**Note to Stakeholders: All draft changes are purely for discussion purposes only.**

# Appendix G

# Pro Forma Reliability Must-Run Contract

# MUST-RUN SERVICE AGREEMENT

THIS MUST-RUN SERVICE AGREEMENT is made as of the \_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_, 20\_\_\_, 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.

**“ADR”** means alternative dispute resolution as defined in Appendix A to the CAISO Tariff.

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

**“Ancillary Services”** is defined in Appendix A to the CAISO Tariff.

**“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.

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

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

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

**“Black Start”** is defined in Appendix A to the CAISO Tariff.

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

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

**“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.

**“CPUC”** means the California Public Utilities Commission, or its successor.

**“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.

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

**“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.

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

**“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.

**“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.

**“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).

**“Exceptional Dispatch”** is defined in Appendix A to the CAISO Tariff.

**“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.

**“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.

**“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 Market or Real-Time Market.

**“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.

**“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, was postponed and rescheduled into the new Contract Year.

**“Master File”** is defined in Appendix A to the CAISO Tariff.

**“Month”** means a calendar month.

**“Monthly Payment”** is defined in Section 8.

**“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).

**“Other Outage”** means any reduction in the Availability of a Unit as reflected in a 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 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.

**“PMax”** is defined in Appendix A to the CAISO Tariff.

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

**“Reasonable Efforts”** is in Appendix A to the CAISO Tariff.

**“Reliability Must-Run Unit”** means a “reliability must-run unit” as defined in Appendix A to 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 Operation Period”** means the time during which CAISO requests that a Unit Deliver Energy or Ancillary Services pursuant to a Dispatch Notice.

**“Residual Unit Commitment”** is defined in Appendix A to the CAISO Tariff.

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

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

**“RMR Contract Capacity”** means the PMax value reflected in Schedule A of this Agreement and as maintained in the CAISO Master File.

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

**“RMR Dispatch Notice”** means a notice delivered manually 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 Ancillary Services, Voltage Support or Black Start under this Agreement. An RMR Dispatch Notice can also include Energy pursuant to a Test Dispatch Notice.

**“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.

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

**“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.

**“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.

**“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.

**“Voltage Support”** is defined in Appendix A to the CAISO Tariff.

**ARTICLE 2**

**TERM**

**2.1 Term**

(a) This Agreement shall become effective on the later of January 1, 2020, 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 = NCI + 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:

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.

# ARTICLE 3

# CONDITIONS OF MUST-RUN AGREEMENT

**3.1 Intentionally Omitted**

**3.2 Intentionally Omitted**

# ARTICLE 4

# DISPATCH OF UNITS

**4.1 CAISO’s Right to Dispatch**

(a) CAISO will dispatch the Units in accordance with the Day-Ahead Market and Real-Time Market awards in accordance with the CAISO Tariff and Section 6.

(b) CAISO can subject the Units to Exceptional Dispatch instructions under Section 34.11 of the CAISO Tariff. An Exceptional Dispatch instruction issued to a resource under this Agreement is not eligible for compensation under the Capacity Procurement Mechanism, CAISO Tariff Section 43A.

(c) CAISO can issue an RMR Dispatch Notice to the Owner’s Scheduling Coordinator for any Ancillary Services, Voltage Support (including synchronous condenser operation), and Black Start to meet reliability requirements.

**4.2 Timing of RMR Dispatch Notices for Ancillary Services, Voltage Support, and Black Start**

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

**4.3 Form and Content of RMR Dispatch Notices for Ancillary Services, Voltage Support, and Black Start**

(a) All RMR Dispatch Notices shall be in writing if circumstances permit. If circumstances require that a RMR Dispatch Notice be given or changed orally, the RMR Dispatch Notice shall be confirmed in writing within 24 hours after the oral notice or change was given.

(b) The form and content will be as described in the applicable CAISO operating procedures.

**4.4 Non-complying RMR Dispatch Notices**

Owner shall not be obligated to comply with an RMR 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 an RMR 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 an RMR Dispatch Notice given during, or less than one‑half hour prior to, the Requested Operation Period. Compliance with an RMR Dispatch Notice shall not be deemed a waiver of objections to the RMR Dispatch Notice.

