Original Sheet No. 480

ISO TARIFF APPENDIX A Master Definitions Supplement

Issued by: Charles F. Robinson, Vice President and General Counsel Issued on: March 22, 2006 Effective: March 1, 2006

Original Sheet No. 481

Appendix A Master Definition Supplement

Access Charge

A charge paid by all UDCs and MSS Operators with Gross Load in a PTO Service Territory, as set forth in Section 2.6.1. The Access Charge includes the High Voltage Access Charge, the Transition Charge and the Low Voltage Access Charge. The Access Charge will recover the Participating TO's Transmission Revenue Requirement in accordance with Appendix F, Schedule 3.

Active Zone
Adjustment Bid

The Zones so identified in Appendix I to the ISO Tariff. A bid in the form of a curve defined by (i) the minimum MW output to which a Scheduling Coordinator will permit a resource (Generating Unit or Dispatchable Load) included in its Schedule or, in the case of an inter-Scheduling Coordinator trade, included in its Schedule or the Schedule of another Scheduling Coordinator, to be redispatched by the ISO; (ii) the maximum MW output to which a Scheduling Coordinator will permit the resource included in its Schedule or, in the case of an inter-Scheduling Coordinator trade, included in its Schedule or the Schedule of another Scheduling Coordinator, to be redispatched by the ISO; (iii) up to a specified number of MW values in between; (iv) a preferred MW operating point; and (v) for the ranges between each of the MW values greater than the preferred operating point, corresponding prices (in \$/MWh) for which the Scheduling Coordinator is willing to increase the output of the resource and sell Energy from that resource to the ISO (or, in the case of a Dispatchable Load, decrease the Demand); and (vi) for the ranges between each of the MW values less than the preferred operating point, corresponding prices (in \$/MWh) for which the Scheduling Coordinator is willing to decrease the output of the resource and purchase Energy from the ISO at the resource's location (or, in the case of a Dispatchable Load, increase the Demand). This data for an Adjustment Bid must result in a monotonically increasing curve.

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: March 1, 2006

Second Revised Sheet No. 482 Superseding First Revised Sheet No. 482

<u>Administrative Price</u> The price set by the ISO in place of a Market Clearing Price when,

by reason of a System Emergency, the ISO determines that it no longer has the ability to maintain reliable operation of the ISO Controlled Grid relying solely on the economic Dispatch of

Generation. This price will remain in effect until the ISO considers that the System Emergency has been contained and corrected.

Adverse System Impact The negative effects due to technical or operational limits on

conductors or equipment being exceeded that may compromise the

safety and reliability of the electric system.

Affected System An electric system other than the ISO Controlled Grid that may be

affected by the proposed interconnection, including the Participating

TOs' electric systems that are not part of the ISO Controlled Grid.

<u>Affected System Operator</u> The entity that operates an Affected System.

Affiliate With respect to a corporation, partnership or other entity, each such

other corporation, partnership or other entity that directly, or

indirectly through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership

or other entity.

AGC (Automatic Generation equipment that automatically responds to signals from Generation Control)

1901s FMC control the power output of

the ISO's EMS control in real time to control the power output of

electric generators within a prescribed area in response to a change in system frequency, tie-line loading, or the relation of these to each other, so as to maintain the target system frequency and/or the

established interchange with other areas within the predetermined

limits.

Aggregate Credit Limit The sum of a Market Participant's or FTR Bidder's Unsecured Credit

Limit and its Financial Security Amount, as provided for in Section

12 of the ISO Tariff.

Alert Notice A Notice issued by the ISO when the operating requirements of the

ISO Controlled Grid are marginal because of Demand exceeding forecast, loss of major Generation, or loss of transmission capacity that has curtailed imports into the ISO Control Area, or if the Hour-Ahead Market is short on scheduled Energy and Ancillary Services

for the ISO Control Area.

Issued on: October 11, 2007 Effective: October 11, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

First Revised Sheet No. 483 Superseding Original Sheet No. 483

Ancillary Services Regulation, Spinning Reserve, Non-Spinning Reserve, Replacement

Reserve, Voltage Support and Black Start together with such other

interconnected operation services as the ISO may develop in

cooperation with Market Participants to support the transmission of Energy from Generation resources to Loads while maintaining reliable operation of the ISO Controlled Grid in accordance with

Good Utility Practice.

Ancillary Service Provider A Participating Generator or Participating Load who is eligible to

provide an Ancillary Services.

Annual Peak Demand

Forecast

A Demand Forecast of the highest Hourly Demand in any hour in a

calendar year, in MW.

Applicable Reliability

<u>Criteria</u>

The reliability standards established by NERC, WECC, and Local Reliability Criteria as amended from time to time, including any

requirements of the NRC.

<u>Applicants</u> Pacific Gas and Electric Company, San Diego Gas & Electric

Company, and Southern California Edison Company and any others

as applicable.

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: July 11, 2006 Effective: May 14, 2006

FERC ELECTRIC TARIFF

Second Revised Sheet No. 484

THIRD REPLACEMENT VOLUME NO. II Superseding Alternate First Revised Sheet No. 484

Approved Load Profile Local Regulatory Authority approved Load profiles applied to

cumulative End-Use Meter Data in order to allocate consumption of

Energy to Settlement Periods.

Approved Maintenance

<u>Outage</u>

A Maintenance Outage which has been approved by the ISO

through the ISO Outage Coordination Office.

"Area Control Error

(ACE)"

The sum of the instantaneous difference between the actual net interchange and the scheduled net interchange between the ISO

Control Area and all adjacent Control Areas and the ISO Control Area's frequency correction and time error correction obligations.

<u>Authorized Users</u> A person or an entity identified as an authorized user in a meter

service agreement between the ISO and an ISO Metered Entity or a

meter service agreement between the ISO and a SC.

Automatic Mitigation Procedure (AMP)

The market power mitigation procedure described in Attachment A

to Appendix P.

Available Import

Capability

The Maximum Import Capability of a branch group into the ISO

Control Area in MW deliverable to the ISO Control Area based on

ISO study criteria minus the sum in MW of all Existing Contracts and Transmission Ownership Rights over that branch group held by load serving entities that do not serve Load within the ISO Control Area.

Available Transfer

Capacity

For a given transmission path, the capacity rating in MW of the path

established consistent with ISO and WECC transmission capacity

The sum of Credit Rating Default Probabilities divided by the total

Average Rating Default Probability (ARDP)

number of Credit Rating Default Probabilities used.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: March 22, 2007 Effective: May 22, 2007

FERC ELECTRIC TARIFF

Fifth Revised Sheet No. 485

THIRD REPLACEMENT VOLUME NO. II

Superseding Fourth Revised Sheet No. 485

rating guidelines, less any reserved uses applicable to the path.

Backup ISO Control The ISO Control Center located in Alhambra, California.

Center

Balanced Schedule A Schedule shall be deemed balanced when Generation, adjusted

for Transmission Losses equals Demand with respect to all entities

for which a Scheduling Coordinator schedules.

An account set up to allow periodic balancing of financial **Balancing Account**

transactions that, in the normal course of business, do not result in a

zero balance of cash inflows and outflows.

Black Start The procedure by which a Generating Unit self-starts without an

external source of electricity thereby restoring power to the ISO

Controlled Grid following system or local area blackouts.

Black Start Generator A Participating Generator in its capacity as party to an Interim Black

Start Agreement with the ISO for the provision of Black Start

services, but shall exclude Participating Generators in their capacity as providers of Black Start services under their Reliability Must-Run

Contracts.

A UDC metering point. **Bulk Supply Point**

Business Day Monday through Friday, excluding federal holidays and the day after

Thanksgiving Day.

Business Practice Manual A collection of documents made available by the CAISO on the

(BPM) CAISO Website that contain the rules, polices, procedures and

guidelines established by the CAISO for operational, planning,

accounting and settlement requirements of CAISO Market activities,

consistent with the CAISO Tariff.

<u>C.F.R.</u> Code of Federal Regulations.

The California Independent System Operator Corporation, a CAISO

California non-profit public benefit corporation that operates the

transmission facilities of all Participating TOs and dispatches certain

Generating Units and Loads.

CAISO Controlled Grid The system of transmission lines and associated facilities of the

Participating TOs that have been placed under the CAISO's

Operational Control.

Power delivered to Load internal to the ISO Control Area. **CAISO Demand**

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: August 20, 2007

Issued on: June 20, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

THIRD REPLACEMENT VOLUME NO. II Original Sheet No. 485.00

<u>CAISO Tariff</u>
The California Independent System Operator Corporation Operating

Agreement and Tariff, dated March 31, 1997, as it may be modified

from time to time.

CAISO Website The CAISO internet home page at http://www.caiso.com / or such

other internet address as the CAISO shall publish from time to time.

<u>Calendar Day</u> Any day including Saturday, Sunday or a federal holiday.

<u>Candidate CRR Holder</u> Defined in Appendix BB.

<u>CDWR-SWP</u> The California Department of Water Resources, State Water Project.

<u>CDWR-SWP Participating</u> The Generating Units operated by the California Department of <u>Generating Units</u> Water Resources, State Water Project, that are subject to a

Participating Generator Agreement with the ISO.

Certificate of Compliance A certificate issued by the ISO which states that the Metering

Facilities referred to in the certificate satisfy the certification criteria

for Metering Facilities contained in the ISO Tariff.

<u>Check Meter</u> A redundant revenue quality meter which is identical to and of equal

accuracy to the primary revenue quality meter connected at the same metering point which must be certified in accordance with the

ISO Tariff.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: June 20, 2007 Effective: August 20, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 485A

Circular Schedule

A Schedule or set of Schedules that creates a closed loop of Energy Schedules between the ISO Controlled Grid and one or more other Control Areas that do not have a source and sink in separate Control Areas, which includes Energy scheduled in a counter direction over a Congested Inter-Zonal Interface through two or

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: September 1, 2006 Effective: Upon Commission Approval

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

First Revised Sheet No. 486 Superseding Original Sheet No. 486

more Scheduling Points. A closed loop of Energy Schedules that includes a transmission segment on the Pacific DC Intertie shall not be a Circular Schedule because such a Schedule directly changes power flows on the network and can mitigate Congestion between SP15 and NP15. This definition of a Circular Schedule does not apply to the circumstance in which a Scheduling Coordinator submits a Schedule that is an amalgam of different Market Participants' separate but simultaneously submitted Schedules.

The process whereby a group of Interconnection Requests is Clustering

studied together, instead of serially, for the purpose of conducting

the Interconnection System Impact Study.

Commercial Operation The status of a Generating Unit or project phase at a Generating

Facility that has commenced generating electricity for sale,

excluding electricity generated during Trial Operation.

Commercial Operation The date on which a Generating Unit or project phase at a

Date Generating Facility commences Commercial Operation as agreed to

by the applicable Participating TO, the CAISO, and the

Interconnection Customer pursuant to Appendix E to the Large Generator Interconnection Agreement, and in accordance with the implementation plan agreed to by the Participating TO and the CAISO for multiple individual Generating Units or project phases at a Generating Facility where an Interconnection Customer intends to

establish separate Commercial Operation Dates for those

Generating Units or project phases.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: July 28, 2008 Effective: September 29, 2008

Effective: September 29, 2008

Compatible Meter Data

<u>Server</u>

A meter data acquisition and processing system which is capable of passing Meter Data and/or Settlement Quality Meter Data to MDAS via File Transfer Protocol (FTP) and which has been certified by the ISO or its authorized representative.

Congestion

A condition that occurs when there is insufficient Available Transfer Capacity to implement all Preferred Schedules simultaneously or, in real time, to serve all Generation and Demand. "Congested" shall be construed accordingly.

Congestion Management

The alleviation of Congestion in accordance with Applicable ISO

Protocols and Good Utility Practice.

Congestion Management

Charge

The component of the Grid Management Charge that provides for the recovery of the ISO's costs of operating the Congestion

Management process including, but not limited to, the management and operation of Inter-Zonal Congestion markets, Adjustment Bids, taking Firm Transmission Rights and Existing Contracts into

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: July 28, 2008

FERC ELECTRIC TARIFF

Third Revised Sheet No. 487

THIRD REPLACEMENT VOLUME NO. II

Superseding Second Revised Sheet No. 487

account, and determining the price for mitigating Congestion for flows on Congested paths. The formula for determining the Congestion Management Charge is set forth in Appendix F, Schedule 1, Part A of

this Tariff.

Congestion Revenue

Defined in Appendix BB.

Right (CRR)

Congestion Zone

A Zone identified as an Active Zone in Appendix I of the ISO Tariff.

Connected Entity A Participating TO or any party that owns or operates facilities that are

electrically interconnected with the ISO Controlled Grid.

<u>Constrained Output</u> Generating resources with only two viable operating states: (a) off-line

Generation or (b) operating at their maximum output level.

<u>Constraints</u> Physical and operational limitations on the transfer of electrical power

through transmission facilities.

Construction Activities Actions by a Participating TO that result in irrevocable financial

commitments for the purchase of major electrical equipment or land for Participating TO's Interconnection Facilities or Network Upgrades assigned to the Interconnection Customer that occur after receipt of all appropriate governmental approvals needed for the Participating TO's

Interconnection Facilities or Network Upgrades.

Contingency Disconnection or separation, planned or forced, of one or more

components from an electrical system.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: July 28, 2008 Effective: September 29, 2008

Original Sheet No. 487A

Control Area

An electric power system (or combination of electric power systems) to which a common AGC scheme is applied in order to: i) match, at all times, the power output of the Generating Units within the electric power system(s), plus the Energy purchased from entities outside the electric power system(s), minus Energy sold to entities outside the electric power system, with the Demand within the electric power system(s); ii) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice; iii) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and iv) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

Control Area Gross Load

For the purpose of calculating and billing Minimum Load Costs,
Emission Costs Charge and Start-Up Fuel Costs Charge, Control Area
Gross Load is all Demand for Energy within the ISO Control Area.
Control Area Gross Load shall not include Energy consumed by:

- (a) Station Power that is netted pursuant to Section 10.1.3; and
- (b) Load that is isolated electrically from the ISO Control Area (i.e., Load that is not synchronized with the ISO Control Area).

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: July 28, 2008 Effective: September 29, 2008

FERC ELECTRIC TARIFF
THIRD REPLACEMENT VOLUME NO. II

Substitute Third Revised Sheet No. 488 Superseding Second Revised Sheet No. 488

<u>Control Area Operator</u> The person responsible for managing the real-time operations of a

Control Area.

<u>Converted Rights</u> Those transmission service rights as defined in Section 16.21A.1 of

the ISO Tariff.

<u>Core Reliability Services -</u> A component of the Grid Management Charge that provides for the

Demand Charge recovery of the ISO's costs of providing a basic, non-scalable level

of reliable operation for the ISO Control Area and meeting regional and national reliability requirements. The formula for determining

the Core Reliability Services – Demand Charge is set forth in

Appendix F, Schedule 1, Part A of this Tariff.

<u>Core Reliability Services</u> A component of the Grid Management Charge that provides for the

Energy Export Charge recovery of the ISO's costs of providing a basic, non-scalable level

of reliable operation for the ISO Control Area and meeting regional and national reliability requirements. The formula for determining

the Core Reliability Services – Energy Exports Charge is set forth in

Appendix F, Schedule 1, Part A of this Tariff.

CPUC The California Public Utilities Commission, or its successor.

<u>Credit Margin</u> The quantity equal to Expected Congestion Revenue minus Fifth

Percentile Congestion Revenue.

Credit Rating Default The 5 Year Median Default Probability based on a rating agency's

<u>Probability</u> credit rating as listed in the Credit Rating Default Probabilities table

in Section A-2.2 of the ISO Credit Policy & Procedures Guide.

CRR Auction Price The positive or negative price to pay or be paid for a CRR at

auction.

CRR Holder As defined in Appendix BB.

<u>Critical Protective System</u> Facilities and sites with protective relay systems and Remedial

Action Schemes that the ISO determines may have a direct impact on the ability of the ISO to maintain system security and over which

the ISO exercises Operational Control.

<u>CTC (Competition</u> A non-bypassable charge that is the mechanism that the California

<u>Transition Charge</u>) Legislature and the CPUC mandated to permit recovery of costs

stranded as a result of the shift to the new market structure.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: June 29, 2007 Effective: August 22, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 488A

<u>Curtailable Demand</u> Demand from a Participating Load that can be curtailed at the

direction of the ISO in the real-time Dispatch of the ISO Controlled Grid. Scheduling Coordinators with Curtailable Demand may offer it to the ISO to meet Non-Spinning Reserve or Replacement Reserve

requirements.

<u>Day 0</u> The Trading Day to which the Settlement Statement or Settlement

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: June 22, 2007 Effective: August 22, 2007

Second Revised Sheet No. 489 Superseding First Revised Sheet No. 489

calculation refers. For example "Day 41" shall mean the 41st day after that Trading Day and similar expressions shall be construed accordingly.

<u>Day-Ahead</u> Relating to a Day-Ahead Market or Day-Ahead Schedule.

Day-Ahead Market The forward market for Energy and Ancillary Services to be supplied

during the Settlement Periods of a particular Trading Day that is conducted by the ISO and other Scheduling Coordinators and which closes with the ISO's acceptance of the Final Day-Ahead Schedule.

<u>Day-Ahead Schedule</u> A Schedule prepared by a Scheduling Coordinator or the ISO before

the beginning of a Trading Day indicating the levels of Generation and Demand scheduled for each Settlement Period of that Trading

Day.

Imports

Exports

Imports

<u>Decline Monthly Charge</u> A charge that applies to the aggregate of a Scheduling Coordinator's

Exports

Hourly Pro Dispatch Supplemental Energy bids to export Energy

Hourly Pre-Dispatch Supplemental Energy bids to export Energy that are not delivered in a trading month, as determined pursuant to

Section 11.31.1.

Decline Monthly Charge – A charge that applies to the aggregate of a Scheduling Coordinator's

Hourly Pre-Dispatch Supplemental Energy bids to import Energy that are not delivered in a trading month, as determined pursuant to

Section 11.31.1.

Decline Potential Charge - A potential charge that is calculated for any portion of an Hourly Pre-

Dispatch Supplemental Energy bid to export Energy that is not

delivered for any reason, which potential charge and its applicability

are determined pursuant to Section 11.31.

