall be treated as positive values hereunder.

#### **Section 4. Net Investment**

"Net Investment" is the quantity that is determined as follows:

$$\text{Net Investment} = \text{Gross Plant Investment} - \text{Depreciation Reserve} + \text{CWIP} + \text{PHFU} - \text{ADIT} + \text{Working Capital}$$

where the quantities appearing in the foregoing equation are defined hereinafter below.

In determining Net Investment hereunder, each component thereof, other than Cash Allowance, shall be determined as the end-of-year balances in the Accounts specified for the relevant Cost Year.

##### **(A) Gross Plant Investment**

"Gross Plant Investment" is gross original cost plant investment as properly recorded in Accounts 101, 102, 106, and 114, including only the following amounts:

- (1) Production Plant Investment:** investment in the generating unit itself and in common facilities associated with the unit, as recorded in Accounts 310-316, 330-336, or 340-346, 106 and 114;
- (2) Transmission Plant Investment:** investment in transmission facilities associated with the Subject Resource, as properly recorded in Accounts 350-359, 106, and 114, and reasonably assignable or allocable to the Subject Resource;
- (3) Distribution Plant Investment:** investment in distribution facilities associated with the Subject Resource, as properly recorded in Accounts 360-373, 106, and 114, and reasonably assignable or allocable to the Subject Resource; and
- (4) General and Intangible Plant Investment:** reasonably assignable and allocable portions, if any, of general and intangible plant investment, recorded in Accounts 389-399 and 301-303, 106 and 114.

Subject to the limitations detailed in this paragraph, when the Owner has a capital lease in lieu of gross plant investment, it may include Account 101.1 hereunder. A lease may be capitalized and the costs included for ratemaking purposes if the Owner demonstrates that the lease qualifies as a capital lease under 18 C.F.R. Part 101, General Instruction No. 19 (1998), and the Owner has obtained, prior to the informational filing, approval to include such costs for ratemaking purposes from the FERC under the FPA. Capital leases shall be accounted for in accordance with 18 C.F.R. Part 101, General Instruction No. 20 (1998).

##### **(B) Depreciation Reserve**

"Depreciation Reserve" is accumulated provision for depreciation and amortization, as properly recorded in Accounts 108, 111, and 115, related to the Subject Resource, including the following amounts:

- (1) **Production Plant Depreciation Reserve:** amounts of Depreciation Reserve for the investment in the unit itself and in common facilities associated with the unit;
- (2) **Transmission Plant Depreciation Reserve:** amounts of Depreciation Reserve for the investment in transmission facilities associated with the Subject Resource, as reasonably assignable or allocable to the Subject Resource;
- (3) **Distribution Plant Depreciation Reserve:** amounts of Depreciation Reserve for the investment in distribution facilities associated with the Subject Resource, as reasonably assignable or allocable to the Subject Resource;
- (4) **General and Intangible Plant Reserve:** amounts of Depreciation Reserve for the portions, if any, of general and intangible plant investments reasonably assignable and allocable to the Subject Resource.

Credit balances in the aforementioned accounts shall be treated as positive values hereunder, and debit balances in such accounts shall be treated as negative values.

**(C) CWIP**

"CWIP" is the amount of construction work in progress, as properly recorded in Account 107 for construction projects associated with the Subject Resource related solely and directly to pollution control for the Subject Resource.

**(D) PHFU**

"PHFU" is the cost of plant held for future use, as properly recorded in Account 105 that is reasonably assignable or allocable to the Subject Resource.

**(E) ADIT**

"ADIT" is accumulated provision for deferred income taxes, as properly recorded in Accounts 190, 281, 282, 283, and 255, that are reasonably assignable or allocable to the investment in, or operation of, the Subject Resource, including the following amounts:

- (1) **Production Plant ADIT:** amounts of ADIT arising directly from the investment in, or operation of, the Subject Resource itself and common facilities associated with the Subject Resource;
- (2) **Transmission Plant ADIT:** amounts of ADIT arising directly from the investment in, or operation of, the transmission facilities, if any, associated with the Subject Resource;
- (3) **Distribution Plant ADIT:** amounts of ADIT arising directly from the investment in, or operation of, distribution facilities, if any, associated with the Subject Resource; and
- (4) **General and Intangible Plant ADIT:** amounts of ADIT arising from the portions, if any, of general and intangible plant investments reasonably assignable and allocable to the Subject Resource.

For purposes of this Formula, ADIT means accumulated provision for deferred income taxes, as properly recorded in the aforementioned Accounts, *including* amounts previously recorded in such accounts and reclassified as a result of the adoption of SFAS No. 109, but *excluding* amounts recorded in such accounts as a result of the adoption of

SFAS No. 109, such that the required adoption of SFAS No. 109 will have no effect on the costs determined hereunder.

Notwithstanding the foregoing, as to Account 255, ADIT hereunder shall include only those amounts, if any, related to investment tax credits which the Owner shall have elected to receive under Section 46(f)(2) of the Internal Revenue Code.

ADIT balances that are credit balances shall be treated as positive values hereunder, while ADIT balances that are debit balances shall be treated as negative values hereunder.

Owner shall support all amounts of ADIT included and not included hereunder in the manner described in sections 35.13(h)(6) and (7) of the Commission's regulations (Statements AF and AG, respectively), except that the time period for the relevant data for the informational package will be consistent with the requirements of this formula, rather than the "Periods" referenced in those regulations.

#### **(F) Working Capital**

"Working Capital" is the sum of the portions, if any, of the following items that are reasonably assignable or allocable to the Subject Resource:

- (1) Fuel Stocks**, which is the amount of fossil fuel stock, if any, maintained for the Subject Resource, as properly recorded in Account 151;
- (2) Plant Materials and Supplies**, consisting of the value of plant materials and supplies reasonably assignable or allocable to the Subject Resource, as properly recorded in Accounts 154 and 163;
- (3) Prepayments**, consisting of the amount, if any, of prepayments reasonably assignable or allocable to the Subject Resource, as properly recorded in Account 165;
- (4) Working Cash Allowance**, which is one-eighth of O&M Expenses (as defined herein), less (a) Total Annual Fuel Costs (as defined hereinbelow), and (b) all amounts or portions, if any, of Account 555 (Purchased Power) that may be included in such O&M Expenses; and

**Unamortized Deferred Costs**, which shall be that portion, if any, of Account 186 directly related to, or reasonably allocable to, the Subject Resource.

#### **Section 5. Allowable Pre-Tax Rate of Return**

The Allowable Pre-Tax Rate of Return shall be the sum of:

- (a) 12.25%, and
- (b) 30% of the amount, if any, by which (a) the latest available 6-month average of yields on 10-year U.S. Treasury Bonds, as of the date of the first Informational Filing, exceeds (b) the latest available 6-month average of yields on 10-year U.S. Treasury Bonds as of *[the effective date of the settlement]*.

Notwithstanding the foregoing, the Owner may make application to the FERC, prior to or in conjunction with the first Informational Filing, in a limited proceeding to seek to establish a different Allowable Pre-Tax Rate of Return under Section 205 of the Federal Power Act.



## **Section 6. Additional Quantities**

### **(A) Annual Variable O&M Expenses**

"Annual Variable O&M Expenses" is the sum of the following quantities:

- (1) Variable Production O&M Expenses:** those portions of Production O&M Expenses, as defined above, other than fuel expenses, that are reasonably determined to be variable expenses, in the sense that they are incurred as a result of, or otherwise are reasonably associated with, the production of energy by the Subject Resource.
- (2) Variable A&G Expenses:** that portion of A&G Expenses that is related or allocable to the foregoing Variable Production O&M Expenses.

Notwithstanding the foregoing, starting with the first information filing hereunder and continuing until the Owner elects to use a different method to determine its Annual Variable O&M Expenses, the Owner may compute Annual Variable O&M Expenses as the amount equal to the product of (a) the Initial Variable O&M Rate, in \$/MWh, for the Subject Resource, as set forth in Exhibit A hereto (Exhibit A can be found in Appendix B to the Stipulation and Agreement), times (b) the Net Generation of the Subject Resource (as defined hereinabove). Whenever the Owner does not compute Annual Variable O&M Expenses based on the Initial Variable O&M Rate in the foregoing manner, the Owner shall include in each of Informational Package a detailed explanation of the method or methods used to classify O&M expenses as between fixed (*i.e.*, capacity-related) expenses and variable (*i.e.*, energy-related) expenses and the reason(s) such method results in just and reasonable rates.

### **(B) Annual Fixed O&M Expenses**

"Annual Fixed O&M Expenses" is the quantity that is equal to the following:

- (1)** Total O&M Expenses, as defined hereinabove, less
- (2)** the sum of:
  - a. Annual Variable O&M Expenses, as defined hereinabove, and
  - b. Annual Variable Fuel Costs, as defined hereinbelow,
  - c. Annual Emissions Costs, as defined hereinbelow, and
  - d. Annual Non-Fuel Start-Up Costs, as defined hereinbelow.

### **(C) Fuel Expenses**

#### **(1) Total Annual Fuel Costs**

"Total Annual Fuel Costs" is the total fuel expense for the Subject Resource for the Cost Year properly recorded in Account 501 or Account 547, as appropriate depending on the nature of the Subject Resource.

#### **(2) Annual Fixed Fuel Costs**

"Annual Fixed Fuel Costs" is that portion, if any, of Total Annual Fuel Costs related to fuel handling and administration of fuel planning, procurement and transportation which do not vary with the amount of fuel purchased.

**(3) Annual Variable Fuel Costs**

"Annual Variable Fuel Costs" is the quantity that is the following difference:

1. Total Annual Fuel Costs, less
2. Annual Fixed Fuel Costs.

**(D) Annual Emissions Costs**

"Annual Emissions Costs" is the total emissions costs that are related to the operation of the Subject Resource during the Cost Year.

**(E) Annual Non-Fuel Start-Up Costs**

"Annual Non-Fuel Start-Up Costs" is the aggregate sum of costs, other than fuel costs, attributable to start-ups of the Subject Resource during the Cost Year, consisting of start-up power costs, shut-down power costs, and other non-fuel start-up costs, all as determined pursuant to the applicable sections of Schedule D of the RMR Contract, as applied to all start-ups of the Subject Resource during the Cost Year.

**(F) Total Annual Variable Costs**

"Total Annual Variable Costs" is the sum of:

1. Annual Variable O&M Expenses,
2. Annual Variable Fuel Costs, and
3. Annual Emissions Costs.

**Part C. General Instructions and Explanatory Notes**

**Section 1. General Instructions**

In applying this Formula to a Subject Resource, the following instructions and explanations shall be followed:

**(A) No Duplicative Charges**

The costs determined and referenced by this Formula shall exclude costs that are recoverable, or that are actually recovered, elsewhere under the applicable contract or agreement between the Owner and the CAISO. There shall be no double counting of costs hereunder.

**(B) Determination of Depreciation Expenses**

Depreciation Expenses, Depreciation Reserve, and Deferred Income Taxes reflected in the revenue requirements determined pursuant to this Formula shall be computed using either fixed depreciation rates or depreciation rates determined annually from fixed mortality characteristics (i.e., service lives, net salvage ratios, etc.). Such depreciation rates and/or mortality characteristics, which may differ for particular assets or groups of

assets comprising, or related to, the Subject Resource, are set forth on Exhibit B, which is attached hereto and made a part hereof. Such depreciation rates and/or mortality characteristics may not be changed except pursuant to Section 205 or Section 206 of the FPA. Nothing herein shall be construed as affecting any requirements of the FERC regarding the use by the Owner of depreciation rates for financial reporting purposes.

**(C) Costs in Excess of Original Cost**

The components of rate base and the costs reflected under the Formula shall not include an acquisition adjustment or costs associated with an acquisition adjustment unless the Owner shall have obtained approval from the FERC to include under the Formula such an adjustment or such costs for ratemaking purposes under the FPA. The effective date for the inclusion of such costs shall be as set forth in the FERC order.

**(D) Use of FERC Accounting**

The costs determined and referenced by this Formula shall reflect only FERC-basis accounting, and shall not reflect any accounting for costs approved by any state regulatory commission or other body if not approved or accepted by the FERC for use in connection with the RMR Contract. Except as otherwise provided herein, the accounting for costs for purposes of applying this Formula shall be consistent with the requirements of the Uniform System of Accounts.

**(E) Accounting Methods**

The costs determined and referenced by this Formula shall reflect only such accounting methods prescribed by such authorities as AICPA and FASB that shall have been approved or accepted by the FERC for use in connection with the RMR Contract. The Owner shall be required to seek and gain such approval or acceptance from the FERC prior to reflecting any changed accounting methods in the determination of costs in connection with this Formula.

The Owner shall carry the burden of demonstrating that its accounting methods and entries reflected in the costs determined and referenced by this Formula produce just, reasonable, and nondiscriminatory rates for its customers.

**(F) Out-of-Period Adjustments**

The costs determined and referenced by this Formula shall not reflect any accounting entries the purpose of which is to adjust or correct for accounting entries in years other than the Cost Year if such adjusting or correcting entries would have an unjust, unreasonable, or discriminatory effect on the CAISO.

**(G) Extraordinary Costs**

Extraordinary costs included in the costs determined and referenced by this Formula shall be subject to amortization over a reasonable period of time. In determining how costs should be amortized, the parties shall also determine how the costs being amortized should be recovered in the event that the plant closes and does not reopen.

As used herein, "extraordinary costs" mean costs arising from events and transactions that are of an unusual nature and infrequent occurrence, the effects of which are abnormal and significantly different from the ordinary and typical activities of the Owner, and would not reasonably be expected to recur in the foreseeable future. In determining significance, items should be considered individually and not in the aggregate. However, the effects of a series of related transactions arising from a single specific and identifiable

event or plan of action should be considered in the aggregate. An item can be extraordinary even if it is less than five (5) percent of income computed before the extraordinary item. In its annual Information Package, the Owner shall identify and provide explanations for all extraordinary costs which it seeks to include in the rates and charges determined pursuant to this Formula, and the Owner shall bear the burden of proof, as in a proceeding under Section 205 of the FPA, that its proposed treatment of extraordinary costs is just and reasonable.

**(H) Imprudently Incurred Costs**

The costs determined and referenced by this Formula shall not include any costs which have been determined by the FERC in a proceeding under Section 206 of the FPA to have been imprudently incurred by the Owner.

**(I) Transmission Cost Assignments and Allocations**

Costs of transmission facilities assigned and/or allocated to the Subject Resource hereunder are intended to include only those costs, if any, related to the step-up substation facilities and other transmission facilities directly connected to the Subject Resource and used to deliver the output of the Subject Resource to the transmission grid. In each annual Informational Package, the Owner shall clearly identify and fully describe all transmission facilities which it claims satisfy the foregoing criteria.

**(J) Distribution Cost Assignments and Allocations**

Costs of distribution facilities assigned and/or allocated to the Subject Resource hereunder are intended to include only those costs, if any, related to the step-up substation facilities and other distribution facilities directly connected to the Subject Resource and used to deliver the output of the Subject Resource to the transmission or distribution system. In each annual Informational Package, the Owner shall clearly identify and fully describe all distribution facilities which it claims satisfy the foregoing criteria.

**(K) Inclusion of Certain Costs**

The Owner shall include in its annual Informational Package detailed workpapers and explanations supporting the reasonableness of including in the revenue requirements determined pursuant to this formula any amounts recorded in Accounts 501, 547, 555, 561, 927, 105, and 186. The Owner shall bear the burden of proof, as in a proceeding under Section 205 of the FPA, to affirmatively demonstrate that all such included amounts are directly related to the provisions of service under the RMR Contract and are reasonably assignable or allocable to the Subject Resource. As to Account 105, the requirement for a definitive plan required by the description of Account 105 in the Uniform System of Accounts, and the affirmative demonstration required by this paragraph, shall be deemed to be met upon a showing that the CAISO has approved, in accordance with the provisions of Section 7.4 of the RMR Contract, a plan for the future use of the property.

**(L) Direct Assignments and Allocations**

Where Part B of this Formula provides for the identification and/or assignment of costs incurred directly in connection with a particular facility or facilities (including a Subject Resource), or directly related to such a facility or facilities, the Owner shall bear the burden of demonstrating the reasonableness of each such identification and/or assignment, and each failure to make such an identification and/or assignment. Notwithstanding the foregoing, where this Formula provides for such a direct identification

or assignment of costs, the Owner may use an allocation method to apportion such costs among particular facilities; provided, however, that (i) the Owner shall in its Informational Package clearly identify and describe such allocation method and the basis for it, and (ii) the Owner shall bear the burden of demonstrating the reasonableness of the method. It is recognized that such allocation methods may, for example, be appropriate for apportioning certain types of costs between individual generating units at a multi-unit generating station. Such allocations of costs between individual generating units at a plant site shall be consistent with the requirements for such allocations, if any, provided in the RMR Contract.

**(M) No Adverse Distinction**

In applying this Formula and in maintaining its books and records insofar as they affect the results of applying this Formula, the Owner shall not make an adverse distinction between the Subject Resource and any other facility or facilities owned or operated by the Owner; e.g., the Owner shall assign certain costs directly to the Subject Resource only if, and to the extent that, the Owner directly assigns such costs to other, similar facilities.

**Section 2. General Definitions**

Except as may be expressly stated otherwise, the following terms have the followings meanings as used herein:

**(A) Account**

"Account" refers to a particular account for "major" utilities as prescribed by the Uniform System of Accounts.

**(B) FERC**

"FERC" means the Federal Energy Regulatory Commission or its successor.

**(C) Uniform System of Accounts**

"Uniform System of Accounts" means the FERC's "Uniform System of Accounts Prescribed For Public Utilities and Licensees Subject to the Provisions of the Federal Power Act," as such uniform system of accounts was in effect as of the first effective date of the RMR Contract.

**(D) RMR Contract**

"RMR Contract" means the contract to which this Formula is attached and made a part thereof.

**(E) Subject Resource**

"Subject Resource" means any particular generating unit to which this Formula is applied for purposes of determining the annual costs thereof.

**(F) Cost Year**

"Cost Year" means the twelve-month period ended June 30 to which this Formula is applied to determine the Annual Fixed Revenue Requirements and Variable O&M Rate for a Subject Resource to be applicable during the next succeeding calendar year.

**(G) Owner**

"Owner" means the entity, other than the CAISO, that is a party to the RMR Contract.

**(H) CAISO**

The "CAISO" means the California Independent System Operator Corporation.

**Exhibit A - Initial Variable O&M Rates<sup>9</sup>**

Line	RMR Facility	Unit	Initial Variable O&M Rate (\$/MWh)

**Exhibit B - Depreciation Rate and Mortality Characteristics<sup>10 11</sup>**

Line	RMR Facility	Unit	Plant Account	Depreciation Rate (%)	Mortality Characteristics			
					Retirement Date	Average Service Life	Salvage Value or Rate	Interim Retirement Rate

<sup>9</sup> Exhibit A for each owner is filed in Appendix to the Stipulation and Agreement.

<sup>10</sup> Exhibit B for each owner is filed in Appendix B to the Stipulation and Agreement.

<sup>11</sup> Effective as of the effective date of the Settlement.


**Exhibit C - 1998 Cost Information**

Pursuant to Article IV.E of the Stipulation and Agreement filed with the FERC on April 2, 1999, the Owner shall file with the FERC in Docket No. ER98-441-000, et. al., a superceding Exhibit C, setting forth the following information for each unit for the period ending December 31, 1998:

- (1) Name of the facility and unit;
- (2) Gross Plant In Service, *i.e.* the original cost plus plant additions minus retirements, by major plant function (*i.e.* production, transmission, distribution and general);
- (3) Net Plant In Service Gross Plant, *i.e.* gross plant minus depreciation reserve, by major plant function;
- (4) Rate Base, *i.e.* net plant and other components of Net Investment as defined in the Formula, such as working capital, Accumulated Deferred Income Taxes (ADIT), etc.

This Exhibit C shall be for informational purposes only and shall be initially filed with FERC by June 1, 1999.

**Schedule G**

**Charge for Service in Excess of Contract Service Limits**

Payment for service in excess of the Maximum Annual MWh, Maximum Annual Service Hours or Maximum Annual Start-ups shall be determined in accordance with Option A or Option B. Payment for service from hydroelectric Units in excess of the Maximum Monthly MWh shall be determined in accordance with Option A only. Owner shall make a one-time election between Option A or Option B. Owner must choose Option A for both Billable MWh and Start-ups or Option B for both Billable MWh and Start-ups. This election shall be applicable to all of the Owner's Units under this Agreement and all other Reliability Must-Run Units subject to a "reliability must-run contract" as defined in the CAISO Tariff with Owner or any of its affiliates as defined in 18 C.F.R. Section 161.2.

**1. Option A**

- A. For all Billable MWh Delivered after the Counted MWh for the Contract Year equals the Maximum Annual MWh, the Counted Service Hours equals the Maximum Annual Service Hours or, for hydroelectric Units, the Counted MWh for the Month equals the Maximum Monthly MWh ("Schedule G Billable MWh");

Fossil Fuel Units

In addition to the Variable Cost Payment computed in accordance with Schedule C, the CAISO shall pay the Option A Variable Cost Payment, which shall be calculated in accordance with Equation G-1:

**Equation G-1**

$$\text{Option A Variable Cost Payment} = \frac{0.5 * (\text{Variable Cost Payment for the Billing Month})}{\text{Billable MWh for the Billing Month}} * \text{Schedule G Billable MWh}$$

Pumped Storage Hydroelectric Facilities

In addition to the Variable Cost Payment computed in accordance with Schedule C, CAISO shall pay the product of (a) the Schedule G Billable MWh, (b) 0.5, and (c) YTD Pumping Costs divided by YTD Energy Produced as computed in accordance with Equation C4-2 in Schedule C.

Conventional Hydroelectric Facilities

In addition to the Variable Cost Payment computed in accordance with Schedule C, CAISO shall pay the sum of the products for each hour in the Billing Month of (a) the Hourly Fuel Price for natural gas for the hour calculated in accordance with Equation C1-8 of Schedule C, (b) 12,000 Btu/kWh, (c) the Schedule G Billable MWh for that hour, and (d) 0.5.

- B. For all Service Hours provided after the Counted Service Hours for the Contract Year equals the Maximum Annual Service Hours.

Synchronous Condensers

In addition to the Motoring Charge computed in accordance with Schedule E, CAISO shall pay the product of (a) the Motoring Charges calculated in accordance with Schedule E, and (b) 0.5.

- C. For all Start-ups required to comply with a Dispatch Notice after the Counted Start-ups for the Unit equals the Maximum Annual Start-ups ("Schedule G Start-ups"), the CAISO shall pay:

Fossil Fuel Units and Geothermal Units

Two times (a) the Start-up Payment computed in accordance with Equation D-1 in Schedule D, or (b) if the Schedule G Start-up is initiated under a Dispatch Notice but is not successfully completed because it is canceled or rescinded by the CAISO, the Start-up Payment for Canceled Start-up is computed in accordance with Equation D-4 in Schedule D.

Conventional Hydroelectric Facilities and Units Capable Only of Synchronous Condenser Operation

The Start-up Payment computed in accordance with Schedule D, plus (a) (0.00338) \* the Unit's Annual Fixed Revenue Requirement stated in Section 7 of Schedule B, divided by (b) the Unit's Maximum Annual Start-ups.

Pumped Storage Hydroelectric Facilities



The Start-up Payment computed in accordance with Equation D-1 in Schedule D, plus (a)  $0.00167 * \text{the Unit's Annual Fixed Revenue Requirement stated in Section 7 of Schedule B}$ , divided by (b) the Unit's Maximum Annual Start-ups.

## **2. Option B**

A. For all Schedule G Billable MWh Delivered in the Billing Month, the CAISO shall pay the Variable Cost Payment computed in accordance with Schedule C. Since Schedule G Billable MWh are included in calculating the Variable Cost Payment for Billable MWh for the Billing Month under Schedule C, there is no additional payment for Schedule G Billable MWh under Option B.

B. For all Service Hours provided after the Counted Service Hours for the Contract Year equals the Maximum Annual Service Hours:

### Synchronous Condensers

In addition to the Motoring Charge computed in accordance with Schedule E, CAISO shall pay the product of (a) the Motoring Charges calculated in accordance with Schedule E, and (b) 0.5.

C. For all Schedule G Start-ups in the Billing Month, the CAISO pay:

### Units Capable Only of Synchronous Condenser Operation

The Start-up Payment computed in accordance with Schedule D, plus (a)  $(0.00338) * \text{the Unit's Annual Fixed Revenue Requirement stated in Section 7 of Schedule B}$ , divided by (b) the Unit's Maximum Annual Start-ups.

### Fossil Fuel Units and Geothermal Units

Three times (a) the Start-up Payment computed in accordance with Equation D-1 in Schedule D, or (b) if the Schedule G Start-up is initiated under a Dispatch Notice but is not successfully completed because it is canceled or rescinded by the CAISO, the Start-up Payment for Canceled Start-up is computed in accordance with Equation D-4 in Schedule D.

## **3. Owner's Election**

Option A \_\_\_\_\_

Option B \_\_\_\_\_

### **Schedule H**

#### ***Fuel Oil Service***

The following is a description of existing capability of the Facility to burn fuel oil in lieu of or addition to natural gas:

### **Schedule I**

#### ***Insurance Requirements***

**Owner - Obtained Insurance**

*Commercial General Liability*

Commercial general liability insurance covering personal injury and property damage to third parties in connection with the activities at the Facility. The coverage will have a limit of not less than \$ \_\_\_\_\_ per occurrence, and will include coverage for sudden and accidental pollution losses. The CAISO will be added as an additional insured under the terms of this coverage to the per-occurrence limit above.

*Property*

Property Insurance for direct physical loss or damage to the Facility, in an amount not less than the probable maximum loss at the Facility.

**CAISO – Obtained Insurance**

*Errors and Omissions Insurance and Directors & Officers Insurance*

Errors and omissions insurance and directors and officers insurance coverage will have a combined limit of not less than \$150 million for the shorter of (i) until the termination of this Agreement or (ii) until January 1, 2002.

**Schedule J  
Notices**

Owner

Name:  
Title:  
Address:  
Telephone:  
Facsimile:  
E-mail:

With a copy to: Owner's Representative:

CAISO:

Nancy Traweek  
Director, Operations Support  
California ISO Corporation  
151 Blue Ravine Road  
Folsom, CA 95630  
Telephone: (916) 351-2113  
Facsimile: (916) 351-2267  
Email: [ntraweek@caiso.com](mailto:ntraweek@caiso.com)

With a copy to:

Sidney Mannheim Davies  
Assistant General Counsel  
Tariff and Tariff Compliance  
California ISO Corporation  
151 Blue Ravine Road  
Folsom, CA 95630  
Telephone: (916) 608-7144  
Facsimile: (916) 608-7222  
Email: [sdavies@caiso.com](mailto:sdavies@caiso.com)

## **SCHEDULE K DISPUTE RESOLUTION**

### **Applicability**

#### **1.1 General Applicability.**

Except as limited below or otherwise as limited by law (including the rights of any party to file a complaint with FERC under the relevant provisions of the Federal Power Act (FPA)), these ADR Procedures shall apply to (a) all disputes between parties which arise under this Agreement and (b) disputes between CAISO and a Responsible Utility relating to a Responsible Utility Invoice, "Final Estimated RMR Invoice, Final Adjusted RMR Invoice" as defined in the CAISO Tariff, or RMR Charge or RMR Refund as defined in Section 11.13 in the CAISO Tariff. The foregoing shall not impair the applicability of the CAISO Tariff ADR procedures to other disputes between the parties that do not arise under this Agreement. All alternative dispute resolution proceedings hereunder shall be administered by the American Arbitration Association ("AAA"). The Owner, Responsible Utility and the CAISO shall enter into such arrangements with the AAA as are necessary to provide for AAA administration of this Schedule K.

1.1.2 This Schedule K shall not apply to disputes as to whether rates and charges under the Agreement are just and reasonable under the Federal Power Act except as provided in Schedule F. Nothing herein shall limit the right of the FERC to initiate or adjudicate complaints or other proceedings in accordance with applicable statutes or regulations or to compel FERC to exceed its statutory authority as defined by any applicable federal statutes, regulations or orders lawfully promulgated thereunder.

#### **1.2 Disputes Involving Government Agencies.**

If a party to a dispute is a government agency the procedures herein which provide for the resolution of claims and arbitration of disputes are subject to any limitations imposed on the agency by law, including but not limited to the authority of the agency to effect a remedy. If the governmental agency is a federal entity, the procedures herein shall not apply to disputes involving issues arising under the United States Constitution.

#### **1.3 Injunctive and Declaratory Relief.**

Where the court having jurisdiction so determines, use of the ADR Procedures shall not be a condition precedent to a court action for injunctive relief nor shall the provisions of California Code of Civil Procedure sections 1281 *et seq.* apply to such court actions.

#### **1.4 Negotiation and Mediation.**

##### **1.4.1 Negotiation.**

CAISO, Responsible Utility and Owner ("Parties") shall make good-faith efforts to negotiate and resolve any dispute between them arising under this Agreement prior to invoking the ADR Procedures herein. Each Party shall designate an individual with authority to negotiate the matter in dispute to participate in such negotiations. The Responsible Utility may participate in the ADR proceedings arising under this Agreement to the extent the dispute involves billing or payment obligations, in which case CAISO or the Responsible Utility, but not both shall be the disputing party. In addition, to the extent Article 7 or other provisions of this Agreement provide the Responsible Utility third-party beneficiary rights, the Responsible Utility may also participate in the ADR as a Party.

The Owner may participate in the ADR proceedings relating to a Responsible Utility Invoice, "Final Estimated RMR Invoice, Final Adjusted RMR Invoice" as defined in the CAISO Tariff or RMR Charge or RMR Refund as defined in Section 11.13, in which case, CAISO or the Owner, but not both, shall be the disputing party. In addition, to the extent the CAISO Tariff provides the Owner third-party beneficiary rights, the Owner may also participate in the ADR as a Party.

#### **1.4.2 Statement of Claim.**

In the event a dispute is not resolved through such good-faith negotiations, any party may submit a statement of claim, in writing, to each other disputing party, which submission shall commence the ADR Procedures. The statement of claim shall set forth in reasonable detail (i) each claim, (ii) the relief sought, including the proposed award, if applicable, (iii) a summary of the grounds for such relief and the basis for each claim, (iv) the parties to the dispute, and (v) the individuals having knowledge of each claim. The other parties to the dispute shall similarly submit their respective statements of claim within 14 days of the date of the initial statement of claim or such longer period as the AAA may permit following an application by the responding party. If any responding party wishes to submit a counterclaim in response to the statement of claim, it shall be included in such party's responsive statement of claim. No party shall be considered as having received notice of a claim decided or relief granted by a decision made under these procedures unless the statement of claim includes such claim or relief.

#### **1.4.3 Selection of Mediator.**

After submission of the statements of claim, the parties may request mediation, if the disputing parties so agree. If the parties agree to mediate, the AAA shall distribute to the parties by facsimile or other electronic means a list containing the names of at least seven prospective mediators with mediation experience, or with technical or business experience in the electric power industry, or both, as he or she shall deem appropriate to the dispute. The parties shall either agree upon a mediator from the list provided or from any alternative source, or alternate in striking names from the list with the last name on the list becoming the mediator. The first party to strike off a name from the list shall be determined by lot. The parties shall have seven days from the date of receipt of the AAA's list of prospective mediators to complete the mediator selection process and appoint the mediator, unless the time is extended by mutual agreement. The mediator shall comply with the requirements of Section 1.5.2.

#### **1.4.4 Mediation.**

The mediator and representatives of the disputing parties, with authority to settle the dispute, shall within 14 days after the mediator's date of appointment schedule a date to mediate the dispute. Matters discussed during the mediation shall be confidential and shall not be referred to in any subsequent proceeding. With the consent of all disputing parties, a resolution may include referring the dispute directly to a technical body (such as a WSCC technical advisory panel) for resolution or an advisory opinion, or referring the dispute directly to FERC.

#### **1.4.5 Demand for Arbitration.**

If the disputing parties have not succeeded in negotiating a resolution of the dispute within 30 days of the initial statement of claim or, if within that period the parties agreed to mediate, within 30 days of the parties' first meeting with the mediator, such parties shall be deemed to be at impasse and any such disputing party may then commence the arbitration process, unless the parties by mutual agreement agree to extend the time. A

party seeking arbitration shall provide notice of its demand for arbitration to the other disputing parties.

## **1.5 Arbitration.**

### **1.5.1 Selection of Arbitrator.**

**1.5.1.1 Disputes Under \$1,000,000.** Where the total amount of claims and counterclaims in controversy is less than \$1,000,000 (exclusive of costs and interest), the disputing parties shall select an arbitrator from a list containing the names of at least 10 qualified individuals supplied by AAA, within 14 days following submission of the demand for arbitration. If the disputing parties cannot agree upon an arbitrator within the stated time, they shall take turns striking names from the list of proposed arbitrators. The first party to strike off a name shall be determined by lot. This process shall be repeated until one name remains on the list, and that individual shall be the designated arbitrator.

**1.5.1.2 Disputes of \$1,000,000 or Over.** Where the total amount of claims and counterclaims in controversy is \$1,000,000 or more (exclusive of interest and costs), the disputing parties may agree on any person to serve as a single arbitrator, or shall endeavor in good faith to agree on a single arbitrator from a list of ten qualified individuals provided by the AAA, 14 days following submission of the demand for arbitration. If the disputing parties are unable to agree on a single arbitrator within the stated time, the party or parties demanding arbitration, and the party or parties responding to the demand for arbitration, shall each designate an arbitrator. Each designation shall be from the AAA list of arbitrators, as applicable, no later than the tenth day thereafter. The two arbitrators so chosen shall then choose a third arbitrator.

### **1.5.2 Disclosures Required of Arbitrators.**

The designated arbitrator(s) shall be required to disclose to the parties any circumstances that might preclude him or her from rendering an objective and impartial determination. Each designated arbitrator shall disclose:

**1.5.2.1** Any direct financial or personal interest in the outcome of the arbitration;

**1.5.2.2** Any information required to be disclosed by California Code of Civil Procedure Section 1281.9.; and

**1.5.2.3** Any existing or past financial, business, professional, or personal interest that are likely to affect impartiality or might reasonably create an appearance of partiality or bias. The designated arbitrator shall disclose any such relationships that he or she personally has with any party or its counsel, or with any individual whom they have been told will be a witness. They should also disclose any such relationship involving members of their families or their current employers, partners, or business associates. All designated arbitrators shall make a reasonable effort to inform themselves of any interests or relationships described above. The obligation to disclose interests, relationships, or circumstances that might preclude an arbitrator from rendering an objective and impartial determination is a continuing duty that requires the arbitrator to disclose, at any stage of the arbitration, any such interests, relationships, or circumstances that arise, or are recalled or discovered.

**1.5.2.4** If, as a result of the continuing disclosure duty, an arbitrator makes a disclosure which is likely to affect his or her impartiality, or might reasonably create an appearance of partiality or bias or if a party independently discovers the existence of such circumstances, a party wishing to object to the continuing use of the arbitrator must provide written notice of its objection to the other parties within ten days of receipt of the

arbitrator's disclosure or the date of a party's discovery of the circumstances giving rise to that party's objection. Failure to provide such notice shall be deemed a waiver of such objection. If a party timely provides a notice of objection to the continuing use of the arbitrator the parties shall attempt to agree whether the arbitrator should be dismissed and replaced in the manner described in Section 1.5.1. If within ten days of a party's objection notice the parties have not agreed how to proceed the matter shall be referred to the AAA for resolution.

### **1.5.3 Arbitration Procedures.**

The AAA shall compile and make available to the arbitrator and the parties standard procedures for the arbitration of disputes, which procedures (i) shall conform to the requirements specified herein, and (ii) may be modified or adopted for use in a particular proceeding as the arbitrator deems appropriate, in accordance with Section 1.5.4. The procedures shall be based on the latest edition of the American Arbitration Association Commercial Arbitration Rules, to the extent such rules are not inconsistent with this Schedule K. Except as provided herein, all parties shall be bound by such procedures.

### **1.5.4 Modification of Arbitration Procedures.**

In determining whether to modify the standard procedures for use in the pending matter, the arbitrator shall consider (i) the complexity of the dispute, (ii) the extent to which facts are disputed, (iii) the extent to which the credibility of witnesses is relevant to a resolution, (iv) the amount in controversy, and (v) any representations made by the parties. Alternatively, the parties may, by mutual agreement, modify the standard procedures. In the event of a disagreement between the arbitrator and the agreement of the parties regarding arbitration procedures to be utilized, the parties' agreement shall prevail.

### **1.5.5 Remedies.**

**1.5.5.1 Arbitrator's Discretion.** The arbitrator shall have the discretion to grant the relief sought by a party, or determine such other remedy as is appropriate, unless the parties agree to conduct the arbitration "baseball" style. Unless otherwise expressly limited herein, the arbitrator shall have the authority to award any remedy or relief available from FERC, or any court of competent jurisdiction. Where this Agreement leaves any matter to be agreed between the parties at some future time and provides that in default of agreement the matter shall be referred to the ADR, the arbitrator shall have authority to decide upon the terms of the agreement which, in the arbitrator's opinion, it is reasonable that the parties should reach, having regard to the other terms this Agreement concerned and the arbitrator's opinion as to what is fair and reasonable in all the circumstances.

**1.5.5.2 "Baseball" Arbitration.** If the parties agree to conduct the arbitration "baseball" style, the parties shall submit to the arbitrator and exchange with each other their last best offers in the form of the award they consider the arbitrator should make, not less than seven days in advance of the date fixed for the hearing, or such later date as the arbitrator may decide. If a party fails to submit its last best offer in accordance with this Section, that party shall be deemed to have accepted the offer proposed by the other party. The arbitrator shall be limited to awarding only one of the proposed offers, and may not determine an alternative or compromise remedy.

### **1.5.6 Summary Disposition.**

The procedures for arbitration of a dispute shall provide a means for summary disposition of a demand for arbitration, or a response to a demand for arbitration, that in the reasoned opinion of the arbitrator does not have a good faith basis in either law or fact. If

the arbitrator determines that a demand for arbitration or response to a demand for arbitration does not have a good faith basis in either law or fact, the arbitrator shall have discretion to award the costs of the time, expenses, and other charges of the arbitrator to the prevailing party. A determination made under this Section is subject to appeal pursuant to Section 1.6.

#### **1.5.7 Discovery Procedures.**

The procedures for the arbitration of a dispute shall include adequate provision for the discovery of relevant facts, including the taking of testimony under oath, production of documents and other things, the presentation of evidence, the taking of samples, conducting of tests, and inspection of land and tangible items. The nature and extent of such discovery shall be determined as provided herein and shall take into account (i) the complexity of the dispute, (ii) the extent to which facts are disputed, (iii) the extent to which the credibility of witnesses is relevant to a resolution, and (iv) the amount in controversy. The forms and methods for taking such discovery shall be as described in the Federal Rules of Civil Procedure, except as modified pursuant to Section 1.5.4.

#### **1.5.8 Evidentiary Hearing.**

The arbitration procedures shall provide for an evidentiary hearing, with provision for the cross-examination of witnesses, unless all parties consent to the resolution of the matter on the basis of a written record. The forms and methods for taking evidence shall be determined by the arbitrator(s) and modified pursuant to Section 1.5.4. The arbitrator may require such written or other submissions from the parties as he or she may deem appropriate, including submission of direct and rebuttal testimony of witnesses in written form. The arbitrator may exclude any evidence that is irrelevant, immaterial, unduly repetitious or prejudicial, or privileged. The arbitrator shall compile a complete evidentiary record of the arbitration that shall be available to the parties on its completion upon request.

#### **1.5.9 Confidentiality.**

Subject to the other provisions of this Agreement, any party may claim that information contained in a document otherwise subject to discovery is "Confidential" if such information would be so characterized under the Federal Rules of Evidence or the provisions of the Agreement. The party making such claim shall provide to the arbitrator in writing the basis for its assertion. If the claim of confidentiality is confirmed by the arbitrator, he or she shall establish requirements for the protection of such documents or other information designated as "Confidential" as may be reasonable and necessary to protect the confidentiality and commercial value of such information. Any party disclosing information in violation of these provisions or requirements established by the arbitrator, unless such disclosure is required by federal or state law or by a court order, shall thereby waive any right to introduce or otherwise use such information in any judicial, regulatory, or other legal or dispute resolution proceeding, including the proceeding in which the information was obtained.

#### **1.5.10 Timetable.**

Promptly after the appointment of the arbitrator, the arbitrator shall set a date for the issuance of the arbitration decision, which shall be no later than six months (or such earlier date as the parties and the arbitrator may agree) from the date of the appointment of the arbitrator, with other dates, including the dates for an evidentiary hearing or other final submissions of evidence, set in light of this date. The date for the evidentiary hearing or other final submission of evidence shall not be changed, absent extraordinary circumstances. The arbitrator shall have the power to impose sanctions, including

dismissal of the proceeding, for dilatory tactics or undue delay in completing the arbitration proceedings.

#### **1.5.11 Decision.**

**1.5.11.1** Except as provided below with respect to "baseball" style arbitration, the arbitrator shall issue a written decision granting the relief requested by one of the parties, or such other remedy as is appropriate, if any, and shall include findings of fact and law. The arbitration decision shall be based on (i) the evidence in the record, (ii) the terms of this Agreement and to the extent relevant, the CAISO Tariff and Protocols, (iii) applicable United States federal law, including the Federal Power Act and any applicable FERC regulations and decisions, and international treaties or agreements as applicable, and (iv) applicable state law. Additionally, the arbitrator may consider relevant decisions in previous arbitration proceedings involving this Agreement. To the extent it may do so without violating confidentiality requirements, a summary of the disputed matter and the arbitrator's decision may be published in an CAISO newsletter on CAISO Website.

**1.5.11.2** In arbitration conducted "baseball" style, the arbitrator shall issue a written decision adopting one of the awards proposed by the parties, and shall include findings of fact and law. The arbitration decision shall be based on (i) the evidence in the record, (ii) the terms of this Agreement and to the extent relevant, the CAISO Tariff and Protocols, (iii) applicable United States federal law, including the Federal Power Act and any applicable FERC regulations and decisions, and international treaties or agreements as applicable, and (iv) applicable state law. If the arbitrator concludes that no proposed award is consistent with the factors enumerated in (i) through (iv) above, or addresses all of the issues in dispute, the arbitrator shall specify how each proposed award is deficient and direct that the parties submit new proposed awards that cure the identified deficiencies. To the extent it may do so without violating confidentiality requirements, a summary of the disputed matter and the arbitrator's decision may be published in an CAISO newsletter on CAISO Website.

**1.5.11.3** Where a panel of arbitrators is appointed pursuant to Section 1.5.1.2, a majority of the arbitrators must agree on the decision. An award shall not be deemed to be precedent except in so far as a future dispute between the parties involves the same issue.

#### **1.5.12 Compliance.**

Unless the arbitrator's decision is appealed under Section 1.6, the disputing parties shall, upon receipt of the decision, immediately take whatever action is required to comply with the award to the extent the award does not require regulatory action. An award that is not appealed shall be deemed to have the same force and effect as an order entered by FERC or any court of competent jurisdiction.

#### **1.5.13 Enforcement.**

Following the expiration of the time for appeal of an award pursuant to Section 1.6.3, any party may apply to FERC or any court of competent jurisdiction for entry and enforcement of judgment based on the award.

#### **1.5.14 Costs.**

The costs of the time, expenses, and other charges of the arbitrator shall be borne by the parties to the dispute, with each side on an arbitrated issue bearing its pro-rata share of such costs, and each party to an arbitration proceeding bearing its own costs and fees. If the arbitrator determines that a demand for arbitration or response to a demand for



arbitration was made in bad faith, the arbitrator shall have discretion to award the costs of the time, expenses, and other charges of the arbitrator to the prevailing party.

## **1.6 Appeal of Award.**

### **1.6.1 Basis for Appeal.**

A party may apply to the FERC or any court of competent jurisdiction to hear an appeal of an arbitration decision only upon the grounds that the decision is contrary to or beyond the scope of this Agreement and to the extent relevant, the CAISO Tariff and Protocols, United States federal law, including, without limitation, the Federal Power Act, and any applicable FERC regulations and decisions, or state law. Appeals shall, unless otherwise ordered by FERC or the court of competent jurisdiction, conform to the procedural limitations set forth in this Section 1.6.

### **1.6.2 Appellate Record.**

The parties intend that FERC or a court of competent jurisdiction should afford substantial deference to the factual findings of the arbitrator. No party shall seek to expand the record before FERC or a court of competent jurisdiction beyond that assembled by the arbitrator, except (i) by making reference to legal authority which did not exist at the time of the arbitrator's decision, or (ii) if such party contends the decision was based upon or affected by fraud, collusion, corruption, misconduct or misrepresentation.

### **1.6.3 Procedures for Appeals.**

**1.6.3.1** If a party to an arbitration desires to appeal a decision, it shall provide a notice of appeal to all parties and the arbitrator(s) within 14 days following the date of the decision. Within ten days of the filing of the notice of appeal, the appealing party must file an appropriate application, petition or motion with FERC for review under the Federal Power Act or with a court of competent jurisdiction. Such filing shall state that the subject matter has been the subject of an arbitration pursuant to this Agreement and, to the extent relevant, the CAISO Tariff and protocols.

**1.6.3.2** Within 30 days of filing the notice of appeal (or such period as FERC or the court of competent jurisdiction may specify) the appellant shall file the complete evidentiary record of the arbitration and a copy of the decision with FERC or with the court. The appellant shall serve on all parties to the arbitration copies of a description of all materials included in the submitted evidentiary record.

### **1.6.4 Award Implementation.**

Implementation of the decision shall be deemed stayed pending an appeal unless and until, at the request of a party, FERC or the court of competent jurisdiction with which an appeal has been filed, issues an order dissolving, shortening, or extending such stay.

A summary of each appeal shall be published in a CAISO newsletter on the CAISO Website.

**1.6.5 Judicial Review of FERC Orders.**

FERC orders resulting from appeals shall be subject to judicial review pursuant to the Federal Power Act.

**SCHEDULE L-1  
REQUEST FOR APPROVAL OF CAPITAL ITEMS OR REPAIRS**

This form should be used to request CAISO approval of Planned Capital Items, Unplanned Repairs or Unplanned Capital Items pursuant to Sections 7.4, 7.5 or 7.6 of the Agreement.

CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
RELIABILITY MUST-RUN UNIT  
CAPITAL ITEM AND REPAIR PROJECT REQUEST

---

**Date:**

**CAISO Project Number:**

**Facility:**

**Unit:**

**Owner:**

**Location:**

**This request covers:**

- ( ) Capital Items for the next Contract Year (preliminary)
- ( ) Capital Items for the next Contract Year (final)
- ( ) Unplanned Repairs
- ( ) Unplanned Capital Items

**If this request covers Capital Items for the next Contract Year, provide:**

**Small Project Estimate (reliability)**

**Small Project Estimate (other)**

Identify separately each Capital Item included in a small project estimate projected to cost more than \$50,000.

**If this request covers Unplanned Repairs, or Capital Items projected to cost more than \$500,000, provide the information in the remainder of this form for each project.**

**Project Description:** (describe the project and its major scope items – materials, new systems, modifications to existing systems, etc.)

**If the project is required because of loss or damage to a Unit, describe the cause and nature of the loss or damage and all repairs performed or required for all Units during the year:**

**Project Budget:**

Year	Labor	Material	Contract	Int Svc	Other	Material	Overhead AEGE	Total Cost	AD VAL TAX	Total Expenditures	Total Financial Costs

**Describe any work or repairs performed relating to this project in the last five years:**

**As applicable, state the proposed depreciation life, Annual Capital Item Cost, Surcharge Payment Factor or Repair Payment Factor (percentage owed by CAISO) of the Capital Item or Repair:**

**Describe why this project is required (justification):**

**Is this project required to comply with any laws, regulations or permits? If so, please list them and explain requirement.**

**Provide a cost/benefit analysis summary for this project:**

Include all assumptions including changes to unit performance [efficiency, aux. power loads, etc.], impact on Maximum Net Dependable Capacity, grid interconnection/metering impacts, etc.

**Describe the impacts on the Unit's ability to perform its obligations under this Agreement if this project is not approved:**

**Describe alternatives to this project that were evaluated and the projected costs of those alternatives:**

Describe alternatives along with their major scope items. Also, compare the projected cost of these alternatives with the selected alternative, and compare the unit performance impacts (efficiency, auxiliary power demands, Maximum Net Dependable Capacity effects, etc.) of these alternatives against the chosen alternative.

**List any proceeds received or expected to be received by Owner from insurers or other third parties pursuant to applicable insurance, warranties and other contracts in connection with the project.**

**Provide the schedule for implementing this project:**

Event	Begin	Complete

**Describe any outages required to implement this project:**

**Other comments:**

**SCHEDULE L-2**

**CAPITAL ITEM AND REPAIR PROGRESS REPORT**

CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
RELIABILITY MUST-RUN UNIT

## CAPITAL ITEM AND REPAIR PROGRESS REPORT

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**Date:** **CAISO Project Number:**  
**Facility:** **Unit:**  
**Owner:** **Location:**  
**Capital Item or Repair:**  
**Original In-Service Date:** **Current In-Service Date:**

**If Current In-Service Date has changed, describe the reason why:**

**Describe any additional costs or savings resulting from the change in the Current In-Service Date:**

Describe what portion of any additional costs Owner is requesting CAISO to pay, and why Owner believes that CAISO should be obligated to pay those additional costs:

### **SCHEDULE M** **Mandatory Market Bid for Condition 2 Units** **When Dispatched by the CAISO**

#### **Energy Bid**

The bid the Owner of a Condition 2 Fossil Fuel Unit must submit into Energy markets when dispatched by the CAISO is given in Equation M-1a (for Units with input/output data in polynomial form) or Equation M-1b (for Units with input/output data in exponential form):

#### **Equation M-1a**

$$\text{Energy Bid (\$/MWh)} = \frac{(AX^3 + BX^2 + CX + D)}{X} * P * E$$

+ [Variable O&M Rate + Emissions Rates + Scheduling Coordinator Charge  
+ ACA Charge]

#### **Equation M-1b**

$$\text{Energy Bid (\$/MWh)} = \frac{A * (B + CX + De^{FX})}{X} * P * E$$

+ [Variable O&M Rate + Emissions Rate + Scheduling Coordinator Charge + ACA Charge]

Where:

- for Equation M-1a, A, B, C, D and E are the coefficients given in Table C1-7a;
- for Equation M-1b, A, B, C, D, E and F are the coefficients given in Table C1-7b;
- X is the Unit Availability Limit, MW;
- P is the Hourly Fuel Price as calculated by Equation C1-8 in Schedule C using the

Commodity Prices most recently published before the day the bid is submitted.

- Scheduling Coordinator Charge (\$/MWh): \$0.31.
- ACA Charge (\$/MWh): The applicable annual charge for short-term sales under 18 CFR Section 382.201 of the FERC Regulations.
- Variable O&M Rate (\$/MWh): as shown on Table C1-18

For Units in the SCAQMD only

Emissions Rate (\$/MWh) = Emissions Cost / Unit Availability Limit

Emissions Cost = (a) RECLAIM Cost + (b) NOx Emissions Cost + (c) Organic Gases Cost + (d) Sulfur Oxides Cost + (e) Particulate Matter Cost + (f) Carbon Monoxide Cost

(a) RECLAIM Cost =  $((AX^2+BX+C) * \text{RECLAIM NOx Trading Credit Rate})$

(b) NOx Emissions Cost =  $\frac{(AX^2+BX+C) * \text{NOx Emissions Fee}}{2000}$

Where:

A, B and C are the coefficients from Table C1-13;

X = Unit Availability Limit;

(c) Organic Gases Cost =

$4.76 \times 10^{-7} * (\text{Gas Fuel}) * \text{Associated Emission Factor for Organic Gases} * \text{Associated Emissions Fee for Organic Gases}$

(d) Sulfur Oxides Cost =

$4.76 \times 10^{-7} * (\text{Gas Fuel}) * \text{Associated Emission Factor for Sulfur Oxides} * \text{Associated Emissions Fee for Sulfur Oxides}$

(e) Particulate Matter Oxides Cost =

$4.76 \times 10^{-7} * (\text{Gas Fuel}) * \text{Associated Emission Factor for Particulate Matter} * \text{Associated Emission Fee for Particulate Matter}$

(f) Carbon Monoxide Cost =

$4.76 \times 10^{-7} * (\text{Gas Fuel}) * \text{Associated Emission Factor for Carbon Monoxide} * \text{Associated Emission Fee for Carbon Monoxide}$

Where:

Gas Fuel =  $AX^3 + BX^2 + CX + D$  or  $A * (B + CX + De^{FX})$ , depending on the form of heat input the Owner is using

- A, B, C, D are the coefficients from C1-7a or C1-7b;
- F is the coefficient from C1-7b;
- X = Unit Availability Limit;

- Factors and Associated Emission fees are determined in Schedule C, Section D.3.

The bid the Owner of a geothermal Condition 2 Unit must submit into Energy markets when dispatched by the CAISO is given in Equation M-2.

**Equation M-2**

Energy Bid (\$/MWh) = Fuel Cost + [Variable O&M Rate + Scheduling Coordinator Charge + ACA Charge]

Where:

- The Fuel Cost is the Steam Price identified in Equation C2-1 in Schedule C. However, for purposes of this mandatory market bid, the value for the Steam Price will be zero for Geysers Main Units until the cumulative Hourly Metered Total Net Generation during the Contract Year from all Units exceeds the Minimum Annual Generation given in Equation C2-2.
- Variable O&M Cost (\$/MWh): the cost shall be as shown on Table C2-1.
- Scheduling Coordinator Charge: \$0.31.
- ACA Charge (\$/MWh): The applicable annual charge for short-term sales under 18 C.F.R. Section 382.201 of the FERC Regulations.

**Ancillary Services Bid**

The bid the Owner of a Condition 2 Unit must submit into Ancillary Service markets when dispatched by CAISO is as follows:

$$\text{Ancillary Services Bid (\$/MW per hr)} = \frac{\left[ \left( \frac{\text{Annual Fixed Revenue Requirement (\$)}}{\left( \frac{30 \text{ minutes} \times \text{Unit's Highest Ramp Rate from Schedule A, MW/min}}{\text{Target Available Hours}} \right)} \right) \right] + \left[ \left( \frac{\text{Annual Fixed Revenue Requirement (\$)}}{\left( \frac{\text{Maximum Net Dependable Capacity}}{\text{Target Available Hours}} \right)} \right) \right]}{2}$$

Annual Fixed Revenue Requirement is shown in Schedule B.  
 Target Available Hours is shown in Schedule B.  
 The product of 30 minutes times the Unit's highest Ramp Rate in Schedule A shall not exceed the Unit's Maximum Net Dependable Capacity.

**Schedule N-1  
 NON-DISCLOSURE and CONFIDENTIALITY AGREEMENT  
 for RESPONSIBLE UTILITY**

**[Name of Responsible Utility]** (the "Responsible Utility") acknowledges that **[Name of Owner]** ("Owner") and the California Independent System Operator Corporation ("CAISO") (jointly, the "Providing Parties" and severally, the "Providing Party") have agreed to provide certain information to the Responsible Utility

pursuant to certain provisions of the Must-Run Service Agreement ("MRSA") between Owner and CAISO and as required for settlement and billing of charges under Article 9 of such Agreement. In order to permit the Responsible Utility to receive such Confidential Information from Owner or CAISO pursuant to the above-referenced provisions of the MRSA, the Responsible Utility and the Providing Parties hereby agree as follows:

- (1) For purposes of this Non-Disclosure and Confidentiality Agreement, the term "Confidential Information" shall have the same meaning it has in Section 12.5 of the MRSA, a copy of which is appended;
- (2) The Providing Parties shall provide such Confidential Information pursuant to the terms of this Non-Disclosure and Confidentiality Agreement;
- (3) The Responsible Utility shall keep such Confidential Information confidential, shall use it only for the purposes related to the MRSA, and shall limit the disclosure of any such Confidential Information to only those personnel within its organization with responsibility for using such information in connection with the MRSA. Such personnel may not include any person whose duties include (i) the marketing or sale of electric power or natural gas or gas transportation capacity at wholesale or retail, (ii) the purchase of electric power or natural gas or gas transportation capacity at wholesale or retail, (iii) the direct supervision of any employee with such responsibilities, or (iv) the provision of electricity or natural gas marketing consulting services to any employee with such responsibilities;
- (4) The Responsible Utility shall assure that personnel within its organization read and comply with the provisions of this Non-Disclosure and Confidentiality Agreement;
- (5) The Responsible Utility shall use all reasonable efforts to maintain the confidentiality of the Confidential Information in any litigation, and shall promptly notify the providing Party of any attempt by a third party to obtain the Confidential Information through legal process or otherwise;
- (6) The Responsible Utility may use Confidential Information in litigation or regulatory proceedings related to the Must-Run Service Agreement between Owner and CAISO but only after notice to the Providing Party and affording the Providing Party an opportunity to obtain a protective order or other relief to prevent or limit disclosure of the Confidential Information.

The Responsible Utility agrees to be bound by the terms of Section 12.5 of the MRSA in the same manner and to the same extent as the Providing Parties. The person signing on behalf of the Responsible Utility represents that he/she is authorized to bind the Responsible Utility to the terms of this Non-Disclosure and Confidentiality Agreement.

The undersigned signatory represents that he/she is authorized to bind the Responsible Utility, to the terms of this Non-Disclosure and Confidentiality Agreement.

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Responsible Utility: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Telephone: \_\_\_\_\_

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_

Title: \_\_\_\_\_

Owner: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

California Independent System Operator Corporation

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_



**SCHEDULE N-2**

**NON-DISCLOSURE and CONFIDENTIALITY AGREEMENT  
for PERSONS OTHER THAN THE RESPONSIBLE UTILITY**

**[Name of]** (the "Receiving Party") acknowledges (a) that **[Name of Owner]** ("Owner") has agreed to provide Confidential Information to the California Agency pursuant to certain provisions of the Must-Run Service Agreement ("MRSA") between Owner and the California Independent System Operator Corporation ("CAISO"), and (b) that Owner and CAISO (jointly, the "Providing Parties" and severally, the "Providing Party") may provide Confidential Information on a need-to-know basis to Owner's Scheduling Coordinator, financial institutions, agents and potential purchasers of interests in a Unit; and, as required for settlement and billing, to Scheduling Coordinators responsible for paying for services provided under the MRSA between Owner and CAISO. In order to permit the Receiving Party to receive such Confidential Information from Owner or CAISO, the Receiving Party and the Providing Parties hereby agree as follows:

- (1) For purposes of this Non-Disclosure and Confidentiality Agreement, the term "Confidential Information" shall have the same meaning it has in Section 12.5 of the MRSA between Owner and CAISO, a copy of which is appended;
- (2) The Providing Parties shall provide such Confidential Information pursuant to the terms of this Non-Disclosure and Confidentiality Agreement;
- (3) The Receiving Party shall keep such Confidential Information confidential, shall use it only for the purposes related to the MRSA, and shall limit the disclosure of any such Confidential Information to only those personnel within its organization with responsibility for using such information in connection with the MRSA upon their execution of this Non-Disclosure and Confidentiality Agreement. Such personnel may not include any person whose duties include (i) the marketing or sale of electric power or natural gas or gas transportation capacity at wholesale or retail, (ii) the purchase of electric power or natural gas or gas transportation capacity at wholesale or retail, (iii) the direct supervision of any employee with such responsibilities, or (iv) the provision of electricity or natural gas marketing consulting services to any employee with such responsibilities;
- (4) The Receiving Party shall assure that personnel within its organization authorized to receive Confidential Information read and comply with the provisions of this Non-Disclosure and Confidentiality Agreement;
- (5) The Receiving Party shall use all reasonable efforts to maintain the confidentiality of the Confidential Information in any litigation, and shall promptly notify the providing Party of any attempt by a third party to obtain the Confidential Information through legal process or otherwise;

The Receiving Party agrees to be bound by the terms of Section 12.5 of the MRSA in the same manner and to the same extent as the Providing Parties. The person signing on behalf of the Receiving Party represents that he/she is authorized to bind the Receiving Party to the terms of this Non-Disclosure and Confidentiality Agreement.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Title: \_\_\_\_\_

Receiving Party: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

California Independent System Operator Corporation

Title: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

## **SCHEDULE O**

### **RMR Owner's Invoice Process**

The following principles and practices shall govern the submission of invoices to the CAISO for Energy and Ancillary Services provided under this Agreement ("RMR services"):

1. Invoices submitted by Owner to the CAISO for RMR services shall be clear, understandable and complete.
2. The CAISO, all RMR Owners and Responsible Utilities shall agree on the RMR invoice template, which agreement shall not be unreasonably withheld, prior to its implementation. The CAISO shall publish the current version of the RMR invoice template by including it on the CAISO Website. The CAISO will specifically tell each Owner and Responsible Utility where on the CAISO Website this RMR invoice template can be found. Each Owner shall use the then current RMR invoice template for invoicing RMR services for each Facility. The RMR invoice template may change from time to time. The CAISO shall notify the California Agency, all RMR Owners

and Responsible Utilities when a new agreed upon RMR invoice template has been placed on the CAISO Website.

3. Subject to the provisions of paragraph 4 below, a Completed RMR invoice based on the version of the RMR invoice template posted on the CAISO Website seven days prior to submission of the invoice shall be deemed to satisfy the requirements of this Agreement. As used herein, the term "Completed RMR invoice" means that: (a) all of the raw data required to calculate debits and credits have been included; (b) all calculations have been performed in accordance with the formulae in the current RMR invoice template, or in the event that Owner believes a conflict exists between one or more formula(s) in the RMR Owner's invoice and the corresponding formula in the RMR invoice template, such conflict has been identified and substitute equations have been documented and used at the appropriate location(s) in the invoice; (c) linkages between invoice levels are identified; (d) all billing and service assumptions, data inputs and formulae reasonably necessary to understand the derivation of each charge on the invoice has been included; and (e) the invoice has been provided to the CAISO and the Responsible Utility.
4. The Estimated RMR invoice or the Adjusted RMR invoice timeline set forth in the CAISO's RMR Payments Calendar (for the appropriate invoice) shall not commence, payments shall not be made and interest shall not begin to accrue until a Completed RMR invoice has been submitted to the CAISO and Responsible Utility.
5. In the event of any conflict between the RMR invoice template and this Agreement, this Agreement shall govern. The Owner or Responsible Utility detecting the conflict shall promptly give notice to the CAISO. The CAISO shall notify all RMR Owners and all Responsible Utilities as soon as practicable after a conflict has been identified.
6. If Owner identifies a conflict, Owner shall identify the conflict in its letter transmitting its completed Estimated or Adjusted RMR invoice to the CAISO and include therein Owner's revised formula, which will be effective until agreement has been reached among the CAISO, Owner, the other RMR Owners and the Responsible Utilities on the correct formula, or a decision has been rendered through ADR from which no further appeal is possible.
7. An RMR Invoice Task Force has been formed with representatives from each of the RMR Owners, the Responsible Utilities and the CAISO. When a conflict has been identified, the CAISO, Owner, the other RMR Owners and the Responsible Utility will participate in meetings of the RMR Invoice Task Force to reach agreement on a revised RMR invoice template. The RMR Invoice Task Force shall meet at least monthly until all conflicts are resolved. Once all conflicts have been resolved, the RMR Invoice Task Force will meet approximately every six months to address invoicing and payment issues.
8. The RMR Invoice Task Force also shall be responsible for simplifying the RMR invoices so that they are easier to process and less burdensome to prepare.
9. To the extent that the Owner, the CAISO and the Responsible Utility have agreed, certain columns in the Owner's RMR invoice template shall be standard for the Facility and shall not change. The Owner shall not be required to complete such columns each month on its invoice for it to be considered a Completed RMR invoice, unless the underlying information requirements change.
10. Owner shall supply monthly RMR Level 0-3 invoice information in accordance with the RMR invoice template for each Responsible Utility service territory as follows:
  1. Level 0: the summary invoice for Owner's total amount invoiced to the CAISO for all of Owner's Facilities;
  2. Level 1: the summary invoice for all RMR Units at a Facility;

3. Level 2: the detailed calculated information for individual RMR Units at the Facility; and
4. Level 3: the detailed hourly data for individual RMR Units at each Facility.

Each invoice shall contain such other information as is necessary to perform the calculations, including indicated netted meter reads, CAISO Dispatch Notice information (both day-ahead, real time, and adjustments), Owner's Availability Notice information and final market schedule information. No quantities shall be left blank. Each assumption made by the Owner to perform a calculation shall be listed and explained either in the appropriate Level 0-3 template under Notes or in a transmittal letter accompanying the invoice.

The methods described shall be used to calculate quantities such as Hourly Fuel Price, Hourly Emissions Cost and Start-up calculations used as input data in the RMR invoice template.

Owner shall indicate any data appearing on the invoice which it considers confidential. Responsible Utility may use the data in accordance with Section 12.5 and Schedule N of this Agreement.

## **SCHEDULE P**

### **Reserved Energy for Air Emissions Limitations**

This Schedule P applies only to Units located within the San Diego Air Quality Control Basin ("Basin").

1. For purposes of this Schedule P, the term Emission Limitation means present or future limitations on the discharge of air pollutants or contaminants into the atmosphere specified by any federal, state, regional or local law ("Clean Air Law"), by any regulation, air quality implementation plan, or permit condition promulgated or imposed by any agency authorized under any such Clean Air Law or by the judgment of any court of competent jurisdiction.
2. (a) Except as set out in Sections 2 (b) and (c), if a Facility is located in the Basin and is subject to an Emission Limitation that would limit the MWh that can be produced from the Facility during the Contract Year or part thereof (such Contract Year or part being referred to as the "Limitation Period"), Owner shall, so long as some or all of the Units at the Facility are operating under Condition 1, reserve for the Facility for each Month of the Limitation Period for dispatch under this Agreement, a quantity of MWh equal to the average monthly Requested MWh for the Facility for that Month in the 36 Months preceding the next Contract Year (the "Monthly Reserved MWh").
  - (b) If there are less than 36 Months of Requested MWh preceding the next Contract Year, the Monthly Reserved MWh for the Limitation Period shall be determined by agreement between CAISO and Owner. If Owner and CAISO are unable to reach agreement by October 31 preceding the next Contract Year, Owner or CAISO may refer the matter to ADR under a schedule (specified by the arbitrator if the participants cannot agree) requiring a decision within 30 days following appointment of the arbitrator.
  - (c) (i) If the Monthly Reserved MWh has been determined in accordance with Section 2(a) and this Agreement terminates as to a Unit at the Facility, the Monthly Reserved MWh shall be adjusted downward to the average of the Requested MWh for the Units that remain subject to this Agreement for the same 36 Month period previously used to calculate the Monthly Reserved MWh.
    - (ii) If the Monthly Reserved MWh has been determined in accordance with Section 2 (b) and the Agreement terminates as to a Unit at the Facility, the adjustment shall be determined by agreement of Owner and CAISO. If the Parties are unable to

reach agreement at least 45 days before the Agreement terminates as to the Unit, Owner or CAISO may refer the matter to ADR under a schedule (specified by the arbitrator if the participants cannot agree) requiring a decision within 30 days following appointment of the arbitrator

3. The Monthly Reserved MWh are set forth on Schedule A. No less than 15 days before the beginning of each Contract Year, Owner shall make a Section 205 filing limited to changing the terms of Schedule A to revise the Monthly Reserved MWh determined in accordance with Section 2. The revised Monthly Reserved MWh shall be effective from the first day of the Contract Year.
4. If the sum of the Billable MWh and Hybrid MWh during a Month is less than the Monthly Reserved MWh, CAISO may:
  - (a) carry forward into the following Months of the Limitation Period all unused Monthly Reserved MWh, provided the cumulative unused MWh that are carried forward into the following Months may not exceed 20% of the aggregate Monthly Reserved MWh for the remainder of the Limitation Period including the Monthly Reserved MWh for the Months into which unused Monthly Reserved MWh are to be carried forward, or
  - (b) carry forward less than all unused Monthly Reserved MWh and release to Owner the Monthly Unused Reserved MWh not carried forward.