**4.5 Intentionally left blank.**

**4.6 Limitations on CAISO’s Right to Dispatch**

CAISO will honor resource characteristics in accordance with CAISO Tariff Sections XXX.

**4.7 Intentionally left blank.**

**4.8 Intentionally left blank.**

**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 RMR Contract Capacity 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 RMR Contract Capacity 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 RMR Contract 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 Intentionally left blank.**

**4.11 Intentionally left blank.**

# ARTICLE 5

# DELIVERY OF ENERGY AND ANCILLARY SERVICES, VOLTAGE SUPPORT AND BLACK START 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, Owner shall provide service from the Units and deliver the requested Ancillary Services, Voltage Support, or Black Start in accordance with each RMR Dispatch Notice and CAISO’s Schedules, Awards or CAISO Dispatch Instructions, including Exceptional Dispatches. (b) Owner shall deliver the requested Ancillary Services, Voltage Support, or Black Start at the Delivery Point or such other point(s) reasonably acceptable to CAISO.

(c) If Owner would have been able to deliver the requested Ancillary Services, Voltage Support, or Black Start 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 RMR Dispatch Notice for purposes of Section 5.4.

**5.2 Intentionally left blank.**

**5.3 Intentionally left blank.**

**5.4 Owner’s Failure to Deliver Requested Ancillary Services, Voltage Support, or Black Start**

(a) Owner shall promptly notify CAISO if Owner will not be able to deliver their market award or Exceptional Dispatch for Energy or requested Ancillary Services, Voltage Support, or Black Start from the Unit identified in the RMR Dispatch Notice.

(b) If a Unit fails to deliver the full amount of of their market award or Exceptional Dispatch for Energy or Ancillary Services, Voltage Support, or Black Start, 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, or (ii) 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 the requested Ancillary Services, Voltage Support, or Black Start as set out in Sections 8.5, 11.3 and 12.6.

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# ARTICLE 6

# RMR OWNERS’ MARKET PARTICIPANT OBLIGATIONS

**6.1 Must-Offer Obligation**

(a) Owner shall have the obligation to comply with, and is subject to, all provisions in Section of the CAISO Tariff, including the must-offer obligation to submit Energy, Ancillary Services, and Residual Unit Commitment bids for all RMR Contract Capacity in all hours as applicable. Consistent with Section 40 of the CAISO Tariff, Units will be subject to the resource adequacy generation rules unless otherwise exempted by CAISO Tariff Section 40.

(b) All Units must negotiate a major maintenance adder, if applicable, pursuant to CAISO Tariff Section XX.

(c) If the Unit has an eligible Use Limit, the Owner must establish Opportunity Cost, if applicable under Section XX of the CAISO Tariff. In addition, the CAISO may negotiate an additional opportunity cost component to reflect avoided Capital Additions if the RMR Unit can be available to meet the reliability requirements during the Contract Year without investing in Capital Additions. Any such opportunity cost will be included in the Opportunity Cost established under CAISO Tariff Section XX.

(d) Owner has the obligation to submit marginal cost-based bids that include 100% of Commitment Costs, including any major adder or Opportunity Cost including any opportunity cost reflecting avoided Capital Additions established under Article 6.1(c). Start-up and Min Load costs will be calculated in accordance with CAISO Tariff Section 30.4 and applicable CAISO business practice manuals. Marginal cost-based Energy Bids must be based on the same cost-based components used in CAISO’s generated bidding rules as per CAISO Tariff Section XX and applicable CAISO business practice manuals, and including any applicable adders. Cost-based Ancillary Services and Residual Unit Commitment bids should equal $0/MW.

(e) For RMR Units exempt from bid insertion, CAISO will monitor compliance with the bidding obligation.

(f) CAISO may order Owner not to bid to participate in CAISO Markets if CAISO determines that participation would impair CAISO’s ability to dispatch the Unit to meet reliability needs at other times during the Contract Year.

# 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.

**7.2 Outages and Overhauls**

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 CAISO Tariff Section 9.

**7.3 Intentionally left blank.**

**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, Ancillary Services, Voltage Support, or Black Start, 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, Ancillary Services, Voltage Support, or Black Start 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.

