PACIFIC GAS AND ELECTRIC COMPANY

Transmission Owner Tariff (TO Tariff)

FERC Electric Tariff Volume No. 5

Effective March 1, 2018
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1. **Preamble**

The Participating TO’s revenue requirements and applicable rates and charges for transmission access and transmission reliability services over the ISO Controlled Grid and the terms and conditions for transmission expansion and interconnection are set forth in this TO Tariff and the ISO Tariff.

1.1 **Transmission Access for Participating TOs**

Participating TOs are able to participate in the ISO and utilize the entire ISO Controlled Grid to serve their End-Use Customers. The applicable High Voltage Access Charges and Transition Charges shall be paid by Participating TOs to the ISO pursuant to the ISO Tariff. If a Participating TO utilizes the Low Voltage Transmission Facilities of another Participating TO, the Participating TO shall also pay the Low Voltage Access Charge of the other Participating TO.

1.2 **Transmission Access for Wheeling Customers**

Wheeling allows Scheduling Coordinators to deliver Energy through or out of the ISO Controlled Grid to serve a load located outside the transmission or Distribution System of a Participating TO. Wheeling Access Charges shall be paid by Scheduling Coordinators to the ISO pursuant to the ISO Tariff.

1.3 **Transmission Access for End-Users**

End-Users receive transmission service over the ISO Controlled Grid through the Participating TO to whose transmission or distribution facilities the End-User is directly connected. Charges to End-Users for access to the ISO Controlled Grid shall be paid to the applicable Participating TO to whose transmission or distribution facilities the End-User is directly connected.
1.4 **Transmission Reliability Service**

All TO Tariff End-Use and Wholesale Customers shall pay transmission Reliability Service Charges to the Participating TO or the ISO as the Participating TO’s agent, as provided in Section 5.6 of this TO Tariff.

2. **Termination**

This TO Tariff may be terminated by the Participating TO upon such advance notice and with such authorization as FERC may require.

3. **TO Definitions**

Capitalized terms used in this TO Tariff shall have the meanings set out below unless otherwise stated or the context otherwise requires. Capitalized terms used in this Tariff and not defined below shall have the meanings set out in the ISO Tariff.

3.1 **Access Charge**

A charge paid by all UDCs, MSSs and, in certain cases, Scheduling Coordinators delivering Energy to Gross Load, as set forth in Section 26.1 of the ISO Tariff. The Access Charge includes the High Voltage Access Charge, the Transition Charge and the Low Voltage Access Charge, as applicable.

3.2 **AGC**

Generation equipment that automatically responds to signals from 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, 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.

3.3 **Ancillary Services**

Regulation, Spinning Reserve, Non-Spinning 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.

3.4 Applicable Reliability Criteria

The reliability standards established by NERC, WSCC, and Local Reliability Criteria as amended from time to time, including any requirements of the Nuclear Regulatory Commission.

3.5 Available Transfer Capacity

For a given transmission path, the capacity rating in MW of the path established consistent with ISO and WSCC transmission capacity rating guidelines, less any reserved uses applicable to the path.

3.6 Base Transmission Revenue Requirement

The Transmission Revenue Requirement which does not reflect amounts for the Transmission Revenue Balancing Account Adjustment (TRBAA), Standby Transmission Demand Revenues or the Reliability Services Balancing Account (RSBA).

3.7 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.

3.8 Business Day

A day on which banks are open to conduct general banking business in California.

3.9 Completed Application Date

The date on which a party submits an Interconnection Application that satisfies the requirements of a Completed Interconnection Application.
3.10 Completed Interconnection Application

An Interconnection Application that satisfies all of the information and other requirements of Section 10.3 of this TO Tariff.

3.11 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.

3.12 Congestion Management

The alleviation of Congestion in accordance with applicable ISO Protocols and Good Utility Practice.

3.13 Converted Rights

Those transmission service rights defined in Section 4.3.1.6 of the ISO Tariff.

3.14 CPUC

The California Public Utilities Commission, or its successor.

3.15 [Omitted]

3.16 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., 1,000 W = 1 kW, 1,000 kW = 1 MW, etc.

3.17 Direct Assignment Facilities

Facilities or portions of facilities that are owned by the Participating TO necessary to physically and electrically interconnect a particular party requesting Interconnection under this
TO Tariff to the ISO Controlled Grid at the point of interconnection. Direct Assignment Facilities shall be specified in the Interconnection Agreement that governs Interconnection service to such party and shall be subject to FERC approval.

3.18 Dispatch

The operating control of an integrated electric system to: i) assign specific Generation 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.

3.19 Distribution System

The distribution assets of a TO, UDC or MSS.

3.20 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 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.

3.21 Encumbrance

A legal restriction or covenant binding on the 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.

3.22 End-Use Customer or End-User

A purchaser of electric power who purchases such power to satisfy a Load directly connected to the ISO Controlled Grid or to a Distribution System and who does not resell the power.

3.23 End-Use Customer Refund Balancing Account Adjustment

A mechanism established by the Participating TO, which will ensure that End-Use Customers receive a credit or charge equal to the refund or surcharge, including interest, related to refunds ordered by the Commission.

3.24 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 = 1 kWh, 1,000 kWh = 1 MW, etc.

3.25 Entitlement

The right of a Participating TO obtained through contract or other means to use another entity’s transmission facilities for the transmission of Energy.

3.26 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.
3.27 Existing Rights

Those transmission service rights defined in Section 16.1 of the ISO Tariff.