CAISO shall notify Owner of the amount of unused Monthly Reserved MWh to be carried forward within 3 Business Days after the beginning of the next Month.
5. CAISO may elect to reduce the aggregate Monthly Reserved MWh for the remainder of the Limitation Period by notifying Owner not less than 5 days prior to the beginning of the Month in which the reduction is to be effective. Notwithstanding the foregoing, if CAISO or Owner forecasts that usage will approach the Emission Limitation in the last Month of the Limitation Period, CAISO and Owner shall closely coordinate to release any unused Monthly Reserved MWh as soon as possible.
6. If there are unused Monthly Reserved MWh for the Facility remaining at the end of the Limitation Period, CAISO shall pay the Unused Emission Reserve Payment. The Unused Emission Reserve Payment shall be the product of (a) the Unused Monthly Reserved MWh Payment Rate and (b) the lesser of (i) the unused Monthly Reserved MWh carried forward by the CAISO into the last Month of the Limitation Period and (ii) the unused Monthly Reserved MWh remaining at the end of the Limitation Period. The Unused Monthly Reserved MWh Payment Rate shall be \$10 per MWh. The Unused Emission Reserve Payment shall be included in the invoice for the last Billing Month of the Limitation Period.
7. If the CAISO determines that the Monthly Reserved MWh have become insufficient due to a Force Majeure Event at the Facility or at Reliability Must-Run Units at another facility or because of an outage on the CAISO Controlled Grid or the Distribution Grid due to a Force Majeure Event, CAISO may request Owner to undertake, and if so requested, Owner shall undertake all such necessary and commercially reasonable measures approved in advance by CAISO and the Responsible Utility to (a) obtain, where possible, a modification or variance from applicable Emission Limitations, or (b) procure necessary emission reduction credits or allowances sufficient to offset emissions in excess of Emission Limitations to enable Owner to provide additional MWh dispatched by the CAISO to meet reliability requirements arising by reason of such Force Majeure Event. CAISO shall reimburse Owner for all reasonable costs of procuring such emission reduction credits or allowances.
8. If the CAISO wishes to dispatch a Unit at a Facility that is within 5% of exceeding its Monthly Reserved MWh for the Limitation Period, the CAISO shall first dispatch Units at other Facilities

that are not within 5% of the Monthly Reserved MWh during the Limitation Period if the other Unit(s), in the CAISO's sole judgment, provide equivalent reliability benefits.

9. If any Emission Limitation affecting the Facility materially changes, CAISO and Owner promptly shall renegotiate this Schedule P to reflect such change. If CAISO and Owner are unable to agree on revisions to this Schedule P, the Owner may file a revised Schedule P with FERC under Section 205 of the Federal Power Act for the limited purpose of taking such changes in the Emissions Limitation into account. Such filing may be with or without the concurrence of the CAISO, but CAISO reserves its right to protest any such filing.

**CAISO TARIFF APPENDIX H**

**[NOT USED]**

**[Ten Sheet Numbers Reserved for Future Filings.]**

**Methodology for Developing the Weighted Average Rate for Wheeling Service**

The weighted average rate payable for Wheeling over joint facilities at each Scheduling Point shall be calculated as follows, applying the formula separately to the applicable Wheeling Access Charges:

$$WBAC = \frac{\sum (P_n \times Q_n)}{\sum Q_n}$$

Where:

~~WBAC~~ = ~~Weighted average Wheeling Access Charge for each CAISO Scheduling Point~~

~~P<sub>n</sub>~~ = ~~The applicable Wheeling Access Charge rate for a TAC Area or Participating TO<sub>n</sub> in \$/kWh as set forth in Section 26.1.4 of the CAISO Tariff and Section 5 of the TO Tariff.~~

~~Q<sub>n</sub>~~ = ~~The Available Transfer Capacity (in MW), whether from transmission ownership or contractual entitlements, of each Participating TO<sub>n</sub> for each CAISO Scheduling Point which has been placed within the CAISO Controlled Grid. Available Transfer Capacity shall not include capacity associated with Existing Rights of a Participating TO as defined in Section 16 of the CAISO Tariff.~~

~~n~~ = ~~the number of Participating TOs from 1 to n~~

**[Ministerial tariff language revision shown in BOLD – Docket ER06-615, September 21, 2006 Order.**

**NOTE: Appendix H moved to Appendix F, Schedule 3, 14.4. Settlements formula has been moved to Business Practice Manuals.]**

**CAISO TARIFF APPENDIX I**

**[NOT USED]**

**ISO TARIFF APPENDIX S**

**Station Power Protocol**

**[Docket No. ER05-849 Compliance filing pending FERC Order. See Table.]**

**[Docket No. ER08-\_\_\_ Station Power Amendment Filing pending FERC Order. See Table.]**

**[Docket No. ER08-\_\_\_ Balancing Authority Amendment Filing pending FERC Order. See Table.]**

**STATION POWER PROTOCOL**



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## **STATION POWER PROTOCOL (SPP)**

### **SPP-1 General Conditions**

#### **SPP-1.1 Procurement**

Station Power may be voluntarily self-supplied through a) permitted netting as provided in Section 10.1.3 of this CAISO Tariff using Energy generated contemporaneously at the same location, b) On-Site Self-Supply or c) Remote Self-Supply. Third Party Supply may serve Station Power only to the extent permissible under the rules and regulations of the applicable Local Regulatory Authority.

#### **SPP-1.2 Eligibility**

**SPP-1.2.1** Only Station Power ~~L~~oads associated with Generating Units in the CAISO ~~Control~~Balancing Authority Area that are part of an approved Station Power Portfolio may be self-supplied in accordance with this SPP. Each Generating Unit must be subject to a PGA, QF PGA, or MSS Agreement. Any generating facility outside the CAISO ~~Control~~Balancing Authority Area owned by the same entity is eligible to provide Remote Self-Supply to Station Power ~~L~~oads, subject to the terms of this SPP. Generating Units wishing to self-supply Station Power shall complete the application process specified in *Section SPP 2 of this SPP*.

**SPP-1.2.2** Station Power may be self-supplied by a single corporate entity, government agency, or joint powers agency or other legal entity organized under the laws of the State of California. A Station Power Portfolio may not include any facilities that are owned by the owner's corporate ~~a~~Affiliates. In the case of a joint powers agency, a Station Power Portfolio may not include facilities independently owned by one or more members or other legally distinct entities. If an entity owns a portion of a jointly owned Generating Unit, such ownership share may be included in a Station Power Portfolio up to the amount of the associated entitlement to Energy from the jointly-owned Generating Unit provided that: (i) the entity has the right to call upon that Energy for its own use; and (ii) the Energy entitlement is not characterized as a sale from the jointly owned Generating Unit to any of its joint owners.

**SPP-1.2.3** Net Output from generating facilities outside the CAISO ~~Control~~Balancing Authority Area may be included in a Station Power Portfolio and used as a source of Remote Self-Supply to serve Station Power of Generating Units in the CAISO ~~Control~~Balancing Authority Area and part of the Station Power Portfolio, so long as the following conditions are fulfilled:

- (a) Imports of Net Output must be *submitted in Self-s*Schedules~~d~~ using an *interchange* Resource ID specified by the CAISO;
- (b) ~~Import~~HASP Intertie Schedules using such *interchange*Resource ID do not exceed the available Net Output of such generating facilities in any hour;
- (c) Firm transmission service to a Scheduling Point that assures delivery into the CAISO ~~Control~~Balancing Authority Area is secured; and
- (d) Meter ~~d~~Data for generating facilities located outside the CAISO ~~Control~~Balancing Authority Area shall be subject to CAISO audit to verify performance in accordance with these requirements.

#### **SPP-1.3 Limitations**

**SPP-1.3.1** Station Power supplied by contemporaneous on-site Generation is treated as permitted netting under Section 10.1.3 of this CAISO Tariff. This SPP neither expands opportunities for nor imposes additional conditions on permitted netting. In accordance with this CAISO Tariff, such

contemporaneous self-supplied Station Power need not be *submitted in Self-schedules* with the CAISO.

**SPP-1.3.2** Self-supply of Station Power shall be strictly voluntary. Nothing in this SPP is intended to: 1) preclude a Generating Unit from purchasing Station Power pursuant to an applicable retail rate or tariff; or 2) supersede otherwise applicable jurisdiction of a Local Regulatory Authority, except in the event of a conflict between federal and state tariff provisions, in which case the federal tariff provisions will control.

## **SPP-2 Station Power Requirements and Review**

### **SPP-2.1 Applications to Self-Supply Station Power**

**SPP-2.1.1** An application to establish a Station Power Portfolio or to modify the configuration of Station Power meters or the ~~G~~generating facilities included in a Station Power ~~p~~Portfolio must be submitted according to the process specified by the CAISO and posted on the *CAISO WebsiteHome Page*, and shall include the following information:

- (a) One-line diagrams clearly showing the location and ownership of all Generating Units and Station Power meters, their connection to the CAISO Controlled Grid or distribution system, and the status of breakers and switchgear for normal system operation.
- (b) Identification of any generating facilities outside the *CAISO ControlBalancing Authority Area*, to be used to provide Remote Self-Supply of Station Power within the proposed Station Power Portfolio. No loads associated with generating facilities outside the *CAISO ControlBalancing Authority Area* may be supplied under this SPP.
- (c) Certification that the applicant is the sole owner of all generating facilities proposed to be included in the Station Power Portfolio, and that the applicant has the right to call on Energy for its own use from its ownership share of any jointly owned facilities that are proposed to be used to self-supply Station Power.
- (d) Demonstration that each Station Power meter is certified in accordance with the CAISO Tariff.
- (e) Verification that each Station Power meter is subject to a Meter Service Agreement for CAISO Metered Entities, and that each Generating Unit is bound to the CAISO Tariff by a PGA, QF PGA, or MSS Agreement.
- (f) Verification that the applicant has arranged for terms of service with the responsible UDC or MSS Operator for the use of any distribution facilities required to self-supply Station Power.

**SPP-2.1.2** On the CAISO's written request, the applicant will provide additional information that the CAISO reasonably determines is necessary to verify the planned operation of the Station Power Portfolio and meet the requirements of *Section SPP 2.1.1 of this SPP*.

### **SPP-2.2 CAISO Monitoring and Review**

**SPP-2.2.1** The CAISO will take the following actions with respect to each application to establish a Station Power Portfolio:

- (a) The CAISO shall post on the *CAISO WebsiteHome Page* a listing of the specific Station Power meters and Generating Units located in the *CAISO ControlBalancing*

*Authority Area, and any generating facilities outside the CAISO Control/Balancing Authority Area, that compose each Station Power Portfolio, and which are eligible to participate in the self-supply of Station Power in accordance with this SPP.*

(b) *The CAISO will provide the appropriate UDC or MSS Operator and the Local Regulatory Authority with one-line diagrams and other information regarding each application.*

(c) *The CAISO will make a determination in consultation with the UDC or MSS Operator and the Local Regulatory Authority on the factual question of whether distribution facilities are involved in the requested self-supply of Station Power. Any disputes regarding such determinations shall be subject to the dispute resolution procedures of this CAISO Tariff.*

(d) *The CAISO will verify metering schemes and assign unique #Load identifiers consistent with the CAISO ~~D~~data ~~T~~emplates and ~~V~~validation ~~R~~ules that the Scheduling Coordinator responsible for each meter will be required to use for scheduling and ~~s~~Settlement.*

**SPP-2.2.2** *The CAISO shall promptly review each application to establish or modify a Station Power Portfolio. Within ten (10) Business Days after the submittal of the application, the CAISO shall notify the applicant in writing that the application is complete, or shall list any specific deficiencies or additional information that the CAISO reasonably requires to complete the application. The CAISO shall use all reasonable efforts to make the changes necessary for the new or modified configurations to take effect and the Station Power Portfolio to begin self-supplying Station Power within twenty (20) Business Days after a complete application is submitted. In no event shall a Station Power Portfolio begin self-supplying Station Power until any and all required changes to the configuration of metering or other equipment are completed as required under *Section SPP-6 of this SPP*. The CAISO will have an ongoing right to request additional information reasonably necessary to verify that conditions on the self-supply of Station Power as specified in this SPP are met.*

### **SPP-3 Self-Supply Verification and CAISO Charges**

#### **SPP-3.1 Self-Supply Verification**

*At the end of each Netting Period, the CAISO will calculate the Net Output for each Generating Unit in the Station Power Portfolio. If the Net Output is positive, then all Station Power associated with that Generating Unit, other than #Load netted in accordance with this CAISO Tariff, will have been served by On-Site Self-Supply. Any positive Net Output from facilities in the Station Power Portfolio will be available to provide Remote Self-Supply to any Generating Unit with negative Net Output. If the available Remote Self-Supply is less than the aggregate negative Net Output in the Station Power Portfolio, then such shortfall will be deemed to have been served by Third Party Supply. The CAISO will incorporate these determinations in its accounting and billing for the Netting Period by reassigning Station Power to unique #Load identifiers for Remote Self-Supply and Third Party Supply, as required.*

#### **SPP-3.2 Charges on Metered Demand**

*Station Power that is not eligible for permitted netting in accordance with Section 10.1.3 of this CAISO Tariff must be *submitted in Self-s*Schedules~~d~~ in accordance with the CAISO Tariff, and will be assessed all charges applicable to metered Demand under the CAISO Tariff, except as provided in *Section SPP 4.1 of this SPP*.*

#### **SPP-3.3 Administrative Charge**

*Scheduling Coordinators of Generating Units that have Station Power meters shall be assessed an administrative charge in accordance with Schedule 5 of Appendix F ~~to the ISO Tariff~~.*

### **SPP-4 Transmission Service**

**SPP 4.1** Station Power Load that is directly connected to the transmission facilities or directly connected to the Distribution System of a UDC or MSS Operator located in a PTO Service Territory and that is determined to have been served by On-Site Self-Supply shall be deemed not to have used the CAISO Controlled Grid and shall not be included in the Gross Load of the applicable UDC or MSS Operator. Station Power that is served by Wheeling service and that is determined to have been served by On-Site Self-Supply shall be deemed not to have used the CAISO Controlled Grid and shall not be included in the hourly Self-Schedules (in kWh) of the applicable Scheduling Coordinator that are subject to the Wheeling Access Charge.

**SPP 4.2** Station Power Load that is directly connected to the transmission facilities or directly connected to the Distribution System of a UDC or MSS Operator located in a PTO Service Territory and that is determined to have been served by Remote Self-Supply or Third Party Supply shall be included in the Gross Load of the applicable UDC or MSS Operator. Station Power that is served by Wheeling service and that is determined to have been served by Remote Self-Supply or Third Party Supply shall be included in the hourly Self-Schedules (in kWh) of the applicable Scheduling Coordinator that are subject to the Wheeling Access Charge.

**SPP 4.3** If the Generating Unit requires the use of distribution facilities or other facilities that are not part of the CAISO Controlled Grid, then the Generating Unit will be subject to the appropriate charges of the applicable UDC, MSS Operator or owner of such non-CAISO Controlled Grid facilities.

#### **SPP 5 Energy Pricing**

All deviations between ~~scheduled and~~ metered Generation or Station Power and ~~that~~ submitted in Self-Schedules will be settled at the resource-specific LMP at the applicable ~~zonal price~~ Custom LAP for the Station Power Load. The determination of Net Output and attribution of On-Site Self-Supply, Remote Self-Supply and Third Party Supply to serving Station Power under this SPP shall apply only to determine whether Station Power was self-supplied during the Netting Period and will have no effect on the price of Energy sold or consumed by any facility in the Station Power Portfolio.

#### **SPP 6 Metering**

**SPP 6.1** In order to self-supply Station Power under this SPP, a Generating Unit must be subject to a Meter Service Agreement for CAISO Metered Entities pursuant to CAISO Tariff Section 10.3.1. A meter certified in accordance with the CAISO Tariff is required for Station Power Load taken under the SPP. Separate metering is required for any on-site Load that does not meet the definition of Station Power. Under no circumstances may ineligible Loads be included in the ~~meter~~ Data collected by the CAISO from a Station Power meter.

**SPP 6.2** Any costs associated with owning or operating metering or related facilities necessary to self-supply Station Power according to the terms of this SPP are the responsibility of the owner-applicant.

**SPP 6.3** A single Scheduling Coordinator must represent the unique ~~Load~~ identifiers assigned by the CAISO for On-Site Self-Supply and Remote Self-Supply associated with each Station Power meter.

#### **SPP 7 Provision Of Data To UDC Or MSS Operator**

The CAISO will provide the applicable UDC or MSS Operator with the amount of On-Site Self-Supply, Remote Self-Supply, and Third Party Supply serving Station Power at the granularity required to allow the UDC or MSS Operator to assess charges, if any, under the applicable retail tariff(s).

**CAISO TARIFF APPENDIX J**

**[NOT USED]**

**[Ten Sheet Numbers Reserved for Future Filings.]**

**[Docket No. ER06-615 August 3, 2007 Compliance filing pending FERC Order. See Table.]**

**CAISO TARIFF APPENDIX K (ASRP)**

**Ancillary Service Requirements Protocol**

**CAISO TARIFF APPENDIX K (ASRP)**

**Ancillary Service Requirements Protocol**

**[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]**

**PART A**

**CERTIFICATION FOR REGULATION**

- A 1** A Generator wishing to provide Regulation as an Ancillary Service from a Generating Unit whether pursuant to a CAISO award or as part of a self-provision arrangement must meet the following operating characteristics and technical requirements in order to be certified by the CAISO to provide Regulation service unless granted a temporary exemption by the CAISO in accordance with criteria which the CAISO shall publish on the CAISO's ~~internet~~ Website;
- A 1.1** **Operating Characteristics**
- A 1.1.1** the rated capacity of the Generating Unit must be 1 MW or greater unless the Generating Unit is participating in an aggregation arrangement approved by the CAISO;
- A 1.1.2** the maximum amount of Regulation to be offered must be reached within a period that may range from a minimum of 10 minutes to a maximum of 30 minutes, as such period may be specified by the CAISO and published on the CAISO's Website;
- A 1.2** **Technical Requirements**
- A 1.2.1** **Control**

**A 1.2.1.1** a direct, digital, unfiltered control signal generated from the CAISO EMS through a standard CAISO direct communication and direct control system, must meet the minimum performance standards for communications and control which will be developed and posted by the CAISO on ~~its~~ the CAISO Website;

**A 1.2.1.2** the Generating Unit power output response (in MW) to a control signal must meet the minimum performance standards for control and unit response which will be developed and posted by the CAISO on ~~its~~ the CAISO Website. As indicated by the Generating Unit power output (in MW), the Generating Unit must respond immediately, without manual Generating Unit operator intervention, to control signals and must sustain its specified ~~r~~**R**amp ~~r~~**R**ate, within specified Regulation ~~l~~**L**imits, for each minute of control response (MW/minute);

**A 1.2.2      Monitoring:**

the Generating Unit must have a standard CAISO direct communication and direct control system to send signals to the CAISO EMS to dynamically monitor, at a minimum the following:

- A 1.2.2.1** actual power output (MW);
- A 1.2.2.2** high limit, low limit and rate limit values as selected by the Generating Unit operator; and
- A 1.2.2.3** in-service status indication confirming availability of Regulation service.

**A 1.2.3 Voice Communications:**

CAISO approved primary and back-up voice communication must be in place between the CAISO Control Center and the operator controlling the Generating Unit at the generating site and between the Scheduling Coordinator and the operator. The primary dedicated voice communication between the CAISO Control Center and the operator controlling the Generating Unit at the generating site must be digital voice communication, as provided by a standard CAISO direct communication and direct control system; and

- A 1.3** the communication and control system and the Generating Unit must pass a qualification test to demonstrate the overall ability to provide Regulation meeting the performance requirements of the ASRP for Regulation.
- A 2** A Generator wishing to be considered for certification for Regulation service by the CAISO must make a written request to the CAISO, giving details of the technical capability of the Generating Units concerned and identifying the Scheduling Coordinator through whom the Generator intends to offer Regulation service. The Generator shall at the same time send a copy of its request to that Scheduling Coordinator. Technical review request forms will be available from the CAISO.
- A 3** No later than one week after receipt of the Generator's request, the CAISO shall provide the Generator with a listing of required interface equipment for Regulation, including a standard CAISO direct communication and direct control system. The CAISO shall send a copy of the listing to the Generator's Scheduling Coordinator.
- A 4** The Generator may propose alternatives that the Generator believes may provide an equivalent level of communication and control for consideration by the CAISO. Such proposals shall be in writing and contain sufficient detail for the CAISO to make a determination of suitability. The CAISO may request additional information, if required, to assist in its evaluation of the proposal.
- A 5** The CAISO shall respond by accepting the alternative proposal, rejecting the alternative proposal, or suggesting modifications to the alternative proposal. Such acceptance, rejection, or suggested revision must be provided not later than six weeks after the proposal is received by the CAISO. The Generator and the CAISO shall keep the Scheduling Coordinator informed of this process by each sending to the Scheduling Coordinator a copy of any written communication which it sends to the other.
- A 6** Upon agreement as to any alternative method of communication and control to be used by the Generator, the CAISO shall provisionally approve the proposal in writing providing a copy to the Generator's Scheduling Coordinator at the same time. If agreed by the CAISO, the Generator may then proceed to procure and install the equipment and make arrangements for the required communication and control.
- A 7** Design, acquisition, and installation of the CAISO-approved communication and control equipment shall be under the control of the CAISO. The CAISO shall bear no cost



responsibility or functional responsibility for such equipment, except that the CAISO shall arrange for and monitor the maintenance of the communication and control system at the Generator's expense, unless otherwise agreed by the CAISO and the Generator. The CAISO shall be responsible for the design, acquisition and installation of any necessary modifications to the CAISO EMS at its own cost.

**A 8** The CAISO, in cooperation with the Generator shall perform testing of the communication and control equipment to ensure that the communication and control system performs to meet the CAISO requirements.

**A 9** When the CAISO is satisfied that the communication and control systems meet the CAISO's requirements, the Generator shall request in writing that the CAISO conduct a certification test with a suggested primary date and time and at least two alternative dates and times. The CAISO shall, within two Business Days of receipt of the Generator's request, accept a proposed time if possible or suggest at least three alternatives to the Generator. If the CAISO responds by suggesting alternatives, the Generator shall, within two Business Days of receipt of the CAISO's response, respond in turn by accepting a proposed alternative if possible or suggesting at least three alternatives, and this procedure shall continue until agreement is reached on the date and time of the test. The Generator shall inform its Scheduling Coordinator of the agreed date and time of the test.

**A 10** Testing shall be performed by the CAISO, with the cooperation of the Generator. Such tests shall include, but not be limited to, the following:

**A 10.1** confirmation of control communication path performance;

**A 10.2** confirmation of primary and secondary voice circuits for receipt of Dispatch Instructions;

**A 10.3** confirmation of the Generating Unit control performance; and

**A 10.4** confirmation of the CAISO EMS control to include changing the Generating Unit output over the range of Regulation proposed at different Set Points, from minimum to maximum output, and at different rates of change from the minimum to the maximum permitted by the design of the Generating Unit.

**A 11** Upon successful completion of the test, the CAISO shall certify the Generating Unit as being permitted to provide Regulation as an Ancillary Service and shall provide a copy of the certificate to the Scheduling Coordinator at the same time. The CAISO shall change its Generating Unit data base to reflect the permission for the Generating Unit to provide Regulation service.

**A 12** The Scheduling Coordinator may submit Bids for Regulation service from the certified Generating Unit into the CAISO Markets starting with the Day-Ahead Market for the hour ending 0100 on the second Trading Day after the CAISO issues the certificate.

**A 13** The certification to provide Regulation shall remain in force until:

- (a) withdrawn by the Scheduling Coordinator or the Generator by written notice to the CAISO to take effect at the time notified in the notice, which must be the end of a Trading Day; or
- (b) if the Generating Unit obtained CAISO certification on the basis of a prior communication and control technology, until revoked by the CAISO for

failure to comply with the requirement set forth in A 13.1 that the Generating Unit install a CAISO-specified standard CAISO direct communication and direct control system (unless exempted by the CAISO).

**A 13.1** Unless exempted by the CAISO, if the Generating Unit obtained CAISO certification on the basis of a prior communication and control technology, the CAISO shall provide written notice to the Generator of the Generator's obligation to install a CAISO-specified standard direct communication and direct control system along with a required date for said work to be completed as mutually agreed upon by the CAISO and the Generator. Failure to meet the completion date shall be grounds for the revocation of certification, provided that the CAISO must provide the Generator with at least ninety (90) days advance notice of the proposed revocation.

**A 14** The certification may be revoked by the CAISO only under provisions of the ASRP or **other provisions of** the CAISO ~~¶~~Tariff.

## **PART B**

### **CERTIFICATION FOR SPINNING RESERVE**

**B 1** A Generator wishing to provide Spinning Reserve as an Ancillary Service from a Generating Unit or System Resource whether pursuant to a CAISO award or as part of a self-provision arrangement must meet the following requirements in order to be certified by the CAISO to provide Spinning Reserve service:

**B 1.1** the rated capacity of the Generating Unit must be 1 MW or greater unless the Generating Unit is participating in an aggregation arrangement approved by the CAISO;

**B 1.2** the minimum governor performance of the Generating Unit or System Resource shall be as follows:

**B 1.2.1** 5% drop;

**B 1.2.2** governor deadband must be plus or minus 0.036Hz; and

**B 1.2.3** the power output must change within one second for any frequency deviation outside the governor deadband.

**B 1.3** the operator of the Generating Unit or System Resource must have a means of receiving Dispatch Instructions to initiate an increase in real power output (MW) within one minute of the CAISO Control Center determination that Energy from Spinning Reserve capacity must be ~~D~~dispatched;

**B 1.4** the Generating Unit or System Resource must be able to increase its real power output (MW) by the maximum amount of Spinning Reserve to be offered within ten minutes;

**B 1.5** CAISO approved voice communications services must be in place to provide both primary and alternate voice communication between the CAISO Control Center and the operator controlling the Generating Unit or System Resource; and

**B 1.6** The communication system and the Generating Unit or System Resource must pass a qualification test to demonstrate the overall ability to meet the performance requirements of the ASRP for Spinning Reserve.

**B 2** A Generator or System Unit wishing to be considered for certification for Spinning Reserve service by the CAISO must make a written request to the CAISO, giving details of the technical capability of the Generating Units or System Resources concerned and

identifying the Scheduling Coordinator through whom the Generator or System Unit intends to offer Spinning Reserve service. The Generator or System Unit shall at the same time send a copy of its request to that Scheduling Coordinator. Technical review request forms will be available from the CAISO.

- B 3** No later than one week after receipt of the request, the CAISO shall provide the Generator or System Unit with a listing of acceptable communication options and interface equipment options for Spinning Reserve. The CAISO shall send a copy of the listing to the Generator's or System Unit's Scheduling Coordinator.
- B 4** The Generator or System Unit may elect to implement any of the approved options defined by the CAISO, and, if it wishes to proceed with its request for certification, shall give written notice to the CAISO of its selected communication option, with a copy to its Scheduling Coordinator.
- B 5** When it receives the Generator's or System Unit's notice, the CAISO shall notify the Generator or System Unit and the Scheduling Coordinator in writing no later than two weeks after receipt of the notice confirming receipt of the notice and issuing provisional approval of the selected options. Upon receipt of the CAISO acknowledgment, the Generator or System Unit may proceed as indicated below to secure the necessary facilities and capabilities required.
- B 6** The Generator or System Unit may also propose alternatives that it believes may provide an equivalent level of control for consideration by the CAISO. Such proposals shall be in writing and contain sufficient detail for the CAISO to make a determination of suitability. The CAISO may request additional information, if required, to assist in its evaluation of the proposal.
- B 7** The CAISO shall respond by accepting the alternative proposal, rejecting the alternative proposal, or suggesting modifications to the alternative proposal. Such acceptance, rejection, or suggested revision must be provided not later than six weeks after the proposal is received by the CAISO. The Generator or the System Unit and the CAISO shall keep the Scheduling Coordinator informed of this process by each sending to the Scheduling Coordinator a copy of any written communication which it sends to the other.
- B 8** Upon agreement as to the method of communication and control to be used by the Generator or System Resource, the CAISO shall provisionally approve the Generator's proposal or the System Resource's proposal in writing providing a copy to the Generator's or System Resource's Scheduling Coordinator at the same time. The Generator or System Resource may then proceed to procure and install the equipment and make arrangements for the required communication.
- B 9** Design, acquisition, and installation of the Generator's equipment or the System Resource's equipment shall be under the control of the respective Generator or System Resource. The CAISO shall bear no cost responsibility or functional responsibility for such equipment. The CAISO shall be responsible for the design, acquisition and installation of any necessary modifications to its own equipment at its own cost.
- B 10** The Generator or System Resource shall perform its own testing of its equipment to ensure that the control system performs to meet the CAISO requirements.
- B 11** When it is satisfied that its plant, equipment and communication systems meet the CAISO's requirements, the Generator or System Resource shall request in writing that the CAISO conduct a certification test with a suggested primary date and time and at least two alternative dates and times. The CAISO shall, within two Business Days of receipt of the request, accept a proposed time if possible or suggest at least three alternatives to the Generator or System Resource. If the CAISO responds by suggesting alternatives, the Generator or System Resource shall, within two Business Days of receipt of the CAISO's response, respond in turn by accepting a proposed alternative if possible or suggesting at least three alternatives, and this procedure shall continue until

agreement is reached on the date and time of the test. The Generator or System Resource shall inform its Scheduling Coordinator of the agreed date and time of the test.

- B 12** Testing shall be performed under the direction of the CAISO. Such tests shall include, but not be limited to, the following:
- B 12.1** confirmation of control communication path performance for Dispatch Instruction;
  - B 12.2** confirmation of primary and secondary voice circuits for receipt of Dispatch Instructions;
  - B 12.3** confirmation of the Generating Unit or System Resource performance to include changing the Generating Unit or System Resource output over the range of Spinning Reserve proposed from minimum to maximum output, and at different rates of change from the minimum to the maximum permitted by the design of the Generating Unit or System Resource; and
  - B 12.4** testing the drop characteristic of the Generating Unit or System Resource by simulating frequency excursions outside the allowed deadband and measuring the response of the Generating Unit or System Resource.
- B 13** Upon successful completion of the test the CAISO shall certify the Generating Unit or System Resource as being permitted to provide Spinning Reserve as an Ancillary Service and shall provide a copy of the certificate to the Scheduling Coordinator at the same time. The CAISO shall change the Generating Unit or System Resource data base to reflect the ability of the Generating Unit to provide Spinning Reserve.
- B 14** The Scheduling Coordinator may bid Spinning Reserve from the certified Generating Unit or System Resource into the **CAISO** Markets starting with the Day-Ahead Market for the hour ending 0100 on the Second Trading Day after the CAISO issues the certificate.
- B 15** The certification to provide Spinning Reserve shall remain in force until withdrawn by the Scheduling Coordinator or the Generator or System Resource by written notice to the CAISO to take effect at the time notified in the notice, which must be the end of a Trading Day.
- B 16** The certification may be revoked by the CAISO only under provisions of the ASRP or **other provisions of** the CAISO Tariff.

## **PART C**

### **CERTIFICATION FOR NON-SPINNING RESERVE**

- C 1** An Ancillary Service Provider wishing to provide Non-Spinning Reserve as an Ancillary Service from a Generating Unit or System Resource whether pursuant to the CAISO's auction or as part of a self-provision arrangement must meet the following requirements in order to be certified by the CAISO to provide Non-Spinning Reserve service:
- C 1.1** the rated capacity of the Generating Unit or System Resource must be 1 MW or greater unless the Generating Unit is participating in an aggregation arrangement approved by the CAISO;
  - C 1.2** the Generating Unit must be able to increase output as soon as possible to the value indicated in a Dispatch Instruction, reaching the indicated value within ten minutes after issue of the instruction and be capable of maintaining output for 2 hours.
- C 2** An Ancillary Service Provider wishing to provide Non-Spinning Reserve as an Ancillary Service from Curtailable Demand whether pursuant to a CAISO award or as part of a self-provision arrangement must meet the following requirements in order to be certified by the CAISO to provide Non-Spinning Reserve service:
- C 2.1** the operator must be able to completely disconnect the required Load pursuant to a Dispatch Instruction within ten minutes after issue of the instruction;

- C 2.2** the minimum change in the electrical consumption of the Load must be at least 1 MW; and
- C 2.3** the Load must be capable of being interrupted for at least two hours.
- C 3** An Ancillary Service Provider wishing to provide Non-Spinning Reserve as an Ancillary Service, whether pursuant to a CAISO award or as part of a self-provision arrangement, must also meet the following requirements in order to be certified by the CAISO to provide Non-Spinning Reserve service:
- C 3.1** the operator of the Generating Unit, System Resource or the Curtailable Demand must have a means of receiving a Dispatch Instruction to initiate an increase in real power output or a reduction in Demand (MW) within one minute of the CAISO Control Center's determination that Non-Spinning Reserve capacity must be **D**ispatched; and
- C 3.2** the communication system and the Generating Unit, System Resource or Load must pass a qualification test to demonstrate the overall ability to meet the performance requirements of the ASRP for Non-Spinning Reserve.
- C 4** An Ancillary Service Provider wishing to be considered for certification for Non-Spinning Reserve service must make a written request to the CAISO, giving details of the technical capability of the Generating Unit, System Resource or Load concerned and identifying the Scheduling Coordinator through whom the Ancillary Service Provider intends to offer Non-Spinning Reserve. The Ancillary Service Provider shall at the same time send a copy of the request to that Scheduling Coordinator. Technical **R**evision request forms will be available from the CAISO.
- C 5** No later than one week after receipt of the Ancillary Service Provider's request, the CAISO shall provide the Ancillary Service Provider with a listing of acceptable communication options and interface equipment options for Non-Spinning Reserve. The CAISO shall send a copy of the listing to the Ancillary Service Provider's Scheduling Coordinator.
- C 6** The Ancillary Service Provider may elect to implement any of the certification, the Ancillary Service Provider shall give written notice to the CAISO of its selected communication option and interface equipment option, with a copy to its Scheduling Coordinator.
- C 7** When it receives the Ancillary Service Provider's notice, the CAISO shall notify the Ancillary Service Provider and the Scheduling Coordinator in writing no later than two weeks after receipt of the notice confirming receipt of the notice and issuing provisional approval of the selected options. Upon receipt of the CAISO acknowledgment the Ancillary Service Provider may proceed as indicated below to **s**ecure the necessary facilities and capabilities required.
- C 8** The Ancillary Service Provider may also propose alternatives that it believes may provide an equivalent level of control for consideration by the CAISO. Such proposals shall be in writing and contain sufficient detail for the CAISO to make a determination of suitability. The CAISO may request additional information, if required, to assist in its evaluation of the proposal.
- C 9** The CAISO shall respond by accepting the alternative proposal, rejecting the alternative proposal, or suggesting modifications to the alternative proposal. Such acceptance, rejection, or suggested revision must be provided not later than six weeks after the proposal is received by the CAISO. The Ancillary Service Provider and the CAISO shall keep the Scheduling Coordinator informed of this process by each sending to the Scheduling Coordinator a copy of any written communication which it sends to the other.
- C 10** Upon agreement as to the method of communication and control to be used by the Ancillary Service Provider, the CAISO shall provisionally approve the proposal in writing providing a copy to the Ancillary Service Provider's Scheduling Coordinator at the same

time. The Ancillary Service Provider may then proceed to procure and install the equipment and make arrangements for the required communication.

- C 11** Design, acquisition, and installation of the Ancillary Service Provider's equipment shall be under the control of the Ancillary Service Provider. The CAISO shall bear no cost responsibility or functional responsibility for such equipment. The CAISO shall be responsible for the design, acquisition and installation of any necessary modifications to the CAISO's equipment at its own cost.
- C 12** The Ancillary Service Provider shall perform its own testing of its equipment to ensure that the control system performs to meet the CAISO requirements.
- C 13** When it is satisfied that its plant, equipment and communication systems meet the CAISO's requirements, the Ancillary Service Provider shall request in writing that the CAISO conduct a certification test with a suggested primary date and time and at least two alternative dates and times. The CAISO shall, within two Business Days of receipt of the Ancillary Service Provider's request, accept a proposed time if possible or suggest at least three alternatives. If the CAISO responds by suggesting alternatives, the Ancillary Service Provider shall, within two Business Days of receipt of the CAISO's response, respond in turn by accepting a proposed alternative if possible or suggesting at least three alternatives, and this procedure shall continue until agreement is reached on the date and time of the test. The Ancillary Service Provider shall inform its Scheduling Coordinator of the agreed date and time of the test.
- C 14** Testing shall be performed under the direction of the CAISO. Such tests shall include, but not be limited to, the following:
  - C 14.1** confirmation of control communication path performance;
  - C 14.2** confirmation of primary and secondary voice circuits for receipt of Dispatch Instructions;
  - C 14.3** confirmation of the Generating Unit, System Resource or Load control performance; and
  - C 14.4** confirmation of the range of Generating Unit or System Resource control to include changing the output over the range of Non-Spinning Reserve proposed.
- C 15** Upon successful completion of the test, the CAISO shall certify the Generating Unit, System Resource or Load as being permitted to provide Non-Spinning Reserve as an Ancillary Service and shall provide a copy of the certificate to the Scheduling Coordinator at the same time. The CAISO shall change its data base to reflect the permission for the Generating Unit or Load to provide Non-Spinning Reserve service.
- C 16** The Scheduling Coordinator may bid Non-Spinning Reserve service from the certified Generating Unit or Load into the **CAISO** Markets starting with the Day-Ahead Market for the hour ending 0100 on the second Trading Day after the CAISO issues the certificate.
- C 17** The certification to provide Non-Spinning Reserve shall remain in force until withdrawn by the Scheduling Coordinator or the Ancillary Service Provider by written notice to the CAISO to take effect at the time notified in the notice, which must be the end of a Trading Day.
- C 18** The certification may be revoked by the CAISO only under provisions of the CAISO Tariff.

#### **Part D**

### **CERTIFICATION FOR VOLTAGE SUPPORT**

- D 1** A Generator wishing to provide Voltage Support as an Ancillary Service from a Generating Unit must meet the following requirements in order to be certified by the CAISO to provide Voltage Support service:

- D 1.1** the rated capacity of the Generating Unit must be 1 MW or greater unless the Generating Unit is participating in an aggregation arrangement approved by the CAISO;
- D 1.2** the Generating Unit must be able to produce VARs at lagging power factors less than 0.90 and absorb VARs at leading power factors more than 0.95 within the safe operating parameters for the Generating Unit;
- D 1.3** the Generating Unit must be able to produce or absorb VARs outside the 0.90 lag to 0.95 lead bandwidth over a range of real power outputs which the Generator expects to produce when offering Voltage Support;
- D 1.4** the Generating Unit must be able to produce or absorb VARs at the boundary of the Generating Unit's capability curve by reducing real power output to either absorb or produce additional VARs within the safe operating parameters for the Generating Unit; and
- D 1.5** metering and SCADA equipment must be in place to provide both real and reactive power data from the Generating Unit providing Voltage Support to the CAISO Control Center.
- D 2** A Generator wishing to be considered for certification for Voltage Support service by the CAISO must make a written request to the CAISO, giving details of the technical capability of the Generating Unit concerned and identifying the Scheduling Coordinator through whom the Generator intends to offer Voltage Support service. The Generator shall at the same time send a copy of its request to that Scheduling Coordinator. The details of the Generating Unit's technical capability must include the Generating Unit name plate data, performance limits, and capability curve. The Generator must also define the operating limitations in both real and reactive power (lead and lag) to be observed when Voltage Support is being provided to the CAISO for both normal and reduced real power output conditions. Technical Review request forms will be available from the CAISO.
- D 3** No later than one week after receipt of the Generator's request, the CAISO shall provide the Generator with a listing of acceptable communication options and interface equipment options for Voltage Support. The CAISO shall send a copy of the listing to the Generator's Scheduling Coordinator.
- D 4** The Generator may elect to implement any of the approved options defined by the CAISO, and, if it wishes to proceed with its request for certification, the Generator shall give written notice to the CAISO of its selected communication option and interface equipment option, with a copy to its Scheduling Coordinator.
- D 5** When it receives the Generator's notice the CAISO shall notify the Generator and the Scheduling Coordinator in writing no later than two weeks after receipt of the notice confirming receipt of the notice and issuing provisional approval of the selected options. Upon receipt of the CAISO acknowledgment the Generator may proceed as indicated below to secure the necessary facilities and capabilities required.
- D 6** The Generator may also propose alternatives that the Generator believes may provide an equivalent level of control for consideration by the CAISO. Such proposals shall be in writing no later than two weeks after receipt of the notice and contain sufficient detail for the CAISO to make a determination of suitability. The CAISO may request additional information, if required, to assist in its evaluation of the proposal.

- D 7** The CAISO shall respond by accepting the alternative proposal, rejecting the alternative proposal, or suggesting modifications to the alternative proposal. Such acceptance, rejection, or suggested revision shall be provided not later than six weeks after the proposal is received by the CAISO. The Generator and the CAISO shall keep the Scheduling Coordinator informed of this process by each sending to the Scheduling Coordinator a copy of any written communication which it sends to the other.
- D 8** Upon agreement as to the method of communication and control to be used by the Generator, the CAISO shall provisionally approve the proposal in writing providing a copy to the Generator's Scheduling Coordinator at the same time. The Generator may then proceed to procure and install the equipment and make arrangements for the required communication.
- D 9** Design, acquisition, and installation of the Generator's equipment are under the control of the Generator. The CAISO shall bear no cost responsibility or functional responsibility for such equipment.
- D 10** The CAISO shall be responsible for the design, acquisition and installation of any necessary modifications to the CAISO's equipment at its own cost.
- D 11** The Generator shall perform its own testing of its equipment to ensure that the control system performs to meet the CAISO requirements.
- D 12** When it is satisfied that its plant, equipment and communication systems meet the CAISO's requirements, the Generator shall request in writing that the CAISO conduct a certification test with a suggested primary date and time and at least two alternative dates and times. The CAISO shall, within two Business Days of receipt of the Generator's request, accept a proposed time if possible or suggest at least three alternatives to the Generator. If the CAISO responds by suggesting alternatives, the Generator shall, within two Business Days of receipt of the CAISO's response, respond in turn by accepting a proposed alternative if possible or suggesting at least three alternatives, and this procedure shall continue until agreement is reached on the date and time of the test. The Generator shall inform its Scheduling Coordinator of the agreed date and time of the test.
- D 13** Testing shall be performed under the direction of the CAISO. Such tests shall include, but not be limited to, the following:
- D 13.1** confirmation of control communication path performance;
- D 13.2** confirmation of primary and secondary voice circuits for receipt of Dispatch Instructions;
- D 13.3** confirmation of the Generating Unit automatic voltage regulator performance; and



- D 13.4** confirmation of the range of Voltage Support service over a range of Generating Unit real power outputs to verify the ability to both produce and absorb reactive power at different operating levels including minimum and maximum real power output.
- D 14** Upon successful completion of the test, the CAISO shall certify the Generating Unit as being permitted to provide Voltage Support as an Ancillary Service and shall provide a copy of the certificate to the Scheduling Coordinator at the same time. The CAISO shall change the Generating Unit data base to reflect the permission for the Generating Unit to provide Voltage Support.
- D 15** The Scheduling Coordinator may bid ~~Supplemental~~ Energy for Voltage Support from the certified Generating Unit into the market starting with the market for the hour ending 0100 on the first Trading Day after the CAISO issues the certificate.
- D 16** The certification to provide Voltage Support shall remain in force until withdrawn by the Scheduling Coordinator or the Generator by written notice to the CAISO to take effect at the time notified in the notice, which must be the end of a Trading Day.
- D 17** The certification may be revoked by the CAISO only under provisions of the ASRP or **other provisions of** the CAISO Tariff.

## **PART E**

### **CERTIFICATION FOR BLACK START**

- E 1** A Generator wishing to provide Black Start capacity from a Generating Unit as an Ancillary Service must meet the requirements stated in Appendix D of the CAISO Tariff in order to be certified by the CAISO to provide Black Start capacity. In addition, the Generating Unit must have a rated capacity 1 MW or greater unless the Generating Unit is participating in an aggregation arrangement approved by the CAISO.
- E 2** A Generator wishing to be considered for certification for Black Start service by the CAISO must make a written request to the CAISO. Such request must clearly identify the facilities related to the Generating Unit from which the Generator wishes to provide Black Start and shall identify the Scheduling Coordinator through whom the Generator wishes to offer Black Start service. The Generator shall send a copy of its request to its Scheduling Coordinator at the same time as it sends it to the CAISO. The Generator's written request must include at least the following:
- E 2.1** identification of the Generating Unit including Location Code;
- E 2.2** a single-line electrical diagram of the Generating Unit connections including auxiliary power busses and the connection to the station switchyard;
- E 2.3** a description of the fuel supply used for Black Start including on-site storage and resupply requirements;
- E 2.4** a single-line electrical diagram showing the transmission connection from the Generating Unit station switchyard to a connection point on the CAISO Controlled Grid;

- E 2.5** a description of the Generating Unit capability to provide both real and reactive power, any Start-Up and Shut-Down requirements, any staffing limitations; and
- E 2.6** a description of the primary, alternate and emergency back-up communications systems currently available to the Generator for communications to the CAISO Control Center.
- E 3** Upon receipt of the Generator's written request the CAISO shall review the information provided and respond in writing within two weeks of receipt of the request, providing a copy of its response to the Generator's Scheduling Coordinator. The CAISO response may be any of the following:
- E 3.1** acceptance of the proposal as presented;
- E 3.2** rejection of the proposal as presented with a rationale for such rejection; or
- E 3.3** a request for additional information needed by the CAISO to properly evaluate the request.
- E 4** A Generator receiving a rejection may submit a written request for reconsideration by the CAISO within 60 days of the date of the rejection notice. A request for reconsideration must address the rationale provided by the CAISO. The CAISO shall respond to a request for reconsideration within 60 days of the date of that request.
- E 5** A Generator receiving a request for additional information shall provide such information within 60 days of such request providing a copy at the same time to its Scheduling Coordinator. The CAISO shall review the information and respond within 120 days of the date of the CAISO's request for additional information providing a copy at the same time to the Generator's Scheduling Coordinator.
- E 6** Upon acceptance by the CAISO of the Generator's request and agreement as to the method of communication and control to be used by the Generator, the CAISO shall provisionally approve the proposal in writing providing a copy at the same time to the Generator's Scheduling Coordinator. The Generator may then proceed to procure and install the equipment and make arrangements for the required communication.
- E 7** Design, acquisition, and installation of the Generator's equipment shall be under the control of the Generator. The CAISO shall bear no cost responsibility or functional responsibility for such equipment. The CAISO shall be responsible for the design, acquisition and installation of any necessary modifications to its own equipment at its own cost.
- E 8** The Generator shall perform its own testing of its equipment to ensure that the Black Start system performs to meet the CAISO requirements.
- E 9** When it is satisfied that its plant, equipment and communication systems meet the CAISO's requirements, the Generator shall request in writing that the CAISO conduct a certification test with a suggested primary date and time and at least two alternative dates and times. The CAISO shall, within two Business Days of receipt of the Generator's request, accept a proposed time if possible or suggest at least three alternatives to the Generator. If the CAISO responds by suggesting alternatives, the Generator shall, within two Business Days of receipt of the CAISO's response, respond in turn by accepting a proposed alternative if possible or suggesting at least three alternatives, and this

procedure shall continue until agreement is reached on the date and time of the test. The Generator shall inform its Scheduling Coordinator of the agreed date and time of the test.

- E 10** Testing shall be performed under the direction of the CAISO. Such tests shall include, but not be limited to, the following:
- E 10.1** confirmation of control communication path performance;
  - E 10.2** confirmation of primary, secondary, and emergency voice circuits for receipt of Dispatch Instructions;
  - E 10.3** confirmation of the Generating Unit performance; and
  - E 10.4** simulation of a Black Start event.
- E 11** Upon successful completion of the test, the CAISO shall certify the Generating Unit as being permitted to provide Black Start capacity as an Ancillary Service and shall provide a copy of the certificate to the Scheduling Coordinator at the same time. The CAISO shall change its Generating Unit data base to reflect the permission for the Generating Unit to provide Black Start service.
- E 12** The certification to provide Black Start shall remain in force until withdrawn by the Scheduling Coordinator or the Generator by written notice to the CAISO to take effect at the time noticed in the notice, which must be the end of a Trading Day.
- E 13** The certification may be revoked by the CAISO only under provisions of the ASRP or **other provisions of** the CAISO Tariff.

## CAISO TARIFF APPENDIX L

[Docket No. OA08-12 Compliance filing pending FERC Order. See Table.]

[Docket No. ER08-\_\_\_ Amendment filing pending FERC Order. See Table.]

[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]

~~[not used]~~

### **Methodology to Assess Available Transfer Capability**

#### **METHODOLOGY TO ASSESS AVAILABLE TRANSFER CAPABILITY**

##### **L.1 Description of Terms**

The following descriptions augment existing definitions found in Appendix A “Master Definitions Supplement.”

**L.1.1 Available Transfer Capability (ATC)** is a measure of the transfer capability in the physical transmission network resulting from system conditions and that remains available for further commercial activity over and above already committed uses.

ATC is defined as the Total Transfer Capability (TTC) less applicable operating Constraints due to system conditions and Outages (i.e., OTC), less the Transmission Reliability Margin (TRM), less the total of Existing Transmission Commitments (ETComm), less the Capacity Benefit Margin (CBM).

**L.1.2 Total Transfer Capability (TTC)** is defined as the amount of electric power that can be moved or transferred reliably from one area to another area of the interconnected transmission system by way of all transmission lines (or paths) between those areas. In collaboration with owners of rated paths and the WECC Operating Transfer Capability Policy Committee (OTCPC), the CAISO utilizes Rated Path methodology to establish the TTC of CAISO branch groups Transmission Interfaces.

**L.1.3 Operating Transfer Capability (OTC)** is the TTC reduced by any operational Constraints caused by seasonal derates or Outages. CAISO Regional Transmission Engineers (RTE) determine OTC through studies using computer modeling.

**L.1.4 Existing Transmission Commitments (ETComm)** include Existing Contracts, and as appropriate, Firm Transmission Rights, and Transmission Ownership Rights.

**L.1.5 Transmission Reliability Margin (TRM)** is that amount of transmission transfer capability necessary to ensure that the interconnected transmission network is secure under a reasonable range of uncertainties in system conditions. TRM reserves sufficient transmission capacity from the Day-Ahead (DA) Market (DAM) to ensure that the interconnected transmission network is secure under a reasonable range of uncertainties in system conditions. This DAM implementation avoids Real-Time Schedule curtailments that would otherwise be necessary due to:

- **Load-Demand Forecast error**
- **Anticipated uncertainty in transmission system topology**
- **Unscheduled Flow**
- **Simultaneous path interactions**
- **Variations in Generation Dispatch**
- **Operating Reserve actions**

The level of TRM for each branch group Transmission Interface will be determined by CAISO Regional Transmission Engineers (RTE).

**L.1.6 Capacity Benefit Margin (CBM)** is that amount of transmission transfer capability reserved by Load Serving Entities (LSEs) to ensure access to Generation from interconnected systems to meet generation reliability requirements. In the Day-Ahead Market, CBM may be used to provide reliable delivery of Energy to CAISO Control Balancing Authority Area Loads and to meet CAISO responsibility for resource reliability requirements in Real-Time. The purpose of this DAM implementation is to avoid Real-Time Schedule curtailments and firm Load interruptions that would otherwise be necessary. CBM may be used to reestablish Operating Reserves. CBM is not available for non-firm transmission in the CAISO Control Balancing Authority Area. CBM may be used only after:

- **all non-firm sales have been terminated,**
- **Direct-control Load management has been implemented,**
- **customer interruptible Demands have been interrupted,**
- **if the LSE calling for its use is experiencing a Generation deficiency and its transmission service provider is also experiencing transmission Constraints relative to imports of Energy on its transmission system.**

**The level of CBM for each branch group Transmission Interface is determined by the amount of estimated capacity needed to serve firm Load and provide Operating Reserves based on historical, scheduled, and/or forecast data using the following equation to set the maximum CBM:**

$$\text{CBM} = (\text{Demand} + \text{Reserves}) - \text{Resources}$$

Where:

- Demand = forecasted area **dDemand**
- Reserves = reserve requirements
- Resources = internal area resources plus resources available on other **branch groups Transmission Interfaces**

## **L.2 ATC Algorithm**

$$\text{ATC} = \text{OTC} - (\text{TRM} + \text{ETC}_{\text{omm}} + \text{CBM})$$

or

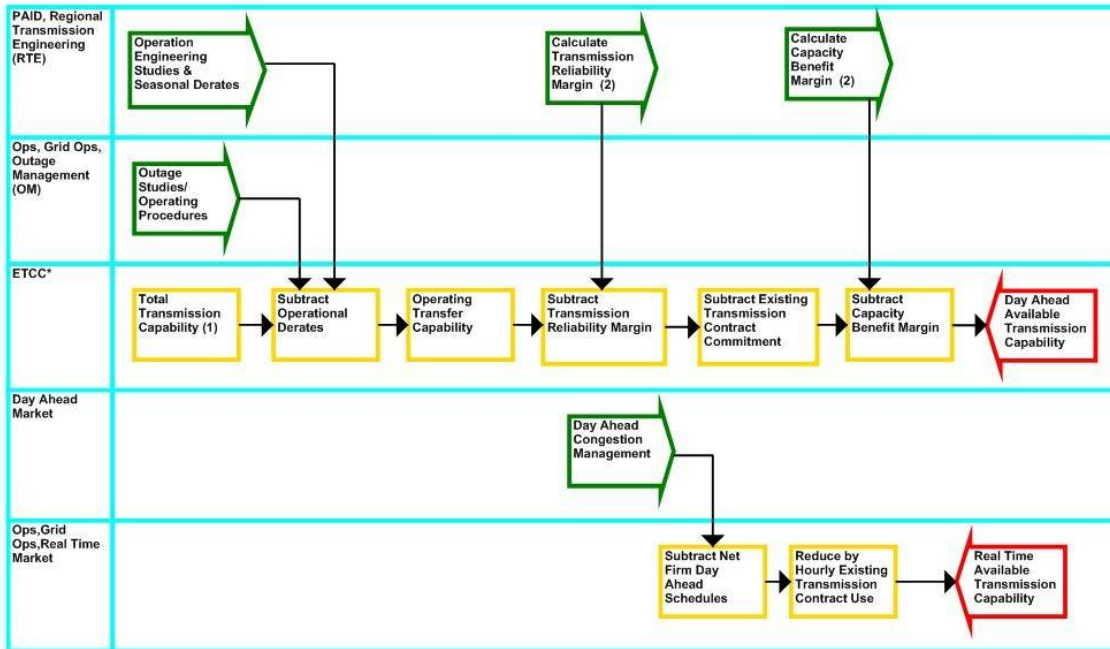
$$\text{ATC} = (\text{TTC} - \text{Operating Constraints}) - (\text{TRM} + \text{ETC}_{\text{omm}} + \text{CBM})$$

Where:

- OTC = TTC – Operating Constraints
- TTC = Total Transfer Capability
- OTC = Operating Transfer Capability
- TRM = Transmission Reliability Margin
- ETC<sub>omm</sub> = Existing Transmission Commitments
- CBM = Capacity Benefit Margin

## **L.3 ATC Process Flowchart**

## Available Transmission Capability



\* ETCC - Existing Transmission Contract Calculator  
 (1) WECC rated path methodology  
 (2) S-322

### L.4 TTC – OTC Determination

All transfer capabilities are developed to ensure that power flows are within their respective operating limits, both pre-Contingency and post-Contingency. Operating limits are developed based on thermal, voltage and stability concerns according to industry reliability criteria (WECC/NERC) for transmission paths. The process for developing TTC or OTC is the same with the exception of inclusion or exclusion of operating Constraints based on system conditions being studied. Accordingly, further description of the process to determine either OTC or TTC will refer only to TTC.

**L.4.1** Transfer capabilities for studied configurations may be used as a maximum transfer capability for similar conditions without conducting additional studies. Increased transfer capability for similar conditions must be supported by conducting appropriate studies.

**L.4.1.2** At the CAISO, studies for all major inter-area paths (mostly 500 kV) OTC are governed by the California Operating Studies Subcommittee (OSS) as one of four sub-regional Study Groups of the WECC OTCP (i.e., for California sub-region), which provides detailed criteria and methodology. For transmission system elements below 500 kV the methodology for calculating these flow limits is detailed in Section CL.4.3 and is applicable to the operating horizon.

**L.4.2** Transfer capability may be limited by the physical and electrical characteristics of the systems including any one or more of the following:

- **Thermal Limits – Thermal limits establish the maximum amount of electric current that a transmission line or electrical facility can conduct over a specified time-period as established by the Transmission Owner.**

- **Voltage Limits – System voltages and changes in voltages must be maintained within the range of acceptable minimum and maximum limits to avoid a widespread collapse of system voltage.**
- **Stability Limits – The transmission network must be capable of surviving disturbances through the transient and dynamic time-periods (from milliseconds to several minutes, respectively) following the disturbance so as to avoid generator instability or uncontrolled, widespread interruption of electric supply to customers.**

**L.4.3 Determination of transfer capability** is based on computer simulations of the operation of the interconnected transmission network under a specific set of assumed operating conditions. Each simulation represents a single “snapshot” of the operation of the interconnected network based on the projections of many factors. As such, they are viewed as reasonable indicators of network performance and may ultimately be used to determine Available Transfer Capability. The study is meant to capture the worst operating scenario based on the RTE experience and good engineering judgment.

**L.4.3.1 System Limits** – The transfer capability of the transmission network may be limited by the physical and electrical characteristics of the systems including thermal, voltage, and stability consideration. Once the critical Contingencies are identified, their impact on the network must be evaluated to determine the most restrictive of those limitations. Therefore, the  $TTC_1$  becomes:

$$TTC_1 = \text{lesser of } \{\text{Thermal Limit, Voltage Limit, Stability Limit}\} \text{ following } N-1_{\text{worst}}$$

**L.4.3.2** Parallel path flows will be considered in determining transfer capability and must be sufficient in scope to ensure that limits throughout the interconnected network are addressed. In some cases, the parallel path flows may result in transmission limitations in systems other than the transacting systems, which can limit the TTC between two transacting areas. This will be labeled  $TTC_2$ . Combined with **Section CL.4.3.1** above TTC becomes:

$$TTC = \text{lesser of } \{TTC_1 \text{ or } TTC_2\}$$

## **L.5 Developing a Power Flow Base-Case**

**L.5.1 Base-cases** will be selected used to model reality to the greatest extent possible including attributes like area Generation, area  $\downarrow$ Load,  $\downarrow$ Intertie flows, etc. At other times (e.g., studying longer range horizons), it is prudent to stress a base-case by making one or more attributes ( $\downarrow$ Load, Generation, line flows, path flows, etc.) of that base-case more extreme than would otherwise be expected.

### **L.5.2. Power Flow Base-Cases Separated By Geographic Region**

The standard RTE base-cases are split into five geographical regions in the CAISO Controlled Grid including the Bay Area, Fresno Area, North Area, SDG&E Area, and SCE Area.

### **L.5.3. Power Flow Base-Cases Selection Methodology**

The RTE determines the studied geographical area of the procedure. This determines the study base-cases from the Bay Area, Fresno Area, North Area, SCE Area, or SDG&E Area.

The transfer capability studies may require studying a series of base-cases including both peak and off-peak operation conditions.

### **L.5.4 Update a Power Flow Base-Case**

After the RTE has obtained one or more base-case studies, the base-case will be updated to represent the current grid conditions during the applicable season. The following will be considered to update the base-cases:

- **Recent Transmission Network Changes and Updates**
- **Overlapping Scheduled and Forced Outages**
- **Area Load Level**
- **Major Path Flows**
- **Generation level**
- **Voltage Levels**
- **Operating Requirements**

#### **L.5.4.1 Outage Consideration**

Unless detailed otherwise, the RTE considers modeling outages of:

- **Transmission lines, 500 kV**
- **Transformers, 500/230 kV**
- **Large Generating Units**
- **Generating Units within the studied area**
- **Transmission elements within the studied area**

At the judgment of the RTE, only the necessary outages will be modeled to avoid an unnecessarily burdensome and large number of base-cases.

#### **L.5.4.2 Area Load Level**

Base-case demand levels should be appropriate to the current studied system conditions and customer demand levels under study and may be representative of peak, off-peak or shoulder, or light demand conditions. The RTE estimates the area load levels to be utilized in the peak, partial-peak and/or off-peak base-cases. The RTE will utilize the current CAISO load forecasting program (e.g., ALFSS), ProcessBook (PI) or other competent method to estimate load level for the studied area. Once the RTE has determined the correct load levels to be utilized, the RTE may scale the scale the base-case loads to the area studied, as appropriate.

#### **L.5.4.3 Modify Path Flows**

The scheduled electric power transfers considered representative of the base system conditions under analysis and agreed upon by the parties involved will be used for modeling. As needed, the RTE may estimate select path flows depending on the studied area. In the event that it is not possible to estimate path flows, the RTE will make safe assumptions about the path flows. A safe assumption is more extreme or less extreme (as conservative to the situation) than would otherwise be expected. If path flow forecasting is necessary, if possible the RTE will trend path flows on previous similar days.

#### **L.5.4.4 Generation Level**

Utility and non-utility Generating Units will be updated to keep the swing Generating Unit at a reasonable level. The actual unit-by-unit Dispatch in the studied area is more vital than in the un-studied areas. The RTE will examine past performance of select Generating Units to estimate the Generation levels, focusing on the Generating Units within the studied area. In the judgment of the RTE, large Generating Units outside the studied area will also be considered.

#### **L.5.4.5 Voltage Levels**

Studies will maintain appropriate voltage levels, based on operation procedures for critical buses for the studied base-cases. The RTE will verify that bus voltage for critical busses is within tolerance. If a bus voltage is outside the tolerance band, the RTE will model the use of voltage control devices (e.g., synchronous condensers, shunt capacitors, shunt reactors, series capacitors, generators).

### **L.6 Contingency Analysis**



The RTE will perform Contingency analysis studies in an effort to determine the limiting conditions, especially for scheduled Outages, including pre- and post-Contingency power flow analysis modeling pre- and post-Contingency conditions and measuring the respective line flows, and bus voltages.

Other studies like reactive margin and stability may be performed as deemed appropriate.

#### **L.6.1 Operating Criteria and Study Standards**

Using standards derived from NERC and WECC Reliability Standards and historical operating experience, the RTE will perform Contingency analysis with the following operating criteria:

##### Pre-Contingency

- **All pre-Contingency line flows shall be at or below their normal ratings.**
- **All pre-Contingency bus voltages shall be within a pre-determined operating range.**

##### Post-Contingency

- **All post-Contingency line flows shall be at or below their emergency ratings.**
- **All post-Contingency bus voltages shall be within a pre-determined operating range.**

The RTE models the following Contingencies:

- **Generating Unit Outages (including combined cycle Generating Unit Outages which are considered single Contingencies).**
- **Line Outages**
- **Line Outages combined with one Generating Unit Outage**
- **Transformer Outages**
- **Synchronous condenser Outages**
- **Shunt capacitor or capacitor bank Outages**
- **Series capacitor Outages**
- **Static VAR compensator Outages**
- **Bus Outages – bus Outages can be considered for the following ongoing Outage conditions.**
  - **For a circuit breaker bypass-and-clear Outage, bus Contingencies shall be taken on both bus segments that the bypassed circuit breaker connects to.**
  - **For a bus segment Outage, the remaining parallel bus segment shall be considered as a single Contingency.**

- **Credible overlapping Contingencies – Overlapping Contingencies typically include transmission lines connected to a common tower or close proximity in the same right-of-way.**

#### **L.6.2 Manual Contingency Analysis**

If manual Contingency analysis is used, the RTE will perform pre-Contingency steady-state power flow analysis and determines if pre-Contingency operating criteria is violated. If pre-Contingency operating criteria cannot be preserved, the RTE records the lines and buses that are not adhering to the criteria. If manual post-Contingency analysis is used the RTE obtains one or more Contingencies in each of the base cases. For each Contingency resulting in a violation or potential violation in the operating criteria above, the RTE records the critical post-Contingency facility loadings and bus voltages.

#### **L.6.3 Contingency Analysis Utilizing a Contingency Processor**

For a large area, the RTE may utilize a Contingency processor.

#### **L.6.4 Determination of Crucial Limitations**

After performing Contingency analysis studies, the RTE analyzes the recorded information to determine limitations. The limitations are conditions where the pre-Contingency and/or post-Contingency operating criteria cannot be conserved and may include a manageable overload on the facilities, low post-Contingency bus voltage, etc. If no crucial limitations are determined, the RTE determines if additional studies are necessary.

#### **L.7 Traditional Planning Methodology to Protect Against Violating Operating Limits**

After performing Contingency analysis studies, the RTE next develops the transfer capability and develops procedures, nNomograms, RMR Generation requirements, or other eConstraints to ensure that transfer capabilities respect operating limits.

#### **L.8 Limits for Contingency Limitations**

Transfer limits are developed when the post-Contingency loading on a transmission element may breach the element's emergency rating. The type of limit utilized is dependent on the application and includes one of the following limits:

- **Simple Flow Limit - best utilized when the derived limit is repeatable or where parallel transmission elements feed radial load.**
- **RAS or SPS – existing rRemedial aAction sSchemes (RAS) or special protection systems (SPS) may impact the derivation of simple flow limits. When developing the limit, the RTE determines if the RAS or SPS will be in-service during the Outage and factors the interrelationship between the RAS or SPS and the derived flow limit. RTE will update the transfer limits in recognition of the changing status and/or availability of the RAS or SPS.**

**CAISO TARIFF APPENDIX M**

**[NOT USED]**

**[Ten Sheet Numbers Reserved for Future Filings.]**

**CAISO TARIFF APPENDIX N**

**PART A**

**[NOT USED]**

**[Ten Sheet Numbers Reserved for Future Filings.]**

**PART B**

**[NOT USED]**

**[Docket No. ER06-615 August 3, 2007 Compliance filing pending FERC Order. See Table.]**

**PART C**

**[NOT USED]**

**[Docket No. ER06-615 August 3, 2007 Compliance filing pending FERC Order. See Table.]**

**PART D**

**[NOT USED]**

**[Docket No. ER06-615 August 3, 2007 Compliance filing pending FERC Order. See Table.]**

**PART E**

**[NOT USED]**

**[Docket No. ER06-615 August 3, 2007 Compliance filing pending FERC Order. See Table.]**

**PART F**

**WHEELING ACCESS CHARGES COMPUTATION**

**F.1 Purpose of Charge**

**~~The Wheeling Access Charge is paid by Scheduling Coordinators for Wheeling as set forth in Section 26.1.4 of the ISO Tariff. The ISO will collect the Wheeling revenues from Scheduling Coordinators on a Trading Interval basis and repay~~**

~~these to the Participating TOs based on the ratio of each Participating TO's Transmission Revenue Requirement to the sum of all Participating TOs' Revenue Requirements.~~

**F 2 — Fundamental Formulae**

**F 2.1 — ISO Charges on Scheduling Coordinators for Wheeling**

~~The ISO will charge Scheduling Coordinators scheduling a Wheeling Out or a Wheeling Through, the product of the Wheeling Access Charge and the total of the hourly schedules of Wheeling in MWh for each Trading Interval at each Scheduling Point associated with that transaction pursuant to Section 26.1.4 of the ISO Tariff.~~

**F 2.1.1 — Wheeling Access Charge**

~~The Wheeling Access Charge for each Participating TO shall be as specified in Section 26.1.4 of the ISO Tariff.~~

**F 2.1.2 — [Not Used]**

**F 2.2 — ISO Payments to Transmission Owners for Wheeling**

~~The ISO will pay all Wheeling revenues to Participating TOs on the basis of the ratio of each Participating TO's Transmission Revenue Requirement ("TRR") (less the TRR associated with Existing Rights) to the sum of all Participating TOs' TRRs (less the TRRs associated with Existing Rights) as specified in Section 26.1.4.3 of the ISO Tariff. The Low Voltage Wheeling Access Charge shall be disbursed to the appropriate Participating TO. The sum to be paid to Participating TO<sub>n</sub> for a Trading Interval is calculated as follows:~~

$$\frac{PayTO_n}{\sum_n TRR_n} = \frac{TRR_n}{\sum_n TRR_n} * \sum_j totalWChrg_j$$

**F 3 — Meaning of terms in formulae**

**F 3.1 —  $WABC_q$  — (\$/kWh)**

~~The Weighted Average Rate for Wheeling Service for Scheduling Point q.~~

**F 3.2 —  $P_n$  — (\$/kWh)**

~~The applicable Wheeling Access Charge rate for TAC Area or Participating TO n in \$/kWh as set forth in Section 26.1.4 of the ISO Tariff and Section 4.6 of the TO Tariff.~~

**F 3.3 —  $Q_n$  — (MW)**

~~The Available Transfer Capacity, whether from transmission ownership or contractual entitlements, of each Participating TO n for each ISO Scheduling Point~~

~~which has been placed within the ISO Controlled Grid. Available Transfer Capacity does not include capacity associated with Existing Rights of a Participating TO as defined in Section 16.2 of the ISO Tariff.~~

~~F 3.4  $WChg_{jq}$  (\$)~~

~~The Wheeling Charges by the ISO on Scheduling Coordinator j for Scheduling Point q in Trading Interval t. Both Wheeling Out and Wheeling Through transactions are included in this term.~~

~~F 3.5  $QChargeW_{jqt}$  (kWh)~~

~~The summation of kWh wheeled over Scheduling Point q by Scheduling Coordinator j in Trading Interval t. Both Wheeling Out and Wheeling Through transactions are included in this term.~~

[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order. Appendix N, Part F-1 moved to Appendix F, Schedule 3, 1.1 (g); and F-2.1, F-2.1.1 and F-2.2 moved to Appendix F, Schedule 3, 14.1-14.3. Settlements formula moved to Business Practice Manuals.]