Decline Potential Charge – A potential charge that is calculated for any portion of an Hourly Pre-

Dispatch Supplemental Energy bid to import Energy that is not

delivered for any reason, which potential charge and its applicability

are determined pursuant to Section 11.31.

<u>Decline Threshold</u> The rate at which Scheduling Coordinators may fail to deliver

<u>Percentage –</u> imports or exports in accordance with Hourly Pre-Dispatch bids for <u>Imports/Exports</u>

Supplemental Energy without incurring Decline Monthly Charges -

Imports or Decline Monthly Charges – Exports, as measured by the

respective percentages of Hourly Pre-Dispatch Supplemental

Energy bids for import or export MWh quantities that the Scheduling Coordinator does not deliver during a trading month. The Decline

Threshold Percentage – Imports/Exports is ten percent (10%).

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: February 29, 2008 Effective: May 1, 2008

Decline Threshold Quantity -Imports/Exports

The MWh quantity of Hourly Pre-Dispatch Supplemental Energy bids for imports or exports of Energy that a Scheduling Coordinator may fail to deliver during a trading month without incurring Decline Monthly Charges – Imports or Decline Monthly Charges – Exports. The Decline Threshold Quantity – Imports/Exports is 300 MWh. Pre calculated GMM based on historical Load and interchange

Default GMM

levels.

Deliverability Assessment

An evaluation by the Participating TO, ISO or a third party consultant for the Interconnection Customer to determine a list of facilities, the cost of those facilities, and the time required to construct these facilities, that would ensure a Generating Facility could provide Energy to the ISO Controlled Grid at peak load, under a variety of severely stressed conditions, such that the aggregate of Generation in the local area can be delivered to the aggregate of Load on the ISO Controlled Grid, consistent with the ISO's reliability criteria and procedures.

Delivery Network

Transmission facilities at or beyond the Point of Interconnection,

Upgrades

other than Reliability Network Upgrades, identified in the

Interconnection Studies to relieve constraints on the ISO Controlled

Grid.

Delivery Point

The point where a transaction between Scheduling Coordinators is deemed to take place. It can be either the Generation input point, a Demand Take-Out Point, or a transmission bus at some intermediate location.

Demand

The rate at which Energy is delivered to Loads and Scheduling Points by Generation, transmission or distribution facilities. It is the product of voltage and the in-phase component of alternating current measured in units of watts or standard multiples thereof, e.g., 1,000W=1kW, 1,000kW=1MW, etc.

Demand Forecast

An estimate of Demand over a designated period of time.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: February 29, 2008 Effective: May 1, 2008

Original Sheet No. 490

Department of Market

Analysis (DMA)

The unit established under Appendix P.1.

Direct Access Demand

The Demand of Direct Access End-Users.

Direct Access End-User

An Eligible Customer located within the Service Area of a UDC who purchases Energy and Ancillary Services through a Scheduling

Coordinator.

Dispatch

The operating control of an integrated electric system to: i) assign specific Generating Units and other sources of supply to effect the supply to meet the relevant area Demand taken as Load rises or falls; ii) control operations and maintenance of high voltage lines, substations, and equipment, including administration of safety procedures; iii) operate interconnections; iv) manage Energy transactions with other interconnected Control Areas; and v) curtail Demand.

Dispatch Instruction

An instruction by the ISO to a resource for increasing or decreasing its energy supply or demand from the Hour-Ahead Schedule to a specified operating point pertaining to real-time operations.

Dispatch Interval

The time period, which may range between five (5) and thirty (30) minutes, over which the ISO's RTD Software measures deviations in Generation and Demand, and selects Ancillary Service and Supplemental Energy resources to provide balancing Energy in response to such deviations. The Dispatch Interval shall be five (5) minutes. Following a decision by the ISO Governing Board, the ISO may, by seven (7) days' notice published on the ISO's Home Page, at http://www.caiso.com (or such other internet address as the ISO may publish from time to time), increase or decrease the Dispatch Interval within the range of five (5) to thirty (30) minutes.

Dispatch Interval Ex Post Prices

The price of Imbalance Energy determined each Dispatch Interval based on 1) the Imbalance Energy requirements in that Dispatch Interval, and 2) the Energy Bid price of the resource eligible to set the price. The Dispatch Interval Ex Post Price is used to determine

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: March 1, 2006 THIRD REPLACEMENT VOLUME NO. II

Interchange (EDI)

Second Revised Sheet No. 491 Superseding First Revised Sheet No. 491

other prices used to settle Imbalance Energy.

<u>Dispatch Operating Point</u> The expected operating point of a resource that has received a

Dispatch Instruction. The resource is expected to operate at the Dispatch Operating Point after completing the Dispatch Instruction, taking into account any relevant ramp rate and time delays. Energy expected to be produced or consumed above or below the Final Hour-Ahead Schedule in response to a Dispatch Instruction

constitutes Instructed Imbalance Energy. For resources that have not received a Dispatch Instruction, the Dispatch Operating Point

defaults to the corresponding Final Hour-Ahead Schedule.

<u>Dispatchable Load</u> Load which is the subject of an Adjustment Bid.

<u>Distribution System</u> The distribution assets of an IOU or Local Publicly Owned Electric

Utility.

<u>Distribution Upgrades</u> The additions, modifications, and upgrades to the Participating TO's

electric systems that are not part of the ISO Controlled Grid.

Distribution Upgrades do not include Interconnection Facilities.

Dynamic Schedule A telemetered reading or value which is updated in real time and

which is used as a schedule in the ISO EMS calculation of ACE and

the integrated value of which is treated as a schedule for

interchange accounting purposes.

EEP (ElectricalA plan to be developed by the ISO in consultation with UDCs to

Emergency Plan) address situations when Energy reserve margins are forecast to be

below established levels.

Electronic Data The routine exchange of business documented on electronic media

such as purchase orders, invoices and remittance. The format of the data is based on an industry-approved format such as those

published by the ANSI ASC X12 committee.

Eligible Capacity Capacity of Generating Units of Participating Generators located

within the ISO Control Area except the following: capacity

associated with hydroelectric generation, nuclear generation, QFs,

generation resources within a Metered Subsystem, resources owned by the California Department of Water Resources, State

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: March 15, 2007 Effective: June 1, 2006

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF Se THIRD REPLACEMENT VOLUME NO. II Superseding

Second Revised Sheet No. 491A Superseding First Revised Sheet No. 491A

Water Project; capacity of a Generating Unit with a Reliability Must-Run contract, during the term of such contract; capacity of a Resource Adequacy Resource that is identified in any Resource Adequacy Plan in accordance with Section 40, during the time that such capacity is identified on the Resource Adequacy Plan; and capacity that has been designated to provide service under the TCPM, during the term of the designation.

Eligible Customer

(i) any utility (including Participating TOs, Market Participants and any power marketer), Federal power marketing agency, or any person generating Energy for sale or resale; Energy sold or produced by such entity may be Energy produced in the United

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: March 28, 2008 Effective: June 1, 2008

First Revised Sheet No. 492 Superseding Original Sheet No. 492

States, Canada or Mexico; however, such entity is not eligible for transmission service that would be prohibited by Section 212(h)(2) of the Federal Power Act; and (ii) any retail customer taking unbundled transmission service pursuant to a state retail access program or pursuant to a voluntary offer of unbundled retail transmission service by the Participating TO.

Eligible Intermittent

Resource

A Generating Unit that is powered solely by 1) wind, 2) solar energy, or 3) hydroelectric potential derived from small conduit water distribution facilities that do not have storage capability.

Emissions Cost Charge

Emissions Cost Demand

Emissions Cost Invoice

The charge determined in accordance with Section 40.11.

The level of Demand specified in Section 40.11.3.

The invoice submitted to the ISO in accordance with Section

40.11.6.

Emissions Cost Trust

<u>Account</u>

Emissions Costs

The trust account established in accordance with Section 40.11.2.

The mitigation fees, excluding capital costs, assessed against a Generating Unit by a state or federal agency, including air quality

districts, for exceeding applicable NOx emissions limitations.

EMS (Energy Management

System)

A computer control system used by electric utility dispatchers to monitor the real-time performance of the various elements of an electric system and to control Generation and transmission facilities.

Encumbrance A legal restriction or covenant binding on a Participating TO that

affects the operation of any transmission lines or associated facilities

and which the ISO needs to take into account in exercising

Operational Control over such transmission lines or associated facilities if the Participating TO is not to risk incurring significant

liability. Encumbrances shall include Existing Contracts and may include: (1) other legal restrictions or covenants meeting the definition of Encumbrance and arising under other arrangements

entered into before the ISO Operations Date, if any; and (2) legal restrictions or covenants meeting the definition of Encumbrance and arising under a contract or other arrangement entered into after the

ISO Operations Date.

End-Use Customer or A consumer of electric power who consumes such power to satisfy a

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: July 13, 2006 Effective: May 31, 2006

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

First Revised Sheet No. 493 Superseding Original Sheet No. 493

End-User Load directly connected to the ISO Controlled Grid or to a

Distribution System and who does not resell the power.

End-Use Meter Data Meter Data that measures the Energy consumption in respect of

End-Users gathered, edited and validated by Scheduling

Coordinators and submitted to the ISO in Settlement quality form.

End-Use Meter A metering device collecting Meter Data with respect to the Energy

consumption of an End-User.

Energy The electrical energy produced, flowing or supplied by generation,

transmission or distribution facilities, being the integral with respect to time of the instantaneous power, measured in units of watt-hours

or standard multiples thereof, e.g., 1,000 Wh=1kWh, 1,000

kWh=1MWh, etc.

Energy Bid The price at or above which a Generator has agreed to produce the

next increment of Energy.

Energy Resource Area A geographic region certified by the California Public Utilities

(ERA) Commission and the California Energy Commission as an area in

which multiple LCRIGs could be located, provided that, for the interim period before those agencies certify such areas and for LCRIFs that are proposed to connect LCRIGs located outside the

State of California, an Energy Resource Area shall mean a

geographic region that would be connected to the CAISO Controlled Grid by an LCRIF with respect to which the CAISO Governing Board

determines that all of the requirements of Section 24.1.3 are

satisfied, except for the requirement that the LCRIGs to which the LCRIF would connect are located in an area certified as an ERA by

The component of the Grid Management Charge that provides, in

those agencies.

Energy Transmission

<u>Services Net Energy</u> conjunction with the Energy Transmission Services Uninstructed

<u>Charge</u> Deviations Charge, for the recovery of the ISO's costs of providing

reliability on a scalable basis, i.e., a function of the intensity of the use of the transmission system within the Control Area and the occurrence of system outages and disruptions. The formula for determining the Energy Transmission Services Net Energy Charge

is set forth in Appendix F, Schedule 1, Part A of this Tariff.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: October 31, 2007 Effective: January 1, 2008

Agreement

Energy Transmission The component of the Grid Management Charge that provides, in **Services Uninstructed** conjunction with the Energy Transmission Services Net Energy **Deviations Charge** Charge, for the recovery of the ISO's costs of providing reliability on

a scalable basis, in particular for the costs associated with balancing transmission flows that result from uninstructed deviations. The

formula for determining the Energy Transmission Services

Uninstructed Deviations Charge is set forth in Appendix F, Schedule

1, Part A of this Tariff.

Engineering & An agreement that authorizes the Participating TO to begin

Procurement (E&P) engineering and procurement of long lead-time items necessary for

the establishment of the interconnection in order to advance the

implementation of the Interconnection Request.

Issued on: October 31, 2007 Effective: January 1, 2008 FERC ELECTRIC TARIFF

THIRD REPLACEMENT VOLUME NO. II

Third Revised Sheet No. 494 Superseding Substitute Second Revised Sheet No. 494

Energy Export For purposes of calculating the Grid Management Charge, Energy

included in an interchange Schedule submitted to the ISO, or dispatched by the ISO, to serve a Load located outside the ISO's Control Area, whether the Energy is produced by a Generator in the ISO Control Area or a resource located outside the ISO's Control

Area.

Entitlements The right of a Participating TO obtained through contract or other

means to use another entity's transmission facilities for the

transmission of Energy.

Environmental Dispatch Dispatch designed to meet the requirements of air quality and other

environmental legislation and environmental agencies having

authority or jurisdiction over the ISO.

Estimated Aggregate The sum of a Market Participant's or FTR Bidder's known and

<u>Liability</u> reasonably estimated potential liabilities for a specified time period

arising from charges described in the ISO Tariff, as provided for in

Section 12 of the ISO Tariff.

Exempt Scheduling
Deviation

The difference between a Day-Ahead Schedule submitted by any

Scheduling Coordinator, pursuant to Section 4.5.4.2.1.1, and its

Demand Forecast, pursuant to Section 31.1.4.1, within any UDC or MSS Service Area that does not exceed the lesser of (a) three (3)

MW or (b) five percent (5%) of that Scheduling Coordinator's Demand Forecast for the relevant UDC or MSS Service Area.

Export Percentage Export Percentage will be calculated for each Participating

Intermittent Resource as the ratio of the Participating Intermittent Resource's Pmax in the ISO Master File minus the MW subject to an exemption under EIRP 5.3.2 on a MW basis to the Participating

Intermittent Resource's Pmax in the ISO Master File.

Exporting Participating A Participating Intermittent Resource with Export Percentage greater

Intermittent Resource than zero (0).

Ex Post GMM GMM that is calculated utilizing the real-time Power Flow Model in

accordance with Section 27.2.1.2.1.2.

Ex Post Price The Hourly Ex Post Price, the Dispatch Interval Ex Post Price, the

Resource-Specific Settlement Interval Ex Post Price, or the Zonal

Settlement Interval Ex Post Price.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: February 23, 2007 Effective: April 26, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 494.00

Ex Post Transmission

Transmission Loss that is calculated based on Ex Post GMM.

Loss

Existing Contracts The contracts which grant transmission service rights in existence

on the ISO Operations Date (including any contracts entered into pursuant to such contracts) as may be amended in accordance with their terms or by agreement between the parties thereto from time to

time.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: February 23, 2007 Effective: April 26, 2007

FERC ELECTRIC TARIFF
Substitute Third Revised Sheet No. 494A
THIRD REPLACEMENT VOLUME NO. II
Superseding Second Revised Sheet No. 494A

Existing Contract Import The quantity of Available Import Capability reserved for Existing

<u>Capability</u> Contracts and Transmission Ownership Rights held by Load Serving

Entities that serve Load within the ISO Control Area under Step 3 of

ISO Tariff Section 40.5.2.2.1.

Existing High Voltage A High Voltage Transmission Facility of a Participating TO that was

Facility placed in service on or before the Transition Date defined in Section

4.2 of Schedule 3 of Appendix F.

Existing Rights Those transmission service rights defined in Section 16.2.1.1 of the

ISO Tariff.

Expected Congestion The mean value based on the probability distribution of the historic

Revenue Congestion revenue of a CRR.

<u>Facility Owner</u> An entity owning transmission, Generation, or distribution facilities

connected to the ISO Controlled Grid.

Facility Study An engineering study conducted by a Participating TO to determine

required modifications to the Participating TO's transmission system,

including the cost and scheduled completion date for such modifications that will be required to provide needed services.

FERC ELECTRIC TARIFF
THIRD REPLACEMENT VOLUME NO. II

Substitute Fourth Revised Sheet No. 495 Superseding Third Revised Sheet No. 495

Facility Study Agreement An agreement between a Participating TO and either a Market

Participant, Project Sponsor, or identified principal beneficiaries pursuant to which the Market Participants, Project Sponsor, and identified principal beneficiaries agree to reimburse the Participating

TO for the cost of a Facility Study.

<u>Fed-Wire</u> The Federal Reserve Transfer System for electronic funds transfer.

FERC The Federal Energy Regulatory Commission or its successor.

FERC Annual Charges Those charges assessed against a public utility by the FERC

pursuant to 18 C.F.R. § 382.201 and any related statutes or

regulations, as they may be amended from time to time.

FERC Annual Charge The rate to be paid by Scheduling Coordinators for recovery of

Recovery Rate FERC Annual Charges assessed against the ISO for transactions on

the ISO Controlled Grid.

FERC Annual Charge An account to be established by the ISO for the purpose of

Trust Account maintaining funds collected from Scheduling Coordinators for FERC

Annual Charges and disbursing such funds to the FERC.

FERC Must-Offer All entities defined by Section 40.7.1 of this ISO Tariff.

Generator

Fifth Percentile The fifth percentile value based on the probability distribution of the

Congestion Revenue historic Congestion revenue of a CRR.

Final Approval A statement of consent by the ISO Control Center to initiate a

scheduled Outage.

Final Day-Ahead Schedule The Day-Ahead Schedule which has been approved as feasible and

consistent with all other Schedules by the ISO based upon the ISO's

Day-Ahead Congestion Management procedures.

Final Hour-Ahead The Hour-Ahead Schedule of Generation and Demand that has

<u>Schedule</u> been approved by the ISO as feasible and consistent with all other

Schedules based on the ISO's Hour-Ahead Congestion

Management procedures.

Final Invoice The invoice due from a RMR Owner to the ISO at termination of the

RMR Contract.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: June 29, 2007

Effective: August 22, 2007

FERC ELECTRIC TARIFF
Substitute First Revised Sheet No. 495.00
THIRD REPLACEMENT VOLUME NO. II
Superseding Original Sheet No. 495.00

Final Schedule A Schedule developed by the ISO following receipt of a Revised

Schedule from a Scheduling Coordinator.

Final NERC/WECC A final invoice issued by the ISO that reflects an allocation of

<u>Charge</u> NERC/WECC Charges to a Scheduling Coordinator based on the

Final NERC/WECC Charge Rate for the NERC/WECC Charge

Assessment Year.

Final NERC/WECC Charge The rate to be paid by Scheduling Coordinators for NERC/WECC

Rate Charges based on the WECC invoice to the ISO for NERC/WECC

Charges for a given year and on the NERC/WECC Metered

Demand for the NERC/WECC Charge Assessment Year.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 14, 2007 Effective: June 27, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

THIRD REPLACEMENT VOLUME NO. II Original Sheet No. 495A

Financial Security Any of the types of financial instruments listed in Section 12 of the

ISO Tariff that are posted by a Market Participant or FTR Bidder.