(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, Ancillary Services, Voltage Support, or Black Start, 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 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 RMR Contract Capacity 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 RMR Contract Capacity 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 RMR Contract Capacity 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 RMR Contract Capacity 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 RMR Contract Capacity 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 CPUC prior to approving Capital Items or Repairs. CAISO may approve Capital Items or Repairs for the Facility in a Contract Year without approval of CPUC.

(b) The requirement of Section 7.9 (a) relating to the CPUC shall apply only if and to the extent that the CPUC 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 CPUC to CAISO and Owner within 30 days of the CPUC’s receipt of the preliminary and final reports under Section 7.5 or Section 7.6.

(c) Provided that the CPUC is 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 CPUC 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 theCPUC.

# ARTICLE 8

# RATES AND CHARGES

**8.1 RMR Owner Rates and Charges**

CAISO shall pay Owner the sum of:

(a) the Monthly Payment, which shall be equal to the Monthly Availability Payment plus the Monthly Surcharge Payment. In no event shall (i) the Monthly 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. RAAIM penalties shall be calculated in accordance with CAISO Tariff Section XX.

(b) the Variable Cost Payment computed in accordance with CAISO Tariff Section 11.3 and Schedule C.

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# ARTICLE 9

# STATEMENTS AND PAYMENTS

**9.1 Settlement Statements and Invoicing**

(a) The settlement and payment of payments and charges under the CAISO Tariff and this Agreement shall be as provided in Section 11 of the CAISO Tariff, including Section 11.13 of the CAISO Tariff and Section 41 of the CAISO Tariff. CAISO shall not modify any provision of Section 41 or Section 11.13 of the CAISO Tariff 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.

(b) For any other charges payable by CAISO to Owner pursuant to this Agreement, and not recovered through Section 11.13 of the CAISO Tariff, Owner will submit such charges and to CAISO RMR Invoices for each Month during the term of this Agreement.,.

**Note to Stakeholders: The CAISO developed a stream-lined limited invoicing process for any amounts that require this process. Examples may include: costs associated with synchronous condensers, Schedule E charges, etc.**

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**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 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 has disputed the amount of a Termination Fee stated in a Termination Fee Invoice, then CAISO shall not be required to give notice of the same disputed amount as to subsequent Termination Fee Invoices.

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# 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 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 in Schedule K 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 Ancillary Services, Voltage Support, or Black Start 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 Ancillary Services, Voltage Support, and Black Start,

(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) 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.

(c) In addition to the audit rights under Section 12.2 (a), if Owner’s rates are determined pursuant to the formula contained in Schedule F, representatives of CAISO shall have the right 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.

(d) If Owner’s rates are determined pursuant to the formula contained in Schedule F, the CPUC 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.

(e) 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.

(f) 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.

(g) All information provided during the course of an audit shall be treated as Confidential Information in accordance with Section 12.5.

(h) 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 any entity with audit rights under Section 12.2 or review rights specified in other provisions of this Agreement, (ii) 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, (iii) 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;

(D) security bond;

(E) or other form of assurance reasonably acceptable to CAISO.

# 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 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 Intentionally left blank.**

# 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.

(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 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 constitutes the sole and entire agreement of the Parties with respect to the subject matter hereto and supersedes all prior and contemporaneous understanding and agreements, both written and 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 E Ancillary Services Payment

Part 1 for Certain Ancillary Services and Voltage Support

Part 2 for Black Start Services

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

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 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, Commitments**

**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) | MRMR Contract 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.

Seasonal derates and rerates in Master File are permitted.**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 NOx, CO, SO2, 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.

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 RMR Contract Capacity).

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.) |
|  |  |  |

\*As reflected in the MSACAISOME

**6. Resource Characteristics**

All resource characteristics of the Unit will be reflected in CAISO systems including Master File. Any changes proposed by RMR Owner shall be reviewed and approval by the CAISO to ensure service under RMR Contract is maintained







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



**.** 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.



**.**



**8.**



**9.**



**0.** Maximum Monthly MWh (Hydroelectric Units only)



**11. Owner’s Repair Cost Obligation**

Owner’s Repair Cost Obligation for the current Contract Year is ${     }.

**12.**

**13.** [List each Tariff and schedule to which it applies]

**Schedule B Monthly 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** | | | | | | |
| Monthly  Payment Rate | = | Monthly Availability Payment Rate | + | Monthly Surcharge Payment Rate | – |  |

The Monthly Payment can never be less than zero.



|  |  |  |
| --- | --- | --- |
| **Equation B-2** | | |
| Monthly Availability Payment Rate($/kW-month) | = |  |











Target Available Hours are set forth in Section 6 below.