**PART G**

**[NOT USED]**

[Docket No. ER06-615 August 3, 2007 Compliance filing pending FERC Order. See Table.]

**PART H**

**[NOT USED]**

**PART I**

**[NOT USED]**

[Docket No. ER06-615 August 3, 2007 Compliance filing pending FERC Order. See Table.]

**PART J**

**[NOT USED]**

[Docket ER06-615-015 Compliance Filing pending FERC Order. See Table.]

**CAISO TARIFF APPENDIX O**

**[NOT USED]**

**[Docket No. ER06-615 August 3, 2007 Compliance filing pending FERC Order. See Table.]**

**[Ten Sheet Numbers Reserved for Future Filings.]**

## **CAISO TARIFF APPENDIX P**

### **CAISO Department of Market Monitoring and Market Surveillance Committee**

**\*\*\***

## **CAISO TARIFF APPENDIX P**

### **CAISO Department of Market Monitoring and Market Surveillance Committee**

**[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]**

#### **1 CAISO DEPARTMENT OF MARKET MONITORING**

##### **1.1 Establishment**

There shall be established within the CAISO a Department of Market Monitoring that shall be responsible for the ongoing development, implementation, and execution of the CAISO Market monitoring and information scheme described in this CAISO Tariff and the adherence to its objectives, as set forth in Section 38.

##### **1.2 Composition**

The Department of Market Monitoring shall be adequately staffed by the CAISO with full-time CAISO staff with the experience and qualifications necessary to fulfill the functions referred to in this CAISO Tariff. Such qualifications may include professional training pertinent to and experience in the operation of markets analogous to CAISO Markets, in the electric power industry, and in the field of competition and antitrust law, economics and policy. The Department of Market Monitoring shall be under the general management of the CAISO CEO, provided that the **CAISO** CEO may designate another CAISO officer for day-to-day oversight of the Department.

##### **1.3 Accountability and Responsibilities**

###### **1.3.1 Department of Market Monitoring**

The Department of Market Monitoring shall report to and be accountable to the CAISO CEO and his or her designee on all matters pertaining to policy and other matters that may affect the effectiveness and integrity of the monitoring function, including matters pertaining to market monitoring, information development and dissemination and pertaining to generic or entity-specific investigations, corrective actions or enforcement.



### **1.3.2 CAISO CEO and MSC**

The CAISO CEO and the MSC shall each have the independent authority to refer any of the matters referred to in Section 1.3.1 of this Appendix to the CAISO Governing Board for approval of recommended actions.

### **1.3.3 CAISO Chief Executive Officer (CAISO CEO)**

**1.3.3.1** The Department of Market Monitoring shall report to and be accountable to the CAISO CEO and his or her designee on all matters relating to administration of the Department and the internal resources and organization of the CAISO in accordance with Appendix P, Section 1.3.3.2.

**1.3.3.2** The CAISO, through ~~its~~ the CAISO CEO and Governing Board, shall determine that the Department of Market Monitoring has adequate resources and full access to data and the full cooperation of all parts of the CAISO organization in developing the database necessary for the effective functioning of the Department of Market Monitoring and the fulfillment of its monitoring function.

### **1.3.4 Regulatory and Antitrust Enforcement Agencies**

Where considered necessary and appropriate, or where so ordered by the regulatory or antitrust agency with jurisdiction over the matter in question, or by a court of competent jurisdiction, the CAISO shall refer a matter to the regulatory or antitrust enforcement agency concerned, e.g., in cases of serious abuse requiring expeditious investigation or action by the agency. In all such cases of direct referral, the CAISO CEO shall promptly inform the CAISO Governing Board and the MSC of the fact of and the content of the referral.

### **1.3.5 Complaints**

Any Market Participant, or any other interested entity, may at any time submit information to or make a complaint to the Department of Market Monitoring concerning any matter that it believes may be relevant to the Department of Market Monitoring's monitoring responsibilities. Such submissions or complaints may be made on a confidential basis in which case the Department of Market Monitoring shall preserve the confidentiality thereof. The Department of Market Monitoring, at its discretion, may request further information from such entity and carry out any investigation that it considers appropriate as to the concern raised. The Department of Market Monitoring shall periodically make reports to the CAISO CEO and CAISO Governing Board on complaints received.

## **CAISO TARIFF APPENDIX P1**

### **CAISO Department of Market Monitoring**

#### **P1.1 CAISO Department of Market Monitoring**

##### **P1.1.1 Information Gathering and Market Monitoring Indices for Evaluation**

###### **P1.1.1.1 Information System**

The Department of Market Monitoring shall be responsible for developing an information system and criteria for evaluation that will permit it to effectively monitor the CAISO Markets to identify and investigate abuses of that market, whether caused by exercises of market power or by other actions or inactions.

###### **P1.1.1.2 Data Categories**

To develop the information system set forth in Section P1.1.1.1, the Department of Market Monitoring shall initially develop, and shall refine on the basis of experience, a detailed catalog of all the categories of data it will have the means of acquiring, and the procedures it will use (including procedures for protecting confidential data) to handle such data.

###### **P1.1.1.3 Catalog of Market Monitoring Indices**

The Department of Market Monitoring shall initially develop, and shall refine on the basis of experience, a catalog of the CAISO Market monitoring indices that it will use to evaluate the data so collected.

##### **P1.1.2 Evaluation of Information**

###### **P1.1.2.1 Ongoing Evaluation**

The Department of Market Monitoring shall evaluate and reevaluate on an ongoing basis the data categories and market monitoring indices that it has developed under Appendix P1, Sections P1.1.1.2 and P1.1.1.3, and the information it collects and receives from various other sources, including and in particular the CAISO's operation of the CAISO Markets. Such ongoing evaluations shall provide the basis for its reporting and publication responsibilities as set forth in this CAISO Tariff, for recommendations on proposed changes to the CAISO Tariff and CAISO Business Practice Manuals and other potential rules affecting the CAISO Markets, and for the development of criteria or standards for the initiation of proposed corrective or enforcement actions. In evaluating such information, the Department of Market Monitoring may consult the MSC or such external bodies as may be appropriate.

###### **P1.1.2.2 Submission of Evaluation Results**

The final results of the Department of Market Monitoring's ongoing evaluations under Appendix P1, Section P1.1.2.1 shall routinely and promptly be submitted to the CAISO CEO and to the MSC for comment.

### **P1.1.3 Review of Rules of Conduct**

The Department of Market Monitoring shall review Rules of Conduct for their effectiveness and consistency with its market monitoring activities and standards. The Department of Market Monitoring may at that time, and from time to time thereafter based on its experience in monitoring the CAISO Markets, propose to the CAISO CEO and/or the CAISO Governing Board that changes be made in such Rules of Conduct.

### **P1.1.4 Reports and Recommendations**

#### **P1.1.4.1 CAISO CEO and Governing Board**

On the basis of the evaluation conducted under Appendix P1, Section P1.1.2 or the review conducted under Section P1.1.3, the Department of Market Monitoring shall prepare periodic reports, as required by the CAISO CEO, and specific ad hoc reports as appropriate, for the CAISO CEO and CAISO Governing Board on the state of competition in or the efficiency of the CAISO Markets; and on its monitoring activities, the results of its evaluation and review activities, and its development and implementation of recommendations. Where appropriate, the CAISO Department of Market Monitoring may recommend to the CAISO CEO and/or the CAISO Governing Board actions to be taken, including the amendment of the CAISO Tariff and CAISO Business Practice Manuals and corrective or enforcement action against specific entities. Such reports shall be made not less frequently than quarterly in the case of the CAISO CEO and annually in the case of the CAISO Governing Board and shall contain such information and be in such form as specified by such entities. Such reports shall be made public and publicized as specified by such entities except to the extent that they contain confidential or commercially sensitive information or to the extent such entities determine that effective enforcement of the monitoring function dictates otherwise.

#### **P1.1.4.2 Regulatory Agencies**

As required in the CAISO Tariff or by the CAISO CEO and CAISO Governing Board, or as required by the regulatory agency with jurisdiction over the matters in question, the Department of Market Monitoring shall prepare reports to the FERC and other regulatory agencies, which shall be reviewed and approved by the CAISO CEO or his or her designee and then submitted as required. When publicly available reports are made to one regulatory agency with competent jurisdiction, such as the FERC, the Department of Market Monitoring may simultaneously make such reports available to other regulatory agencies with legitimate interests in their contents, such as the Electricity Oversight Board, the California Public Utilities Commission, the California Energy Commission and/or the California Attorney General.

#### **P1.1.4.3 CAISO Market Surveillance Committee**

All reports and recommendations to be made to regulatory agencies under Appendix P1, Section P1.1.4.2, unless urgency requires otherwise, shall first be submitted to the MSC for comments, which comments shall be reflected in any submittal to the CAISO Governing Board seeking approval of any such reports or recommendations. All final reports made to external regulatory agencies shall be simultaneously submitted to the MSC.

### **P1.1.5 Market Participants**

#### **P1.1.5.1 Collection of Data**

The Department of Market Monitoring may request that Market Participants or other entities whose activities may affect the operation of the CAISO ~~mm~~Markets submit any information or data determined by the Department of Market Monitoring to be potentially relevant. This data will be subject to due safeguards to protect confidential and commercially sensitive data. Failures by Market Participants to provide such data shall be treated under Section 37. In the event of failures by other entities to provide such data, the CAISO may take whatever action is available to it and appropriate for it to take, including reporting the failure to the pertinent regulatory agency, after providing such entity the opportunity to respond in writing as to the reason for the alleged failure and may include possible exclusion from the CAISO Markets or termination of any relevant CAISO agreements or certifications. Before any such action is taken, the CAISO Market Participant shall be provided the opportunity to respond in writing as to the reason for the alleged failure.

#### **P1.1.5.2          Dissemination of Data**

Any Market Participant may request that the CAISO provide data that the CAISO has collected concerning that Market Participant; and, such data may, subject to constraints on the CAISO's resources and at the CAISO's sole discretion, be provided by the CAISO subject to due safeguards to protect confidential and commercially sensitive data. Where such activity imposes a significant burden or expense on the CAISO, the data may be provided on the condition that a reasonable contribution to the cost incurred by the CAISO is made to the CAISO by the requesting party.

#### **P1.1.6              External Consulting Assistance and Expert Advice**

In carrying out any of its responsibilities under this CAISO Tariff, including the development of an information system, market monitoring indices and evaluation criteria, and the catalogs associated therewith, and in its analysis and ongoing evaluation of these catalogs and of the Rules of Conduct, the Department of Market Monitoring may hire consulting assistance subject to the budgetary approval of the CAISO CEO and may seek such expert external advice as it believes necessary.

#### **P1.1.7              Liability for Damages**

As provided in Section 14 of the CAISO Tariff, the Department of Market Monitoring, the MSC, the CAISO CEO and other CAISO staff, and the CAISO Governing Board shall not be liable to any Market Participant under any circumstances whatsoever for any matter described in those sections, including but not limited to any financial loss or loss of economic advantage resulting from the performance or non-performance by such CAISO entities of their functions under this CAISO Tariff.

**CAISO TARIFF APPENDIX P2**  
**Market Surveillance Committee**

**P2.2 Market Surveillance Committee**

**P2.2.1 Establishment**

There shall be established a Market Surveillance Committee (MSC), whose role it shall be to provide independent external expertise on the CAISO market monitoring process and, in particular, to provide independent expert advice and recommendations to the CAISO CEO and Governing Board. Members of the Committee shall not be, and shall not be understood to be, employees or agents of the CAISO.

**P2.2.2 Composition**

**P2.2.2.1 Qualifications**

The MSC shall comprise a body of three or more independent and recognized experts whose combined professional expertise and experience shall encompass the following:

- (a) economics, with emphasis on antitrust, competition, and market power issues in the electricity industry;
- (b) experience in operational aspects of Generation and transmission in electricity markets;
- (c) experience in antitrust or competition law in regulated industries; and
- (d) financial expertise relevant to energy or other commodity trading.

**P2.2.2.2 Criteria for Independence**

Each member of the MSC must meet the following criteria for independence:

**P2.2.2.2.1** no material affiliation, through employment, consulting or otherwise, with any Market Participant or Affiliate thereof consistent with the pertinent FERC Standards of Conduct; and

**P2.2.2.2.2** no material financial interest in any Market Participant or Affiliate thereof consistent with the pertinent FERC Standards of Conduct.

**P2.2.2.2.3** during their time on the Committee, members may not provide paid expert witness testimony or other commercial services to the CAISO or to any other party in connection with any legal or regulatory proceeding relating to the CAISO or any trade or other transaction involving the CAISO  
| **mm**Markets (except that the Committee may consult with and make recommendations concerning the

functioning of the markets to CAISO **M**management or the CAISO Governing Board in connection with legal or regulatory proceedings).

### **P2.2.3 Appointments to the MSC**

For each position on the MSC, the CAISO CEO shall conduct a thorough search and requisite due diligence to develop a nomination to the CAISO Governing Board, which nomination shall be consistent with meeting the combined professional expertise and experience of the MSC set forth in Appendix P2, Section P2.2.2.1 and with the criteria for independence set forth in Appendix P2, Section P2.2.2.2. The CAISO Governing Board shall expeditiously consider such nominations. If the nomination is approved, the CAISO CEO shall appoint the candidate so nominated to the MSC. If the nomination is rejected, the CAISO CEO shall expeditiously proceed to develop another nomination.

### **P2.2.4 Compensation and Reimbursements**

Members of the MSC shall be compensated on such basis as the CAISO Governing Board shall from time to time determine.

Members of the MSC shall receive prompt reimbursement for all expenses reasonably incurred in the execution of their responsibilities under this Appendix P2, Section P2.2.

### **P2.2.5 Liability for Damages**

As provided in Section 14 of the CAISO Tariff, the Department of Market Monitoring, the MSC, the CAISO CEO and other CAISO staff, and the CAISO Governing Board shall not be liable to any Market Participant under any circumstances whatsoever for any matter described in those sections, including but not limited to any financial loss or loss of economic advantage resulting from the performance or non-performance by such CAISO entities of their functions under this CAISO Tariff.

## **P2.2.6 SPECIFIC FUNCTIONS OF MARKET SURVEILLANCE COMMITTEE (MSC)**

### **P2.2.6.1 Information Gathering and Evaluation Criteria**

The MSC shall review the initial catalogs of information and data and of evaluation criteria developed by the Department of Market Monitoring pursuant to Appendix P1, Section P1.1 and shall propose such changes, additions or deletions to such catalogs or items therein as it sees fit. In so doing, the MSC shall have full discretion to specify database items or evaluation criteria for inclusion in the pertinent catalog.

### **P2.2.6.2 Evaluation of Information**

The MSC may, upon request of the Department of Market Monitoring, the CAISO **M**management or the CAISO Governing Board, or on its own volition, evaluate such information or data, including as may be collected by the Department of Market Monitoring on the basis of the evaluation criteria developed by the Department of Market Monitoring or on such further articulated evaluation criteria developed by the MSC.

### **P2.2.6.3 Reports and Recommendations**

### **P2.2.6.3.1 Required Reports**

All evaluations carried out by the MSC pursuant to Appendix P2, Section P2.2.6.2, and any recommendations emanating from such evaluations, shall be embodied by the MSC in written reports to the CAISO CEO and CAISO Governing Board and shall be made publicly available subject to due restrictions on dissemination of confidential or commercially sensitive information. The MSC may submit any MSC report to FERC, subject to due restrictions on dissemination of confidential or commercially sensitive information.

### **P2.2.6.3.2 Additional Reports**

The MSC may make such additional reports and recommendations as it sees fit relating to the monitoring program referred to in this CAISO Tariff, the analysis of information, the evaluation criteria or any corrective or enforcement actions proposed by the Department of Market Monitoring or proposed of its own volition.

### **P2.2.6.4 Publication of Reports and Recommendations**

Upon request of the MSC, the CAISO shall publish reports and recommendations of the MSC or incorporate them, if consistent, into the CAISO's own reports or recommendations.

## **P2.2.7 IMPLEMENTATION OF RECOMMENDATIONS**

### **P2.2.7.1 Plan and Rules of Conduct Changes**

Following a recommendation of the MSC, the CAISO Governing Board may make such changes as it believes are appropriate to the CAISO Tariff, any CAISO Business Practice Manual or Agreement, or any Rules of Conduct applicable in accordance with Section 22.11 of this CAISO Tariff. .

### **P2.2.7.2 Tariff Changes**

Upon recommendation of the MSC, the CAISO Governing Board shall consider and may adopt proposed CAISO Tariff changes in accordance with Section 22.11 of this CAISO Tariff.

### **P2.2.7.3 Sanctions and Penalties**

Upon recommendation of the MSC, the CAISO may impose such sanctions or penalties as it believes necessary and as are permitted under the CAISO Tariff and related protocols approved by FERC; Section 37.9 or it may make any such referral to such regulatory or antitrust agency as it sees fit to recommend the imposition of sanctions and penalties.

## **P2.2.8 PUBLICATION OF INFORMATION**

### **P2.2.8.1 Market Monitoring Data and Indices**

The CAISO Department of Market Monitoring shall, pursuant to Appendix P1, Section P1.1.1, develop a catalog of data and indices. Upon approval of the CAISO CEO, such catalogs shall be duly published on the CAISO Website and disseminated to all Market Participants.

#### **P2.2.8.2 Reports to Regulators**

The CAISO shall develop annual reports of market performance for delivery to FERC, and such other reports as may be required by FERC, which shall be submitted for review to the MSC. The Department of Market Monitoring shall prepare and submit such reports to the CAISO CEO, CAISO Governing Board and to the regulatory agency concerned.



**CAISO TARIFF APPENDIX Q**  
**Eligible Intermittent Resources Protocol (EIRP)**

[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]

[Docket No. ER07-142-000, Amendment filing accepted by FERC. See Table.]

[Docket No. ER08-\_\_ Amendment filing pending FERC Order. See Table.]

\* \* \*

**APPENDIX Q**

**Eligible Intermittent Resources Protocol (EIRP)**

**~~EIRP-1.3~~      SCOPE**

**~~EIRP-1.3.1~~      Scope of Application to Parties**

This ~~Protocol~~EIRP applies to the CAISO and to:

- (a) Scheduling Coordinators (SCs);
- (b) Eligible Intermittent Resources; and
- (c) Participating Intermittent Resources.

**~~EIRP-1.3.2~~      Liability of the CAISO**

Any liability of the CAISO arising out of or in relation to this ~~Protocol~~EIRP shall be subject to Section 14 of the CAISO Tariff as if references to the CAISO Tariff were references to this ~~Protocol~~EIRP.

**~~EIRP-2~~      PARTICIPATING INTERMITTENT RESOURCE CERTIFICATION**

**~~EIRP-2.1~~      No Mandatory Participation**

Eligible Intermittent Resources may elect to be scheduled and settled as the CAISO Tariff provides for Generating Units, and are not required to seek certification as Participating Intermittent Resources.

**~~EIRP-2.2~~      Minimum Certification Requirements**

Those Eligible Intermittent Resources that intend to become Participating Intermittent Resources must meet the following requirements.

### **EIRP-2.2.1 Agreements**

The following agreements must be executed:

- (a) A Participating Generator Agreement that, among other things, binds the Participating Intermittent Resource to comply with the CAISO Tariff;
- (b) A Meter Service Agreement for CAISO Metered Entities; and
- (c) A letter of intent to become a Participating Intermittent Resource, which when executed and delivered to the CAISO shall initiate the process of certifying the Participating Intermittent Resource. The form of the letter of intent shall be specified by the CAISO and published on the CAISO Website.

### **EIRP-2.2.2 Composition**

The CAISO shall develop criteria to determine whether one or more Eligible Intermittent Resources may be included within a Participating Intermittent Resource. Such criteria shall include:

- (a) A Participating Intermittent Resource must be at least 1 MW rated capacity.
- (b) A Participating Intermittent Resource may include one or more Eligible Intermittent Resources that have similar response to weather conditions or other variables relevant to forecasting Energy, as determined by the CAISO.
- (c) Each Participating Intermittent Resource shall be electrically connected at a single point on the CAISO Controlled Grid, except as otherwise permitted by the CAISO on a case-by-case basis as may be allowed under the CAISO Tariff.
- (d) The same Scheduling Coordinator must schedule all Eligible Intermittent Resources aggregated into a single Participating Intermittent Resource.

### **EIRP-2.2.3 Equipment Installation**

A Participating Intermittent Resource must install and maintain the communication equipment required pursuant to **EIRP Section 3 of this EIRP**, and the equipment supporting forecast data required pursuant to **EIRP Section 6 of this EIRP**.

### **EIRP-2.2.4 Forecast Model Validation**

The CAISO must determine that sufficient historic and real-time telemetered data are available to support an accurate and unbiased forecast of Energy generation by the Participating Intermittent Resource, according to the forecasting process validation criteria described in **Section 4 of this EIRP-4**.

### **EIRP-2.2.5 Information Requirements For Participating Intermittent Resource Export Fee**

In order for the CAISO to administer, implement and calculate the Participating Intermittent Resource Export Fee, each Participating Intermittent Resource jointly with, and through, its Scheduling Coordinator must provide the CAISO with the following

information and documents under the schedule and conditions set forth in this section. The CAISO will maintain the confidentiality of all information and documents received under this section in accordance with CAISO Tariff Section 20 et seq.

- (a) A certification, in the form posted on the CAISO Homepage Website, signed by an officer of the Participating Intermittent Resource and its Scheduling Coordinator, identifying (1) the PIR Export Percentage under EIRP Section 5.3.2 of this EIRP, if any, and basis thereof, and (2) each contract to sell Energy or capacity from the Participating Intermittent Resource, including for each such contract, the counterparty, start and end dates, delivery point(s), quantity in MW, other temporal terms, i.e., seasonal or hourly limitations.

The certification must be updated by resubmission to the CAISO (1) upon a request to modify the composition of the Participating Intermittent Resource under EIRP Section 2.4.2 of this EIRP; or (2) within ten (10) calendar days of final execution of a new contract or any change in counterparty, start and end dates, delivery point(s), quantity in MW, or other temporal terms, as described above, for any prior certified contract. All other contractual changes will not trigger the obligation for recertification;

- (b) Copies of all contracts, including changes, identified in the above-referenced certification; however, price information may be redacted from the contracts provided.

Each Participating Intermittent Resource, as of November 1, 2006, must initially provide the information requested by EIRP this Section 2.2.5 in accordance with a Market Notice provided by the CAISO to Participating Intermittent Resources. All other Eligible Intermittent Resources must satisfy EIRP this Section 2.2.5 in order to become a Participating Intermittent Resource after November 1, 2006.

### **EIRP-2.3 Notice of Certification**

When all requirements described in **EIRP Section 2.2 of this EIRP** have been fulfilled, the CAISO shall notify the Scheduling Coordinator and the representatives of the Eligible Intermittent Resources comprising the Participating Intermittent Resource that the Participating Intermittent Resource has been certified, and is eligible for the settlement terms provided under Section 11.12 of the CAISO Tariff, as conditioned by the terms of this EIRP.

### **EIRP-2.4 Requirements After Certification**

#### **EIRP-2.4.1 Forecast Fee**

Beginning on the date first certified, a Participating Intermittent Resource must pay the Forecast Fee for all metered Energy generated by the Participating Intermittent Resource over the duration of the commitment indicated in the letter of intent described in **EIRP Section 2.2.1(c) of this EIRP**.

The amount of the Forecast Fee shall be determined so as to recover the projected annual costs related to developing Energy forecasting systems, generating forecasts, validating forecasts, and monitoring forecast performance, that are incurred by the CAISO as a direct result of participation by Participating Intermittent Resources in CAISO

Markets, divided by the projected annual Energy production by all Participating Intermittent Resources.

The initial rate for the Forecast Fee, and all subsequent rate changes as may be necessary from time to time to recover costs incurred by the CAISO for the forecasting conducted on the behalf of Participating Intermittent Resources, shall be posted on the CAISO Website. In no event shall the level of the Forecast Fee exceed the amount specified in CAISO Tariff Appendix F, Schedule 4.

#### **EIRP-2.4.2      Modification of Participating Intermittent Resource Composition**

A Participating Intermittent Resource may seek to modify the composition of the Participating Intermittent Resource (e.g., by adding or eliminating an Eligible Intermittent Resource from the Participating Intermittent Resource). Such changes shall not be implemented without prior compliance with the written approval by the CAISO. The CAISO will apply consistent criteria and expeditiously review any proposed changes in the composition of a Participating Intermittent Resource.

#### **EIRP-2.4.3      Changes in Scheduling Coordinator**

This EIRP does not impose any additional requirement for CAISO approval to change the Scheduling Coordinator for an approved Participating Intermittent Resource than would otherwise apply under the CAISO Tariff to changes in the Scheduling Coordinator representing a Generating Unit.

#### **EIRP-2.4.4      Continuing Obligation**

A Participating Intermittent Resource must meet all obligations established for Participating Intermittent Resources under the CAISO Tariff and this EIRP, and must fully cooperate in providing all data, ~~and other information, and authorizations~~ the CAISO reasonably requests to fulfill its obligation to validate forecast models, ~~and explain deviations, and implement the Participating Intermittent Resource Export Fees.~~

#### **EIRP-2.4.5      Failure to Perform**

If the CAISO determines that a material deficiency has arisen in the Participating Intermittent Resource's fulfillment of its obligations under the CAISO Tariff and this EIRP, and such Participating Intermittent Resource fails to promptly correct such deficiencies when notified by the CAISO, then the eligibility of the Participating Intermittent Resource for the settlement accommodations provided in Section 11.12 of the CAISO Tariff shall be suspended until such time that the unavailable data is provided or other material deficiency is corrected to the CAISO's reasonable satisfaction. Such suspension shall not relieve the Scheduling Coordinator for the deficient Participating Intermittent Resource from paying the Forecast Fee over the duration of the period covered by the letter of intent described in **EIRP Section 2.2.1(c) of this EIRP.**

### **EIRP-3            COMMUNICATIONS**

#### **EIRP-3.1        Forecast Data**

The CAISO may require various data relevant to forecasting Energy from the Participating Intermittent Resource to be telemetered to the- **CASIOCAISO**, including

appropriate operational data, meteorological data or other data reasonably necessary to forecast Energy.

### **EIRP-3.2 Standards**

The standards for communications shall be the monitoring and communications requirements for Generating Units providing only Energy; as such standards may be amended from time to time, and published on the CAISO Website.

### **EIRP-3.3 Cost Responsibility**

An applicant for certification as a Participating Intermittent Resource is responsible for expenses associated with engineering, installation, operation and maintenance of required communication equipment.

## **EIRP-4 FORECASTING**

The CAISO is responsible for overseeing the development of tools or services to forecast Energy for Participating Intermittent Resources. The CAISO will use its best efforts to develop accurate and unbiased forecasts, as limited by the availability of relevant explanatory data. Objective criteria and thresholds for unbiased, accurate forecasts shall be published on the CAISO Website, and shall be used to certify Participating Intermittent Resources in accordance with **EIRP-Section 2.2.4 of this EIRP**.

### **EIRP-4.1 Hour-Ahead Forecast**

The CAISO shall develop expert, independent hourly forecasts of Energy generation on each Participating Intermittent Resource. A forecast shall be published each hour on the half hour for each of the next seven operating hours. Other forecasts, including a Day-Ahead forecast, may be developed at the CAISO's discretion. The Scheduling Coordinator representing the Participating Intermittent Resource must use the **H**hour-**A**ahead **F**forecast that is available 30 minutes prior to the deadline for submitting the HASP/RTM Bids. The CAISO shall use best efforts to provide reliable and timely forecasts. However, if the CAISO fails to deliver the **H**hour-**A**ahead **F**forecast to the Scheduling Coordinator prior to 15 minutes before the deadline for submitting HASP/RTM Bids, then the **H**hour-**A**ahead **F**forecast shall be the most recent Energy forecast provided by the CAISO to the Scheduling Coordinator for the operating hour for which Bids are next due.

### **EIRP-4.2 Forecast Calibration**

The CAISO shall calibrate the forecast to eliminate bias as measured by net MWh deviations across any and all relevant time periods to minimize the expected cumulative net charges or payments that are recovered or allocated through Section 11.12 of the CAISO Tariff.

### **EIRP-4.3 Confidentiality**

The CAISO shall maintain the confidentiality of proprietary data for each Participating Intermittent Resource in accordance with Section 20 of the CAISO Tariff.

## **EIRP-5 SCHEDULING AND SETTLEMENT**

## **EIRP-5.1 Schedules**

Scheduling Coordinators shall be required to submit HASP/RTM Bids(MWh) for the Generating Units that comprise each Participating Intermittent Resource that are identical, in the aggregate, to the Hour-Ahead Forecast published for that Participating Intermittent Resource (MWh).

## **EIRP-5.2 Settlement**

After a Participating Intermittent Resource is certified, Settlement shall be determined for each Settlement Period based on consistency of Bids submitted on behalf of such Participating Intermittent Resources with the rules specified in the CAISO Tariff and this Protocol EIRP.

## **EIRP-5.3 Participating Intermittent Resource Export Fee**

### **EIRP-5.3.1 Exemptions**

After November 1, 2006, Participating Intermittent Resources shall be subject to the Participating Intermittent Resource Export Fee, as set forth in Schedule 4 of Appendix F, for Energy generated, except to the extent the Participating Intermittent Resource is exempt under one or more of the following conditions:

- (a) The owner of a Participating Intermittent Resource, as of November 1, 2006, utilizes the Energy generated from the Participating Intermittent Resource to meet its own Native Load outside the CAISO Control-Balancing Authority Area. Should any Participating Intermittent Resource subject to this exemption increase its PMax set forth in the CAISO's Master File by modification under EIRP Section 2.4.2 of this EIRP, the exemption will not apply to the added capacity unless exempt under another subsection of EIRP this Section 5.3.1.

If the Participating Intermittent Resource subject to this exemption changes ownership, the Participating Intermittent Resource Export Fee will apply, except where the prior exempt owner demonstrates that the entire output of the Participating Intermittent Resource continues to be delivered to the exempt owner under a power purchase agreement for the purpose of serving the prior exempt owner's Native Load. The exemption will then continue only for the period of the power purchase agreement as provided in accordance with EIRP Section 2.2.5 of this EIRP and cannot exceed the MW quantity originally exempted.

- (b) A Participating Intermittent Resource demonstrates in its certification under EIRP Section 2.2.5(a) of this EIRP an export contract with a starting term prior to November 1, 2006. An export contract is any power purchase agreement to sell Energy to any entity other than a Load Serving Entity with an obligation under law or franchise to serve Demand within the CAISO Control-Balancing Authority Area.

The exemption will apply to any extension of the current export contract through an evergreen or other existing extension provision. The exemption terminates upon termination of the export contract. Should any Participating Intermittent Resource subject to this exemption increase its PMax set forth in the CAISO's Master File by modification under EIRP Section 2.4.2 of this EIRP, the exemption will apply only to Energy generated up to the contract quantity, unless

the Participating Intermittent Resource demonstrates a basis for exemption under subsection (c) for the expanded capacity.

- (c) A Participating Intermittent Resource demonstrates in its certification under **EIRP Section 2.2.5(a) of this EIRP** a contract to sell Energy to a **ILoad sServing eEntity** with Native Load within the **CAISO Control-Balancing Authority Area**. Energy **Sservice Pproviders** with contractual obligations with customers within the **CAISO Control-Balancing Authority Area** would be deemed a **ILoad sServing eEntity** with an obligation to serve Native Load within the **CAISO Control-Balancing Authority Area**.

The exemption will apply to any extension of the current contract through an evergreen or other existing extension provision. The exemption terminates upon termination of the contract. Should any Participating Intermittent Resource subject to this exemption increase its PMax set forth in the **CAISO's** Master File by modification under **EIRP Section 2.4.2 of this EIRP**, the exemption will continue to apply only to Energy generated up to the contract quantity unless the Participating Intermittent Resource demonstrates a basis for exemption under this subsection (c) for the expanded capacity.

#### **EIRP-5.3.2 Participating Intermittent Resource Export Percentage**

Based on the information required in **EIRP Section 2.2.5 of this EIRP** and application of the exemptions to the Participating Intermittent Resource Export Fee in **EIRP Section 5.3.21 of this EIRP**, the **CAISO** will determine an **PIR** "Export Percentage" for each Participating Intermittent Resource that will be calculated as the ratio of the Participating Intermittent Resource's PMax in the **CAISO** Master File minus the MW, subject to an exemption under **EIRP Section 5.3.21 of this EIRP** on a MW basis to the Participating Intermittent Resource's PMax in the **CAISO** Master File. For example, a Participating Intermittent Resource with a PMax of 100 MW and a contract with an **CAISO Control-Balancing Authority Area ILoad sServing eEntity** for 40 MW would have an **PIR eExport pPercentage** of  $(100-60)/100 = 60\%$ . A Participating Intermittent Resource with a **PIR** Export Percentage greater than zero (0) will be deemed an Exporting Participating Intermittent Resource. The **CAISO** will notify the Participating Intermittent Resource and its Scheduling Coordinator of the facility's **PIR** Export Percentage. Any dispute regarding the **CAISO's** determination of **the PIR** Export Percentage shall be subject to the dispute resolution procedures under Section 13 of the **CAISO** Tariff.

#### **EIRP-5.3.3 Quarterly Application of Participating Intermittent Resource Export Fee**

Each quarter the **CAISO** will charge Exporting Participating Intermittent Resources the Participating Intermittent Resource Export Fee, as set forth in Schedule 4 of Appendix F.

#### **EIRP-5.3.4 Allocation of Credit for Participating Intermittent Resource Export Fees Received**

Payments received by the **CAISO** from application of the Participating Intermittent Export Fee in accordance with **EIRP this Section 5.3** shall be allocated as a credit on a quarterly basis to Scheduling Coordinators with Net Negative Uninstructed Deviations in proportion to the to the amount of Net Negative Uninstructed Deviations that each Scheduling Coordinator was assessed for Participating Intermittent Resources **sSettlement** charges for **the applicable CAISO Charge Code** Type724 during the prior quarter.

#### **EIRP-5.3.5 Recording of Exemptions and Notice of Termination**

The **CAISO** will record any exemption period ending date, if applicable, for each Participating Intermittent Resource. At the conclusion of the exemption period, the **CAISO** will notify the Scheduling Coordinator for the Participating Intermittent Resource

that the facility is no longer exempt from the Participating Intermittent Resource Export Fee.

**EIRP-5.3.6 Annual Confirmation**

On December 31 of each calendar year, each Participating Intermittent Resource shall confirm in the form posted on the **CAISO Homepage Website**, signed by an officer of the Participating Intermittent Resource, that the operations of the Participating Intermittent Resource are consistent with any certification(s) provided to the **CAISO** under **EIRP Section 2.2.5 of this EIRP.**

**EIRP-5.3.7 Audit Rights**

In addition to the rights set forth in **CAISO** Tariff Section 4.6.9, the **CAISO** shall have the right to contact any counterparty to a contract relied upon under **EIRP Section 5.3.1 of this EIRP** for purposes of determining compliance with this EIRP.

**EIRP-6 DATA COLLECTION FACILITIES**

The Participating Intermittent Resource must install and maintain equipment to collect, record and transmit data that the CAISO reasonably determines is necessary to develop and support a forecast model that meets the requirements of **EIRP Section 4 of this EIRP.**

**EIRP-6.1 Wind Resources**

A Participating Intermittent Resource powered by wind must install at least one meteorological tower at a project location that is representative of the microclimate within the project boundary.

The meteorological tower must rely on equipment typically used in the wind industry to continuously monitor weather conditions at a wind resource site. Data collected shall be consistent with requirements published on the CAISO Website. Such data must be gathered and telemetered to the CAISO in accordance with **EIRP Section 3 of this EIRP.**

If objective standards developed by the CAISO indicate that the meteorological data may not be sufficiently representative of conditions affecting Energy output or changes in Energy output by that Participating Intermittent Resource, then the CAISO may require that additional meteorological equipment be temporarily installed at another location within the project boundary. The cost of such equipment, which may be temporarily installed by the Participating Intermittent Resource or the CAISO, shall be the responsibility of the Participating Intermittent Resource.

If objective standards indicate that the data collected from such a temporary site contribute significantly to the development of an accurate and unbiased forecast, then the Participating Intermittent Resource shall be responsible for installing and arranging for the telemetry of data from an additional permanent meteorological tower at such site, and for the reasonable cost, if any, that the CAISO may have incurred to install and remove the temporary equipment. Relocation of the original meteorological tower to the new site will be allowed if the CAISO determines that a sufficiently accurate and unbiased forecast can be generated from a single relocated meteorological tower.



## **EIRP-6.2 Other Eligible Intermittent Resources**

Eligible Intermittent Resources other than wind projects that wish to become Participating Intermittent Resources will be required to provide data of comparable relevance to estimating Energy generation. Standards will be developed as such projects are identified and will be posted on the CAISO Website.

## **EIRP-7 PROGRAM MONITORING**

The CAISO shall monitor the operation of these rules, and will in particular seek to eliminate any gaming opportunities provided by the flexibility provided Participating Intermittent Resources to self-select participation on an hourly basis.

Participating Intermittent Resources are expected to **bid**, schedule, and otherwise perform in good faith, and not seek to act strategically in a manner that causes financial gain through systematic behavior, where such gain results solely from the settlement accommodations provided under CAISO Tariff Section 11.12.

If requirements specified in this technical standard are not met, then Participating Intermittent Resource certification may be revoked pursuant to **EIRP Section 2.4.5 of this EIRP**. Any patterns of strategic behavior by Participating Intermittent Resources will be tracked, and the statistical significance of such deviations will be used by the CAISO to evaluate whether changes in the rules defined in this EIRP are appropriate.

The CAISO will monitor the impact of rules for Participating Intermittent Resources on Imbalance Energy and Regulation costs to the CAISO.

## **EIRP-8 AMENDMENTS**

If the CAISO determines a need for an amendment to this- ~~Protocol~~**EIRP**, the CAISO will follow the requirements as set forth in Section 15 of the CAISO Tariff.

**CAISO TARIFF APPENDIX R**  
**UDP Aggregation Protocol (UDPAP)**

[Docket No. ER08-\_\_\_\_, Amendment Filing pending FERC Order. See Table.]

[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]

\* \* \*

**CAISO TARIFF APPENDIX R**  
**UDP Aggregation Protocol (UDPAP)**

**UAP-1.3**      **SCOPE**

There are two types of UDP Aggregation ~~C~~lassifications:

- (1) Basic UDP Aggregations: composed of Generating Units connected at the same substation and stepping up to the same voltage level bus bar, or
- (2) Custom UDP Aggregations: composed of Generating Units connected at different substations and/or different voltage levels, particularly where the Generating Units to be aggregated are separated by CAISO Controlled Grid facilities. Examples of a proposed ~~C~~ustom UDP Aggregation include hydroelectric units operating on a common watershed (but having multiple different interconnection points), or geothermal units fed from a common geothermal steam supply.

**UAP-2**      **SUBMITTAL OF A REQUEST FOR UDP AGGREGATION**

Requests for UDP Aggregation are submitted to the CAISO and must include the following documentation:

- (1) A completed UDP Aggregation ~~R~~request form, which is available for downloading on the CAISO ~~w~~Website;
- (2) A simplified electrical one-line diagram, which illustrates each resource, the connection of the resources to each other and to the CAISO ~~Control~~Balancing Authority Area;
- (3) For ~~C~~ustom UDP Aggregations, a detailed description that explains physical operating interrelationships between the units, or, if there are no interrelationships, how the units are compatible and why an aggregation of these units for the purpose of calculating Uninstructed Deviation Penalties is reasonable.

### **UAP 3**

### **CAISO REVIEW OF A UDP AGGREGATION REQUEST**

Upon receipt of a completed request form and accompanying attachments, the CAISO shall review the request according to the criteria outlined herein. For **B**asic UDP Aggregations, the CAISO shall review and approve or reject it within one week of receipt. The CAISO shall review and approve or reject a request for a **C**ustom UDP Aggregation within thirty (30) days of receipt.

### **UAP 3.1**

### **Criteria for Reviewing a Request**

#### **UAP 3.1.1**

#### **Scheduling Coordinator and Interconnection Point**

Uninstructed Deviations may be aggregated for resources that are:

- (1) Represented by the same Scheduling Coordinator and
- (2) Connected to the same CAISO Controlled Grid bus and voltage level. The CAISO will consider, on a case-by-case basis, requests to aggregate Uninstructed Deviations among resources represented by the same Scheduling Coordinator but not sharing a common CAISO Controlled Grid bus and voltage level based on a CAISO review of impact on the CAISO Controlled Grid. In particular, the CAISO will consider whether the request concerns resources related by a common flow of fuel which cannot be interrupted without a substantial loss of efficiency of the combined output of all components; whether the Energy production from one resource necessarily causes Energy production from other resource(s); and whether the operational arrangement of resources determines the overall physical efficiency of the combined output of all of the resources.

#### **UAP 3.1.2**

#### **Additional Criteria**

Additional eligibility criteria for a UDP Aggregation are as follows:

- (1) Only Generating Units shall be eligible for UDP Aggregation. As a general rule, pump-generating Units (or a Physical Scheduling Plant [PSP] containing a pump-generating Unit) cannot be part of a UDP Aggregation. However, it is possible that **G**enerating Units could form a UDP Aggregation comprised entirely of pump-generating Units whose operation is uniform, that is, **U**nits all operating in either Generation mode or all in pump mode, but never mixed.
- (2) UDP Aggregations cannot include any of the following:
  - (a) Load;
  - (b) Condition 2 Reliability Must-Run (RMR) Units;
  - (c) Participating Intermittent Resources; or
  - (d) Generating Units less than **five (5)** MW.

- (3) The resources must have CAISO direct telemetry and must be fully compliant with the CAISO's direct telemetry standards.
- (4) The Generating Units must have the same relative effect on all network elements for which the Generating Units have at least a five **percent (5%)** percent effectiveness factor, that is, for those network elements for which a **one (1)** MW change in the output of the Generating Unit changes the flow across that element by at least 0.05 MW. For the purposes of this item (4), the "same relative effect" means that the effectiveness factors of any Generating Unit relative to a network element cannot differ by more than **ten percent (10%)** from the midpoint effectiveness factor of all the units. The midpoint effectiveness is the arithmetic mean of the two most different effectiveness factors to be aggregated.
- (5) Custom UDP Aggregations involving units not directly connecting to the CAISO Controlled Grid must recognize the transfer limits and status of the intermediate local facilities.
- (6) The applicable **P<sub>max</sub>** of aggregated groups of resources will exclude units that are not operating.

### **UAP-3.1.3 Approval of a Request**

If a UDP Aggregation request is approved, the CAISO shall create a new unique Resource ID, which reflects the identity or location of the units and stipulates the UDP Aggregation, but which cannot be used for scheduling purposes. The CAISO shall inform the Scheduling Coordinator of the approval and ask the Scheduling Coordinator to confirm the desired start date of the UDP Aggregation. When that confirmation has been received, the new aggregation will be entered into the CAISO systems. Unless otherwise agreed to by the Scheduling Coordinator and the CAISO, the UDP Aggregation will become effective on the first day of the month following approval. The **U**units in an approved UDP Aggregation are obligated to follow their individual **s**Schedules and instructions at all times.

### **UAP-3.1.4 Rejection of a Request**

If the CAISO determines that the proposed UDP Aggregation is likely to impact grid reliability or the reliability of transmission systems or equipment of intermediate entities between the relevant resources and the CAISO **Controlled -g**Grid, the request will be rejected. If the CAISO rejects a request, the CAISO shall inform the Scheduling Coordinator, and forward to it the reason for the rejection. The CAISO may suggest alternative solutions if it has adequate time and data. The Scheduling Coordinator may choose to resubmit based on the CAISO's recommendations, or to close the request.

## **UAP-4 MODIFICATIONS TO AN EXISTING UDP AGGREGATION**

### **UAP-4.1 Status of UDP Aggregation**

An approved UDP Aggregation shall be considered active until otherwise requested by the Scheduling Coordinator.

### **UAP-4.2 Suspension by the CAISO**

The CAISO may temporarily suspend any **UDP Aggregation** as needed to ensure reliability. The CAISO may also suspend previously approved UDP Aggregations if, due to changes to the grid, to the aggregated Generating Units, or to the facilities connecting aggregated Generating Units to the grid, the UDP Aggregation no longer meets the criteria set forth in Sections 3.1.1 and 3.1.2 of this ~~CAISO Protocol~~ **Appendix R**.

If the CAISO must suspend the UDP Aggregation due to a **forced outage** or other unanticipated event, the CAISO shall provide notice that the UDP Aggregation has been suspended as soon as practical after the affecting event, but in no case longer than **seventy-two (72)** hours after that event. If the CAISO must suspend the UDP Aggregation due to future changes, the CAISO shall notify the affected Scheduling Coordinator (1) that the UDP Aggregation will be suspended and (2) when the UDP Aggregation will be suspended as soon as practical after the CAISO determines the UDP Aggregation must be suspended.

The CAISO shall write a report that explains the reason for the suspension and that specifies the effective date and time. The CAISO will forward the report to the Scheduling Coordinator and take steps to have the **UDP Aggregation** removed from the CAISO systems.

In the event that a resource in a UDP Aggregation changes from one Scheduling Coordinator to another, the UDP Aggregation will be suspended. In order to reinstate the aggregation, the new Scheduling Coordinator must submit a new request reflecting the change.

#### **UAP 4.3**

#### **Request for Modification by a Scheduling Coordinator**

A Scheduling Coordinator may request a modification to an existing **UDP Aggregation** up to once per calendar month. A request for modification will follow the same procedures as a new request.

**CAISO TARIFF APPENDIX S**

~~**{Reserved for Station Power Protocol}**~~

**ISO TARIFF APPENDIX AA**

**SMALL GENERATOR  
INTERCONNECTION PROCEDURES (SGIP)**

**SMALL GENERATOR  
INTERCONNECTION PROCEDURES (SGIP)**

**(For Generating Facilities No Larger Than 20 MW)**

**[Docket No. ER06-629 Compliance filing accepted by FERC. See Table.]**

**[Docket No. ER06-629 December 13, 2007 Compliance filing pending FERC Order. See Table.]**

**[Docket No. ER08-\_\_\_ Balancing Authority Amendment filing pending FERC Order. See Table.]**

**[Ministerial tariff language revision shown in BOLD – Docket ER06-615, September 21, 2006 Order.]**

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## **SECTION 1. OBJECTIVES, DEFINITIONS, AND APPLICATION.**

### 1.1 Objectives

The objective of this SGIP is to implement FERC's Order No. 2006 setting forth the requirements for Small Generating Facility interconnections to the **CAISO** Controlled Grid.

### 1.2 Definitions

#### 1.2.1 Master Definitions Supplement

Unless the context otherwise requires, any word or expression defined in the Master Definitions Supplement to the **CAISO** Tariff shall have the same meaning where used in this SGIP. A reference to a Section or an Appendix is a reference to a Section or an Appendix of the **CAISO** Tariff. References to SGIP are to this Protocol or to the stated paragraph of this Protocol.

#### 1.2.2 Special Definitions for this SGIP

In this SGIP, the following words and expressions shall have the meanings set opposite them:

"10 kW Inverter Process" shall mean the procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the SGIP Section 2 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions. See SGIP Attachment 5.

"Fast Track Process" shall mean the procedure for evaluating an Interconnection Request for a certified Small Generating Facility no larger than 2 MW that includes the SGIP Section 2 screens, customer options meeting, and optional supplemental review.

"**Governmental Authority**" shall mean any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, **CAISO**, or Participating TO, or any affiliate thereof.

"**Party**" or "**Parties**" shall mean the **CAISO**, Participating TO(s), Interconnection Customer or the applicable combination of the above.

"**Study Process**" shall mean the procedure for evaluating an Interconnection Request that includes the Scoping Meeting, feasibility study, system impact study, and facilities study, as set forth in Section 3 of this SGIP.

### 1.3 Application

The applicability of this SGIP is set forth in Section 5.7 of the **CAISO** Tariff. As specified in more detail in Section 5.7 of the **CAISO** Tariff, these procedures are applicable to each new Generating Facility with a Generating Facility Capacity of 20 MW or less, or the expansion of an existing Generating Facility with a resultant Generating Facility Capacity of 20 MW or less, that seeks to interconnect to the **CAISO** Controlled Grid. Any proposed interconnection of a new Generating Facility to a Participating TO's Distribution System will be processed, as applicable, pursuant to the applicable Participating TO's Wholesale Distribution Access Tariff or CPUC Rule 21, or other Local Regulatory Authority requirements of the Participating TO. For any proposed interconnection of a new Generating Facility with a Generating Facility Capacity of 20 MW or less



wherein the Interconnection Customer desires the **CAISO** to perform a Deliverability Assessment, the Interconnection Customer shall submit an Interconnection Request to the **CAISO** under the Large Generator Interconnection Procedures in lieu of these Small Generator Interconnection Procedures, as specified in Section 2.8 of this SGIP.

### 1.3.1 Applicability

- 1.3.1.1 A request to interconnect a certified Small Generating Facility (See Attachments 3 and 4 for description of certification criteria) no larger than 2 MW shall be evaluated under the SGIP Section 2 Fast Track Process. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kW shall be evaluated under the Attachment 5 10 kW Inverter Process. A request to interconnect a Small Generating Facility larger than 2 MW but no larger than 20 MW or a Small Generating Facility that does not pass the Fast Track Process or the 10 kW Inverter Process shall be evaluated under the Study Process set forth in Section 3 of this SGIP.
- 1.3.1.2 Neither these procedures nor the requirements included hereunder apply to Small Generating Facilities interconnected or approved for interconnection prior to 60 Business Days after the effective date of these procedures.
- 1.3.1.3 Prior to submitting its Interconnection Request (Attachment 2), the Interconnection Customer may ask the **CAISO's** interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The **CAISO** shall respond within 15 Business Days.
- 1.3.1.4 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Federal Energy Regulatory Commission expects all transmission providers, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 1.3.1.5 References in these procedures to interconnection agreement are to the Small Generator Interconnection Agreement (SGIA).

### 1.3.2 Pre-Application

The **CAISO** shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the **CAISO** Internet web site. The **CAISO** Controlled Grid information provided to the Interconnection Customer should include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the **CAISO** Controlled Grid, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The **CAISO** shall comply with reasonable requests for such information.

### 1.3.3 Interconnection Request

The Interconnection Customer shall submit its Interconnection Request to the **CAISO**, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date and time stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the **CAISO** within three (3) Business Days of receiving the Interconnection Request. The **CAISO** shall notify the Interconnection Customer within ten (10) Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the **CAISO** shall provide a notice that the Interconnection Request is incomplete, along with a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the **CAISO**.

**1.3.4** Modification of the Interconnection Request

Any modification to machine data or equipment configuration, or to the interconnection site of the Small Generating Facility not agreed to in writing by the **CAISO** and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

**1.3.5** Site Control

Documentation of site control must be submitted with the Interconnection Request. Site control may be demonstrated through:

**1.3.5.1** Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;

**1.3.5.2** An option to purchase or acquire a leasehold site for such purpose; or

**1.3.5.3** An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose.

**1.3.6** Queue Position

The **CAISO** shall assign a Queue Position based upon the date- and time- stamp of the Interconnection Request. The Queue Position of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The **CAISO** shall maintain a single queue for the **CAISO Balancing Authority Control Area**. At the **CAISO**'s option, in coordination with the applicable Participating TO, Interconnection Requests may be studied serially or in clusters for the purpose of the system impact study.

**1.3.7** Interconnection Requests Submitted Prior to the Effective Date of the SGIP

Nothing in this SGIP affects an Interconnection Customer's Queue Position assigned before the effective date of this SGIP. The Parties agree to complete work on any interconnection study agreement executed prior the effective date of this SGIP in accordance with the terms and conditions of that interconnection study agreement. Any new studies or other additional work will be completed pursuant to this SGIP.

### 1.3.8 Request for Deliverability Assessment

An Interconnection Customer seeking to interconnect to the **CAISO** Controlled Grid that desires to have a Deliverability Assessment performed for the Small Generating Facility shall be required to have its Interconnection Request processed under the Large Generator Interconnection Procedures (LGIP) or **CAISO** Tariff Appendix W, as applicable.

## **SECTION 2. FAST TRACK PROCESS**

### 2.1 Applicability

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the **CAISO** Controlled Grid if the Small Generating Facility is no larger than 2 MW and if the Interconnection Customer's proposed Small Generating Facility meets the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures, or the applicable Participating TO has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

### 2.2 Initial Review

Within 15 Business Days after the **CAISO** notifies the Interconnection Customer it has received a complete Interconnection Request, the applicable Participating TO shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Participating TO's determinations under the screens.

#### 2.2.1 Screens

2.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Participating TO's Distribution System that is subject to the **CAISO** Tariff.

2.2.1.2 For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15% of the line section annual peak load as most recently measured at the substation. A line section is that portion of a Participating TO's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

2.2.1.3 For interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5% of a spot network's maximum load or 50 kW<sup>1</sup>.

2.2.1.4 The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.

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<sup>1</sup> A spot Network is a type of distribution system found within modern commercial buildings to provide high reliability of service to a single customer. (Standard Handbook for Electrical Engineers, 11<sup>th</sup> edition, Donald Fink, McGraw Hill Book Company)

2.2.1.5 The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5% of the short circuit interrupting capability; nor shall the interconnection proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability.

2.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Participating TO's electric power system due to a loss of ground during the operating time of any anti-islanding function.

<b>Primary Distribution Line Type</b>	<b>Type of Interconnection to Primary Distribution Line</b>	<b>Result/Criteria</b>
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

2.2.1.7 If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

2.2.1.8 If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.

2.2.1.9 The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of interconnection).

2.2.1.10 No construction of facilities by the Participating TO on its own system shall be required to accommodate the Small Generating Facility.

2.2.2 If the proposed interconnection passes the screens, the Interconnection Request shall be approved and the Participating TO will provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.

2.2.3 If the proposed interconnection fails the screens, but the Participating TO determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the Participating TO shall provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.

2.2.4 If the proposed interconnection fails the screens, but the Participating TO does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Participating TO shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.

### 2.3 Customer Options Meeting

If the Participating TO determines the Interconnection Request cannot be approved without minor modifications at minimal cost; or a supplemental study or other additional studies or actions; or at significant cost to address safety, reliability, or power quality problems, within the five Business Day period after the determination, the Participating TO shall notify the Interconnection Customer and provide copies of all data and analyses underlying its conclusion. Within ten Business Days of the Participating TO's determination, the Participating TO shall offer to convene a customer options meeting with the Participating TO to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the Participating TO's determination, or at the customer options meeting, the Participating TO shall:

2.3.1 Offer to perform facility modifications or minor modifications to the Participating TO's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Participating TO's electric system; or

2.3.2 Offer to perform a supplemental review if the Participating TO concludes that the supplemental review might determine that the Small Generating Facility could continue to qualify for interconnection pursuant to the Fast Track Process, and provide a non-binding good faith estimate of the costs of such review; or

2.3.3 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the SGIP Section 3 Study Process.

### 2.4 Supplemental Review

If the Interconnection Customer agrees to a supplemental review, the Interconnection Customer shall agree in writing within 15 Business Days of the offer, and submit a deposit for the estimated costs. The Interconnection Customer shall be responsible for the Participating TO's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Participating TO will return such excess within 20 Business Days of the invoice without interest.

2.4.1 Within ten Business Days following receipt of the deposit for a supplemental review, the Participating TO will determine if the Small Generating Facility can be interconnected safely and reliably.

2.4.1.1 If so, the Participating TO shall forward an executable interconnection agreement to the Interconnection Customer within five Business Days.

2.4.1.2 If so, and Interconnection Customer facility modifications are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the Participating TO shall forward an executable interconnection agreement to the Interconnection Customer within five Business Days

after confirmation that the Interconnection Customer has agreed to make the necessary changes at the Interconnection Customer's cost.

2.4.1.3 If so, and minor modifications to the Participating TO's electric system are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under the Fast Track Process, the Participating TO shall forward an executable interconnection agreement to the Interconnection Customer within ten Business Days that requires the Interconnection Customer to pay the costs of such system modifications prior to interconnection.

2.4.1.4 If not, the Interconnection Request will continue to be evaluated under the SGIP Section 3 Study Process.

### **SECTION 3. STUDY PROCESS**

#### **3.1 Applicability**

The Study Process shall be used by an Interconnection Customer proposing to interconnect its Small Generating Facility to the **CAISO** Controlled Grid if the Small Generating Facility (1) is larger than 2 MW but no larger than 20 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process.

#### **3.1.1 Centralized Study Process**

3.1.1.1 The **CAISO** will be the single point of contact for Interconnection Customer.

3.1.1.2 The **CAISO** will be the central point of coordination to involve any Affected Systems.

3.1.1.3 The **CAISO** will collect and disburse monies received from Interconnection Customers.

3.1.1.4 The **CAISO** will execute interconnection study agreements. Each Interconnection Request will be subject to the direction and oversight of the **CAISO**. The **CAISO** will conduct or cause to be performed the required small generator interconnection studies and any additional studies the **CAISO** determines to be reasonably necessary and will direct the applicable Participating TO to perform portions of studies where the Participating TO has specific and non-transferable expertise or data and can conduct the studies more efficiently and cost effectively than the **CAISO**. The study results and final study report must be approved by the **CAISO**.

#### **3.2 Scoping Meeting**

3.2.1 A Scoping Meeting will be held within ten (10) Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties. The **CAISO**, applicable Participating TO, and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.

3.2.2 The purpose of the Scoping Meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The Parties shall further discuss whether the **CAISO** should conduct, or caused to be performed, a feasibility study or proceed directly to a system impact study, or a facilities study, or an

interconnection agreement. If the Parties agree that a feasibility study should be performed, the CAISO shall provide the Interconnection Customer, as soon as possible, but not later than five (5) Business Days after the Scoping Meeting, a feasibility study agreement (Attachment 6) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

3.2.3 The Scoping Meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, an Interconnection Customer who has requested a feasibility study must return the executed feasibility study agreement within fifteen (15) Business Days. If the Parties agree not to perform a feasibility study, the CAISO shall provide the Interconnection Customer, no later than five (5) Business Days after the Scoping Meeting, a system impact study agreement (Attachment 7) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

### 3.3 Feasibility Study

3.3.1 The feasibility study shall identify any potential adverse system impacts or financial impacts, if any, on Local Furnishing Bonds that would result from the interconnection of the Small Generating Facility.

3.3.2 A deposit of the lesser of 50 percent of the good faith estimated feasibility study costs or earnest money of \$1,000 will be required from the Interconnection Customer.

3.3.3 The scope of, and cost responsibilities for, the feasibility study are described in the attached feasibility study agreement.

3.3.4 If the feasibility study shows no potential for adverse system impacts and financial impacts on Local Furnishing Bonds, the CAISO shall send the Interconnection Customer a facilities study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If no additional facilities are required, the Participating TO shall send the Interconnection Customer an executable interconnection agreement within five (5) Business Days.

3.3.5 If the feasibility study shows the potential for adverse system impacts or financial impacts on Local Furnishing Bonds, the review process shall proceed to the appropriate system impact study(s).

### 3.4 System Impact Study

3.4.1 A system impact study shall identify and detail the electric system impacts, including Local Furnishing Bond impacts, that would result if the proposed Small Generating Facility were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.

3.4.2 If no CAISO Controlled Grid system impact study is required, but potential electric power Distribution System adverse system impacts or Local Furnishing Bond impacts are identified in the Scoping Meeting or shown in the feasibility study, a Distribution System impact study must be performed by the applicable Participating TO. The applicable Participating TO shall send the Interconnection Customer a Distribution System impact study agreement within fifteen (15) Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding good faith

estimate of the cost to perform the study, or following the Scoping Meeting if no feasibility study is to be performed.

3.4.3 In instances where the feasibility study or the Distribution System impact study shows potential for CAISO Controlled Grid adverse system impacts or Local Furnishing Bond adverse impacts, within five (5) Business Days following transmittal of the feasibility study report, the CAISO shall send the Interconnection Customer a system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, if such a study is required.

3.4.4 If a CAISO Controlled Grid system impact study is not required, but electric power Distribution System adverse system impacts are shown by the feasibility study to be possible and no Distribution System impact study has been conducted, the applicable Participating TO shall send the Interconnection Customer a Distribution System impact study agreement.

3.4.5 If the feasibility study shows no potential for CAISO Controlled Grid, Local Furnishing Bond, or Distribution System adverse system impacts, the CAISO shall send the Interconnection Customer either a facilities study agreement (Attachment 8), including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or the applicable Participating TO shall send an executable interconnection agreement, as applicable.

3.4.6 In order to remain under consideration for interconnection, the Interconnection Customer must return executed system impact study agreements, if applicable, within thirty (30) Business Days.

3.4.7 A deposit of the good faith estimated costs for each system impact study will be required from the Interconnection Customer.

3.4.8 The scope of, and cost responsibilities for, a system impact study are described in the attached system impact study agreement.

3.4.9 Where transmission systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") – whether investor-owned or not – the Interconnection Customer may apply to the nearest transmission provider (transmission owner, Regional Transmission Operator, or independent system operator) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.

### 3.5 Facilities Study

3.5.1 Once the required system impact study(s) is completed, a system impact study report shall be prepared and transmitted to the Interconnection Customer along with a facilities study agreement within five (5) Business Days, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. In the case where one or both impact studies are determined to be unnecessary, a notice of the fact shall be transmitted to the Interconnection Customer within the same timeframe.

3.5.2 In order to remain under consideration for interconnection, or, as appropriate, in the CAISO's interconnection queue, the Interconnection Customer must return the executed facilities study agreement or a request for an extension of time within thirty (30) Business Days.



3.5.3 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s).

**3.5.4 [INTENTIONALLY LEFT BLANK]**

3.5.5 A deposit of the good faith estimated costs for the facilities study will be required from the Interconnection Customer.

3.5.6 The scope of, and cost responsibilities for, the facilities study are described in the attached facilities study agreement.

3.5.7 Within 30 Business Days after completion of the facilities study, the Interconnection Customer shall take one of the following actions: (i) agree to pay for Interconnection Facilities and Upgrades identified in the facilities study and request that the Participating TO tender an executable interconnection agreement, (ii) withdraw its Interconnection Request, or (iii) request that the Participating TO tender an executable interconnection agreement despite its disagreement with the costs therein. If requested, the Participating TO shall provide the Interconnection Customer an executable interconnection agreement within five (5) Business Days. Upon option (iii) herein, the Interconnection Customer may request that the interconnection agreement be filed unilaterally at FERC.

**3.5.8 [INTENTIONALLY LEFT BLANK]**

3.5.9 Engineering and Procurement Agreement

Prior to executing an SGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and the applicable Participating TO(s) shall offer the Interconnection Customer, an E&P Agreement that authorizes the applicable Participating TO(s) to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, the applicable Participating TO(s) shall not be obligated to offer an E&P Agreement if the Interconnection Customer is in Dispute Resolution as a result of an allegation that the Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the SGIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or In-Service Date. The E&P Agreement shall provide for the Interconnection Customer to pay the cost of all activities authorized by the Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

The Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If the Interconnection Customer withdraws its application for interconnection or either Party terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, the Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, the applicable Participating TO(s) may elect: (i) to take title to the equipment, in which event the applicable Participating TO(s) shall refund the Interconnection Customer any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to the Interconnection Customer, in which event the Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

## **SECTION 4. PROVISIONS THAT APPLY TO ALL INTERCONNECTION REQUESTS**

### 4.1 Reasonable Efforts

The CAISO shall make reasonable efforts to meet all time frames provided in these procedures unless the CAISO and the Interconnection Customer agree to a different schedule. If the CAISO cannot meet a deadline provided herein, it shall notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

### 4.2 Disputes

4.2.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this section.

4.2.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

4.2.3 If the dispute has not been resolved within two (2) Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.

4.2.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.

4.2.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.

4.2.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this SGIP.

### 4.3 Interconnection Metering

Any metering necessitated by the use of the Small Generating Facility shall be installed at the Interconnection Customer's expense in accordance with Federal Energy Regulatory Commission, state, or local regulatory requirements or the CAISO's specifications.

### 4.4 Commissioning

Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards. The CAISO and applicable Participating TO must be given at least five (5) Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.

### 4.5 Confidentiality

4.5.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to another Party that is clearly marked or otherwise designated "Confidential." For purposes of this SGIP, all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

4.5.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Parties and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this SGIP. Each Party

receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this SGIP, or to fulfill legal or regulatory requirements.

4.5.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Parties as it employs to protect its own Confidential Information.

4.5.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

4.5.3 Notwithstanding anything in this section to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this SGIP, the Party shall provide the requested information to FERC within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties prior to the release of the Confidential Information to FERC. The Party shall notify the other Parties when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

#### 4.6 Comparability

The CAISO shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this SGIP. The CAISO shall use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Small Generating Facility is owned or operated by the applicable Participating TO, its subsidiaries or affiliates, or others.

#### 4.7 Record Retention

The CAISO shall maintain for three (3) years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.

#### 4.8 Interconnection Agreement

The Participating TO, with the CAISO's review and concurrence, shall issue a SGIA to the Interconnection Customer. After receiving an interconnection agreement from the Participating TO, the Interconnection Customer shall have thirty (30) Business Days or another mutually agreeable timeframe to sign and return the interconnection agreement, or request that the CAISO and Participating TO file an unexecuted interconnection agreement with the Federal Energy Regulatory Commission. If the Interconnection Customer does not sign the interconnection agreement, or ask that it be filed unexecuted by the CAISO and Participating TO within thirty (30) Business Days, the Interconnection Request shall be deemed withdrawn. After the interconnection agreement is signed by the Parties, the interconnection of the Small Generating Facility shall proceed under the provisions of the interconnection agreement.

#### 4.9 Coordination with Affected Systems

The CAISO shall coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The CAISO will include such Affected System operators in all meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the CAISO in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A transmission provider, which may be an Affected System, shall cooperate with the CAISO in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

#### 4.10 Capacity of the Small Generating Facility

4.10.1 If the Interconnection Request is for an increase in capacity for an existing Small Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Small Generating Facility.

4.10.2 If the Interconnection Request is for a Small Generating Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.

4.10.3 The Interconnection Request shall be evaluated using the maximum rated capacity of the Small Generating Facility.

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**Attachment 1**

**SMALL GENERATOR INTERCONNECTION REQUEST**  
**(Application Form)**

**California Independent System Operator**

Designated Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

An Interconnection Request is considered complete when it provides all applicable and correct information required below. Per SGIP Section 1.3.5, documentation of Site Control must be submitted with the Interconnection Request

**Preamble and Instructions**

Request for Deliverability Assessment – Yes \_\_\_ No \_\_\_

An Interconnection Customer seeking to interconnect to the CAISO Controlled Grid that desires to have a Deliverability Assessment performed for the Small Generating Facility is required to have its Interconnection Request processed under the Large Generator Interconnection Procedures (LGIP) or CAISO Tariff Appendix W, as applicable.

An Interconnection Customer who requests a Federal Energy Regulatory Commission jurisdictional interconnection must submit this Interconnection Request by hand delivery, mail, e-mail, or fax to the CAISO.

**Processing Fee or Deposit:**

If the Interconnection Request is submitted under the Fast Track Process, the non-refundable processing fee is \$500.

If the Interconnection Request is submitted under the Study Process, whether a new submission or an Interconnection Request that did not pass the Fast Track Process, the Interconnection Customer shall submit to the CAISO a deposit not to exceed \$1,000 towards the cost of the feasibility study.

**Interconnection Customer Information**

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Facility Location (if different from above): \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Application is for:

\_\_\_\_\_  
New Small Generating Facility

\_\_\_\_\_  
Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: \_\_\_\_\_

\_\_\_\_\_

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes \_\_\_\_\_ No \_\_\_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_\_\_ No \_\_\_\_\_

To Supply Power to Others? Yes \_\_\_\_\_ No \_\_\_\_\_

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

\_\_\_\_\_  
(Local Electric Service Provider\*) \_\_\_\_\_ (Existing Account Number\*)

[\*To be provided by the Interconnection Customer if the local electric service provider is different from the Participating TO]

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Requested Point of Interconnection: \_\_\_\_\_

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

**Small Generating Facility Information**

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: Solar Wind Hydro Hydro Type (e.g. Run-of-River): \_\_\_\_\_  
Diesel Natural Gas Fuel Oil Other (state type) \_\_\_\_\_

Prime Mover: Fuel Cell Recip Engine Gas Turb Steam Turb  
Microturbine PV Other \_\_\_\_\_

Type of Generator: Synchronous Induction Inverter \_\_\_\_\_

Generator Nameplate Rating: kW (Typical) Generator Nameplate kVAR: \_\_\_\_\_

Interconnection Customer or Customer-Site Load: kW (if none, so state) \_\_\_\_\_

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Physical Export Capability Requested: kW \_\_\_\_\_

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package? Yes No

Generator (or solar collector)

Manufacturer, Model Name & Number: \_\_\_\_\_

Version Number: \_\_\_\_\_

Nameplate Output Power Rating in kW: (Summer) (Winter) \_\_\_\_\_

Nameplate Output Power Rating in kVA: (Summer) (Winter) \_\_\_\_\_

Individual Generator Power Factor

Rated Power Factor: Leading: Lagging: \_\_\_\_\_

Total Number of Generators in wind farm to be interconnected pursuant to this

Interconnection Request: Elevation: Single phase Three phase

Inverter Manufacturer, Model Name & Number (if used): \_\_\_\_\_

List of adjustable set points for the protective equipment or software: \_\_\_\_\_

Note: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Request.



Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: \_\_\_\_\_ Instantaneous or RMS? \_\_\_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements: \_\_\_\_\_

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: \_\_\_\_\_

(\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

Synchronous Generators:

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Induction Generators:

Motoring Power (kW): \_\_\_\_\_

$I_2^2 t$  or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance,  $R_r$ : \_\_\_\_\_

Stator Resistance,  $R_s$ : \_\_\_\_\_

Stator Reactance,  $X_s$ : \_\_\_\_\_

Rotor Reactance,  $X_r$ : \_\_\_\_\_

Magnetizing Reactance,  $X_m$ : \_\_\_\_\_

Short Circuit Reactance,  $X_d''$ : \_\_\_\_\_

Exciting Current: \_\_\_\_\_

Temperature Rise: \_\_\_\_\_

Frame Size: \_\_\_\_\_

Design Letter: \_\_\_\_\_

Reactive Power Required In Vars (No Load): \_\_\_\_\_

Reactive Power Required In Vars (Full Load): \_\_\_\_\_

Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on kVA Base

Note: Please contact the **CAISO** prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the generator and the point of common coupling? Yes No

Will the transformer be provided by the Interconnection Customer? Yes No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: single phase three phase? Size: \_\_\_\_\_ kVA  
Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Secondary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
Transformer Tertiary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

\_\_\_\_\_ If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____		
2. _____		
3. _____		
4. _____		
5. _____		
6. _____		

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Potential Transformer Data (If Applicable):

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

**General Information**

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generator Facility is larger than 50 kW. Is One-Line Diagram Enclosed? Yes No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address)

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed? Yes No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are Schematic Drawings Enclosed? Yes No

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

**Certification Codes and Standards**

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms  
NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

**Certification of Small Generator Equipment Packages**

- 1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.
- 7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.

**Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW ("10 kW Inverter Process")**

- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the Participating TO ("Company").
- 2.0 The Company acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- 3.0 The Company evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- 4.0 The Company verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Small Generator Interconnection Procedures (SGIP). The Company has 15 Business Days to complete this process. Unless the Company determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the Company approves the Application and returns it to the Customer. Note to Customer: Please check with the Company before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the Company. Prior to parallel operation, the Company may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The Company notifies the Customer in writing that interconnection of the Small Generating Facility is authorized. If the witness test is not satisfactory, the Company has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The Company is obligated to complete this witness test within ten Business Days of the receipt of the Certificate of Completion. If the Company does not inspect within ten Business Days or by mutual agreement of the Parties, the witness test is deemed waived.
- 7.0 Contact Information – The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the Company, that contact information must be provided on the Application.
- 8.0 Ownership Information – Enter the legal names of the owner(s) of the Small Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed – This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.

**Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW**

This Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer

Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Contact (if different from Interconnection Customer)

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Owner of the facility (include % ownership by any electric utility): \_\_\_\_\_

Small Generating Facility Information

Location (if different from above): \_\_\_\_\_  
Electric Service Company: \_\_\_\_\_  
Account Number: \_\_\_\_\_  
Inverter Manufacturer: \_\_\_\_\_ Model \_\_\_\_\_  
Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts)  
Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_  
System Design Capacity: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA)  
Prime Mover: Photovoltaic \_\_\_\_\_ Reciprocating Engine \_\_\_\_\_ Fuel Cell \_\_\_\_\_  
Turbine \_\_\_\_\_ Other \_\_\_\_\_  
Energy Source: Solar \_\_\_\_\_ Wind \_\_\_\_\_ Hydro \_\_\_\_\_ Diesel \_\_\_\_\_ Natural Gas \_\_\_\_\_  
Fuel Oil \_\_\_\_\_ Other (describe) \_\_\_\_\_  
Is the equipment UL1741 Listed? Yes \_\_\_\_\_ No \_\_\_\_\_  
If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachments 3 and 4 of the Small Generator Interconnection Procedures (SGIP), or the Participating TO has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Contingent Approval to Interconnect the Small Generating Facility**

(For Company use only)

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Company Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Company waives inspection/witness test? Yes No

**Small Generating Facility Certificate of Completion**

Is the Small Generating Facility owner-installed? Yes No

Interconnection Customer: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Location of the Small Generating Facility (if different from above):

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**Electrician:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_



Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

License number: \_\_\_\_\_

Date Approval to Install Facility granted by the Company: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Inspection:

The Small Generating Facility has been installed and inspected in compliance with the local

building/electrical code of \_\_\_\_\_

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

\_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company information below):

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP: \_\_\_\_\_

Fax: \_\_\_\_\_

Approval to Energize the Small Generating Facility (For Company use only)

Energizing the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

Company Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Terms and Conditions for Interconnecting an Inverter-Based  
Small Generating Facility No Larger than 10kW**

**1.0 Construction of the Facility**

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the Participating TO (the

"Company") approves the Interconnection Request (the "Application") and returns it to the Customer.

## **2.0 Interconnection and Operation**

The Customer may operate Small Generating Facility and interconnect with the Company's electric system once all of the following have occurred:

2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and

2.2 The Customer returns the Certificate of Completion to the Company, and

2.3 The Company has either:

2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or

2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or

2.3.3 The Company waives the right to inspect the Small Generating Facility.

2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

## **3.0 Safe Operations and Maintenance**

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

## **4.0 Access**

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Small Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

## **5.0 Disconnection**

The Company may temporarily disconnect the Small Generating Facility upon the following conditions:

5.1 For scheduled outages upon reasonable notice.

5.2 For unscheduled outages or emergency conditions.

5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.

5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

## **6.0 Indemnification**

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

## **7.0 Insurance**

The Parties each agree to maintain commercially reasonable amounts of insurance.

## **8.0 Limitation of Liability**

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

## **9.0 Termination**

The agreement to operate in parallel may be terminated under the following conditions:

9.1 By the Customer  
By providing written notice to the Company.

9.2 By the Company  
If the Small Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

9.3 Permanent Disconnection  
In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.

9.4 Survival Rights  
This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

## **10.0 Assignment/Transfer of Ownership of the Facility**

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

**Feasibility Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ by and between \_\_\_\_\_ a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and the California Independent System Operator Corporation, a California nonprofit public benefit corporation existing under the laws of the State of California, ("**CAISO**"). Interconnection Customer and **CAISO** each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Small Generating Facility with the **CAISO** Controlled Grid; and

**WHEREAS**, Interconnection Customer has requested the **CAISO** to conduct or cause to be performed a feasibility study to assess the feasibility of interconnecting the proposed Small Generating Facility with the **CAISO** Controlled Grid, and of any Affected Systems;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the Master Definitions Supplement, Appendix A of the **CAISO** Tariff.
- 2.0 The Interconnection Customer elects and the **CAISO** shall conduct or cause to be performed an interconnection feasibility study consistent the standard Small Generator Interconnection Procedures in accordance with the **CAISO** Tariff.
- 3.0 The scope of the feasibility study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The feasibility study shall be based on the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting. The **CAISO** reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the feasibility study and as designated in accordance with the standard Small Generator Interconnection Procedures. If the Interconnection Customer modifies its Interconnection Request, the time to complete the feasibility study may be extended by agreement of the Parties.
- 5.0 In performing the study, the **CAISO** shall rely, to the extent reasonably practicable, on existing studies of recent vintage. The Interconnection Customer shall not be charged for such existing studies; however, the Interconnection Customer shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the feasibility study.

- 6.0 The feasibility study report shall provide the following analyses for the purpose of identifying any potential adverse system impacts that would result from the interconnection of the Small Generating Facility as proposed:
- 6.1 Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- 6.2 Initial identification of any thermal overload or voltage limit violations resulting from the interconnection;
- 6.3 Initial review of grounding requirements and electric system protection;
- 6.4 preliminary identification of financial impacts, if any, on Local Furnishing Bonds; and
- 6.5 Description and non-bonding estimated cost of facilities required to interconnect the proposed Small Generating Facility and to address the identified short circuit and power flow issues.
- 7.0 The feasibility study shall model the impact of the Small Generating Facility regardless of purpose in order to avoid the further expense and interruption of operation for reexamination of feasibility and impacts if the Interconnection Customer later changes the purpose for which the Small Generating Facility is being installed.
- 8.0 The study shall include the feasibility of any interconnection at a proposed project site where there could be multiple potential Points of Interconnection, as requested by the Interconnection Customer and at the Interconnection Customer's cost.
- 9.0 A deposit of the lesser of 50 percent of good faith estimated feasibility study costs or earnest money of \$1,000 shall be required from the Interconnection Customer.
- 10.0 Once the feasibility study is completed, a feasibility study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the feasibility study must be completed and the feasibility study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a feasibility study.
- 11.0 Any study fees shall be based on the CAISO's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 Calendar Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the CAISO shall refund such excess within 30 Calendar Days of the invoice without interest.
- 13.0 Miscellaneous.
- 13.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Agreement, shall be resolved in accordance with Section 4.2 of the SGIP.
- 13.2 Confidentiality. Confidential Information shall be treated in accordance with Section 4.5 of the SGIP.
- 13.3 Binding Effect. This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

- 13.4 Conflicts. In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- 13.5 Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Feasibility Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section, Attachment, or Appendix means such Article or Section of this Agreement or such Attachment or Appendix to this Agreement, or such Section of the SGIP or such Attachment or Appendix to the SGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Section; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 13.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 13.7 No Third Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 13.8 Waiver. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or CAISO. Any waiver of this Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.

- 13.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 13.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 13.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 13.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 13.13 Reservation of Rights. The **CAISO** shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 13.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 13.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Generating Unit, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.
- 13.16 Severability. If any provisions or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

13.17 Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Participating TO or the CAISO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**California Independent System Operator Corporation**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**[Insert name of Interconnection Customer]**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_



**Attachment A to  
Feasibility Study Agreement**

**Assumptions Used in Conducting the Feasibility Study**

The feasibility study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on \_\_\_\_\_ :

1) \_\_\_\_\_ Designation of Point of Interconnection and configuration to be studied.

2) \_\_\_\_\_ Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the CAISO.

**System Impact Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_, the California Independent System Operator Corporation, a California nonprofit public benefit corporation existing under the laws of the State of California, ("**CAISO**"). Interconnection Customer and **CAISO** each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the **CAISO** Controlled Grid;

**WHEREAS**, the **CAISO** has completed a feasibility study and provided the results of said study to the Interconnection Customer (This recital to be omitted if the Parties have agreed to forego the feasibility study.); and

**WHEREAS**, the Interconnection Customer has requested the **CAISO** to conduct or cause to be performed a system impact study(s) to assess the impact of interconnecting the Small Generating Facility with the **CAISO** Controlled Grid, and of any Affected Systems;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the Master Definitions Supplement, Appendix A of the **CAISO** Tariff.
- 2.0 The Interconnection Customer elects and the **CAISO** shall conduct or cause to be performed a system impact study(s) consistent with the standard Small Generator Interconnection Procedures in accordance with the **CAISO** Tariff.
- 3.0 The scope of a system impact study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 A system impact study will be based upon the results of the feasibility study and the technical information provided by Interconnection Customer in the Interconnection Request. The **CAISO** reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the system impact study. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the system impact study may be extended.

- 5.0 A system impact study shall consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, an assessment of the potential magnitude of financial impacts, if any, on Local Furnishing Bonds and a proposed resolution, and grounding reviews, as necessary. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. A system impact study shall provide a list of facilities that are required as a result of the Interconnection Request and non-binding good faith estimates of cost responsibility and time to construct.
- 6.0 A Distribution System impact study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 7.0 Affected Systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems, and the CAISO has 20 additional Business Days to complete a system impact study requiring review by Affected Systems.
- 8.0 If the CAISO uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the system impact study shall consider all generating facilities (and with respect to paragraph 8.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced -
- 8.1 Are directly interconnected with the CAISO Controlled Grid; or
- 8.2 Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and
- 8.3 Have a pending higher queued Interconnection Request to interconnect with the CAISO Controlled Grid.
- 9.0 A Distribution System impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 30 Business Days after this Agreement is signed by the Parties. A CAISO Controlled Grid system impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 45 Business Days after this Agreement is signed by the Parties, or in accordance with the CAISO queuing procedures.
- 10.0 A deposit of the equivalent of the good faith estimated cost of a Distribution System impact study and one half the good faith estimated cost of an CAISO Controlled Grid system impact study shall be required from the Interconnection Customer.
- 11.0 Any study fees shall be based on the CAISO actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 Calendar Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the CAISO shall refund such excess within 30 Calendar Days of the invoice without interest.
- 13.0 Miscellaneous.

- 13.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Agreement, shall be resolved in accordance with Section 4.2 of the SGIP.
- 13.2 Confidentiality. Confidential Information shall be treated in accordance with Section 4.5 of the SGIP.
- 13.3 Binding Effect. This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 13.4 Conflicts. In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- 13.5 Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this System Impact Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section, Attachment, or Appendix means such Article or Section of this Agreement or such Attachment or Appendix to this Agreement, or such Section of the SGIP or such Attachment or Appendix to the SGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Section; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 13.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 13.7 No Third Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 13.8 Waiver. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's

legal rights to obtain an interconnection from the Participating TO or CAISO. Any waiver of this Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.

- 13.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 13.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 13.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 13.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 13.13 Reservation of Rights. The CAISO shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 13.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 13.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Generating Unit, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Article is void and ineffective. Any assignment under

this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

13.16 Severability. If any provisions or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

13.17 Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Participating TO or the CAISO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

**IN WITNESS THEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**California Independent System Operator Corporation**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**[Insert name of Interconnection Customer]**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**Attachment A to System  
Impact Study Agreement**

**Assumptions Used in Conducting the System Impact Study**

The system impact study shall be based upon the results of the feasibility study, subject to any modifications in accordance with the standard Small Generator Interconnection Procedures, and the following assumptions:

1) Designation of Point of Interconnection and configuration to be studied.

2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the CAISO.

**Facilities Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ by and between \_\_\_\_\_ a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ the California Independent System Operator Corporation, a California nonprofit public benefit corporation existing under the laws of the State of California, ("**CAISO**"). Interconnection Customer and **CAISO** each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the **CAISO** Controlled Grid;

**WHEREAS**, the **CAISO** has completed a system impact study and provided the results of said study to the Interconnection Customer; and

**WHEREAS**, the Interconnection Customer has requested the **CAISO** to conduct or cause to be performed a facilities study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the system impact study in accordance with Good Utility Practice to physically and electrically connect the Small Generating Facility with the **CAISO** Controlled Grid.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the Master Definitions Supplement, Appendix A of the **CAISO** Tariff.
- 2.0 The Interconnection Customer elects and the **CAISO** shall cause a facilities study consistent with the standard Small Generator Interconnection Procedures to be performed in accordance with the **CAISO** Tariff.
- 3.0 The scope of the facilities study shall be subject to data provided in Attachment A to this Agreement.
- 4.0 The facilities study shall specify and estimate the cost, including, if applicable, the cost of remedial measures that address the financial impacts, if any, on Local Furnishing Bonds, of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s). The facilities study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Participating TO's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities or for effecting remedial measures that address the financial impacts, if any, on Local Furnishing Bonds.



- 5.0 The CAISO may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Small Generating Facility if it is willing to pay the costs of those facilities.
- 6.0 A deposit of the good faith estimated facilities study costs shall be required from the Interconnection Customer.
- 7.0 In cases where Upgrades are required, the facilities study must be completed within 45 Business Days of the receipt of this Agreement. In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the facilities study must be completed within 30 Business Days.
- 8.0 Once the facilities study is completed, a facilities study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the facilities study must be completed and the facilities study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a facilities study.
- 9.0 Any study fees shall be based on the CAISO's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 10.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 Calendar Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the CAISO shall refund such excess within 30 Calendar Days of the invoice without interest.
- 11.0 Miscellaneous.
- 11.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Agreement, shall be resolved in accordance with Section 4.2 of the SGIP.
- 11.2 Confidentiality. Confidential Information shall be treated in accordance with Section 4.5 of the SGIP.
- 11.3 Binding Effect. This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 11.4 Conflicts. In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- 11.5 Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Facilities Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section, Attachment, or Appendix means such Article or Section of this Agreement or such Attachment or Appendix to

this Agreement, or such Section of the SGIP or such Attachment or Appendix to the SGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Section; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

- 11.6 Governing Law, Regulatory Authority, and Rules. The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 11.7 No Third Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 11.8 Waiver. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
- Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or CAISO. Any waiver of this Agreement shall, if requested, be provided in writing.
- Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 11.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 11.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 11.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 11.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 11.13 Reservation of Rights. The CAISO shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal

Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

- 11.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 11.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Generating Unit, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.
- 11.16 Severability. If any provisions or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.
- 11.17 Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Participating TO or the CAISO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**California Independent System Operator Corporation**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**[Insert name of Interconnection Customer]**

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_

Title \_\_\_\_\_

**Data to Be Provided by the Interconnection Customer  
with the Facilities Study Agreement**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

On the one-line diagram, indicate the generation capacity attached at each metering location.  
(Maximum load on CT/PT)

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT)  
Amps

One set of metering is required for each generation connection to the new ring bus or existing Participating TO station. Number of generation connections: \_\_\_\_\_

Will an alternate source of auxiliary power be available during CT/PT maintenance?  
Yes No \_\_\_\_\_

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes No \_\_\_\_\_  
(Please indicate on the one-line diagram).

What type of control system or PLC will be located at the Small Generating Facility?

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What protocol does the control system or PLC use?

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Please provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, transmission line, and property lines.

Physical dimensions of the proposed interconnection station:

---

Bus length from generation to interconnection station:

---

Line length from interconnection station to **CAISO** Controlled Grid.

---

Tower number observed in the field. (Painted on tower leg)\*:



**INTERCONNECTION PROCEDURES FOR A WIND GENERATING PLANT**

Attachment 9 sets forth procedures specific to a wind generating plant. All other requirements of this SGIP continue to apply to wind generating plant interconnections.

**A. Special Procedures Applicable to Wind Generators**

The wind plant Interconnection Customer, in completing the Interconnection Request required by Section 2.3 of this SGIP, may provide to the CAISO a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind plant may enter the queue and receive the Base Case data as provided for in this SGIP.

No later than six months after submitting an Interconnection Request completed in this manner, the wind plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow the CAISO to complete the interconnection study.

**CAISO TARIFF APPENDIX T**

**[NOT USED]**

**ISO TARIFF APPENDIX DD**

**SMALL GENERATOR  
INTERCONNECTION AGREEMENT (SGIA)**

**SMALL GENERATOR  
INTERCONNECTION AGREEMENT (SGIA)**

**(For Generating Facilities No Larger Than 20 MW)**

**[Docket No. ER07-1060 Amendment Filing pending FERC Order. Accepted language refiled in August 3 Compliance Filing ER06-615. See Table Note: Appendix T deleted.]**

**[Docket No. ER06-629 Compliance Filing accepted by FERC. See Table.]**

**[Docket No. ER06-629 December 13, 2007 Compliance Filing pending FERC Order. See Table.]**

**[Docket No. ER08-\_\_ Amendment Filing pending FERC Order. See Table.]**

**[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]**



**Small Generator Interconnection Agreement**

This Small Generator Interconnection Agreement ("Agreement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_ ("Participating TO"), the California Independent System Operator Corporation, a California nonprofit public benefit corporation organized and existing under the laws of the State of California ("**CAISO**") and \_\_\_\_\_ ("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or referred to collectively as the "Parties."

**Participating TO Information**

Participating TO: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**CAISO Information**

\_\_\_\_\_ Attention: Phil Pettingill  
\_\_\_\_\_ 151 Blue Ravine Road  
\_\_\_\_\_ Folsom, CA 95630  
\_\_\_\_\_ Phone: 916-351-4400 Fax: \_\_\_\_\_

**Interconnection Customer Information**

Interconnection Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Interconnection Customer Application No: \_\_\_\_\_

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

**Article 1. Scope and Limitations of Agreement**

- 1.1 This Agreement shall be used for all Interconnection Requests submitted under the Small Generator Interconnection Procedures (SGIP) except for those submitted under the 10 kW Inverter Process contained in SGIP Attachment 5.
- 1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Participating TO's Transmission System.
- 1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity in accordance with the **CAISO** Tariff.
- 1.4 Nothing in this Agreement is intended to affect any other agreement between or among the Parties.
- 1.5 Responsibilities of the Parties

- 1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice. The Parties shall use the Standard Large Generator Interconnection Agreement (CAISO Tariff Appendix V) to interpret the responsibilities of the Parties under this Agreement.
- 1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.
- 1.5.3 The Participating TO shall construct, operate, and maintain its Interconnection Facilities and Upgrades in accordance with this Agreement, and with Good Utility Practice. The CAISO and the Participating TO shall cause the Participating TO's Transmission System to be operated and controlled in a safe and reliable manner and in accordance with this Agreement.
- 1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Participating TO and any Affected Systems. The Interconnection Customer shall comply with the Participating TO's Interconnection Handbook. In the event of a conflict between the terms of this Agreement and the terms of the Participating TO's Interconnection Handbook, the terms in this Agreement shall govern.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Participating TO and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the CAISO Controlled Grid, the Participating TO's electric system, the Participating TO's personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.
- 1.5.6 The Participating TO and the CAISO shall coordinate with Affected Systems to support the interconnection.
- 1.5.7 The Interconnection Customer shall execute the Reliability Management System Agreement of the Western Electricity Coordinating Council prior to parallel operation of the Small Generating Facility. The Reliability Management System Agreement is provided as Attachment 8 to this Agreement.

1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the CAISO *Control-Balancing Authority Area*, including, but not limited to: 1) the rules and procedures concerning the operation of generation

set forth in the **CAISO** Tariff for the **CAISO** Controlled Grid and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement.

#### 1.7 Metering

The Interconnection Customer shall be responsible for the reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

#### 1.8 Reactive Power

1.8.1 The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the terminals of each generating unit at a power factor within the range of 0.95 leading to 0.90 lagging, unless the **CAISO** has established different requirements that apply to all similarly situated generators in the **CAISO** ~~Control~~ *Balancing Authority* Area on a comparable basis. The requirements of this paragraph shall not apply to wind generators and the requirements of Attachment 7 shall apply instead.

1.8.2 Payment to the Interconnection Customer for reactive power that the Small Generating Facility provides or absorbs when the **CAISO** requests the Interconnection Customer to operate its Small Generating Facility outside the range specified in article 1.8.1 will be made by the **CAISO** in accordance with the applicable provisions of the **CAISO** Tariff.

1.9 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement.

### **Article 2. Inspection, Testing, Authorization, and Right of Access**

#### 2.1 Equipment Testing and Inspection

2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Participating TO and the **CAISO** of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Participating TO and the **CAISO** may, at their own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Participating TO and the **CAISO** a written test report when such testing and inspection is completed.

2.1.2 The Participating TO and the **CAISO** shall provide the Interconnection Customer written acknowledgment that they have received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Participating TO or the **CAISO** of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.

## 2.2 Authorization Required Prior to Parallel Operation

2.2.1 The Participating TO and the CAISO shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Participating TO and the CAISO shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Participating TO and the CAISO shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.

2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Participating TO's Transmission System without prior written authorization of the Participating TO. The Participating TO will provide such authorization to the Interconnection Customer and the CAISO once the Participating TO receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

## 2.3 Right of Access

2.3.1 Upon reasonable notice, the Participating TO and the CAISO may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Participating TO and the CAISO at least five Business Days prior to conducting any on-site verification testing of the Small Generating Facility.

2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Participating TO and the CAISO shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

2.3.3 Each Party shall be responsible for its own costs associated with following this article.

## **Article 3. Effective Date, Term, Termination, and Disconnection**

### 3.1 Effective Date

This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC. The Participating TO and the CAISO shall promptly file this Agreement with the FERC upon execution, if required.

### 3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect for a period of \_\_\_\_\_ years from the Effective Date (term specified in individual agreements to be ten (10) years or such other longer period as the Interconnection Customer may request) and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

### 3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement (if required), which notice has been accepted for filing by FERC.

3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Participating TO and the CAISO 20 Business Days written notice.

3.3.2 Any Party may terminate this Agreement after Default pursuant to article 7.6.

3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the CAISO Controlled Grid. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this Agreement or such non-terminating Party otherwise is responsible for these costs under this Agreement.

3.3.4 The termination of this Agreement shall not relieve any Party of its liabilities and obligations, owed or continuing at the time of termination.

3.3.5 The provisions of this article shall survive termination or expiration of this Agreement.

#### 3.4 Temporary Disconnection

Temporary disconnection of the Small Generating Facility or associated Interconnection Facilities shall continue only for so long as reasonably necessary under Good Utility Practice.

##### 3.4.1 Emergency Conditions

"Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; (2) that, in the case of the CAISO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the CAISO Controlled Grid or the electric systems of others to which the CAISO Controlled Grid is directly connected; (3) that, in the case of the Participating TO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Participating TO's Transmission System, the Participating TO's Interconnection Facilities, Distribution System, or the electric systems of others to which the Participating TO's electric system is directly connected; or (4) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the CAISO or the Participating TO may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Participating TO or the CAISO shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. The Interconnection Customer shall notify the Participating TO and the CAISO promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the CAISO Controlled Grid, the Participating TO's Interconnection Facilities, or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of the Interconnection Customer's or Participating TO's facilities and operations, its anticipated duration, and the necessary corrective action.

##### 3.4.2 Routine Maintenance, Construction, and Repair

The Participating TO or the CAISO may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the Small Generating Facility from the CAISO Controlled Grid when necessary for routine maintenance,

construction, and repairs on the CAISO Controlled Grid or the Participating TO's electric system. The Party scheduling the interruption shall provide the Interconnection Customer with five Business Days notice prior to such interruption. The Party scheduling the interruption shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

The Interconnection Customer shall update its planned maintenance schedules in accordance with the CAISO Tariff. The CAISO may request the Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the CAISO Controlled Grid in accordance with the CAISO Tariff. Such planned maintenance schedules and updates and changes to such schedules shall be provided by the Interconnection Customer to the Participating TO concurrently with their submittal to the CAISO.

#### 3.4.3 Forced Outages

During any forced outage, the Participating TO or the CAISO may suspend interconnection service to effect immediate repairs on the CAISO Controlled Grid or the Participating TO's electric system. The Participating TO or the CAISO shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Participating TO or the CAISO shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection. The Interconnection Customer shall notify CAISO, as soon as practicable, of all forced outages or reductions of the Small Generating Facility in accordance with the CAISO Tariff.

#### 3.4.4 Adverse Operating Effects

The Participating TO or the CAISO shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the CAISO Controlled Grid, the Participating TO's Transmission System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Participating TO or the CAISO may disconnect the Small Generating Facility. The Participating TO or the CAISO shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

#### 3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from the Participating TO and the CAISO before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the CAISO Controlled Grid or the Participating TO's electric system. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Participating TO's and the CAISO's prior written authorization, the Participating TO or the CAISO shall have the right to temporarily disconnect the Small Generating Facility.

#### 3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, the Participating TO's electric system, and the CAISO Controlled Grid to their normal operating state as soon as reasonably practicable following a temporary disconnection.

### **Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

#### 4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Participating TO shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, the CAISO, and the Participating TO.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Participating TO's Interconnection Facilities.

#### 4.2 Distribution Upgrades

The Participating TO shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Participating TO and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

### **Article 5. Cost Responsibility for Network Upgrades**

#### 5.1 Applicability

No portion of this article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

#### 5.2 Network Upgrades

The Participating TO shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. If the Participating TO and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Participating TO elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

#### 5.3 Transmission Credits

No later than thirty (30) days prior to the Commercial Operation Date, the Interconnection Customer may make a one-time election by written notice to the CAISO and the Participating TO to receive Firm Transmission Rights as defined in and as available under the CAISO Tariff at the time of the election in accordance with the CAISO Tariff, in lieu of a refund of the cost of Network Upgrades in accordance with Article 5.3.1.

##### 5.3.1 Repayment of Amounts Advanced for Network Upgrades

Upon the Commercial Operation Date, the Interconnection Customer shall be entitled to a repayment, equal to the total amount paid to the Participating TO for the cost of Network Upgrades. Such amount shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years from the Commercial Operation Date. Notwithstanding the foregoing, if this Agreement terminates

within five (5) years from the Commercial Operation Date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date of termination. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment. Interest shall continue to accrue on the repayment obligation so long as this Agreement is in effect. The Interconnection Customer may assign such repayment rights to any person.

If the Small Generating Facility fails to achieve commercial operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, the Participating TO shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying the entity to which reimbursement must be made.

#### 5.3.2 Special Provisions for Affected Systems

The Interconnection Customer shall enter into an agreement with the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid, as applicable, in accordance with the SGIP. Such agreement shall specify the terms governing payments to be made by the Interconnection Customer to the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid. In no event shall the Participating TO be responsible for the repayment for any facilities that are not part of the Participating TO's Transmission System.

#### 5.3.3 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Small Generating Facility.

### **Article 6. Billing, Payment, Milestones, and Financial Security**

#### 6.1 Billing and Payment Procedures and Final Accounting

6.1.1 The Participating TO shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties. Notwithstanding the foregoing, any invoices between the CAISO and another Party shall be submitted and paid in accordance with the CAISO Tariff.

6.1.2 Within three months of completing the construction and installation of the Participating TO's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Participating TO shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Participating TO for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Participating TO shall invoice the Interconnection Customer for



the amount due and the Interconnection Customer shall make payment to the Participating TO within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Participating TO shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

## 6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, as defined in article 7.5.1, it shall immediately notify the other Parties of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) request appropriate amendments to Attachment 4. The Parties affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless (1) they will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) they have reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

## 6.3 Financial Security Arrangements

At least 20 Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Participating TO's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the ~~Transmission Provider~~ **Participating TO**, at the Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Participating TO and is consistent with the Uniform Commercial Code of the jurisdiction where the Point of Interconnection is located. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Participating TO's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Participating TO under this Agreement during its term. In addition:

6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Participating TO, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

6.3.2 The letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Participating TO and must specify a reasonable expiration date.

## **Article 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default**

### 7.1 Assignment

This Agreement may be assigned by any Party upon 15 Business Days prior written notice and opportunity to object by the other Parties; provided that:

7.1.1 Any Party may assign this Agreement without the consent of the other Parties to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Participating TO and the **CAISO** of any such assignment;

7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Participating TO or the **CAISO**, for collateral security purposes to aid in

providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Participating TO and the CAISO of any such assignment.

7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

## 7.2 Limitation of Liability

Each Party's liability to the other Parties for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall any Party be liable to the other Parties for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

## 7.3 Indemnity

7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.

7.3.2 The Parties shall at all times indemnify, defend, and hold the other Parties harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.3.3 If an indemnified Party is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified Party may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.3.4 If an indemnifying Party is obligated to indemnify and hold any indemnified Party harmless under this article, the amount owing to the indemnified Party shall be the amount of such indemnified Party's actual loss, net of any insurance or other recovery.

7.3.5 Promptly after receipt by an indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified Party shall notify the indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

## 7.4 Consequential Damages

Other than as expressly provided for in this Agreement, no Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to

another Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

## 7.5 Force Majeure

7.5.1 As used in this article, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing by the Party claiming Force Majeure."

7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Parties, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Parties informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

## 7.6 Default

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of another Party. Upon a Default, the affected non-defaulting Party(ies) shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the affected non-defaulting Party(ies) shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not such Party(ies) terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

## **Article 8. Insurance**

8.1 The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the

interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Participating TO or CAISO, except that the Interconnection Customer shall show proof of insurance to the Participating TO and CAISO no later than ten Business Days prior to the anticipated Commercial Operation Date. If the Interconnection Customer is of sufficient credit-worthiness, it may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.

8.2 The Participating TO agrees to maintain general liability insurance or self-insurance consistent with the Participating TO's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Participating TO's liabilities undertaken pursuant to this Agreement.

8.3 The CAISO agrees to maintain general liability insurance or self-insurance consistent with the CAISO's commercial practice. Such insurance shall not exclude coverage for the CAISO's liabilities undertaken pursuant to this Agreement.

8.4 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

### **Article 9. Confidentiality**

9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to another Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Parties and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Parties as it employs to protect its own Confidential Information.

9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Parties to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112.

Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

#### **Article 10. Disputes**

All disputes arising out of or in connection with this Agreement whereby relief is sought by or from CAISO shall be settled in accordance with the provisions of Article 13 of the CAISO Tariff, except that references to the CAISO Tariff in such Article 13 of the CAISO Tariff shall be read as reference to this Agreement. Disputes arising out of or in connection with this Agreement not subject to provisions of Article 13 of the CAISO Tariff shall be resolved as follows:

- 10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
- 10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.
- 10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.
- 10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.
- 10.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

#### **Article 11. Taxes**

- 11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC policy and Internal Revenue Service requirements.
- 11.2 Each Party shall cooperate with the other Parties to maintain the other Parties' tax status. Nothing in this Agreement is intended to adversely affect the Participating TO's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

#### **Article 12. Miscellaneous**

- 12.1 Governing Law, Regulatory Authority, and Rules  
The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of \_\_\_\_\_ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 12.2 Amendment  
The Parties may amend this Agreement by a written instrument duly executed by all of the Parties, or under article 12.12 of this Agreement.
- 12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

#### 12.4 Waiver

12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by any Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or Default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO. Any waiver of this Agreement shall, if requested, be provided in writing.

#### 12.5 Entire Agreement

This Agreement, including all Attachments, constitutes the entire agreement among the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between or among the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.

#### 12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

#### 12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership among the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.

#### 12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

#### 12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. FERC expects all transmission providers, market participants, and interconnection customers interconnected to electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

#### 12.10 Environmental Releases

Each Party shall notify the other Parties, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Parties. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Parties copies of any publicly available reports filed with any governmental authorities addressing such events.

**12.11 Subcontractors**

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Participating TO or the CAISO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

**12.12 Reservation of Rights**

The CAISO and Participating TO shall each have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise mutually agree as provided herein.

**Article 13. Notices**

**13.1 General**

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

Interconnection Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

If to the Participating TO:

Participating TO: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

If to the CAISO:

California Independent System Operator  
Attention: \_\_\_\_\_  
151 Blue Ravine Road  
Folsom, CA 95630  
Phone: 916-351-4400 Fax: \_\_\_\_\_

**13.2 Billing and Payment**

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Participating TO: \_\_\_\_\_

Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**13.3 Alternative Forms of Notice**

Any notice or request required or permitted to be given by any Party to the other Parties and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Interconnection Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

If to the Participating TO:

Participating TO: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

If to the CAISO:

California Independent System Operator  
Attention: \_\_\_\_\_  
151 Blue Ravine Road  
Folsom, CA 95630  
Phone: 916-351-4400 Fax: \_\_\_\_\_



13.4 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Interconnection Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Participating TO's Operating Representative:

Participating TO: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**CAISO's Operating Representative**

California Independent System Operator  
Attention: \_\_\_\_\_  
151 Blue Ravine Road  
Folsom, CA 95630  
Phone: 916-351-4400 Fax: \_\_\_\_\_

13.5 Changes to the Notice Information

Any Party may change this information by giving five Business Days written notice to the other Parties prior to the effective date of the change.

**Article 14. Signatures**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the California Independent System Operator

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

For the Participating TO

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

For the Interconnection Customer

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Glossary of Terms**

**Affected System** – An electric system other than the **CAISO** Controlled Grid that may be affected by the proposed interconnection, including the Participating TO's electric system that is not part of the **CAISO** Controlled Grid.

**Applicable Laws and Regulations** – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Balancing Authority Area** - *The collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.*

**[Docket No. ER08-\_\_ Amendment Filing pending FERC Order. See Table.]**

**Business Day** – Monday through Friday, excluding federal holidays and the day after Thanksgiving Day.

**Commercial Operation Date** – The date on which a Small Generating Facility commenced generating electricity for sale as agreed upon by the Participating TO and the Interconnection Customer.

~~**Control Area** – An electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by the applicable reliability council.~~

**Default** – The failure of a breaching Party to cure its breach under this Agreement.

**Distribution System** – Those non-**CAISO**-controlled transmission and distribution facilities owned by the Participating TO.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Participating TO's Distribution System. Distribution Upgrades do not include Interconnection Facilities.

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, **CAISO**, Participating TO, or any Affiliate thereof.

**Interconnection Facilities** – The Participating TO's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the

Small Generating Facility to the Participating TO's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

**Interconnection Handbook** – A handbook, developed by the Participating TO and posted on the Participating TO's website or otherwise made available by the Participating TO, describing technical and operational requirements for wholesale generators and loads connected to the Participating TO's Transmission System, as such handbook may be modified or superseded from time to time. The Participating TO's standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice and applicable reliability standards.

**Interconnection Request** – A request, in accordance with the **CAISO** Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the **CAISO** Controlled Grid.

**CAISO Controlled Grid** – The system of transmission lines and associated facilities of the parties to the Transmission Control Agreement that have been placed under the **CAISO**'s Operational Control.

**CAISO Tariff** – The **CAISO**'s tariff, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

**Material Modification** – A modification that has a material impact on the cost or timing of any Interconnection Request or any other valid interconnection request with a later queue priority date.

**Network Upgrades** – Additions, modifications, and upgrades to the Participating TO's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the **CAISO** Controlled Grid to accommodate the interconnection of the Small Generating Facility with the **CAISO** Controlled Grid. Network Upgrades do not include Distribution Upgrades.

**Operational Control** – The rights of the **CAISO** under the Transmission Control Agreement and the **CAISO** Tariff to direct the parties to the Transmission Control Agreement how to operate their transmission lines and facilities and other electric plant affecting the reliability of those lines and facilities for the purpose of affording comparable non-discriminatory transmission access and meeting applicable reliability criteria.

**Operating Requirements** – Any operating and technical requirements that may be applicable due to the **CAISO**, Western Electricity Coordinating Council, *Control-Balancing Authority Area*, or the Participating TO's requirements, including those set forth in this Agreement.

**Party or Parties** – The Participating TO, **CAISO**, Interconnection Customer or the applicable combination of the above.

**Point of Interconnection** – The point where the Interconnection Facilities connect with the Participating TO's Transmission System.

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under this Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Small Generating Facility** – The Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Transmission Control Agreement** – **CAISO** FERC Electric Tariff No. 7.

**Transmission System** – The facilities owned and operated by the Participating TO and that have been placed under the **CAISO**'s Operational Control, which facilities form part of the **CAISO** Controlled Grid.

**Upgrades** – The required additions and modifications to the Participating TO's Transmission System and Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**Description and Costs of the Small Generating Facility,  
Interconnection Facilities, and Metering Equipment**

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer or the Participating TO. The Participating TO will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.

**Attachment 3**

**One-line Diagram Depicting the Small Generating Facility, Interconnection  
Facilities, Metering Equipment, and Upgrades**

**Milestones**

In-Service Date: \_\_\_\_\_

Critical milestones and responsibility as agreed to by the Parties:

<b>Milestone/Date</b>	<b>Responsible Party</b>
(1) _____	_____
(2) _____	_____
(3) _____	_____
(4) _____	_____
(5) _____	_____
(6) _____	_____
(7) _____	_____
(8) _____	_____
(9) _____	_____
(10) _____	_____

Agreed to by:

For the **CAISO** \_\_\_\_\_ Date \_\_\_\_\_

For the Participating TO \_\_\_\_\_ Date \_\_\_\_\_

For the Interconnection Customer \_\_\_\_\_ Date \_\_\_\_\_



**Attachment 5**

**Additional Operating Requirements for the CAISO Controlled Grid and Affected Systems Needed  
to Support  
the Interconnection Customer's Needs**

The Participating TO and the CAISO shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the CAISO Controlled Grid.

**Participating TO's Description of its Upgrades  
and Best Estimate of Upgrade Costs**

The Participating TO shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Participating TO shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.

## **INTERCONNECTION REQUIREMENTS FOR A WIND GENERATING PLANT**

Attachment 7 sets forth requirements and provisions specific to a wind generating plant. All other requirements of this Agreement continue to apply to wind generating plant interconnections.

### **A. Technical Standards Applicable to a Wind Generating Plant**

#### **i. Low Voltage Ride-Through (LVRT) Capability**

A wind generating plant shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

#### **Transition Period LVRT Standard**

The transition period standard applies to wind generating plants that have either: (i) interconnection agreements signed and filed with FERC, filed with FERC in unexecuted form, or filed with FERC as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the Participating TO. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind generating plant step-up transformer (i.e. the transformer that steps the voltage up to the transmission interconnection voltage or “GSU”), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.
2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Attachment 7 LVRT Standard are exempt from meeting the Attachment 7 LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Attachment 7 LVRT Standard.

#### **Post-transition Period LVRT Standard**

All wind generating plants not covered by the transition period described above must meet the following requirements:

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with

delayed clearing, and subsequent post-fault voltage recovery to pre-fault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the Participating TO. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the CAISO Controlled Grid. A wind generating plant shall remain interconnected during such a fault on the CAISO Controlled Grid for a voltage level as low as zero volts, as measured at the high voltage side of the wind GSU.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the CAISO Controlled Grid at the same location at the effective date of the Attachment 7 LVRT Standard are exempt from meeting the Attachment 7 LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Attachment 7 LVRT Standard.

## **ii. Power Factor Design Criteria (Reactive Power)**

A wind generating plant shall operate within a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this Agreement in order to maintain a specified voltage schedule, if the system impact study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two, if agreed to by the Participating TO and CAISO. The Interconnection Customer shall not disable power factor equipment while the wind plant is in operation. Wind plants shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the system impact study shows this to be required for system safety or reliability.

## **iii. Supervisory Control and Data Acquisition (SCADA) Capability**

The wind plant shall provide SCADA capability to transmit data and receive instructions from the Participating TO and CAISO to protect system reliability. The Participating TO and CAISO and the wind plant Interconnection Customer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

**Reliability Management System Agreement**

**RELIABILITY MANAGEMENT SYSTEM AGREEMENT**

**by and between**  
**[TRANSMISSION OPERATOR]**  
**and**  
**[GENERATOR]**

**THIS RELIABILITY MANAGEMENT SYSTEM AGREEMENT** (the "Agreement"), is entered into this day of \_\_\_\_\_, 2002, by and between \_\_\_\_\_ (the "Transmission Operator") and \_\_\_\_\_ (the "Generator").

**WHEREAS**, there is a need to maintain the reliability of the interconnected electric systems encompassed by the WSCC in a restructured and competitive electric utility industry;

**WHEREAS**, with the transition of the electric industry to a more competitive structure, it is desirable to have a uniform set of electric system operating rules within the Western Interconnection, applicable in a fair, comparable and non-discriminatory manner, with which all market participants comply; and

**WHEREAS**, the members of the WSCC, including the Transmission Operator, have determined that a contractual Reliability Management System provides a reasonable, currently available means of maintaining such reliability.

**NOW, THEREFORE**, in consideration of the mutual agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Transmission Operator and the Generator agree as follows:

**1. PURPOSE OF AGREEMENT**

The purpose of this Agreement is to maintain the reliable operation of the Western Interconnection through the Generator's commitment to comply with certain reliability standards.

**2. DEFINITIONS**

In addition to terms defined in the beginning of this Agreement and in the Recitals hereto, for purposes of this Agreement the following terms shall have the meanings set forth beside them below.

**Control Area** means an electric system or systems, bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the Western Interconnection.

**FERC** means the Federal Energy Regulatory Commission or a successor agency.

**Member** means any party to the WSCC Agreement.

**Party** means either the Generator or the Transmission Operator and

**Parties** means both of the Generator and the Transmission Operator.

**Reliability Management System or RMS** means the contractual reliability management program implemented through the WSCC Reliability Criteria Agreement, the WSCC RMS Agreement, this Agreement, and any similar contractual arrangement.

**Western Interconnection** means the area comprising those states and provinces, or portions thereof, in Western Canada, Northern Mexico and the Western United States in which Members of the WSCC operate synchronously connected transmission systems.

**Working Day** means Monday through Friday except for recognized legal holidays in the state in which any notice is received pursuant to Section 8.

**WSCC** means the Western Systems Coordinating Council or a successor entity.

**WSCC Agreement** means the Western Systems Coordinating Council Agreement dated March 20, 1967, as such may be amended from time to time.

**WSCC Reliability Criteria Agreement** means the Western Systems Coordinating Council Reliability Criteria Agreement dated June 18, 1999 among the WSCC and certain of its member transmission operators, as such may be amended from time to time.

**WSCC RMS Agreement** means an agreement between the WSCC and the Transmission Operator requiring the Transmission Operator to comply with the reliability criteria contained in the WSCC Reliability Criteria Agreement.

**WSCC Staff** means those employees of the WSCC, including personnel hired by the WSCC on a contract basis, designated as responsible for the administration of the RMS.

### **3. TERM AND TERMINATION**

**3.1 Term.** This Agreement shall become effective thirty (30) days after the date of issuance of a final FERC order accepting this Agreement for filing without requiring any changes to this Agreement unacceptable to either Party. Required changes to this Agreement shall be deemed unacceptable to a Party only if that Party provides notice to the other Party within fifteen (15) days of issuance of the applicable FERC order that such order is unacceptable].

[Note: if the interconnection agreement is not FERC jurisdictional, replace bracketed language with: [on the later of: (a) the date of execution; or (b) the effective date of the WSCC RMS Agreement.]]

**3.2 Notice of Termination of WSCC RMS Agreement.** The Transmission Operator shall give the Generator notice of any notice of termination of the WSCC RMS Agreement by the WSCC or by the Transmission Operator within fifteen (15) days of receipt by the WSCC or the Transmission Operator of such notice of termination.

**3.3 Termination by the Generator.** The Generator may terminate this Agreement as follows:  
(a) following the termination of the WSCC RMS Agreement for any reason by the WSCC or by the Transmission Operator, provided such notice is provided within forty-five (45) days of the termination of the WSCC RMS Agreement;  
(b) following the effective date of an amendment to the requirements of the WSCC Reliability Criteria Agreement that adversely affects the Generator, provided notice of such termination is given within forty-five (45) days of the date of issuance of a FERC order accepting such amendment for filing, provided further that the forty-five (45) day period within which notice of termination is required may be extended by the Generator for an additional forty-five (45) days if the Generator gives written notice to the Transmission Operator of such requested extension within the initial forty-five (45) day period; or  
(c) for any reason on one year's written notice to the Transmission Operator and the WSCC.

**3.4 Termination by the Transmission Operator.** The Transmission Operator may terminate this Agreement on thirty (30) days' written notice following the termination of the WSCC RMS Agreement for

any reason by the WSCC or by the Transmission Operator, provided such notice is provided within thirty (30) days of the termination of the WSCC RMS Agreement.

**3.5 Mutual Agreement.** This Agreement may be terminated at any time by the mutual agreement of the Transmission Operator and the Generator.

#### **4. COMPLIANCE WITH AND AMENDMENT OF WSCC RELIABILITY CRITERIA**

**4.1 Compliance with Reliability Criteria.** The Generator agrees to comply with the requirements of the WSCC Reliability Criteria Agreement, including the applicable WSCC reliability criteria contained in Section IV of Annex A thereof, and, in the event of failure to comply, agrees to be subject to the sanctions applicable to such failure. Each and all of the provisions of the WSCC Reliability Criteria Agreement are hereby incorporated by reference into this Agreement as though set forth fully herein, and the Generator shall for all purposes be considered a Participant, and shall be entitled to all of the rights and privileges and be subject to all of the obligations of a Participant, under and in connection with the WSCC Reliability Criteria Agreement, including but not limited to the rights, privileges and obligations set forth in Sections 5, 6 and 10 of the WSCC Reliability Criteria Agreement.

**4.2 Modifications to WSCC Reliability Criteria Agreement.** The Transmission Operator shall notify the Generator within fifteen (15) days of the receipt of notice from the WSCC of the initiation of any WSCC process to modify the WSCC Reliability Criteria Agreement. The WSCC RMS Agreement specifies that such process shall comply with the procedures, rules, and regulations then applicable to the WSCC for modifications to reliability criteria.

**4.3 Notice of Modifications to WSCC Reliability Criteria Agreement.** If, following the process specified in Section 4.2, any modification to the WSCC Reliability Criteria Agreement is to take effect, the Transmission Operator shall provide notice to the Generator at least forty-five (45) days before such modification is scheduled to take effect.

**4.4 Effective Date.** Any modification to the WSCC Reliability Criteria Agreement shall take effect on the date specified by FERC in an order accepting such modification for filing.

**4.5 Transfer of Control or Sale of Generation Facilities.** In any sale or transfer of control of any generation facilities subject to this Agreement, the Generator shall as a condition of such sale or transfer require the acquiring party or transferee with respect to the transferred facilities either to assume the obligations of the Generator with respect to this Agreement or to enter into an agreement with the Control Area Operator in substantially the form of this Agreement.

#### **5. SANCTIONS**

**5.1 Payment of Monetary Sanctions.** The Generator shall be responsible for payment directly to the WSCC of any monetary sanction assessed against the Generator pursuant to this Agreement and the WSCC Reliability Criteria Agreement. Any such payment shall be made pursuant to the procedures specified in the WSCC Reliability Criteria Agreement.

**5.2 Publication.** The Generator consents to the release by the WSCC of information related to the Generator's compliance with this Agreement only in accordance with the WSCC Reliability Criteria Agreement.

**5.3 Reserved Rights.** Nothing in the RMS or the WSCC Reliability Criteria Agreement shall affect the right of the Transmission Operator, subject to any necessary regulatory approval, to take such other measures to maintain reliability, including disconnection, which the Transmission Operator may otherwise be entitled to take.

#### **6. THIRD PARTIES**

Except for the rights and obligations between the WSCC and Generator specified in Sections 4 and 5, this Agreement creates contractual rights and obligations solely between the Parties. Nothing in this Agreement shall create, as between the Parties or with respect to the WSCC: (1) any obligation or liability whatsoever (other than as expressly provided in this Agreement), or (2) any duty or standard of care whatsoever. In addition, nothing in this Agreement shall create any duty, liability, or standard of care whatsoever as to any other party. Except for the rights, as a third-party beneficiary with respect to Sections 4 and 5, of the WSCC against Generator, no third party shall have any rights whatsoever with respect to enforcement of any provision of this Agreement. Transmission Operator and Generator expressly intend that the WSCC is a third-party beneficiary to this Agreement, and the WSCC shall have the right to seek to enforce against Generator any provisions of Sections 4 and 5, provided that specific performance shall be the sole remedy available to the WSCC pursuant to this Agreement, and Generator shall not be liable to the WSCC pursuant to this Agreement for damages of any kind whatsoever (other than the payment of sanctions to the WSCC, if so construed), whether direct, compensatory, special, indirect, consequential, or punitive.

**7. REGULATORY APPROVALS**

This Agreement shall be filed with FERC by the Transmission Operator under Section 205 of the Federal Power Act. In such filing, the Transmission Operator shall request that FERC accept this Agreement for filing without modification to become effective on the day after the date of a FERC order accepting this Agreement for filing. [This section shall be omitted for agreements not subject to FERC jurisdiction.]

**8. NOTICES**

Any notice, demand or request required or authorized by this Agreement to be given in writing to a Party shall be delivered by hand, courier or overnight delivery service, mailed by certified mail (return receipt requested) postage prepaid, faxed, or delivered by mutually agreed electronic means to such Party at the following address:

: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Fax: \_\_\_\_\_  
:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Fax: \_\_\_\_\_

The designation of such person and/or address may be changed at any time by either Party upon receipt by the other of written notice. Such a notice served by mail shall be effective upon receipt. Notice transmitted by facsimile shall be effective upon receipt if received prior to 5:00 p.m. on a Working Day, and if not received prior to 5:00 p.m. on a Working Day, receipt shall be effective on the next Working Day.

**9. APPLICABILITY**

This Agreement (including all appendices hereto and, by reference, the WSCC Reliability Criteria Agreement) constitutes the entire understanding between the Parties hereto with respect to the subject matter hereof, supersedes any and all previous understandings between the Parties with respect to the subject matter hereof, and binds and inures to the benefit of the Parties and their successors.

**10. AMENDMENT**

No amendment of all or any part of this Agreement shall be valid unless it is reduced to writing and signed by both Parties hereto. The terms and conditions herein specified shall remain in effect throughout the



term and shall not be subject to change through application to the FERC or other governmental body or authority, absent the agreement of the Parties.

**11. INTERPRETATION**

Interpretation and performance of this Agreement shall be in accordance with, and shall be controlled by, the laws of the State of \_\_\_\_\_ but without giving effect to the provisions thereof relating to conflicts of law. Article and section headings are for convenience only and shall not affect the interpretation of this Agreement. References to articles, sections and appendices are, unless the context otherwise requires, references to articles, sections and appendices of this Agreement.

**12. PROHIBITION ON ASSIGNMENT**

This Agreement may not be assigned by either Party without the consent of the other Party, which consent shall not be unreasonably withheld; provided that the Generator may without the consent of the WSCC assign the obligations of the Generator pursuant to this Agreement to a transferee with respect to any obligations assumed by the transferee by virtue of Section 4.5 of this Agreement.

**13. SEVERABILITY**

If one or more provisions herein shall be invalid, illegal or unenforceable in any respect, it shall be given effect to the extent permitted by applicable law, and such invalidity, illegality or unenforceability shall not affect the validity of the other provisions of this Agreement.

**14. COUNTERPARTS**

This Agreement may be executed in counterparts and each shall have the same force and effect as an original.

**IN WITNESS WHEREOF**, the Transmission Operator and the Generator have each caused this Reliability Management System Agreement to be executed by their respective duly authorized officers as of the date first above written.

\_\_\_\_\_  
By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_  
By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

## CAISO TARIFF APPENDIX U

### Standard Large Generator Interconnection Procedures (LGIP)

[Docket No. ER04-445 Compliance Filing accepted by FERC. See Table.]

[Docket No. ER08-\_\_ Amendment Filing pending FERC Order. See Table.]

[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]

### Standard Large Generator Interconnection Procedures (LGIP)

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**Section 1. Objectives, Definitions, and Interpretation.**

**1.1 Objectives.**

The objective of this LGIP is to implement FERC's Order No. 2003 setting forth the requirements for Large Generating Facility interconnections to the CAISO Controlled Grid.

**1.2 Definitions.**

**1.2.1 Master Definitions Supplement.**

Unless the context otherwise requires, any word or expression defined in the Master Definitions Supplement, **Appendix A** to the CAISO Tariff, shall have the same meaning where used in this LGIP. A reference to a Section or an Appendix is a reference to a Section or an Appendix of the CAISO Tariff. References to LGIP are to this **Appendix U Protocol or to the stated paragraph of this Protocol.**

**1.2.2 Special Definitions for this LGIP.**

In this LGIP, the following words and expressions shall have the meanings set opposite them:

**"Confidential Information"** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise, subject to Section 13.1 of ~~this~~ LGIP.

**"Dispute Resolution"** shall mean the procedure set forth in this LGIP for resolution of a dispute between the Parties.

**"Force Majeure"** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**"Governmental Authority"** shall mean any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, CAISO, or Participating TO, or any Affiliate thereof.

**"Party" or "Parties"** shall mean the CAISO, Participating TO(s), Interconnection Customer or the applicable combination of the above.

**"Reasonable Efforts"** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Procedures, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**"Roles and Responsibilities Agreement" shall mean the Agreement for the Allocation of Responsibilities with Regard to Large Generator Interconnection Procedures and Interconnection Study Agreements, a pro forma version of which is attached to this LGIP.**

### ~~1.2.3 Rules of Interpretation.~~

~~(a) Unless the context otherwise requires, if the provisions of this LGIP and the CAISO Tariff conflict, the CAISO Tariff will prevail to the extent of the inconsistency.~~

~~(b) A reference in this LGIP to a given agreement, CAISO Protocol or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented or restated through the date as of which such reference is made.~~

~~(c) The captions and headings in this LGIP are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this LGIP.~~

~~(d) This LGIP shall be effective as of the date specified by FERC.~~

## **Section 2. Scope and Application.**

### **2.1 Application of Standard Large Generator Interconnection Procedures.**

Sections 2 through 13 of this LGIP apply to processing an Interconnection Request pertaining to a Large Generating Facility.

### **2.2 Comparability.**

The CAISO and the applicable Participating TO shall receive, process and analyze Interconnection Requests in a timely manner as set forth in this LGIP. The CAISO and the Participating TOs will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facilities are owned by the Participating TO, its subsidiaries, or Affiliates or others.

### **2.3 Base Case Data.**

The CAISO and/or the applicable Participating TO(s) ~~or CAISO~~ shall provide base power flow, short circuit and stability databases, including all underlying assumptions, and contingency list upon request subject to applicable confidentiality provisions in LGIP Section 13.1. The applicable Participating TO(s) ~~and~~ is/are permitted to require that the Interconnection Customer sign a confidentiality agreement before the release of commercially sensitive information or Critical Energy Infrastructure Information (as that term is defined by FERC) in the Base Case data. Such Base Cases shall include (i) generation projects and (ii) transmission projects, including merchant transmission projects that are proposed for the transmission system for which a transmission expansion plan has been submitted and approved by the applicable authority.

### **2.4 No Applicability to Transmission Service.**

Nothing in this LGIP shall constitute a request for transmission service or confer upon an Interconnection Customer any right to receive transmission service.

## **Section 3. Interconnection Requests.**

### **3.1 General.**

Pursuant to CAISO Tariff Section 25.1, an Interconnection Customer shall submit to the CAISO an Interconnection Request in the form of ~~Part~~ Appendix 1 to this LGIP and a refundable deposit of \$10,000. The CAISO will forward ~~the deposit and~~ a copy of the Interconnection Request to the applicable Participating TO within one (1) Business Day

of receipt. The ~~Participating TO~~ **CAISO** shall apply the deposit toward the cost of an Interconnection Feasibility Study. The Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. The Interconnection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single site. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

At the Interconnection Customer's option, the applicable Participating TO(s), the CAISO and Interconnection Customer will identify alternative Point(s) of Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer will select the definitive Point(s) of Interconnection to be studied and one alternative Point of Interconnection no later than the execution of the first Interconnection Feasibility Study Agreement.

### 3.2 Roles and Responsibilities.

- (a) ~~For e~~Each Interconnection Request will be subject to the direction and oversight of the CAISO. ~~†The CAISO will conduct or cause direct the applicable Participating TO to be performed the required Interconnection Studies and any additional studies the CAISO determines to be reasonably necessary, and will direct the applicable Participating TO to perform portions of studies where the Participating TO has specific and non-transferable expertise or data and can conduct the studies more efficiently and cost effectively than the CAISO.~~ The CAISO will coordinate with Affected System Operators in accordance with LGIP Section 3.7.
- (b) ~~Any applicable Participating TO~~The **CAISO** will complete or cause to be completed all studies directed by the CAISO as required within the timelines provided in this LGIP. Any portion of the studies performed by at the direction of the CAISO by the Participating TOs or by a third party at the direction of the CAISO shall also be completed within timelines provided in this LGIP.
- (c) The CAISO has established a pro forma Roles and Responsibilities Agreement, attached hereto and incorporated herein by reference, for execution by the CAISO and the applicable Participating TOs.
- (d) Each Interconnection Customer shall pay the ~~reasonable~~actual costs of all Interconnection Studies ~~performed by or at the direction of the CAISO or the applicable Participating TO,~~ and any additional studies the CAISO determines to be reasonably necessary in response to the Interconnection Request. The CAISO shall reimburse the Participating TO for the actual cost of any portion of all Interconnection Studies that such Participating TO performs at the direction of the CAISO.

### 3.3 Interconnection Service.

**3.3.1 The Product.** Interconnection Service allows the Interconnection Customer to connect the Large Generating Facility to the CAISO Controlled Grid and be eligible to deliver the Large Generating Facility's output using the available capacity of the CAISO Controlled Grid. Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or point of delivery.

**3.3.2 The Interconnection Studies.** The Interconnection Studies consist of, but are not limited to, short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The Interconnection Studies will ~~include short circuit/fault duty, steady state and stability analyses and will identify direct Interconnection Facilities and required~~



Reliability Network Upgrades necessary to mitigate thermal overloads and voltage violations, and address short circuit, ~~overload and stability~~, and reliability issues associated with the requested Interconnection Service.

————The Interconnection Studies will also identify necessary Delivery Network Upgrades to allow full output of the proposed Large Generating Facility under a variety of potential system conditions, and the maximum allowed output, under a variety of potential system conditions, of the interconnecting Large Generating Facility without the Delivery Network Upgrades.

### **3.3.3 Deliverability Assessment.**

**3.3.3.1 The Product.** A Deliverability Assessment will be performed which shall determine the Interconnection Customer's Large Generating Facility's ability to deliver its energy to the CAISO Controlled Grid under peak load conditions. The Deliverability Assessment will provide the Interconnection Customer with information as to the level of deliverability without Network Upgrades, and the Deliverability Assessment will provide the Interconnection Customer with information as to the required Network Upgrades to enable the Interconnection Customer's Large Generating Facility the ability to deliver the full output of the proposed Large Generating Facility to the CAISO Controlled Grid based on specified study assumptions.

————Thus, the Deliverability Assessment results will provide the Interconnection Customer two (2) data points on the scale of deliverability: 1) a deliverability level with no Network Upgrades, and 2) the required Network Upgrades to support 100% deliverability.

————Deliverability of a new Large Generating Facility will be assessed on the same basis as all other existing resources interconnected to the CAISO Controlled Grid.

**3.3.3.2 The Assessment.** The Deliverability Assessment will identify the facilities that are required to enable the Interconnection Customer's Large Generating Facility to meet the requirements for deliverability and as a general matter, that such Large Generating Facility's interconnection is also studied with the CAISO Controlled Grid at peak load, under a variety of severely stressed conditions, to determine whether, with the Large Generating Facility at full output, the aggregate of generation in the local area can be delivered to the aggregate of load on the CAISO Controlled Grid, consistent with the CAISO's reliability criteria and procedures. This approach assumes that some portion of existing resources that are designated as deliverable is displaced by the output of the Interconnection Customer's Large Generating Facility. This Deliverability Assessment in and of itself does not convey any right to deliver electricity to any specific customer or point of delivery. The CAISO Controlled Grid may also be studied under non-peak load conditions. However, upon request by the Interconnection Customer, the Deliverability Assessment must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

## **3.4 Network Upgrades.**

### **3.4.1 Initial Funding**

Unless the Participating TO elects to fund the capital for Reliability and Delivery Network Upgrades, they shall be solely funded by the Interconnection Customer.

### **3.4.2 [Section Intentionally Omitted]**

### **3.4.3 Repayment of Amounts Advanced for Network Upgrades.**

Upon the Commercial Operation Date, the Interconnection Customer shall be entitled to a repayment for the cost of Network Upgrades. Such amount shall be paid to the Interconnection Customer by the applicable Participating TO(s) on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years of the Commercial Operation Date. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment. The Interconnection Customer may assign such repayment rights to any person.

Instead of direct payments, the Interconnection Customer may elect to receive Congestion Revenue Rights (CRRs) in accordance with the CAISO Tariff associated with the Network Upgrades that were funded by the Interconnection Customer, to the extent such CRRs or alternative rights are available under the CAISO Tariff at the time of the election. Such CRRs would take effect upon the Commercial Operation Date of the Large Generating Facility in accordance with the LGIA.

### **3.4.4 Special Provisions for Affected Systems and Other Affected Participating TOs.**

The Interconnection Customer shall enter into an agreement with the owner of the Affected System and/or other affected Participating TO(s), as applicable. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to the owner of the Affected System and/or other affected Participating TO(s) as well as the repayment by the owner of the Affected System and/or other affected Participating TO(s). If the affected entity is another Participating TO, the initial form of agreement will be the LGIA, as appropriately modified.

Any repayment by the owner of the Affected System shall be in accordance with FERC Order No. 2003-B (109 FERC ¶ 61,287).

## **3.5 Valid Interconnection Request.**

### **3.5.1 Initiating an Interconnection Request.**

To initiate an Interconnection Request, the Interconnection Customer must submit all of the following: (i) a \$10,000 deposit, (ii) a completed application in the form of LGIP **PartAppendix** 1, and (iii) demonstration of Site Control or a posting of an additional deposit of \$10,000. Such deposits may be applied toward any Interconnection Studies pursuant to the Interconnection Request. If the Interconnection Customer demonstrates Site Control within the cure period specified in LGIP Section 3.5.3 after submitting its Interconnection Request, the additional deposit shall be refundable; otherwise, all such deposit(s), additional and initial, become non-refundable.

The expected In-Service Date of the new Large Generating Facility or increase in capacity of the existing Generating Facility shall be no more than the process window for the regional expansion planning period (or in the absence of a regional planning process, the process window for the CAISO's expansion planning period) not to exceed seven years from the date the Interconnection Request is received by the CAISO, unless the Interconnection Customer demonstrates that engineering, permitting and construction of the new Large Generating Facility or increase in capacity of the existing Generating Facility will take longer than the regional expansion planning period. The In-Service Date may succeed the date the Interconnection Request is received by the CAISO by a period

up to ten years, or longer where the Interconnection Customer, the applicable Participating TO and the CAISO agree, such agreement not to be unreasonably withheld.

### **3.5.2 Acknowledgment of Interconnection Request.**

The CAISO shall acknowledge receipt of the Interconnection Request within six (6) Business Days of receipt of the request and attach a copy of the received Interconnection Request to the acknowledgement.

### **3.5.3 Deficiencies in Interconnection Request.**

An Interconnection Request will not be considered to be a valid request until all items in LGIP Section 3.5.1 have been received by the CAISO and are deemed complete and valid by the applicable Participating TO and the CAISO. If an Interconnection Request fails to meet the requirements set forth in LGIP Section 3.5.1, the CAISO shall notify the Interconnection Customer within six (6) Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request. The Interconnection Customer shall provide the CAISO the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice. Failure by the Interconnection Customer to comply with this LGIP Section 3.5.3 shall be treated in accordance with LGIP Section 3.8.

### **3.5.4 Scoping Meeting.**

Within ten (10) Business Days after receipt, the CAISO notifies the Interconnection Customer of a valid Interconnection Request, the applicable Participating TO, in coordination with the CAISO, shall establish a date agreeable to the Interconnection Customer and the applicable Participating TO(s) for the Scoping Meeting, and such date shall be no later than thirty (30) calendar days from receipt notification of the valid Interconnection Request, unless otherwise mutually agreed upon by the Parties. The CAISO shall determine whether the Interconnection Request is at or near the boundary of an affected Participating TO(s) service territory or of any other Affected System(s) so as to potentially affect such third parties. If such a determination is made, the CAISO shall invite the affected Participating TO(s), and/or Affected System Operator(s), in accordance with LGIP Section 3.7, to the Scoping Meeting by informing such third parties of the time and place of the scheduled Scoping Meeting as soon as practicable.

The purpose of the Scoping Meeting shall be to discuss alternative interconnection options, to exchange information including any transmission data that would reasonably be expected to impact such interconnection options, to analyze such information and to determine the potential feasible Points of Interconnection. The applicable Participating TO(s), the CAISO and the Interconnection Customer CAISO will bring to the meeting such already available technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues, as may be reasonably required to accomplish the purpose of the meeting.

The Interconnection Customer will bring to the Scoping Meeting as much large generator technical data in Attachment A to LGIP Appendix 1, and system studies previously performed, as available. The applicable Participating TO(s), the CAISO and the Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, the Interconnection Customer shall designate its Point of Interconnection, pursuant to LGIP Section 6.1, and one or

~~more available~~ alternative Point(s) of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose.

The ~~Participating TO~~ **CAISO** shall prepare minutes from the meeting, verified by the Interconnection Customer and the ~~CAISO~~ other attendees, that will include, at a minimum, discussions of ~~what~~ among the applicable Participating TO(s) and the CAISO of what the expected results of may be for the Interconnection Feasibility Study will be.

### **3.6 Internet Posting.**

The CAISO will maintain on the CAISO Website a list of all Interconnection Requests. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the availability of any studies related to the Interconnection Request; (vii) the date of the Interconnection Request; (viii) the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type); and (ix) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed.

Except in the case of an Affiliate, the list will not disclose the identity of the Interconnection Customer until the Interconnection Customer executes an LGIA or requests that the applicable Participating TO(s) and the CAISO file an unexecuted LGIA with FERC. The CAISO shall post on the CAISO Website an advance notice whenever a Scoping Meeting will be held with an Affiliate of a Participating TO.

The CAISO shall post to the CAISO Website any deviations from the study timelines set forth herein. Interconnection Study reports and Optional Interconnection Study reports shall be posted to the CAISO Website subsequent to the meeting among the Interconnection Customer, the applicable Participating TO(s) and the CAISO to discuss the applicable study results. The CAISO shall also post any known deviations in the Large Generating Facility's In-Service Date.