<u>Financial Security Amount</u> The level of Financial Security posted in accordance with Section 12

of the ISO Tariff by a Market Participant or FTR Bidder.

<u>Final Settlement</u> The restatement or recalculation of the Preliminary Settlement

Statement by the ISO following the issue of that Preliminary

Settlement Statement.

Forbidden Operating The operating region of a resource wherein the resource cannot

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: July 11, 2006 Effective: May 14, 2006

Region operate in a stable manner and must ramp through at maximum

ramp capacity.

Forced Outage An Outage for which sufficient notice cannot be given to allow the

Outage to be factored into the Day-Ahead Market or Hour-Ahead

Market scheduling processes.

Forecast Fee The charge imposed on a Participating Intermittent Resource

pursuant to the terms of Appendix Q and ISO Tariff Appendix F,

Schedule 4.

Forward Scheduling The component of the Grid Management Charge that provides for

<u>Charge</u> the recovery of the ISO's costs, including, but not limited to the costs

of providing the ability to Scheduling Coordinators to forward

schedule Energy and Ancillary Services and the cost of processing

accepted Ancillary Service bids. For purposes of the Forward

Scheduling Charge, a schedule is represented by each Final Hour-

Ahead Schedule with a value other than 0 MW submitted to the

scheduling infrastructure/scheduling

application system (import, export, Load, Generation, inter-

Scheduling Coordinator trade, and Ancillary Services, including selfprovided Ancillary Services) submitted to the ISO's scheduling

infrastructure. The formula for determining the Forward Scheduling Charge is set forth in Appendix F, Schedule 1, Part A of this Tariff.

Parts II and III of the Federal Power Act, 16 U.S.C. § 824 et seg., as

they may be amended from time to time.

FTR (Firm Transmission

Right)

FPA

A contractual right, subject to the terms and conditions of the ISO Tariff, that entitles the FTR Holder to receive, for each hour of the term of the FTR, a portion of the Usage Charges received by the

ISO for transportation of energy from a specific originating Zone to a

specific receiving Zone and, in the event of an uneconomic curtailment to manage Day-Ahead Congestion, to a Day-Ahead scheduling priority higher than that of a Schedule using Converted

Rights capacity that does not have an FTR.

FTR Bidder An entity that submits a bid in an FTR auction conducted by the ISO

in accordance with Section 36.4 of the ISO Tariff.

FTR Holder The owner of an FTR, as registered with the ISO.

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: March 1, 2006

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

THIRD REPLACEMENT VOLUME NO. II

Second Revised Sheet No. 497 Superseding First Revised Sheet No. 497

FTR Market A transmission path from an originating Zone to a contiguous

receiving Zone for which FTRs are auctioned by the ISO in

accordance with Section 36.4 of the ISO Tariff.

<u>Full Capacity</u> The condition whereby a Large Generating Facility interconnected

<u>Deliverability Status</u> with the CAISO Controlled Grid, under coincident CAISO Control

Area peak Demand and a variety of severely stressed system

conditions, can deliver the Large Generating Facility's full output to the aggregate of Load on the CAISO Controlled Grid, consistent with

the CAISO's reliability criteria and procedures and the CAISO On-

Peak Deliverability Assessment.

Full Marginal Loss Rate A rate calculated by the ISO for each Generation and Scheduling

Point location to determine the effect on total system Transmission Losses of injecting an increment of Generation at each such location

to serve an equivalent incremental MW of Demand distributed

proportionately throughout the ISO Control Area.

Generating Facility An Interconnection Customer's Generating Unit(s) used for the

production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection

Facilities.

Generating FacilityThe net capacity of the Generating Facility and the aggregate net

<u>Capacity</u> capacity of the Generating Facility where it includes multiple energy

production devices.

GCC The single point of contact at the grid control center of Southern

California Edison Company.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: July 28, 2008 Effective: September 29, 2008

Original Sheet No. 497A

Generating Unit

An individual electric generator and its associated plant and apparatus whose electrical output is capable of being separately identified and metered or a Physical Scheduling Plant that, in either case, is:

- (a) located within the ISO Control Area;
- (b) connected to the ISO Controlled Grid, either directly or via interconnected transmission, or distribution facilities; and
- (c) that is capable of producing and delivering net Energy (Energy in excess of a generating station's internal power requirements).

Generation Energy delivered from a Generating Unit.

<u>Generator</u> The seller of Energy or Ancillary Services produced by a Generating

Unit.

GMM (Generation Meter A number which when multiplied by a Generating Unit's Metered

Multiplier) Quantity will give the total Demand to be served from that

Generating Unit.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: July 28, 2008 Effective: September 29, 2008

Second Revised Sheet No. 498 Superseding First Revised Sheet No. 498

Good Utility Practice

Any of the practices, methods, and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region, including those practices required by Federal Power Act section 215(a)(4).

Grid Management Charge

The ISO monthly charge on all Scheduling Coordinators that provides for the recovery of the ISO's costs listed in Section 11.2.2.2 through the eight service charges described in Section 11.2.2.3 calculated in accordance with the formula rate set forth in Appendix F, Schedule 1, Part A of this Tariff. The eight charges that comprise the Grid Management Charge consist of: 1) the Core Reliability Services - Demand Charge, 2) the Core Reliability Services – Energy Exports Charge, 3) the Energy Transmission Services Net Energy Charge, 4) the Energy Transmission Services Uninstructed Deviations Charge, 5) the Forward Scheduling Charge, 6) the Congestion Management Charge, 7) the Market Usage Charge, and 8) the Settlements, Metering, and Client Relations Charge.

Grid Operations Charge

An ISO charge that recovers Redispatch costs incurred due to Intra-Zonal Congestion in each Zone. These charges will be paid to the ISO by the Scheduling Coordinators, in proportion to their metered Demand within, and metered exports from, the Zone to a neighboring Control Area.

Gross Load

For the purposes of calculating the transmission Access Charge,
Gross Load is all Energy (adjusted for distribution losses) delivered
for the supply of End-Use Customer Loads directly connected to the
transmission facilities or directly connected to the Distribution System
of a UDC or MSS Operator located in a PTO Service Territory.
Gross Load shall exclude 1) Load with respect to which the

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: October 11, 2007 Effective: October 11, 2007

Third Revised Sheet No. 499 Superseding Second Revised Sheet No. 499

Wheeling Access Charge is payable, 2) Load that is exempt from the Access Charge pursuant to SPP 4.1, and the portion of the Load of an individual retail customer of a UDC or MSS Operator that is served by a Generating Unit that: (a) is located on the customer's site or provides service to the customers site through arrangements as authorized by Section 218 of the California Public Utilities Code; (b) is a qualifying small power production facility or qualifying cogeneration facility, as those terms are defined in the FERC's regulations implementing Section 201 of the Public Utility Regulatory Policies Act of 1978; and (c) secures Standby Service from a Participating TO under terms approved by a Local Regulatory Authority or FERC, as applicable, or can be curtailed concurrently with an outage of the Generating Unit serving the Load. Gross Load forecasts consistent with filed TRR will be provided by each Participating TO to the ISO.

Group Study

The process whereby more than one Interconnection Request is studied together, instead of individually, for the purpose of conducting one or more of the Interconnection Studies or analyses therein.

High Voltage Access
Charge

The Access Charge applicable under Section 26.1 to recover the High Voltage Transmission Revenue Requirements of each Participating TO in a TAC Area.

High Voltage
Transmission Facility

A transmission facility that is owned by a Participating TO or to which a Participating TO has an Entitlement that is represented by a Converted Right, that is under the CAISO Operational Control, and that operates at a voltage at or above 200 kilovolts, and supporting facilities, and the costs of which are not directly assigned to one or more specific customers, provided that the High Voltage Transmission Facilities of a Participating TO shall include any Location Constrained Resource Interconnection Facility of that Participating TO that has been turned over to the CAISO's Operational Control.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: July 28, 2008 Effective: September 29, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

THIRD REPLACEMENT VOLUME NO. II

First Revised Sheet No. 499.00 Superseding Original Sheet No. 499.00

The portion of a Participating TO's TRR associated with and **High Voltage Transmission Revenue** allocable to the Participating TO's High Voltage Transmission Requirement

Facilities and Converted Rights associated with High Voltage

Transmission Facilities that are under the ISO Operational Control.

High Voltage Wheeling The Wheeling Access Charge associated with the recovery of a

Access Charge Participating TO's High Voltage Transmission Revenue

Requirements in accordance with Section 26.1.

Historical Expected Value The expected value of a CRR, as calculated by the ISO, based on

> monthly historical market operation data for the applicable month. Such values will be established based on at least one (1) year and

up to three (3) years of historical market operations data.

Host Control Area The Control Area in which a System Resource subject to this ISO

> Tariff is connected to the electric grid. The Host Control Area may, or may not, be directly interconnected with the ISO Control Area.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: May 30, 2008 Effective: July 30, 2008 CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 499A

Hour-Ahead

Relating to an Hour-Ahead Market or an Hour-Ahead Schedule.

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: April 1, 2006

Hour-Ahead Forecast The Energy forecast to be used by the Scheduling Coordinator

representing a Participating Intermittent Resource for its Preferred

Hour-Ahead Schedule, in accordance with Appendix Q.

<u>Hour-Ahead Market</u> The forward market for Energy and Ancillary Services to be supplied

during a particular Settlement Period that is conducted by the ISO and other Scheduling Coordinators which opens after the ISO's acceptance of the Final Day-Ahead Schedule for the Trading Day in

which the Settlement Period falls and closes with the ISO's

acceptance of the Final Hour-Ahead Schedule.

Hour-Ahead Schedule A Schedule prepared by a Scheduling Coordinator or the ISO before

the beginning of a Settlement Period indicating the changes to the levels of Generation and Demand scheduled for that Settlement

Period from that shown in the Final Day-Ahead Schedule.

Hourly Demand The average of the instantaneous Demand integrated over a single

clock hour, in MW.

Hourly Ex Post Price The Energy-weighted average of the Dispatch Interval Ex Post

Prices in each Zone during each Settlement Period. The Hourly Ex Post Price will vary between Zones when Congestion is present. This price is used in the Regulation Energy Payment Adjustment

and in RMR settlements.

<u>Hourly Pre-Dispatch</u> The process in which the ISO Dispatches Energy Bids from System

Resources before the start of the next Settlement Period for the

entire duration of that Settlement Period.

Hydro Spill Generation Hydro-electric Generation in existence prior to the ISO Operations

Date that: i) has no storage capacity and that, if backed down, would

spill; ii) has exceeded its storage capacity and is spilling even though the generators are at full output, or iii) has inadequate storage capacity to prevent loss of hydro-electric Energy either immediately or during the forecast period, if hydro-electric

Generation is reduced; iv) has increased regulated water output to

avoid an impending spill.

Identification Code An identification number assigned to each Scheduling Coordinator

by the ISO.

Imbalance Energy Imbalance Energy is Energy from Regulation, Spinning and Non-

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: March 1, 2006

First Revised Sheet No. 501 Superseding Original Sheet No. 501

Import Capability Load

are able to respond to the ISO's request for more or less Energy.

A Load Serving Entity's proportionate share of the forecasted RA

Compliance Year coincident peak Demand for the ISO Control Area
relative to the total coincident peak Demand for the ISO Control

Area as determined by the California Energy Commission.

Spinning Reserves, or Replacement Reserve, or Energy from other Generating Units, System Units, System Resources, or Loads that

Import Capability Load Share Ratio

Share

A Load Serving Entity's Import Capability Load Share divided by the sum of the Import Capability Load Shares of all Load Serving Entities with unfulfilled requests for import capability on a particular branch group.

Import Capability Transfer Registration Process

The electronic means by which Load Serving Entities and Market Participants must register with the ISO any bilateral transfers of Existing Contract Import Capability, Pre-RA Import Commitment Capability, or Remaining Import Capability.

Inactive Zone

All Zones which the ISO Governing Board has determined do not have a workably competitive Generation market and as set out in Appendix I to the ISO Tariff.

Incremental Change The change in dollar value of a specific charge type from the

Preliminary Settlement Statement to the Final Settlement Statement

including any new charge types or Trading Day charges appearing

for the first time on the Final Settlement Statement.

In-Service Date

The date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Participating TO Interconnection Facilities to obtain back feed power.

"Interim Black Start
Agreement"

An agreement entered into between the ISO and a Participating Generator (other than a Reliability Must-Run Agreement) for the provision by the Participating Generator of Black Start capability and Black Start Energy on an interim basis until the introduction by the ISO of its Black Start auction (or until terminated earlier by either party in accordance with its terms).

Intermediary Control Area Any Control Area between a Host Control Area and the ISO Control Area. An Intermediary Control Area may, or may not, be directly

interconnected with the ISO Control Area.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: March 22, 2007 Effective: May 22, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 501A

<u>Instructed Imbalance</u> The real-time change in Generation output or Demand (from

Energy dispatchable Generating Units, System Resources or

Loads) which is instructed by the ISO to ensure that reliability of the

ISO Control Area is maintained in accordance with Applicable

Reliability Criteria. Sources of Imbalance Energy include Spinning and Non-Spinning Reserves, Replacement Reserve, and Energy from other dispatchable Generating Units, System Units, System Resources or Loads that are able to respond to the ISO's request for

more or less Energy.

Inter-Scheduling Ancillary Service transactions between Scheduling Coordinators.

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

Substitute First Revised Sheet No. 502 THIRD REPLACEMENT VOLUME NO. II Superseding Original Sheet No. 502

Coordinator Ancillary

Service Trades

Inter-Scheduling Energy transactions between Scheduling Coordinators.

Coordinator Energy

Trades

Inter-Zonal Congestion Congestion across an Inter-Zonal Interface.

Inter-Zonal Interface

The (i) group of transmission paths between two adjacent Zones of the ISO Controlled Grid, for which a physical, non-simultaneous transmission capacity rating (the rating of the interface) has been established or will be established prior to the use of the interface for Congestion Management; (ii) the group of transmission paths between an ISO Zone and an adjacent Scheduling Point, for which a physical, non-simultaneous transmission capacity rating (the rating of the interface) has been established or will be established prior to the use of the interface for Congestion Management; (iii) the group of transmission paths between two adjacent Scheduling Points, where the group of paths has an established transfer capability and established transmission rights; or (iv) the Miguel or South of Lugo constraints whenever Congestion Management is necessary to mitigate Congestion due to flow from one or more Scheduling Points from adjacent Zones and/or due to generation within that Zone.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 20, 2007 Effective: March 1, 2006

First Revised Sheet No. 502A Superseding Original Sheet No. 502A

Interconnection

Transmission facilities, other than additions or replacements to existing facilities that: i) connect one system to another system where the facilities emerge from one and only one substation of the two systems and are functionally separate from the ISO Controlled Grid facilities such that the facilities are, or can be, operated and planned as a single facility; or ii) are identified as radial transmission lines pursuant to contract; or iii) produce Generation at a single point on the ISO Controlled Grid; provided that such interconnection does not include facilities that, if not owned by the Participating TO, would result in a reduction in the ISO's Operational Control of the Participating TO's portion of the ISO Controlled Grid.

Interconnection
Agreement

Interconnection Base Case

Data

A contract between a party requesting interconnection and the Participating TO that owns the transmission facility with which the requesting party wishes to interconnect.

Data including, but not limited to, base power flow, short circuit and stability databases, underlying Load, Generation, and transmission facility assumptions, Contingency lists, including relevant Remedial Action Schemes, per unit costs, and transmission diagrams used to perform Phase I Interconnection Studies and Phase II Interconnection Studies. Interconnection Base Case Data may include Critical Energy Infrastructure Information (as that term is defined by FERC). The Interconnection Base Case Data shall include transmission facilities approved by the CAISO under Section 24 in Appendix EE and Network Upgrades associated with Generation Facilities in (iv) below and Generating Facilities that (i) are directly interconnected to the CAISO Controlled Grid; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending request to interconnect to an Affected System; or (iv) are not interconnected to the CAISO Controlled Grid, but are subject to a fully executed LGIA (or its equivalent predecessor agreement)_or for which an unexecuted LGIA (or its equivalent predecessor agreement) has been requested to be filed with FERC. To the maximum extent practicable, the Interconnection Base Case Data shall utilize the Unified Planning Assumptions developed pursuant to Section 24.2.4 in Appendix EE.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

First Revised Sheet No. 503 Superseding Original Sheet No. 503

Interconnection Customer

Any entity, including a Participating TO or any of its Affiliates or subsidiaries, that proposes to interconnect its Generating Facility with the ISO Controlled Grid.

Interconnection

Customer's

All facilities and equipment, as identified in Appendix A of the Large Generator Interconnection Agreement, that are located between the

Interconnection Facilities

Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the ISO Controlled Grid. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities

The Participating TO's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the ISO Controlled Grid. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Interconnection Facilities Study

A study conducted by the Participating TO(s), ISO, or a third party consultant for the Interconnection Customer to determine a list of facilities (including the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades), the cost of those facilities, and the time required to interconnect the Generating Facility with the ISO Controlled Grid. The scope of the study is defined in Section 8 of the Standard Large Generator Interconnection Procedures.

Interconnection Facilities Study Agreement Interconnection Feasibility Study

The form of agreement accepted by FERC and posted on the ISO Home Page for conducting the Interconnection Facilities Study. A preliminary evaluation conducted by the Participating TO(s), ISO, or a third party consultant for the Interconnection Customer of the system impact and cost of interconnecting the Generating Facility to the ISO Controlled Grid, the scope of which is described in Section

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Interconnection Feasibility
Study Agreement
Interconnection Financial
Security
Interconnection Handbook

6 of the Standard Large Generator Interconnection Procedures. The form of agreement accepted by FERC and posted on the ISO Home Page for conducting the Interconnection Feasibility Study. Any of the financial instruments listed in LGIP Section 9.1 set forth in Appendix GG that are posted by an Interconnection Customer. A handbook, developed by the Participating TO and posted on the Participating TO's web site or otherwise made available by the Participating TO, describing technical and operational requirements for wholesale generators and loads connected to the Participating TO's portion of the ISO Controlled Grid, as such handbook may be modified or superseded from time to time. Participating TO's standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice and Applicable Reliability Criteria. In the event of a conflict between the terms of the LGIP or SGIP and the terms of the Participating TO's Interconnection Handbook, the terms in the LGIP or SGIP shall apply.