3.28 Expedited Interconnection Agreement

A contract between a party which has submitted a Request for Expedited Interconnection Procedures and the Participating TO under which the Participating TO agrees to process, on an expedited basis, the Completed Interconnection Application of such party and which sets forth the terms, conditions, and cost responsibilities for such interconnection.

3.29 Facilities Study Agreement

An agreement between a Participating TO and either a party requesting Interconnection to the ISO Controlled Grid, Market Participant, Project Sponsor, or identified principal beneficiaries pursuant to which the party requesting such Interconnection, Market Participants, Project Sponsor, or identified principal beneficiaries agrees to reimburse the Participating TO for the cost of performing or reviewing a Facilities Study.

3.30 Facility or Facilities Study

An engineering study conducted to determine required modifications to the Participating TO’s transmission system, including the estimated cost and scheduled completion date for such modifications that will be required to provide needed services.

3.31 FERC

The Federal Energy Regulatory Commission, or its successor.

3.32 FPA

The Federal Power Act, 16 U.S.C. § 791a et seq., as it may be amended from time to time.
3.34 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).

3.35 Generation

Energy delivered from a Generating Unit.

3.36 Good Utility Practice

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

3.37 Gross Load

All Energy (adjusted for distribution losses) delivered for the supply of End-User Loads directly connected to the transmission facilities or Distribution System of the Participating TO. Gross Load shall exclude the portion of the Load of an individual End-Use Customer of the Participating TO that is served by a Generating Unit that: (a) is located on the customer’s site or provides service to the customer’s site through over-the-fence 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; (c) was serving the customer’s Load on or before March 31, 2000; and (d) secured Standby Service from the Participating TO under terms approved by a Local Regulatory Authority or FERC, as applicable, as of March 31, 2000 and continues to secure Standby Service from the Participating TO or can be curtailed concurrently with an outage of the Generating Unit serving the Load.

### 3.38 High Voltage Access Charge

A component of the Access Charge determined by the ISO under Section 26.1 of the ISO Tariff.

### 3.39 High Voltage Transmission Facility

A transmission facility under the operational control of the ISO that is owned by the Participating TO or to which the Participating TO has an Entitlement that may be associated with a Converted Right, which 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.

### 3.40 High Voltage Transmission Revenue Requirement

The portion of the Participating TO’s TRR associated with and allocable to the Participating TO’s High Voltage Transmission Facilities and Converted Rights associated with High Voltage Transmission Facilities.

### 3.41 High Voltage Utility-Specific Rate

The Participating TO’s High Voltage Transmission Revenue Requirement divided by the Participating TO’s forecast of its Gross Load.

### 3.42 High Voltage Wheeling Access Charge

The Wheeling Access Charge assessed by the ISO associated with the recovery of the Participating TO’s High Voltage Transmission Revenue Requirement in accordance with Section 26.1 of the ISO Tariff.
3.43 [Omitted]

3.44 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.

3.45 Interconnection Agreement

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

3.46 Interconnection Application

An application that requests Interconnection to the ISO Controlled Grid.

3.47 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. § 35.19a(a)(2)(iii) (2000). Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment. When payments are made by mail, bills shall be considered as having been paid on the date of receipt.

3.48 Independent System Operator (‘‘ISO’’)

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.
3.49 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.

3.50 ISO Controlled Grid

The system of transmission lines and associated facilities of the Participating TOs that have been placed under the ISO’s Operational Control.

3.51 ISO Protocols

The rules, protocols, procedures and standards attached to the ISO Tariff and Appendix L, 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.

3.52 ISO Tariff

The California Independent System Operator Agreement and Tariff, dated March 31, 1997, as it may be modified from time to time.

3.53 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 power that a Load receives or requires.

3.54 Local Furnishing Bond

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).

3.55 Local Furnishing Participating TO

Any Tax-Exempt Participating TO that owns facilities financed by Local Furnishing Bonds.
3.56 Local Publicly Owned Electric Utilities

A municipality or municipal corporation operating as a public utility furnishing electric service, a municipal utility district furnishing electric service, a public utility district furnishing electric services, an irrigation district 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.

3.57 Local Regulatory Authority

The state or local governmental authority responsible for the regulation or oversight of a utility.

3.58 Local Reliability Criteria

Reliability criteria established at the ISO Operations Date, unique to the transmission systems of each of the Participating TOs.

3.59 Low Voltage Access Charge

The Access Charge applicable under Section 26.1 of the ISO Tariff to recover the Low Voltage Transmission Revenue Requirement of the Participating TO.

3.60 Low Voltage Transmission Facility

A transmission facility under the operational control of the ISO owned by the Participating TO or to which the Participating TO has an Entitlement that may be represented by a Converted Right, which is not a High Voltage Transmission Facility, and supporting facilities, and the costs of which are not directly assigned to one or more specific customers.

3.61 Low Voltage Transmission Revenue Requirement

The portion of the Participating TO’s TRR associated with and allocable to the Participating TO’s Low Voltage Transmission Facilities and Converted Rights associated with Low Voltage Transmission Facilities.
3.62 **Low Voltage Wheeling Access Charge**

The Wheeling Access Charge associated with the recovery of the Participating TO’s Low Voltage Transmission Revenue Requirement in accordance with Section 26.1 of the ISO Tariff.

3.63 **Market Participant**

An entity, including a Scheduling Coordinator, who 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.

3.64 **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 marketing authority subsumed within the ISO Balancing Authority 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 of the ISO Tariff.

3.65 **NERC**

The North American Electric Reliability Council or its successor.