### **3.7 Coordination with Affected Systems.**

The CAISO will notify the Affected System Operators that are potentially affected by the project proposed by the Interconnection Customer. The CAISO will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators, to the extent possible, and, if possible, the ~~Participating TO~~ **CAISO** will include those results (if available) in its applicable Interconnection Study within the time frame specified in this LGIP. The CAISO will include such Affected System Operators in all meetings held with the Interconnection Customer as required by this LGIP. The Interconnection Customer will cooperate with the CAISO in all matters related to the conduct of studies and the determination of modifications to Affected Systems, including signing separate study agreements with Affected System owners and paying for necessary studies. An entity which may be an Affected System shall cooperate with the CAISO in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

### **3.8 Withdrawal.**

The Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to the CAISO and the CAISO will notify the applicable Participating TO(s), within three (3) Business Days of receipt of such a notice. In addition, if the Interconnection Customer fails to adhere to all requirements of this LGIP,

except as provided in LGIP Section 13.5 (Disputes), the CAISO shall deem the Interconnection Request to be withdrawn and shall provide written notice to the Interconnection Customer within five (5) Business Days of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, the Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cures the deficiency or to notify the ~~Participating TO and the~~ CAISO of its intent to pursue Dispute Resolution.

Withdrawal shall result in the loss of the Interconnection Customer's Queue Position, if any. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, the Interconnection Customer's Interconnection Request is eliminated from the queue until such time that the outcome of Dispute Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to the ~~Participating TO~~ **CAISO** all costs that the ~~Participating TO~~ have been prudently incurred or irrevocably ~~has~~ **been** committed to be incurred with respect to that Interconnection Request prior to the ~~Participating TO~~ **CAISO's** receipt of notice described above. The Interconnection Customer must pay all monies due to the Participating TO before it is allowed to obtain any Interconnection Study data or results. The **CAISO** will reimburse the applicable Participating TO(s) for all work performed associated with the Interconnection Request at the **CAISO's** direction.

The CAISO shall update the CAISO Website Queue Position posting. The ~~Participating TO~~ **CAISO** shall refund to the Interconnection Customer any portion of the Interconnection Customer's deposit or study payments that exceeds the costs that the **CAISO** has incurred or Participating TO(s) have ~~has~~ incurred, including interest calculated in accordance with section 35.19a(a)(2) of FERC's regulations. In the event of such withdrawal, the ~~Participating TO and~~ CAISO, subject to the confidentiality provisions of LGIP Section 13.1, shall provide, at the Interconnection Customer's request, all information that the ~~Participating TO and~~ CAISO developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

## **Section 4. Queue Position.**

### **4.1 General.**

The CAISO shall assign a Queue Position based upon the date and time of receipt of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of required information on the application form, and the Interconnection Customer provides such information in accordance with LGIP Section 3.5.3, then the CAISO shall assign the Interconnection Customer a Queue Position based on the date the application form was originally filed. Moving a Point of Interconnection shall result in a lowering of Queue Position if it is deemed a Material Modification under LGIP Section 4.4.3.

The queue position of each Interconnection Request will be used to determine the order of performing the Interconnection Studies and determination of cost responsibility for the facilities necessary to accommodate the Interconnection Request. A higher Queue Position Interconnection Request is one that has been placed "earlier" in the CAISO's queue in relation to another Interconnection Request that is lower queued. The cost of the common upgrades for clustered Interconnection Requests may be allocated without regard to queue position.

### **4.2 Clustering.**

At the CAISO's option, and in coordination with concurrence of the applicable Participating TO(s), Interconnection Requests may be studied serially or in clusters for the purpose of the Interconnection System Impact Study.

Clustering shall be implemented on the basis of Queue Position. If the CAISO elects, in coordination with applicable Participating TO(s), ~~and the CAISO elect~~ to study Interconnection Requests using Clustering, all Interconnection Requests received within a period not to exceed one hundred and eighty (180) ~~Cc~~calendar ~~Dd~~days, hereinafter referred to as the "Queue Cluster Window" shall be studied together without regard to the nature of the underlying Interconnection Service. The deadline for completing all Interconnection System Impact Studies for which an Interconnection System Impact Study Agreement has been executed during a Queue Cluster Window shall be in accordance with LGIP Section 7.4, for all Interconnection Requests assigned to the same Queue Cluster Window. ~~The Participating TO and CAISO may agree to~~ conduct the study of an Interconnection Request separately to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Large Generating Facility.

Clustering Interconnection System Impact Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable regional transmission expansion plan in light of the transmission system's capabilities at the time of each study.

The Queue Cluster Window shall have a fixed time interval based on fixed annual opening and closing dates. Any changes to the established Queue Cluster Window interval and opening or closing dates shall be announced with a posting on the CAISO Website beginning at least one hundred and eighty (180) ~~Cc~~calendar ~~Dd~~days in advance of the change and continuing thereafter through the end date of the first Queue Cluster Window that is to be modified.

#### **4.3 Transferability of Queue Position.**

An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change.

#### **4.4 Modifications.**

The Interconnection Customer shall submit to the CAISO, in writing, modifications to any information provided in the Interconnection Request. The CAISO will forward the Interconnection Customer's modification to the applicable Participating TO(s) within one (1) Business Day of receipt. The Interconnection Customer shall retain its Queue Position if the modifications are in accordance with LGIP Sections 4.4.1, 4.4.2 or 4.4.5, or are determined not to be Material Modifications pursuant to LGIP Section 4.4.3.

Notwithstanding the above, during the course of the Interconnection Studies, ~~either the~~ Interconnection Customer, the applicable Participating TO(s), or the CAISO may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to the applicable Participating TO(s), the CAISO, and Interconnection Customer, such acceptance not to be unreasonably withheld, ~~the Participating TO and/or the CAISO shall~~ modify the Point of Interconnection and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with LGIP Section 6.4, LGIP Section 7.6 and LGIP Section 8.5 as applicable and the Interconnection Customer shall retain its Queue Position.

**4.4.1** Prior to the return of the executed Interconnection System Impact Study Agreement to the ~~Participating TO~~ **CAISO**, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent of electrical output (MW) of the proposed project; (b) modifying the technical parameters associated with the Large Generating Facility technology or the Large Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. For plant increases, the incremental increase in plant output will go to the end of the queue for the purposes of cost allocation and study analysis.

**4.4.2** Prior to the return of the executed Interconnection Facility Study Agreement to the ~~Participating TO~~ **CAISO**, the modifications permitted under this Section shall include specifically: (a) additional 15 percent decrease of electrical output (MW), and (b) Large Generating Facility technical parameters associated with modifications to Large Generating Facility technology and transformer impedances; provided, however, the incremental costs associated with those modifications are the responsibility of the requesting Interconnection Customer.

**4.4.3** Prior to making any modification other than those specifically permitted by LGIP Sections 4.4.1, 4.4.2, and 4.4.5, the Interconnection Customer may first request that the ~~Participating TO and the CAISO~~ evaluate whether such modification is a Material Modification. In response to the Interconnection Customer's request, the **CAISO**, in coordination with the affected Participating TO and the CAISO, shall evaluate the proposed modifications prior to making them and the CAISO shall inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under **LGIP** Sections 4.4.1, 6.1, 7.2 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

**4.4.4** Upon receipt of the Interconnection Customer's request for modification permitted under this LGIP Section 4.4, the ~~Participating TO and/or CAISO~~ shall commence and ~~perform~~ conduct or have conducted any necessary additional studies as soon as practicable, but in no event shall the ~~Participating TO and/or CAISO~~ commence such studies commence later than thirty (30) ~~Cc~~ **calendar Dd** days after receiving notice of the Interconnection Customer's request. Any additional studies resulting from such modification shall be done at the Interconnection Customer's cost.

**4.4.5** Extensions of less than three (3) cumulative years in the Commercial Operation Date of the Large Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing.

## **Section 5. Procedures for Interconnection Requests Submitted Prior to Effective Date of Standard Large Generator Interconnection Procedures.**

### **5.1 Queue Position for Pending Requests.**

**5.1.1** Any Interconnection Customer assigned a queue position prior to the effective date of this LGIP shall retain that relative queue position.

**5.1.1.1** If an Interconnection Study agreement has not been executed as of the effective date of this LGIP, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with this LGIP.

**5.1.1.2** If an Interconnection Study agreement has been executed prior to the effective date of this LGIP, such Interconnection Study shall be completed in accordance with the terms of such agreement. With respect to any remaining studies for which an Interconnection

Customer has not signed an Interconnection Study agreement prior to the effective date of the LGIP, the Participating TO must offer the Interconnection Customer the option of either continuing under the Participating TO's existing interconnection study process pursuant to CAISO Tariff Appendix W or going forward with the completion of the necessary Interconnection Studies (for which it does not have a signed Interconnection Studies agreement) in accordance with this LGIP.

**5.1.1.3** If an agreement to interconnect a Generating Unit has been submitted to FERC for approval before the effective date of the LGIP, then the agreement would be grandfathered.

## **5.1.2 Transition Period.**

To the extent necessary, the Participating TO and/or the CAISO and Interconnection Customers with an outstanding request (i.e., an interconnection request or application for which an agreement to interconnect a Generating Unit has not been submitted to FERC for approval as of the effective date of this LGIP) shall transition to this LGIP within a reasonable period of time not to exceed sixty (60) ~~C~~calendar ~~D~~days. The use of the term "outstanding request" herein shall mean any interconnection request or application, on the effective date of this LGIP: (i) that has been submitted but not yet accepted by the CAISO or the Participating TO; (ii) where the related interconnection agreement has not yet been submitted to FERC for approval in executed or unexecuted form, (iii) where the relevant interconnection study agreements have not yet been executed, or (iv) where any of the relevant interconnection studies are in process but not yet completed. Any Interconnection Customer with an outstanding request as of the effective date of this LGIP may request a reasonable extension of any deadline, otherwise applicable, if necessary to avoid undue hardship or prejudice to its Interconnection Request. A reasonable extension shall be granted by the ~~Participating TO or~~ CAISO, as applicable, to the extent consistent with the intent and process provided for under this LGIP.

## **5.2 New Participating TO Change in CAISO Operational Control.**

If the ~~Participating TO transfers~~ CAISO no longer has control of its the portion of the CAISO Controlled Grid to a ~~successor Participating TO at the Point of Interconnection~~ during the period when an Interconnection Request is pending, the ~~original Participating TO~~ CAISO shall transfer to the ~~successor applicable Participating TO which has ownership of the Point of Interconnection~~ any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net deposit amount and the costs that the successor Participating TO incurs to evaluate the request for interconnection shall be paid by or refunded to the Interconnection Customer, as appropriate. The ~~original Participating TO~~ CAISO shall coordinate with the ~~successor applicable Participating TO and CAISO~~ which has ownership of the Point of Interconnection to complete any Interconnection Study, as appropriate, that the ~~original Participating TO~~ CAISO has begun but has not completed. If the ~~original Participating TO~~ CAISO has tendered a draft LGIA to the Interconnection Customer but the Interconnection Customer has ~~not~~ neither executed the LGIA or requested the filing of an unexecuted LGIA with FERC, unless otherwise provided, the Interconnection Customer must complete negotiations with the ~~successor applicable Participating TO and the CAISO~~ which has the ownership of the Point of Interconnection.

## **Section 6. Interconnection Feasibility Study.**

### **6.1 Interconnection Feasibility Study Agreement.**



Simultaneously with the acknowledgement of a valid Interconnection Request, the ~~applicable Participating TO~~ CAISO shall provide to the Interconnection Customer an pro forma Interconnection Feasibility Study Agreement. The pro forma Interconnection Feasibility Study Agreement shall specify that the Interconnection Customer is responsible for the actual cost of the Interconnection Feasibility Study. Within five (5) Business Days following the Scoping Meeting, the Interconnection Customer shall specify for inclusion in the attachment to the Interconnection Feasibility Study Agreement the Point(s) of Interconnection and ~~any reasonable one~~ alternative Point(s) of Interconnection. Within ~~five~~ fifteen (15) Business Days following the ~~applicable Participating TO~~ CAISO's receipt of such designation, the ~~Participating TO~~ CAISO, in coordination with the ~~CAISO~~ Participating TO shall provide to the Interconnection Customer a signed Interconnection Feasibility Study Agreement, which shall include a good faith estimate of the cost for completing the Interconnection Feasibility Study. The Interconnection Customer shall execute and deliver to the ~~Participating TO~~ CAISO the Interconnection Feasibility Study Agreement along with an additional \$10,000 deposit no later than thirty (30) ~~calendar~~ business days after its receipt.

On or before the return of the executed Interconnection Feasibility Study Agreement to the ~~applicable Participating TO~~ CAISO, the Interconnection Customer shall provide to the ~~Participating TO and the CAISO~~ valid the technical data called for in LGIP Part Appendix 1, Attachment A.

If the Interconnection Feasibility Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting, a substitute Point of Interconnection identified by the Interconnection Customer, the applicable Participating TO(s) ~~or~~ and CAISO, and acceptable to the others, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and re-studies shall be completed pursuant to LGIP Section 6.4 as applicable. ~~If the Participating TO and the Interconnection Customer cannot agree that the results were unexpected, then the CAISO will make a determination that the results were either expected or unexpected.~~ For the purpose of this LGIP Section 6.1, if the CAISO, applicable Participating TO(s), CAISO and Interconnection Customer cannot agree on the substituted Point of Interconnection, then the Interconnection Customer may direct that ~~one of the alternatives~~ as specified in the Interconnection Feasibility Study Agreement, as specified pursuant to LGIP Section 3.5.4, shall be the substitute.

If the Interconnection Customer, the applicable Participating TO, ~~and the CAISO~~ agree to forgo the Interconnection Feasibility Study, the ~~applicable Participating TO~~ CAISO will tender an Interconnection System Impact Study Agreement within fifteen (15) Business Days from receipt of the Interconnection Customer's designated Point of Interconnection and alternative, pursuant to the procedures specified in Section 7 of this LGIP, and apply the deposits made in accordance with LGIP Section 3.5.1, in addition to the deposit made in accordance with LGIP Section 7, towards the Interconnection System Impact Study.

## **6.2 Scope of Interconnection Feasibility Study.**

The Interconnection Feasibility Study shall preliminarily evaluate the feasibility of the proposed interconnection to the ~~applicable Participating TO's portion of the CAISO~~ Controlled Grid.

The Interconnection Feasibility Study will consider Base Cases as well as all generating facilities (and with respect to (iv), any identified Network Upgrades) that, on the date the Interconnection Feasibility Study is commenced: (i) are directly interconnected to the CAISO Controlled Grid; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending request to interconnect to an Affected System; (iv) have a pending higher queued Interconnection Request to

interconnect to the CAISO Controlled Grid; and (v) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC. The Interconnection Feasibility Study will consist of a power flow and short circuit analysis on the applicable Participating TO's portion of the CAISO Controlled Grid. The Interconnection Feasibility Study will provide a list of facilities on the applicable Participating TO's' portion of the CAISO Controlled Grid and a non-binding good faith estimate of cost and cost responsibility and a non-binding good faith estimated time to construct. In addition, the Interconnection Feasibility Study will describe what results are expected in the Interconnection System Impact Study and any other financial impacts (i.e., on Local Furnishing Bonds).

### **6.3 Interconnection Feasibility Study Procedures.**

~~Prior to commencement of the Interconnection Feasibility Study, the CAISO will determine the responsibilities for the CAISO and applicable Participating TO to perform the study. The applicable Participating TO and/or CAISO shall utilize Existing studies shall be used to the extent practicable when performing conducting the Interconnection Feasibility Study. The applicable Participating TO and/or CAISO shall use Reasonable Efforts to complete a draft Interconnection Feasibility Study no later than forty-five (45) ~~C~~**C**alendar ~~D~~**D**ays after the Participating TO ~~CAISO~~ receives the fully executed Interconnection Feasibility Study Agreement. The Participating TO and CAISO shall share applicable study results for review and comment, provide the study results to any other potentially-impacted Participating TO(s), and incorporate comments and issue a final Interconnection Feasibility Study to the Interconnection Customer within sixty (60) ~~C~~**C**alendar ~~D~~**D**ays following receipt of the fully executed Interconnection Feasibility Study Agreement. At the request of the Interconnection Customer or at any time the Participating TO and/or CAISO determines that the entity performing the study cannot be completed within will not meet the required time frame for completing the Interconnection Feasibility Study, the Participating TO and/or CAISO shall notify the Interconnection Customer as to the schedule status of the Interconnection Feasibility Study. If the Participating TO and/or CAISO is unable to complete the Interconnection Feasibility Study cannot be completed within that time period, ~~the~~ **CAISO** shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required.~~

Upon request, the ~~applicable Participating TO and/or CAISO~~ shall provide the Interconnection Customer supporting documentation, workpapers and relevant power flow and short circuit databases for the Interconnection Feasibility Study, subject to confidentiality arrangements consistent with LGIP Sections 2.3 and 13.1.

#### **6.3.1 Meeting with the Participating TO(s) and CAISO.**

Within ten (10) Business Days of providing an Interconnection Feasibility Study report to the Interconnection Customer, the **CAISO**, the applicable Participating TO(s), ~~CAISO~~, and the Interconnection Customer shall meet to discuss the results of the Interconnection Feasibility Study. ~~Any other potentially-impacted Participating TO shall also be included in the meeting.~~

### **6.4 Re-Study.**

If re-study of the Interconnection Feasibility Study is required due to a higher queued project dropping out of the queue, or a modification of a higher queued project subject to LGIP Section 4.4, or re-designation of the Point of Interconnection pursuant to LGIP Section 6.1, or any other effective change in information which necessitates a re-study, the ~~applicable Participating TO~~ **CAISO** shall notify the Interconnection Customer and the ~~CAISO~~ applicable Participating TO(s) in writing along with providing a description of the

expected results of the re-study. Upon receipt of such notice, the Interconnection Customer shall provide the applicable Participating TO ~~CAISO~~ within ten (10) Business Days either a written request that the Participating TO ~~CAISO~~ (i) terminate the study and withdraw the Interconnection Request; or (ii) continue the study. If the Interconnection Customer requests the applicable Participating TO ~~CAISO~~ to continue the study, the Interconnection Customer shall pay the Participating TO ~~CAISO~~ an additional \$10,000 deposit for the re-study along with providing written notice for the Participating TO ~~CAISO~~ to continue.

Such re-study shall take not longer than forty-five (45) ~~Cc~~alendar ~~Dd~~ays from the date the applicable Participating TO ~~CAISO~~ receives the Interconnection Customer's written notice to continue the study and payment of the additional \$10,000 deposit. The applicable Participating TO and the ~~CAISO~~ shall share applicable study results for review, provide the study results for review and comment to any other potentially-impacted Participating TO(s), incorporate comments, and issue a final study to the Interconnection Customer within sixty (60) ~~Cc~~alendar ~~Dd~~ays from the date the Participating TO ~~CAISO~~ receives the Interconnection Customer's written notice to continue the study and payment of the additional \$10,000 deposit. If the applicable Participating TO and/or the ~~CAISO~~ is unable to complete the Interconnection Feasibility Study cannot be completed within that time period, ~~the~~ ~~CAISO~~ shall notify the Interconnection Customer and the ~~CAISO~~ and provide an estimated completion date with an explanation of the reasons why additional time is required. Any and all costs of the re-study shall be borne by the Interconnection Customer being re-studied.

## **Section 7. Interconnection System Impact Study.**

### **7.1 Interconnection System Impact Study Agreement.**

Simultaneously with the delivery of the Interconnection Feasibility Study to the Interconnection Customer, the applicable Participating TO ~~CAISO~~ shall provide to the Interconnection Customer an ~~Interconnection System Impact Study Agreement~~. In addition, any other potentially-impacted Participating TO in coordination with the ~~CAISO~~ shall determine if an Interconnection System Impact Study will be required on such other Participating TO's electrical system pursuant to a separate Interconnection System Impact Study Agreement. The Interconnection System Impact Study Agreement shall provide that the Interconnection Customer shall compensate the Participating TO ~~CAISO~~ for the actual cost of the Interconnection System Impact Study. Within three (3) Business Days following the Interconnection Feasibility Study results meeting, the Participating TO ~~CAISO~~ in coordination with the ~~CAISO~~ applicable Participating TO(s) shall provide to the Interconnection Customer a signed **Interconnection** System Impact Study Agreement which shall include a non-binding good faith estimate of the cost and timeframe for completing the Interconnection System Impact Study.

### **7.2 Execution of Interconnection System Impact Study Agreement.**

The Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to the Participating TO ~~CAISO~~ no later than thirty (30) ~~Cc~~alendar ~~Dd~~ays after its receipt along with a \$50,000 deposit.

If the Interconnection Customer does not provide all such valid technical data, such as Attachment A to LGIP Appendix 1, when it delivers the Interconnection System Impact Study Agreement, the ~~CAISO~~ shall notify the Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection System Impact Study Agreement and the Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency

does not include failure to deliver the executed Interconnection System Impact Study Agreement or deposit.

If the Interconnection System Impact Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting and the Interconnection Feasibility Study, a substitute Point of Interconnection identified by either the Interconnection Customer, the CAISO, or the applicable Participating TO(s), and acceptable to the others, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and re-studies shall be completed pursuant to LGIP Section 7.6 as applicable. If the CAISO, applicable Participating TO(s) and the Interconnection Customer cannot agree that the results were unexpected, then the CAISO will make a determination that the results were either expected or unexpected. For the purpose of this LGIP Section 7.2, if the applicable Participating TO(s), CAISO and Interconnection Customer cannot agree on the substituted Point of Interconnection, then the Interconnection Customer may direct that ~~one of the alternatives~~ as specified in the Interconnection Feasibility Study Agreement, as specified pursuant to LGIP Section 3.5.4, shall be the substitute.

### **7.3 Scope of Interconnection System Impact Study.**

~~The applicable Participating TOs' Interconnection System Impact Study, or Studies if applicable, shall evaluate the impact of the proposed interconnection on the reliability of the applicable Participating TO's electric system~~ CAISO Controlled Grid. The Interconnection System Impact Study will consider Base Cases as well as all generating facilities (and with respect to (iv) below, any identified Network Upgrades associated with such higher queued Interconnection Request) that, on the date the Interconnection System Impact Study is commenced: (i) are directly interconnected to the CAISO Controlled Grid; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending request to interconnect to an Affected System; (iv) have a pending higher queued Interconnection Request to interconnect to the CAISO Controlled Grid; and (v) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

The Interconnection System Impact Study will consist of a short circuit analysis, a stability analysis, a power flow analysis and a Deliverability Assessment as described in LGIP Sections 3.3.2 and 3.3.3. The Interconnection System Impact Study will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested Interconnection Service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Interconnection System Impact Study will provide a list of facilities on ~~the applicable Participating TO's portion of the~~ CAISO Controlled Grid that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost and cost responsibility and a non-binding good faith estimated time to construct and estimate of any other financial impacts (i.e., on Local Furnishing Bonds).

### **7.4 Interconnection System Impact Study Procedures.**

~~Prior to commencement of the Interconnection System Impact Study, the CAISO will determine the responsibilities for the CAISO and Participating TO to perform the study. The CAISO shall coordinate the Interconnection System Impact Study with applicable Participating TO(s) and any Affected System that is affected by the Interconnection Request pursuant to LGIP Section 3.7 above. The Participating TO and/or CAISO shall utilize existing Existing studies shall be used to the extent practicable when performing the study~~ conducting the Interconnection System Impact Study. The CAISO will coordinate Base Case development with the applicable Participating TOs to ensure the

~~Base Cases are accurately developed. The Participating TO and/or CAISO shall use Reasonable Efforts to complete a draft Interconnection System Impact Study within ninety (90) Ccalendar Ddays after the receipt of the executed Interconnection System Impact Study Agreement, study payment, and valid technical data. The Participating TO and/or CAISO willshall share applicable study results with the applicable Participating TO(s), for review and comment, and will incorporate comments and into the study report. The CAISO will issue a final Interconnection System Impact Study Rreport to the Interconnection Customer within one hundred twenty (120) calendar days after the receipt of the executed Interconnection System Impact Study Agreement, study payment, and valid technical data. If the Participating TO and/or CAISO uses Clustering, the Participating TO and/or CAISO shall use Reasonable Efforts to deliver a completed Interconnection System Impact Study within one hundred twenty (120) Ccalendar Ddays after the close of the Queue Cluster Window.~~

At the request of the Interconnection Customer or at any time the Participating TO and/or CAISO determines that it will not meet the required time frame for completing the Interconnection System Impact Study, the Participating TO and/or CAISO shall notify the Interconnection Customer as to the schedule status of the Interconnection System Impact Study. If the Participating TO and/or CAISO is unable to complete the Interconnection System Impact Study ~~cannot be completed~~ within the time period, ~~it~~ the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, the Participating TO and/or CAISO shall provide the Interconnection Customer all supporting documentation, workpapers and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the Interconnection System Impact Study, subject to confidentiality arrangements consistent with LGIP Section 13.1.

#### **7.5 Meeting with the CAISO and Participating TO(s) and CAISO.**

Within ten (10) Business Days of providing an Interconnection System Impact Study report to the Interconnection Customer, the applicable Participating TO(s), the CAISO and the Interconnection Customer shall meet to discuss the results of the Interconnection System Impact Study.

#### **7.6 Re-Study.**

If re-study of the Interconnection System Impact Study is required due to a higher queued project dropping out of the queue, a modification of a higher queued project subject to LGIP Section 4.4, or re-designation of the Point of Interconnection pursuant to LGIP Section 7.2, or any other effective change in information which necessitates a re-study, the Participating TO ~~CAISO~~ shall notify the Interconnection Customer ~~and the CAISO~~ in writing along with providing a description of the expected results of the re-study. Upon receipt of such notice, the Interconnection Customer shall provide the CAISO ~~and the Participating TO~~ within ten (10) Business Days either a written request that the Participating TO ~~CAISO~~ (i) terminate the study and withdraw the Interconnection Request; or (ii) continue the study. If the Interconnection Customer requests the Participating TO ~~CAISO~~ to continue the study, the Interconnection Customer shall pay the Participating TO ~~CAISO~~ an additional \$10,000 deposit for the re-study along with providing written notice for the Participating TO ~~CAISO~~ to continue.

Such re-study shall take no longer than sixty (60) Ccalendar Ddays from the date the ~~CAISO~~ Participating TO receives the Interconnection Customer's written notice to continue the study and payment of the additional \$10,000 deposit. The Participating TO ~~and the CAISO~~ shall will share applicable study results with the applicable Participating

TO(s) for review and comment, and will incorporate comments and into the study report. The CAISO will issue a final study report to the Interconnection Customer within eighty (80) calendar days following receipt of the Interconnection Customer's written notice to continue the study and payment of the additional \$10,000 deposit. If the Participating TO and/or the CAISO is unable to complete the Interconnection System Impact Study cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. Any and all costs of re-study shall be borne by the Interconnection Customer being re-studied.

## **Section 8. Interconnection Facilities Study.**

### **8.1 Interconnection Facilities Study Agreement.**

Simultaneously with the delivery of the Interconnection System Impact Study report to the Interconnection Customer, the ~~Participating TO~~ CAISO shall provide to the Interconnection Customer a pro forma Interconnection Facilities Study Agreement. The pro forma Interconnection Facilities Study Agreement shall provide that the Interconnection Customer shall compensate the ~~Participating TO~~ CAISO for the actual cost of the Interconnection Facilities Study. Within ~~three ten (310)~~ thirty (30) Business Days following the Interconnection System Impact Study results meeting, the ~~Participating TO~~ CAISO ~~in coordination with the CAISO~~ shall provide to the Interconnection Customer a signed Interconnection Facilities Study Agreement which shall include a non-binding good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study. The Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to the ~~Participating TO~~ CAISO within thirty (30) ~~calendar~~ calendar ~~days~~ days after its receipt, together with the required technical data and the greater of \$100,000 or the Interconnection Customer's portion of the estimated monthly cost of conducting the Interconnection Facilities Study.

**8.1.1** ~~\_\_\_\_\_~~ For studies where the estimated cost exceeds \$100,000, the ~~Participating TO~~ CAISO may invoice the Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study for the remaining balance of the estimated Interconnection Facilities Study cost. The Interconnection Customer shall pay invoiced amounts within thirty (30) ~~calendar~~ calendar ~~days~~ days of receipt of invoice. The ~~Participating TO~~ CAISO shall continue to hold the amounts on deposit until settlement of the final invoice.

### **8.2 Scope of Interconnection Facilities Study.**

The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work, ~~needed on the Participating TO's electric system~~ including the financial impacts (i.e., on Local Furnishing Bonds), if any, and schedule for effecting remedial measures that address such financial impacts, needed on the CAISO Controlled Grid to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Interconnection Customer's Interconnection Facilities to the CAISO Controlled Grid. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Participating TO's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities.

### **8.3 Interconnection Facilities Study Procedures.**

The CAISO shall coordinate the Interconnection Facilities Study with the Participating TO(s) and any Affected System pursuant to LGIP Section 3.75 above. ~~The Participating TO and/or CAISO shall utilize e~~Existing studies shall be used to the extent practicable in ~~performing~~conducting the Interconnection Facilities Study. The **CAISO**, in collaboration ~~with the Participating TO(s), and/or CAISO~~ shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to the Interconnection Customer. Prior to issuing draft study results to the Interconnection Customer, the **CAISO** shall share study results with the Participating TO(s) ~~and CAISO shall share results~~ for review and incorporate comments ~~within as necessary.~~ Within the following number of days after receipt of an executed Interconnection Facilities Study Agreement, the CAISO shall provide a draft Interconnection Facilities Study report to the Interconnection Customer: one hundred twenty (120) ~~Cc~~alendar Dddays, with no more than a +/- 20 percent cost estimate contained in the report; or two hundred ten (210) ~~Cc~~alendar Dddays, if the Interconnection Customer requests a +/- 10 percent cost estimate. At the request of the Interconnection Customer or at any time the ~~Participating TO and/or CAISO determines that it will not meet~~ the required time frame for completing the Interconnection Facilities Study ~~will not be met~~, the ~~Participating TO and/or CAISO~~ shall notify the Interconnection Customer as to the schedule status of the Interconnection Facilities Study. If the ~~Participating TO and/or CAISO is unable to complete the~~ Interconnection Facilities Study ~~cannot be conducted and issue a draft Interconnection Facilities Study report cannot be issued~~ within the time required, ~~it~~ the **CAISO** shall notify the Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.

The Interconnection Customer shall, within thirty (30) ~~Cc~~alendar Dddays after receipt of the draft report, either (i) provide written comments to the ~~Participating TO and CAISO,~~ which the ~~Participating TO and/or CAISO,~~ to the extent the comments are applicable, shall include in the final report, or (ii) provide a statement to the Participating TO and CAISO that it will not provide comments. The ~~Participating TO and/or CAISO~~ shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving the Interconnection Customer's comments or promptly upon receiving the Interconnection Customer's statement that it will not provide comments. The ~~Participating TO and/or CAISO~~ may reasonably extend such ~~fifteen-day (15) Business Day~~ period upon notice to the Interconnection Customer if the Interconnection Customer's comments require the applicable Participating TO(s) and/or CAISO to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Study Rreport. Upon request, the ~~Participating TO and/or CAISO~~ shall provide the Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with LGIP Section 13.1.

#### **8.4 Meeting with the CAISO and Applicable Participating TO(s) and CAISO.**

Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to the Interconnection Customer, the applicable Participating TO(s), the CAISO and the Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study. Within ten (10) Business Days of this meeting the Interconnection Customer shall make the election of which Delivery Network Upgrades identified in the Interconnection Facilities Study are to be installed. Any operating constraints on the Interconnection Customer's Generating Facility arising out of the Interconnection Customer's election not to install the Delivery Network Upgrades shall be as set forth in Article 9 and **Part Appendix C** of the LGIA.

## 8.5 Re-Study.

If re-study of the Interconnection Facilities Study is required due to a higher queued project dropping out of the queue or a modification of a higher queued project pursuant to LGIP Section 4.4, or any other effective change in information which necessitates a re-study, the ~~Participating TO~~ CAISO shall so notify the Interconnection Customer ~~and the CAISO~~ in writing. Upon receipt of such notice, the Interconnection Customer shall provide the ~~Participating TO~~ CAISO within ten (10) Business Days a written request that the ~~Participating TO~~ CAISO either (i) terminate the study and withdraw the Interconnection Request; or (ii) continue the study. If the Interconnection Customer requests the ~~Participating TO~~ CAISO to continue the study, the Interconnection Customer shall pay the ~~Participating TO~~ CAISO an additional \$10,000 deposit for the re-study along with providing written notice for the ~~Participating TO~~ CAISO to continue.

Such re-study shall take no longer than sixty (60) ~~C~~alendar ~~D~~ays from the date the ~~Participating TO~~ CAISO receives the Interconnection Customer's written notice to continue the study and payment of the additional \$10,000 deposit. The ~~Participating TO and CAISO~~ shall share applicable study results with the applicable Participating TO(s) for review and comment and incorporate comments, ~~as appropriate.~~ ~~and~~ The CAISO will issue a final Interconnection Facilities Study report to the Interconnection Customer within eighty (80) ~~C~~alendar ~~D~~ays following receipt of the Interconnection Customer's written notice to continue the study and payment of the additional \$10,000 deposit. If the ~~Participating TO and/or the CAISO is unable to complete the~~ Interconnection Facilities Study ~~cannot be completed~~ within that time period, ~~it~~ the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. Any and all costs of re-study shall be borne by the Interconnection Customer being re-studied.

## Section 9. Engineering & Procurement ("E&P") Agreement.

Prior to executing an LGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and the applicable Participating TO(s) shall offer the Interconnection Customer, an E&P Agreement that authorizes the applicable Participating TO(s) to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, the applicable Participating TO(s) shall not be obligated to offer an E&P Agreement if the Interconnection Customer is in Dispute Resolution as a result of an allegation that the Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the LGIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or In-Service Date. The E&P Agreement shall provide for the Interconnection Customer to pay the cost of all activities authorized by the Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

The Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If the Interconnection Customer withdraws its application for interconnection or either Party terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, the Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, the applicable Participating TO(s) may elect: (i) to take title to the equipment, in which event the applicable Participating TO(s) shall refund the Interconnection Customer any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to the Interconnection Customer, in which



event the Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

## **Section 10. Optional Interconnection Study.**

### **10.1 Optional Interconnection Study Agreement.**

On or after the date when the Interconnection Customer receives Interconnection System Impact Study results, the Interconnection Customer may request, and the ~~Participating TO or CAISO shall perform~~ conduct or cause to be conducted, a reasonable number of Optional Interconnection Studies. The request shall describe the assumptions that the Interconnection Customer wishes ~~the Participating TO or CAISO to be studied~~ within the scope described in LGIP Section 10.2. Within five (5) Business Days after receipt of a request for an Optional Interconnection Study, the ~~Participating TO or CAISO shall~~ provide to the Interconnection Customer an Optional Interconnection Study Agreement.

The Optional Interconnection Study Agreement shall: (i) specify the technical data that the Interconnection Customer must provide for each phase of the Optional Interconnection Study, (ii) specify the Interconnection Customer's assumptions as to which Interconnection Requests with higher Queue Positions will be excluded from the Optional Interconnection Study case and assumptions as to the type of interconnection service for Interconnection Requests remaining in the Optional Interconnection Study case, and (iii) the ~~Participating TO's or CAISO's~~ estimate of the cost of the Optional Interconnection Study. To the extent known by the ~~Participating TO or CAISO~~, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Optional Interconnection Study. Notwithstanding the above, the ~~Participating TO or CAISO~~ shall not be required as a result of an Optional Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

The Interconnection Customer shall execute the Optional Interconnection Study Agreement within ten (10) Business Days of receipt and deliver the Optional Interconnection Study Agreement, the technical data and a \$10,000 deposit to the ~~Participating TO or CAISO~~ as applicable.

### **10.2 Scope of Optional Interconnection Study.**

The Optional Interconnection Study will consist of a sensitivity analysis based on the assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement. The Optional Interconnection Study will also identify the ~~Participating TO's~~ Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results of the Optional Interconnection Study. The Optional Interconnection Study shall be performed solely for informational purposes. The ~~Participating TO or CAISO~~ shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. The ~~Participating TO or CAISO~~ shall utilize existing studies to the extent practicable in conducting the Optional Interconnection Study.

### **10.3 Optional Interconnection Study Procedures.**

The ~~Participating TO or CAISO~~ shall use Reasonable Efforts to ~~complete~~ have the Optional Interconnection Study completed within a mutually agreed upon time period specified within the Optional Interconnection Study Agreement. If the ~~Participating TO or CAISO is unable to complete the~~ Optional Interconnection Study cannot be completed within such time period, ~~it~~ the CAISO shall notify the Interconnection Customer and

provide an estimated completion date and an explanation of the reasons why additional time is required. Any difference between the study payment and the actual cost of the study shall be paid to the ~~Participating TO or CAISO~~, as applicable, or refunded to the Interconnection Customer, as appropriate. Upon request, the CAISO with support and cooperation of the applicable Participating TO(s) or CAISO shall provide the Interconnection Customer supporting documentation and workpapers, and databases or data developed in the preparation of the Optional Interconnection Study, subject to confidentiality arrangements consistent with LGIP Sections 2.3 and 13.1.

## **Section 11. Standard Large Generator Interconnection Agreement (LGIA).**

### **11.1 Tender.**

**11.1.1** Within thirty (30) ~~Cc~~alendar ~~Dd~~ays after the ~~Participating TO and the CAISO~~ receives the Interconnection Customer's written comments, or notification of no comments, to the draft Interconnection Facilities Study report, the applicable Participating TO(s) and the CAISO shall tender a draft LGIA, together with draft appendices. The draft LGIA shall be in the form of the FERC-approved standard form LGIA. The Interconnection Customer shall provide written comments, or notification of no comments, to the draft appendices to the applicable Participating TO(s) and the CAISO within (30) ~~Cc~~alendar ~~Dd~~ays of receipt.

**11.1.2** Consistent with Sections 3.4.4 and 11.1.1 of this LGIP, when the transmission system of a Participating TO, in which the Point of Interconnection is not located, is affected, such Participating TO shall tender a separate agreement, in the form of the LGIA, as appropriately modified.

### **11.2 Negotiation.**

Notwithstanding LGIP Section 11.1, at the request of the Interconnection Customer, the applicable Participating TO(s), and CAISO ~~as necessary~~, shall begin negotiations with the Interconnection Customer concerning the appendices to the LGIA at any time after the Interconnection Customer executes the Interconnection Facilities Study Agreement. The applicable Participating TO(s) and CAISO, ~~as necessary~~, and the Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) ~~Cc~~alendar ~~Dd~~ays after tender of the final Interconnection Facilities Study report. If the Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft LGIA pursuant to LGIP Section 11.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to LGIP Section 13.5. If the Interconnection Customer requests termination of the negotiations, but within ninety (90) ~~Cc~~alendar ~~Dd~~ays after issuance of the final Interconnection Facilities Study report fails to request either the filing of the unexecuted LGIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if the Interconnection Customer has not executed and returned the LGIA, requested filing of an unexecuted LGIA, or initiated Dispute Resolution procedures pursuant to LGIP Section 13.5 within ninety (90) ~~Cc~~alendar ~~Dd~~ays after issuance of the final Interconnection Facilities Study report, it shall be deemed to have withdrawn its Interconnection Request. The applicable Participating TO(s) and CAISO shall provide to the Interconnection Customer a final LGIA within fifteen (15) Business Days after the completion of the negotiation process.

### **11.3 Execution and Filing.**

At the time that the Interconnection Customer either returns the executed LGIA or requests the filing of an unexecuted LGIA as specified below, the Interconnection Customer shall provide the applicable Participating TO(s) and CAISO (A) reasonable

evidence of continued Site Control or (B) posting to the applicable Participating TO(s) of \$250,000, non-refundable additional security, which shall be applied toward future construction costs. At the same time, the Interconnection Customer also shall provide reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, at the Interconnection Customer election, has been achieved: (i) the execution of a contract for the supply or transportation of fuel to the Large Generating Facility; (ii) the execution of a contract for the supply of cooling water to the Large Generating Facility; (iii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility; (iv) execution of a contract for the sale of electric energy or capacity from the Large Generating Facility; or (v) application for an air, water, or land use permit.

The Interconnection Customer shall either: (i) execute four originals of the tendered LGIA and return one to the applicable Participating TO(s) and two to the CAISO; or (ii) request in writing that the applicable Participating TO(s) and CAISO file with FERC an LGIA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the executed originals of the tendered LGIA (if it does not conform with a FERC-approved standard form of interconnection agreement) or the request to file an unexecuted LGIA, the applicable Participating TO(s) and CAISO shall file the LGIA with FERC, as necessary, together with an explanation of any matters as to which the Interconnection Customer and the applicable Participating TO(s) or CAISO disagree and support for the costs that the applicable Participating TO(s) proposes to charge to the Interconnection Customer under the LGIA. An unexecuted LGIA should contain terms and conditions deemed appropriate by the applicable Participating TO(s) and CAISO for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted LGIA, they may proceed pending FERC action.

#### **11.4 Commencement of Interconnection Activities.**

If the Interconnection Customer executes the final LGIA, the applicable Participating TO(s), CAISO and the Interconnection Customer shall perform their respective obligations in accordance with the terms of the LGIA, subject to modification by FERC. Upon submission of an unexecuted LGIA, the Interconnection Customer, applicable Participating TO(s) and CAISO may proceed to comply with the unexecuted LGIA, pending FERC action.

#### **11.5 Interconnection Customer to Meet Requirements of the Participating TO's Interconnection Handbook.**

The Interconnection Customer's Interconnection Facilities shall be designed, constructed, operated and maintained in accordance with the applicable Participating TO's Interconnection Handbook.

### **Section 12. Construction of Participating TO's Interconnection Facilities and Network Upgrades.**

#### **12.1 Schedule.**

The applicable Participating TO(s) and the Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of the applicable Participating TO's Interconnection Facilities and the Network Upgrades.

#### **12.2 Construction Sequencing.**

### 12.2.1 General.

In general, the ~~in-s~~Service ~~d~~Date in the LGIA of an Interconnection Customer seeking interconnection to the CAISO Controlled Grid will determine the sequence of construction of Network Upgrades.

### 12.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than the Interconnection Customer.

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that the applicable Participating TO(s) advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such In-Service Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than the Interconnection Customer that is seeking interconnection to the ~~Participating TO's portion of the~~ CAISO Controlled Grid, in time to support such In-Service Date. Upon such request, the applicable Participating TO(s) will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the applicable Participating TO(s): (i) any associated expediting costs and (ii) the cost of such Network Upgrades.

The applicable Participating TO(s) will refund to the Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the LGIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that the applicable Participating TO(s) ~~has~~ have not refunded to the Interconnection Customer. Payment by that entity shall be due on the date that it would have been due had there been no request for advance construction. The applicable Participating TO(s) shall forward to the Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to the Interconnection Customer. The applicable Participating TO(s) then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the LGIA.

### 12.2.3 Advancing Construction of Network Upgrades that are Part of an Expansion Plan of the Participating TO.

An Interconnection Customer with an LGIA, in order to maintain its ~~in-s~~Service ~~d~~Date as specified in the LGIA, may request that the applicable Participating TO(s) advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such ~~in-s~~Service ~~d~~Date and (ii) would otherwise not be completed, pursuant to an expansion plan of the applicable Participating TO(s), in time to support such ~~in-s~~Service ~~d~~Date. Upon such request, the applicable Participating TO(s) will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the applicable Participating TO(s) any associated expediting costs. The Interconnection Customer shall be entitled to refunds, if any, in accordance with this LGIP and the LGIA, for any expediting costs paid.

### 12.2.4 Amended Interconnection Study.

An Interconnection Study will be amended, as needed, to determine the facilities necessary to support the requested ~~in-s~~Service ~~d~~Date as specified in the LGIA. This amended study will include those transmission facilities, Large Generating Facilities and any other generating facilities that are expected to be in service on or before the

requested in ~~its~~ ~~Service~~ ~~date~~. If an amendment to an Interconnection Study is required, the ~~CAISO~~ ~~Participating TO~~ shall notify the Interconnection Customer and the ~~CAISO~~ in writing. Upon receipt of such notice, the Interconnection Customer shall provide the CAISO and the ~~Participating TO~~ within ten (10) Business Days a written request that the ~~Participating TO~~ ~~CAISO~~ either (i) terminate the amended study and withdraw the Interconnection Customer's Interconnection Request or (ii) continue with the amended study. If the Interconnection Customer requests the ~~Participating TO~~ ~~CAISO~~ to continue with the amended study, the Interconnection Customer shall pay the ~~Participating TO~~ ~~CAISO~~ an additional \$10,000 deposit for the amended study along with providing written notice for the ~~Participating TO~~ ~~CAISO~~ to continue. Such amended study shall take no longer than sixty (60) ~~calendar~~ ~~days~~ from the date the ~~Participating TO~~ ~~CAISO~~ receives the Interconnection Customer's written notice to continue the study and payment of the additional \$10,000 deposit. The ~~Participating TO~~ and ~~CAISO~~ shall share applicable study results with the applicable ~~Participating TO(s)~~ for review and comment, and incorporate comments and issue a final study to the Interconnection Customer within eighty (80) ~~calendar~~ ~~days~~ from the date of the Interconnection Customer's written notice to continue the study and payment of the additional \$10,000 deposit. If the ~~Participating TO~~ is unable to complete the amended Interconnection Study cannot be completed within that time period, ~~it~~ the ~~CAISO~~ shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. Any and all costs of the amended study shall be borne by the Interconnection Customer being re-studied.

## **Section 13. Miscellaneous.**

### **13.1 Confidentiality.**

Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by any of the Parties to the other Parties prior to the execution of an LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Parties receiving the information that the information is confidential.

If requested by any Party, the other Parties shall provide in writing, the basis for asserting that the information referred to in this Section warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

The confidentiality provisions of this LGIP are limited to information provided pursuant to this LGIP.

#### **13.1.1 Scope.**

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes,

publicly known, through no wrongful act or omission of the receiving Party or breach of the LGIA; or (6) is required, in accordance with LGIP Section 13.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the LGIP. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.

#### **13.1.2 Release of Confidential Information.**

No Party shall release or disclose Confidential Information to any other person, except to its employees, consultants, Affiliates (limited by FERC's Standards of Conduct requirements set forth in Part 358 of FERC's Regulations, 18 C.F.R. 358), or to parties who may be or considering providing financing to or equity participation with the Interconnection Customer, or to potential purchasers or assignees of the Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this LGIP Section 13.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this LGIP Section 13.1.

#### **13.1.3 Rights.**

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Parties. The disclosure by each Party to the other Parties of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

#### **13.1.4 No Warranties.**

By providing Confidential Information, no Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Parties nor to enter into any further agreements or proceed with any other relationship or joint venture.

#### **13.1.5 Standard of Care.**

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Parties under these procedures or its regulatory requirements.

#### **13.1.6 Order of Disclosure.**

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Parties with prompt notice of such request(s) or requirement(s) so that the other Parties may seek an appropriate protective order or waive compliance with the terms of the LGIP. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

### **13.1.7 Remedies.**

Monetary damages are inadequate to compensate a Party for another Party's breach of its obligations under this LGIP Section 13.1. Each Party accordingly agrees that the other Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party breaches or threatens to breach its obligations under this LGIP Section 13.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the breach of this LGIP Section 13.1, but shall be in addition to all other remedies available at law or in equity. Further, the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this LGIP Section 13.1.

### **13.1.8 Disclosure to FERC, its Staff, or a State.**

Notwithstanding anything in this LGIP Section 13.1 to the contrary, and pursuant to 18 C.F.R. section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the LGIP, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other applicable Parties when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 C.F.R. section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

**13.1.9** Subject to the exception in LGIP Section 13.1.8, any Confidential Information shall not be disclosed by the other Parties to any person not employed or retained by the other Parties, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Parties, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIP or as a transmission service provider or a ~~Control Area operator~~ Balancing Authority including disclosing the Confidential Information to an RTO or **CAISO** or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Parties in writing of the information it claims is confidential. Prior to any disclosures of another Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

**[Docket No. ER08-\_\_ Balancing Authority Amendment Filing pending FERC Order. See Table.]**

**13.1.10** This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a breach of this provision).

**13.1.11** The Participating TO or CAISO shall, at the Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

### **13.2 Delegation of Responsibility.**

The ~~Participating TO and CAISO and the Participating TOs~~ may use the services of subcontractors as deemed appropriate to perform their obligations under this LGIP. The applicable Participating TO or CAISO shall remain primarily liable to the Interconnection Customer for the performance of its respective subcontractors and compliance with its obligations of this LGIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

### **13.3 Obligation for Study Costs.**

The ~~Participating TO or CAISO~~ shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection Studies. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded to the Interconnection Customer. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. The Interconnection Customer shall pay any such undisputed costs within thirty (30) ~~Calendar Days~~ of receipt of an invoice therefor. The ~~Participating TO or CAISO~~ shall not be obligated to ~~perform or continue to perform~~ have any studies conducted unless the Interconnection Customer has paid all undisputed amounts in compliance herewith. In the event an Interconnection Study is performed by the CAISO, or is performed by a third party consultant pursuant to LGIP Section 13.4, the Interconnection Customer shall pay only the costs of those activities performed by the Participating TO to adequately review or validate that Interconnection Study.

### **13.4 Third Parties Conducting/Performing Studies.**

If (i) at the time of the signing of an Interconnection Study agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) the Interconnection Customer receives notice pursuant to LGIP Sections 6.3, 7.4 or 8.3 that ~~the Participating TO or CAISO will not complete~~ an Interconnection Study cannot be completed within the applicable timeframe for such Interconnection Study, or (iii) the Interconnection Customer receives neither the Interconnection Study nor a notice under LGIP Sections 6.3, 7.4 or 8.3 within the applicable timeframe for such Interconnection Study, then the Interconnection Customer may ~~require the Participating TO or CAISO to request that the CAISO:~~ (1) utilize a third party consultant reasonably acceptable to the Interconnection Customer, the CAISO, and the Participating TO or CAISO (2) utilize the applicable Participating TO(s) to perform such Interconnection Study under the direction of the Participating TO or CAISO. At other times, the Participating TO or CAISO may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of the Interconnection Customer, or on its own volition.

In all cases, use of a third party consultant shall be in accord with Article 26 of the LGIA (Subcontractors) and limited to situations where the ~~Participating TO and CAISO~~ determines that doing so will help maintain or accelerate the study process for the Interconnection Customer's pending Interconnection Request and not interfere with the ~~Participating TO's and CAISO's or Participating TO's~~ progress on Interconnection Studies for other pending Interconnection Requests. In cases where the Interconnection Customer requests use of a third party consultant to perform such Interconnection Study, the Interconnection Customer and the Participating TO or CAISO shall negotiate all of the



pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. The applicable Participating TO(s) or and the CAISO shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as ~~soon as~~ practicable upon the Interconnection Customer's request subject to the confidentiality provision in LGIP Section 13.1. In any case, such third party contract may be entered into with ~~either~~ the Interconnection Customer, ~~or the applicable Participating TO(s), or the CAISO~~ at the Participating TO's or CAISO's discretion. If the Interconnection Customer enters into a third party Interconnection Study agreement, the Interconnection Customer shall provide the Interconnection Study to the CAISO and the Participating TO for review, and such third party Interconnection Study agreement shall provide for reimbursement by the Interconnection Customer of the CAISO's and Participating TO's actual cost of participating in and reviewing the Interconnection Study. In the case of (iii) the Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this LGIP, Article 26 of the LGIA (Subcontractors), the CAISO Tariff, and the relevant Participating TO's TO Tariff as would apply if the Participating TO or CAISO were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes. The applicable Participating TO(s) or and the CAISO shall cooperate with such third party consultant and the Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

### **13.5 Disputes.**

All disputes arising out of or in connection with this LGIP whereby relief is sought by or from the CAISO shall be settled in accordance with the CAISO ADR Procedures. Disputes arising out of or in connection with this LGIP not subject to the CAISO ADR Procedures shall be resolved as follows:

#### **13.5.1 Submission.**

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with the LGIA, the LGIP, or their performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) ~~C~~calendar ~~D~~days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of the LGIA and LGIP.

#### **13.5.2 External Arbitration Procedures.**

Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) ~~C~~calendar ~~D~~days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) ~~C~~calendar ~~D~~days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial

relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (“Arbitration Rules”) and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this LGIP Section 13, the terms of this LGIP Section 13 shall prevail.

### **13.5.3 Arbitration Decisions.**

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) ~~C~~calendar ~~D~~days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the LGIA and LGIP and shall have no power to modify or change any provision of the LGIA and LGIP in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

### **13.5.4 Costs.**

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

## **13.6 Local Furnishing Bonds.**

### **13.6.1 Participating TOs That Own Facilities Financed by Local Furnishing Bonds.**

This provision is applicable only to a Participating TO that has financed facilities for the local furnishing of electric energy with Local Furnishing Bonds. Notwithstanding any other provisions of this LGIP, the Participating TO and the CAISO shall not be required to provide Interconnection Service to the Interconnection Customer pursuant to this LGIP and the LGIA if the provision of such Interconnection Service would jeopardize the tax-exempt status of any Local Furnishing Bond(s) issued for the benefit of the Participating TO.

### **13.6.2 Alternative Procedures for Requesting Interconnection Service.**

If ~~the a~~ Participating TO determines that the provision of Interconnection Service requested by the Interconnection Customer would jeopardize the tax-exempt status of any Local Furnishing Bond(s) issued for the benefit of the Participating TO, it shall advise the Interconnection Customer and the CAISO within (30) ~~C~~calendar ~~D~~days of receipt of the Interconnection Request.

The Interconnection Customer thereafter may renew its request for the same interconnection Service by tendering an application under Section 211 of the Federal Power Act, in which case the Participating TO, within ten (10) ~~C~~calendar ~~D~~days of receiving a copy of the Section 211 application, will waive its rights to a request for service under Section 213(a) of the Federal Power Act and to the issuance of a proposed order under Section 212(c) of the Federal Power Act, and the CAISO and Participating

TO shall provide the requested Interconnection Service pursuant to the terms and conditions set forth in this LGIP and the LGIA.

**PART APPENDIX 1 to LGIP  
INTERCONNECTION REQUEST**

Provide three copies of this completed form pursuant to Section 7 of this LGIP Appendix 1 below.

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with the CAISO Controlled Grid pursuant to the CAISO Tariff.
2. This Interconnection Request is for (check one):  
 A proposed new Large Generating Facility.  
 An increase in the generating capacity or a Material Modification of an existing Generating Facility.

3. [NOT USED]

4. The Interconnection Customer provides the following information:
  - a. Address or location, including the county, of the proposed new Large Generating Facility site or, in the case of an existing Generating Facility, the name and specific location, including the county, of the existing Generating Facility;
  - b. Maximum megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
  - c. Type of project (i.e., gas turbine, hydro, wind, etc.) and general description of the equipment configuration;
  - d. Proposed In-Service Date, Trial Operation date and Commercial Operation Date by day, month, and year and term of service;
  - e. Name, address, telephone number, and e-mail address of the Interconnection Customer's contact person;
  - f. Approximate location of the proposed Point of Interconnection; and
  - g. Interconnection Customer **D**ata (set forth in Attachment A)

5. Applicable deposit amount as specified in the LGIP.

6. Evidence of Site Control as specified in the LGIP and name(s), address(es) and contact information of site owner(s) (check one):

- Is attached to this Interconnection Request  
 Will be provided at a later date in accordance with this LGIP

7. This Interconnection Request shall be submitted to the representative indicated below:

New Resource Interconnection  
California ISO  
P.O. Box 639014  
Folsom, CA 95763-9014

Overnight address: 151 Blue Ravine Road, Folsom, CA 95630

8. Representative of the Interconnection Customer to contact:

[To be completed by the Interconnection Customer]

9. This Interconnection Request is submitted by:

Name of the Interconnection Customer:

By (signature):

Name (type or print):

Title:

Date:

**Attachment A  
To Part LGIP Appendix 1  
Interconnection Request**

**LARGE GENERATING FACILITY DATA**

Provide three copies of this completed form pursuant to Section 7 of **Part LGIP Appendix 1**.

**1. Provide two original prints and one reproducible copy (no larger than 36" x 24") of the following:**

- A. Site drawing to scale, showing generator location and **Point of Interconnection** with the CAISO Controlled Grid.
- B. Single-line diagram showing applicable equipment such as generating units, step-up transformers, auxiliary transformers, switches/disconnects of the proposed interconnection, including the required protection devices and circuit breakers. For wind generator farms, the one line diagram should include the distribution lines connecting the various groups of generating units, the generator capacitor banks, the step up transformers, the distribution lines, and the substation transformers and capacitor banks at the **Point of Interconnection** with the **CAISO Controlled Grid**.

**2. Generating Facility Information**

- A) Total Generating Facility rated output (kW): \_\_\_\_\_
- B) Generating Facility auxiliary **Load** (kW): \_\_\_\_\_
- C) Project net capacity (kW): \_\_\_\_\_
- D) Standby **Load** when Generating Facility is off-line (kW): \_\_\_\_\_
  
- E) Number of Generating Units: \_\_\_\_\_  
(Please repeat the following items for each generator)
- F) Individual generator rated output (kW for each unit): \_\_\_\_\_
- G) Manufacturer: \_\_\_\_\_
- H) Year Manufactured: \_\_\_\_\_
- I) Nominal Terminal Voltage: \_\_\_\_\_
- J) Rated Power Factor (%): \_\_\_\_\_
- K) Type (Induction, Synchronous, D.C. with Inverter): \_\_\_\_\_
- L) Phase (3 phase or single phase): \_\_\_\_\_
- M) Connection (Delta, Grounded WYE, Ungrounded WYE, impedance grounded): \_\_\_\_\_
  
- N) Generator Voltage Regulation Range: \_\_\_\_\_
- O) Generator Power Factor Regulation Range: \_\_\_\_\_
- P) For combined cycle plants, specify the plant output for an outage of the steam turbine or an outage of a single combustion turbine:

**3. Synchronous Generator – General Information:**

(Please repeat the following for each generator)

- A. Rated Generator speed (rpm): \_\_\_\_\_
- B. Rated MVA: \_\_\_\_\_
- C. Rated Generator Power Factor: \_\_\_\_\_
- D. Generator Efficiency at Rated Load (%): \_\_\_\_\_
- E. Moment of Inertia (including prime mover): \_\_\_\_\_
- F. Inertia Time Constant (on machine base) H: \_\_\_\_\_ sec or MJ/MVA
- G. SCR (Short-Circuit Ratio - the ratio of the field current required for rated open-circuit

- H. voltage to the field current required for rated short-circuit current): \_\_\_\_\_
- H. Please attach generator reactive capability curves.
- I. Rated Hydrogen Cooling Pressure in psig (Steam Units only): \_\_\_\_\_
- J. Please attach a plot of generator terminal voltage versus field current that shows the air gap line, the open-circuit saturation curve, and the saturation curve at full load and rated power factor.

**4. Excitation System Information**

(Please repeat the following for each generator)

- A. Indicate the Manufacturer \_\_\_\_\_ and Type \_\_\_\_\_ of excitation system used for the generator. For exciter type, please choose from 1 to 8 below or describe the specific excitation system.
  - 1) Rotating DC commutator exciter with continuously acting regulator. The regulator power source is independent of the generator terminal voltage and current.
  - 2) Rotating DC commutator exciter with continuously acting regulator. The regulator power source is bus fed from the generator terminal voltage.
  - 3) Rotating DC commutator exciter with non-continuously acting regulator (i.e., regulator adjustments are made in discrete increments).
  - 4) Rotating AC Alternator Exciter with non-controlled (diode) rectifiers. The regulator power source is independent of the generator terminal voltage and current (not bus-fed).
  - 5) Rotating AC Alternator Exciter with controlled (thyristor) rectifiers. The regulator power source is fed from the exciter output voltage.
  - 6) Rotating AC Alternator Exciter with controlled (thyristor) rectifiers.
  - 7) Static Exciter with controlled (thyristor) rectifiers. The regulator power source is bus-fed from the generator terminal voltage.
  - 8) Static Exciter with controlled (thyristor) rectifiers. The regulator power source is bus-fed from a combination of generator terminal voltage and current (compound-source controlled rectifiers system).
- B. Attach a copy of the block diagram of the excitation system from its instruction manual. The diagram should show the input, output, and all feedback loops of the excitation system.
- C. Excitation system response ratio (ASA): \_\_\_\_\_
- D. Full load rated exciter output voltage: \_\_\_\_\_
- E. Maximum exciter output voltage (ceiling voltage): \_\_\_\_\_
- F. Other comments regarding the excitation system?

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**5. Power System Stabilizer Information.**

(Please repeat the following for each generator. All new generators are required to install PSS unless an exemption has been obtained from WECC. Such an exemption can be obtained for units that do not have suitable excitation systems.)

- A. Manufacturer: \_\_\_\_\_
- B. Is the PSS digital or analog? \_\_\_\_\_
- C. Note the input signal source for the PSS?  
 \_\_\_\_\_ Bus frequency \_\_\_\_\_ Shaft speed \_\_\_\_\_ Bus Voltage  
 \_\_\_\_\_ Other (specify source)
- D. Please attach a copy of a block diagram of the PSS from the PSS Instruction Manual and the correspondence between dial settings and the time constants or PSS gain.
- E. Other comments regarding the PSS?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**6. Turbine-Governor Information**

(Please repeat the following for each generator)

Please complete Part A for steam, gas or combined-cycle turbines, Part B for hydro turbines, and Part C for both.

A. Steam, gas or combined-cycle turbines:

- 1.) List type of unit (Steam, Gas, or Combined-cycle): \_\_\_\_\_
- 2.) If steam or combined-cycle, does the turbine system have a reheat process (i.e., both high and low pressure turbines)? \_\_\_\_\_
- 3.) If steam with reheat process, or if combined-cycle, indicate in the space provided, the percent of full load power produced by each turbine:  
 Low pressure turbine or gas turbine: \_\_\_\_\_ %  
 High pressure turbine or steam turbine: \_\_\_\_\_ %

B. Hydro turbines:

- 1.) Turbine efficiency at rated load: \_\_\_\_\_ %
- 2.) Length of penstock: \_\_\_\_\_ ft
- 3.) Average cross-sectional area of the penstock: \_\_\_\_\_ ft<sup>2</sup>
- 4.) Typical maximum head (vertical distance from the bottom of the penstock, at the gate, to the water level): \_\_\_\_\_ ft
- 5.) Is the water supply run-of-the-river or reservoir: \_\_\_\_\_
- 6.) Water flow rate at the typical maximum head: \_\_\_\_\_ ft<sup>3</sup>/sec
- 7.) Average energy rate: \_\_\_\_\_ kW-hrs/acre-ft
- 8.) Estimated yearly energy production: \_\_\_\_\_ kW-hrs

C. Complete this section for each machine, independent of the turbine type.

- 1.) Turbine manufacturer: \_\_\_\_\_
- 2.) Maximum turbine power output: \_\_\_\_\_ MW
- 3.) Minimum turbine power output (while on line): \_\_\_\_\_ MW
- 4.) Governor information:
  - a: Droop setting (speed regulation): \_\_\_\_\_
  - b: Is the governor mechanical-hydraulic or electro-hydraulic (Electro-hydraulic governors have an electronic speed sensor and transducer.)? \_\_\_\_\_
  - c: Other comments regarding the turbine governor system?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**7. Synchronous Generator and Associated Equipment – Dynamic Models:**

For each generator, governor, exciter and power system stabilizer, select the appropriate dynamic model from the General Electric PSLF Program Manual and provide the required input data. The manual is available on the GE website at [www.gepower.com](http://www.gepower.com). Select the following links within the website: 1) Our Businesses, 2) GE Power Systems, 3) Energy Consulting, 4) GE PSLF Software, 5) GE PSLF User’s Manual.

There are links within the GE PSLF User’s Manual to detailed descriptions of specific models, a definition of each parameter, a list of the output channels, explanatory notes, and a control system block diagram. The block diagrams are also available on the CAISO website.

If you require assistance in developing the models, we suggest you contact General Electric. Accurate models are important to obtain accurate study results. Costs associated with any changes in facility requirements that are due to differences between model data provided by the generation developer and the actual generator test data, may be the responsibility of the generation developer.

**8. Induction Generator Data:**

- A. Rated Generator Power Factor at rated load: \_\_\_\_\_
- B. Moment of Inertia (including prime mover): \_\_\_\_\_
- C. Do you wish reclose blocking? Yes \_\_\_\_, No \_\_\_\_  
Note: Sufficient capacitance may be on the line now, or in the future, and the generator may self-excite unexpectedly.

**9. Generator Short Circuit Data**

For each generator, provide the following reactances expressed in p.u. on the generator base:

- $X''1$  – positive sequence subtransient reactance: \_\_\_\_\_
- $X''2$  – negative sequence subtransient reactance: \_\_\_\_\_
- $X''0$  – zero sequence subtransient reactance: \_\_\_\_\_

Generator Grounding:

- A. \_\_\_\_\_ Solidly grounded
- B. \_\_\_\_\_ Grounded through an impedance

Impedance value in p.u on generator base. R: \_\_\_\_\_ p.u.

X: \_\_\_\_\_ p.u.

- C. \_\_\_\_\_ Ungrounded

**10. Step-Up Transformer Data**

For each step-up transformer, fill out the data form provided in Table 1.

**11. Line Data**

There is no need to provide data for new lines that are to be planned by the Participating TO. However, for transmission lines that are to be planned by the generation developer, please provide the following information:

Nominal Voltage: \_\_\_\_\_

Line Length (miles): \_\_\_\_\_

Line termination Points: \_\_\_\_\_

Conductor Type: \_\_\_\_\_ Size: \_\_\_\_\_  
 If bundled. Number per phase: \_\_\_\_\_, Bundle spacing: \_\_\_\_\_ in.  
 Phase Configuration. Vertical: \_\_\_\_\_, Horizontal: \_\_\_\_\_  
 Phase Spacing (ft): A-B: \_\_\_\_\_, B-C: \_\_\_\_\_, C-A: \_\_\_\_\_  
 Distance of lowest conductor to Ground: \_\_\_\_\_ ft  
 Ground Wire Type: \_\_\_\_\_ Size: \_\_\_\_\_ Distance to Ground: \_\_\_\_\_ ft  
 Attach Tower Configuration Diagram  
 Summer line ratings in amperes (normal and emergency) \_\_\_\_\_  
 Resistance ( R ): \_\_\_\_\_ p.u.\*\*  
 Reactance: ( X ): \_\_\_\_\_ p.u.\*\*  
 Line Charging (B/2): \_\_\_\_\_ p.u.\*\*  
 \*\* On 100-MVA and nominal line voltage (kV) Base

**12. Wind Generators**

Number of generators to be interconnected pursuant to this Interconnection Request: \_\_\_\_\_

Elevation: \_\_\_\_\_ \_\_\_\_\_ Single Phase \_\_\_\_\_ Three Phase

Inverter manufacturer, model name, number, and version:

\_\_\_\_\_

List of adjustable setpoints for the protective equipment or software:

\_\_\_\_\_

Field Volts: \_\_\_\_\_  
 Field Amperes: \_\_\_\_\_  
 Motoring Power (kW): \_\_\_\_\_  
 Neutral Grounding Resistor (If Applicable): \_\_\_\_\_  
 $I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_  
 Rotor Resistance: \_\_\_\_\_  
 Stator Resistance: \_\_\_\_\_  
 Stator Reactance: \_\_\_\_\_  
 Rotor Reactance: \_\_\_\_\_  
 Magnetizing Reactance: \_\_\_\_\_  
 Short Circuit Reactance: \_\_\_\_\_  
 Exciting Current: \_\_\_\_\_  
 Temperature Rise: \_\_\_\_\_  
 Frame Size: \_\_\_\_\_  
 Design Letter: \_\_\_\_\_  
 Reactive Power Required In Vars (No Load): \_\_\_\_\_  
 Reactive Power Required In Vars (Full Load): \_\_\_\_\_  
 Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on KVA Base

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device then they shall be provided and discussed at Scoping Meeting.

TABLE 1  
TRANSFORMER DATA

UNIT \_\_\_\_\_

NUMBER OF TRANSFORMERS \_\_\_\_\_ PHASE \_\_\_\_\_

RATED KVA	H Winding	X Winding	Y Winding	
Connection (Delta, Wye, Gnd.)	_____	_____	_____	
55 C Rise	_____	_____	_____	
65 C Rise	_____	_____	_____	
RATED VOLTAGE	_____	_____	_____	
BIL	_____	_____	_____	
AVAILABLE TAPS (planned or existing)	_____	_____	_____	
LOAD TAP CHANGER?	_____	_____	_____	
TAP SETTINGS	_____	_____	_____	
COOLING TYPE :	OA _____	OA/FA _____	OA/FA/FA _____	OA/FOA _____
IMPEDANCE	H-X	H-Y	X-Y	
Percent	_____	_____	_____	
MVA Base	_____	_____	_____	
Tested Taps	_____	_____	_____	
WINDING RESISTANCE	H	X	Y	
Ohms	_____	_____	_____	
CURRENT TRANSFORMER RATIOS				
H _____	X _____	Y _____	N _____	
PERCENT EXCITING CURRENT 100 % Voltage; _____ 110% Voltage _____				

Supply copy of nameplate and manufacture's test report when available

## **Appendix 2 to LGIP**

### **LGIP APPENDIX 2 INTERCONNECTION PROCEDURES FOR A WIND GENERATING PLANT**

#### **APPENDIX 2 to LGIP INTERCONNECTION PROCEDURES FOR A WIND GENERATING PLANT**

**LGIP Appendix 2** sets forth procedures specific to a wind generating plant. All other requirements of this LGIP continue to apply to wind generating plant interconnections.