Pmax is shown in Section 1 of Schedule A.

1. The Monthly Surcharge Payment Rate is calculated in accordance with Equation B‑6 below:



|  |  |  |
| --- | --- | --- |
| **Equation B-6** | | |
| Monthly Surcharge Payment Rate($/kW-month) | = |  |











.

 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.



 For Units, the Surcharge Payment Factor is 1 unless agreed to by the CAISO and RMR Owner.

The Annual Capital Item Costs the Contract Year are set forth in Table B-2 below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table B-2** | | | | | |
| Unit | Capital Item Project No. | Annual Capital Item Cost | Surcharge Payment Factor | C |  |
|  |  |  |  |  |  |

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.











. 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.



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3. 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, 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 |
|  |  |

4. 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.

**Schedule C Variable Cost Payment**

**Note: ISO proposal is to pay variable costs under CAISO Tariff. Schedule C will be substantially revised and potentially eliminated.**

**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:

|  |  |  |
| --- | --- | --- |
| Variable Cost Payment = | A. B. C. D. E. F. **G.** | CAISO Unit Monthly Billed Fuel Cost + CAISO Unit Monthly Fuel Imbalance Charge + CAISO Monthly Other Fuel Related Cost + CAISO Monthly Emissions Cost + CAISO Monthly Variable O&M Cost + CAISO Scheduling Coordinator Charge + **CAISO ACA Charge** |

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 | | | | | | | | |
|  | CAISO Unit Monthly Billed Fuel Cost ($) |  | = | Monthly sum of the CAISO Unit Hourly Cap Heat Input for this Unit (MMBtu) |  |  | CAISO Facility Monthly Billed Fuel Cost |  |
| Monthly sum of the CAISO Unit Hourly Cap Heat Input for all Units at the Facility (MMBtu) |

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** | | | | | | | | | | | | | |
|  | CAISO Facility Monthly Billed Fuel Cost ($) |  | = | Lesser of |  | CAISO Facility Cumulative Actual Fuel Cost ($) | or | CAISO Facility Cumulative Cap Fuel Cost ($) |  | – |  | CAISO Facility Cumulative Billed Fuel Cost ($) |  |

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 Costs 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** | | | | | | | | | | | | | | | | |
|  | CAISO Unit Monthly Actual Fuel Cost ($) |  | = | Monthly sum of the CAISO Unit Hourly Cap Heat Input for the Unit (MMBtu) |  |  |  | Monthly Metered Fuel MMBtu | ­ | CAISO Monthly Fuel Price ($/MMBtu) |  | - |  | Monthly Start-up Fuel Cost ($) |  |  |
| Monthly sum of the Unit Hourly Cap Heat Inputs for all units at the Facility metered by the Fuel Meter (MMBtu) |

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 in use for the Units are within acceptable industry and regulatory standards. 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 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. 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 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 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** | | | | |
| Adjusted Start-up Fuel Cost for Canceled Starts ($) | = | Number of hours committed to the Start-up | ­ | Start-up Fuel Costs ($) |
| Applicable Start-up Lead Time in hours shown in Section 6 of Schedule A |

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** | | |
| CAISO Monthly Fuel Price ($/MMBtu) | = | Monthly sum of CAISO Unit Hourly Cap Fuel Cost ($) |
| 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** |
| CAISO Unit Hourly Cap Fuel Cost ($) = CAISO Unit Hourly Cap Heat Input (MMBtu) × Hourly Fuel Price ($/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** | | | | |
| CAISO Unit Hourly Cap Heat Input | = | Unit Hourly Cap Heat Input (MMBtu) |  | Billable MWh |
| 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** | | | | |
| Unit Hourly Cap Heat Input | = | 1.02 | ­ | (AX3 + BX2 + CX + D) ­ E |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Equation C1-7b** | | | | |
| Unit Hourly Cap Heat Input | = | 1.02 |  | (A ­ (B + CX + DeFX)) ­ 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.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table C1-7a** | | | | | |
|  | A | B | C | D | E |
|  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table C1-7b** | | | | | | |
|  | 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

|  |  |  |  |
| --- | --- | --- | --- |
|  | Index Publication Date\* | | |
| Trading Day | 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 (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.