3.66 [Omitted]

3.67 [Omitted]

3.68 **New High Voltage Transmission Facility**

A High Voltage Transmission Facility of the Participating TO that enters service on or after the Transition Date described in Section 4 of Appendix F, Schedule 3 of the ISO Tariff, or a capital addition made on or after the Transition Date described in Section 4.1 of Appendix F,
Schedule 3 of the ISO Tariff to a High Voltage Transmission Facility that existed prior to the Transition Date.

3.69 **New Participating TO**

A Participating TO that is not an Original Participating TO.

3.70 **Non-Participating TO**

A TO that is not a party to the TCA or for the purposes of Sections 16.1 of the ISO Tariff the holder of transmission service rights under an Existing Contract that is not a Participating TO.

3.71 **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.

3.72 **Operational Control**

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.

3.73 **Original Participating TO**

A Participating TO that was a Participating TO as of January 1, 2000. The Original Participating TOs are Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas and Electric Company.

3.74 **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. For purposes of this TO Tariff, the Participating TO is Pacific Gas and Electric Company.

3.75 Participation Agreement

An agreement between a Participating TO and a Project Sponsor that specifies the terms and conditions under which the Participating TO will construct a transmission addition or upgrade on behalf of the Project Sponsor.

3.76 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 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 generation components and separate generating component metering is either impractical or economically inefficient.

3.77 [Omitted]

3.78 Project Proponent

A Market Participant or group of Market Participants that: (i) advocates a transmission addition or upgrade; (ii) is unwilling to pay the full cost of the proposed transmission addition
and upgrade, and thus is not a Project Sponsor; and (iii) initiates proceedings under the ISO ADR Procedures to determine the need for the proposed transmission addition or upgrade.

3.79 Project Sponsor

A Market Participant or group of Market Participants or a Participating TO that proposes the construction of a transmission addition or upgrade in accordance with Section 24 of the ISO Tariff.

3.80 Regional Transmission Group (“RTG”)

A voluntary organization approved by FERC and composed of transmission owners, transmission users, and other entities, organized to efficiently coordinate the planning, expansion and use of transmission on a regional and inter-regional basis.

3.81 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 (AGC) signals, or by System Resources that have been certified by the ISO as capable of delivering such service to the ISO Balancing Authority Area, in an upward and downward direction to match, on a Real Time basis, Demand and resources, consistent with established NERC and WSCC reliability standards, including any requirements of the NRC. 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 Balancing Authority Areas within the predetermined Regulation 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 ASMPs in each Settlement Period.
3.82 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.

3.83 Reliability Services Balancing Account (“RSBA”)

A mechanism to ensure that all transmission related Reliability Services Costs, as that term is defined in the Master Definitions Supplement, Appendix A to the currently effective ISO Tariff, which are deemed by the ISO as necessary to maintain reliable electric service in the ISO Control Area and whose costs are billed to the Participating TO by the ISO pursuant to the ISO Tariff, are allocated to and received from End-Use Customers, TO Tariff Wholesale Customers, and Existing Contract customers to which PG&E's Reliability Services Tariff (or reliability services-related contract amendments apply), withdrawing Energy from the ISO Controlled Grid on the Participating TO’s transmission system.

3.84 Reliability Services Charge

A charge paid by End Use Customers, TO Tariff Wholesale Customers, and Existing Contract customers who take service under the Reliability Services Tariff or a Reliability Services Rate Schedule, whichever is applicable, withdrawing Energy from the ISO Controlled Grid on the Participating TO’s transmission system, as set forth in Section 15 of this TO Tariff. The Reliability Services Charge will recover the Participating TO’s reliability services costs, as annually calculated from the balance in the RSBA and a forecast of Reliability Services costs for the following year, from End Use Customers, TO Tariff Wholesale Customers, and Existing Contract customers to which PG&E's Reliability Services Tariff (or reliability services-related contract amendments) applies. In order to mitigate the initial rate increase Wholesale Customers will experience from these Reliability Services Charges, the otherwise applicable Reliability Services Charge will be multiplied by a factor of one-third (1/3) until December 31, 2001, and a factor of two-thirds (2/3) from January 1, 2002 until December 31, 2002. Any Reliability Services costs that are not collected from either TO Tariff Wholesale Customers or Existing Contract customers to which PG&E's Reliability Services Tariff (or reliability services-related contract amendments) applies, prior to December 31, 2002, due to the mitigation described
above will be allocated to and collected from End Use Customers. Additionally, if FERC, should disallow recovery of any Reliability Services costs from Wholesale Customers those costs shall be included in the allocation to End Use Customers.

3.85 Reliability Upgrade

The transmission facilities, other than Direct Assignment Facilities, beyond the first point of Interconnection necessary to interconnect a wholesale load safely and reliably to the ISO Controlled Grid, which would not have been necessary but for the Interconnection of a wholesale load, including network upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of a wholesale load to the ISO Controlled Grid. Reliability Upgrades also include, consistent with WSCC practice, the facilities necessary to mitigate any adverse impact a wholesale load’s interconnection may have on a path’s WSCC path rating. Reliability Upgrades shall be specified in the Interconnection Agreement that governs Interconnection service to the wholesale load and shall be subject to FERC approval.

3.86 [Omitted]

3.87 Request for Expedited Interconnection Procedures

A written request by which an applicant for Interconnection can request expedited processing of its Interconnection Application.

3.88 Scheduling Coordinator

An entity certified by the ISO for the purposes of undertaking the functions specified in Section 4.5.3 of the ISO Tariff.

3.89 Scheduling Point

A location at which the ISO Controlled Grid or a transmission facility owned by a Transmission Ownership Right holder 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.
3.90 Standby Service

Service provided by the Participating TO 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.