##### **A. Special Procedures Applicable to Wind Generators**

The wind plant Interconnection Customer, in completing the Interconnection Request required by **Section 3.1** of this LGIP, may provide to the **CAISO** a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind plant may enter the queue and receive the Base Case data as provided for in this LGIP.

No later than six **(6)** months after submitting an Interconnection Request completed in this manner, the wind plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow the **CAISO** to complete the Interconnection Study.

## INTERCONNECTION FEASIBILITY STUDY AGREEMENT

**THIS AGREEMENT** is made and entered into this \_\_\_ day of \_\_\_\_\_, 20\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer") and [~~insert name of the Participating TO or "the California Independent System Operator Corporation"~~], a California nonprofit public benefit corporation existing under the laws of the State of California, ("~~Participating TO~~" or "CAISO"). The Interconnection Customer and the \_\_\_\_\_ [~~"Participating TO" or "CAISO"~~] each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, the Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Large Generating Facility with the CAISO Controlled Grid; and

**WHEREAS**, the Interconnection Customer has requested the \_\_\_\_\_ [~~"Participating TO" or "CAISO"~~] to ~~perform conduct or cause to be performed~~ an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Large Generating Facility.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the CAISO's FERC-approved Standard Large Generation Interconnection Procedures ("LGIP") or the Master Definitions Supplement, Appendix A to the CAISO Tariff, as applicable.
- 2.0 The Interconnection Customer elects and the \_\_\_\_\_ [~~"Participating TO" or "CAISO"~~] shall ~~conduct or cause to be performed~~ an Interconnection Feasibility Study consistent with ~~Section 6.0 of the~~ LGIP in accordance with the CAISO Tariff.
- 3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Feasibility Study shall be based on the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting. The \_\_\_\_\_ [~~"Participating TO" or "CAISO"~~] reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with Section 3.5.4 of the LGIP. If, after the designation of the Point of Interconnection pursuant to Section 3.5.4 of the LGIP, the Interconnection Customer modifies its Interconnection Request pursuant to Section 4.4 **of the LGIP**, the time to complete the Interconnection Feasibility Study may be extended.
- 5.0 The Interconnection Feasibility Study report shall provide the following information:

- preliminary identification of any circuit breaker short circuit capability limits exceeded on the Participating TO's electric system or the CAISO Controlled Grid as a result of the interconnection;
- preliminary identification of any thermal overload or voltage limit violations on the Participating TO's electric system or the CAISO Controlled Grid resulting from the interconnection;
- preliminary description and non-binding ~~estimated cost~~ good faith estimate of cost and cost responsibility for and time for construction of the Participating TO's facilities required to interconnect the Large Generating Facility to the Participating TO's electric system or the CAISO Controlled Grid and to address the identified short circuit and power flow issues;
- preliminary identification of financial impacts, if any, on Local Furnishing Bonds;  
and
- expected results in the Interconnection System Impact Study.

6.0 In addition to the deposit(s) paid by the Interconnection Customer pursuant to Section 3.5.1 of the LGIP, the Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Interconnection Feasibility Study.

Following the issuance of the Interconnection Feasibility Study to the Interconnection Customer the \_\_\_\_\_ ~~["Participating TO" or "CAISO"]~~ shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection Feasibility Study, inclusive of any re-studies and amendments to the Interconnection Feasibility Study, pursuant to Section 9 of this Agreement.

Any difference between the deposits made toward the Interconnection Feasibility Study, amendments and re-studies to the Interconnection Feasibility Study, and the actual cost of the study shall be paid by or refunded to the Interconnection Customer, as appropriate in accordance with Section 13.3 of the LGIP.

7.0 Pursuant to Section 3.7 of the LGIP, the CAISO will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems. The \_\_\_\_\_ ~~["Participating TO" or "CAISO"]~~ may provide a copy of the Interconnection Feasibility Study results to an Affected System Operator and the Western Electricity Coordinating Council. Requests for review and input from Affected System Operators or the Western Electricity Coordinating Council may arrive at any time prior to interconnection, and a revision of the Interconnection Feasibility Study or re-study may be required in such event.

8.0 Substantial portions of technical data and assumptions used to perform the Interconnection Feasibility Study, such as system conditions, existing and planned generation, and unit modeling, may change after the \_\_\_\_\_ ~~["Participating TO" or "CAISO"]~~ provides the Interconnection Feasibility Study results to the Interconnection Customer.

Study results will reflect available data at the time the \_\_\_\_\_ ~~["Participating TO" or "CAISO"]~~ provides the Interconnection Feasibility Study to the Interconnection Customer. The \_\_\_\_\_ ~~["Participating TO" or "CAISO"]~~ shall not be responsible for any additional costs, including, without limitation, costs of new or additional facilities, system upgrades, or schedule changes, that may be incurred by the Interconnection Customer as a result of changes in such data and assumptions.

- 9.0 In the event that a re-study or amendment of the Interconnection Feasibility Study is required, the \_\_\_\_\_ [~~Interconnecting Participating TO~~ or "~~CAISO~~"] shall provide notification of the need for such re-study or amendment, and the Interconnection Customer shall provide direction as to whether to proceed with the re-study or amendment and any associated deposit payment pursuant to Section 6.4 or Section 12.2.4 of the LGIP, as applicable.
- 10.0 The ~~Participating TO~~ **CAISO** shall maintain records and accounts of all costs incurred in performing the Interconnection Feasibility Study, inclusive of any re-studies or amendments thereto, in sufficient detail to allow verification of all costs incurred, including associated overheads. The Interconnection Customer shall have the right, upon reasonable notice, within a reasonable time following receipt of the final cost report associated with this Interconnection Feasibility Study at the ~~Participating TO~~ **CAISO**'s offices and at its own expense, to audit the ~~Participating TO~~ **CAISO**'s records as necessary and as appropriate in order to verify costs incurred by the ~~Participating TO~~ **CAISO**. Any audit requested by the Interconnection Customer shall be completed, and written notice of any audit dispute provided to the ~~Participating TO~~ **CAISO**, within one hundred eighty (180) ~~C~~alendar ~~D~~days following receipt by the Interconnection Customer of the ~~Participating TO~~ **CAISO**'s notification of the final costs of the Interconnection Feasibility Study, inclusive of any re-study or amendment thereto.
- 11.0 In accordance with Section 3.8 of the LGIP, the Interconnection Customer may withdraw its Interconnection Request at any time by written notice to the CAISO. Upon receipt of such notice, this Agreement shall terminate.
- 12.0 Pursuant to Section 6.1 of the LGIP, this Agreement shall become effective upon the date the fully executed Agreement and deposit specified in Section 6 of this Agreement are received by the \_\_\_\_\_ [~~Participating TO~~ or "~~CAISO~~"]. If the \_\_\_\_\_ [~~Participating TO~~ or "~~CAISO~~"] does not receive the fully executed Agreement and payment pursuant to Section 6.1 of the LGIP, then the Interconnection Request will be deemed withdrawn upon the Interconnection Customer's receipt of written notice by the CAISO pursuant to Section 3.8 of the LGIP.
- 13.0 Miscellaneous.
- 13.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Interconnection Feasibility Study Agreement, shall be resolved in accordance with Section 13.5 of the LGIP
- 13.2 Confidentiality. Confidential Information shall be treated in accordance with Section 13.1 of the LGIP.
- 13.3 Binding Effect. This Interconnection Feasibility Study Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 13.4 Conflicts. In the event of a conflict between the body of this Interconnection Feasibility Study Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Interconnection Feasibility Study Agreement shall prevail and be deemed the final intent of the Parties.
- 13.5 Rules of Interpretation. This Interconnection Feasibility Study Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Interconnection Feasibility Study Agreement, and

reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this **Interconnection Feasibility Study Agreement**~~Section, or other provision hereof or thereof~~), **document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof**; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Interconnection Feasibility Study Agreement or such Appendix to this Interconnection Feasibility Study Agreement, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Interconnection Feasibility Study Agreement as a whole and not to any particular Article; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

- 13.6 Entire Agreement. This Interconnection Feasibility Study Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Interconnection Feasibility Study Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Interconnection Feasibility Study Agreement.
- 13.7 No Third Party Beneficiaries. This Interconnection Feasibility Study Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 13.8 Waiver. The failure of a Party to this Interconnection Feasibility Study Agreement to insist, on any occasion, upon strict performance of any provision of this Interconnection Feasibility Study Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Interconnection Feasibility Study Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Interconnection Feasibility Study Agreement. Termination or default of this Interconnection Feasibility Study Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or CAISO. Any waiver of this Interconnection Feasibility Study Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Interconnection Feasibility Study Agreement, or with respect to any other matter arising in connection with this Interconnection Feasibility Study Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Interconnection Feasibility Study Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this



Interconnection Feasibility Study Agreement shall not constitute or be deemed a waiver of such right.

- 13.9 Headings. The descriptive headings of the various Articles and Sections of this Interconnection Feasibility Study Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Interconnection Feasibility Study Agreement.
- 13.10 Multiple Counterparts. This Interconnection Feasibility Study Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 13.11 Amendment. The Parties may by mutual agreement amend this Interconnection Feasibility Study Agreement by a written instrument duly executed by both of the Parties.
- 13.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Interconnection Feasibility Study Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Interconnection Feasibility Study Agreement upon satisfaction of all applicable laws and regulations.
- 13.13 Reservation of Rights. The \_\_\_\_\_ [~~Participating TO~~ or "CAISO"] shall have the right to make a unilateral filing with FERC to modify this Interconnection Feasibility Study Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Interconnection Feasibility Study Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Interconnection Feasibility Study Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 13.14 No Partnership. This Interconnection Feasibility Study Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 13.15 Assignment. This Interconnection Feasibility Study Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Interconnection Feasibility Study Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Interconnection Feasibility Study Agreement; and provided further that the Interconnection Customer shall have the right to assign this Interconnection Feasibility Study Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Large Generating Unit, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to

said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Interconnection Feasibility Study Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**California Independent System Operator Corporation**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**[Insert name of the Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to  
Interconnection Feasibility  
Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE  
INTERCONNECTION FEASIBILITY STUDY**

The Interconnection Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on \_\_\_\_\_:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by the Interconnection Customer and other assumptions to be provided by the Interconnection Customer and the ~~["Participating TO" or "CAISO"]~~]

## INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT

**THIS AGREEMENT** is made and entered into this \_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ [~~insert name of the Participating TO or "the California Independent System Operator Corporation";~~ a \_\_\_\_\_ California nonprofit public benefit corporation existing under the laws of the State of California, ("~~Participating TO~~" or "CAISO"). The Interconnection Customer and the \_\_\_\_\_ [~~Participating TO~~" or "CAISO"] each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, the Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Large Generating Facility with the CAISO Controlled Grid; and

**WHEREAS**, the \_\_\_\_\_ [~~Participating TO~~" or "CAISO"] has completed an Interconnection Feasibility Study (the "Feasibility Study") and provided the results of said study to the Interconnection Customer<sup>1</sup>; and

**WHEREAS**, the Interconnection Customer has requested the \_\_\_\_\_ [~~Participating TO~~" or "CAISO"] to ~~perform~~ conduct or cause to be performed an Interconnection System Impact Study to assess the impact of interconnecting the Large Generating Facility;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the CAISO's FERC-approved Standard Large Generation Interconnection Procedures ("LGIP") or the Master Definitions Supplement, Appendix A to the CAISO Tariff, as applicable.
- 2.0 The Interconnection Customer elects and the \_\_\_\_\_ [~~Participating TO~~" or "CAISO"] shall conduct or cause to be performed an Interconnection System Impact Study consistent with ~~Section 7 of the~~ LGIP in accordance with the CAISO Tariff.
- 3.0 The scope of the Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study and the technical information provided by the Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the LGIP. The \_\_\_\_\_ [~~Participating TO~~" or "CAISO"] reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study. If the Interconnection Customer modifies its designated Point of Interconnection,

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<sup>1</sup> This recital to be omitted if the Interconnection Customer has elected to forego the Interconnection Feasibility Study.

Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.

5.0 The Interconnection System Impact Study report shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded on the Participating TO's electric system or the CAISO Controlled Grid as a result of the interconnection;
- identification of any thermal overload or voltage limit violations on the Participating TO's electric system or the CAISO Controlled Grid resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances on the Participating TO's electric system or the CAISO Controlled Grid resulting from the interconnection;
- a description and non-binding, good faith estimated of cost and cost responsibility for and time for construction of facilities on the Participating TO's electric system required to interconnect the Large Generating Facility to the Participating TO's portion of the CAISO Controlled Grid and to address the identified short circuit, instability, and power flow issues on the Participating TO's portion of the CAISO Controlled Grid; and
- ~~if the Participating TO is an interconnecting Participating TO for the Large Generating Facility,~~ a Deliverability Assessment on the CAISO Controlled Grid pursuant to Section 3.3 of the LGIP; and
- assessment of the potential magnitude of financial impacts, if any, on Local Furnishing Bonds and a proposed resolution.

6.0 The Interconnection Customer shall provide a deposit of \$50,000 for the performance of the Interconnection System Impact Study. The \_\_\_\_\_ ["Participating TO" or "CAISO"]'s good faith estimate for the time of completion of the Interconnection System Impact Study is \_\_\_\_\_ [insert date].

Following the issuance of the Interconnection System Impact Study, the \_\_\_\_\_ ["Participating TO" or "CAISO"] shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection System Impact Study, inclusive of any re-studies and amendments to the Interconnection System Impact Study, pursuant to Section 9 of this Agreement.

Any difference between the deposit made toward the Interconnection System Impact Study, amendments and re-studies to the Interconnection System Impact Study, and the actual cost of the study shall be paid by or refunded to the Interconnection Customer, as appropriate in accordance with Section 13.3 of the LGIP.

7.0 Pursuant to Section 3.7 of the LGIP, the CAISO will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems. The \_\_\_\_\_ ["Participating TO" or "CAISO"] may provide a copy of the Interconnection System Impact Study results to an Affected System Operator and the Western Electricity Coordinating Council. Requests for review and input from Affected System Operators or the Western Electricity Coordinating Council may arrive at any time prior to interconnection, and a revision of the Interconnection System Impact Study or re-study may be required in such event.

- 8.0 Substantial portions of technical data and assumptions used to perform the Interconnection System Impact Study, such as system conditions, existing and planned generation, and unit modeling, may change after the \_\_\_\_\_ [~~“Participating TO” or “CAISO”~~] provides the Interconnection System Impact Study results to the Interconnection Customer. Study results will reflect available data at the time the \_\_\_\_\_ [~~“Participating TO” or “CAISO”~~] provides the Interconnection System Impact Study to the Interconnection Customer. The \_\_\_\_\_ [~~“Participating TO” or “CAISO”~~] shall not be responsible for any additional costs, including, without limitation, costs of new or additional facilities, system upgrades, or schedule changes, that may be incurred by the Interconnection Customer as a result of changes in such data and assumptions.
- 9.0 In the event that a re-study or amendment of the Interconnection System Impact Study is required, the \_\_\_\_\_ [~~“Participating TO” or “CAISO”~~] shall provide notification of the need for such re-study or amendment, and the Interconnection Customer shall provide direction as to whether to proceed with the re-study or amendment and any associated deposit payment pursuant to Section 7.6 or Section 12.2.4 of the LGIP, as applicable.
- 10.0 The ~~Participating TO~~ **CAISO** shall maintain records and accounts of all costs incurred in performing the Interconnection System Impact Study, inclusive of any re-studies or amendments thereto, in sufficient detail to allow verification of all costs incurred, including associated overheads. The Interconnection Customer shall have the right, upon reasonable notice, within a reasonable time at the **Participating TOCAISO**'s offices and at its own expense, to audit the ~~Participating TO~~ **CAISO**'s records as necessary and as appropriate in order to verify costs incurred by the ~~Participating TO~~ **CAISO**. Any audit requested by the Interconnection Customer shall be completed, and written notice of any audit dispute provided to the ~~Participating TO~~ **CAISO** representative, within one hundred eighty (180) ~~C~~calendar ~~Dd~~days following receipt by the Interconnection Customer of the ~~Participating TO~~ **CAISO**'s notification of the final costs of the Interconnection System Impact Study, inclusive of any re-study or amendment thereto.
- 11.0 In accordance with Section 3.8 of the LGIP, the Interconnection Customer may withdraw its Interconnection Request at any time by written notice to the CAISO. Upon receipt of such notice, this Agreement shall terminate.
- 12.0 Pursuant to Section 7.2 of the LGIP, this Agreement shall become effective upon the date the fully executed Agreement and deposit specified in Section 6 of this Agreement are received by the \_\_\_\_\_ [~~“Participating TO” or “CAISO”~~]. ~~If the \_\_\_\_\_ [~~“Participating TO” or “CAISO”~~],~~ If the **CAISO** does not receive the fully executed Agreement and payment pursuant to Section 7.2 of the LGIP, then the Interconnection Request will be deemed withdrawn upon the Interconnection Customer's receipt of written notice by the CAISO pursuant to Section 3.8 of the LGIP.
- 13.0 Miscellaneous.
- 13.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Interconnection System Impact Study Agreement, shall be resolved in accordance with Section 13.5 of the LGIP.
- 13.2 Confidentiality. Confidential Information shall be treated in accordance with Section 13.1 of the LGIP.

- 13.3 Binding Effect. This Interconnection System Impact Study Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 13.4 Conflicts. In the event of a conflict between the body of this Interconnection System Impact Study Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Interconnection System Impact Study Agreement shall prevail and be deemed the final intent of the Parties.
- 13.5 Rules of Interpretation. This Interconnection System Impact Study Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Interconnection System Impact Study Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Interconnection System Impact Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Interconnection System Impact Study Agreement or such Appendix to this Interconnection System Impact Study Agreement, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Interconnection System Impact Study Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 13.6 Entire Agreement. This Interconnection System Impact Study Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Interconnection System Impact Study Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Interconnection System Impact Study Agreement.
- 13.7 No Third Party Beneficiaries. This Interconnection System Impact Study Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 13.8 Waiver. The failure of a Party to this Interconnection System Impact Study Agreement to insist, on any occasion, upon strict performance of any provision of this Interconnection System Impact Study Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Interconnection System Impact Study Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Interconnection System Impact Study Agreement. Termination or default of this Interconnection System Impact Study Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or CAISO. Any waiver of this Interconnection System Impact Study Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Interconnection System Impact Study Agreement, or with respect to any other matter arising in connection with this Interconnection System Impact Study Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Interconnection System Impact Study Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Interconnection System Impact Study Agreement shall not constitute or be deemed a waiver of such right.

- 13.9 Headings. The descriptive headings of the various Articles and Sections of this Interconnection System Impact Study Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Interconnection System Impact Study Agreement.
- 13.10 Multiple Counterparts. This Interconnection System Impact Study Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 13.11 Amendment. The Parties may by mutual agreement amend this Interconnection System Impact Study Agreement by a written instrument duly executed by both of the Parties.
- 13.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Interconnection System Impact Study Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Interconnection System Impact Study Agreement upon satisfaction of all applicable laws and regulations.
- 13.13 Reservation of Rights. The \_\_\_\_\_ [~~Participating TO~~ or ~~CAISO~~] shall have the right to make a unilateral filing with FERC to modify this Interconnection System Impact Study Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Interconnection System Impact Study Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Interconnection System Impact Study Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 13.14 No Partnership. This Interconnection System Impact Study Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into



any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.

13.15 Assignment. This Interconnection System Impact Study Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Interconnection System Impact Study Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Interconnection System Impact Study Agreement; and provided further that the Interconnection Customer shall have the right to assign this Interconnection System Impact Study Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Large Generating Unit, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Interconnection System Impact Study Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

**IN WITNESS THEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**California Independent System Operator Corporation**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**[Insert name of the Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A**

**Interconnection System Impact  
Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE  
INTERCONNECTION SYSTEM IMPACT STUDY**

The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study, subject to any modifications in accordance with Section 4.4 of the LGIP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by the Interconnection Customer and other assumptions to be provided by the Interconnection Customer and the ~~["Participating TO" or "CAISO"]~~

## INTERCONNECTION FACILITIES STUDY AGREEMENT

**THIS AGREEMENT** is made and entered into this \_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_, a \_\_\_\_\_ the California Independent System Operator Corporation, a California nonprofit public benefit corporation existing under the laws of the State of California, ("**Participating TO**" or "**CAISO**"). The Interconnection Customer and the \_\_\_\_\_ [**Participating TO**" or "**CAISO**"] each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, the Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Large Generating Facility with the CAISO Controlled Grid;

**WHEREAS**, the \_\_\_\_\_ [**Participating TO**" or "**CAISO**"] has completed an Interconnection System Impact Study (the "System Impact Study") and provided the results of said study to the Interconnection Customer; and

**WHEREAS**, the Interconnection Customer has requested the \_\_\_\_\_ [**Participating TO**" or "**CAISO**"] to perform CAISO to conduct or cause to be performed an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed on the Participating TO's electric system to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the CAISO Controlled Grid.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the CAISO's FERC-approved Standard Large Generation Interconnection Procedures ("LGIP") or the Master Definitions Supplement, Appendix A to the CAISO Tariff, as applicable.
- 2.0 The Interconnection Customer elects and the \_\_\_\_\_ [**Participating TO**" or "**CAISO**"] shall conduct or cause to be performed an Interconnection Facilities Study consistent with Section 8 of the LGIP to be performed in accordance with the CAISO Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B to this Agreement.
- 4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost, including, if applicable, the cost of remedial measures that address the financial impacts, if any, on Local Furnishing Bonds, of (consistent with Attachment A), and schedule for required facilities within the or for effecting remedial measures that address the financial impacts, if any, on Local Furnishing Bonds within each Participating TO's electric system to interconnect the Large Generating Facility to the CAISO Controlled Grid and (ii) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.

- 5.0 The Interconnection Customer shall provide a deposit of the greater of \$100,000 or the Interconnection Customer's portion of the estimated monthly cost for the performance of the Interconnection Facilities Study. The time for completion of the Interconnection Facilities Study is specified in Attachment A.

For studies where the estimated cost exceed \$100,000, the \_\_\_\_\_ **["Participating TO" or "CAISO"]** may invoice Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study for the remaining balance of the estimated Interconnection Facilities Study cost. The Interconnection Customer shall pay invoiced amounts within thirty (30) ~~C~~<sup>D</sup>calendar ~~D~~<sup>D</sup>days of receipt of invoice. The \_\_\_\_\_ **["Participating TO" or "CAISO"]** shall continue to hold the amounts on deposit until settlement of the final invoice.

Following the issuance of the Interconnection Facilities Study, the \_\_\_\_\_ **["Participating TO" or "CAISO"]** shall charge and the Interconnection Customer shall pay the actual costs of the Interconnection Facilities Study, inclusive of any re-studies and amendments to the Interconnection Facilities Study, pursuant to Section 9 of this Agreement.

Any difference between the deposit made toward the Interconnection Facilities Study and the actual cost of the study, inclusive of any re-studies and amendments thereto, shall be paid by or refunded to the Interconnection Customer, as appropriate in accordance with Section 13.3 of the LGIP.

- 6.0 The Interconnection Facilities Study will be based upon the results of the Interconnection System Impact Study and the technical information provided by the Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the LGIP. The \_\_\_\_\_ **["Participating TO" or "CAISO"]** reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Facilities Study.

If the Interconnection Customer modifies its Interconnection Request or the technical information provided therein is modified, the time to complete the Interconnection Facilities Study may be extended.

- 7.0 Pursuant to Section 3.7 of the LGIP, the CAISO will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems. The \_\_\_\_\_ **["Participating TO" or "CAISO"]** may provide a copy of the Interconnection Facilities Study results to an Affected System Operator and the Western Electricity Coordinating Council. Requests for review and input from Affected System Operators or the Western Electricity Coordinating Council may arrive at any time prior to interconnection, and a revision of the Interconnection Facilities Study or re-study may be required in such event.

- 8.0 Substantial portions of technical data and assumptions used to perform the Interconnection Facilities Study, such as system conditions, existing and planned generation, and unit modeling, may change after the \_\_\_\_\_ **["Participating TO" or "CAISO"]** provides the Interconnection Facilities Study results to the Interconnection Customer. Study results will reflect available data at the time the \_\_\_\_\_ **["Participating TO" or "CAISO"]** provides the Interconnection Facilities Study to the Interconnection Customer. The \_\_\_\_\_ **["Participating TO" or "CAISO"]** shall not be responsible for any additional costs, including, without limitation, costs of new or additional facilities, system upgrades, or

schedule changes, that may be incurred by the Interconnection Customer as a result of changes in such data and assumptions.

- 9.0 In the event that a re-study or amendment of the Interconnection Facilities Study is required, the \_\_\_\_\_ **["Participating TO" or "CAISO"]** shall provide notification of the need for such re-study or amendment, and the Interconnection Customer shall provide direction as to whether to proceed with the re-study or amendment and any associated deposit payment pursuant to Section 8.5 or Section 12.2.4 of the LGIP, as applicable.
- 10.0 The ~~Participating TO~~ **CAISO** shall maintain records and accounts of all costs incurred in performing the Interconnection Facilities Study, inclusive of any re-studies or amendments thereto, in sufficient detail to allow verification of all costs incurred, including associated overhead. The Interconnection Customer shall have the right, upon reasonable notice, within a reasonable time at the ~~Participating TO~~ **CAISO's** offices and at its own expense, to audit the ~~Participating TO~~ **CAISO's** records as necessary and as appropriate in order to verify costs incurred by the ~~Participating TO~~ **CAISO**. Any audit requested by the Interconnection Customer shall be completed, and written notice of any audit dispute provided to the ~~Participating TO~~ **CAISO** within one hundred eighty (180) ~~Cc~~**calendar Dd** days following receipt by the Interconnection Customer of the ~~Participating TO~~ **CAISO's** notification of the final costs of the Interconnection Facilities Study, inclusive of any re-study or amendment thereto.
- 11.0 In accordance with Section 3.8 of the LGIP, the Interconnection Customer may withdraw its Interconnection Request at any time by written notice to the CAISO. Upon receipt of such notice, this Agreement shall terminate.
- 12.0 Pursuant to Section 8.1 of the LGIP, this Agreement shall become effective upon the date the fully executed Agreement and deposit specified in Section 6 of this Agreement are received by the \_\_\_\_\_ **["Participating TO" or "CAISO"]**. If the \_\_\_\_\_ **["Participating TO" or "CAISO"]** does not receive the fully executed Agreement and payment pursuant to Section 8.1 of the LGIP, then the Interconnection Request will be deemed withdrawn upon the Interconnection Customer's receipt of written notice by the CAISO pursuant to Section 3.8 of the LGIP.
- 13.0 Miscellaneous.
- 13.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Interconnection Facilities Study Agreement, shall be resolved in accordance with Section 13.5 of the LGIP.
- 13.2 Confidentiality. Confidential Information shall be treated in accordance with Section 13.1 of the LGIP.
- 13.3 Binding Effect. This Interconnection Facilities Study Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 13.4 Conflicts. In the event of a conflict between the body of this Interconnection Facilities Study Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Interconnection Facilities Study Agreement shall prevail and be deemed the final intent of the Parties.
- 13.5 Rules of Interpretation. This Interconnection Facilities Study Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes

such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Interconnection Facilities Study Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Interconnection Facilities Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Interconnection Facilities Study Agreement or such Appendix to this Interconnection Facilities Study Agreement, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Interconnection Facilities Study Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

- 13.6 Entire Agreement. This Interconnection Facilities Study Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Interconnection Facilities Study Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Interconnection Facilities Study Agreement.
- 13.7 No Third Party Beneficiaries. This Interconnection Facilities Study Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 13.8 Waiver. The failure of a Party to this Interconnection Facilities Study Agreement to insist, on any occasion, upon strict performance of any provision of this Interconnection Facilities Study Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Interconnection Facilities Study Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Interconnection Facilities Study Agreement. Termination or default of this Interconnection Facilities Study Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or CAISO. Any waiver of this Interconnection Facilities Study Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Interconnection Facilities Study Agreement, or with respect to any other matter arising in connection with this Interconnection Facilities Study Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Interconnection Facilities Study Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this

Interconnection Facilities Study Agreement shall not constitute or be deemed a waiver of such right.

- 13.9 Headings. The descriptive headings of the various Articles and Sections of this Interconnection Facilities Study Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Interconnection Facilities Study Agreement.
- 13.10 Multiple Counterparts. This Interconnection Facilities Study Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 13.11 Amendment. The Parties may by mutual agreement amend this Interconnection Facilities Study Agreement by a written instrument duly executed by both of the Parties.
- 13.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Interconnection Facilities Study Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Interconnection Facilities Study Agreement upon satisfaction of all applicable laws and regulations.
- 13.13 Reservation of Rights. The \_\_\_\_\_ **["Participating TO" or "CAISO"]** shall have the right to make a unilateral filing with FERC to modify this Interconnection Facilities Study Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Interconnection Facilities Study Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Interconnection Facilities Study Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 13.14 No Partnership. This Interconnection Facilities Study Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 13.15 Assignment. This Interconnection Facilities Study Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Interconnection Facilities Study Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Interconnection Facilities Study Agreement; and provided further that the Interconnection Customer shall have the right to assign this Interconnection Facilities Study Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Large Generating Unit, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the

secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Interconnection Facilities Study Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

| **California Independent System Operator Corporation**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

| **[Insert name of the Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date:



## Attachment A

### Interconnection Facilities Study Agreement

#### INTERCONNECTION CUSTOMER SCHEDULE ELECTION FOR CONDUCTING THE INTERCONNECTION FACILITIES STUDY

The \_\_\_\_\_ [~~“Participating TO” or “CAISO”~~] shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to the Interconnection Customer. Prior to issuing draft study results to the Interconnection Customer, the Participating TO and CAISO shall share results for review and incorporate comments within the following number of days after of receipt of an executed copy of this Interconnection Facilities Study Agreement:

- one hundred twenty (120) ~~Cc~~alendar ~~Dd~~ays with no more than a +/- 20 percent cost estimate contained in the report, or
- two hundred ten (210) ~~Cc~~alendar ~~Dd~~ays with no more than a +/- 10 percent cost estimate contained in the report.

**Attachment B**

**Interconnection Facilities  
Study Agreement**

**DATA FORM TO BE PROVIDED BY THE INTERCONNECTION CUSTOMER  
WITH THE INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide two copies of this completed form and other required plans and diagrams in accordance with Section 8.1 of the LGIP.

Provide location plan and one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new bus or existing ~~Transmission Provider~~ **CAISO Controlled Grid** station. Number of generation connections: \_\_\_\_\_

On the one line indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one line indicate the location of auxiliary power. (Minimum load on CT/PT)

Will an alternate source of auxiliary power be available during CT/PT maintenance?     \_\_\_\_\_Yes  
| \_\_\_\_\_No=

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation?     \_\_\_\_\_Yes                     \_\_\_\_\_No  
(Please indicate on one line).

What type of control system or PLC will be located at the Interconnection Customer's Large Generating Facility?

\_\_\_\_\_

What protocol does the control system or PLC use?

\_\_\_\_\_

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

Bus length from generation to interconnection station:

Line length from interconnection station to the Participating TO's transmission line.

Tower number observed in the field. (Painted on tower leg)\*



## OPTIONAL INTERCONNECTION STUDY AGREEMENT

**THIS AGREEMENT** is made and entered into this \_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer," ) and \_\_\_\_\_ **[insert name of the Participating TO or "the California Independent System Operator Corporation"]**, a \_\_\_\_\_ California nonprofit public benefit corporation existing under the laws of the State of California, ("**Participating TO**" or "CAISO"). The Interconnection Customer and the \_\_\_\_\_ **[“Participating TO” or “CAISO”]** each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, the Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated \_\_\_\_\_;

**WHEREAS**, the Interconnection Customer is proposing to establish an interconnection with the CAISO Controlled Grid; and

**WHEREAS**, the Interconnection Customer has submitted to the CAISO an Interconnection Request; and

**WHEREAS**, on or after the date when the Interconnection Customer receives the Interconnection System Impact Study results, the Interconnection Customer has further requested that \_\_\_\_\_ **[“Participating TO” or “CAISO”]** ~~prepare the CAISO~~ conduct or cause to be performed an Optional Interconnection Study;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the CAISO's FERC-approved Standard Large Generation Interconnection Procedures ("LGIP") or the Master Definitions Supplement, Appendix A to the CAISO Tariff, as applicable.
- 2.0 The Interconnection Customer elects and the \_\_\_\_\_ **[“Participating TO” or “CAISO”]** shall conduct or cause to be performed an Optional Interconnection Study consistent with Section 10 of the LGIP to be performed in accordance with the CAISO Tariff.
- 3.0 The scope of the Optional Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Optional Interconnection Study shall be performed solely for informational purposes.
- 5.0 The Optional Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by the Interconnection Customer in Attachment A to this Agreement. The Optional Interconnection Study will identify the Participating TO's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, including, if applicable, the cost of remedial measures that address the financial impacts, if any, on Local Furnishing Bonds, that may be required to provide transmission service or interconnection service based upon the assumptions specified by the Interconnection Customer in Attachment A.

6.0 The Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Optional Interconnection Study. The \_\_\_\_\_ **["Participating TO" or "CAISO"]**'s good faith estimate for the time of completion of the Optional Interconnection Study is \_\_\_\_\_ [insert date]. Following the issuance of the Optional Interconnection Study, the \_\_\_\_\_ **["Participating TO" or "CAISO"]** shall charge and the Interconnection Customer shall pay the actual costs of the Optional Interconnection Study.

Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to the Interconnection Customer, as appropriate.

7.0 Substantial portions of technical data and assumptions used to perform the Optional Interconnection Study, such as system conditions, existing and planned generation, and unit modeling, may change after the \_\_\_\_\_ **["Participating TO" or "CAISO"]** provides the Optional Interconnection Study results to the Interconnection Customer. Study results will reflect available data at the time the \_\_\_\_\_ **["Participating TO" or "CAISO"]** provides the Optional Interconnection Study to the Interconnection Customer. The \_\_\_\_\_ **["Participating TO" or "CAISO"]** shall not be responsible for any additional costs, including without limitation, costs of new or additional facilities, system upgrades, or schedule changes, that may be incurred by the Interconnection Customer as a result of changes in such data and assumptions.

8.0 The ~~Participating TO~~ **CAISO** shall maintain records and accounts of all costs incurred in performing the Optional Interconnection Study in sufficient detail to allow verification of all costs incurred, including associated overheads. The Interconnection Customer shall have the right, upon reasonable notice, within a reasonable time at the ~~Participating TO~~ **CAISO's** offices and at its own expense, to audit the ~~Participating TO~~ **CAISO's** records as necessary and as appropriate in order to verify costs incurred by the ~~Participating TO~~ **CAISO**. Any audit requested by the Interconnection Customer shall be completed, and written notice of any audit dispute provided to the ~~Participating TO~~ **CAISO** representative, within one hundred eighty (180) ~~Cc~~calendar ~~Dd~~days following receipt by the Interconnection Customer of the ~~Participating TO~~ **CAISO's** notification of the final costs of the Optional Interconnection Study.

9.0 Pursuant to Section 10.1 of the LGIP, this Agreement shall become effective upon the date the fully executed Agreement and deposit specified in Section 6 of this Agreement are received by the \_\_\_\_\_ **["Participating TO" or "CAISO"]**. If the \_\_\_\_\_ **["Participating TO" or "CAISO"]** does not receive the fully executed Agreement and payment pursuant to Section 10.1 of the LGIP, then the offer reflected in this Agreement will expire and this Agreement will be of no effect.

10.0 Miscellaneous.

10.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Optional Interconnection Study Agreement, shall be resolved in accordance with Section 13.5 of the LGIP.

10.2 Confidentiality. Confidential Information shall be treated in accordance with Section 13.1 of the LGIP.

10.3 Binding Effect. This Optional Interconnection Study Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

- 10.4 Conflicts. In the event of a conflict between the body of this Optional Interconnection Study Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Optional Interconnection Study Agreement shall prevail and be deemed the final intent of the Parties.
- 10.5 Rules of Interpretation. This Optional Interconnection Study Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Optional Interconnection Study Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Optional Interconnection Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Optional Interconnection Study Agreement or such Appendix to this Optional Interconnection Study Agreement, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Optional Interconnection Study Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 10.6 Entire Agreement. This Optional Interconnection Study Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Optional Interconnection Study Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Optional Interconnection Study Agreement.
- 10.7 No Third Party Beneficiaries. This Optional Interconnection Study Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 10.8 Waiver. The failure of a Party to this Optional Interconnection Study Agreement to insist, on any occasion, upon strict performance of any provision of this Optional Interconnection Study Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Optional Interconnection Study Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Optional Interconnection Study Agreement. Termination or default of this Optional Interconnection Study Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an

interconnection from the other Party. Any waiver of this Optional Interconnection Study Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Optional Interconnection Study Agreement, or with respect to any other matter arising in connection with this Optional Interconnection Study Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Optional Interconnection Study Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Optional Interconnection Study Agreement shall not constitute or be deemed a waiver of such right.

- 10.9 Headings. The descriptive headings of the various Articles and Sections of this Optional Interconnection Study Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Optional Interconnection Study Agreement.
- 10.10 Multiple Counterparts. This Optional Interconnection Study Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 10.11 Amendment. The Parties may by mutual agreement amend this Optional Interconnection Study Agreement by a written instrument duly executed by both of the Parties.
- 10.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Optional Interconnection Study Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Optional Interconnection Study Agreement upon satisfaction of all applicable laws and regulations.
- 10.13 Reservation of Rights. The \_\_\_\_\_ **["Participating TO" or "CAISO"]** shall have the right to make a unilateral filing with FERC to modify this Optional Interconnection Study Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Optional Interconnection Study Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Optional Interconnection Study Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 10.14 No Partnership. This Optional Interconnection Study Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 10.15 Assignment. This Optional Interconnection Study Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Optional Interconnection Study Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal

authority and operational ability to satisfy the obligations of the assigning Party under this Optional Interconnection Study Agreement; and provided further that the Interconnection Customer shall have the right to assign this Optional Interconnection Study Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Large Generating Unit, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Optional Interconnection Study Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**California Independent System Operator Corporation**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**[Insert name of the Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



**Attachment A  
Optional Interconnection  
Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING  
THE OPTIONAL INTERCONNECTION STUDY**

[To be completed by the Interconnection Customer consistent with Section 10 of the LGIP.]

**AGREEMENT FOR THE ALLOCATION OF RESPONSIBILITIES WITH REGARD TO  
LARGE GENERATOR INTERCONNECTION PROCEDURES AND INTERCONNECTION STUDY  
AGREEMENTS**

This Agreement for the Allocation of Responsibilities With Regard to Large Generator Interconnection Procedures and Interconnection Study Agreements (“Agreement”), dated November 1, 2005, is entered into between the California Independent System Operator Corporation (“CAISO”) and [NAME OF PTO] (“PTO”). The CAISO and PTO are jointly referred to as the “Parties” and individually, as a “Party.”

WHEREAS, this Agreement will ensure an independent assessment of new Large Generating Facility impacts on the CAISO Controlled Grid and take advantage of the respective expertise of the Parties to facilitate efficient and cost effective Interconnection Study procedures in a manner consistent with the Federal Energy Regulatory Commission’s (“FERC”) July 1, 2005 Order (112 FERC ¶ 61,009), FERC’s August 26, 2005 Order (112 FERC ¶ 61,231), and prior FERC Orders recognizing that Order No. 2003 did not allocate responsibilities between transmission owners and transmission providers for the provision of Interconnection Service and suggesting those parties enter into an agreement to allocate those responsibilities. Southwest Power Pool, Inc., 106 FERC ¶ 61,254 (2004).

NOW THEREFORE, in view of the respective responsibilities assigned to the Parties and the foregoing FERC orders, the CAISO and PTO agree to the following allocation of responsibilities for a centralized Interconnection Study process under the direction and oversight of the CAISO:

**1. DEFINITIONS.**

Unless otherwise defined herein, all capitalized terms shall have the meaning set forth in the CAISO Tariff.

**2. TERM OF AGREEMENT.**

This Agreement shall become effective upon the date the provisions of the CAISO Tariff implementing the centralized Interconnection Study process required by the July 1 Order and the August 26 Order are accepted and made effective by FERC, and shall remain in effect until (1) terminated by all Parties in writing, or (2) with respect to the PTO, upon the termination of that entity’s status as a PTO pursuant to the Transmission Control Agreement, as amended from time to time.

**3. PROVISIONS FOR ALLOCATION OF RESPONSIBILITIES BETWEEN CAISO AND PTO.**

**3.1 Interconnection Service:** The Parties acknowledge that, as the transmission provider, the CAISO is responsible for reliably operating the transmission grid. The Parties also recognize that while the CAISO is a transmission provider under the CAISO Tariff, the CAISO does not own any transmission facilities, and the PTO owns, constructs, and maintains the facilities to which Large Generating Facilities are to be interconnected, and that the PTO may construct or modify facilities to allow the interconnection. While the Parties recognize that the CAISO will be responsible for conducting or causing to be performed Interconnection Studies and similar studies, the PTO will participate in these studies and conduct certain portions of studies, under the direction and oversight of, and approval by, the CAISO, as provided in this Agreement. The CAISO shall not enter into any Interconnection Study agreement with an Interconnection Customer that is contrary to these rights.

**3.2 [INTENTIONALLY LEFT BLANK]**

**3.3 Transmission Owners’ Right to Participation in Studies, Committees and Meetings:**

**3.3.1** In the event that an Interconnection Customer proposes to interconnect a Large Generating Facility with the PTO's facilities, or the PTO is an owner of an affected system, the PTO shall have the right to participate in any Interconnection Feasibility Study, Interconnection System Impact Study, Interconnection Facilities Study, or any other study conducted in connection with such request for Interconnection Service. "Participate" in this Section 3.3.1 means physically perform any study or portion thereof in connection with an Interconnection Request, under the direction and oversight of, and approval by, the CAISO pursuant to Section 3.4 of this Agreement; provide or receive input, data or other information regarding any study or portion thereof consistent with Section 3.4 of this Agreement; and, when any study or portion thereof in connection with an Interconnection Request is physically performed by an entity other than the PTO, perform activities necessary to adequately review or validate, as appropriate, any results of the study or portions thereof and provide recommendations.

**3.3.2** In the event that an Interconnection Customer proposes to interconnect a Large Generating Facility with the PTO's facilities, or the PTO is an owner of an affected system, the PTO shall have the right to participate in all meetings expressly established pursuant to the CAISO LGIP. As appropriate, the PTO may participate in all other material or substantive communications in connection with an Interconnection Request.

**3.4** **Interconnection Study Responsibility Allocation:** In complying with its responsibility for conducting or causing to be performed Interconnection Studies, the CAISO will assign responsibility for performance of portions of the Interconnection Studies to the PTO, under the direction and oversight of, and approval by, the CAISO, as set forth in Attachment A, except as specifically qualified as follows:

**3.4.1** Unless an Interconnection Customer specifically requests that a third party perform an Interconnection Study pursuant to LGIP Section 13.4, for any tasks specifically assigned to the PTO pursuant to Attachment A or otherwise mutually agreed upon by the CAISO and the PTO, the CAISO reserves the right, on a case-by-case basis, to perform or reassign to a mutually agreed upon and pre-qualified contractor such task only where: (a) the quality and accuracy of prior PTO Interconnection Study work product resulting from assigned tasks has been deemed deficient by the CAISO, the CAISO has notified the PTO pursuant to the notice provision of Section 4.16 of this Agreement in writing of the deficiency, and the deficiency has not been cured pursuant to Section 3.4.2 of this Agreement; (b) the timeliness of PTO Interconnection Study work product has been deemed deficient, and either (i) the CAISO has not been notified of the reasons and actions taken to address the timeliness of the work, or (ii) if notified, the stated reasons and actions taken are insufficient or unjustifiable and the PTO has not cured the deficiency pursuant to Section 3.4.2 of this Agreement; (c) the PTO has failed, in a mutually agreed upon timeframe, to provide the CAISO with information or data related to an Interconnection Request despite a written request by the CAISO, pursuant to Section 3.5 hereof, to do so, and such data is the responsibility of the PTO to provide to the CAISO, subject to Section 4.3 of this Agreement; (d) the PTO advises the CAISO in writing that it does not have the resources to adequately or timely perform the task according to the applicable timelines set forth in Attachment A; or (e) the estimated cost of the PTO performing the task has been determined in writing by the CAISO to significantly exceed the cost of the CAISO or mutually agreed upon contractor performing the task, inclusive of the costs that will be incurred by the PTO in exercising its review rights of the results of any such tasks performed by such third party(ies). If the CAISO deviates from the assignments set forth in

Attachment A based on the foregoing factors, the CAISO will provide the PTO with a written explanation for the deviation and any associated reassignments of work. The PTO may contest the deviation pursuant to the Dispute Resolution procedures set forth in Section 4.1 of this Agreement.

Task(s) may only be reassigned in accordance with this Section 3.4.1 where the PTO has been deemed to be deficient in relation to that (those) particular task(s).

**3.4.2 Cure for re-assigned Interconnection Study work**

The CAISO shall not reassign task(s) without the opportunity to cure, as specified in Section 3.4.1 of this Agreement. The following actions will serve to cure the deficiencies and result in restoring the assignment(s) as provided in Attachment A:

- a) The CAISO and PTO shall negotiate in good faith and agree to a corrective action plan proposed by the PTO, including a reasonably adequate cure period, and the corrective action plan is satisfactorily implemented.
- b) The CAISO determines the deficiency is cured without an action plan.

**3.4.3** Assessment of prior PTO Interconnection Study work shall only be based on work conducted under the process that becomes effective concurrent with the effective date of this Agreement. Further, assessment of prior PTO Interconnection Study work shall be based on work conducted no earlier than the eighteen (18) month period prior to the date of the CAISO notice of deviation from assignments set forth in Attachment A to this Agreement.

**3.5 Information Exchange:** The PTO shall provide the CAISO, subject to confidentiality requirements in Section 4.3 of this Agreement, with any documentation or data requested by the CAISO reasonably necessary to permit the CAISO to perform, review, validate and approve any Interconnection Study, or portion thereof, performed by the PTO. The CAISO shall provide the PTO with any documentation or data requested by the PTO, subject to confidentiality requirements in Section 4.3 of this Agreement, reasonably necessary to perform, review, and validate any Interconnection Study, or portion thereof.

**3.6 Consistency with Provisions for Centralized Interconnection Study Process:** The CAISO and PTO have determined that the processes and allocation of responsibilities in Section 3.4 of this Agreement ensure that impacts to the CAISO Controlled Grid are independently assessed and that the assignment of responsibilities minimizes handoffs, takes advantage of non-transferable skills, and promotes the efficiency and cost-effectiveness of the centralized Interconnection Study processes, consistent with LGIP Section 3.2.

**3.7 Re-Studies:** If any re-studies are required, the CAISO will confer with the PTO as to the need for a re-study. The CAISO will make the final determination regarding the need for a re-study, subject to dispute resolution procedures.

**3.8 Use of Contractors:** Nothing in this Agreement shall prevent either the CAISO or the PTO from using qualified, mutually agreed upon third party contractors to meet that Party's rights or obligations under this Agreement or the LGIP. To promote the efficiency of the process, the CAISO and PTO will collaborate to identify a list of the mutually agreed to qualified contractors available to the Parties.

**3.9 Performance Standards:** Each Party shall perform all of its obligations under the LGIP, this Agreement, and any FERC approved Interconnection Study procedures that may be

adopted by the **CAISO** to implement the LGIP or this Agreement in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice.

**3.10 Recovery of Costs:** In accordance with Section 13.3 of the LGIP, the PTOs shall recover all actual costs from the CAISO incurred in performing Interconnection Studies or portions thereof assigned to it by the CAISO, including all costs incurred in exercising its right to review, and make recommendations on, Interconnection Studies or portions thereof performed by the CAISO and/or contractors under Section 3.8 of this Agreement.

#### **4 GENERAL TERMS AND CONDITIONS.**

**4.1 Dispute Resolution:** In the event any dispute regarding the terms, conditions, and performance of this Agreement is not settled informally, the Parties shall follow the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff.

**4.2 Liability:** No Party to this Agreement shall be liable to any other Party for any direct, indirect, special, incidental or consequential losses, damages, claims, liabilities, costs or expenses (including attorneys fees and court costs) arising from the performance or non-performance of its obligations under this Agreement regardless of the cause (including intentional action, willful action, gross or ordinary negligence, or force majeure); provided, however, that a Party may seek equitable or other non-monetary relief as may be necessary to enforce this Agreement and that damages for which a Party may be liable to another Party under another agreement will not be considered damages under this Agreement.

**4.3 Confidentiality:** Confidential Information shall be treated in accordance with Section 13.1 of the LGIP.

**4.4 Binding Effect:** This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

**4.5 Conflicts:** In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.

**4.6 Rules of Interpretation:** This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Agreement or such Appendix to this Agreement, or such Section of the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

- 4.7 Entire Agreement:** This Agreement, including all Attachments hereto, constitutes the entire agreement among the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, among the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants, which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.
- 4.8 No Third Party Beneficiaries:** This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 4.9 Waiver:** The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by a Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Any waiver of this Agreement shall, if requested, be provided in writing. Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 4.10 Headings:** The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 4.11 Multiple Counterparts:** This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 4.12 Modification by the Parties:** The Parties may amend this Agreement and any Appendices to this Agreement only (1) by mutual agreement of the Parties by a written instrument duly executed by the Parties, subject to FERC approval or (2) upon the issuance of a FERC order, pursuant to Section 206 of the Federal Power Act. It is the Parties' intent that FERC's right to change any provision of this Agreement shall be limited to the maximum extent permissible by law and that any such change, if permissible, shall be in accordance with the Mobile-Sierra public interest standard applicable to fixed rate agreements. *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956). Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations. Notwithstanding the foregoing, Attachment B (Notices) may be modified as set forth in Section 4.15 **of this Agreement**, and the CAISO and the PTO may from time to time mutually agree to deviate from Attachment A in accordance with the provisions of this Agreement, however, such deviation shall be subject to Section 4.9 **of this Agreement** and not considered a course of dealing.
- 4.13 No Partnership:** This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act

on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.

**4.14 Assignment:** This Agreement may be assigned by a Party only with the written consent of the other Parties; provided that a Party may assign this Agreement without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater creditrating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

**4.15 Notices:** Any notice, demand, or request provided in this Agreement, or served, given, or made in connection with it, will be in writing and deemed properly served, given, or made if delivered in person, transmitted by facsimile, or sent by United States mail, postage prepaid, to the persons specified in Attachment B hereto unless otherwise provided in this Agreement. Any Party may at any time, by notice to all other Parties, change the designation or address of the person specified in Attachment B as the person who receives notices pursuant to this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement in multiple originals, each of which shall constitute and be an original effective agreement among the Parties.

**California Independent System Operator Corporation**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**[NAME OF PTO]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **ATTACHMENT A**

### **INTERCONNECTION STUDY RESPONSIBILITY ALLOCATION**

Description of Large Generator Interconnection Process: Roles and Responsibilities of **CAISO** and PTOs.

**Purpose:** This Attachment A to the “AGREEMENT FOR THE ALLOCATION OF RESPONSIBILITIES WITH REGARD TO LARGE GENERATOR INTERCONNECTION PROCEDURES AND INTERCONNECTION STUDY AGREEMENTS” serves as further clarification of the roles and responsibilities of the parties to this Agreement. The **CAISO** will assign responsibility for performance of portions of the Interconnection Studies to the relevant PTOs, under the direction and oversight of, and approval by, the **CAISO**, as set forth in this Attachment A. This document serves as a general overview of only the roles and responsibilities as between the **CAISO** and PTOs. This Agreement does not include the process steps, involvement or obligations of the Interconnection Customer (IC). This Agreement is not inclusive of all procedures necessary to comply with all provisions of the LGIA, LGIP and Interconnection Study agreements.

#### **Interconnection Request (IR) Process**

1. **CAISO** forwards the IR to the PTO within **one (1) Business Day (BD)** of receipt of IR from Interconnection Customer (IC)
2. PTO(s) provides any feed back regarding IR to **CAISO** within 3 BD
3. PTO(s) provides draft study plan at Scoping Meeting.
4. **CAISO** distributes draft Scoping Meeting minutes for review within 3 BD of Scoping Meeting.
5. PTO(s) provide any comments to the Scoping Meeting minutes within 2 BD of receipt of draft Scoping Meeting minutes.
6. **CAISO** issues the final Scoping Meeting minutes within 3 BD of receipt of comments.

#### **Interconnection Feasibility Study Process:**

1. **CAISO** forwards IC Point of Interconnection and any **LGIP** Appendix 1, Attachment A data to the PTO(s) within 1 BD of **CAISO** receipt.
2. PTO(s) develop updated draft study plan based on technical data collected by **CAISO** from IC within 7 BD.
3. **CAISO** and PTO(s) coordinate to finalize study plan within 2 BD. **CAISO** approves the study plan.
4. **CAISO** tenders a signed IFSA to IC, with final study plan included in Attachment A, within 5 BD (for a total of 15 BD from **CAISO** receipt of Point of Interconnection from IC in accordance with **LGIP** Section 6.1).
5. After **CAISO** receives executed study agreement, **CAISO** forwards any additional **LGIP** Appendix 1, Attachment A data to PTO(s) within 1 BD.
6. If during the course of the assigned portions of the study the PTO(s) determines the data is not sufficient to complete the study, PTO(s) informs **CAISO** and **CAISO** notifies IC in accordance with **LGIP** Section 3.8.
7. PTO(s) must participate in study review meeting; date to be agreeable to PTO(s) and within 10 BD of **CAISO** providing study report to IC (**LGIP** Section 6.3.1).
8. **CAISO** and PTO collaborate on any re-study issues. **CAISO** will direct any necessary re-studies.



**Interconnection Feasibility Study Timeline**

	<b><u>Typical Calendar Days</u></b>	<b><u>Typical Cumulative Days</u></b>
Load Flow		
<b>CAISO directs PTO(s) to Develop draft Base Cases (Milestone)</b>	<u>0</u>	<u>0</u>
PTO(s) develop draft Base Cases and deliver to <b>CAISO</b>	<u>7</u>	<u>7</u>
<b>CAISO</b> reviews Base Cases and provides direction to PTO(s) At the direction of the <b>CAISO</b> , PTO(s) develops contingency lists and provide to <b>CAISO</b> .	<u>7</u>	<u>14</u>
PTO incorporates <b>CAISO</b> directions into Base Cases; <b>CAISO</b> approves Base Cases; <b>CAISO</b> reviews and approves contingency lists. If there is disagreement on the contingency list, the <b>CAISO</b> and PTO(s) must coordinate to revise the contingency list. <b>CAISO</b> approves the contingency list.	<u>7</u>	<u>21</u>
<b>CAISO</b> performs Load Flow & prepares summary results of impacted systems (other PTO(s) or Affected Systems) and submits results to impacted systems. Such results may include <b>CAISO</b> proposed solutions for mitigation to any violations uncovered in the Load Flow study.	<u>7</u>	<u>28</u>
Impacted PTO(s) review <b>CAISO</b> results and recommend mitigation solutions as appropriate.	<u>5</u>	<u>33</u>
<b>Short Circuit Duty (concurrent with Load Flow Activity)</b>		
At the <b>CAISO's</b> direction, PTO(s) develop Base Case, and run short circuit analyses.	<u>10</u>	<u>10</u>
PTO(s) to perform facilities review	<u>18</u>	<u>28</u>
PTO(s) prepare draft study results and submit to the <b>CAISO</b> for review, recommendations and direction.	<u>5</u>	<u>33</u>
Facility cost estimates		
At the <b>CAISO's</b> direction, PTO(s) to prepare non-binding cost estimates and schedule for the direct assignment facilities and network upgrades identified in the power flow and short circuit duty analyses.	<u>7</u>	<u>40</u>
<b>Finalizing Report</b>		
At the <b>CAISO's</b> direction, PTO(s) to prepare draft report for impacts in their service territory.	<u>5</u>	<u>45</u>
<b>CAISO</b> compiles all results into a draft report that covers grid impacts.	<u>5</u>	<u>50</u>
PTO(s) reviews <b>CAISO</b> integrated report and provides comments to <b>CAISO</b> .	<u>4</u>	<u>54</u>
<b>CAISO</b> incorporates PTO(s) comments. If PTO(s)' comments conflict with <b>CAISO</b> conclusions, then <b>CAISO</b> and PTO must coordinate to resolve conflicts. Any remaining conflicts must be noted in final report.	<u>6</u>	<u>60</u>
<b>CAISO</b> provides final <b>CAISO</b> approved report to IC, impacted PTOs, and any applicable Affected Systems. (Milestone)	<u>0</u>	<u>0</u>

## Interconnection System Impact Study Process

1. Prior to beginning the ISIS process as outlined in this Attachment A, the **CAISO** will notify the PTOs of potential seams issues and discuss the nature of the concerns with the PTOs. Where the **CAISO** determines that there is a reasonable expectation that the new Large Generating Facility to be interconnected in one PTO area may impact system performance in other PTO areas within the **CAISO** Controlled Grid that does not comply with the applicable planning standards, the **CAISO** will conduct or cause to be performed the ISIS Load Flow, Post Transient and Stability analyses, as appropriate, to assess the extent of the impact on the grid and evaluate mitigation solutions. Applicable planning standards include FERC approved **CAISO** Planning Standards, as may be amended from time to time, and the NERC/WECC Planning Standards, as may be amended from time to time. Further, there may be circumstances where information, including available studies, is not sufficient for the **CAISO** to make a reasonable engineering determination whether the new Large Generating Facility to be interconnected in one PTO area could cause system performance in other PTO areas (i.e. within the **CAISO** Controlled Grid) that does not comply with the applicable planning standards and, in such circumstances, the **CAISO** may nonetheless conduct or cause to be performed the ISIS Load Flow, Post Transient and Stability analyses to make such a determination.
2. At the **CAISO**'s direction, the PTO develops a draft ISIS study plan and determines if available technical data is sufficient to complete ISIS.
3. PTO submits draft study plan to **CAISO** for review, direction and approval within **seven (7)** BD of **CAISO** tendering Interconnection Feasibility Study report to IC.
4. **CAISO** and PTO coordinate to finalize study plan within **three (3)** BD. **CAISO** approves the study plan.
5. **CAISO** tenders a signed ISISA to IC with final study plan included in Attachment A, within **three (3)** BD.
6. Upon receipt of executed study agreement, **CAISO** forwards any additional Attachment A, **LGIP** Appendix 1 data to PTO(s) within **one (1)** BD.
7. If the data provided by IC is insufficient to perform the study, PTO notifies **CAISO** within **two (2)** BD of **CAISO** receipt of the executed study agreement, and the **CAISO** notifies the IC within **two (2)** BD (total of **five (5)** BD per LGIP Section 7.2) to correct any deficiencies within **ten (10)** BD or the IR will be deemed withdrawn, triggering LGIP Section 3.8.
8. PTO must participate in study review meeting; date to be agreeable to PTO and within **ten (10)** BD of **CAISO** providing study report to IC (LGIP Section 7.5).
9. **CAISO** to confer with PTO as to the need for a re-study. **CAISO** makes the final determination subject to dispute resolution procedures.

## Interconnection System Impact Study Timeline

<b><u>Standard System Impact Study Load Flow/Post Transient/Stability Process</u></b>	<b><u>Typical Calendar Days</u></b>	<b><u>Typical Cumulative Days</u></b>
At the <b>CAISO's</b> direction, PTO(s) develop draft Base Case(s)	<u>0</u>	<u>0</u>
PTO(s) develop(s) draft Base Case(s) and deliver(s) to <b>CAISO</b>	<u>14</u>	<u>14</u>
<b>CAISO</b> reviews Base Case(s) and provides direction to <b>PTO</b>	<u>7</u>	<u>21</u>
At the <b>CAISO's</b> direction, PTO develops contingency lists		
PTO incorporates <b>CAISO's</b> directions into Base Cases <b>CAISO</b> approves Base Case(s) <b>CAISO</b> reviews and approves contingency lists	<u>7</u>	<u>28</u>
At the <b>CAISO's</b> direction, the PTO may perform the ISIS Load Flow, Post Transient and Stability analyses & prepare mitigation solutions, as appropriate and submits draft study results to <b>CAISO</b> for review and direction*.	<u>21</u>	<u>49</u>
<p><b>*Pursuant to the terms of item 1 above: where the CAISO performs the ISIS Load Flow, Post Transient and Stability analyses to determine grid impacts and evaluate mitigation solutions, the potentially impacted PTOs may, as part of the review process, perform activities to adequately review or validate Load Flow, Post Transient and Stability Analysis to assess CAISO results and recommend alternative solutions. (In the case of this election, "PTOs" should be substituted for "PTO" for remainder of ISIS process.)</b></p>		
PTO develops or supplements <b>CAISO</b> proposed mitigation plans and/or develops alternative mitigation plans for consideration, as appropriate, and submits to <b>CAISO</b> for review and direction	<u>14</u>	<u>63</u>
<b>Short Circuit Duty (concurrent with the LF/PT/S)</b>		
<b>CAISO</b> to coordinate with other potentially affected facility owners <sup>2</sup>	<u>n/a</u>	<u>n/a</u>
<b>CAISO</b> directs PTO to develop Base Case and run short circuit analysis	<u>21</u>	<u>21</u>
PTO to perform facilities review	<u>35</u>	<u>56</u>
PTO to prepare draft study results and submits to the <b>CAISO</b> for review and direction	<u>7</u>	<u>63</u>
<b>Facility cost estimates and schedules</b>		
At the <b>CAISO</b> direction, PTO(s) to prepare cost estimates and schedules for the direct assignment facilities and network upgrades identified in the ISIS power flow, short circuit duty, post transient, and stability studies.	<u>20</u>	<u>83</u>
<b>Final Report</b>		
At the <b>CAISO's</b> direction, PTO(s) prepares draft report for impacts in their service territory.	<u>7</u>	<u>90</u>

<sup>2</sup> In accordance with the WECC Short Circuit Duty Procedure

<u>CAISO compiles all results into a draft report that covers grid impacts, as appropriate. CAISO reviews integrated draft report and submits comments, recommendations and direction to the PTO</u>	<u>9</u>	<u>99</u>
<u>PTO incorporates CAISO's directions, conclusions and recommendations. If CAISO conclusions and recommendations conflict with PTO conclusions then CAISO and PTO must coordinate to resolve conflicts. Any remaining conflicts must be noted in the final report.</u>	<u>14</u>	<u>113</u>
<u>PTO submits final draft report less the deliverability results to the CAISO. The CAISO will finalize the report and tender the CAISO approved report to the IC after incorporating Deliverability Assessment results.</u>		
<b>CAISO Deliverability Assessment (concurrent with other studies)</b> As part of the Deliverability Assessment process pursuant to LGIP Section 3.3.3, the CAISO may also perform studies pursuant to LGIP Section 3.3.2 to determine potential operating limitations on the generator due to constraints under a variety of system conditions.		
<u>PTO provides GE PSLF compatible change files for all project changes since last Deliverability Assessment, including subject LGIP project.</u>	<u>14</u>	<u>14</u>
<u>CAISO incorporates project changes into Deliverability Assessment Base Case.</u>	<u>7</u>	<u>21</u>
<u>CAISO provides Deliverability Assessment Study &amp; prepares results summary.</u>	<u>14</u>	<u>35</u>
<u>CAISO provides Initial Deliverability Assessment results with no upgrades and upgrades necessary for full Deliverability</u>	<u>14</u>	<u>49</u>
<u>CAISO reviews Load Flow, post transient, and stability analysis mitigation options. (The timing of this action should be in sync with completion of Load Flow study results)</u>	<u>11</u>	<u>60</u>
<u>CAISO has the opportunity to revise Deliverability Network Upgrades necessary for full Deliverability, based on optimization with LF results.</u>	<u>7</u>	<u>67</u>
<u>At the CAISO's direction, PTO to provide Deliverability related upgrade costs and schedules, as appropriate. (This action should occur when PTO is performing cost analysis for Load Flow and Short Circuit Duty upgrades)</u>	<u>16</u>	<u>83</u>
<u>CAISO drafts Deliverability study Assessment results.</u>	<u>7</u>	<u>90</u>
<u>PTO reviews/comments on Deliverability Assessment results.</u>	<u>12</u>	<u>102</u>
<u>CAISO incorporates PTO comments on the Deliverability Assessment results, as appropriate. Any remaining conflicts must be noted in final report.</u>	<u>11</u>	<u>113</u>
<b>Final Study Report</b>		
<u>CAISO provides final approved report to IC, PTO, and any applicable affected systems.</u>	<u>7</u>	<u>120</u>

## **Interconnection Facilities Study Process\*\***

**\*\*All Interconnection Facilities Studies will be under the direction and oversight of, and approval by, the CAISO and may involve more than one PTO.**

1. Within **five (5)** BD of the ISIS **S**study **R**review **M**meeting, the PTO develops draft Interconnection Facilities Study plan and submits to **CAISO** for review and approval.
2. **CAISO** submits executed Interconnection Facilities Study Agreement to IC within **five (5)** BD.
3. Upon receipt of executed Interconnection Facilities Study Agreement from IC, **CAISO** submits to PTO technical data provided by IC within **one (1)** BD.
4. If the data provided by IC is insufficient to perform the study, PTO notifies **CAISO** within **three (3)** BD and the **CAISO** notifies the IC within **two (2)** BD (total of **five (5)** BD per LGIP) that IR is deemed withdrawn and the reason for the withdrawal. IC has **fifteen (15)** BD to cure withdrawal notice (LGIP goes directly to withdrawal pursuant to **LGIP** Section 3.8).
5. PTO conducts Interconnection Facilities Study and submits draft report to **CAISO**.
6. **CAISO** forwards draft report to IC for comments.
7. **CAISO** forwards IC comments or notice of no comments to PTO within **one (1)** BD of receipt.
8. PTO incorporates IC **C**omments within **five (5)** BDs and submits updated draft to **CAISO** for review and comment.
9. **CAISO** reviews and comments, provides recommendations and direction on PTO draft Interconnection Facilities Study report within **two (2)** BD.
10. PTO reviews/incorporates **CAISO** directions within **five (5)** BD and sends revised report to **CAISO**.
11. **CAISO** issues final report to IC within **two (2)** BD (total of **fifteen (15)** BD). If PTO comments conflict with **CAISO** recommendations and conclusions, **CAISO** and PTO must coordinate to resolve conflicts. Any remaining conflicts must be noted in the final report.
12. **CAISO**, PTO(s), and IC meet within **ten (10)** BDs from issuance of draft report.
13. **CAISO** and PTO collaborate on any re-study issues. **CAISO** will direct any necessary re-studies and/or progress to LGIA process.

**ATTACHMENT B**  
**CONTACTS FOR NOTICES**

**[Section 4.15]**

**California ISO**

Manager, Transmission Engineering  
151 Blue Ravine Road  
Folsom, CA 95630  
Phone: 916.351.2104  
Fax: 916.351.2264

**[NAME OF PTO]**

[Address of PTO]

**CAISO TARIFF APPENDIX V**

**Standard Large Generator Interconnection Agreement**

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**STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA)**

**[INTERCONNECTION CUSTOMER]**

**[PARTICIPATING TO]**

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

**[Docket No. ER04-445 Compliance Filing accepted by FERC. See Table.]**

**[Docket No. ER08-\_\_ Amendment filing pending FERC Order. See Table.]**

**[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]**

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**Part-Appendix B** Milestones

**Part-Appendix C** Interconnection Details

**Part-Appendix D** Security Arrangements Details

**Part-Appendix E** Commercial Operation Date

**Part-Appendix F** Addresses for Delivery of Notices and Billings

**Part-Appendix G** Reliability Management System Agreement

**Part-Appendix H** Interconnection Requirements for a Wind Generating Plant of Generators Relying on Newer Technologies

# STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT

[INTERCONNECTION CUSTOMER]

[PARTICIPATING TO]

## CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

**THIS STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT** ("LGIA") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and among \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ ("Interconnection Customer" with a Large Generating Facility), \_\_\_\_\_, a corporation organized and existing under the laws of the State of California ("**Participating TO**"), and **California Independent System Operator Corporation**, a California nonprofit public benefit corporation organized and existing under the laws of the State of California ("CAISO"). Interconnection Customer, Participating TO, and CAISO each may be referred to as a "Party" or collectively as the "Parties."

### RECITALS

**WHEREAS**, CAISO exercises Operational Control over the CAISO Controlled Grid; and

**WHEREAS**, the Participating TO owns, operates, and maintains the Participating TO's Transmission System; and

**WHEREAS**, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in **Part-Appendix C** to this LGIA; and

**WHEREAS**, Interconnection Customer, Participating TO, and CAISO have agreed to enter into this LGIA for the purpose of interconnecting the Large Generating Facility with the Participating TO's Transmission System;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this LGIA, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used.