Interconnection Request

An Interconnection Customer's request, in the form of Appendix 1 to the Large Generator Interconnection Procedures or Attachment 2 to the Small Generator Interconnection Procedures, in accordance with Section 25.1 of the ISO Tariff.

Interconnection Service

The service provided by the Participating TO and ISO associated with interconnecting the Interconnection Customer's Generating Facility to the ISO Controlled Grid and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Large Generator Interconnection Agreement, the Participating TO's TO Tariff, and the ISO Tariff.

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Original Sheet No. 504A

Interconnection Study

Any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures set forth in Appendix U or the Phase I Interconnection Study and the Phase II Interconnection Study described in the LGIP set forth in Appendix GG.

Interconnection Study Cycle

All requirements, actions, and respective obligations of the CAISO, Participating TO, and Interconnection Customer under the LGIP set forth in Appendix GG applicable to an Interconnection Request submitted in a particular Queue Cluster Window through execution by the parties or submission to FERC by one or more of the parties to an LGIA.

Interconnection Study Deposit

The cash deposit provided to the CAISO by Interconnection Customers under LGIP Section 3.5.1 set forth in Appendix GG as a requirement of a valid Interconnection Request to be used to offset the cost of the Interconnection Studies as set forth in LGIP Sections 3.5.1.2 and 3.5.1.3 set forth in Appendix GG.

Interconnection System Impact Study

An engineering study conducted by the Participating TO(s), ISO, or a third party consultant for the Interconnection Customer that evaluates the impact of the proposed interconnection on the safety and reliability of the ISO Controlled Grid and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were

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interconnected without project modifications or system modifications, focusing on the Adverse System Impacts identified in the Interconnection Feasibility Study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.

Interconnection System
Impact Study Agreement

The form of agreement accepted by FERC and posted on the ISO Home Page for conducting the Interconnection System Impact Study.

Interest

Interest shall be calculated in accordance with the methodology specified for interest on refunds in the regulations of FERC at 18 C.F.R. §35.19(a)(2)(iii) (1996). Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment, except as provided in Section 11.2.1. When payments are made by mail, bills shall be considered as having been paid on the date of receipt.

Interruptible Imports

Energy sold by a Generator or resource located outside the ISO Controlled Grid which by contract can be interrupted or reduced at the discretion of the seller.

Intra-Zonal Congestion

Congestion within a Zone.

IOU

An investor owned electric utility.

ISO (Independent System

Operator)

The California Independent System Operator Corporation, a state chartered, nonprofit corporation that controls the transmission facilities of all Participating TOs and dispatches certain Generating Units and Loads.

ISO Account

The ISO Clearing Account, the ISO Reserve Account or such other trust accounts as the ISO deems necessary or convenient for the purpose of efficiently implementing the funds transfer system under the ISO Tariff.

ISO ADR Committee

The Committee appointed by the ISO ADR Committee pursuant to Article IV, Section 3 of the ISO bylaws to perform functions assigned to the ISO ADR Committee in the ADR process in Section 13 of the ISO Tariff.

ISO ADR Procedures

The procedures for resolution of disputes or differences set out in Section 13 of the ISO Tariff, as amended from time to time.

Issued By: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: March 1, 2006

ISO Application File
All information (administrative, financial and technical) pertaining to

Template
Scheduling Coordinators which must be maintained in a current form

by the ISO and the Scheduling Coordinator.

ISO Audit Committee A Committee of the ISO Governing Board appointed pursuant to

Article IV, Section 5 of the ISO bylaws to (1) review the ISO's annual independent audit (2) report to the ISO Governing Board on such audit, and (3) to monitor compliance with the ISO Code of Conduct.

ISO Authorized Inspector A person authorized by the ISO to certify, test, inspect and audit

meters and Metering Facilities (as that term is defined in this

Appendix A) in accordance with the procedures established by the

ISO pursuant to the Sections of this ISO Tariff on metering.

<u>ISO Bank</u> The bank appointed by the ISO from time to time for the purposes of

operating the Settlement process.

ISO Clearing AccountThe account in the name of the ISO with the ISO Bank to which

payments are required to be transferred for allocation to ISO Creditors in accordance with their respective entitlements.

ISO Code of Conduct For employees, the code of conduct for officers, employees and

substantially full-time consultants and contractors of the ISO as set

out in exhibit A to the ISO bylaws; for Governors, the code of conduct for governors of the ISO as set out in exhibit B to the ISO

bylaws.

ISO Control Area The real-time Dispatch of Generation (and Curtailable Demand),

Balancing Function directed by the ISO, to balance with actual Demand during the

current operating hour to meet operating Reliability Criteria.

ISO Control Center The Control Center established, pursuant to Section 7.1.1 of the ISO

Tariff.

ISO Controlled GridThe system of transmission lines and associated facilities of the

Participating TOs that have been placed under the ISO's

Operational Control.

<u>ISO Creditor</u> A Scheduling Coordinator, Participating TO, or other Market

Participant to which amounts are payable under the terms of the ISO

Tariff.

<u>ISO Debtor</u> A Scheduling Coordinator, Participating TO, or other Market

Participant that is required to make a payment to the ISO under the

Issued By: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: March 1, 2006

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

First Revised Sheet No. 507 Superseding Original Sheet No. 507

ISO Tariff.

<u>ISO Documents</u> The ISO Tariff, ISO bylaws, and any agreement entered into

between the ISO and a Scheduling Coordinator, a Participating TO

or any other Market Participant pursuant to the ISO Tariff.

ISO Governing Board The Board of Governors established to govern the affairs of the ISO.

ISO Home Page The ISO internet home page at http://www.caiso.com/ or such other

internet address as the ISO shall publish from time to time.

<u>ISO Invoice</u> The invoices issued by the ISO to the Responsible Utilities or RMR

Owners based on the Revised Estimated RMR Invoice and the

Revised Adjusted RMR Invoice.

<u>ISO Market</u> Any of the markets administered by the ISO under the ISO Tariff,

including, without limitation, Imbalance Energy, Ancillary Services,

and FTRs.

ISO Memorandum

The memorandum account established by each California IOU

Account pursuant to California Public Utilities Commission Order

D. 96-08-038 date August 2, 1996 which records all ISO startup and

development costs incurred by that California IOU.

ISO Metered Entity (a) any one of the following entities that is directly connected to

the ISO Controlled Grid:

 i. a Generator other than a Generator that sells all of its Energy (excluding any Station Power that is netted pursuant to Section 10.1.3) and Ancillary Services to the UDC in whose Service

Area it is located;

ii. an Eligible Customer; or

iii. an End-User other than an End-User that purchases all of itsEnergy from the UDC in whose Service Area it is located; and

(b) any one of the following entities:

a Participating Generator;

ii. a Participating TO in relation to its Tie Point Meters with other

TOs or Control Areas;

iii. a Participating Load;

iv. a Participating Intermittent Resource; or

v. a utility that requests that UFE for its Service Area be calculated

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: April 1, 2006

First Revised Sheet No. 508 Superseding Original Sheet No. 508

separately, in relation to its meters a	at points of connection of its
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Service Area with the systems of other utilities.

ISO Metered Entity Meter

The meter service agreements between the ISO and ISO Metered

Service Agreements Entities.

<u>ISO Operations Date</u>

The date on which the ISO first assumes Operational Control of the

ISO Controlled Grid.

ISO Outage Coordination The office established by the ISO to coordinate Maintenance

Office Outages in accordance with Section 9.3 of the ISO Tariff.

ISO Payments Calendar A calendar published by the ISO showing the dates on which

Settlement Statements will be published by the ISO and the

Payment Dates by which invoices issued under the ISO Tariff must

be paid.

ISO Protocols The rules, protocols, procedures and standards promulgated by the

ISO (as amended from time to time) to be complied with by the ISO Scheduling Coordinators, Participating TOs and all other Market Participants in relation to the operation of the ISO Controlled Grid and the participation in the markets for Energy and Ancillary

Services in accordance with the ISO Tariff.

ISO Register The register of all the transmission lines, associated facilities and

other necessary components that are at the relevant time being

subject to the ISO's Operational Control.

ISO Reserve AccountThe account established for the purpose of holding cash deposits

which may be used in or towards clearing the ISO Clearing Account.

ISO Surplus Account The account established by the ISO pursuant to Section 11.8.5.3.

ISO Tariff The California Independent System Operator Corporation Operating

Agreement and Tariff, dated March 31, 1997, as it may be modified

from time to time.

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: July 11, 2006 Effective: May 14, 2006

FERC ELECTRIC TARIFF
THIRD REPLACEMENT VOLUME NO. II

Eighth Revised Sheet No. 509 Superseding Seventh Revised Sheet No. 509

<u>ISO Website</u> The ISO internet home page at http://www.caiso.com or such other

internet address as the ISO shall publish from time to time.

ISO-WECC Billing Services Agreement

ISP (Internet Service

The agreement between the ISO and the WECC entered into by those parties in August 2007, as it may be amended from time to time, regarding the ISO's performance of certain billing services to facilitate the WECC's collection of NERC/WECC Charges.

An independent network service organization engaged by the ISO to

racilitate the VVECO 3 collection of INEINO/VVECO charges.

Provider) establish, implement and operate WEnet.

Joint Powers Agreement An agreement governing a Joint Powers Authority that is subject to

the California Joint Exercise of Powers Act (California Government

Code, Section 6500, et seq.).

<u>Joint Powers Authority</u> An authority authorized by law through which two or more public

entities jointly exercise their powers.

Large Generating Facility A Generating Facility having a Generating Facility Capacity of more

than 20 MW.

Large Generator Interconnection Agreement (LGIA) The form of interconnection agreement applicable to an

Interconnection Request pertaining to a Large Generating Facility, a pro forma version of which is set forth in Appendix V or Appendix

HH, as applicable.

Large Generator Interconnection Procedures (LGIP)

The interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are set forth in Appendix U or Appendix GG, as applicable.

Large Generator
Interconnection Study
Process Agreement
(LGISPA)

The agreement between the CAISO and the Interconnection Customer for conducting the Interconnection Studies for a proposed Large Generating Facility, a pro forma version of which is accepted by FERC, posted on the CAISO Website, and set forth in Appendix GG.

Large Project

A transmission upgrade or addition that exceeds \$200 million in capital costs and consists of a proposed transmission line or substation facilities capable of operating at voltage levels greater than 200 kV. Location Constrained Resource Interconnection Facilities are not included in this definition, regardless of the capital cost or voltage level of the transmission upgrade or addition. A Large Project may also be a project that does not meet the dollar or voltage level requirement, but that the CAISO determines raises significant policy issues warranting a separate planning process.

Issued by: Laura Manz, Vice President, Market and Infrastructure Development

Issued on: October 31, 2008 Effective: September 29, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

FERC ELECTRIC TARIFF

Line Loss Correction

THIRD REPLACEMENT VOLUME NO. II

Second Revised Sheet No. 509.00 Superseding First Revised Sheet No. 509.00

<u>LARN Report for 2006</u> The report, published by the ISO, which identifies each Local

Reliability Area for 2006 and the contingencies that require the ISO to specify a geographically contiguous area as a Local Reliability Area, and the amount of generation (in MW) needed for each Local Reliability Area in order to satisfy Applicable Reliability Criteria,

taking into account Non-Generation Solutions.

LGIA Standard Large Generator Interconnection Agreement or Large

Generator Interconnection Agreement

LGIP Standard Large Generator Interconnection Procedures or Large

Generator Interconnection Procedures

Large Generator Interconnection Study Process Agreement

Factor Specifications.

Load An end-use device of an End-Use Customer that consumes power.

Load should not be confused with Demand, which is the measure of

The line loss correction factor as set forth in the Technical

power that a Load receives or requires.

Load-Serving Entity (LSE) Any entity (or the duly designated agent of such an entity, including,

e.g. a Scheduling Coordinator), including a load aggregator or power marketer; (i) serving End Users within the ISO Control Area and (ii) that has been granted authority or has an obligation pursuant to California State or local law, regulation, or franchise to sell electric energy to End Users located within the ISO Control Area or (iii) is a

Federal Power Marketing Authority that serves retail Load.

<u>Load Share Quantity</u> The product of Total Import Capability and Import Capability Load

Share.

Load Shedding The systematic reduction of system Demand by temporarily

decreasing the supply of Energy to Loads in response to

transmission system or area capacity shortages, system instability,

or voltage control considerations.

Issued by: Laura Manz, Vice President, Market and Infrastructure Development

Issued on: October 31, 2008 Effective: September 29, 2008

FERC ELECTRIC TARIFF
THIRD REPLACEMENT VOLUME NO. II

Second Revised Sheet No. 509A Superseding First Revised Sheet No. 509A

<u>Local Furnishing Bond</u> Tax-exempt bonds utilized to finance facilities for the local furnishing

of electric energy, as described in section 142(f) of the Internal

Revenue Code, 26 U.S.C. § 142(f).

<u>Local Furnishing</u> Any Tax-Exempt Participating TO that owns facilities financed by

<u>Participating TO</u> Local Furnishing Bonds.

<u>Local Publicly Owned</u> A municipality or municipal corporation operating as a public utility

<u>Electric Utilities</u> furnishing electric service, a municipal utility district furnishing

electric service, a public utility district furnishing electric services, an

irrigation district furnishing electric services, a state agency or subdivision furnishing electric services, a rural cooperative

furnishing electric services, or a joint powers authority that includes

one or more of these agencies and that owns Generation or

transmission facilities, or furnishes electric services over its own or

its members' electric Distribution System.

Local Regulatory The state or local governmental authority responsible for the

<u>Authority</u> regulation or oversight of a utility.

Local Reliability Area For 2006, a geographically contiguous area within a TAC Area that

the CAISO has determined, through reliability studies, requires resources that are effective to meet Applicable Reliability Criteria.

Local Reliability Criteria Reliability Criteria unique to the transmission systems of each of the

PTOs established at the later of: (1) ISO Operations Date, or (2) the

date upon which a New Participating TO places its facilities under

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: March 15, 2007 Effective: June 1, 2006

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

THIRD REPLACEMENT VOLUME NO. II

Fourth Revised Sheet No. 510 Superseding Third Revised Sheet No. 510

the control of the ISO.

Local Reliability Criteria

Reliability Criteria established at the ISO Operations Date, unique to

the transmission systems of each of the Participating TOs.

Local Resource Adequacy
Requirement Deficiency

The difference in MWs, as determined under Section 40.7 of

Appendix CC following the opportunity to resolve deficiencies that is

provided under Section 40.7 of Appendix CC, between (1) the allocated responsibility for Local Capacity Area Resources under Section 40.3.2 of Appendix CC of a Scheduling Coordinator for an RA Entity and (2) the Net Qualifying Capacity of the Local Capacity

Area Resources identified in the annual Resource Adequacy Plan submitted by that Scheduling Coordinator pursuant to Sections

40.2.1.1, 40.2.2.4, 40.2.3.4, or 40.2.4 of Appendix CC.

Location CodeThe code assigned by the ISO to Generation input points, and

Demand Take-Out Points from the ISO Controlled Grid, and

transaction points from trades between Scheduling Coordinators.

This will be the information used by the ISO Controlled Grid, and transaction points for trades between Scheduling Coordinators. This will be the information used by the ISO to determine the location of the input, output, and trade points of Energy Schedules. Each

Generation input and Demand Take-Out Point will have a

designated Location Code identification for use in submitting Energy

and Ancillary Service bids and Schedules.

Location Constrained

Resource Interconnection

Facility (LCRIF)

A High Voltage Transmission Facility that has been determined by

the CAISO to satisfy all of the requirements of Section 24.1.3.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management
Issued on: March 5, 2008

Effective: January 1, 2008

Generator (LCRIG)

Charge

<u>Location Constrained</u> A Generating Unit that (a) uses a primary fuel source or source of energy that is in a fixed location and cannot practicably be

Resource Area. Generating Units meeting criterion (a) shall include, but not be limited to, wind, solar, geothermal, hydroelectric, digester

gas, landfill gas, ocean wave and ocean thermal tidal current

transported from that location; and (b) is located in an Energy

Generating Units.

Loop Flow Energy flow over a transmission system caused by parties external

to that system.

<u>Loss Scale Factor</u> The ratio of expected Transmission Losses to the total Transmission

Losses which would be collected if Full Marginal Loss Rates were

utilized.

<u>Low Voltage Access</u> The Access Charge applicable under Section 26.1 to recover the

Low Voltage Transmission Revenue Requirement of a Participating

TO.

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

THIRD REPLACEMENT VOLUME NO. II Original Sheet No. 510A

Low Voltage A transmission facility owned by a Participating TO or to which a

Transmission Facility Participating TO has an Entitlement that is represented by a

Converted Right, which is not a High Voltage Transmission Facility,

that is under the ISO Operational Control.

Low VoltageThe portion of a Participating TO's TRR associated with andTransmission Revenueallocable to the Participating TO's Low Voltage TransmissionRequirementFacilities and Converted Rights associated with Low Voltage

Transmission Facilities that are under the ISO Operational Control.

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: December 15, 2006 Effective: January 1, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

First Revised Sheet No. 511 Superseding Original Sheet No. 511

Low Voltage Wheeling
The Wheeling Access Charge associated with the recovery of a

Access Charge Participating TO's Low Voltage Transmission Revenue

Requirement in accordance with Section 26.1.

Maintenance Outage A period of time during which an Operator (i) takes its

transmission facilities out of service for the purposes of carrying out routine planned maintenance, or for the purposes of new construction work or for work on de-energized and live transmission facilities (e.g., relay maintenance or insulator washing) and associated equipment; or (ii) limits the capability of or takes its Generating Unit or System Unit out of service for the purposes of carrying out routine planned maintenance, or for the

purposes of new construction work.

<u>Market Behavior Rules</u> Those rules established by FERC under Docket No. EL01-118.

<u>Market Clearing Price</u> The price in a market at which supply equals Demand. All

Demand prepared to pay at least this price has been satisfied and all supply prepared to operate at or below this price has

been purchased.

Market Manipulation Has the meaning set forth in Section 37.7.

Market Monitoring Unit The component of the ISO organization (currently the

"Department of Market Monitoring") that is assigned

responsibility in the first instance for the functions of a Market Monitoring Unit, as that term is used in Docket No. EL01-118.