3.91 Standby Service Customer

A retail End-Use Customer of the Participating TO that receives Standby Service and pays a Standby Rate.

3.92 Standby Transmission Demand Rate

The Demand portion of a rate assessed a Standby Service Customer by the Participating TO, as approved by the Local Regulatory Authority or FERC, as applicable, for Standby Service which compensates the Participating TO for, among other things, costs of High Voltage Transmission Facilities.

3.93 Standby Transmission Demand Revenue

The transmission revenue associated with the demand portion of Standby Service rates collected by the Participating TO from those Standby Service Customers who are not billed for Standby Service on a Gross Load basis.

3.94 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.

3.95 System Impact Study

An engineering study conducted to determine whether a request for Interconnection to the ISO Controlled Grid would require new transmission additions, upgrades, or other mitigation measures.
3.96 **System Impact Study Agreement**

An agreement between a Participating TO and an entity that has requested Interconnection to the Participating TO’s transmission system pursuant to which the entity requesting Interconnection agrees to reimburse the Participating TO for the cost of performing or reviewing a System Impact Study.

3.97 **TO Tariff**

This Transmission Owner Tariff, as it may be amended or superseded.

3.98 **Transition Charge**

A component of the Access Charge determined by the ISO and assessed the Participating TO along with the High Voltage Access Charge in accordance with Section 5.7 of Appendix F, Schedule 3 of the ISO Tariff.

3.99 **Transition Costs**

Meaning as set forth in Sections 367, 368, 375, 376, 379, and 840 of the California Public Utilities Code, as enacted as part of AB 1890.

3.100 **Transmission Access Charge Balancing Account Adjustment**

A mechanism established by the Participating TO which will ensure that the difference between (i) the actual charges by the ISO pursuant to Section 26.1.2 of the ISO Tariff for the High Voltage Access Charge and Transition Charge and (ii) the revenues disbursed by the ISO pursuant to Section 26.1.3 of the ISO Tariff are recovered from the Participating TO’s End-Use Customers.

3.101 **Transmission Control Agreement (“TCA”)**

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.
3.102 Transmission Owner (“TO”)

An entity owning transmission facilities or having firm contractual rights to use transmission facilities.

3.103 Transmission Revenue Balancing Account Adjustment (“TRBAA”)

A mechanism established by the Participating TO which will ensure that all Transmission Revenue Credits flow through to or are received from End-Use Customers. The TRBAA will also ensure that Transmission Revenue Credits and other credits specified in Section 6, 8, and 13 of Appendix F, Schedule 3 of the ISO Tariff, flow through to other Participating TOs and Wheeling customers for purposes of calculating the High Voltage Access Charge, Low Voltage Access Charge, High Voltage Wheeling Access Charge, Low Voltage Wheeling Access Charge and High Voltage Utility-Specific Access Charge. The TRBAA will also include an adjustment for recovery of any abandonment costs amounts approved by the Commission in connection with the Canada to Northern California transmission project, as contemplated in the Commission’s April, 2008 Order on Petition for Declaratory Order in Docket No. EL08-24.

3.104 Transmission Revenue Credit

The proceeds received from the ISO and charges imposed by the ISO that are received and paid by the Participating TO in its role as a Participating TO, as defined by “Transmission Revenue Credit” in the Master Definitions Supplement, Appendix A to the currently effective ISO Tariff.

3.105 Transmission Revenue Requirement (“TRR”)

The total annual authorized revenue requirement associated with transmission facilities and Entitlements turned over to the Operational Control of the ISO by the 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 is shown in Appendix I.
3.106 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.

3.107 [Omitted]

3.108 Utility Distribution Company (“UDC”)

An entity that owns a Distribution System for the delivery of Energy to and from the ISO Controlled Grid, and/or that provides regulated retail electric service to End-Users.

3.109 Voltage Support

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.

3.110 Western System Coordinating Council (“WSCC”)

The Western System Coordinating Council or its successor.

3.111 Wheeling Access Charge

The charge assessed by the ISO that is paid by a Scheduling Coordinator for Wheeling in accordance with Section 26.1.4.1 of the ISO Tariff. 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 consists of a High Voltage Wheeling Access Charge and, if applicable, a Low Voltage Wheeling Access Charge.
3.112 Wheeling Out

Except for Existing Rights exercised under an Existing Contract in accordance with Sections 16.1 of the ISO Tariff, 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.

3.113 Wheeling Through

Except for Existing Rights exercised under an Existing Contract in accordance with Sections 16.1 of the ISO Tariff, 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.

3.114 Wheeling

Wheeling Out or Wheeling Through

3.115 Wholesale Customer

A person wishing to purchase Energy and Ancillary Services at a Bulk Supply Point or a Scheduling Point for resale.

3.116 [Omitted]

4. Eligibility

Transmission service over a Participating TO’s system shall be provided only to Eligible Customers. Any dispute as to whether an End-Use Customer is eligible for wholesale transmission service shall be resolved by FERC and any dispute as to whether an End-Use Customer is eligible for service under this TO Tariff shall be resolved by the Local Regulatory Authority.
5. **Access Charges and Transmission Rates**

5.1 **Low Voltage Access Charge**

The Low Voltage Access Charge shall be determined in accordance with the ISO Tariff. The Low Voltage Access Charge customer shall pay the Participating TO a Low Voltage Access Charge equal to the product of the Participating TO’s Low Voltage Access Charge rate and the kilowatt-hours of transmission service provided under the ISO Tariff to the Low Voltage Access Charge customers. The Participating TO shall not assess the Low Voltage Access Charge to any other Participating TO for transmission service over Low Voltage Transmission Facilities that such other Participating TO receives and pays for under an Existing Contract. Where a customer receives deliveries of energy at voltage levels both above and below 200 kV, the Low Voltage Access Charge shall be applied only to kilowatt-hours of energy delivered at voltage levels lower than 200 kV. The Participating TO’s monthly charge to be applied to Low Voltage Access Charge customers is set forth in Appendix II herein.