### ARTICLE 1. DEFINITIONS

**Adverse System Impact** shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

**Affected System** shall mean an electric system other than the CAISO Controlled Grid that may be affected by the proposed interconnection, including the Participating TO's electric system that is not part of the CAISO Controlled Grid.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the Western Electricity Coordinating Council or its successor.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the ~~Control~~**Balancing Authority** Area of the Participating TO's Transmission System to which the Generating Facility is directly interconnected.

**Balancing Authority** shall mean the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time.

**Balancing Authority Area** shall mean the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

**Base Case** shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of this LGIA.

**Breaching Party** shall mean a Party that is in Breach of this LGIA.

**Business Day** shall mean Monday through Friday, excluding federal holidays and the day after Thanksgiving Day.

**Calendar Day** shall mean any day including Saturday, Sunday or a federal holiday.

**Commercial Operation** shall mean the status of an Electric Generating Unit at a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** of an Electric Generating Unit shall mean the date on which the Electric Generating Unit at the Generating Facility commences Commercial Operation as agreed to by the applicable Participating TO and the Interconnection Customer pursuant to **PartAppendix** E to this LGIA.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise, subject to Article 22.1.2.

~~**Control Area** shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by the Applicable Reliability Council.~~

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of this LGIA.

**Distribution System** shall mean those non-CAISO-controlled transmission and distribution facilities owned by the Participating TO.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Participating TO's Distribution System. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which this LGIA becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

**Electric Generating Unit** shall mean an individual electric generator and its associated plant and apparatus whose electrical output is capable of being separately identified and metered.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the CAISO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the CAISO Controlled Grid or the electric systems of others to which the CAISO Controlled Grid is directly connected; (3) that, in the case of the Participating TO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Participating TO's Transmission System, Participating TO's Interconnection Facilities, Distribution System, or the electric systems of others to which the Participating TO's electric system is directly connected; or (4) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this LGIA to possess black start capability.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a *et seq.*

**FERC** shall mean the Federal Energy Regulatory Commission or its successor.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** shall mean the Interconnection Customer's Electric Generating Unit(s) used for the production of electricity identified in the Interconnection Customer's Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Generating Facility Capacity** shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

**Good Utility Practice** shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** shall mean any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the



Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, CAISO, Participating TO, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Initial Synchronization Date** shall mean the date upon which an Electric Generating Unit is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Participating TO’s Interconnection Facilities to obtain back feed power.

**Interconnection Customer’s Interconnection Facilities** shall mean all facilities and equipment, as identified in **Part Appendix A** of this LGIA, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Participating TO’s Transmission System. Interconnection Customer’s Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Participating TO’s Interconnection Facilities and the Interconnection Customer’s Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Participating TO’s Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean the study conducted or caused to be performed by the **CAISO**, in coordination with the applicable Participating TO(s), the CAISO, or a third party consultant for the Interconnection Customer to determine a list of facilities (including the Participating TO’s Interconnection Facilities, Network Upgrades, and Distribution Upgrades), the cost of those facilities, and the time required to interconnect the Generating Facility with the Participating TO’s Transmission System.

**Interconnection Facilities Study Agreement** shall mean the agreement between the Interconnection Customer and the Participating TO or the CAISO for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean the preliminary evaluation conducted or caused to be performed by the **CAISO**, in coordination with the applicable Participating TO(s), CAISO, or a third party consultant for the Interconnection Customer of the system impact and cost of interconnecting the Generating Facility to the Participating TO’s Transmission System, and, if reasonably practicable, an informational assessment, as needed, of other affected owners’ portions of the CAISO Controlled Grid.

**Interconnection Handbook** shall mean a handbook, developed by the Participating TO and posted on the Participating TO’s web site or otherwise made available by the Participating TO, describing technical and operational requirements for wholesale generators and loads connected to the Participating TO’s portion of the CAISO Controlled Grid, as such handbook may be modified or superseded from time to time. Participating TO’s standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice and Applicable Reliability Standards. In the event of a conflict between the terms of this LGIA and the terms of the Participating TO’s Interconnection Handbook, the terms in this LGIA shall apply.

**Interconnection Request** shall mean a request, in the form of **PartAppendix** 1 to the Standard Large Generator Interconnection Procedures, in accordance with the CAISO Tariff.

**Interconnection Service** shall mean the service provided by the Participating TO and CAISO associated with interconnecting the Interconnection Customer's Generating Facility to the Participating TO's Transmission System and enabling the CAISO Controlled Grid to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of this LGIA, the Participating TO's Transmission Owner Tariff, and the CAISO Tariff.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, and the Interconnection Facilities Study conducted or caused to be performed by the CAISO, in coordination with the applicable Participating TO(s), the CAISO, or a third party consultant for the Interconnection Customer pursuant to the Standard Large Generator Interconnection Procedures.

**Interconnection System Impact Study** shall mean the engineering study conducted or caused to be performed by the CAISO, in coordination with the applicable Participating TO(s), CAISO, or a third party consultant for the Interconnection Customer that evaluates the impact of the proposed interconnection on the safety and reliability of the Participating TO's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts identified in the Interconnection Feasibility Study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.

**IRS** shall mean the Internal Revenue Service.

**CAISO Controlled Grid** shall mean the system of transmission lines and associated facilities of the parties to the Transmission Control Agreement that have been placed under the CAISO's Operational Control.

**CAISO Tariff** shall mean the CAISO's tariff, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

**Large Generating Facility** shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

**Loss** shall mean any and all damages, losses, and claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties.

**Material Modification** shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request or any other valid interconnection request with a later queue priority date.

**Metering Equipment** shall mean all metering equipment installed or to be installed for measuring the output of the Generating Facility pursuant to this LGIA at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**NERC** shall mean the North American Electric Reliability Council or its successor organization.

**Network Upgrades** shall be Participating TO's Delivery Network Upgrades and Participating TO's Reliability Network Upgrades.

**Operational Control** shall mean the rights of the CAISO under the Transmission Control Agreement and the CAISO Tariff to direct the parties to the Transmission Control Agreement how to operate their transmission lines and facilities and other electric plant affecting the reliability of those lines and facilities for the purpose of affording comparable non-discriminatory transmission access and meeting applicable reliability criteria.

**Participating TO's Delivery Network Upgrades** shall mean the additions, modifications, and upgrades to the Participating TO's Transmission System at or beyond the Point of Interconnection, other than Reliability Network Upgrades, identified in the Interconnection Studies, as identified in **Part Appendix A**, to relieve constraints on the CAISO Controlled Grid.

**Participating TO's Interconnection Facilities** shall mean all facilities and equipment owned, controlled or operated by the Participating TO from the Point of Change of Ownership to the Point of Interconnection as identified in **Part Appendix A** to this LGIA, including any modifications, additions or upgrades to such facilities and equipment. Participating TO's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Participating TO's Reliability Network Upgrades** shall mean the additions, modifications, and upgrades to the Participating TO's Transmission System at or beyond the Point of Interconnection, identified in the Interconnection Studies, as identified in **Part Appendix A**, necessary to interconnect the Large Generating Facility safely and reliably to the Participating TO's Transmission System, which would not have been necessary but for the interconnection of the Large Generating Facility, including additions, modifications, and upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of the Large Generating Facility to the Participating TO's Transmission System. Participating TO's Reliability Network Upgrades also include, consistent with Applicable Reliability Council practice, the Participating TO's facilities necessary to mitigate any adverse impact the Large Generating Facility's interconnection may have on a path's Applicable Reliability Council rating.

**Participating TO's Transmission System** shall mean the facilities owned and operated by the Participating TO and that have been placed under the CAISO's Operational Control, which facilities form part of the CAISO Controlled Grid.

**Party or Parties** shall mean the Participating TO, CAISO, Interconnection Customer or the applicable combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in **Part Appendix A** to this LGIA, where the Interconnection Customer's Interconnection Facilities connect to the Participating TO's Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in **Part Appendix A** to this LGIA, where the Interconnection Facilities connect to the Participating TO's Transmission System.

**Qualifying Facility** shall mean a qualifying cogeneration facility or qualifying small power production facility, as defined in the Code of Federal Regulations, Title 18, Part 292 (18 C.F.R. §292).

**QF PGA** shall mean a Qualifying Facility Participating Generator Agreement specifying the special provisions for the operating relationship between a Qualifying Facility and the CAISO, a pro forma version of which is set forth in Appendix B.3 of the CAISO Tariff.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under this LGIA, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Scoping Meeting** shall mean the meeting among representatives of the Interconnection Customer, the Participating TO(s), other Affected Systems, and the CAISO conducted for the purpose of

discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Stand Alone Network Upgrades** shall mean Network Upgrades that the Interconnection Customer may construct without affecting day-to-day operations of the CAISO Controlled Grid or Affected Systems during their construction. The Participating TO, the CAISO, and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in **Part Appendix A** to this LGIA.

**Standard Large Generator Interconnection Procedures (LGIP)** shall mean the CAISO protocol that sets forth the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the CAISO Tariff.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, that protects (1) the Participating TO's Transmission System, Participating TO's Interconnection Facilities, CAISO Controlled Grid, and Affected Systems from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the CAISO Controlled Grid, Participating TO's Interconnection Facilities, and Affected Systems or on other delivery systems or other generating systems to which the CAISO Controlled Grid is directly connected.

**Transmission Control Agreement** shall mean CAISO FERC Electric Tariff No. 7.

**Trial Operation** shall mean the period during which the Interconnection Customer is engaged in on-site test operations and commissioning of an Electric Generating Unit prior to Commercial Operation.

## **ARTICLE 2. EFFECTIVE DATE, TERM AND TERMINATION**

**2.1 Effective Date.** This LGIA shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. The CAISO and Participating TO shall promptly file this LGIA with FERC upon execution in accordance with Article 3.1, if required.

**2.2 Term of Agreement.** Subject to the provisions of Article 2.3, this LGIA shall remain in effect for a period of \_\_\_\_ years from the Effective Date (***Term Specified in Individual Agreements to be ten (10) years or such other longer period as the Interconnection Customer may request***) and shall be automatically renewed for each successive one-year period thereafter.

### **2.3 Termination Procedures.**

**2.3.1 Written Notice.** This LGIA may be terminated by the Interconnection Customer after giving the CAISO and the Participating TO ninety (90) Calendar Days advance written notice, or by the CAISO and the Participating TO notifying FERC after the Generating Facility permanently ceases Commercial Operation.

**2.3.2 Default.** A Party may terminate this LGIA in accordance with Article 17.

**2.3.3 Suspension of Work.** This LGIA may be deemed terminated in accordance with Article 5.16.

**2.3.4** Notwithstanding Articles 2.3.1, 2.3.2, and 2.3.3, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this LGIA, which notice has been accepted for filing by FERC.

**2.4 Termination Costs.** If this LGIA terminates pursuant to Article 2.3 above, the Interconnection Customer shall pay all costs incurred or irrevocably committed to be incurred in association with the Interconnection Customer's interconnection (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) and other expenses, including any Network Upgrades and Distribution Upgrades for which the Participating TO or CAISO has incurred expenses or has irrevocably committed to incur expenses and has not been reimbursed by the Interconnection Customer, as of the date of the other Parties' receipt of the notice of termination, subject to the limitations set forth in this Article 2.4. Nothing in this Article 2.4 shall limit the Parties' rights under Article 17.

**2.4.1** Notwithstanding the foregoing, in the event of termination by a Party, all Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. With respect to any portion of the Participating TO's Interconnection Facilities that have not yet been constructed or installed, the Participating TO shall to the extent possible and with the Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event the Interconnection Customer elects not to authorize such cancellation, the Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and the Participating TO shall deliver such material and equipment, and, if necessary, assign such contracts, to the Interconnection Customer as soon as practicable, at the Interconnection Customer's expense. To the extent that the Interconnection Customer has already paid the Participating TO for any or all such costs of materials or equipment not taken by the Interconnection Customer, the Participating TO shall promptly refund such amounts to the Interconnection Customer, less any costs, including penalties, incurred by the Participating TO to cancel any pending orders of or return such materials, equipment, or contracts.

**2.4.2** The Participating TO may, at its option, retain any portion of such materials, equipment, or facilities that the Interconnection Customer chooses not to accept delivery of, in which case the Participating TO shall be responsible for all costs associated with procuring such materials, equipment, or facilities.

**2.4.3** With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.

**2.5 Disconnection.** Upon termination of this LGIA, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Participating TO's Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.

**2.6 Survival.** This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Parties pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

### **ARTICLE 3. REGULATORY FILINGS AND CAISO TARIFF COMPLIANCE**

- 3.1 Filing.** The Participating TO and the CAISO shall file this LGIA (and any amendment hereto) with the appropriate Governmental Authority(ies), if required. The Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If the Interconnection Customer has executed this LGIA, or any amendment thereto, the Interconnection Customer shall reasonably cooperate with the Participating TO and CAISO with respect to such filing and to provide any information reasonably requested by the Participating TO or CAISO needed to comply with applicable regulatory requirements.
- 3.2 Agreement Subject to CAISO Tariff.** The Interconnection Customer will comply with all applicable provisions of the CAISO Tariff, including the LGIP.
- 3.3 Relationship Between this LGIA and the CAISO Tariff.** With regard to rights and obligations between the Participating TO and the Interconnection Customer, if and to the extent a matter is specifically addressed by a provision of this LGIA (including any appendices, schedules or other attachments to this LGIA), the provisions of this LGIA shall govern. If and to the extent a provision of this LGIA is inconsistent with the CAISO Tariff and dictates rights and obligations between the CAISO and the Participating TO or the CAISO and the Interconnection Customer, the CAISO Tariff shall govern.
- 3.4 Relationship Between this LGIA and the QF PGA.** With regard to the rights and obligations of a Qualifying Facility that has entered into a QF PGA with the CAISO and has entered into this LGIA, if and to the extent a matter is specifically addressed by a provision of the QF PGA that is inconsistent with this LGIA, the terms of the QF PGA shall govern.

#### **ARTICLE 4. SCOPE OF SERVICE**

- 4.1 Interconnection Service.** Interconnection Service allows the Interconnection Customer to connect the Large Generating Facility to the Participating TO's Transmission System and be eligible to deliver the Large Generating Facility's output using the available capacity of the CAISO Controlled Grid. To the extent the Interconnection Customer wants to receive Interconnection Service, the Participating TO shall construct facilities identified in Appendices A and C that the Participating TO is responsible to construct.
- Interconnection Service does not necessarily provide the Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on the CAISO Controlled Grid without incurring congestion costs. In the event of transmission constraints on the CAISO Controlled Grid, the Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in the CAISO Tariff in the same manner as all other resources.
- 4.2 Provision of Service.** The Participating TO and the CAISO shall provide Interconnection Service for the Large Generating Facility.
- 4.3 Performance Standards.** Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is the CAISO or Participating TO, then that Party shall amend the LGIA and submit the amendment to FERC for approval.
- 4.4 No Transmission Service.** The execution of this LGIA does not constitute a request for, nor the provision of, any transmission service under the CAISO Tariff, and does not convey any right to deliver electricity to any specific customer or point of delivery.

- 4.5 Interconnection Customer Provided Services.** The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.5.1. Interconnection Customer shall be paid for such services in accordance with Article 11.6.

## **ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING, PROCUREMENT, AND CONSTRUCTION**

Interconnection Facilities, Network Upgrades, and Distribution Upgrades shall be studied, designed, and constructed pursuant to Good Utility Practice. Such studies, design and construction shall be based on the assumed accuracy and completeness of all technical information received by the Participating TO and the CAISO from the Interconnection Customer associated with interconnecting the Large Generating Facility.

- 5.1 Options.** Unless otherwise mutually agreed among the Parties, the Interconnection Customer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either Standard Option or Alternate Option set forth below for completion of the Participating TO's Interconnection Facilities and Network Upgrades as set forth in **Part Appendix A**, Interconnection Facilities, Network Upgrades, and Distribution Upgrades, and such dates and selected option shall be set forth in **Part Appendix B**, Milestones.

**5.1.1 Standard Option.** The Participating TO shall design, procure, and construct the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades, using Reasonable Efforts to complete the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades by the dates set forth in **Part Appendix B**, Milestones. The Participating TO shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event the Participating TO reasonably expects that it will not be able to complete the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades by the specified dates, the Participating TO shall promptly provide written notice to the Interconnection Customer and the CAISO and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

**5.1.2 Alternate Option.** If the dates designated by the Interconnection Customer are acceptable to the Participating TO, the Participating TO shall so notify the Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities by the designated dates.

If the Participating TO subsequently fails to complete the Participating TO's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in **Part Appendix B**, Milestones; the Participating TO shall pay the Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by the Interconnection Customer shall be extended day for day for each day that the CAISO refuses to grant clearances to install equipment.

**5.1.3 Option to Build.** If the dates designated by the Interconnection Customer are not acceptable to the Participating TO, the Participating TO shall so notify the Interconnection Customer within thirty (30) Calendar Days, and unless the Parties agree otherwise, the Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and

Stand Alone Network Upgrades. If the Interconnection Customer elects to exercise its option to assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, it shall so notify the Participating TO within thirty (30) Calendar Days of receipt of the Participating TO's notification that the designated dates are not acceptable to the Participating TO. The Participating TO, CAISO, and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in **Part Appendix A** to this LGIA. Except for Stand Alone Network Upgrades, the Interconnection Customer shall have no right to construct Network Upgrades under this option.

**5.1.4 Negotiated Option.** If the Interconnection Customer elects not to exercise its option under Article 5.1.3, Option to Build, the Interconnection Customer shall so notify the Participating TO within thirty (30) Calendar Days of receipt of the Participating TO's notification that the designated dates are not acceptable to the Participating TO, and the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades by the Interconnection Customer) pursuant to which the Participating TO is responsible for the design, procurement and construction of the Participating TO's Interconnection Facilities and Network Upgrades. If the Parties are unable to reach agreement on such terms and conditions, the Participating TO shall assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Network Upgrades pursuant to Article 5.1.1, Standard Option.

**5.2 General Conditions Applicable to Option to Build.** If the Interconnection Customer assumes responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades,

(1) the Interconnection Customer shall engineer, procure equipment, and construct the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by the Participating TO;

(2) The Interconnection Customer's engineering, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which the Participating TO would be subject in the engineering, procurement or construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades;

(3) the Participating TO shall review, and the Interconnection Customer shall obtain the Participating TO's approval of, the engineering design, equipment acceptance tests, and the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, which approval shall not be unreasonably withheld, and the CAISO may, at its option, review the engineering design, equipment acceptance tests, and the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades;

(4) prior to commencement of construction, the Interconnection Customer shall provide to the Participating TO, with a copy to the CAISO for informational purposes, a schedule for construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from the Participating TO;



(5) at any time during construction, the Participating TO shall have the right to gain unrestricted access to the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;

(6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by the Participating TO, the Interconnection Customer shall be obligated to remedy deficiencies in that portion of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades;

(7) the Interconnection Customer shall indemnify the CAISO and Participating TO for claims arising from the Interconnection Customer's construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 Indemnity;

(8) The Interconnection Customer shall transfer control of the Participating TO's Interconnection Facilities to the Participating TO and shall transfer Operational Control of Stand Alone Network Upgrades to the CAISO;

(9) Unless the Parties otherwise agree, the Interconnection Customer shall transfer ownership of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades to the Participating TO. As soon as reasonably practicable, but within twelve months after completion of the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, the Interconnection Customer shall provide an invoice of the final cost of the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades to the Participating TO, which invoice shall set forth such costs in sufficient detail to enable the Participating TO to reflect the proper costs of such facilities in its transmission rate base and to identify the investment upon which refunds will be provided;

(10) the Participating TO shall accept for operation and maintenance the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and

(11) The Interconnection Customer's engineering, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of the "Option to Build" conditions set forth in **Part Appendix C**. Interconnection Customer shall deliver to the Participating TO "as-built" drawings, information, and any other documents that are reasonably required by the Participating TO to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by the Participating TO.

**5.3 Liquidated Damages.** The actual damages to the Interconnection Customer, in the event the Participating TO's Interconnection Facilities or Network Upgrades are not completed by the dates designated by the Interconnection Customer and accepted by the Participating TO pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by the Participating TO to the Interconnection Customer in the event that the Participating TO does not complete any portion of the Participating TO's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to ½ of 1 percent per day of the actual cost of the Participating TO's Interconnection Facilities and Network Upgrades, in the aggregate, for which the Participating TO has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of the Participating TO's Interconnection Facilities and Network Upgrades for which the Participating TO has assumed responsibility to design, procure, and construct. The foregoing payments will be made by the Participating TO to the Interconnection Customer as just compensation for the damages caused to the Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Participating TO's failure to meet its schedule.

No liquidated damages shall be paid to the Interconnection Customer if: (1) the Interconnection Customer is not ready to commence use of the Participating TO's Interconnection Facilities or Network Upgrades to take the delivery of power for the Electric Generating Unit's Trial Operation or to export power from the Electric Generating Unit on the specified dates, unless the Interconnection Customer would have been able to commence use of the Participating TO's Interconnection Facilities or Network Upgrades to take the delivery of power for Electric Generating Unit's Trial Operation or to export power from the Electric Generating Unit, but for the Participating TO's delay; (2) the Participating TO's failure to meet the specified dates is the result of the action or inaction of the Interconnection Customer or any other interconnection customer who has entered into an interconnection agreement with the CAISO and/or Participating TO, action or inaction by the CAISO, or any cause beyond the Participating TO's reasonable control or reasonable ability to cure; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

In no event shall the CAISO have any responsibility or liability to the Interconnection Customer for liquidated damages pursuant to the provisions of this Article 5.3.

**5.4 Power System Stabilizers.** The Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with the guidelines and procedures established by the Applicable Reliability Council and in accordance with the provisions of Section 4.6.5.1 of the CAISO Tariff. The CAISO reserves the right to establish reasonable minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, the Interconnection Customer shall immediately notify the CAISO and the Participating TO and restore the Power System Stabilizers to operation as soon as possible and in accordance with the Reliability Management System Agreement in **Part Appendix G**. The CAISO shall have the right to order the reduction in output or disconnection of the Large Generating Facility if the reliability of the CAISO Controlled Grid would be adversely affected as a result of improperly tuned Power System Stabilizers. The requirements of this Article 5.4 shall not apply to wind generators of the induction type.

**5.5 Equipment Procurement.** If responsibility for construction of the Participating TO's Interconnection Facilities or Network Upgrades is to be borne by the Participating TO, then the Participating TO shall commence design of the Participating TO's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

**5.5.1** The CAISO, in coordination with the applicable Participating TO(s), has completed the Interconnection Facilities Study pursuant to the Interconnection Facilities Study Agreement;

**5.5.2** The Participating TO has received written authorization to proceed with design and procurement from the Interconnection Customer by the date specified in **Part Appendix B, Milestones**; and

**5.5.3** The Interconnection Customer has provided security to the Participating TO in accordance with Article 11.5 by the dates specified in **Part Appendix B**, Milestones.

**5.6 Construction Commencement.** The Participating TO shall commence construction of the Participating TO's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

**5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

**5.6.2** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of the Participating TO's Interconnection Facilities and Network Upgrades;

**5.6.3** The Participating TO has received written authorization to proceed with construction from the Interconnection Customer by the date specified in **Part Appendix B**, Milestones; and

**5.6.4** The Interconnection Customer has provided payment and security to the Participating TO in accordance with Article 11.5 by the dates specified in **Part Appendix B**, Milestones.

**5.7 Work Progress.** The Parties will keep each other advised periodically as to the progress of their respective design, procurement and construction efforts. Any Party may, at any time, request a progress report from another Party. If, at any time, the Interconnection Customer determines that the completion of the Participating TO's Interconnection Facilities will not be required until after the specified ~~in-s~~Service ~~d~~Date, the Interconnection Customer will provide written notice to the Participating TO and CAISO of such later date upon which the completion of the Participating TO's Interconnection Facilities will be required.

**5.8 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Interconnection Customer's Interconnection Facilities and Participating TO's Interconnection Facilities and compatibility of the Interconnection Facilities with the Participating TO's Transmission System, and shall work diligently and in good faith to make any necessary design changes.

**5.9 Limited Operation.** If any of the Participating TO's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Electric Generating Unit, the Participating TO and/or CAISO, as applicable, shall, upon the request and at the expense of the Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Electric Generating Unit and the Interconnection Customer's Interconnection Facilities may operate prior to the completion of the Participating TO's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. The Participating TO and CAISO shall permit Interconnection Customer to operate the Electric Generating Unit and the Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

**5.10 Interconnection Customer's Interconnection Facilities.** The Interconnection Customer shall, at its expense, design, procure, construct, own and install the Interconnection Customer's Interconnection Facilities, as set forth in **Part Appendix A**.

**5.10.1 Large Generating Facility and Interconnection Customer's Interconnection Facilities Specifications.** The Interconnection Customer shall submit initial specifications for the Interconnection Customer's Interconnection Facilities and Large Generating Facility, including System Protection Facilities, to the Participating TO and the CAISO at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90)

Calendar Days prior to the Initial Synchronization Date. The Participating TO and the CAISO shall review such specifications pursuant to this LGIA and the LGIP to ensure that the Interconnection Customer's Interconnection Facilities and Large Generating Facility are compatible with the technical specifications, operational control, safety requirements, and any other applicable requirements of the Participating TO and the CAISO and comment on such specifications within thirty (30) Calendar Days of the Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

**5.10.2 Participating TO's and CAISO's Review.** The Participating TO's and the CAISO's review of the Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall make such changes to the Interconnection Customer's Interconnection Facilities as may reasonably be required by the Participating TO or the CAISO, in accordance with Good Utility Practice, to ensure that the Interconnection Customer's Interconnection Facilities are compatible with the technical specifications, Operational Control, and safety requirements of the Participating TO or the CAISO.

**5.10.3 Interconnection Customer's Interconnection Facilities Construction.** The Interconnection Customer's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Participating TO and Interconnection Customer agree on another mutually acceptable deadline, the Interconnection Customer shall deliver to the Participating TO and CAISO "as-built" drawings, information and documents for the Interconnection Customer's Interconnection Facilities and the Electric Generating Unit(s), such as: a one-line diagram, a site plan showing the Large Generating Facility and the Interconnection Customer's Interconnection Facilities, plan and elevation drawings showing the layout of the Interconnection Customer's Interconnection Facilities, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Interconnection Customer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the Interconnection Customer's Interconnection Facilities, and the impedances (determined by factory tests) for the associated step-up transformers and the Electric Generating Units. The Interconnection Customer shall provide the Participating TO and the CAISO specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable. Any deviations from the relay settings, machine specifications, and other specifications originally submitted by the Interconnection Customer shall be assessed by the Participating TO and the CAISO pursuant to the appropriate provisions of this LGIA and the LGIP.

**5.10.4 Interconnection Customer to Meet Requirements of the Participating TO's Interconnection Handbook.** The Interconnection Customer shall comply with the Participating TO's Interconnection Handbook.

**5.11 Participating TO's Interconnection Facilities Construction.** The Participating TO's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Participating TO and Interconnection Customer agree on another mutually acceptable deadline, the Participating TO shall deliver to the Interconnection Customer and the CAISO the following "as-built" drawings, information and documents for the Participating TO's Interconnection Facilities **[include appropriate drawings and relay diagrams]**.

The Participating TO will obtain control for operating and maintenance purposes of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities. Pursuant to Article 5.2, the CAISO will obtain Operational Control of the Stand Alone Network Upgrades prior to the Commercial Operation Date.

- 5.12 Access Rights.** Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish *at no cost* to the other Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Participating TO's Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the Participating TO's Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.
- 5.13 Lands of Other Property Owners.** If any part of the Participating TO's Interconnection Facilities and/or Network Upgrades are to be installed on property owned by persons other than the Interconnection Customer or Participating TO, the Participating TO shall at the Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove the Participating TO's Interconnection Facilities and/or Network Upgrades upon such property.
- 5.14 Permits.** Participating TO and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses and authorization that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, the Participating TO shall provide permitting assistance to the Interconnection Customer comparable to that provided to the Participating TO's own, or an Affiliate's generation.
- 5.15 Early Construction of Base Case Facilities.** The Interconnection Customer may request the Participating TO to construct, and the Participating TO shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Participating TO's Transmission System which are included in the Base Case of the Interconnection Studies for the Interconnection Customer, and which also are required to be constructed for another interconnection customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date.
- 5.16 Suspension.** The Interconnection Customer reserves the right, upon written notice to the Participating TO and the CAISO, to suspend at any time all work associated with the construction and installation of the Participating TO's Interconnection Facilities, Network Upgrades, and/or Distribution Upgrades required under this LGIA with the condition that the Participating TO's electrical system and the CAISO Controlled Grid shall be left in a safe and reliable condition in accordance with Good Utility Practice and the Participating TO's safety and reliability criteria and the CAISO's Applicable Reliability Standards. In such event, the Interconnection Customer shall be responsible for all reasonable and necessary costs which the Participating TO (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Participating TO's electric system during such suspension

and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which the Participating TO cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, the Participating TO shall obtain Interconnection Customer's authorization to do so. The Participating TO shall invoice the Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work required under this LGIA pursuant to this Article 5.16, and has not requested the Participating TO to recommence the work or has not itself recommenced work required under this LGIA on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to the Participating TO and the CAISO, if no effective date is specified.

## **5.17 Taxes.**

**5.17.1 Interconnection Customer Payments Not Taxable.** The Parties intend that all payments or property transfers made by the Interconnection Customer to the Participating TO for the installation of the Participating TO's Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as a refundable advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

**5.17.2 Representations And Covenants.** In accordance with IRS Notice 2001-82 and IRS Notice 88-129, the Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior to the transmission of the electricity on the CAISO Controlled Grid, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to the Participating TO for the Participating TO's Interconnection Facilities will be capitalized by the Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the Participating TO's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At the Participating TO's request, the Interconnection Customer shall provide the Participating TO with a report from an independent engineer confirming its representation in clause (iii), above. The Participating TO represents and covenants that the cost of the Participating TO's Interconnection Facilities paid for by the Interconnection Customer without the possibility of refund or credit will have no net effect on the base upon which rates are determined.

**5.17.3 Indemnification for the Cost Consequence of Current Tax Liability Imposed Upon the Participating TO.** Notwithstanding Article 5.17.1, the Interconnection Customer shall protect, indemnify and hold harmless the Participating TO from the cost consequences of any current tax liability imposed against the Participating TO as the result of payments or property transfers made by the Interconnection Customer to the Participating TO under this LGIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by the Participating TO.

The Participating TO shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges the Interconnection Customer under this

LGIA unless (i) the Participating TO has determined, in good faith, that the payments or property transfers made by the Interconnection Customer to the Participating TO should be reported as income subject to taxation or (ii) any Governmental Authority directs the Participating TO to report payments or property as income subject to taxation; provided, however, that the Participating TO may require the Interconnection Customer to provide security for Interconnection Facilities, in a form reasonably acceptable to the Participating TO (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. The Interconnection Customer shall reimburse the Participating TO for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from the Participating TO of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period and the applicable statute of limitation, as it may be extended by the Participating TO upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

**5.17.4 Tax Gross-Up Amount.** The Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that the Interconnection Customer will pay the Participating TO, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current taxes imposed on the Participating TO ("Current Taxes") on the excess of (a) the gross income realized by the Participating TO as a result of payments or property transfers made by the Interconnection Customer to the Participating TO under this LGIA (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit the Participating TO to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on the Participating TO's composite federal and state tax rates at the time the payments or property transfers are received and the Participating TO will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting the Participating TO's anticipated tax depreciation deductions as a result of such payments or property transfers by the Participating TO's current weighted average cost of capital. Thus, the formula for calculating the Interconnection Customer's liability to the Participating TO pursuant to this Article 5.17.4 can be expressed as follows:  $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$ . Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in **Part Appendix A**, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

**5.17.5 Private Letter Ruling or Change or Clarification of Law.** At the Interconnection Customer's request and expense, the Participating TO shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by the Interconnection Customer to the Participating TO under this LGIA are subject to federal income taxation. The Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of the Interconnection Customer's knowledge. The Participating TO and Interconnection Customer shall cooperate in good faith with respect to the submission of such request, provided,

however, the Interconnection Customer and the Participating TO explicitly acknowledge (and nothing herein is intended to alter) Participating TO's obligation under law to certify that the facts presented in the ruling request are true, correct and complete.

The Participating TO shall keep the Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes the Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. The Participating TO shall allow the Interconnection Customer to attend all meetings with IRS officials about the request and shall permit the Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

**5.17.6 Subsequent Taxable Events.** If, within 10 years from the date on which the relevant Participating TO's Interconnection Facilities are placed in service, (i) the Interconnection Customer Breaches the covenants contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this LGIA terminates and the Participating TO retains ownership of the Interconnection Facilities and Network Upgrades, the Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on the Participating TO, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

**5.17.7 Contests.** In the event any Governmental Authority determines that the Participating TO's receipt of payments or property constitutes income that is subject to taxation, the Participating TO shall notify the Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by the Interconnection Customer and at the Interconnection Customer's sole expense, the Participating TO may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon the Interconnection Customer's written request and sole expense, the Participating TO may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. The Participating TO reserve the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but the Participating TO shall keep the Interconnection Customer informed, shall consider in good faith suggestions from the Interconnection Customer about the conduct of the contest, and shall reasonably permit the Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

The Interconnection Customer shall pay to the Participating TO on a periodic basis, as invoiced by the Participating TO, the Participating TO's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest, including any costs associated with obtaining the opinion of independent tax counsel described in this Article 5.17.7. The Participating TO may abandon any contest if the Interconnection Customer fails to provide payment to the Participating TO within thirty (30) Calendar Days of receiving such invoice.

At any time during the contest, the Participating TO may agree to a settlement either with the Interconnection Customer's consent or, if such consent is refused, after obtaining written advice from independent nationally-recognized tax counsel, selected by the Participating TO, but reasonably acceptable to the Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. The Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by the Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax



counsel selected under the terms of the preceding paragraph. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. The Participating TO may also settle any tax controversy without receiving the Interconnection Customer's consent or any such written advice; however, any such settlement will relieve the Interconnection Customer from any obligation to indemnify the Participating TO for the tax at issue in the contest (unless the failure to obtain written advice is attributable to the Interconnection Customer's unreasonable refusal to the appointment of independent tax counsel).

**5.17.8 Refund.** In the event that (a) a private letter ruling is issued to the Participating TO which holds that any amount paid or the value of any property transferred by the Interconnection Customer to the Participating TO under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to the Participating TO in good faith that any amount paid or the value of any property transferred by the Interconnection Customer to the Participating TO under the terms of this LGIA is not taxable to the Participating TO, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by the Interconnection Customer to the Participating TO are not subject to federal income tax, or (d) if the Participating TO receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by the Interconnection Customer to the Participating TO pursuant to this LGIA, the Participating TO shall promptly refund to the Interconnection Customer the following:

(i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,

(ii) interest on any amounts paid by the Interconnection Customer to the Participating TO for such taxes which the Participating TO did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date payment was made by the Interconnection Customer to the date the Participating TO refunds such payment to the Interconnection Customer, and

(iii) with respect to any such taxes paid by the Participating TO, any refund or credit the Participating TO receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to the Participating TO for such overpayment of taxes (including any reduction in interest otherwise payable by the Participating TO to any Governmental Authority resulting from an offset or credit); provided, however, that the Participating TO will remit such amount promptly to the Interconnection Customer only after and to the extent that the Participating TO has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to the Participating TO's Interconnection Facilities.

The intent of this provision is to leave the Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

**5.17.9 Taxes Other Than Income Taxes.** Upon the timely request by the Interconnection Customer, and at the Interconnection Customer's sole expense, the CAISO or Participating TO may appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against the CAISO or

Participating TO for which the Interconnection Customer may be required to reimburse the CAISO or Participating TO under the terms of this LGIA. The Interconnection Customer shall pay to the Participating TO on a periodic basis, as invoiced by the Participating TO, the Participating TO's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. The Interconnection Customer, the CAISO, and the Participating TO shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by the Interconnection Customer to the CAISO or Participating TO for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, the Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by the Participating TO.

**5.18 Tax Status.** Each Party shall cooperate with the others to maintain the other Parties' tax status. Nothing in this LGIA is intended to adversely affect the CAISO's or any Participating TO's tax exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

**5.19 Modification.**

**5.19.1 General.** The Interconnection Customer or the Participating TO may undertake modifications to its facilities, subject to the provisions of this LGIA and the CAISO Tariff. If a Party plans to undertake a modification that reasonably may be expected to affect the other Parties' facilities, that Party shall provide to the other Parties sufficient information regarding such modification so that the other Parties may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Parties at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Large Generating Facility modifications that do not require the Interconnection Customer to submit an Interconnection Request, the CAISO or Participating TO shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the CAISO Controlled Grid, Participating TO's Interconnection Facilities, Network Upgrades or Distribution Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof. The Participating TO and the CAISO shall determine if a Large Generating Facility modification is a Material Modification in accordance with the LGIP.

**5.19.2 Standards.** Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this LGIA and Good Utility Practice.

**5.19.3 Modification Costs.** The Interconnection Customer shall not be directly assigned the costs of any additions, modifications, or replacements that the Participating TO makes to the Participating TO's Interconnection Facilities or the Participating TO's Transmission System to facilitate the interconnection of a third party to the Participating TO's Interconnection Facilities or the Participating TO's Transmission System, or to provide transmission service to a third party under the CAISO Tariff. The Interconnection Customer shall be responsible for the costs of any additions, modifications, or

replacements to the Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

## **ARTICLE 6. TESTING AND INSPECTION**

- 6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, the Participating TO shall test the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades and the Interconnection Customer shall test the Large Generating Facility and the Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. The Interconnection Customer shall bear the cost of all such testing and modifications. The Interconnection Customer shall not commence initial parallel operation of an Electric Generating Unit with the Participating TO's Transmission System until the Participating TO provides prior written approval, which approval shall not be unreasonably withheld, for operation of such Electric Generating Unit. The Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.
- 6.2 Post-Commercial Operation Date Testing and Modifications.** Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Large Generating Facility with the Participating TO's Transmission System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.
- 6.3 Right to Observe Testing.** Each Party shall notify the other Parties at least fourteen (14) days in advance of its performance of tests of its Interconnection Facilities or Generating Facility. The other Parties have the right, at their own expense, to observe such testing.
- 6.4 Right to Inspect.** Each Party shall have the right, but shall have no obligation to: (i) observe another Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of another Party's System Protection Facilities and other protective equipment; and (iii) review another Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this LGIA.

## **ARTICLE 7. METERING**

- 7.1 General.** Each Party shall comply with the Applicable Reliability Council requirements. The Interconnection Customer and CAISO shall comply with the provisions of the CAISO Tariff regarding metering, including Section 10 of the CAISO Tariff. Unless otherwise agreed by the Participating TO and the Interconnection Customer, the Participating TO may install additional Metering Equipment at the Point of Interconnection prior to any operation of any Electric Generating Unit and shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Large Generating Facility shall be measured at or, at the CAISO's or Participating TO's option for its respective Metering Equipment, compensated to, the Point of

Interconnection. The CAISO shall provide metering quantities to the Interconnection Customer upon request in accordance with the CAISO Tariff by directly polling the CAISO's meter data acquisition system. The Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.

- 7.2 Check Meters.** The Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check the CAISO-pollled meters or the Participating TO's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except in the case that no other means are available on a temporary basis at the option of the CAISO or the Participating TO. The check meters shall be subject at all reasonable times to inspection and examination by the CAISO or Participating TO or their designees. The installation, operation and maintenance thereof shall be performed entirely by the Interconnection Customer in accordance with Good Utility Practice.
- 7.3 Participating TO Retail Metering.** The Participating TO may install retail revenue quality meters and associated equipment, pursuant to the Participating TO's applicable retail tariffs.

## ARTICLE 8. COMMUNICATIONS

- 8.1 Interconnection Customer Obligations.** The Interconnection Customer shall maintain satisfactory operating communications with the CAISO in accordance with the provisions of the CAISO Tariff and with the Participating TO's dispatcher or representative designated by the Participating TO. The Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. The Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to the CAISO and Participating TO as set forth in **Part Appendix D**, Security Arrangements Details. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by the CAISO and Participating TO. Any required maintenance of such communications equipment shall be performed by the Interconnection Customer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.
- 8.2 Remote Terminal Unit.** Prior to the Initial Synchronization Date of each Electric Generating Unit, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by the Interconnection Customer, or by the Participating TO at the Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by the CAISO and by the Participating TO through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1.

Telemetry to the CAISO shall be provided in accordance with the CAISO's technical standards for direct telemetry. For telemetry to the Participating TO, the communication protocol for the data circuit(s) shall be specified by the Participating TO. Instantaneous bi-directional real power and reactive power flow and any other required information must be telemetered directly to the location(s) specified by the Participating TO.

Each Party will promptly advise the other Parties if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by another Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

- 8.3 No Annexation.** Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

## ARTICLE 9. OPERATIONS

- 9.1 General.** Each Party shall comply with the Applicable Reliability Council requirements, and the Interconnection Customer shall execute the Reliability Management System Agreement of the Applicable Reliability Council attached hereto as **PartAppendix G**. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.
- 9.2 ~~Control~~Balancing Authority Area Notification.** At least three months before Initial Synchronization Date, the Interconnection Customer shall notify the CAISO and Participating TO in writing of the ~~Control~~Balancing Authority Area in which the Large Generating Facility intends to be located. If the Interconnection Customer intends to locate the Large Generating Facility in a ~~Control~~Balancing Authority Area other than the ~~Control~~Balancing Authority Area within whose electrically metered boundaries the Large Generating Facility is located, and if permitted to do so by the relevant transmission tariffs, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote ~~Control~~Balancing Authority Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other ~~Control~~Balancing Authority Area.
- 9.3 CAISO and Participating TO Obligations.** The CAISO and Participating TO shall cause the Participating TO's Transmission System to be operated and controlled in a safe and reliable manner and in accordance with this LGIA. The Participating TO at the Interconnection Customer's expense shall cause the Participating TO's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA. The CAISO and Participating TO may provide operating instructions to the Interconnection Customer consistent with this LGIA and Participating TO and CAISO operating protocols and procedures as they may change from time to time. The Participating TO and CAISO will consider changes to their operating protocols and procedures proposed by the Interconnection Customer.
- 9.4 Interconnection Customer Obligations.** The Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA. The Interconnection Customer shall operate the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of the ~~Control~~Balancing Authority Area of which it is part, including such requirements as set forth in **PartAppendix C**, Interconnection Details, of this LGIA. **PartAppendix C**, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. A Party may request that another Party provide copies of the requirements set forth in **PartAppendix C**, Interconnection Details, of this LGIA. The Interconnection Customer shall not commence Commercial Operation of an Electric Generating Unit with the Participating TO's Transmission System until the Participating TO provides prior written approval, which approval shall not be unreasonably withheld, for operation of such Electric Generating Unit.
- 9.5 Start-Up and Synchronization.** Consistent with the Parties' mutually acceptable procedures, the Interconnection Customer is responsible for the proper synchronization of each Electric Generating Unit to the CAISO Controlled Grid.
- 9.6 Reactive Power.**

**9.6.1 Power Factor Design Criteria.** The Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the terminals of the Electric Generating Unit at a power factor within the range of 0.95 leading to 0.90 lagging, unless the CAISO has established different requirements that apply to all generators in the ~~Control~~Balancing Authority Area on a comparable basis. ~~Wind generators of the induction type must maintain unity power factor at the Point of Interconnection.~~ Power factor design criteria for wind generators are provided in **Appendix H** of this LGIA.

**9.6.2 Voltage Schedules.** Once the Interconnection Customer has synchronized an Electric Generating Unit with the CAISO Controlled Grid, the CAISO or Participating TO shall require the Interconnection Customer to maintain a voltage schedule by operating the Electric Generating Unit to produce or absorb reactive power within the design limitations of the Electric Generating Unit set forth in Article 9.6.1 (Power Factor Design Criteria). CAISO's voltage schedules shall treat all sources of reactive power in the ~~Control~~Balancing Authority Area in an equitable and not unduly discriminatory manner. The Participating TO shall exercise Reasonable Efforts to provide the Interconnection Customer with such schedules at least one (1) day in advance, and the CAISO or Participating TO may make changes to such schedules as necessary to maintain the reliability of the CAISO Controlled Grid or the Participating TO's electric system. The Interconnection Customer shall operate the Electric Generating Unit to maintain the specified output voltage or power factor within the design limitations of the Electric Generating Unit set forth in Article 9.6.1 (Power Factor Design Criteria), and as may be required by the CAISO to operate the Electric Generating Unit at a specific voltage schedule within the design limitations set forth in Article 9.6.1. If the Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify the CAISO and the Participating TO.

**9.6.2.1 Governors and Regulators.** Whenever an Electric Generating Unit is operated in parallel with the CAISO Controlled Grid and the speed governors (if installed on the Electric Generating Unit pursuant to Good Utility Practice) and voltage regulators are capable of operation, the Interconnection Customer shall operate the Electric Generating Unit with its speed governors and voltage regulators in automatic operation. If the Electric Generating Unit's speed governors and voltage regulators are not capable of such automatic operation, the Interconnection Customer shall immediately notify the CAISO and the Participating TO and ensure that the Electric Generating Unit operates as specified in Article 9.6.2 through manual operation and that such Electric Generating Unit's reactive power production or absorption (measured in MVARs) are within the design capability of the Electric Generating Unit(s) and steady state stability limits. The Interconnection Customer shall restore the speed governors and voltage regulators to automatic operation as soon as possible and in accordance with the Reliability Management System Agreement in ~~Part~~Appendix G. If the Large Generating Facility's speed governors and voltage regulators are improperly tuned or malfunctioning, the CAISO shall have the right to order the reduction in output or disconnection of the Large Generating Facility if the reliability of the CAISO Controlled Grid would be adversely affected. The Interconnection Customer shall not cause its Large Generating Facility to disconnect automatically or instantaneously from the CAISO Controlled Grid or trip any Electric Generating Unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the ~~Control~~Balancing Authority Area on a comparable basis.

**9.6.3 Payment for Reactive Power.** CAISO is required to pay the Interconnection Customer for reactive power that Interconnection Customer provides or absorbs from an Electric Generating Unit when the CAISO requests the Interconnection Customer to operate its Electric Generating Unit outside the range specified in Article 9.6.1, provided that if the CAISO pays other generators for reactive power service within the specified range, it must also pay the Interconnection Customer. Payments shall be pursuant to Article 11.6 or such other agreement to which the CAISO and Interconnection Customer have otherwise agreed.

## **9.7 Outages and Interruptions.**

### **9.7.1 Outages.**

**9.7.1.1 Outage Authority and Coordination.** Each Party may in accordance with Good Utility Practice in coordination with the other Parties remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact another Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to all Parties. In all circumstances any Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Parties of such removal.

**9.7.1.2 Outage Schedules.** The CAISO shall post scheduled outages of CAISO Controlled Grid facilities in accordance with the provisions of the CAISO Tariff. The Interconnection Customer shall submit its planned maintenance schedules for the Large Generating Facility to the CAISO in accordance with the CAISO Tariff. The Interconnection Customer shall update its planned maintenance schedules in accordance with the CAISO Tariff. The CAISO may request the Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the CAISO Controlled Grid in accordance with the CAISO Tariff. Such planned maintenance schedules and updates and changes to such schedules shall be provided by the Interconnection Customer to the Participating TO concurrently with their submittal to the CAISO. The CAISO shall compensate the Interconnection Customer for any additional direct costs that the Interconnection Customer incurs as a result of having to reschedule maintenance in accordance with the CAISO Tariff. The Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, the Interconnection Customer had modified its schedule of maintenance activities.

**9.7.1.3 Outage Restoration.** If an outage on a Party's Interconnection Facilities or Network Upgrades adversely affects another Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Parties, to the extent such information is known, information on the nature of the Emergency Condition, if the outage is caused by an Emergency Condition, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage, if requested by a Party, which may be provided by e-mail or facsimile.

**9.7.2 Interruption of Service.** If required by Good Utility Practice to do so, the CAISO or the Participating TO may require the Interconnection Customer to interrupt or reduce

deliveries of electricity if such delivery of electricity could adversely affect the CAISO's or the Participating TO's ability to perform such activities as are necessary to safely and reliably operate and maintain the Participating TO's electric system or the CAISO Controlled Grid. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:

- 9.7.2.1** The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;
- 9.7.2.2** Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the CAISO Controlled Grid, subject to any conditions specified in this LGIA;
- 9.7.2.3** When the interruption or reduction must be made under circumstances which do not allow for advance notice, the CAISO or Participating TO, as applicable, shall notify the Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification, if requested by the Interconnection Customer, as soon as practicable;
- 9.7.2.4** Except during the existence of an Emergency Condition, the CAISO or Participating TO shall notify the Interconnection Customer in advance regarding the timing of such interruption or reduction and further notify the Interconnection Customer of the expected duration. The CAISO or Participating TO shall coordinate with the Interconnection Customer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to the Interconnection Customer, the CAISO, and the Participating TO;
- 9.7.2.5** The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Interconnection Facilities, the Participating TO's Transmission System, and the CAISO Controlled Grid to their normal operating state, consistent with system conditions and Good Utility Practice.

**9.7.3 Under-Frequency and Over Frequency Conditions.** The CAISO Controlled Grid is designed to automatically activate a load-shed program as required by the Applicable Reliability Council in the event of an under-frequency system disturbance. The Interconnection Customer shall implement under-frequency and over-frequency protection set points for the Large Generating Facility as required by the Applicable Reliability Council to ensure "ride through" capability. Large Generating Facility response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with the Participating TO and CAISO in accordance with Good Utility Practice. The term "ride through" as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the CAISO Controlled Grid during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice.

**9.7.4 System Protection and Other Control Requirements.**

**9.7.4.1 System Protection Facilities.** The Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. The Participating TO shall install at the Interconnection Customer's expense any System Protection Facilities that may be required on the Participating TO's Interconnection Facilities or the Participating TO's



Transmission System as a result of the interconnection of the Large Generating Facility and the Interconnection Customer's Interconnection Facilities.

- 9.7.4.2** The Participating TO's and Interconnection Customer's protection facilities shall be designed and coordinated with other systems in accordance with Applicable Reliability Council criteria and Good Utility Practice.
- 9.7.4.3** The Participating TO and Interconnection Customer shall each be responsible for protection of its facilities consistent with Good Utility Practice.
- 9.7.4.4** The Participating TO's and Interconnection Customer's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of the Interconnection Customer's Electric Generating Units.
- 9.7.4.5** The Participating TO and Interconnection Customer will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice and, if applicable, the requirements of the Participating TO's Interconnection Handbook.
- 9.7.4.6** Prior to the in-service date, and again prior to the Commercial Operation Date, the Participating TO and Interconnection Customer or their agents shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice, the standards and procedures of the Participating TO, including, if applicable, the requirements of the Participating TO's Interconnection Handbook, and following any apparent malfunction of the System Protection Facilities, each Party shall perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.

**9.7.5 Requirements for Protection.** In compliance with Good Utility Practice and, if applicable, the requirements of the Participating TO's Interconnection Handbook, the Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the Participating TO's Transmission System not otherwise isolated by the Participating TO's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Participating TO's Transmission System. Such protective equipment shall include, without limitation, a disconnecting device with fault current-interrupting capability located between the Large Generating Facility and the Participating TO's Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. The Interconnection Customer shall be responsible for protection of the Large Generating Facility and the Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. The Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and the Interconnection Customer's other equipment if conditions on the CAISO Controlled Grid could adversely affect the Large Generating Facility.

**9.7.6 Power Quality.** Neither the Participating TO's nor the Interconnection Customer's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, any applicable superseding electric industry

standard, or any alternative Applicable Reliability Council standard. In the event of a conflict between ANSI Standard C84.1-1989, any applicable superseding electric industry standard, or any alternative Applicable Reliability Council standard, the alternative Applicable Reliability Council standard shall control.

**9.8 Switching and Tagging Rules.** Each Party shall provide the other Parties a copy of its switching and tagging rules that are applicable to the other Parties' activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

**9.9 Use of Interconnection Facilities by Third Parties.**

**9.9.1 Purpose of Interconnection Facilities.** Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Participating TO's Transmission System and shall be used for no other purpose.

**9.9.2 Third Party Users.** If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use the Participating TO's Interconnection Facilities, or any part thereof, the Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by the Participating TO, all third party users, and the Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between the Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by the Participating TO, all third party users, and the Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.

**9.10 Disturbance Analysis Data Exchange.** The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or the CAISO Controlled Grid by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice.

## **ARTICLE 10. MAINTENANCE**

**10.1 Participating TO Obligations.** The Participating TO shall maintain the Participating TO's Transmission System and the Participating TO's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

**10.2 Interconnection Customer Obligations.** The Interconnection Customer shall maintain the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

**10.3 Coordination.** The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Interconnection Facilities.

- 10.4 Secondary Systems.** The Participating TO and Interconnection Customer shall cooperate with the other Parties in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of a Party's facilities and equipment which may reasonably be expected to impact the other Parties. Each Party shall provide advance notice to the other Parties before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.
- 10.5 Operating and Maintenance Expenses.** Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, the Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing the Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of the Participating TO's Interconnection Facilities.

## ARTICLE 11. PERFORMANCE OBLIGATION

- 11.1 Interconnection Customer's Interconnection Facilities.** The Interconnection Customer shall design, procure, construct, install, own and/or control the Interconnection Customer's Interconnection Facilities described in **PartAppendix** A at its sole expense.
- 11.2 Participating TO's Interconnection Facilities.** The Participating TO shall design, procure, construct, install, own and/or control the Participating TO's Interconnection Facilities described in **PartAppendix** A at the sole expense of the Interconnection Customer. Unless the Participating TO elects to fund the capital for the Participating TO's Interconnection Facilities, they shall be solely funded by the Interconnection Customer.
- 11.3 Network Upgrades and Distribution Upgrades.** The Participating TO shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in **PartAppendix** A. The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless the Participating TO elects to fund the capital for the Distribution Upgrades and Network Upgrades, they shall be solely funded by the Interconnection Customer.
- 11.4 Transmission Credits.** No later than thirty (30) days prior to the Commercial Operation Date, the Interconnection Customer may make a one-time election by written notice to the CAISO and the Participating TO to receive Congestion Revenue Rights as defined in and as available under the CAISO Tariff at the time of the election in accordance with the CAISO Tariff, in lieu of a refund of the cost of Network Upgrades in accordance with Article 11.4.1.
- 11.4.1 Repayment of Amounts Advanced for Network Upgrades.** Upon the Commercial Operation Date, the Interconnection Customer shall be entitled to a repayment, equal to the total amount paid to the Participating TO for the cost of Network Upgrades. Such amount shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer pursuant to Article 5.17.8 or otherwise, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years from the Commercial Operation Date. Notwithstanding the foregoing, if this LGIA terminates within five (5) years from the Commercial Operation Date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date

of termination. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment. Interest shall continue to accrue on the repayment obligation so long as this LGIA is in effect. The Interconnection Customer may assign such repayment rights to any person.

If the Large Generating Facility fails to achieve commercial operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, the Participating TO shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying the entity to which reimbursement must be made.

**11.4.2 Special Provisions for Affected Systems.** The Interconnection Customer shall enter into an agreement with the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid, as applicable, in accordance with the LGIP. Such agreement shall specify the terms governing payments to be made by the Interconnection Customer to the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid as well as the repayment by the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid. In no event shall the Participating TO be responsible for the repayment for any facilities that are not part of the Participating TO's Transmission System.

**11.4.3** Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, Congestion Revenue Rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Large Generating Facility.

**11.5 Provision of Security.** At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of a Participating TO's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, the Interconnection Customer shall provide the Participating TO, at the Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Participating TO and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1. Such security for payment shall be in an amount sufficient to cover the costs for constructing, procuring and installing the applicable portion of the Participating TO's Interconnection Facilities, Network Upgrades, or Distribution Upgrades. Such security shall be reduced on a dollar-for-dollar basis for payments made to the Participating TO for these purposes.

In addition:

**11.5.1** The guarantee must be made by an entity that meets the creditworthiness requirements of the Participating TO, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

**11.5.2** The letter of credit must be issued by a financial institution reasonably acceptable to the Participating TO and must specify a reasonable expiration date.

**11.5.3** The surety bond must be issued by an insurer reasonably acceptable to the Participating TO and must specify a reasonable expiration date.

**11.6 Interconnection Customer Compensation.** If the CAISO requests or directs the Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power) or 13.5.1 of this LGIA, the CAISO shall compensate the Interconnection Customer in accordance with the CAISO Tariff.

**11.6.1 Interconnection Customer Compensation for Actions During Emergency**

**Condition.** The CAISO shall compensate the Interconnection Customer in accordance with the CAISO Tariff for its provision of real and reactive power and other Emergency Condition services that the Interconnection Customer provides to support the CAISO Controlled Grid during an Emergency Condition in accordance with Article 11.6.

## ARTICLE 12. INVOICE

**12.1 General.** The Participating TO shall submit to the Interconnection Customer, on a monthly basis, invoices of amounts due pursuant to this LGIA for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party. Notwithstanding the foregoing, any invoices between the CAISO and another Party shall be submitted and paid in accordance with the CAISO Tariff.

**12.2 Final Invoice.** As soon as reasonably practicable, but within twelve months after completion of the construction of the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades, the Participating TO shall provide an invoice of the final cost of the construction of the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades, and shall set forth such costs in sufficient detail to enable the Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. The Participating TO shall refund to the Interconnection Customer any amount by which the actual payment by the Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice; or, in the event the actual costs of construction exceed the Interconnection Customer's actual payment for estimated costs, then the Interconnection Customer shall pay to the Participating TO any amount by which the actual costs of construction exceed the actual payment by the Interconnection Customer for estimated costs within thirty (30) Calendar Days of the issuance of such final construction invoice.

**12.3 Payment.** Invoices shall be rendered to the Interconnection Customer at the address specified in **PartAppendix F**. The Interconnection Customer shall pay, or Participating TO shall refund, the amounts due within thirty (30) Calendar Days of the Interconnection Customer's receipt of the invoice. All payments shall be made in immediately available funds payable to the Interconnection Customer or Participating TO, or by wire transfer to a bank named and account designated by the invoicing Interconnection Customer or Participating TO. Payment of invoices by any Party will not constitute a waiver of any rights or claims any Party may have under this LGIA.

**12.4 Disputes.** In the event of a billing dispute between the Interconnection Customer and the Participating TO, the Participating TO and the CAISO shall continue to provide Interconnection Service under this LGIA as long as the Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to the Participating TO or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If the

Interconnection Customer fails to meet these two requirements for continuation of service, then the Participating TO may provide notice to the Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accordance with the methodology set forth in FERC's Regulations at 18 C.F.R. § 35.19a(a)(2)(iii). Notwithstanding the foregoing, any billing dispute between the CAISO and another Party shall be resolved in accordance with the provisions of Article 27 of this LGIA.

## **ARTICLE 13. EMERGENCIES**

### **13.1 [Reserved]**

**13.2 Obligations.** Each Party shall comply with the Emergency Condition procedures of the CAISO, NERC, the Applicable Reliability Council, Applicable Laws and Regulations, and any emergency procedures set forth in this LGIA.

**13.3 Notice.** The Participating TO or the CAISO shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that affects the Participating TO's Interconnection Facilities or Distribution System or the CAISO Controlled Grid, respectively, that may reasonably be expected to affect the Interconnection Customer's operation of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. The Interconnection Customer shall notify the Participating TO and the CAISO promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or the Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the CAISO Controlled Grid or the Participating TO's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of the Interconnection Customer's or Participating TO's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice, if requested by a Party, which may be provided by electronic mail or facsimile, or in the case of the CAISO may be publicly posted on the CAISO's internet web site.

**13.4 Immediate Action.** Unless, in the Interconnection Customer's reasonable judgment, immediate action is required, the Interconnection Customer shall obtain the consent of the CAISO and the Participating TO, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or the Interconnection Customer's Interconnection Facilities in response to an Emergency Condition declared by the Participating TO or CAISO or in response to any other emergency condition.

### **13.5 CAISO and Participating TO Authority.**

**13.5.1 General.** The CAISO and Participating TO may take whatever actions or inactions, including issuance of dispatch instructions, with regard to the CAISO Controlled Grid or the Participating TO's Interconnection Facilities or Distribution System they deem necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the CAISO Controlled Grid or the Participating TO's Interconnection Facilities or Distribution System, and (iii) limit or prevent damage, and (iv) expedite restoration of service.

The Participating TO and the CAISO shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. The Participating TO or the CAISO may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing the Interconnection

Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2; directing the Interconnection Customer to assist with black start (if available) or restoration efforts; or altering the outage schedules of the Large Generating Facility and the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of the CAISO's and Participating TO's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

**13.5.2 Reduction and Disconnection.** The Participating TO or the CAISO may reduce Interconnection Service or disconnect the Large Generating Facility or the Interconnection Customer's Interconnection Facilities when such reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of the CAISO pursuant to the CAISO Tariff. When the CAISO or Participating TO can schedule the reduction or disconnection in advance, the CAISO or Participating TO shall notify the Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. The CAISO or Participating TO shall coordinate with the Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to the Interconnection Customer and the CAISO and Participating TO. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the CAISO Controlled Grid to their normal operating state as soon as practicable consistent with Good Utility Practice.

**13.6 Interconnection Customer Authority.** Consistent with Good Utility Practice, this LGIA, and the CAISO Tariff, the Interconnection Customer may take actions or inactions with regard to the Large Generating Facility or the Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the CAISO Controlled Grid and the Participating TO's Interconnection Facilities. The CAISO and Participating TO shall use Reasonable Efforts to assist Interconnection Customer in such actions.

**13.7 Limited Liability.** Except as otherwise provided in Article 11.6.1 of this LGIA, no Party shall be liable to any other Party for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

## **ARTICLE 14. REGULATORY REQUIREMENTS AND GOVERNING LAW**

**14.1 Regulatory Requirements.** Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require the Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act or the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978, or the Energy Policy Act of 2005.

## **14.2 Governing Law.**

**14.2.1** The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.

**14.2.2** This LGIA is subject to all Applicable Laws and Regulations.

**14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

## **ARTICLE 15. NOTICES**

**15.1 General.** Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by a Party to another and any instrument required or permitted to be tendered or delivered by a Party in writing to another shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in **PartAppendix F**, Addresses for Delivery of Notices and Billings.

A Party must update the information in **PartAppendix F** as information changes. A Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change. Such changes shall not constitute an amendment to this LGIA.

**15.2 Billings and Payments.** Billings and payments shall be sent to the addresses set out in **PartAppendix F**.

**15.3 Alternative Forms of Notice.** Any notice or request required or permitted to be given by a Party to another and not required by this LGIA to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out in **PartAppendix F**.

**15.4 Operations and Maintenance Notice.** Each Party shall notify the other Parties in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

## **ARTICLE 16. FORCE MAJEURE**

### **16.1 Force Majeure.**

**16.1.1** Economic hardship is not considered a Force Majeure event.

**16.1.2** No Party shall be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.



## ARTICLE 17. DEFAULT

### 17.1 Default

**17.1.1 General.** No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act or omission of the other Party. Upon a Breach, the affected non-Breaching Party(ies) shall give written notice of such Breach to the Breaching Party. Except as provided in Article 17.1.2, the Breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

**17.1.2 Right to Terminate.** If a Breach is not cured as provided in this Article, or if a Breach is not capable of being cured within the period provided for herein, the affected non-Breaching Party(ies) shall have the right to declare a Default and terminate this LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not such Party(ies) terminates this LGIA, to recover from the Breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article will survive termination of this LGIA.

## ARTICLE 18. INDEMNITY, CONSEQUENTIAL DAMAGES AND INSURANCE

**18.1 Indemnity.** Each Party shall at all times indemnify, defend, and hold the other Parties harmless from, any and all Losses arising out of or resulting from another Party's action or inactions of its obligations under this LGIA on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.

**18.1.1 Indemnified Party.** If an Indemnified Party is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Party may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

**18.1.2 Indemnifying Party.** If an Indemnifying Party is obligated to indemnify and hold any Indemnified Party harmless under this Article 18, the amount owing to the Indemnified Party shall be the amount of such Indemnified Party's actual Loss, net of any insurance or other recovery.

**18.1.3 Indemnity Procedures.** Promptly after receipt by an Indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Party shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Party. If the defendants in any such action include one or more Indemnified Parties and the Indemnifying Party and if the Indemnified Party reasonably concludes that there may

be legal defenses available to it and/or other Indemnified Parties which are different from or additional to those available to the Indemnifying Party, the Indemnified Party shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Party or Indemnified Parties having such differing or additional legal defenses.

The Indemnified Party shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Party and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Party, or there exists a conflict or adversity of interest between the Indemnified Party and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Party, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Party, which shall not be unreasonably withheld, conditioned or delayed.

**18.2 Consequential Damages.** Other than the liquidated damages heretofore described in Article 5.3, in no event shall any Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

**18.3 Insurance.** Each Party shall, at its own expense, maintain in force throughout the period of this LGIA, and until released by the other Parties, the following minimum insurance coverages, with insurers rated no less than A- (with a minimum size rating of VII) by Bests' Insurance Guide and Key Ratings and authorized to do business in the state where the Point of Interconnection is located, except in the case of the CAISO, the State of California:

**18.3.1** Employer's Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located, except in the case of the CAISO, the State of California.

**18.3.2** Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

**18.3.3** Business Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.

**18.3.4** Excess Public Liability Insurance over and above the Employer's Liability Commercial General Liability and Business Automobile Liability Insurance coverage, with a

minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.

- 18.3.5** The Commercial General Liability Insurance, Business Automobile Insurance and Excess Public Liability Insurance policies shall name the other Parties, their parents, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.
- 18.3.6** The Commercial General Liability Insurance, Business Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.
- 18.3.7** The Commercial General Liability Insurance, Business Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.
- 18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.
- 18.3.9** Within ten (10) Calendar Days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) Calendar Days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.
- 18.3.10** Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's senior unsecured debt or issuer rating is BBB-, or better, as rated by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior unsecured debt rating and issuer rating are both unrated by Standard & Poor's or are both rated at less than BBB- by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In the event that a Party is permitted to self-insure pursuant to this Article 18.3.10, it shall notify the other Parties that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.
- 18.3.11** The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

## **ARTICLE 19. ASSIGNMENT**

- 19.1 Assignment.** This LGIA may be assigned by a Party only with the written consent of the other Parties; provided that a Party may assign this LGIA without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that the Interconnection Customer shall have the right to assign this LGIA, without the consent of the CAISO or Participating TO, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that the Interconnection Customer will promptly notify the CAISO and Participating TO of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the CAISO and Participating TO of the date and particulars of any such exercise of assignment right(s), including providing the CAISO and Participating TO with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

## **ARTICLE 20. SEVERABILITY**

- 20.1 Severability.** If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this LGIA; provided that if the Interconnection Customer (or any third party, but only if such third party is not acting at the direction of the Participating TO or CAISO) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of the provisions of Article 5.1.2 or 5.1.4 shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

## **ARTICLE 21. COMPARABILITY**

- 21.1 Comparability.** The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

## **ARTICLE 22. CONFIDENTIALITY**

- 22.1 Confidentiality.** Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by any of the Parties to the other Parties prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Parties receiving the information that the information is confidential.

If requested by any Party, the other Parties shall provide in writing, the basis for asserting that the information referred to in this Article 22 warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

- 22.1.1 Term.** During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.
- 22.1.2 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of this LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.
- 22.1.3 Release of Confidential Information.** No Party shall release or disclose Confidential Information to any other person, except to its employees, consultants, Affiliates (limited by the Standards of Conduct requirements set forth in Part 358 of FERC's Regulations, 18 C.F.R. 358), subcontractors, or to parties who may be or considering providing financing to or equity participation with the Interconnection Customer, or to potential purchasers or assignees of the Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.
- 22.1.4 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Parties. The disclosure by each Party to the other Parties of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.
- 22.1.5 No Warranties.** The mere fact that a Party has provided Confidential Information does not constitute a warranty or representation as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Parties nor to enter into any further agreements or proceed with any other relationship or joint venture.
- 22.1.6 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Parties under this LGIA or its regulatory requirements.
- 22.1.7 Order of Disclosure.** If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Parties with prompt notice of such request(s) or requirement(s) so that the other Parties may seek an appropriate protective order or waive compliance with the terms of this LGIA.

Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**22.1.8 Termination of Agreement.** Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from another Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.

**22.1.9 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

**22.1.10 Disclosure to FERC, its Staff, or a State.** Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 C.F.R. section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this LGIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Parties to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 C.F.R. section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

**22.1.11** Subject to the exception in Article 22.1.10, Confidential Information shall not be disclosed by the other Parties to any person not employed or retained by the other Parties, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Parties, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a ~~Control~~*Balancing Authority-Area operator* including disclosing the Confidential Information to an RTO or **CAISO** or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Parties in writing of the information it claims is confidential. Prior to any disclosures of another Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the

disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

### **ARTICLE 23. ENVIRONMENTAL RELEASES**

- 23.1** Each Party shall notify the other Parties, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Parties. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Parties copies of any publicly available reports filed with any Governmental Authorities addressing such events.