**Transportation Rate for Distillate Fuel Oil**

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.

n any month in which Owner incurs a 1st Tier or 2nd 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 disagrees 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 the CAISO disagrees 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 2nd Tier Imbalance charges.

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

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Equation C1-9** | | | | | | | | | | | | | | | | | |
| Monthly Fuel Imbalance Charge | = | 0.75 | ­ |  | Monthly Sum of Daily Imbalance Charges | – 0.0225 | ­ | CAISO Facility Monthly Billed Fuel Cost |  | + 0.25 | ­ |  | Monthly Sum of Daily Imbalance Charges | – 0.10 | ­ | CAISO Facility Monthly Billed Fuel Cost |  |

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** | | | | | | | | |
| CAISO Monthly Other Fuel Related Cost | = | Monthly sum of Billable MWh | ­ |  | Other Gas Tariff Charges | + | Applicable Taxes |  |
| Monthly sum of Total Hourly Metered Net Generation |

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:

1. [Insert applicable local utility user taxes]

2. [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** | | |
| **CAISO Hourly Emissions Cost ($/hr) =** | **a. b. c. d. e. f. g.** | **CAISO Hourly RECLAIM Trading Credit Cost ($/hr) + CAISO Hourly NOx Emissions Cost ($/hr) + CAISO Hourly Organic Gases Emissions Cost ($/hr) + CAISO Hourly Sulfur Oxides Emissions Cost ($/hr) + CAISO Hourly Particulate Matter Emissions Cost ($/hr) + CAISO Hourly Carbon Monoxide Emissions Cost ($/hr) + CAISO Hourly Sulfur Dioxides Trading Credit Costs ($/hr)** |

**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** | | | | | | |
| CAISO Hourly RECLAIM Trading Credit Cost ($/hr) | = | Hourly NOx Emissions (lbs/hr) | ­ | RECLAIM NOx Trading Credit Rate ($/lb) | ­ | Billable MWh |
| Hourly Metered Total Net Generation |

**Where:**

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

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Equation C-13** | | | | | | | |
| Hourly NOx Emissions (lbs/hr) | = | AX2 | + | 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.

|  |  |  |  |
| --- | --- | --- | --- |
| **Table C1-13** | | | |
| **Description of Unit** | **A** | **B** | **C** |
|  |  |  |  |

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** | | | | | | | | |
| CAISO Hourly Nox Emissions Cost ($/hr) | = | (5­ 10-4) | ­ | Hourly Nox Emissions (lbs/hr) | ­ | NOx Emissions Fee ($/ton) | ­ | Billable MWh |
| Hourly Metered Total Net Generation |

**Where:**

 (5 ( 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** | | | | |
| Cumulative Tons of Pollutant (tons/hr) | = | Tons of Pollutant From the prior  July 1st to the Previous Hour | + | Tons of Pollutant ForCurrent Hour |

**Where:**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Equation C1-16** | | | | |
| Tons of Pollutant for Current Hour (tons/hr) | = | (4.76  10-7) ­ (AX3 + BX2 + CX + D) | ­ | Pollutant Emissions Amount for Natural Gas |

**Where:**

 (4.76 ­ 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** | | | | | | | | |
| CAISO Hourly Applicable Emissions Cost ($/hr) | = | (4.76 ­ ­10-7) | ­ | CAISO Unit Hourly Cap Heat Input (MMBtu/hr) | ­ | Associated  Emissions Factor  (lbs/mmcf) | ­ | Associated Emissions Fee ($/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 ­ 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 SO2 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**[[1]](#footnote-1)

Beginning in the year 2000, certain Units will be subject to Title IV of the Federal Clean Air Act for providing SO2 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.

**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.

**G. 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 E Ancillary Services**

**Ancillary Services. Voltage Support and Black Start**

**art 1**

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 or Voltage Support 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 or Voltage Support while synchronized without generating Energy.

**Motoring Charge**

When Units are operated as synchronous condensers (i.e., motored using electric power) to provide Ancillary Services, or Voltage Support, if applicable, the payment for that service is given by the following formula:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Motoring Charge | = | (Power consumption rate (MWh/hr)) |  | (hours operated) |  | (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.