5.2 **Wheeling Access Charge**

The Wheeling Access Charge shall be determined in accordance with the ISO Tariff. The Wheeling Access Charge assessed by the ISO consists of a High Voltage Wheeling Access Charge and, if applicable, a Low Voltage Wheeling Access Charge. The High Voltage Wheeling Access Charge is set forth in the ISO Tariff. The Participating TOs’ Low Voltage Wheeling Access Charge is set forth in Appendix II herein.

5.3 **End-User Transmission Rates**

End-User transmission rates for a FERC-jurisdictional Participating TO shall be based on the Base Transmission Revenue Requirement authorized by FERC. In addition, all End-Use Customers of a FERC-jurisdictional Participating TO shall be subject to the FERC-authorized TRBAA, Reliability Services Charge and TACBAA rates. The Participating TO’s End-User transmission rates, by retail rate schedule, are set forth in Appendix III. An End-User shall pay the same End-User transmission rate as other similarly situated End-Use Customers of the Participating TO regardless of its Energy supplier. End-Users withdrawing power from the Participating TO’s transmission or distribution facilities shall not qualify for transmission access
under the Wheeling Access Charge if FERC would be prohibited from ordering transmission service for such customer by Section 212(h) of the FPA.

5.4 Transmission Revenue Requirement

As set forth in the ISO Tariff, the Transmission Revenue Requirement for each Participating TO is used to develop the Access Charges set forth in the ISO Tariff and is used by the ISO to calculate the disbursement of Wheeling revenues among Participating TOs. Wheeling revenues are disbursed by the ISO to Participating TOs pursuant to Section 26.1.4.3. of the ISO Tariff. The Transmission Revenue Requirement, High Voltage Transmission Revenue Requirement, and Low Voltage Transmission Revenue Requirement for the Participating TO are set forth in Appendix I.

5.5 Transmission Revenue Balancing Account Adjustment (“TRBAA”)

The Participating TO shall maintain a Transmission Revenue Balancing Account (“TRBA”) that will ensure that all Transmission Revenue Credits associated with transmission service from the ISO are flowed through to or recovered from, as appropriate, customers taking service. The TRBAA shall be equal to:

\[ \text{TRBAA} = Cr + Cf + RF&U \]

Where:

\( Cr \) = The balance of the TRBA, including interest, consisting of the principal balance as recorded in FERC Account No. 182.3 as of September 30 and the projected change for the remaining months of the year prior to commencement of the January billing cycle. The principal balance represents the balance in the TRBA from the previous period and the difference in the amount of revenues or expenditures from Transmission Revenue Credits and the amount of such revenues or expenditures that has been refunded to or collected from customers through operation of the TRBAA, plus an allocation for a three year amortization of ETC Cost Differentials. Interest shall be calculated using the interest rate pursuant to Section 35.19(a) of FERC’s regulations under the Federal Power Act (18 CFR Section 35.19(a)). Interest shall be calculated based on the average TRBA
principal balance each month, compounded quarterly. For purposes of calculating the TRBAA, an adjustment for recovery of any abandonment cost amounts approved by the Commission in connection with the Canada to Northern California transmission project will be reflected in the TRBA effective June 1, 2011;

\[ \text{Cf} = \text{The forecast of Transmission Revenue Credits for the new rate period; and} \]

\[ \text{RF&U} = \text{Franchise Fees, San Francisco Gross Receipts Tax and Uncollectible Accounts.} \]

Beginning in January of each year, the bills of End-Use Customers of the Participating TO shall include, as a component of the End-User transmission rates, a TRBAA rate per kilowatt-hour (rounded to the nearest $0.00001) equal to:

\[
\text{TRBAA Rate} = \frac{\text{TRBAA}}{S}
\]

Where:

\[ S = \text{Total Gross Load, in kilowatt-hours measured at the customer-meter level, recorded for the twelve month period ending September 30 of the year prior to commencement of the January billing cycle.} \]

The Participating TO’s TRBAA used to calculate the High Voltage Transmission Revenue Requirement shall not include amounts accrued to the Participating TO’s TRBAA prior to the Transition Date as defined in Section 4 of Appendix F, Schedule 3 of the ISO Tariff, but will include other adjustments specified in Section 6, 8 and 13 of Appendix F, Schedule 3 of the ISO Tariff.

**5.6 Reliability Services Balancing Account (“RSBA”) Charge**

The bills of End-Use Customers, TO Tariff Wholesale Customers, and Existing Contract customers to which the Reliability Services Tariff or a reliability services-related contract amendment applies, of a Participating TO shall include a Reliability Services Charge which shall be initially calculated from a forecast of Reliability Services costs for the calendar year in which the Reliability Services Charges will be collected. Beginning in January of each year, the
Reliability Services Charge rates shall be recalculated from the balance of the RSBA and a forecast of Reliability Services costs for the following year. The Reliability Services Charge rates are shown in Appendix VI for End Use Customers. The Reliability Services Charge rate for High Voltage Wholesale customers is equal to:

$$\text{TO Tariff High Voltage Wholesale Reliability Services Rate} = \frac{RS_{Rr} + RS_{Rf} + RF&U}{ER}$$

Where:

- $RS_{Rr}$ = The balance of the RSBA allocated to High Voltage transmission, including interest, consisting of the principal balance recorded in FERC Account No. 182.3 as of September 30 and the projected change for the remaining months of the year prior to commencement of the January billing cycle. The principal balance represents the balance in the RSBA from the previous period for High Voltage transmission and the ISO bills to the Participating TO for Reliability Services costs for High Voltage transmission and the amount of such revenues or expenditures that has been refunded to or collected from customers for Reliability Services for High Voltage transmission through operation of the RSBA. The interest on the principal balance for the RSBA allocated to High Voltage transmission, shall be calculated using the interest rate pursuant to Section 35.19(a) of FERC's regulations under the FPA (18 CFR Section 35.19(a)). Interest shall be calculated based on the average RSBA principal balance each month, compounded quarterly;

- $RS_{Rf}$ = A forecast of reliability services costs for High Voltage transmission to be billed to the Participating TO by the ISO;

- $RF&U$ = Franchise Fees, San Francisco Gross Receipts Tax and Uncollectible Accounts; and

- $ER$ = A forecast of the total kilowatt-hour deliveries by the Participating TO End Use Customers, TO Tariff Wholesale Customers and Existing Contract customers who take service under the Reliability Services Tariff or a Reliability Services Rate Schedule in
their Existing Contracts, whichever is applicable, over the Participating TO’s High Voltage transmission facilities.

The Reliability Services Charge rate for Low Voltage Wholesale customers is equal to:

\[
\text{TO Tariff Low Voltage Wholesale Reliability Services Rate} = \\
\text{TO Tariff High Voltage Wholesale Reliability Services Rate} + \frac{RS_{Lr} + RS_{Lf} + RF&U}{E_L}
\]

Where:

\(RS_{Lr}\) = The balance of the RSBA allocated to Low Voltage transmission, including interest, consisting of the principal balance recorded in FERC Account No. 182.3 as of September 30 and the projected change for the remaining months of the year prior to commencement of the January billing cycle. The principal balance represents the balance in the RSBA from the previous period for Low Voltage transmission and the ISO bills to the Participating TO for Reliability Services costs for Low Voltage transmission and the amount of such revenues or expenditures that has been refunded to or collected from customers for Reliability Services for Low Voltage transmission through operation of the RSBA. The interest on the principal balance for the RSBA allocated to Low Voltage Transmission, which shall be calculated using the interest rate pursuant to Section 35.19(a) of FERC’s regulations under the Federal Power Act (18 CFR Section 35.19(a)). Interest shall be calculated based on the average RSBA principal balance each month, compounded quarterly;

\(RS_{Lf}\) = A forecast of reliability services costs for Low Voltage transmission to be billed to the Participating TO by the ISO;

\(RF&U\) = Franchise Fees, San Francisco Gross Receipts Tax and Uncollectible Accounts; and

\(E_L\) = A forecast of the total kilowatt-hour deliveries by the Participating TO End Use Customers, TO Tariff Wholesale Customers and Existing Contract customers who take service under the Reliability Services Tariff or a Reliability Services Rate Schedule in
their Existing Contracts, whichever is applicable, over the Participating TO’s Low Voltage transmission facilities.

5.7 Transmission Access Charge Balancing Account Adjustment

The Participating TO shall maintain a Transmission Access Charge Balancing Account (“TACBA”). Each month the Participating TO shall make two entries to the TACBA. The first entry will equal the difference between (i) the actual charges by the ISO to the Participating TO pursuant to Section 26.1.2 of the ISO Tariff for the High Voltage Access Charge and Transition Charge and (ii) the revenues disbursed by the ISO to the Participating TO pursuant to Section 26.1.3 of the ISO Tariff. The second entry will equal the Transmission Access Charge Balancing Account Adjustment (“TACBAA”) rate revenues billed to End-Use Customers during the month. Interest on the amounts accumulated in the TACBA shall be calculated based on the average TACBA principal balance each month, compounded quarterly, using the interest rate specified in FERC regulations, at 18 C.F.R. Section 35.19a. The bills of End-Use Customers of the Participating TO shall include, as a component of the End-User transmission rates, a TACBAA rate per kilowatt-hour (rounded to the nearest $0.00001) equal to:

\[
\text{TACBAA Rate} = \frac{Br + Bf - Rf + RF&U}{S}
\]

Where:

\( Br = \) The balance of the TACBA, including interest, consisting of the recorded balance and the projected change for the remaining months of the period prior to the commencement of the billing cycle implementing a new rate;

\( Bf = \) A forecast of the annual Access Charge billings from the ISO;

\( Rf = \) A forecast of the annual Access Charge revenues disbursed by the ISO to the Participating TO pursuant to Section 26.1.3 of the ISO Tariff;

\( RF&U = \) Franchise Fees, San Francisco Gross Receipts Tax and Uncollectible Accounts; and
S = Total Gross Load, in kilowatt-hours measured at the customer-meter level, recorded for the most recent twelve-month period prior to the Participating TO’s filing with FERC to revise the TACBAA rate.

The TACBAA shall be revised effective March 1 of each year; however, nothing in this TO Tariff shall limit the Participating TO from filing with the FERC under FPA Section 205 to revise the TACBAA rate at any other time.