### **ARTICLE 24. INFORMATION REQUIREMENTS**

- 24.1 Information Acquisition.** The Participating TO and the Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.
- 24.2 Information Submission by Participating TO.** The initial information submission by the Participating TO shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include the Participating TO's Transmission System information necessary to allow the Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Participating TO and the Interconnection Customer. On a monthly basis the Participating TO shall provide the Interconnection Customer and the CAISO a status report on the construction and installation of the Participating TO's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.
- 24.3 Updated Information Submission by Interconnection Customer.** The updated information submission by the Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. The Interconnection Customer shall submit a completed copy of the Electric Generating Unit data requirements contained in **Part Appendix 1** to the LGIP. It shall also include any additional information provided to the Participating TO and the CAISO for the Interconnection Studies. Information in this submission shall be the most current Electric Generating Unit design or expected performance data. Information submitted for stability models shall be compatible with the Participating TO and CAISO standard models. If there is no compatible model, the Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If the Interconnection Customer's data is materially different from what was originally provided to the Participating TO and the CAISO for the Interconnection Studies, then the Participating TO and the CAISO will conduct appropriate studies pursuant to the LGIP to determine the impact on the Participating TO's Transmission System and affected portions of the CAISO Controlled Grid based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed and all other requirements of this LGIA are satisfied.

**24.4 Information Supplementation.** Prior to the Trial Operation date, the Parties shall supplement their information submissions described above in this Article 24 with any and all “as-built” Electric Generating Unit information or “as-tested” performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Electric Generating Unit as required by Good Utility Practice such as an open circuit “step voltage” test on the Electric Generating Unit to verify proper operation of the Electric Generating Unit’s automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Electric Generating Unit at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent (5 percent) change in Electric Generating Unit terminal voltage initiated by a change in the voltage regulators reference voltage. The Interconnection Customer shall provide validated test recordings showing the responses of Electric Generating Unit terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Electric Generating Unit’s terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Electric Generating Unit terminal or field voltages is provided. Electric Generating Unit testing shall be conducted and results provided to the Participating TO and the CAISO for each individual Electric Generating Unit in a station.

Subsequent to the Commercial Operation Date, the Interconnection Customer shall provide the Participating TO and the CAISO any information changes due to equipment replacement, repair, or adjustment. The Participating TO shall provide the Interconnection Customer any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Participating TO-owned substation that may affect the Interconnection Customer’s Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information pursuant to Article 5.19.

## **ARTICLE 25. INFORMATION ACCESS AND AUDIT RIGHTS**

**25.1 Information Access.** Each Party (the “disclosing Party”) shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA. Nothing in this Article 25 shall obligate the CAISO to make available to a Party any third party information in its possession or control if making such third party information available would violate a CAISO Tariff restriction on the use or disclosure of such third party information.

**25.2 Reporting of Non-Force Majeure Events.** Each Party (the “notifying Party”) shall notify the other Parties when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this LGIA.

**25.3 Audit Rights.** Subject to the requirements of confidentiality under Article 22 of this LGIA, the Parties’ audit rights shall include audits of a Party’s costs pertaining to such Party’s performance or satisfaction of obligations owed to the other Party under this LGIA, calculation of invoiced amounts, the CAISO’s efforts to allocate responsibility for the provision of reactive support to the CAISO Controlled Grid, the CAISO’s efforts to allocate responsibility for interruption or reduction



of generation on the CAISO Controlled Grid, and each such Party's actions in an Emergency Condition.

**25.3.1** The Interconnection Customer and the Participating TO shall each have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party's accounts and records pertaining to either such Party's performance or either such Party's satisfaction of obligations owed to the other Party under this LGIA. Subject to Article 25.3.2, any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each such Party's performance and satisfaction of obligations under this LGIA. Each such Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

**25.3.2** Notwithstanding anything to the contrary in Article 25.3, each Party's rights to audit the CAISO's accounts and records shall be as set forth in **Article 12 Section 22.1** of the CAISO Tariff.

#### **25.4 Audit Rights Periods.**

**25.4.1 Audit Rights Period for Construction-Related Accounts and Records.** Accounts and records related to the design, engineering, procurement, and construction of Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades constructed by the Participating TO shall be subject to audit for a period of twenty-four months following the Participating TO's issuance of a final invoice in accordance with Article 12.2. Accounts and records related to the design, engineering, procurement, and construction of Participating TO's Interconnection Facilities and/or Stand Alone Network Upgrades constructed by the Interconnection Customer shall be subject to audit and verification by the Participating TO and the CAISO for a period of twenty-four months following the Interconnection Customer's issuance of a final invoice in accordance with Article 5.2(8).

**25.4.2 Audit Rights Period for All Other Accounts and Records.** Accounts and records related to a Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought; provided that each Party's rights to audit the CAISO's accounts and records shall be as set forth in **Article 12 Section 22.1** of the CAISO Tariff.

**25.5 Audit Results.** If an audit by the Interconnection Customer or the Participating TO determines that an overpayment or an underpayment has occurred with respect to the other Party, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination. The Party that is owed payment shall render an invoice to the other Party and such invoice shall be paid pursuant to Article 12 hereof.

**25.5.1** Notwithstanding anything to the contrary in Article 25.5, the Interconnection Customer's and Participating TO's rights to audit the CAISO's accounts and records shall be as set forth in **Article 12 Section 22.1** of the CAISO Tariff, and the CAISO's process for remedying an overpayment or underpayment shall be as set forth in the CAISO Tariff.

## ARTICLE 26. SUBCONTRACTORS

- 26.1 General.** Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.
- 26.2 Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the CAISO or Participating TO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 26.3 No Limitation by Insurance.** The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

## ARTICLE 27. DISPUTES

All disputes arising out of or in connection with this LGIA whereby relief is sought by or from the CAISO shall be settled in accordance with the provisions of Article 13 of the CAISO Tariff, except that references to the CAISO Tariff in such Article 13 of the CAISO Tariff shall be read as references to this LGIA. Disputes arising out of or in connection with this LGIA not subject to provisions of Article 13 of the CAISO Tariff shall be resolved as follows:

- 27.1 Submission.** In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.
- 27.2 External Arbitration Procedures.** Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.

- 27.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.
- 27.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

## **ARTICLE 28. REPRESENTATIONS, WARRANTIES AND COVENANTS**

- 28.1 General.** Each Party makes the following representations, warranties and covenants:

- 28.1.1 Good Standing.** Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.
- 28.1.2 Authority.** Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).
- 28.1.3 No Conflict.** The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.
- 28.1.4 Consent and Approval.** Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations.

## **ARTICLE 29. [RESERVED]**

## ARTICLE 30. MISCELLANEOUS

- 30.1 Binding Effect.** This LGIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 30.2 Conflicts.** In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.
- 30.3 Rules of Interpretation.** This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix to this LGIA, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 30.4 Entire Agreement.** This LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement among the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between or among the Parties with respect to the subject matter of this LGIA. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this LGIA.
- 30.5 No Third Party Beneficiaries.** This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 30.6 Waiver.** The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
- Any waiver at any time by either Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this LGIA. Termination or Default of this LGIA for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO. Any waiver of this LGIA shall, if requested, be provided in writing.
- 30.7 Headings.** The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.

**30.8 Multiple Counterparts.** This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

**30.9 Amendment.** The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.

**30.10 Modification by the Parties.** The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.

**30.11 Reservation of Rights.** The CAISO and Participating TO shall each have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following Articles of this LGIA and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these Articles:

Recitals, 1, 2.1, 2.2, 2.3, 2.4, 2.6, 3.1, 3.3, 4.1, 4.2, **4.3**, 4.4, ~~4.5~~-5 preamble, 5.4, 5.7, 5.8, 5.9, 5.12, 5.13, 5.18, 5.19.1, 7.1, 7.2, 8, 9.1, 9.2, 9.3, 9.5, 9.6, 9.7, 9.8, 9.10, 10.3, 11.4, 12.1, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24.3, 24.4, 25.1, 25.2, 25.3 (excluding subparts), 25.4.2, 26, 28, 29, 30, **PartAppendix D**, **PartAppendix F**, **PartAppendix G**, and any other Article not reserved exclusively to the Participating TO or the CAISO below.

The Participating TO shall have the exclusive right to make a unilateral filing with FERC to modify this LGIA pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following Articles of this LGIA and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these Articles:

2.5, 5.1, 5.2, 5.3, 5.5, 5.6, 5.10, 5.11, 5.14, 5.15, 5.16, 5.17, 5.19 (excluding 5.19.1), 6, 7.3, 9.4, 9.9, 10.1, 10.2, 10.4, 10.5, 11.1, 11.2, 11.3, 11.5, 12.2, 12.3, 12.4, 24.1, 24.2, 25.3.1, 25.4.1, 25.5 (excluding 25.5.1), 27 (excluding preamble), **PartAppendix A**, **PartAppendix B**, **PartAppendix C**, and **PartAppendix E**.

The CAISO shall have the exclusive right to make a unilateral filing with FERC to modify this LGIA pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following Articles of this LGIA and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these Articles:

3.2, **4.3**, ~~4.5~~6, 11.6, 25.3.2, 25.5.1, and 27 preamble.

The Interconnection Customer, the CAISO, and the Participating TO shall have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this LGIA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

**30.12 No Partnership.** This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership among the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority

to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.

**30.13 Joint and Several Obligations.** Except as otherwise provided in this LGIA, the obligations of the CAISO, the Participating TO, and the Interconnection Customer are several, and are neither joint nor joint and several.

**IN WITNESS WHEREOF,** the Parties have executed this LGIA in multiple originals, each of which shall constitute and be an original effective agreement among the Parties.

| **[Insert name of Participating TO]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date:

**California Independent System Operator Corporation**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date:

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date:

## **Appendices to LGIA**

| **Part Appendix** A Interconnection Facilities, Network Upgrades and Distribution Upgrades

| **Part Appendix** B Milestones

| **Part Appendix** C Interconnection Details

| **Part Appendix** D Security Arrangements Details

| **Part Appendix** E Commercial Operation Date

| **Part Appendix** F Addresses for Delivery of Notices and Billings

| **Part Appendix** G Reliability Management System Agreement

| **Part Appendix** H Interconnection Requirements for a Wind Generating Plant of Generators  
Relying on New Technologies

**Part Appendix A  
To LGIA**

**Interconnection Facilities, Network Upgrades and Distribution Upgrades**

**1. Interconnection Facilities:**

**(a) [insert Interconnection Customer's Interconnection Facilities]:**

**(b) [insert Participating TO's Interconnection Facilities]:**

**2. Network Upgrades:**

**(a) [insert Stand Alone Network Upgrades]:**

**(b) [insert Other Network Upgrades]:**

**(i) [insert Participating TO's Reliability Network Upgrades]**

**(ii) [insert Participating TO's Delivery Network Upgrades]**

**3. Distribution Upgrades:**



**Part Appendix B  
To LGIA**

**Milestones**

**Part Appendix C  
To LGIA**

**Interconnection Details**

**Part Appendix D  
To LGIA**

**Security Arrangements Details**

Infrastructure security of CAISO Controlled Grid equipment and operations and control hardware and software is essential to ensure day-to-day CAISO Controlled Grid reliability and operational security. FERC will expect the CAISO, all Participating TOs, market participants, and Interconnection Customers interconnected to the CAISO Controlled Grid to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

The Interconnection Customer shall meet the requirements for security implemented pursuant to the CAISO Tariff, including the CAISO's standards for information security posted on the CAISO's internet web site at the following internet address: <http://www.caiso.com/pubinfo/info-security/index.html>.

**Part ~~Appendix E~~  
To LGIA**

**Commercial Operation Date**

This ~~Part Appendix E~~ is a part of the LGIA.

**[Date]**

**[CAISO Address]**

**[Participating TO Address]**

Re: \_\_\_\_\_ Electric Generating Unit

Dear \_\_\_\_\_:

On **[Date]** **[Interconnection Customer]** has completed Trial Operation of Unit No. \_\_\_\_\_. This letter confirms that **[Interconnection Customer]** commenced Commercial Operation of Unit No. \_\_\_\_\_ at the Electric Generating Unit, effective as of **[Date plus one day]**.

Thank you.

**[Signature]**

**[Interconnection Customer Representative]**

**Part ~~Appendix F~~**  
**To LGIA**

**Addresses for Delivery of Notices and Billings**

**Notices:**

CAISO:

[To be supplied.]

Participating TO:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

**Billings and Payments:**

Participating TO:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

CAISO:

[To be supplied.]

**Alternative Forms of Delivery of Notices (telephone, facsimile or e-mail):**

CAISO:

[To be supplied.]

Participating TO:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

**Part Appendix G  
To LGIA**

**Reliability Management System Agreement**

**RELIABILITY MANAGEMENT SYSTEM AGREEMENT  
by and between  
[TRANSMISSION OPERATOR]  
and  
[GENERATOR]**

**THIS RELIABILITY MANAGEMENT SYSTEM AGREEMENT** (the "Agreement"), is entered into this \_\_\_\_ day of \_\_\_\_\_, 2002, by and between \_\_\_\_\_ (the "Transmission Operator") and \_\_\_\_\_ (the "Generator").

**WHEREAS**, there is a need to maintain the reliability of the interconnected electric systems encompassed by the WSCC in a restructured and competitive electric utility industry;

**WHEREAS**, with the transition of the electric industry to a more competitive structure, it is desirable to have a uniform set of electric system operating rules within the Western Interconnection, applicable in a fair, comparable and non-discriminatory manner, with which all market participants comply; and

**WHEREAS**, the members of the WSCC, including the Transmission Operator, have determined that a contractual Reliability Management System provides a reasonable, currently available means of maintaining such reliability.

**NOW, THEREFORE**, in consideration of the mutual agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Transmission Operator and the Generator agree as follows:

**1. PURPOSE OF AGREEMENT**

The purpose of this Agreement is to maintain the reliable operation of the Western Interconnection through the Generator's commitment to comply with certain reliability standards.

**2. DEFINITIONS**

In addition to terms defined in the beginning of this Agreement and in the Recitals hereto, for purposes of this Agreement the following terms shall have the meanings set forth beside them below.

**Control Area** means an electric system or systems, bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the Western Interconnection.

**FERC** means the Federal Energy Regulatory Commission or a successor agency.

**Member** means any party to the WSCC Agreement.

**Party** means either the Generator or the Transmission Operator and

**Parties** means both of the Generator and the Transmission Operator.

**Reliability Management System** or **RMS** means the contractual reliability management program implemented through the WSCC Reliability Criteria Agreement, the WSCC RMS Agreement, this

Agreement, and any similar contractual arrangement.

**Western Interconnection** means the area comprising those states and provinces, or portions thereof, in Western Canada, Northern Mexico and the Western United States in which Members of the WSCC operate synchronously connected transmission systems.

**Working Day** means Monday through Friday except for recognized legal holidays in the state in which any notice is received pursuant to Section 8.

**WSCC** means the Western Systems Coordinating Council or a successor entity.

**WSCC Agreement** means the Western Systems Coordinating Council Agreement dated March 20, 1967, as such may be amended from time to time.

**WSCC Reliability Criteria Agreement** means the Western Systems Coordinating Council Reliability Criteria Agreement dated June 18, 1999 among the WSCC and certain of its member transmission operators, as such may be amended from time to time.

**WSCC RMS Agreement** means an agreement between the WSCC and the Transmission Operator requiring the Transmission Operator to comply with the reliability criteria contained in the WSCC Reliability Criteria Agreement.

**WSCC Staff** means those employees of the WSCC, including personnel hired by the WSCC on a contract basis, designated as responsible for the administration of the RMS.

### **3. TERM AND TERMINATION**

**3.1 Term.** This Agreement shall become effective [thirty (30) days after the date of issuance of a final FERC order accepting this Agreement for filing without requiring any changes to this Agreement unacceptable to either Party. Required changes to this Agreement shall be deemed unacceptable to a Party only if that Party provides notice to the other Party within fifteen (15) days of issuance of the applicable FERC order that such order is unacceptable].

[Note: if the interconnection agreement is not FERC jurisdictional, replace bracketed language with: [on the later of: (a) the date of execution; or (b) the effective date of the WSCC RMS Agreement.]]

**3.2 Notice of Termination of WSCC RMS Agreement.** The Transmission Operator shall give the Generator notice of any notice of termination of the WSCC RMS Agreement by the WSCC or by the Transmission Operator within fifteen (15) days of receipt by the WSCC or the Transmission Operator of such notice of termination.

**3.3 Termination by the Generator.** The Generator may terminate this Agreement as follows:  
(a) following the termination of the WSCC RMS Agreement for any reason by the WSCC or by the Transmission Operator, provided such notice is provided within forty-five (45) days of the termination of the WSCC RMS Agreement;  
(b) following the effective date of an amendment to the requirements of the WSCC Reliability Criteria Agreement that adversely affects the Generator, provided notice of such termination is given within forty-five (45) days of the date of issuance of a FERC order accepting such amendment for filing, provided further that the forty-five (45) day period within which notice of termination is required may be extended by the Generator for an additional forty-five (45) days if the Generator gives written notice to the Transmission Operator of such requested extension within the initial forty-five (45) day period; or  
(c) for any reason on one year's written notice to the Transmission Operator and the WSCC.

**3.4 Termination by the Transmission Operator.** The Transmission Operator may terminate this Agreement on thirty (30) days' written notice following the termination of the WSCC RMS Agreement for any reason by the WSCC or by the Transmission Operator, provided such notice is provided within thirty (30) days of the termination of the WSCC RMS Agreement.



**3.5 Mutual Agreement.** This Agreement may be terminated at any time by the mutual agreement of the Transmission Operator and the Generator.

#### **4. COMPLIANCE WITH AND AMENDMENT OF WSCC RELIABILITY CRITERIA**

**4.1 Compliance with Reliability Criteria.** The Generator agrees to comply with the requirements of the WSCC Reliability Criteria Agreement, including the applicable WSCC reliability criteria contained in Section IV of Annex A thereof, and, in the event of failure to comply, agrees to be subject to the sanctions applicable to such failure. Each and all of the provisions of the WSCC Reliability Criteria Agreement are hereby incorporated by reference into this Agreement as though set forth fully herein, and the Generator shall for all purposes be considered a Participant, and shall be entitled to all of the rights and privileges and be subject to all of the obligations of a Participant, under and in connection with the WSCC Reliability Criteria Agreement, including but not limited to the rights, privileges and obligations set forth in Sections 5, 6 and 10 of the WSCC Reliability Criteria Agreement.

**4.2 Modifications to WSCC Reliability Criteria Agreement.** The Transmission Operator shall notify the Generator within fifteen (15) days of the receipt of notice from the WSCC of the initiation of any WSCC process to modify the WSCC Reliability Criteria Agreement. The WSCC RMS Agreement specifies that such process shall comply with the procedures, rules, and regulations then applicable to the WSCC for modifications to reliability criteria.

**4.3 Notice of Modifications to WSCC Reliability Criteria Agreement.** If, following the process specified in Section 4.2, any modification to the WSCC Reliability Criteria Agreement is to take effect, the Transmission Operator shall provide notice to the Generator at least forty-five (45) days before such modification is scheduled to take effect.

**4.4 Effective Date.** Any modification to the WSCC Reliability Criteria Agreement shall take effect on the date specified by FERC in an order accepting such modification for filing.

**4.5 Transfer of Control or Sale of Generation Facilities.** In any sale or transfer of control of any generation facilities subject to this Agreement, the Generator shall as a condition of such sale or transfer require the acquiring party or transferee with respect to the transferred facilities either to assume the obligations of the Generator with respect to this Agreement or to enter into an agreement with the Control Area Operator in substantially the form of this Agreement.

#### **5. SANCTIONS**

**5.1 Payment of Monetary Sanctions.** The Generator shall be responsible for payment directly to the WSCC of any monetary sanction assessed against the Generator pursuant to this Agreement and the WSCC Reliability Criteria Agreement. Any such payment shall be made pursuant to the procedures specified in the WSCC Reliability Criteria Agreement.

**5.2 Publication.** The Generator consents to the release by the WSCC of information related to the Generator's compliance with this Agreement only in accordance with the WSCC Reliability Criteria Agreement.

**5.3 Reserved Rights.** Nothing in the RMS or the WSCC Reliability Criteria Agreement shall affect the right of the Transmission Operator, subject to any necessary regulatory approval, to take such other measures to maintain reliability, including disconnection, which the Transmission Operator may otherwise be entitled to take.

#### **6. THIRD PARTIES**

Except for the rights and obligations between the WSCC and Generator specified in Sections 4 and 5, this Agreement creates contractual rights and obligations solely between the Parties. Nothing in this

Agreement shall create, as between the Parties or with respect to the WSCC: (1) any obligation or liability whatsoever (other than as expressly provided in this Agreement), or (2) any duty or standard of care whatsoever. In addition, nothing in this Agreement shall create any duty, liability, or standard of care whatsoever as to any other party. Except for the rights, as a third-party beneficiary with respect to Sections 4 and 5, of the WSCC against Generator, no third party shall have any rights whatsoever with respect to enforcement of any provision of this Agreement. Transmission Operator and Generator expressly intend that the WSCC is a third-party beneficiary to this Agreement, and the WSCC shall have the right to seek to enforce against Generator any provisions of Sections 4 and 5, provided that specific performance shall be the sole remedy available to the WSCC pursuant to this Agreement, and Generator shall not be liable to the WSCC pursuant to this Agreement for damages of any kind whatsoever (other than the payment of sanctions to the WSCC, if so construed), whether direct, compensatory, special, indirect, consequential, or punitive.

**7. REGULATORY APPROVALS**

This Agreement shall be filed with FERC by the Transmission Operator under Section 205 of the Federal Power Act. In such filing, the Transmission Operator shall request that FERC accept this Agreement for filing without modification to become effective on the day after the date of a FERC order accepting this Agreement for filing. [This section shall be omitted for agreements not subject to FERC jurisdiction.]

**8. NOTICES**

Any notice, demand or request required or authorized by this Agreement to be given in writing to a Party shall be delivered by hand, courier or overnight delivery service, mailed by certified mail (return receipt requested) postage prepaid, faxed, or delivered by mutually agreed electronic means to such Party at the following address:

\_\_\_\_\_: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Fax: \_\_\_\_\_

\_\_\_\_\_: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Fax: \_\_\_\_\_

The designation of such person and/or address may be changed at any time by either Party upon receipt by the other of written notice. Such a notice served by mail shall be effective upon receipt. Notice transmitted by facsimile shall be effective upon receipt if received prior to 5:00 p.m. on a Working Day, and if not received prior to 5:00 p.m. on a Working Day, receipt shall be effective on the next Working Day.

**9. APPLICABILITY**

This Agreement (including all appendices hereto and, by reference, the WSCC Reliability Criteria Agreement) constitutes the entire understanding between the Parties hereto with respect to the subject matter hereof, supersedes any and all previous understandings between the Parties with respect to the subject matter hereof, and binds and inures to the benefit of the Parties and their successors.

**10. AMENDMENT**

No amendment of all or any part of this Agreement shall be valid unless it is reduced to writing and signed by both Parties hereto. The terms and conditions herein specified shall remain in effect throughout the term and shall not be subject to change through application to the FERC or other governmental body or authority, absent the agreement of the Parties.

**11. INTERPRETATION**

Interpretation and performance of this Agreement shall be in accordance with, and shall be controlled by, the laws of the State of \_\_\_\_\_ but without giving effect to the provisions thereof relating to conflicts of law. Article and section headings are for convenience only and shall not affect the interpretation of this Agreement. References to articles, sections and appendices are, unless the context otherwise requires, references to articles, sections and appendices of this Agreement.

**12. PROHIBITION ON ASSIGNMENT**

This Agreement may not be assigned by either Party without the consent of the other Party, which consent shall not be unreasonably withheld; provided that the Generator may without the consent of the WSCC assign the obligations of the Generator pursuant to this Agreement to a transferee with respect to any obligations assumed by the transferee by virtue of Section 4.5 of this Agreement.

**13. SEVERABILITY**

If one or more provisions herein shall be invalid, illegal or unenforceable in any respect, it shall be given effect to the extent permitted by applicable law, and such invalidity, illegality or unenforceability shall not affect the validity of the other provisions of this Agreement.

**14. COUNTERPARTS**

This Agreement may be executed in counterparts and each shall have the same force and effect as an original.

**IN WITNESS WHEREOF**, the Transmission Operator and the Generator have each caused this Reliability Management System Agreement to be executed by their respective duly authorized officers as of the date first above written.

\_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Part Appendix H  
To LGIA**

**Requirements of Generators Relying on Newer Technologies  
INTERCONNECTION REQUIREMENTS FOR A WIND GENERATING PLANT**

Appendix H sets forth requirements and provisions specific to a wind generating plant. All other requirements of this LGIA continue to apply to wind generating plant interconnections.

**A. Technical Standards Applicable to a Wind Generating Plant**

**i. Low Voltage Ride-Through (LVRT) Capability**

A wind generating plant shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

**Transition Period LVRT Standard**

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with FERC, filed with FERC in unexecuted form, or filed with FERC as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the Participating TO. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind generating plant step-up transformer (i.e. the transformer that steps the voltage up to the transmission interconnection voltage or “GSU”), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.
2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the **Appendix H** LVRT Standard are exempt from meeting the **Appendix H** LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the **Appendix H** LVRT Standard.

**Post-transition Period LVRT Standard**

All wind generating plants subject to FERC Order No. 661 and not covered by the transition period described above must meet the following requirements:

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to pre-fault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the Participating TO. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the **CAISO** Controlled Grid. A wind generating plant shall remain interconnected during such a fault on the **CAISO** Controlled Grid for a voltage level as low as zero volts, as measured at the high voltage side of the wind GSU.
2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAr Compensator) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the **CAISO** Controlled Grid at the same location at the effective date of the **Appendix H** LVRT Standard are exempt from meeting the **Appendix H** LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the **Appendix H** LVRT Standard.

## **ii. Power Factor Design Criteria (Reactive Power)**

A wind generating plant shall operate within a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA in order to maintain a specified voltage schedule, if the Interconnection System Impact Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two, if agreed to by the Participating TO and **CAISO**. The Interconnection Customer shall not disable power factor equipment while the wind plant is in operation. Wind plants shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the Interconnection System Impact Study shows this to be required for system safety or reliability.

## **iii. Supervisory Control and Data Acquisition (SCADA) Capability**

The wind plant shall provide SCADA capability to transmit data and receive instructions from the Participating TO and **CAISO** to protect system reliability. The Participating TO and **CAISO** and the wind plant Interconnection Customer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

## CAISO TARIFF APPENDIX W

### Interconnection Procedures in Effect Prior to July 1, 2005 (“Amendment 39 Procedures”)

### Interconnection Procedures in Effect Prior to July 1, 2005 (“Amendment 39 Procedures”)

[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]

#### **1 Applicability.**

These Amendment 39 Procedures are applicable to Small Generating Facilities interconnecting to the CAISO Controlled Grid **in accordance with Section 1.3 of the SGIP in Appendix S** and to Large Generating Facilities in accordance with Section 5.1 of the LGIP **in Appendix U**. The owner of a planned New Facility, or its designee, is referred to for purposes of this Appendix as a New Facility Operator.

#### **2 Definitions.**

##### **2.1 Master Definitions Supplement.**

Unless the context otherwise requires, any word or expression defined in the Master Definitions Supplement to the CAISO Tariff shall have the same meaning where used in this Appendix.

##### **2.2 Special Definitions for this Appendix.**

In this Appendix, the following words and expressions shall have the meanings set opposite them:

##### **Completed Application**

**Date** For purposes of this Appendix, the date on which a New Facility Operator submits an Interconnection Application to the CAISO that satisfies the requirements of the CAISO Tariff and the TO Tariff of the Interconnecting PTO.

##### **Completed Interconnection Application**

An Interconnection Application that meets the information requirements as specified by the CAISO and posted on the CAISO Website.

##### **Data Adequacy Requirement**

Any applicable minimum data requirements of the state agency responsible for generation siting or of any Local Regulatory Authority.

##### **Delivery Upgrade**

The transmission facilities, other than Direct Assignment Facilities and Reliability Upgrades, necessary to relieve constraints on the CAISO Controlled Grid and to ensure the delivery of energy from a New Facility to Load.

##### **Designated Contact Person**

The person designated by each Participating TO to coordinate with the CAISO on the processing and completion of all Interconnection Applications.

##### **Direct Assignment Facility**

The transmission facilities necessary to physically and electrically interconnect a New Facility Operator to the CAISO Controlled Grid at the point of interconnection.

**Expedited Interconnection Agreement**

A contract between a party which has submitted a Request for Expedited Interconnection Procedures and an Interconnection PTO under which the CAISO and an Interconnecting PTO agree to process, on an expedited basis, the Interconnection Application of a New Facility Operator and which sets forth the terms, conditions, and cost responsibilities for such interconnection.

**Good Faith Deposit**

The deposit paid to the CAISO by a New Facility Operator with submission of its Interconnection Application in accordance with Section 3.2 of this Appendix, in an amount equal to \$10,000, including any interest that accrues on the original amount, less any bank fees or other charges assessed on the escrow account. A New Facility Operator may satisfy its deposit obligation through any commercially available financial instrument determined to be satisfactory by the CAISO.

**Interconnecting PTO**

For purposes of this Appendix, the Participating TO that will supply the connection to the New Facility.

**Interconnection Application**

An application that requests interconnection of a New Facility to the CAISO Controlled Grid and that meets the information requirements as specified by the CAISO and posted on the CAISO Website.

**New Facility**

A planned or Existing Generating Unit that requests, pursuant to this Appendix, to interconnect or modify its interconnection to the CAISO Controlled Grid.

**New Facility License**

A license issued by a federal, state or Local Regulatory Authority that enables an entity to build and operate a Generating Unit.

**New Facility Operator**

The owner of a planned New Facility, or its designee.

**Planning Procedures**

Procedures governing the planning, expansion and reliable interconnection to the CAISO Controlled Grid that the CAISO may, from time to time, develop.

**Reliability Upgrade**

The transmission facilities, other than Direct Assignment Facilities, beyond the first point of interconnection necessary to interconnect a New Facility safely and reliably to the CAISO Controlled Grid, which would not have been necessary but for the interconnection of a New Facility, including network upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of a New Facility to the CAISO Controlled Grid. Reliability Upgrades also include, consistent with WSCC practice, the facilities necessary to mitigate any adverse impact a New Facility's interconnection may have on a path's WSCC path rating.

**Request for Expedited Interconnection Procedures**

A written request, submitted pursuant to Section 3.1.1 of this Appendix, by which a New Facility Operator can request expedited processing of its Interconnection Application.

**System Impact Study**

An engineering study conducted to determine whether a New Facility Operator's request for interconnection to the CAISO Controlled Grid would require new transmission additions, upgrades or other mitigation measures.

### **3 Interconnection Application.**

Unless the New Facility Operator has submitted a Completed Interconnection Application to the CAISO prior to July 1, 2005, any New Facility Operators shall submit two **(2)** copies of a Completed Interconnection Application to the CAISO in the form specified by the CAISO. The CAISO will date stamp all copies of the Interconnection Application, retain one executed copy, and, within **one (1)** Business Day, send the other copy to the Designated Contact Person of the Interconnecting PTO. Within **ten (10)** Business Days after the Interconnecting PTO receives an Interconnection Application, the CAISO and the Interconnecting PTO shall determine whether the application is complete and the CAISO will notify the New Facility Operator that its Interconnection Application is complete; or, in the event that the CAISO, in consultation with the Interconnecting PTO, determines that the Interconnection Application is incomplete, the CAISO will notify the New Facility Operator of the deficiencies or omissions in its application.

#### **3.1 Expedited Procedures For New Facilities.**

A New Facility Operator may submit a Request for Expedited Interconnection Procedures in accordance with Section 3.1.1 of this Appendix. The CAISO will develop and post on the CAISO Website the Planning Procedures applicable to such expedited processing of Interconnection Applications.

##### **3.1.1 Request for Expedited Interconnection Procedures.**

- (a) If it elects to expedite processing of its Completed Interconnection Application, a New Facility Operator shall submit a Request for Expedited Interconnection Procedures within 10 Business Days after receiving a copy of the System Impact Study for the proposed interconnection. The request should be submitted in writing to the CAISO and the Interconnecting PTO.
- (b) Within **ten (10)** Business Days after receiving a Request for Expedited Interconnection Procedures, the CAISO and Interconnecting PTO shall provide to applicant the results of any studies required in addition to the System Impact Study, and shall tender an Expedited Interconnection Agreement that requires the applicant to compensate the Interconnecting PTO for all costs reasonably incurred pursuant to the terms of the CAISO Tariff and the Interconnecting PTO's applicable TO Tariff for processing the Completed Interconnection Application and providing the requested interconnection.
- (c) Concurrent with the provision, by the CAISO and the Interconnecting PTO, of the studies referenced in subsection b, above, the Interconnecting PTO and the CAISO shall provide to applicant their best estimate of the cost of any needed Direct Assignment Facilities and Reliability Upgrades, Delivery Upgrades, if requested by the New Facility Operator, and other costs that may be incurred in processing the Interconnection Application and providing the requested interconnection, however, unless otherwise agreed by the CAISO, and the Interconnecting PTO, and the applicant, such cost estimate shall not be binding and the New Facility Operator shall compensate the CAISO and the Interconnecting PTO for all actual interconnection costs reasonably incurred pursuant to the provisions of this Appendix and the Interconnecting PTO's TO Tariff.
- (d) The New Facility Operator shall execute and return to the Interconnecting PTO, with a copy to the CAISO, such Expedited Interconnection Agreement within **ten (10)** Business Days of its receipt or the New Facility Operator's Interconnection Application will be deemed withdrawn. In that event, the New Facility Operator shall reimburse the CAISO and the Interconnecting PTO for all costs reasonably incurred in the processing of the Interconnection Application, including the Request for Expedited Interconnection.



### **3.2 Good Faith Deposit.**

- (a) Each New Facility Operator that submits an Interconnection Application will on the date of submission also provide a Good Faith Deposit to the CAISO. The CAISO shall hold the Good Faith Deposit in trust for each applicant in a separate, interest-bearing account.
- (b) The CAISO shall refund the Good Faith Deposit, with accrued Interest, in the event that:
  - (i) The CAISO determines that the New Facility is not responsible for any interconnection costs, other than study costs; or
  - (ii) The applicant withdraws its Interconnection Application or its Interconnection Application is deemed withdrawn.

### **3.3 Posting of Interconnection Applications and Non-disclosure.**

The CAISO will maintain on its OASIS site an updated list of all pending Interconnection Applications. As soon as practicable after the CAISO receives a Completed Interconnection Application, the CAISO will post the nearest substation, the capacity (MW) of the New Facility and the year the New Facility is proposed to begin operations. At the time it submits its Interconnection Application, a New Facility Operator may request in writing that the CAISO and Interconnecting PTO not publicly disclose the identity of such New Facility Operator. Upon such request, the CAISO and Interconnecting PTO will not disclose the identity of the applicant while its Interconnection Application is pending, unless disclosure is permitted under Section 20.1 of the CAISO Tariff or in the event that an applicant's identity becomes otherwise publicly known.

## **4 Interconnection.**

### **4.1 Detailed Planning Procedures.**

The provisions set forth in this Appendix shall govern the interconnection of New Facilities to the CAISO Controlled Grid, including the costs of such interconnection. The CAISO shall also maintain on the CAISO Website detailed Planning Procedures and interconnection standards for all such interconnections.

### **4.2 Studies.**

- (a) Except as provided in Section 4.2(d) of this Appendix, for each Completed Interconnection Application, the CAISO will direct the Interconnecting PTO to perform the required System Impact Study and Facility Study, and any additional studies the CAISO determines to be reasonably necessary.
- (b) The Interconnecting PTO will complete or cause to be completed all studies directed by the CAISO within the timelines provided in this section. Any studies performed by the CAISO or by a third party at the direction of the CAISO shall also be completed within the timelines provided in this section.
- (c) Each New Facility Operator shall pay the reasonable costs of all System Impact and Facility Studies performed by or at the direction of the CAISO or the Interconnecting PTO, and any additional studies the CAISO determines to be reasonably necessary in response to the Interconnection Application, including any iterative study costs required for other New Facility Operator's that have established a new queue position due to the New Facility Operator either withdrawing its Interconnection Application or because its queue position has been modified pursuant to the procedures in Section 4.4 of this Appendix. A New Facility Operator shall also pay the reasonable cost of Interconnecting

PTO review of any System Impact Study or Facility Study that is performed by a New Facility Operator or its designee pursuant to subsection (d).

- (d) A New Facility Operator may perform its own System Impact Study and Facility Study, or contract with a third party to perform the System Impact Study and Facility Study, and shall so notify the CAISO and the Interconnecting PTO of this election at the time it submits its Interconnection Application. Any such study or studies performed by a New Facility Operator or third party must be completed within the timelines identified in Sections 4.2.1 and 4.2.2 of this Appendix. To the extent that the CAISO and Interconnecting PTO disagree on the adequacy of the New Facility Operator or third party-sponsored study, the CAISO will determine the adequacy of the study, subject to the CAISO's ADR Procedures. The CAISO and Interconnecting PTO shall complete their review of the New Facility Operator's study within **thirty (30)** calendar days of receipt of the completed study. The results of any study or studies performed by a New Facility Operator or third party must be approved by both the CAISO and the Interconnecting PTO.

#### **4.2.1 System Impact Study Procedures.**

Within **ten (10)** Business Days after receiving a Completed Interconnection Application by the Interconnecting PTO, the CAISO and the Interconnecting PTO will determine, on a non-discriminatory basis, whether a System Impact Study is required. The CAISO and the Interconnecting PTO will make such determination based on the CAISO Grid Planning Criteria and the transmission assessment practices outlined in the CAISO Planning Procedures posted on the CAISO Website. The CAISO and Interconnecting PTO will utilize, to the extent possible, existing transmission studies. The System Impact Study will identify whether any Direct Assignment Facilities and Reliability Upgrades are needed, as well as, if requested by the New Facility Operator, any Delivery Upgrades necessary to deliver a New Facility's full output over the CAISO Controlled Grid. The System Impact Study will also identify any adverse impact on Encumbrances existing as of the Completed Application Date.

If the CAISO and the Interconnecting PTO determine that a System Impact Study is necessary, the Interconnecting PTO shall within **twenty (20)** Business Days of receipt of Completed Interconnection Application, tender a System Impact Study Agreement that defines the scope, content, assumptions and terms of reference for such study, the estimated time required to complete it, and pursuant to which the applicant shall agree to reimburse the Interconnecting PTO for the reasonable actual costs of performing the required study. The New Facility Operator shall execute the System Impact Study Agreement and return it to the Interconnecting PTO within **ten (10)** Business Days, together with payment for the reasonable estimated cost, as provided by the Interconnecting PTO, of the System Impact Study. Alternatively, a New Facility Operator can request that the Interconnecting PTO proceed with the System Impact Study and abide by the terms, conditions, and cost assignment of the System Impact Study Agreement as determined through the CAISO ADR Procedures, provided that such request is accompanied by payment for the reasonable estimated cost, as provided by the Interconnecting PTO, of the System Impact Study. If a New Facility Operator elects neither to execute the System Impact Study Agreement nor to rely upon the CAISO ADR Procedures, such New Facility Operator's Completed Application will be deemed withdrawn. If the New Facility Operator's application is deemed withdrawn, the New Facility Operator will compensate the Interconnecting PTO for all reasonable costs incurred to that date in processing the Completed Interconnection Application.

The Interconnecting PTO will use due diligence to complete the System Impact Study within **sixty (60)** calendar days of receipt of payment and the System Impact Study Agreement or initiation of the CAISO ADR Procedures. If the Interconnecting PTO cannot complete the System Impact Study within **sixty (60)** calendar days, the Interconnecting PTO will notify the New Facility Operator, in writing, of the reason why additional time is required to complete the required study and the estimated completion date.

#### **4.2.2 Facility Study Procedures.**

If a System Impact Study indicates that additions or upgrades to the CAISO Controlled Grid are needed to satisfy a New Facility Operator's request for interconnection, the Interconnecting PTO shall, within **fifteen (15)** Business Days of the completion of the System Impact Study, tender to a New Facility Operator a Facility Study Agreement that defines the scope, content, assumptions and terms of reference for such study, the estimated time to complete the required study, and pursuant to which the applicant agrees to reimburse the Interconnecting PTO for the actual costs of performing the required Facility Study. The New Facility Operator shall execute the Facility Study Agreement and return it to the Interconnecting PTO within **ten (10)** Business Days, together with payment for the reasonable estimated cost, as provided by the Interconnecting PTO, of the Facility Study. Alternatively, a New Facility Operator may request that the Interconnecting PTO proceed with the Facility Study and abide by the terms, conditions, and cost assignment of the Facility Study Agreement ultimately determined through the CAISO ADR Procedures, provided that such request is accompanied by payment for the reasonable estimated cost, as provided by the Interconnecting PTO, of the Facility Study. If a New Facility Operator elects either to not execute the Facility Study Agreement or to rely upon the CAISO ADR Procedures, such New Facility Operator's Completed Application will be deemed withdrawn. If the New Facility Operator's application is deemed withdrawn, the New Facility Operator will compensate the Interconnecting PTO for all reasonable costs incurred to that date in processing the Completed Application.

The Interconnecting PTO will use due diligence to complete the Facility Study within **sixty (60)** calendar days of receipt of payment and the Facility Study Agreement or initiation of the CAISO ADR Procedures. If the Interconnecting PTO cannot complete the Facility Study within **sixty (60)** calendar days, the Interconnecting PTO will notify the New Facility Operator, in writing, of the reason why additional time is required to complete the required study and the estimated completion date.

A New Facility Operator shall be entitled to amend its Completed Interconnection Application once without losing its queue position. Such amendment shall occur on or before **ten (10)** Business Days following the Date the Interconnecting PTO tenders a Facility Study Agreement. Specifically, as an alternative to executing and returning a Facility Study Agreement, a New Facility Operator may submit an amendment to its Completed Interconnection Application to reflect a revised configuration for its New Facility. The amended Completed Interconnection Application shall be treated in accordance with Section 4.2.1 of this Appendix and the New Facility Operator's Completed Interconnection Application shall not be deemed withdrawn, and it shall maintain its exiting queue position, if (a) the amended Completed Interconnection Application is received by the Interconnecting PTO within **ten (10)** Business Days of the Interconnecting PTO's tender of a Facility Study Agreement; and (b) the New Facility Operator has not submitted a previous amendment to the Completed Interconnection Application. In the event a New Facility Operator amends its Completed Interconnection Application, it will be responsible for any additional study costs that result from that amendment, including costs associated with revisions to studies for other applicants holding later queue positions.

#### **4.3 Execution of Interconnection Agreement.**

Following completion of the Facility Study, a New Facility Operator proposing to interconnect a Large Generating Facility shall continue the interconnection process in accordance with Section 11.2 of the LGIP. Within **ten (10)** Business Days of receipt of a completed Facility Study, a New Facility Operator proposing to interconnect a Small Generating Facility shall request the Interconnecting PTO to provide to such applicant an Interconnection Agreement. The Interconnecting PTO shall provide an Interconnection Agreement to an applicant within **thirty (30)** Business Days of receipt of the request for an Interconnection Agreement. If the CAISO and Interconnecting PTO determine, pursuant to Sections 4.2.1 and 4.2.2 of this Appendix, that either:

- (a) a New Facility Operator's Interconnection Application can be accommodated and that such New Facility Operator will not incur costs for Reliability Upgrades, the New Facility

Operator shall execute the Interconnection Agreement within **ten (10)** Business Days of receipt of the Interconnection Agreement; or

- (b) a New Facility Operator's Interconnection Application will necessitate Reliability Upgrades, the New Facility Operator shall execute the Interconnection Agreement within **thirty (30)** Business Days of receipt of the Interconnection Agreement or, if a New Facility Operator and the Interconnecting PTO are unable to agree on the rates, terms and conditions of the Interconnection Agreement, the New Facility Operator may request that the Interconnecting PTO file an unexecuted Interconnection Agreement at FERC. If a New Facility Operator does request that the Interconnecting PTO file an unexecuted Interconnection Agreement at FERC, the New Facility Operator shall agree to abide by the rates, terms and conditions of such Interconnection Agreement ultimately determined by FERC to be just and reasonable.

#### **4.4 Queuing.**

- (a) The CAISO and Interconnecting PTO will process all Interconnection Applications based on the New Facility's Completed Application Date.
- (b) The queue position for each New Facility that has submitted an Interconnection Application will be established according to the Completed Application Date and the New Facility's compliance with the milestones set forth in Section 4.4.1 of this Appendix.
- (c) For any New Facility Operator that submitted a request to interconnect to a Interconnecting PTO prior to June 1, 2002 (the effective date of the Amendment 39 Procedures), such New Facility Operator's position in the queue will be based on its Completed Application Date as that term was defined in the Interconnecting PTOs TO Tariff in effect at the time the New Facility Operator submitted a request to interconnect to the Interconnecting PTO.

##### **4.4.1 Queuing Milestones.**

- (a) To maintain its queue position, each New Facility Operator must timely comply with the requirements of the CAISO Tariff and the TO Tariff of the Interconnecting PTO and must, within **six (6)** months of its Completed Application Date, satisfy all applicable Data Adequacy Requirements of state and local siting and other regulatory authorities. Any New Facility Operator not subject to state siting requirements must satisfy the information requirements set forth in 18 C.F.R. § 2.20. The CAISO will permit a New Facility Operator to retain its queue position if such New Facility Operator requests an extension of the **six (6)**-month period at least **five (5)** Business Days prior to the expiration of such period. Such extension will be limited to one period of **thirty (30)** Business Days and additional extensions shall not be granted. A New Facility Operator that does not maintain its queue position, but later satisfies the Data Adequacy Requirements, or the requirements of 18 C.F.R. § 2.20 if applicable, will be placed in a queue position comparable to that of other New Facility Operators that have satisfied the Data Adequacy Requirements, or the requirements of 18 C.F.R. § 2.20, as of the same date. At that time, the CAISO and the Interconnecting PTO will determine whether a new System Impact Study must be performed based on the revised queue position of such New Facility Operator.
- (b) Upon satisfaction of the Data Adequacy Requirements, or the requirements of 18 C.F.R. § 2.20 if applicable, each New Facility Operator, in order to maintain its queue position, must obtain a New Facility License within **fifteen (15)** months after satisfying the Data Adequacy Requirements. A New Facility Operator that does not obtain a New Facility License within the allowed time and does not maintain its queue position, but later

obtains a New Facility License, will be placed in a queue position comparable to other New Facility Operators that have satisfied comparable milestones as of that date.

- (c) Any New Facility whose New Facility License or building permit expires or is rescinded will not maintain its queue position.
- (d) A New Facility Operator that has submitted a dispute under Article 13 of the CAISO Tariff regarding any part of this Appendix may request that the presiding judge, arbitrator, or mediator of the dispute suspend its obligation to meet milestones in order to maintain its queue position. In the event such a suspension is granted, the New Facility Operator must satisfy the missed milestones specified in this Section 4.4.1 of this Appendix within **thirty (30)** calendar days of the date the decision on the dispute becomes final.

#### **4.5 Coordination of Critical Protective Systems.**

New Facility Operators shall coordinate with the CAISO, Participating TOs and UDCs to ensure that a New Facility Operator's Critical Protective Systems, including relay systems, are installed and maintained in order to function on a coordinated and complementary basis with CAISO Controlled Grid Critical Protective Systems and the protective systems of the Participating TOs and UDCs. The CAISO and Participating TOs will make available all information necessary for a New Facility Operator to determine whether its Critical Protective Systems are compatible with those of the CAISO, Participating TOs and UDCs. The CAISO and New Facility Operators shall also coordinate with entities that own, operate or control facilities outside of the CAISO Controlled Grid to ensure that a New Facility's Critical Protective Systems function on a coordinated and complementary basis with such entities Critical Protective Systems.

#### **5 Cost Responsibility of New Facility Operators.**

- (a) Each New Facility Operator shall pay the costs of required studies in accordance with Section 4.2 of this Appendix and the costs identified in this Section 5. The CAISO and Interconnecting PTO will provide each New Facility Operator an estimate of its total cost responsibility under this Section. A New Facility Operator shall be responsible for the actual costs of all Direct Assignment Facilities and Reliability Upgrades necessitated by its Completed Interconnection Application. The Interconnecting PTO will provide each New Facility Operator a detailed record of the actual costs assessed to it under this Section. A New Facility Operator may request the Interconnecting PTO to provide any additional information reasonably necessary to audit the actual costs the New Facility Operator is assessed.
- (b) The CAISO and Interconnecting PTO will process all Interconnection Applications, and determine the cost responsibility of each New Facility Operator based on the New Facility Operator's Completed Application Date or, if applicable, based on the queue position determined by the procedure described in Section 4.4.1(b) of this Appendix. The CAISO and Interconnecting PTO will process simultaneously all interconnection requests with the same Completed Application Date.
- (c) Each New Facility Operator shall pay the costs of planning, installing, operating and maintaining the following facilities: (i) Direct Assignment Facilities, and, if applicable, (ii) Reliability Upgrades. In addition, each New Facility Operator shall implement all existing operating procedures necessary to safely and reliably connect the New Facility to the facilities of the Interconnecting PTO and to ensure the CAISO Controlled Grid's conformance with the CAISO Grid Planning Criteria, and shall bear all costs of implementing such operating procedures. The New Facility Operator shall be responsible for the costs of Reliability Upgrades only if the necessary facilities are not included in the CAISO Controlled Grid Transmission Expansion Plan approved as of the New Facility

Operator's Completed Application Date, or the date for the installation of a facility is advanced by the interconnection of the New Facility, in which case the New Facility Operator shall be responsible only for the incremental costs associated with the earlier installation of the facility.

- (d) Each New Facility Operator may, at its own discretion, sponsor, pursuant to Section 24 of the CAISO Tariff, any Delivery Upgrades.

**5.1 Maintenance of Encumbrances.**

No New Facility shall adversely affect the ability of the Interconnecting PTO to honor its Encumbrances existing as of the time a New Facility submits its Interconnection Application to the CAISO. The Interconnecting PTO, in consultation with the CAISO, shall identify any such adverse effect on its Encumbrances in the System Impact Study performed under Section 4.2.1 of this Appendix. To the extent the Interconnecting PTO determines that the connection of the New Facility will have an adverse effect on Encumbrances, the New Facility Operator shall mitigate such adverse effect.

**5.2 Settlement of Interconnection Costs.**

Payment for Direct Assignment Facilities and Reliability Upgrades shall be made by the New Facility Operator to the Interconnecting PTO pursuant to the terms of payment set forth in the Interconnection Agreement between the parties.

**6 Energization.**

Neither the CAISO nor the Interconnecting PTO shall be obligated to energize, nor shall the New Facility Operator be entitled to have its interconnection to the CAISO Controlled Grid energized, unless and until an Interconnection Agreement has been executed, or filed at FERC pursuant to Section 4.3 of this Appendix, and becomes effective and such New Facility Operator has demonstrated to the CAISO's reasonable satisfaction that it has complied with all of the requirements of this Appendix.

**CAISO TARIFF APPENDIX X  
Dynamic Scheduling Protocol (DSP)**

**[Docket No. ER08-\_\_\_, Amendment filing pending FERC Order. See Table.]  
[Ministerial tariff language revision shown in BOLD – Docket ER06-615, Sept. 21, 2006 Order.]**

**CAISO TARIFF APPENDIX X  
Dynamic Scheduling Protocol (DSP)**

**1 [NOT USED]**

**DSP-2 CONSISTENCY WITH NERC/WECC POLICIES AND REQUIREMENTS**

**DSP-2.1** Scheduling and operation of Dynamic Scheduling functionalities must comply with all applicable NERC and WECC policies and requirements regarding inter-~~Control~~Balancing Authority Area scheduling, in accordance with Section 4.5.4.3 of the CAISO Tariff.

**DSP-2.2** Scheduling and operation of Dynamic Scheduling functionalities must be consistent with the NERC Dynamic Transfer White Paper and all NERC standards or policies.

**DSP-2.3** All new dynamic functionality implementations may be subject to NERC-specified peer review.

### **DSP-3 CONTRACTUAL RELATIONSHIPS**

**DSP-3.1** The Host ~~Control-Balancing Authority Area~~ and all Intermediary ~~Control-Balancing Authorities Areas~~ must each execute an Interconnected ~~Control-Balancing Authority Area~~ Operating Agreement (“~~ICBAAOA~~”) with the CAISO, with accompanying service schedule, **a Dynamic Scheduling Host Balancing Authority Operating Agreement**, or a special agreement particular to the operation of the functionality supporting dynamic imports of Energy, and/or Energy associated with non-~~regulating~~**Regulation** Ancillary Services to the CAISO ~~Control-Balancing Authority Area~~.

**DSP-3.2** The Scheduling Coordinator for the System Resource must execute a **special Dynamic Scheduling Agreement for Scheduling Coordinators** with the CAISO governing the operation of the Dynamic Scheduling ~~ing~~ functionality, which agreement will include a provision for its termination based on failure to comply with these standards.

**DSP-3.3** The Scheduling Coordinator for the System Resource must have the necessary operational and contractual arrangements in place with the Host ~~Control-Balancing Authority Area~~ (see Section 5 **of this Appendix X** below). Such arrangements must include the Host ~~Control-Balancing Authority Area operator's~~ ability to receive telemetry from the System Resource and to issue a Dynamic Schedule signal pertinent to that System Resource to the CAISO. Proof of such arrangements must be provided to the CAISO.

### **DSP-4 COMMUNICATIONS, TELEMETRY, AND OTHER TECHNICAL REQUIREMENTS**

**DSP-4.1** The communication and telemetry requirements set forth in the CAISO’s Standards for Imports of Regulation will apply to all Dynamic Schedules, except for (a) those dynamic functionalities established prior to the CAISO Operations Date, (b) the requirements that are specific solely to Regulation, and (c) the requirements set forth below.

**DSP-4.2** Dedicated dual redundant communications links between the CAISO’s EMS and the Host ~~Control-Balancing Authority Area~~ EMS are required.

**DSP-4.3** The primary circuit will be T1-class, or equivalent, utilizing the inter-control center communications protocol (“ICCP”). The backup circuit will be diversely routed between the Host ~~Control-Balancing Authority Area~~ EMS and the CAISO ~~Control-Balancing Authority Area~~ EMS on separate physical paths and devices.

**DSP-4.4** Dedicated dual redundant communications links between the Host ~~Control-Balancing Authority Area~~ EMS and every Intermediary ~~Control-Balancing Authority Area~~ EMS are required.

**DSP-4.5** The ~~Control-Balancing Authority Area~~ hosting a Dynamic System Resource must have a mechanism implemented to override the associated dynamic signal.

**DSP-4.6** The dynamic signal must be properly incorporated into all involved ~~Control-Balancing Authority Areas~~’ ACE equations.

**DSP-4.7** The System Resource must have communications links with the Host ~~Control-Balancing Authority Area~~ consistent with ~~these standards~~**this Appendix X**.

### **DSP-5 LIMITS ON DYNAMIC IMPORTS**

**DSP-5.1** The CAISO reserves the right to establish limits applicable to the amount of any Ancillary Services and/or Energy imported into the CAISO ~~Control~~-Balancing Authority Area, whether delivered dynamically or statically. Such limits may be established based on any one, or a combination, of the following considerations: a percentage of, or a specific import limit applicable to, total CAISO ~~Control~~-Balancing Authority Area requirements; a percentage at, or a specific import limit applicable to, a particular Scheduling Point or a **branch group Transmission Interface**; a percentage of, or a specific import limit applicable to, total requirements in a specific **Zone Ancillary Service Region**; or operating factors which may include, but are not limited to, operating ~~n~~Nomograms, Remedial Action Schemes, protection schemes, scheduling and curtailment procedures, or any potential single points of failure associated with the actual delivery process.

**DSP-5.2** The CAISO may, at its discretion, either limit or forego procuring Ancillary Services at particular ~~Control~~-Balancing Authority Area Scheduling Points to ensure that Operating Reserves are adequately dispersed throughout the CAISO ~~Control~~-Balancing Authority Area as required by WECC Minimum Operating Reliability Criteria (“MORC”).

**DSP-5.3** A Dynamic System Resource and its **Dynamic sS**chedules must be permanently associated with a particular CAISO Scheduling Point (the CAISO may, from time to time and at its discretion, allow for a change in such pre-established association of the Dynamic System Resource with a particular CAISO Scheduling Point).

## **DSP-6 OPERATING AND SCHEDULING REQUIREMENTS**

**DSP-6.1** For any ~~e~~OOperating ~~h~~Hour for which Energy<sub>T</sub> and/or Ancillary Services (and associated Energy) is scheduled dynamically to the CAISO from the System Resource, a firm (or non-interruptible for that hour) matching transmission service must be reserved across the entire Dynamic Schedule transmission path external to the CAISO ~~Control~~-Balancing Authority Area.

**DSP-6.2** All Dynamic Schedules associated with newly implemented Dynamic System Resources must be electronically tagged (**by use of an eE-tTagged**).

**DSP-6.3** Formal inter-~~Control~~Balancing Authority Area Dynamic Schedules may be issued only by the Dynamic System Resource’s Host ~~Control~~-Balancing Authority Area and must be routed through the EMSs of all Intermediary ~~Control~~-Balancing Authority Areas (such schedules would be considered “wheel-through” schedules by Intermediary ~~Control~~Balancing Authority Areas).

**DSP-6.4** The CAISO will treat dynamically scheduled Energy as a resource contingent firm import. The CAISO will procure (or allow for self-provision of) WECC MORC-required Operating Reserves for ~~I~~LLoads served by Dynamic System Resources.

**DSP-6.5** All Energy ~~schedules~~**Interchange Schedules** associated with dynamically scheduled imports of Spinning Reserve and Non-Spinning Reserve will be afforded similar treatment (i.e., resource contingent firm).

**DSP-6.6** The dynamic signal must be integrated over time by the Host ~~Control~~-Balancing Authority Area for every ~~e~~OOperating ~~h~~Hour.

**DSP-6.7** Notwithstanding any ~~d~~DDispatches of the System Resource in accordance with the CAISO Tariff, the CAISO shall have the right to issue operating orders to the System Resource either directly or through the Host ~~Control~~-Balancing Authority Area for emergency or contingency reasons, or to ensure the CAISO’s compliance with operating requirements based on WECC or NERC requirements and policies (e.g., WECC’s Unscheduled Flow



Reduction Procedure). However, such operating orders may be issued only within the range of the CAISO-accepted Energy, **and** Ancillary Services, Bids for a given Operating Hour (or the applicable “sub-hour” interval).

**DSP-6.8** If there is no Dynamic Schedule in the CAISO’s Day-Ahead Market, or HASP/RTM **Market** the dynamic signal must be at “zero” (“0”) except when in response to CAISO’s Dispatch Instructions associated with accepted Ancillary Services **B**ids.

**DSP-6.9** The Scheduling Coordinator of the Dynamic System Resource must have the ability to override the associated **d**Dynamic **s**Schedule in order to respond to the operating orders of the CAISO or the Host ~~Control-Balancing Authority-Area~~.

**DSP-6.10** Unless the Dynamic System Resource (1) is implemented as a directly-telemetered **l**oad-following functionality, (2) is base-loaded Regulatory Must-Take Generation, or (3) responds to a CAISO intra-hour Dispatch Instruction, the Dynamic Schedule representing such resource must follow WECC-approved practice of 20-minute ramps centered at the top of the hour. The CAISO does not provide any special **s**ettlements treatment nor offer any CAISO Tariff exemptions for dynamic **l**oad following functionalities.

**DSP-6.11** In ~~r~~Real-~~t~~Time the Dynamic Schedule may not exceed the maximum value established by the sum of the Day-Ahead **Market** and HASP/RTM accepted Energy and Ancillary Services **B**ids plus any response to the CAISO’s Real-Time Dispatch Instructions. The composite value of the Dynamic Schedule derived from the Day-Ahead and HASP/RTM accepted Bids plus any Dispatch Instruction response represents not only the estimated Dynamic System Resource’s Energy but also the transmission reservation on the associated CAISO Scheduling Point.

**DSP-6.12** Only one Dynamic System Resource may be associated with any one physical generating resource.

**DSP-6.13** If the Scheduling Coordinator for the Dynamic System Resource desires to participate in CAISO’s Regulation market, all provisions of the CAISO’s Standards for Imports of Regulation shall apply.

**DSP-7** **CERTIFICATION, TESTING, AND PERFORMANCE MONITORING OF DYNAMIC IMPORTS OF ANCILLARY SERVICES**

Scheduling Coordinators and Host ~~Control-Balancing Authorities-Areas~~ that are already certified under the CAISO’s Standards for Imports of Regulation will be deemed to have fulfilled the technical implementation requirements of this **ProtocolAppendix X**; however, such Scheduling Coordinators and ~~Control-Balancing Authorities-Areas~~ must still be certified separately for each non-Regulating Ancillary Service (all presently implemented-Regulation import functionalities may be subject to review to ensure consistency between such functionalities and the requirements of this **ProtocolAppendix X**). Scheduling Coordinators and Host ~~Control-Balancing Authorities-Areas~~ that wish to be certified for imports of Regulation shall be subject to certification under the Standards for Imports of Regulation, subject to verification of consistency with the requirements of this **ProtocolAppendix X**.

**DSP-7.1** The Scheduling Coordinator and Host ~~Control-Balancing Authority-Area operator~~ must jointly request the certification of a System Resource to provide Ancillary Services for the CAISO ~~Control-Balancing Authority Area~~ and cooperate in the testing of such System Resource (see the **"Scheduling Coordinator & Host Control Area Operator Request**

~~for Certification of Dynamic Imports of Ancillary Services”~~ certification request form attached as Attachment A to this ~~Protocol~~Appendix X.)

**DSP-7.2** Only CAISO tested and certified System Resources will be allowed to bid and/or self-provide Ancillary Services into the CAISO ~~Control~~Control-Balancing Authority Area.

**DSP-7.3** Dynamic Ancillary Services imports will be certified through testing, in accordance with the relevant sections of the CAISO’s Operating Procedure G-213. All requests for certification of dynamic Ancillary Services imports will be reviewed and approved by the CAISO with respect to any technical limitations imposed by existing operational considerations, such as Remedial Action Schemes, operating ~~n~~Nomograms, and scheduling procedures. These reviews may impose certain Ancillary Services import limits in addition to those outlined in Section 4.1 of this Appendix X. Therefore, interested parties are advised and encouraged to contact the CAISO before they begin the process of the necessary systems design, preparation, and implementation for import of Ancillary Services to the CAISO Control-Balancing Authority Area.

**DSP-7.4** The CAISO will measure the performance of the ~~d~~Dynamic Schedule of Energy schedule associated with an accepted Ancillary Services Bids against (1) the awarded range of Ancillary Service capacity; (2) the certified limits; and (3) the bid ~~r~~Ramp rRate, which shall be validated by the CAISO against the certified ~~r~~Ramp rRate.

**DSP-7.5** The Scheduling Coordinator for the System Resource and the Host ~~Control-Balancing Authority-Area~~ must notify the CAISO should any changes, modifications, or upgrades affecting control and/or performance of the System Resource be made. Upon such notification, the CAISO, at its discretion, may require that the System Resource and Host ~~Control-Balancing Authority-Area~~ be re-certified to import Ancillary Services into the CAISO ~~Control-Balancing Authority~~ Area.

## **DSP-8 COMPLIANCE, LOSSES, AND FINANCIAL SETTLEMENTS**

**DSP-8.1** Energy delivered in association with ~~d~~Dynamically-scheduled System Resources will be subject to all provisions of the CAISO’s Imbalance Energy markets, including Uninstructed Deviation Penalties (“UDP”) (just as is the case with CAISO intra-~~Control~~Control-Balancing Authority Area Generating Units of Participating Generators).

**DSP-8.2** Dynamically scheduled and delivered Ancillary Services will be subject to the CAISO’s compliance monitoring and remedies, just as any CAISO intra-~~Control~~Control-Balancing Authority Area Generating Units of Participating Generators.

**DSP-8.3** All Day-Ahead Market and HASP/RTM submitted Dynamic Schedules shall be subject to CAISO Congestion Management~~mitigation~~ and as such may not exceed their transmission reservations in Real-Time (with the exception of intra-hour Dispatch Instructions of the Energy associated with accepted Ancillary Services Bids).

**DSP-8.4** All ~~d~~Dynamically sScheduled and delivered Energy shall be subject to the standard CAISO ~~t~~Transmission lLoss calculation associated with the particular Scheduling Point (“TMMs” ~~or CAISO market redesign alternative~~).

**DSP-8.5** Any transmission losses attributed to the Dynamic Schedule on transmission system(s) external to the CAISO ~~Control~~Control-Balancing Authority Area will be the responsibility of the owner(s)/operator(s) of the Dynamic System Resource.

**DSP-8.6** A predetermined, mutually agreed, and achievable “PM~~max~~-like” fixed MW value will be established for every Dynamic System Resource to be used as the basis for the UDP

calculation. Responsible Scheduling Coordinators will be able to report de-rates affecting the Dynamic System Resource via the CAISO's "SLIC" Outage reporting system.

**DSP-8.7**

Should there be any need or requirement, whether operational or procedural, for the CAISO to make Real-Time adjustments to the CAISO's inter-~~Control~~Balancing Authority Area ~~Interchange s~~Schedules (to include curtailments), Dynamic Schedules shall be treated in the same manner as similarly situated and/or effective static CAISO ~~Interchange s~~Schedules.

**DSP ATTACHMENT A**

**Scheduling Coordinator & Host ~~Balancing Authority~~Control Area Operator**

**Request for Certification of**

**Imports of Spinning and Non-Spinning Reserves for which the associated Energy is delivered dynamically from a System Resource**

In accordance with the CAISO Tariff, **CAISO** Protocols, and **the CAISO's Business Practice Manuals and** Operating Procedures, \_\_\_\_\_, as Scheduling Coordinator, and \_\_\_\_\_, as Host ~~Control-Balancing Authority-Area operator~~ (as such term is referred to in the CAISO Dynamic Scheduling Protocol), collectively referred to as "Parties," or individually as "Party," hereby request the certification of the Parties and the System Resource(s) identified in the table below as a provider of Ancillary Services and associated Energy to the CAISO ~~Control-Balancing Authority~~ Area subject to the Dynamic Scheduling Protocol, **Appendix X of the CAISO Tariff**. Further, the Parties acknowledge that their ability to import Ancillary Services and associated Energy will be tested for certification in accordance with CAISO Operating Procedure G-213.

With this request for certification, the Parties recognize that the CAISO Tariff, **CAISO** Protocols, and applicable agreements require the Host ~~Control-Balancing Authority-Area operator~~ to issue ~~d~~**Dynamic Schedules of** Energy ~~schedules~~ to the CAISO based on the Scheduling Coordinator's self-provided or bid external imports of non-Regulation Ancillary Services from the System Resource(s) at any time during the ~~e~~**Operating h**Hour.

With this request for certification, the Host ~~Control-Balancing Authority-Area operator~~ represents and warrants that it has in place the required communications links with the CAISO ~~Control-Balancing Authority~~ Area in order to facilitate the delivery of Ancillary Services and associated Energy from the System Resource.

With this request for certification, the Scheduling Coordinator represents and warrants that it has made the appropriate arrangements for and has put in place the equipment and services necessary for the delivery of Ancillary Services and associated Energy from the System Resource to the point of ~~I~~**Interchange** ("Scheduling Point") with the CAISO ~~Control-Balancing Authority~~ Area in accordance with the Dynamic Scheduling Protocol.

The Scheduling Coordinator further certifies that any and all dynamic imports of Energy associated with self-provided or bid imports of non-Regulation Ancillary Services will be deliverable over non-interruptible,

non-recallable transmission rights, from the source of the associated Energy to the Scheduling Point with the CAISO ~~Control~~ Balancing Authority Area.

System Resource	External Host <del>Control</del> <u>Balancing Authority Area</u> in which System Resource is Located	Scheduling Point (CAISO <del>Interchange</del> ID)	Maximum Amount of Ancillary Services Capacity to be Certified (MW)	Maximum Ramp Rate to be Certified (MW/minute)
1				
2				
3				
4				
5				

Subsequent to the initial filing of this request for certification with the CAISO, any prospective changes jointly made by the Parties may be filed with the Scheduling Coordinator's CAISO **customer service** ~~Client Relations~~ representative, who will acknowledge the receipt of such requested changes and indicate the date on which such changes may be tested and become effective if CAISO testing proves successful. Such changes will be made by the CAISO as soon as practicable, with reasonable efforts made to implement them within sixty (60) days of receipt of the requested changes.

This document \_\_\_\_\_ (does) \_\_\_\_\_ (does not) contain requested changes to previously effective certification.

Certification Requested By:

\_\_\_\_\_, as the Scheduling Coordinator

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_, as the Host Balancing Authority ~~Control Area Operator~~

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

CERTIFICATION REQUEST ACKNOWLEDGED by:

\_\_\_\_\_

California Independent System Operator Corporation

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**CAISO TARIFF APPENDIX Y**

**[NOT USED]**

**[Ten Sheet Numbers Reserved for Export Priority Filing.]**