Market Participant An entity, including a Scheduling Coordinator, who either: (1)

participates in the Energy marketplace through the buying, selling, transmission, or distribution of Energy or Ancillary

Services into, out of, or through the ISO Controlled Grid; or (2) is

a CRR Holder or Candidate CRR Holder.

Market Surveillance

Committee (MSC)

The committee established under Appendix P.2.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: March 9, 2007 Effective: May 9, 2007

Fourth Revised Sheet No. 512 Superseding Third Revised Sheet No. 512

Market Usage Charge

The component of the Grid Management Charge that provides for the recovery of the ISO's costs, including, but not limited to the costs for processing Supplemental Energy and Ancillary Service bids, maintaining the Open Access Same-Time Information System, monitoring market performance, ensuring generator compliance with market protocols, and determining Market Clearing Prices. The formula for determining the Market Usage Charge is set forth in Appendix F, Schedule 1, Part A of this Tariff. A file containing information regarding Generating Units, Loads and other resources.

Master File

Material Change in **Financial Condition**

A change in or potential threat to the financial condition of a Market Participant or FTR Bidder that increases the risk that the Market Participant or FTR Bidder will be unlikely to meet some or all of its financial obligations. The types of Material Change in Financial Condition include but are not limited to the following:

- a credit agency downgrade; (a)
- (b) being placed on a credit watch list by a major rating agency;
- a bankruptcy filing; (c)
- (d) insolvency;
- (e) the filing of a material lawsuit that could significantly and adversely affect past, current, or future financial results; or
- (f) any change in the financial condition of the Market Participant or FTR Bidder which exceeds a five percent (5%) reduction in the Market Participant's or FTR Bidder's Tangible Net Worth or Net Assets for the Market Participant or FTR Bidder's preceding fiscal year, calculated in accordance with generally accepted accounting practices.

Material Modification

A modification that has a material impact on the cost or timing of any Interconnection Request or any other valid interconnection request with a later queue priority date.

Maximum Import Capability

A quantity in MW determined by the ISO for each branch group into the ISO Control Area to be deliverable to the ISO Control Area based on ISO study criteria.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: November 16, 2007

Issued on: December 17, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 512.00

MDAS

The ISO's revenue meter data acquisition and processing system.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: March 22, 2007 Effective: May 22, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 512A

Meter Data

Energy usage data collected by a metering device or as may be

otherwise derived by the use of Approved Load Profiles.

Meter Points

Locations on the ISO Controlled Grid at which the ISO requires

the collection of Meter Data by a metering device.

Metered Control Area

Load

For purposes of calculating and billing the Grid Management

Charge, Metered Control Area Load is:

(a) all metered Demand for Energy of Scheduling Coordinators for the supply of Loads in the ISO's Control Area, plus (b) all Energy for exports by Scheduling Coordinators from the ISO Control Area; less (c) Energy associated with the Load of a retail customer of a Scheduling Coordinator, UDC, or MSS that is served by a Generating Unit that: (i) is located on the same site as the customer's Load or provides service to the customer's Load through arrangements as authorized by Section 218 of the California Public Utilities Code; (ii) is a qualifying small power production facility or qualifying cogeneration facility, as those terms are defined in FERC's regulations implementing Section 201 of the Public Utility Regulatory Policies Act of 1978; and (iii) the customer secures Standby Service from a Participating TO

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: July 11, 2006 Effective: May 14, 2006

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

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Substitute Second Revised Sheet No. 513 Superseding 1st Rev First Revised Sheet No. 513

under terms approved by a Local Regulatory Authority or FERC,

as applicable, or the customer's Load can be curtailed concurrently with an outage of the Generating Unit.

Meter Data Exchange The format for submitting Meter Data to the ISO which will be

Format published by the ISO on the ISO Home Page or available on

request to the Meter and Data Acquisition Manager, ISO Client

Service Department.

Meter Data Request The format for requesting Settlement Quality Meter Data from

Format the ISO which will be published by the ISO on the ISO Home

Page or available on request to the Meter and Data Acquisition

Manager, ISO Client Service Department.

Metered Quantities For each Direct Access End-User, the actual metered amount of

MWh and MW; for each Participating Generator the actual

metered amounts of MWh, MW, MVAr and MVArh.

<u>Metering Facilities</u> Revenue quality meters, instrument transformers, secondary

circuitry, secondary devices, meter data servers, related

communication facilities and other related local equipment.

<u>Minimum Load Costs</u> The costs a Generating Unit incurs operating at minimum load.

MKMV Default Probability A calculated result of Moody's KMV CreditEdge or RiskCalc

software products.

Month-Ahead System

Resource Adequacy

Requirements Section 40.2.2 in compliance with Resource Adequacy Rules

adopted by the CPUC or a Local Regulatory Authority, as

The amount of Qualifying Capacity that a RA Entity must reflect

in its monthly Resource Adequacy Plan submitted pursuant to

applicable.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: May 23, 2007 Effective: April 26, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

FERC ELECTRIC TARIFF

THIRD REPLACEMENT VOLUME NO. II Superseding First Revised Sheet No. 513.00

Month-Ahead System
The monthly deficiency in meeting the Month-Ahead System
Resource Deficiency
Resource Adequacy Requirements as determined under

Section 40.7 of Appendix CC following the opportunity to resolve deficiencies that is provided under Section 40.7 of Appendix CC.

Second Revised Sheet No. 513.00

Monthly Peak Load The maximum hourly Demand on a Participating TO's

transmission system for a calendar month, multiplied by the

Operating Reserve Multiplier.

Monthly TCPM Charge The monthly charge determined in accordance with Appendix F,

Schedule 6.

MRTU Tariff
The ISO Tariff that will implement the ISO's Market Redesign

and Technology Upgrade ("MRTU").

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: March 28, 2008 Effective: June 1, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF
THIRD REPLACEMENT VOLUME NO. II Sur

First Revised Sheet No. 513A Superseding Original Sheet No. 513A

MSS (Metered Subsystem)

A geographically contiguous system located within a single Zone which has been operating as an electric utility for a number of years prior to the ISO Operations Date as a municipal utility, water district, irrigation district, State agency or Federal power administration subsumed within the ISO Control Area and encompassed by ISO certified revenue quality meters at each interface point with the ISO Controlled Grid and ISO certified revenue quality meters on all Generating Units or, if aggregated, each individual resource and Participating Load internal to the system, which is operated in accordance with a MSS Agreement described in Section 4.9.1.

MSS Operator

An entity that owns an MSS and has executed a MSS

Municipal Tax Exempt

Debt

An obligation the interest on which is excluded from gross income for federal tax purposes pursuant to Section 103(a) of

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: March 15, 2007 Effective: June 1, 2006

FERC ELECTRIC TARIFF

Sixth Revised Sheet No. 514

THIRD REPLACEMENT VOLUME NO. II

Superseding Substitute Fifth Revised Sheet No. 514

the Internal Revenue Code of 1986 or the corresponding

provisions of prior law without regard to the identity of the holder thereof. Municipal Tax Exempt Debt does not include Local

Furnishing Bonds.

Nationally Recognized National credit rating agencies as designated by the U.S.

Statistical Rating Securities & Exchange Commission.

Organizations (NRSRO)

Native Load Load required to be served by a utility within its Service Area

pursuant to applicable law, franchise, or statute.

NERC The North American Electric Reliability Corporation or its

successor.

NERC/WECC Charge A given year for which NERC/WECC Charges will be assessed

Assessment Year by the WECC based on data from the calendar year two years

prior to the year of the NERC/WECC Charge assessment.

NERC/WECC Charges The charges approved by FERC, pursuant to Section 215 of the

FPA and FERC issuances related thereto, that provide funding for the statutory-related functions performed by NERC, the WECC, and regional advisory bodies that serve the WECC, or

their successors or assignees.

NERC/WECC Charge An account to be established by the ISO for the purpose of

<u>Trust Account</u> maintaining funds collected from Scheduling Coordinators and

disbursing such funds to the WECC.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: June 30, 2008 Effective: June 1, 2008

First Revised Sheet No. 514.00 Superseding Original Sheet No. 514.00

NERC/WECC Metered

Demand

For purposes of calculating NERC/WECC Charges, a Scheduling Coordinator's net metered CAISO Demand plus Unaccounted for Energy for net metered CAISO Demand and Transmission Losses for metered CAISO Demand. A Scheduling Coordinator's net metered CAISO Demand equals the Scheduling Coordinator's metered CAISO Demand (which adds Energy associated with imports from and subtracts Energy associated with exports to other balancing authority areas), less metered CAISO Demand for Station Power and for Energy required for storage at electric energy storage facilities, such as pumped storage. For purposes of calculating NERC/WECC Metered Demand, Unaccounted for Energy and Transmission Losses allocable to net metered CAISO Demand will be allocated pro rata to each Scheduling Coordinator based on the Scheduling Coordinator's net metered CAISO Demand. For governmental and not-for-profit entities, defined as total assets minus total liabilities.

Net Assets (NA)

Net FTR Revenue

The sum of: 1) the revenue received by the New Participating
TO from the sale, auction, or other transfer of the FTRs provided

to it pursuant to Section 36.4.3 FTR, or any substantively

identical successor provision of the ISO Tariff; and 2) for each hour: a) the Usage Charge revenue received by the New

Participating To associated with its Section 36.4.3 FTRs; minus

b) Usage Charges that are: i) incurred by the Scheduling

Coordinator for the New Participating TO under ISO Tariff

Section 27.1.2.1.4 ii) associated with the New Participating TO's

Section 36.4.3 FTRs, and iii) incurred by the New Participating

TO for its energy transactions but not incurred as a result of the

use of the transmission by a third-party and minus c) the

charges paid by the New Participating TO pursuant to Section $\,$

27.1.2.1.7, to the extent such charges are incurred by the

Scheduling Coordinator of the New Participating TO on

Congested Inter-Zonal Interfaces that are associated with the

Section 36.4.3 FTRs provided to the New Participating TO. The component of New FTR Revenue represented by item 2)

immediately above shall not be less than zero for any hour.

Issued on: August 24, 2007 Effective: June 27, 2007

Third Revised Sheet No. 514A Superseding Second Revised Sheet No. 514A

Net Negative Uninstructed

THIRD REPLACEMENT VOLUME NO. II

Deviation

The real-time change in Generation or Demand associated with underscheduled Load (i.e., Load that appears unscheduled in real time) and overscheduled Generation (i.e., Generation that is scheduled in forward markets and does not appear in real time). Deviations are netted for each Settlement Interval, apply to a Scheduling Coordinator's entire portfolio, and include Load, Generation, imports and exports.

Net Output

The gross Energy output from a Generating Unit less the Station Power requirements for such Generating Unit during the Netting Period, or the Energy available to provide Remote Self-Supply from a generating facility in another Control Area during the Netting Period.

Netting Period

A calendar month, representing the interval over which the Net Output of one or more generating resources in a Station Power Portfolio is available to be attributed to the self-supply of Station Power in that Station Power Portfolio.

Net Qualifying Capacity

Qualifying capacity reduced, as applicable, based on: (1) testing and verification; and (2) deliverability restrictions. The Net Qualifying Capacity determination shall be made by the ISO pursuant to the provisions of this ISO Tariff and any applicable manual or procedure.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: March 15, 2007 Effective: June 1, 2006

FERC ELECTRIC TARIFF

Fifth Revised Sheet No. 515 Superseding Fourth Revised Sheet No. 515

THIRD REPLACEMENT VOLUME NO. II Superseding

Network UpgradesThe additions, modifications, and upgrades to the ISO

controlled Grid required at or beyond the Point of

Interconnection to accommodate the interconnection of the Generating Facility to the ISO Controlled Grid. Network Upgrades shall consist of Delivery Network Upgrades and

Reliability Network Upgrades. Network Upgrades do not include

Distribution Upgrades.

New High Voltage Facility A High Voltage Transmission Facility of a Participating TO that

is placed in service after the beginning of the transition period described in Section 4 of Schedule 3 of Appendix F, or a capital addition made and placed in service after the beginning of the transition period described in Section 4.2 of Schedule 3 of

Appendix F to an Existing High Voltage Facility.

New Participating TOA Participating TO that is not an Original Participating TO.

Nomogram A set of operating or scheduling rules which are used to ensure

that simultaneous operating limits are respected, in order to

meet Applicable Reliability Criteria.

Non-Generation Solutions Solutions proposed by a PTO or an RA Entity that satisfy local

area reliability needs of the ISO which serve as an alternative to generation capacity, including equipment upgrades, operating procedures such as switching, manual Load shedding or automatic Load shedding, and other operational strategies or

tools.

Non-Load-Serving A Participating TO that (1) is not a UDC, MSS Operator or

<u>Participating TO</u> Scheduling Coordinator serving End-Use Customers and (2)

does not have Gross Load in accordance with Section 9 of

Schedule 3 of Appendix F.

Non-Participating A Generator that is not a Participating Generator.

<u>Generator</u>

Non-Participating TOA TO that is not a party to the TCA or for the purposes of

Sections 16.1 and 16.2 of the ISO Tariff the holder of

transmission service rights under an Existing Contract that is not

a Participating TO.

Issued by: Laura Manz, Vice President, Market and Infrastructure Development

Issued on: October 29, 2008 Effective: January 1, 2009

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

FERC ELECTRIC TARIFF
THIRD REPLACEMENT VOLUME NO. II

Substitute Fourth Revised Sheet No. 515A Superseding Third Sheet No. 515A

Non-Spinning Reserve The portion of off-line generating capacity that is capable of

being synchronized and Ramping to a specified load in ten minutes (or load that is capable of being interrupted in ten

minutes) and that is capable of running (or being interrupted) for

at least two hours.

NRC The Nuclear Regulatory Commission or its successor.

NRC (Standards)Off-Peak DeliverabilityThe reliability standards published by the NRC from time to time.The technical study performed under LGIP Section 6.3.2.2 set

Assessment forth in Appendix GG.

On-Peak Deliverability The technical study performed under LGIP Section 6.3.2.1 set

<u>Assessment</u> forth in Appendix GG.

<u>Operating Procedures</u> Procedures governing the operation of the ISO Controlled Grid

as the ISO may from time to time develop, and/or procedures that Participating TOs currently employ which the ISO adopts for

use.

On-Site Self-Supply Energy from a Generating Unit that self-supplies all or a portion

of its contemporaneous Station Power Load that is netted

pursuant to Section 10.1.3 or is deemed to have self-supplied all or a portion of its associated non-contemporaneous Station

Power load without use of the ISO Controlled Grid during the

Netting Period pursuant to SPP 3.1.

Operating Reserve The combination of Spinning and Non-Spinning Reserve

required to meet Applicable Reliability Criteria for reliable

Issued by: Laura Manz, Vice President, Market and Infrastructure Development

Issued on: November 17, 2008 Effective: January 1, 2009

First Revised Sheet No. 516 Superseding Original Sheet No. 516

operation of the ISO Control Area.

<u>Operating Transfer</u> The maximum capability of a transmission path to transmit real

<u>Capability</u> power, expressed in MW, at a given point in time.

<u>Operational Control</u> The rights of the ISO under the Transmission Control

Agreement and the ISO Tariff to direct Participating TOs how to operate their transmission lines and facilities and other electric plant affecting the reliability of those lines and facilities for the

purpose of affording comparable non-discriminatory

transmission access and meeting Applicable Reliability Criteria.

Operational Flexibility The latitude allowed the CAISO necessary to provide

reasonable assurance that the transmission network is designed in such a way that it will be secure considering the inherent

uncertainty in system conditions or unforeseen circumstances,

based on the current system configuration and available

generation.

<u>Operator</u> The operator of facilities that comprise the ISO Controlled Grid

or a Participating Generator.

OPF (Optimal Power Flow) A computer optimization program which uses a set of control

variables (which may include active power and/or reactive power controls) to determine a steady-state operating condition for the

transmission grid for which a set of system operating

Constraints (which may include active power and/or reactive power constraints) are satisfied and an objective function (e.g.

total cost or shift of schedules) is minimized.

Optional Interconnection A sensitivity analysis based on assumptions specified by the

Interconnection Customer in the Optional Interconnection Study

Agreement.

Study

<u>Study Agreement</u> ISO Home Page for conducting the Optional Interconnection

Study.

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 516A

Order No. 888 The final rule issued by FERC entitled "Promoting Wholesale

Competition through Open Access Non- discriminatory

Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities," 61 Fed. Reg.

21,540 (May 10, 1996), FERC Stats. & Regs., Regulations Preambles [1991-1996] ¶ 31,036 (1996), Order on Rehearing, Order No. 888-A, 78 FERC ¶ 61,220 (1997), as it may be

amended from time to time

Order No. 889 The final rule issued by FERC entitled "Open Access Same-

Time Information System (formerly Real Time Information

Networks) and Standards of Conduct," 61 Fed. Reg. 21,737

Issued on: October 31, 2008 Effective: December 21, 2007

First Revised Sheet No. 517 Superseding Original Sheet No. 517

(May 10, 1996), FERC Stats. & Regs., Regulations Preambles [1991-1996] \P 31,035 (1996), Order on Rehearing, Order No. 889-A, 78 FERC \P 61,221 (1997), as it may be amended from time to time.

Original Participating TO A Participating

A Participating TO that was a Participating TO as of January 1,

2000.

Outage Disconnection, separation or reduction in capacity, planned or

forced, of one or more elements of an electric system.

Overgeneration A condition that occurs when total Generation exceeds total

Demand in the ISO Control Area.

<u>Participant</u> (a) Scheduling Coordinators (SCs);

(b) Utility Distribution Companies (UDCs);

(c) Participating Transmission Owners (PTOs);

(d) Participating Generators;

(e) Control Area Operators, to the extent the agreement between the Control Area Operator and the ISO so provides; and

(f) Metered Subsystem (MSS) Operators.

Participating Buyer A Direct Access End-User or a wholesale buyer of Energy or

Ancillary Services through Scheduling Coordinators.

Participating Intermittent One or more Eligible Intermittent Resources that meets the

Resource requirements of the technical standards for Participating

Intermittent Resources adopted by the ISO and published on the

ISO Home Page.

Participating Intermittent Fee based on Schedule 4 of Appendix F and EIRP 5.3.