5.8 End-Use Customer Refund Balancing Account Adjustment

The Participating TO shall maintain an End-Use Customer Refund Balancing Account (“ECRBA”) for refunds due End-Use Customers for transmission service rendered on or after the effective date of new or revised retail rates authorized by the CPUC which modify the retail rates charged during the transition period established pursuant to Section 368 of the California Public Utilities Code. The Access Charge bills of End-Use Customers of the Participating TO shall include an ECRBAA for the twelve-month period beginning on the January 1 following the first date such a refund is due to End-Use Customers as ordered by the Commission. The Participating TO reserves the right to implement the ECRBAA sooner than the next January 1. When applicable, this ECRBAA will appear as a rate component of the End-User Customer Access Charges for End-User Service in Appendix III. ECRBAA shall be a credit or charge equal to the refund or surcharge amount due to End-Use customers, including interest. The ECRBAA shall be equal to:

\[ \text{ECRBAA} = \text{Rr} + \text{Rf} \]

Where:

\( \text{Rr} \) = The balance of the ECRBA, including interest, consisting of the principal balance recorded in FERC Account No. 182.3 as of September 30 and the projected change for the remaining months of the year prior to commencement of the January billing cycle. The principal balance represents the balance in the ECRBA from the previous period and the amount of such revenues or expenditures that has been refunded to or collected from customers through operation of the ECRBAA. The interest on the principal balance for
the ECRBA, which shall be calculated using the interest rate pursuant to Section 35.19(a) of FERC’s regulations under the Federal Power Act (18 CFR Section 35.19(a)). Interest shall be calculated based on the average ECRBA principal balance each month, compounded quarterly; and

\[ R_f = \text{Additional refunds, if any, due to End-Use Customers since the previous ECRBAA became effective as approved by the Commission.} \]

6. Ancillary Services - Applicability and Charges

Ancillary Services are needed to maintain reliability within the ISO Controlled Grid. Ancillary Services may be provided to the ISO. The prices for Ancillary Services shall be determined in accordance with the ISO Tariff. Participating TO rates or bidding rules for Ancillary Services are set forth in Appendix IV of this TO Tariff.

7. Billing and Payment

7.1 End-Users

Billing and payment rules applicable to End-Users shall be pursuant to the then-current rules of the applicable Local Regulatory Authority.

7.2 Low Voltage Access Charge Revenues

7.2.1 Billing Procedure

The Participating TO shall have access to metering data and shall have reasonable physical access to customer facilities to install any recording devices or telemetering equipment it may require to obtain data needed under this TO Tariff. The UDC, MSS or Scheduling Coordinator shall grant the Participating TO such access to facilities as may be required for proper operation and maintenance of all revenue metering equipment. Within a reasonable time after the Participating TO has collected the metering data for a month in which the Low Voltage Access Charge applies, the Participating TO shall submit an invoice to the applicable UDC, MSS or Scheduling Coordinator for the Low Voltage Access Charges applicable to services furnished during that month. The invoice shall be paid by the UDC, MSS, or Scheduling Coordinator.
within twenty days of receipt. All payments shall be made in immediately available funds payable to the Participating TO, or by wire transfer to a bank named by the Participating TO.

7.2.2 Interest on Unpaid Balances

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

7.2.3 Default

In the event the UDC, MSS or Scheduling Coordinator fails, for any reason other than a billing dispute as described below, to make payment to the Participating TO on or before the due date as described above, and such failure of payment is not corrected within 30 calendar days after the Participating TO notifies the applicable UDC, MSS or Scheduling Coordinator to cure such failure, a default by the UDC, MSS or Scheduling Coordinator shall be deemed to exist. Upon the occurrence of a default, the Participating TO may initiate a proceeding with FERC (or the Local Regulatory Authority for a Local Publicly Owned Electric Utility) to terminate service but shall not terminate service until FERC, or the Local Regulatory Authority, as applicable, so approves any such request. In the event of a billing dispute between the Participating TO and the UDC, MSS or Scheduling Coordinator, the Participating TO will continue to provide service under this TO Tariff as long as the applicable UDC, MSS or Scheduling Coordinator: (i) continues to make all payments not in dispute, and (ii) pays into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If the UDC, MSS or Scheduling Coordinator fails to meet these two requirements for continuation of service, then the Participating TO may provide notice to the UDS, MSS or Scheduling Coordinator of its intention to suspend service in sixty days, in accordance with FERC policy.
7.3 Wheeling Revenues

The ISO, pursuant to the ISO Tariff, shall pay to Participating TOs all Wheeling revenues at the same time as other ISO charges and payments are settled. For Wheeling revenues associated with CRRs allocated to Load Serving Entities outside the ISO Balancing Authority Area, the ISO shall pay the Participating TOs any excess prepayment amounts within thirty (30) days of the end of the term of the CRR Allocation.

8. Obligation to Interconnect or Construct

8.1 Participating TO Obligation to Interconnect

The Participating TO shall, at the request of a third party pursuant to Section 10, interconnect its system to the wholesale generation or wholesale load of such third party, or modify an existing wholesale Interconnection. Interconnections under this TO Tariff shall be available to entities eligible to request Interconnection consistent with the provisions of Section 210(a) of the FPA. Interconnections requested by entities or individuals that are not so eligible shall be governed by the Local Regulatory Authority. The procedures for Interconnections of wholesale generation to the ISO Controlled Grid shall be governed by the ISO Tariff.