**Schedule E**

**Ancillary Services**

**Part 2 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 Annual Revenue Requirements of Must-Run Units**

**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:

*Variable O&M Rate = [Annual Variable O&M Expenses]/[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 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:

Net Investment = Gross Plant Investment - Depreciation Reserve + CWIP + PHFU - ADIT + 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**

he Allowable Pre-Tax Rate of Return shall as filed by the Owner and accepted by FERC.

a)

**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**1

[Footnote 1: Exhibit A for each owner is filed in Appendix to the Stipulation and Agreement.]

|  |  |  |  |
| --- | --- | --- | --- |
| Line | RMR Facility | Unit | Initial Variable O&M Rate ($/MWh) |
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**Exhibit B - Depreciation Rate and Mortality Characteristics**23

[Footnote 2: Exhibit B for each owner is filed in Appendix B to the Stipulation and Agreement.]

[Footnote 3: Effective as of the effective date of the Settlement.]

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Line | RMR Facility | Unit | Plant Account | Depreciation Rate (%) | Mortality Characteristics | | | |
| Retire-ment Date | Average Service Life | Salvage Value  or Rate | Interim Retire-ments  Rate |
|  |  |  |  |  |  |  |  |  |
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**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 I Insurance Requirements**

***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.

**Schedule J**

**Notices**

Notice to Owner:

Name:

Title:

Address:

Telephone:

Facsimile:

E-mail:

With a copy to: Owner’s Representative:

Notice to CAISO:

NDebi Le Vine, Director

EInfrastructure Contracts and Management

California ISO Corporation

250 Outcropping Way

Folsom, CA 95630

Telephone: (916) 351-2144

Email: [DLeVine@caiso.com](mailto:ntraweek@caiso.com)

With copies to:

Sidney Mannheim, Assistant General Counsel

California ISO Corporation

250 Outcropping Way

Folsom, CA 95630

Telephone: (916) 608-7144

Facsimile: (916) 608-7222

Email: [smannheim@caiso.com](mailto:smannheim@caiso.com)

Chris Sibley, Manager, Regulatory Contracts

California ISO Corporation

250 Outcropping Way

Folsom, CA 95630

Telephone: (916) 608-7030

Email: [CSibley@caiso.com](mailto:CSibley@caiso.com), RegulatoryContracts@caiso.com

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

**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 | Over head 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 RMR Contract 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:**

escribe 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, RMR Contract Capacity, 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**

**CAPITAL ITEM AND REPAIR PROGRESS REPORT**

CALIFORNIA INDEPENDENT SYSTEM OPERATOR

RELIABILITY MUST-RUN UNIT

CAPITAL ITEM AND REPAIR PROGRESS REPORT

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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:











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**Schedule N Non-Utility Persons Disclosure & Confidentiality Agreement**

**NON-DISCLOSURE and CONFIDENTIALITY AGREEMENT**

**[Name of]** (the “Receiving Party”) acknowledges (a) that **[Name of Owner]** (“Owner”) has agreed to provide Confidential Information to the Receiving Party pursuant to certain provisions of the Must-Run Service Agreement (“MRSA”) between Owner and the California Independent System Operator Corporation (“CAISO”), in connection with discussions concerning the possible execution of such an MRSA, 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 *pro* *forma* MRSA, except that the definition in Section 12.5 of the MRSA shall be deemed to also cover comparably designated information provided in connection with discussions concerning the possible execution of an MRSA;

(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 under discussion, 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 related to the MRSA under discussion, 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) Retention; Destruction. All Confidential Information (including all copies) shall, at a Providing Party’ request and direction, either be promptly returned to the Providing Party or destroyed at the conclusion of the term of the MRSA, except to the extent prohibited by law. Notwithstanding the foregoing, electronic copies of materials or summaries containing or reflecting Confidential Information that are generated through data backup and/or archiving systems and which are not readily accessible by the Receiving Party or its personnel, shall not be deemed to violate this Non-Disclosure and Confidentiality Agreement, provided that such Confidential Information is not disclosed in violation of the other terms of this Non-Disclosure and Confidentiality Agreement.

The Receiving Party agrees to be bound by the terms of Section 12.5 of the *pro forma* 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:

1. 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. [↑](#footnote-ref-1)