Resource Export Fee

Participating Intermittent Fees set forth in Section 11.2.4.5.4 of the ISO Tariff

Resource Fees

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: November 1, 2006 Effective: November 1, 2006

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 517A

<u>Participating Load</u> An entity providing Curtailable Demand, which has undertaken

in writing to comply with all applicable provisions of the ISO

Tariff, as they may be amended from time to time.

<u>Participating Seller or</u> A Generator or other seller of Energy or Ancillary Services

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: November 1, 2006 Effective: November 1, 2006

First Revised Sheet No. 518 Superseding Original Sheet No. 518

Participating Generator

through a Scheduling Coordinator over the ISO Controlled Grid from a Generating Unit with a rated capacity of 1 MW or greater, or from a Generating Unit providing Ancillary Services and/or submitting Supplemental Energy bids through an aggregation arrangement approved by the ISO, which has undertaken to be bound by the terms of the ISO Tariff, in the case of a Generator

through a Participating Generator Agreement.

Participating TO's Interconnection Facilities

All facilities and equipment owned, controlled, or operated by the Participating TO from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Participating TO's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand

Alone Network Upgrades or Network Upgrades.

Participating TO

A party to the TCA whose application under Section 2.2 of the TCA has been accepted and who has placed its transmission assets and Entitlements under the ISO's Operational Control in accordance with the TCA. A Participating TO may be an Original Participating TO or a New Participating TO.

Path 15 Upgrade

The upgraded transmission facilities across the Path 15 Inter-Zonal Interface that have been turned over to ISO Operational Control.

Payment Date

The date by which invoiced amounts are to be paid under the terms of the ISO Tariff.

PBR (Performance-Based

Regulated rates based in whole or in part on the achievement of

Ratemaking)

specified performance objectives.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Original Sheet No. 518A

Phase I Interconnection Study

The engineering study conducted or caused to be performed by the CAISO, in coordination with the applicable Participating TO(s), that evaluates the impact of the proposed interconnection on the safety and reliability of the CAISO Controlled Grid and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility(ies) were interconnected without identified project modifications or system modifications, as provided in the On-Peak Deliverability Assessment or Off-Peak Deliverability Assessment, and other potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Large Generator Interconnection Procedures set forth in Appendix GG. The study will also identify the approximate total costs, based on per unit costs, of mitigating these impacts, along with an equitable allocation of those costs to Interconnection Customers for their individual Generating Facilities.

Phase II Interconnection Study

An engineering and operational study conducted or caused to be performed by the CAISO, in coordination with the applicable Participating TO(s), to determine the Point of Interconnection and a list of facilities (including the Participating TO's Interconnection Facilities, Network Upgrades, Distribution Upgrades, and Stand Alone Network Upgrades), the cost of those facilities, and the time required to interconnect the Generating Facility(ies) with the CAISO Controlled Grid.

Physical Scheduling Plant

A group of two or more related Generating Units, each of which is individually capable of producing Energy, but which either by physical necessity or operational design must be operated as if they were a single Generating Unit and any Generating Unit or Units containing related multiple generating components which meet one or more of the following criteria: i) multiple generating components are related by a common flow of fuel which cannot be interrupted without a substantial loss of efficiency of the combined output of all components; ii) the Energy production

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Third Revised Sheet No. 519 Superseding Second Revised Sheet No. 519

from one component necessarily causes Energy production from other components; iii) the operational arrangement of related multiple generating components determines the overall physical efficiency of the combined output of all components; iv) the level of coordination required to schedule individual generating components would cause the ISO to incur scheduling costs far in excess of the benefits of having scheduled such individual components separately; or v) metered output is available only for the combined output of related multiple generating components and separate generating component metering is

Planning Reserve Margin

THIRD REPLACEMENT VOLUME NO. II

A Planning Reserve Margin shall be that quantity or percentage of capacity in MWs that exceeds the Demand Forecast set forth in Section 40.3 as provided for in Section 40.4 of this ISO Tariff. The ISO computer control system used to monitor the real-time performance of the various elements of the ISO Controlled Grid, control Generation, and perform operational power flow studies.

either impractical or economically inefficient.

PMS (Power Management System)

Point of Change of

Ownership

The point, as set forth in Appendix A to the Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Participating TO's Interconnection Facilities.

Point of Interconnection

The point, as set forth in Appendix A to the Large Generator Interconnection Agreement or Attachment 3 to the Small Generator Interconnection Agreement, where the Interconnection Facilities connect to the ISO Controlled Grid. The computer software used by the ISO to model the voltages,

Power Flow Model

power injections and power flows on the ISO Controlled Grid and determine the expected Transmission Losses and Generation Meter Multipliers.

Power System Stabilizers

(PSS)

An electronic control system applied on a Generating Unit that helps to damp out dynamic oscillations on a power system. The PSS senses Generator variables, such as voltage, current and shaft speed, processes this information and sends control signals to the Generator voltage regulator.

Effective: September 29, 2008

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: July 28, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II Sur

First Revised Sheet No. 519A Superseding Original Sheet No. 519A

Pre-Construction Activities

Actions by a Participating TO, other than those required by an Engineering and Procurement Agreement under LGIP Section 10 in Appendix GG, undertaken prior to Construction Activities in order to prepare for the construction of Participating TO's Interconnection Facilities or Network Upgrades assigned to the Interconnection Customer, including, but not limited to, preliminary engineering, permitting activities, environmental analysis, or other activities specifically needed to obtain governmental approvals for the Participating TO's Interconnection Facilities or Network Upgrades.

<u>Preferred Day-Ahead</u>
A Scheduling Coordinator's Preferred Schedule for the ISO Day-

<u>Schedule</u> Ahead scheduling process.

Preferred Hour-Ahead A Scheduling Coordinator's Preferred Schedule for the ISO

<u>Schedule</u> Hour-Ahead scheduling process.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Substitute Fourth Revised Sheet No. 520 Superseding Third Revised Sheet No. 520

Preferred Schedule

The initial Schedule produced by a Scheduling Coordinator that represents its preferred mix of Generation to meet its Demand. For each Generator, the Schedule will include the quantity of output, details of any Adjustment Bids, and the location of the Generator. For each Load, the Schedule will include the quantity of consumption, details of any Adjustment Bids, and the location of the Load. The Schedule will also specify quantities and location of trades between the Scheduling Coordinator and all other Scheduling Coordinators. The

Preferred Schedule will be balanced with respect to Generation, Transmission Losses, Load and trades between Scheduling Coordinators.

Preliminary NERC/WECC Charge Invoice

An initial invoice issued by the ISO that reflects an allocation of NERC/WECC Charges to a Scheduling Coordinator for a NERC/WECC Charge Assessment Year based on (i) the Scheduling Coordinator's NERC/WECC Metered Demand for the NERC/WECC Charge Assessment Year as described in Section 11.2.19.4, multiplied by (ii) the Preliminary NERC/WECC Charge Rate for the NERC/WECC Charge

Assessment Year.

Preliminary Settlement Statement

The initial statement issued by the ISO of the calculation of the Settlements and allocation of the charges in respect of all Settlement Periods covered by the period to which it relates.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Effective: June 27, 2007

Issued on: December 14, 2007

Preliminary NERC/WECC Charge Rate

The preliminary rate to be paid by Scheduling Coordinators for NERC/WECC Charges for a NERC/WECC Charge Assessment Year based on (i) the portions of the proposed budgets of NERC, WECC, and regional advisory bodies that serve the WECC that the WECC notifies the ISO in writing are allocable to the ISO for the NERC/WECC Charge Assessment Year or, alternatively, if the WECC does not provide such written notification to the ISO in accordance with the ISO-WECC Billing Services Agreement, the portions of the budgets of NERC, WECC, and regional advisory bodies that serve that WECC that the WECC informed the ISO were allocable to the ISO for the immediately preceding NERC/WECC Charge Assessment Year divided by (ii) the total of all Scheduling Coordinators' NERC/WECC Metered Demand for the NERC/WECC Charge Assessment Year as described in Section 11.2.19.4, including any adjustments to the calculation of NERC/WECC Metered Demand, as reported to the WECC pursuant to Section 11.2.19.4(b), and including any additional adjustments to the calculation of NERC/WECC Metered Demand, based on decisions by the WECC to permit such adjustments, that the WECC provides to the ISO in a written statement in accordance with the ISO-WECC Billing Services Agreement.

Pre-RA Import Commitment Capability

Price Overlap

The price range of bids for Supplemental Energy or Energy associated with Ancillary Services bids for any Dispatch Interval that includes decremental and incremental Energy Bids where the price of the decremental Energy Bids exceeds the price of the incremental Energy Bids.

The quantity in MW assigned to a particular branch group into

the ISO Control Area based on a Pre-RA Import Commitment.

Primary ISO Control

The ISO Control Center located in Folsom, California.

Center

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: December 14, 2007 Effective: June 27, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

THIRD REPLACEMENT VOLUME NO. II

First Revised Sheet No. 520A Superseding Original Sheet No. 520A

Project Sponsor A Market Participant or group of Market Participants, a

Participating TO, or a project developer that is not a Market Participant or Participating TO that proposes the construction of

a transmission addition or upgrade in accordance with

Section 24 of the ISO Tariff.

Proposal for Installation A written proposal submitted by an ISO Metered Entity to the

ISO describing a proposal for the installation of additional

Metering Facilities.

<u>Proxy Price</u> The value determined for each gas-fired Generating Unit owned

or controlled by a Must-Offer Generator in accordance with

Section 40.10.1.

PTO Service Territory The area in which an IOU, a Local Public Owned Electric Utility,

or federal power marketing administration that has turned over its transmission facilities and/or Entitlements to ISO Operational Control is obligated to provided electric service to Load. A PTO

Issued by: Laura Manz, Vice President, Market and Infrastructure Development

Issued on: October 31, 2008 Effective: December 21, 2007

FERC ELECTRIC TARIFF
THIRD REPLACEMENT VOLUME NO. II

Fourth Revised Sheet No. 521 Superseding Third Revised Sheet No. 521

Service Territory may be comprised of the Service Areas of more than one

Local Public Owned Electric Utility, if they are operating under an agreement with the ISO for aggregation of their MSS and their MSS

Operator is designated as the Participating TO.

Queue Position The order of a valid Interconnection Request, relative to all other pending

valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the ISO.

Qualifying Capacity The maximum capacity of a Resource Adequacy Resource. The criteria

for calculating Qualifying Capacity from Resource Adequacy Resources may be established by the CPUC or other applicable Local Regulatory Authority and provided to the ISO, or default provisions in Section 40.13 of

this ISO Tariff.

Qualifying FacilityA qualifying co-generation or small power production facility recognized by

FERC.

RA Compliance Year Calendar year from January 1 to December 31.

RA Entity Any entity identified in Section 40.1 of the ISO Tariff.

RA Entity Load Share An RA Entity's proportionate share of load in a TAC Area. The RA Entity

Percentage

Load Share Percentage shall be calculated for each RA Entity by dividing
the RA Entity's actual annual coincident peak Load in each TAC area in
2005 by the total coincident peak Load of all RA Entities in the TAC Area

in 2005.

Ramping Changing the loading level of a Generating Unit in a constant manner over

a fixed time (e.g., ramping up or ramping down). Such changes may be

directed by a computer or manual control.

RAS (Remedial Action Protective systems that typically utilize a combination of conventional

Schemes) protective relays, computer-based processors, and telecommunications to

accomplish rapid, automated response to unplanned power system events. Also, details of RAS logic and any special requirements for arming of RAS schemes, or changes in RAS programming, that may be

required.

Rated Governmental A municipal utility or state or federal agency that holds an issuer,

Entity counterparty, or underlying credit rating by a Nationally Recognized

Statistical Rating Organization.

Rated Public/Private An investor-owned or privately held entity that holds an issuer,

<u>Corporation</u> counterparty, or underlying credit rating by a Nationally Recognized

Statistical Rating Organization.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: March 22, 2007 Effective: May 22, 2007

THIRD REPLACEMENT VOLUME NO. II

Third Revised Sheet No. 521A Superseding Second Revised Sheet No. 521A

Reactive Power ControlGeneration or other equipment needed to maintain acceptable

voltage levels on the ISO Controlled Grid and to meet reactive capacity requirements at points of interconnection on the ISO

Controlled Grid.

Real Time Market The competitive generation market controlled and coordinated

by the ISO for arranging real-time Imbalance Energy.

Redispatch The readjustment of scheduled Generation or Demand side

management measures, to relieve Congestion or manage

Energy imbalances.

Registered Data Those items of technical data and operating characteristics

relating to Generation, transmission or distribution facilities which are identified to the owners of such facilities as being information, supplied in accordance with the ISO Tariff, to assist

the ISO to maintain reliability of the ISO Controlled Grid and to

carry out its functions.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: March 28, 2008 Effective: June 1, 2008

First Revised Sheet No. 522 Superseding Original Sheet No. 522

Regulation

The service provided either by Generating Units certified by the ISO as equipped and capable of responding to the ISO's direct digital control signals, or by System Resources that have been certified by the ISO as capable of delivering such service to the ISO Control Area, in an upward and downward direction to match, on a real-time basis, Demand and resources, consistent with Applicable Reliability Criteria. Regulation is used to control the power output of electric generators within a prescribed area in response to a change in system frequency, tieline loading, or the relation of these to each other so as to maintain the target system frequency and/or the established interchange with other areas within the predetermined limits. Regulation includes both the increase of output by a Generating Unit or System Resource ("Regulation Up") and the decrease in output by a Generating Unit or System Resource ("Regulation Down"). Regulation Up and Regulation Down are distinct capacity products, with separately stated requirements and Market Clearing Prices in each Settlement Period.

Regulation Energy
Payment Adjustment
Regulatory Must-Run
Generation

The additional value of regulating Energy.

Hydro Spill Generation and Generation which is required to run by applicable Federal or California laws, regulations, or other governing jurisdictional authority. Such requirements include but are not limited to hydrological flow requirements, environmental requirements, such as minimum fish releases, fish pulse releases and water quality requirements, irrigation and water supply requirements of solid waste Generation, or other Generation contracts specified or designated by the jurisdictional regulatory authority as it existed on December 20, 1995, or as revised by Federal or California law or Local Regulatory Authority.

Regulatory Must-Take
Generation

Those Generation resources identified by CPUC, or a Local Regulatory Authority, the operation of which is not subject to competition. These resources will be scheduled by the relevant

Issued by: Laura Manz, Vice President, Market and Infrastructure Development

Issued on: October 29, 2008 Effective: January 1, 2009

First Revised Sheet No. 523 Superseding Original Sheet No. 523

Scheduling Coordinator directly with the ISO on a must-take basis. Regulatory Must-Take Generation includes qualifying facility Generating Units as defined by federal law, nuclear units and pre-existing power purchase contracts with minimum energy take requirements.

Reliability Coordinator The person responsible for Security Monitoring in real time for

the California Area.

Reliability Criteria Pre-established criteria that are to be followed in order to

maintain desired performance of the ISO Controlled Grid under

contingency or steady state conditions.

Reliability Must-Run The sum payable by a Responsible Utility to the ISO pursuant to

Charge (RMR Charge) Section 30.6.1.1 of the ISO Tariff for the costs, net of all

applicable credits, incurred under the RMR Contract.

Reliability Must-Run A Must-Run Service Agreement between the owner of an RMR

Contract (RMR Contract) Unit and the ISO.

Reliability Must-Run Generation that the ISO determines is required to be on line to

Generation (RMR meet Applicable Reliability Criteria requirements. This includes

Generation i) Generation constrained on line to meet NERC and WECC

reliability criteria for interconnected systems operation;

ii) Generation needed to meet Load demand in constrained

areas; and iii) Generation needed to be operated to provide

voltage or security support of the ISO or a local area.

Reliability Must-Run Unit

A Generating Unit which is the subject of a Reliability Must-Run

(RMR Unit) Contract.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 523A

Reliability Network

Upgrades

The transmission facilities at or beyond the Point of Interconnection identified in the Interconnection Studies as necessary to interconnect one or more Large Generating Facility(ies) safely and reliably to the ISO Controlled Grid, which would not have been necessary but for the interconnection of one or more Large Generating Facility(ies), including Network Upgrades necessary to remedy short circuit or stability problems, or thermal overloads. Reliability Network Upgrades shall only be deemed necessary for thermal overloads, occurring under any system condition, where such thermal overloads cannot be adequately mitigated through Congestion Management, Operating Procedures, or special protection systems based on the characteristics of the Large Generating Facilities included in the Interconnection Studies, limitations on market models, systems, or information, or other factors specifically identified in the Interconnection Studies. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Large Generating Facility's interconnection may have on a path's WECC rating.

Reliability Services Costs

The costs associated with services provided by the ISO: 1) that

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

THIRD REPLACEMENT VOLUME NO. II

Third Revised Sheet No. 524 Superseding Second Revised Sheet No. 524

are deemed by the ISO as necessary to maintain reliable electric service in the ISO Control Area; and 2) whose costs are billed by the ISO to the Participating TO pursuant to the ISO Tariff.

Reliability Services Costs include costs charged by the ISO to a Participating TO associated with service provided under an RMR Contract (Section 30.6.1.2), local out-of-market dispatch calls (Section 11.2.4.2.1) and Minimum Load Costs associated with units committed under the must-offer obligation for local reliability requirements (Section 40.8.6)

Remaining Import Capability

The quantity in MW of Total Import Capability assigned to a Load Serving Entity up to its Load Share Quantity after the assignment of Existing Contract Import Capability and Pre-RA Import

Commitment. Capability.

Remote Self-Supply Positive Net Output from generating resources in the Station

Power Portfolio that is deemed to have self-supplied Station Power load of other Generating Units in the Station Power Portfolio during the Netting Period, where such self-supply

requires use of the ISO Controlled Grid.

REMnet The Wide Area Network through which the ISO acquires Meter

Data.

Replacement Reserve Generating capacity that is dedicated to the ISO, capable of

starting up if not already operating, being synchronized to the ISO Controlled Grid, and Ramping to a specified operating level within a sixty (60) minute period, the output of which can be continuously maintained for a two hour period. Also, Curtailable Demand that is capable of being curtailed within sixty minutes and that can remain

curtailed for two hours.

Resource Adequacy The program that ensures that adequate physical generating

capacity dedicated to serving all load requirements is available to meet peak demand and planning and operating reserves, at or deliverable to locations and at times as may be necessary to

ensure local area reliability and system reliability.

Resource Adequacy The capacity of a Resource Adequacy Resource listed on a

<u>Capacity</u> Resource Adequacy Plan and a Supply Plan.

Resource Adequacy Plan A submission by a Scheduling Coordinator for a Load Serving

Entity serving Load in the ISO Control Area in order to satisfy the

requirements of Section 40 of this ISO Tariff.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: March 22, 2007 Effective: May 22, 2007

FERC ELECTRIC TARIFF
THIRD REPLACEMENT VOLUME NO. II

Settlement Interval Ex

Invoice

Second Revised Sheet No. 524A Superseding First Revised Sheet No. 524A

Resource Adequacy A resource that is required to offer Resource Adequacy Capacity.

Resource The criteria for determining the types of resources that are eligible to

provide Qualifying Capacity may be established by the CPUC, other applicable Local Regulatory Authority and provided to the ISO, or the

default provision in Section 40.13 of this ISO Tariff.

Resource-Specific The Resource-Specific Settlement Interval Ex Post Price will equal

the Energy-weighted average of the applicable Dispatch Interval Ex

Post Prices for each Settlement Interval taking into account each

resource's Instructed Imbalance Energy, except Regulation Energy.

The Resource-Specific Settlement Interval Ex Post Price shall apply

to those resources that are capable of responding to ISO Dispatch

Instructions.

Responsible Utility The utility which is a party to the TCA in whose PTO Service

Territory the Reliability Must-Run Unit is located or whose PTO Service Territory is contiguous to the PTO Service Territory in which a Reliability Must-Run Unit owned by an entity outside of the

ISO Controlled Grid is located.

Results Meeting The meeting among the CAISO, the applicable Participating TO(s),

the Interconnection Customer, and, if applicable, other Affected

System Operators to discuss the results of the Phase I

Interconnection Study as set forth in LGIP Section 6 set forth in

Appendix GG.

Revenue Requirement The revenue level required by a utility to cover expenses made on an

investment, while earning a specified rate of return on the investment.

Revised Adjusted RMR The monthly invoice issued by the RMR Owner to the ISO pursuant

to the RMR Contract reflecting any appropriate revisions to the

Adjusted RMR Invoice based on the ISO's validation and actual data

for the billing month.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

THIRD REPLACEMENT VOLUME NO. II

First Revised Sheet No. 525 Superseding Original Sheet No. 525

Revised Estimated RMR The monthly invoice issued by the RMR Owner to the ISO pursuant

Invoice to the RMR Contract reflecting appropriate revisions to the Estimated

RMR Invoice based on the ISO's validation of the Estimated RMR

Invoice.

Revised Schedule A Schedule submitted by a Scheduling Coordinator to the ISO

following receipt of the ISO's Suggested Adjusted Schedule.

RMR Owner The provider of services under a Reliability Must-Run Contract.

Real-Time Dispatch (RTD) The security constrained optimal dispatch and ex post pricing

<u>Software</u> software used by the ISO to determine which Ancillary Service and

Supplementary Energy resources to Dispatch and to calculate the Ex

Post Prices.

Rules of Conduct The rules set forth in 37.2 through 37.7.

Sanction A consequence specified in Section 37 for the violation of a Rule of

Conduct, which may include a) a warning letter notifying the Market Participant of the violation and future consequences specified under Section 37 if the behavior is not corrected, or b) financial penalties. Neither referral to FERC nor rescission of payment for service not

provided shall constitute a Sanction.

SCADA (Supervisory A computer system that allows an electric system operator to

Control and Data remotely monitor and control elements of an electric system.

Acquisition)

SC-RA Entity A Scheduling Coordinator for an RA Entity.

Scheduling Coordinator An agreement between a Scheduling Coordinator and the ISO

Agreement whereby the Scheduling Coordinator agrees to comply with all ISO

rules, protocols and instructions, as those rules, protocols and

instructions may be amended from time to time.

Scheduling Coordinator An applicant for certification by the ISO as a Scheduling Coordinator.

Applicant

Scheduling Coordinator The form specified by the ISO from time to time in which a Scheduling

Application Form Coordinator Applicant must apply to the ISO for certification as a

Scheduling Coordinator.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: March 15, 2007 Effective: June 1, 2006

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Rate

Original Sheet No. 525A

<u>Scheduling Coordinator</u>
A customer of the Scheduling Coordinator Applicant or a Scheduling

<u>Customer</u>
Coordinator for whom the Scheduling Coordinator provides services

relevant to the ISO Controlled Grid.

<u>Scaled Marginal Loss</u> A factor calculated by the ISO for a given Generator location for each

hour by multiplying the Full Marginal Loss Rate for such Generator

location by the Loss Scale Factor for the relevant hour.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: March 15, 2007 Effective: June 1, 2006

Schedule A statement of (i) Demand, including quantity, duration and Take-Out

Points and (ii) Generation, including quantity, duration, location of Generating Unit, and Transmission Losses; and (iii) Ancillary Services

which will be self-provided, (if any) submitted by a Scheduling

Coordinator to the ISO. "Schedule" includes Preferred Schedules, Suggested Adjusted Schedules, Final Schedules and Revised

Schedules.

Scheduled Maintenance Maintenance on Participating Generators, TOs and UDC facilities

scheduled more than twenty-four hours in advance.

<u>Scheduling Coordinator</u> An entity certified by the ISO for the purposes of undertaking the

(SC) functions specified in Section 4.5.3 of the ISO Tariff.

Scheduling Coordinator A Generator, Eligible Customer or End-User that is not an ISO

<u>Metered Entity</u> Metered Entity.

Scheduling Point A location at which the ISO Controlled Grid is connected, by a group

of transmission paths for which a physical, non-simultaneous transmission capacity rating has been established for Congestion Management, to transmission facilities that are outside the ISO's

Operational Control. A Scheduling Point typically is physically located at an "outside" boundary of the ISO Controlled Grid (e.g., at the point

of interconnection between a Control Area utility and the ISO

Controlled Grid). For most practical purposes, a Scheduling Point can be considered to be a Zone that is outside the ISO's Controlled Grid.

Scoping Meeting The meeting among representatives of the Interconnection Customer,

the applicable Participating TO, and the ISO conducted for the

purpose of discussing alternative interconnection options, to exchange

information including any transmission data and earlier study evaluations that would be reasonably expected to impact such

interconnection options, to analyze such information, and to determine

the potential feasible Points of Interconnection.

Security The form of security provided by a Scheduling Coordinator pursuant to

Section 12.1 of the ISO Tariff (i.e., letter of credit, guarantee or cash

deposit) to secure its trading obligations.

Security Monitoring The real-time assessment of the ISO Controlled Grid that is conducted

to ensure that the system is operating in a secure state, and in

compliance with all Applicable Reliability Criteria.

<u>Service Area</u> An area in which an IOU or a Local Publicly Owned Electric Utility is

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: March 1, 2006

obligated to provide electric service to End-Use Customers.

Scheduled operating level for each Generating Unit or other resource

scheduled to run in the Hour-Ahead Schedule.

<u>Settlement</u> Process of financial settlement for products and services purchased

and sold undertaken by the ISO under Section 11 of the ISO Tariff.

Each Settlement will involve a price and a quantity.

Settlement Account An Account held at a bank situated in California, designated by a

Scheduling Coordinator or a Participating TO pursuant to the

Scheduling Coordinator's Scheduling Coordinator Agreement or in the case of a Participating TO, Section 2.2.1 of the TCA, to which the ISO

shall pay amounts owing to the Scheduling Coordinator or the

Participating TO under the ISO Tariff.

<u>Settlement Interval</u> The time period, which is equal to or a multiple of the Dispatch

Interval, over which the ISO settles deviations in Generation and

Demand from Final Hour-Ahead Schedules.

<u>Settlement Period</u> For all ISO transactions the period beginning at the start of the hour,

and ending at the end of the hour. There are twenty-four Settlement Periods in each Trading Day, with the exception of a Trading Day in

which there is a change to or from daylight savings time.

Settlement Quality Meter Meter Data gathered, edited, validated, and stored in a settlement-

Data ready format, for Settlement and auditing purposes.

Settlement Statement Either or both of a Preliminary Settlement Statement or Final

Settlement Statement.

Settlement Statement Re- The re-calculation of a Settlement Statement in accordance with the

<u>run</u> provisions of the ISO Tariff.

and Client Relations

Settlements, Metering, The component of the Grid Management Charge that provides for the

recovery of the ISO's costs, including, but not limited to the costs of

<u>Charge</u> maintaining customer account data, providing

account information to customers, responding to customer inquiries, calculating market charges, resolving customer disputes, and the costs associated with the ISO's Settlement, billing, and metering activities. Because this is a fixed charge per Scheduling Coordinator ID, costs associated with activities listed above also are allocated to other charges under the Grid Management Charge according to formula set forth in Appendix F, Schedule 1, Part A of this Tariff.

Severance Fee The charge or periodic charge assessed to customers to recover the

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: March 1, 2006

Sixth Revised Sheet No. 528 Superseding Fifth Revised Sheet No. 528

reasonable uneconomic portion of costs associated with Generation-related assets and obligations, nuclear decommissioning, and capitalized Energy efficiency investment programs approved prior to August 15, 1996 and as defined in the California Assembly Bill No. 1890 approved by the Governor on September 23, 1996.

Generating Units that that have a cycle time less than five hours (Start-Up Time plus Minimum Run Time is less than five hours) have a Start Up Time less than two hours, and that can be fully optimized with respect to this cycle time.

Documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose.

Documentation reasonably demonstrating:

(1) For private land:

- (a) Ownership of, a leasehold interest in, or a right to develop property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility; or
- (b) an option to purchase or acquire a leasehold interest in property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility.
- (2) For public land, including that controlled or managed by any federal, state or local agency, a final, non-appealable permit, license, or other right to use the property for the purpose of generating electric power and in acreage reasonably necessary to accommodate the Generating Facility, which exclusive right to use public land under the management of the federal Bureau of Land Management shall be in a form specified by the Bureau of Land Management.

Short Start

Site Control

Site Exclusivity

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

<u>Site Exclusivity Deposit</u> The cash deposit provided to the CAISO by Interconnection

Customers under LGIP Section 3.5.1 set forth in Appendix GG as an option in lieu of demonstrating Site Exclusivity for a valid Interconnection Request and treated in accordance with LGIP Section

3.5.1.4 set forth in Appendix GG.

Scheduling and Logging system for the ISO of California (SLIC) A logging application that allows Market Participants to notify the ISO when a unit's properties change due to physical problems. Users can modify the maximum and minimum output of a unit, as well as the

ramping capability of the unit.

Small Generating Facility A Generating Facility that has a Generating Facility Capacity of no

more than 20 MW.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

FERC ELECTRIC TARIFF

Third Revised Sheet No. 528A

THIRD REPLACEMENT VOLUME NO. II Superseding Second Revised Sheet No. 528A

Spinning Reserve The portion of unloaded synchronized generating capacity that is

immediately responsive to system frequency and that is capable of being loaded in ten minutes, and that is capable of running for at least

two hours.

Stand Alone Network

Upgrades

Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the ISO Controlled Grid or Affected Systems during their construction. The Participating TO, the

ISO, and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Large Generator Interconnection Agreement.

Standard Large Generator

Interconnection

Agreement

(LGIA)

Standard Large Generator

Interconnection

The form of interconnection agreement applicable to an

Interconnection Request pertaining to a Large Generating Facility, a

pro forma version of which is set forth in Appendix V.

The ISO Protocol that sets forth the interconnection procedures

applicable to an Interconnection Request pertaining to a Large

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

FERC ELECTRIC TARIFF
THIRD REPLACEMENT VOLUME NO. II

Second Revised Sheet No. 529 Superseding First Revised Sheet No. 529

<u>Procedures</u> Generating Facility that is set forth in Appendix U.

(LGIP)

Revenue

Standard Ramp (-ing) A ramp calculated from two consecutive Final Hour Ahead Schedules

that results in a straight trajectory between 10 minutes before the start of an operating hour to 10 minutes after the start of the operating hour

Standby Rate A rate assessed a Standby Service Customer by the Participating TO

that also provides retail electric service, as approved by the Local Regulatory Authority, or FERC, as applicable, for Standby Service which compensates the Participating TO, among other things, for

costs of High Voltage Transmission Facilities.

<u>Standby Service</u> Service provided by a Participating TO that also provides retail electric

service, which allows a Standby Service Customer, among other things, access to High Voltage Transmission Facilities for the delivery of backup power on an instantaneous basis to ensure that Energy may

be reliably delivered to the Standby Service Customer in the event of

an outage of a Generating Unit serving the customer's Load.

<u>Standby Service</u> A retail End-Use Customer of a Participating TO that also provides

<u>Customer</u> retail electric service that receives Standby Service and pays a

Committee that received standay convice and pay

Standby Rate.

Standby Transmission The transmission revenues, with respect to cost of both High Voltage

Transmission Facilities and Low Voltage Transmission Facilities,

collected directly from Standby Service Customers through charges

for Standby Service.

Start-Up Cost Charge The charge determined in accordance with Section 40.12.

<u>Start-Up Cost Demand</u> The level of Demand specified in Section 40.12.3.

Start-Up Cost Invoice The invoice submitted to the ISO in accordance with Section 40.12.6.

Start-Up Cost Trust The trust account established in accordance with Section 40.12.2.

Account

<u>Start-Up Costs</u> The cost incurred by a particular Generating Unit from the time of first

unit was last synchronized to the grid, whichever is later, until the time the generating unit reaches its minimum operating level. Start-Up

fire, the time of receipt of an ISO Dispatch instruction, or the time the

Costs are determined as the sum of (1) the cost of auxiliary power used during the start-up and (2) the number that is determined

multiplying the actual amount of fuel consumed by the proxy gas price

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF
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as determined by Equation C1-8 (Gas) of the Schedules to the Reliability Must-Run Contract for the relevant Service Area (San Diego Gas & Electric Company, Southern California Gas Company, or Pacific Gas and Electric Company), or, if the Must-Offer Generator is not served from one of those three Service Areas, from the nearest of those three Service Areas.

Station Power

Energy for operating electric equipment, or portions thereof, located on the Generating Unit site owned by the same entity that owns the Generating Unit, which electrical equipment is used exclusively for the production of Energy and any useful thermal energy associated with the production of Energy by the Generating Unit; and for the incidental heating, lighting, air conditioning and office equipment needs of buildings, or portions thereof, that are owned by the same entity that owns the Generating Unit; located on the Generating Unit site; and used exclusively in connection with the production of Energy and any useful thermal energy associated with the production of Energy by the Generating Unit. Station Power includes the Energy associated with motoring a hydroelectric Generating Unit to keep the unit synchronized at zero real power output to provide Regulation or Spinning Reserve. Station Power does not include any Energy used to power synchronous condensers; used for pumping at a pumped storage facility; or provided during a Black Start procedure. Station Power does not include Energy to serve loads outside the ISO Control Area. One or more generating resources eligible to self-supply Station

Station Power Portfolio

One or more generating resources eligible to self-supply Station Power, including Generating Units in the ISO Control Area, and generating facilities outside the ISO Control Area, all of which are owned by the same entity.

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: April 1, 2006

SUDC (Small Utility Distribution Company)

An entity that owns a Distribution System that is capable of transmitting or delivery of Energy to and/or from the ISO Controlled Grid that provides retail electric service to End-Use Customers, and has the following characteristics:

- 1. Annual peak Demand is 25 MW or less;
- The Distribution System is not in a local reliability area defined by the ISO; and
- Good Utility Practice was used in designing all substation facilities that are owned or operated by the entity and interconnected to the ISO Controlled Grid, and none of those substations have transmission circuit breakers.

Suggested Adjusted Schedule

The output of the ISO's initial Congestion Management for each Scheduling Coordinator for the Day-Ahead Market ("Suggested Adjusted Day-Ahead Schedule") or for the Hour-Ahead Market ("Suggested Adjusted Hour-Ahead Schedule"). These Schedules will reflect ISO suggested adjustments to each Scheduling Coordinator's Preferred Schedule to resolve Inter-Zonal Congestion on the ISO Controlled Grid, based on the Adjustment Bids submitted. These Schedules will be balanced with respect to Generation, Transmission Losses, Load, and trades between Scheduling Coordinators to resolve Inter-Zonal Congestion.

Supplemental Energy

Energy from Generating Units bound by a Participating Generator Agreement, Loads bound by a Participating Load Agreement, System Units, and System Resources which have uncommitted capacity following finalization of the Hour-Ahead Schedules and for which Scheduling Coordinators have submitted bids to the ISO at least half

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: April 1, 2006

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First Revised Sheet No. 531 Superseding Original Sheet No. 531

an hour before the commencement of the Settlement Period.

Supply The rate at which Energy is delivered to the ISO Controlled Grid

measured in units of watts or standard multiples thereof, e.g.,

1,000W=1 KW; 1,000 KW = 1MW, etc.

<u>Supply Plan</u> A submission by a Scheduling Coordinator for a Resource Adequacy

Resource in order to satisfy the requirements of Section 40 of this ISO

Tariff.

System Emergency Conditions beyond the normal control of the ISO that affect the ability

of the ISO Control Area to function normally including any abnormal system condition which requires immediate manual or automatic action to prevent loss of Load, equipment damage, or tripping of system elements which might result in cascading Outages or to restore system operation to meet the minimum operating reliability

criteria.

System Planning Studies Reports summarizing studies performed to assess the adequacy of

the ISO Controlled Grid as regards conformance to Reliability Criteria.

System Reliability A measure of an electric system's ability to deliver uninterrupted

service at the proper voltage and frequency.

System Resource A group of resources, single resource, or a portion of a resource

located outside of the ISO Control Area, or an allocated portion of a

Control Area's portfolio of generating resources that are directly

·

responsive to that Control Area's Automatic Generation Control (AGC)

capable of providing Energy and/or Ancillary Services to the ISO

Controlled Grid.

System Unit One or more individual Generating Units and/or Loads within a

Metered Subsystem controlled so as to simulate a single resource with specified performance characteristics, as mutually determined and agreed to by the MSS Operator and the ISO. The Generating Units and/or Loads making up a System Unit must be in close physical proximity to each other such that the operation of the resources

comprising the System Unit does not result in significant differences in

flows on the ISO Controlled Grid.

TAC Area A portion of the ISO Controlled Grid with respect to which Participating

TOs' High Voltage Transmission Revenue Requirements are

recovered through a High Voltage Access Charge. TAC Areas are

listed in Schedule 3 of Appendix F.

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: July 13, 2006 Effective: May 31, 2006

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF

THIRD REPLACEMENT VOLUME NO. II Original Sheet No. 531A

<u>Take-Out Point</u> The metering points at which a Scheduling Coordinator Metered Entity

or ISO Metered Entity takes delivery of Energy.

Tangible Net Worth (TNW) Total assets minus intangibles (e.g., good will) minus total liabilities.

<u>Tax Exempt Debt</u> Municipal Tax Exempt Debt or Local Furnishing Bonds.

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: July 13, 2006 Effective: May 31, 2006

THIRD REPLACEMENT VOLUME NO. II

Second Revised Sheet No. 532 Superseding First Revised Sheet No. 532

Tax Exempt Participating

<u>TO</u>

A Participating TO that is the beneficiary of outstanding Tax Exempt
Debt issued to finance any electric facilities, or rights associated
therewith, which are part of an integrated system including
transmission facilities the Operational Control of which is transferred to

the ISO pursuant to the TCA.

TCA (Transmission
Control Agreement)

The agreement between the ISO and Participating TOs establishing the terms and conditions under which TOs will become Participating TOs and how the ISO and each Participating TO will discharge their respective duties and responsibilities, as may be modified from time to time.

TCPM The Transitional Capacity Procurement Mechanism contained in

Section 43.

TCPM Capacity Eligible Capacity that has been designated under the TCPM.

TCPM Capacity Payment The payment provided pursuant to Section 43.7.1 of the ISO Tariff.

TCPM Significant Event

A Significant Event is a substantial event, or a combination of events, that is determined by the ISO to either result in a material difference

from what was assumed in the RA program for purposes of

determining the RA capacity requirements, or produce a material

change in system conditions or in ISO-Controlled Grid Operations, that

causes, or threatens to cause, a failure to meet Reliability Criteria absent the recurring use of a non-RA resource(s) on a prospective

basis.

<u>Technical Specifications</u> Parts B to G (inclusive) of Appendix O.

<u>Third Party Supply</u> Energy that is deemed to have been purchased from third parties to

supply Station Power load during the Netting Period.

Tie Point Meter A revenue meter, which is capable of providing Settlement Quality

Meter Data, at a Scheduling Point or at a boundary between UDCs

within the ISO Controlled Grid.

TO (Transmission Owner) An entity owning transmission facilities or having firm contractual

rights to use transmission facilities.

TO Tariff A tariff setting out a Participating TO's rates and charges for

transmission access to the ISO Controlled Grid and whose other terms

and conditions are the same as those contained in the document

referred to as the Transmission Owners Tariff approved by FERC as it

may be amended from time to time.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: March 28, 2008 Effective: June 1, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

FERC ELECTRIC TARIFF

First Revised
THIRD REPLACEMENT VOLUME NO. II

Superseding Original

First Revised Sheet No. 532A Superseding Original Sheet No. 532A

TOC

The single point of contact at the transmission operations center of Pacific Gas & Electric Company.

Tolerance Band

The tolerance band expressed in terms of Energy (MWh) for the performance requirement for Generating Units, System Units and imports from dynamically scheduled System Resources for each Settlement Interval will equal the greater of the absolute value of: 1) 5 MW divided by number of Settlement Intervals per Settlement Period or 2) three percent (3%) of the relevant Generating Unit's, dynamically scheduled System Resource's or System Unit's maximum output (Pmax), as registered in the Master File, divided by number of Settlement Intervals per Settlement Period. The maximum output (Pmax) of a dynamically scheduled System Resource will be established by agreement between the ISO and the Scheduling Coordinator representing the System Resource on an individual case basis, taking into account the number and size of the

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: March 28, 2008 Effective: June 1, 2008

First Revised Sheet No. 533 Superseding Original Sheet No. 533

generating resources, or allocated portions of generating resources, that comprise the System Resource.

The tolerance band expressed in terms of Energy (MWh) for the performance requirement for Participating Loads for each Settlement Interval will equal the greater of the absolute value of: 1) 5 MW divided by number of Settlement Intervals per Settlement Period or 2) three percent (3%) of the applicable Final Hour-Ahead Schedule or ISO Dispatch amount divided by number of Settlement Intervals per Settlement Period.

The Tolerance Band shall not be applied to non-dynamically scheduled System Resources.

<u>Total Import Capability</u> The aggregate Maximum Import Capability of all branch groups into

the ISO Control Area in MW deliverable to the ISO Control Area based on ISO study criteria minus the aggregate sum in MW of all Existing Contracts and Transmission Ownership Rights held by load serving

entities that do not serve Load within the ISO Control Area.

<u>Total Transfer Capability</u> The amount of power that can be transferred over an interconnected

specific set of defined pre-contingency and post-contingency system

transmission network in a reliable manner while meeting all of a

conditions.

(TTC)

<u>Trading Day</u> The twenty-four hour period beginning at the start of the hour ending

0100 and ending at the end of the hour ending 2400 daily, except

where there is a change to and from daylight savings time.

<u>Transition Charge</u> The component of the Access Charge collected by the ISO with the

High Voltage Access Charge in accordance with Section 5.7 of

Appendix F, Schedule 3.

Trading Interval A Settlement Period as defined in the Master Definitions Supplement

of the ISO Tariff.

Transformer LossThe transformer loss correction factor as set forth in the Technical

<u>Correction Factor</u> Specifications to be applied to revenue quality meters of ISO Metered

Entities which are installed on the low voltage side of step-up

transformers.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: March 22, 2007 Effective: May 22, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

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<u>Transition Period</u> The period of time established by the California Legislature and CPUC

to allow IOUs and Local Publicly Owned Electric Utilities an opportunity to recover Transition Costs or Severance Fees.

<u>Transmission Losses</u> Energy that is lost as a natural part of the process of transmitting

Energy from Generation to Load delivered at the ISO/UDC boundary

or Control Area boundary.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management Issued on: March 22, 2007 Effective: May 22, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION
FERC ELECTRIC TARIFF
Substitut
THIRD REPLACEMENT VOLUME NO. II
Superseding

Substitute Third Revised Sheet No. 534 Superseding Second Revised Sheet No. 534

<u>Transmission Ownership</u> <u>Rights</u> A non-Participating TO ownership or joint ownership right to transmission facilities within the ISO Control Area that has not executed the Transmission Control Agreement and the transmission facilities are not incorporated into the ISO Controlled Grid.

<u>Transmission Revenue</u> Credit

For an Original Participating TO, the proceeds received from the CAISO for Wheeling service, FTR auction revenue and Usage Charges, plus (a) the revenues received from any LCRIG with respect to an LCRIF, unless FERC has approved an alternative mechanism to credit such revenues against the Original Participating TO's TRR, and (b) the shortfall or surplus resulting from any cost differences between Transmission Losses and Ancillary Service requirements associated with Existing Rights and the CAISO's rules and protocols, minus any Low Voltage Access Charge amounts paid for the use of the Low Voltage Transmission Facilities of a Non-Load-Serving Participating TO pursuant to Section 26.1 and Appendix F, Schedule 3, Section 13. For a New Participating TO during the 10-year transition period described in Section 4 of Schedule 3 of Appendix F, the revenues received from the CAISO for Wheeling service and Net FTR Revenue, plus (a) the revenues received from any LCRIG with respect to an LCRIF, unless FERC has approved an alternative mechanism to credit such revenues against the New Participating TO's TRR, and (b) the shortfall or surplus resulting from any cost differences between Transmission Losses and Ancillary Service requirements associated with Existing Rights and the CAISO's rules and protocols, minus any Low Voltage Access Charge amounts paid for the use of the Low Voltage Transmission Facilities of a Non-Load-Serving Participating TO pursuant to Section 26.1 and Appendix F, Schedule 3, Section 13. After the 10-year transition period, the New Participating TO Transmission Revenue Credit shall be calculated the same as the Transmission Revenue Credit for the Original Participating TO. A mechanism to be established by each Participating TO which will ensure that all Transmission Revenue Credits and other credits specified in Sections 6, 8, and 13 of Appendix F, Schedule 3, flow

TRBA (Transmission
Revenue Balancing
Account)

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

through to transmission customers.

Issued on: January 18, 2008 Effective: January 1, 2008

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 534A

TRR (Transmission Revenue Requirement)

The TRR is the total annual authorized revenue requirements associated with transmission facilities and Entitlements turned over to the Operational Control of the ISO by a Participating TO. The costs of any transmission facility turned over to the Operational Control of the ISO shall be fully included in the Participating TO's TRR. The TRR includes the costs of transmission facilities and Entitlements and deducts Transmission Revenue Credits and credits for Standby Transmission Revenue and the transmission revenue expected to be actually received by the Participating TO for Existing Rights and Converted Rights.

Trial Operation

The period during which Interconnection Customer is engaged in on-

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: August 24, 2006 Effective: October 23, 2006

site test operations and commissioning of a Generating Unit prior to Commercial Operation.

Trustee

The trustee of the California Independent System Operator trust established by order of the California Public Utilities Commission on August 2, 1996 Decision No. 96-08-038 relating to the Ex Parte Interim Approval of a Loan Guarantee and Trust Mechanism to Fund the Development of an Independent System Operator (ISO) and a Power Exchange (PX) pursuant to Decision 95-12-063 as modified. An entity that owns a Distribution System for the delivery of Energy to

UDC (Utility Distribution Company)

An entity that owns a Distribution System for the delivery of Energy to and from the ISO Controlled Grid, and that provides regulated retail electric service to Eligible Customers, as well as regulated procurement service to those End-Use Customers who are not yet eligible for direct access, or who choose not to arrange services through another retailer.

UDP Aggregation

Two or more units scheduled by the same Scheduling Coordinator with the same resource identification that are to be considered interchangeable for calculating the UDP.

<u>Unaccounted for Energy</u> (UFE) UFE is the difference in Energy, for each utility Service Area and Settlement Period, between the net Energy delivered into the utility Service Area, adjusted for utility Service Area Transmission Losses (calculated in accordance with Section 27.2.1.2), and the total metered Demand within the utility Service Area adjusted for distribution losses

using Distribution System loss factors approved by the Local Regulatory Authority. This difference is attributable to meter measurement errors, power flow modeling errors, energy theft, statistical Load profile errors, and distribution loss deviations.

Uncontrollable Force

Any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm, flood, earthquake, explosion, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities or any other cause beyond the reasonable control of the ISO or Market Participant which could not be avoided through the exercise of Good Utility Practice.

Uninstructed Deviation
Uninstructed Deviation

A deviation from the resources' Dispatch Operating Point.

The penalty as set forth in Section 11.2.4.1.2 of this ISO Tariff.

<u>Penalty</u>

Uninstructed Imbalance The real-time change in Generation or Demand other than that

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: March 1, 2006

FERC ELECTRIC TARIFF

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Energy instructed by the ISO or which the ISO Tariff provides will be paid at

the price for Uninstructed Imbalance Energy.

<u>Unit Commitment</u> The process of determining which Generating Units will be committed

(started) to meet Demand and provide Ancillary Services in the near

future (e.g., the next Trading Day).

<u>Unrated Governmental</u> A municipal utility or state or federal agency that does not hold an

Entity issuer, counterparty, or underlying credit rating by a Nationally

Recognized Statistical Rating Organization.

<u>Unrated Public/Private</u> An investor-owned or privately held entity that does not hold an issuer,

<u>Corporation</u> counterparty, or underlying credit rating by a Nationally Recognized

Statistical Rating Organization.

Un-Recovered Minimum The Un-Recovered Minimum Load Cost for each hour of Waiver

Load Cost Denial Period shall be calculated as the difference between: (1) a

resource's Minimum Load Costs as calculated in this Section for the same Settlement Interval and (2) the Imbalance Energy payment for a

resource's minimum load energy in the Settlement Interval.

Unsecured Credit Limit The level of credit established for a Market Participant or FTR Bidder

that is not secured by any form of Financial Security, as provided for in

Section 12 of the ISO Tariff.

Upgrades The required additions and modifications to the ISO Controlled Grid

and the Distribution System at or beyond the Point of Interconnection.

Upgrades may be Network Upgrades or Distribution Upgrades.

Upgrades do not include Interconnection Facilities.

Usage Charge The amount of money, per 1 kW of scheduled flow, that the ISO

charges a Scheduling Coordinator for use of a specific Congested

Inter-Zonal Interface during a given hour.

Validation, Estimation and Applies to Meter Data directly acquired by the ISO. Validation is the

Editing (VEE) process of checking the data to ensure that it is contiguous, within pre-

defined limits and has not been flagged by the meter. Estimation and Editing is the process of replacing or making complete Meter Data by using data from redundant meters, schedules, PMS or, if necessary,

statistical estimation.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: December 17, 2007 Effective: November 16, 2007

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FERC ELECTRIC TARIFF THIRD REPLACEMENT VOLUME NO. II

Original Sheet No. 536.00

Value Added Network

<u>(VAN)</u>

A data communications service provider that provides, stores and forwards electronic data delivery services within its network and to subscribers on other VANs. The data is mostly EDI type messages.

Voltage Limits

For all substation busses, the normal and post-contingency Voltage Limits (kV). The bandwidth for normal Voltage Limits must fall within the bandwidth of the post-contingency Voltage Limits. Special voltage limitations for abnormal operating conditions such as heavy or light Demand may be specified.

Issued by: Charles A. King, PE, Vice President of Market Development and Program Management

Issued on: December 17, 2007 Effective: November 16, 2007

<u>Voltage Support</u> Services provided by Generating Units or other equipment such as

shunt capacitors, static var compensators, or synchronous condensers

that are required to maintain established grid voltage criteria. This service is required under normal or System Emergency conditions.

<u>Waiver Denial Period</u> The period determined in accordance with Section 40.7.6.

<u>Warning Notice</u> A Notice issued by the ISO when the operating requirements for the

ISO Controlled Grid are not met in the Hour-Ahead Market, or the quantity of Regulation, Spinning Reserve, Non-Spinning Reserve, Replacement Reserve and Supplemental Energy available to the ISO

does not satisfy the Applicable Reliability Criteria.

Weekly Peak Demand Demand Forecast of the highest Hourly Demand in any hour in a

<u>Forecast</u> period beginning at the start of the hour ending 0100 on Sunday and

ending at the end of the hour ending 2400 the following Saturday, in

MW.

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: July 11, 2006 Effective: May 14, 2006

<u>WEnet (Western Energy</u> An electronic network that facilitates communications and data

Network) exchange among the ISO, Market Participants and the public in

relation to the status and operation of the ISO Controlled Grid.

<u>Western Interconnection</u> A network of transmission lines embodied within the WECC region.

Western Path 15 The Western Area Power Administration, Sierra Nevada Region (or its

successor) with respect solely to its rights and interests in the Path 15

Upgrade.

Wheeling Out or Wheeling Through.

<u>Wheeling Access Charge</u> The charge assessed by the ISO that is paid by a Scheduling

Coordinator for Wheeling in accordance with Section 26.1. Wheeling

Access Charges shall not apply for Wheeling under a

bundled non-economy Energy coordination agreement of a

Participating TO executed prior to July 9, 1996. The Wheeling Access Charge may consist of a High Voltage Wheeling Access Charge and a

Low Voltage Wheeling Access Charge.

Wheeling Out Except for Existing Rights exercised under an Existing Contract in

accordance with Sections 16.1 and 16.2, the use of the ISO Controlled Grid for the transmission of Energy from a Generating Unit located within the ISO Controlled Grid to serve a Load located outside the

transmission and Distribution System of a Participating TO.

<u>Wheeling Through</u> Except for Existing Rights exercised under an Existing Contract in

accordance with Sections 16.1 and 16.2, the use of the ISO Controlled

Grid for the transmission of Energy from a resource located outside the ISO Controlled Grid to serve a Load located outside the

transmission and Distribution System of a Participating TO.

Wholesale Customer A person wishing to purchase Energy and Ancillary Services at a Bulk

Supply Point or a Scheduling Point for resale.

Wholesale Sales The sale of Energy and Ancillary Services at a Bulk Supply Point or a

Scheduling Point for resale.

WSCC (Western System The Western Systems Coordinating Council or its successor, the

Coordinating Council) WECC.

<u>WECC (Western</u> The Western Electricity Coordinating Council or its successor.

Electricity Oversight

Council)

WSCC Reliability Criteria The Western Systems Coordinating Council Reliability Criteria

Issued by: Charles F. Robinson, Vice President and General Counsel

Issued on: March 22, 2006 Effective: March 1, 2006

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

FERC ELECTRIC TARIFF
THIRD REPLACEMENT VOLUME NO. II

Fourth Revised Sheet No. 538 Superseding Third Revised Sheet No. 538

Agreement dated June 18, 1999 among the WSCC and certain of its

Member transmission operators, as such may be amended from time

to time.

Year-Ahead System
Resource Adequacy
Requirements

Agreement

The amount of Qualifying Capacity that a RA Entity must reflect in its year-ahead Resource Adequacy Plan submitted pursuant to Section 40.2.1 in compliance with Resource Adequacy Rules adopted by the

CPUC or a Local Regulatory Authority, as applicable.

Year-Ahead System Resource Deficiency

The monthly deficiency in meeting Year-Ahead System Resource Adequacy Requirements as determined under Section 40.7 of Appendix CC following the opportunity to resolve deficiencies that is

provided under Section 40.7 of Appendix CC.

Zone A portion of the ISO Controlled Grid within which Congestion is

expected to be small in magnitude or to occur infrequently. "Zonal"

shall be construed accordingly.

Zonal Settlement Interval

Ex Post Price

The Zonal Settlement Interval Ex Post Price in a Settlement Interval in each Zone will equal the absolute-value Energy-weighted average of the Dispatch Interval Ex Post Prices in each Zone, where the weights are the system total Instructed Imbalance Energy, except Regulation

Energy, for the Dispatch Interval.

Issued by: Anjali Sheffrin, Ph.D., Chief Economist

Issued on: March 28, 2008 Effective: June 1, 2008