8.1.1 Interconnection to Transmission System

Interconnection must be consistent with Good Utility Practice, in conformance with all Applicable Reliability Criteria, all applicable statutes, regulations, and ISO reliability criteria for the ISO Controlled Grid. The Participating TO will not accommodate the Interconnection if doing so would impair system reliability, or would otherwise adversely affect the ability of the Participating TO to honor its Encumbrances existing as of the time an entity submits its Interconnection Application. The Participating TO shall identify any such adverse effect on its Encumbrances in the System Impact Study performed pursuant to Section 10.7. To the extent the Participating TO determines that the Interconnection will have an adverse effect on Encumbrances, the party requesting Interconnection shall mitigate such adverse effect.
8.1.2 Costs Associated with Interconnection

Each party requesting Interconnection shall pay the costs of planning installing, owning, operating, and maintaining any Direct Assignment Facilities and, if applicable, any Reliability Upgrades required to provide the requested Interconnection. In addition, such party shall implement all existing operating procedures necessary to safely and reliably interconnect such party’s generation or wholesale load to the facilities of the Participating TO and to ensure the ISO Controlled Grid’s conformance with the ISO Grid Planning Criteria, and shall bear all costs of implementing such operating procedures. Any additional costs associated with accommodating the Interconnection shall be allocated in accordance with the cost responsibility methodology set forth in the ISO Tariff for transmission expansions or upgrades.

8.1.3 Interconnection Agreement

Pursuant to Section 10.4, 10.7.1, or 10.9.1, a party requesting Interconnection shall request in writing that the Participating TO tender to such party an Interconnection Agreement that will be filed with FERC, or the Local Regulatory Authority, in the case of a Local Publicly Owned Electric Utility. The Interconnection Agreement will include, without limitation, cost responsibilities and payment provisions for any engineering, equipment, construction, ownership, operation and maintenance costs for any Direct Assignment Facilities, any Reliability Upgrades, and for any other mitigation measures. For an Interconnection request to remain a Completed Interconnection Application, the party requesting the Interconnection shall execute the Interconnection Agreement and return it to the Participating TO within thirty (30) Business Days of receipt. Alternatively, if an Eligible Customer requesting the Interconnection requests the Participating TO to file an unexecuted Interconnection Agreement and commits to abide by the terms, conditions, and cost assignments determined to be just and reasonable under the ISO ADR Procedures, including any determination by FERC or on appeal of a FERC determination in accordance with that process, the Participating TO shall promptly file an unexecuted Interconnection Agreement. Provided, however, that if the ISO ADR Procedures concerns whether the requesting entity is an Eligible Customer, the Participating TO shall not be obligated to file an unexecuted Interconnection Agreement or commence construction of the Interconnection facilities or incur other costs under the Interconnection Agreement until a final
order determining the just and reasonable rates, terms, and conditions for such Interconnection Agreement has been issued by the applicable court or regulatory authority. The Interconnection Agreement will set forth a payment schedule that enables the Participating TO to recover its costs. If the applicant elects not to execute the Interconnection Agreement and does not request the Participating TO to file an unexecuted Interconnection Agreement, its Completed Interconnection Application shall be deemed withdrawn, and the applicant shall reimburse to the Participating TO all costs reasonably incurred in processing the application not covered by any System Impact Study Agreement or Facilities Study Agreement.

8.1.4 Due Diligence to Construct

The Participating TO shall use due diligence to construct, within a reasonable time, any Direct Assignment Facilities and any Reliability Upgrades that it is obligated to construct pursuant to this TO Tariff. The Participating TO’s obligation to build will be subject to: 1) its ability, after making a good faith effort, to obtain any necessary approvals and property rights under applicable federal, state, and local laws; 2) the presence of a cost recovery mechanism with cost responsibility assigned in accordance with the ISO Tariff or applicable FERC precedent; and 3) a signed Interconnection Agreement or a signed Expedited Interconnection Agreement or, by mutual agreement of the parties, FERC acceptance for filing of an unexecuted Interconnection Agreement.

8.1.5 Energization

The Participating TO shall not be obligated to energize, nor shall wholesale load be entitled to have its interconnection to the ISO Controlled Grid energized, unless and until an Interconnection Agreement has been executed, or filed at FERC pursuant to Section 8.1.3, and becomes effective and such wholesale load has demonstrated to the ISO's reasonable satisfaction that it has complied with all of the requirements of the ISO Tariff and the requirements of this TO Tariff.
8.1.6 Coordination with ISO on Interconnection Requests

The Participating TO shall coordinate with the ISO, pursuant to the provisions of the TCA, in developing Interconnection standards and guidelines for processing Interconnection requests under this TO Tariff.

8.2 Obligation to Construct Expansions or Facility Upgrades

The Participating TO shall be obligated to: (1) perform System Impact or Facility Studies where the Project Sponsor or the ISO agrees to pay the study cost and specifies the project objectives to be achieved, and (2) build transmission additions and facility upgrades where the Participating TO is obligated to construct or expand facilities in accordance with and subject to the limitations Section 24 of the ISO Tariff and this TO Tariff.

8.2.1 Obligation to Construct

A Participating TO shall not be obligated to construct or expand transmission facilities or system upgrades unless and until the conditions stated in Section 9.2.1 hereof have been satisfied.

8.2.2 Local Furnishing Participating TO Obligation to Construct

A Local Furnishing Participating TO shall not be obligated to construct or expand transmission facilities or system upgrades unless and until the conditions stated in Section 9.3.3 hereof have been satisfied.

8.3 Request for FERC Deference Regarding Need Determination

It is intended that FERC grant substantial deference to the factual determinations of the ISO, (including the ISO’s ADR Procedures), the CPUC,WSCC, or RTG coordinated planning processes as to the need for or construction of a facility, the need for full cost recovery, and the allocation of costs.
9. Expansion Process

9.1 Determination of Facilities

A Participating TO shall perform a Facilities Study in accordance with this Section where (1) the Participating TO is obligated to construct or expand facilities in accordance with Section 24 of the ISO Tariff and this TO Tariff; (2) a Market Participant agrees to pay the costs of the Facilities Study and specifies the project objectives to be achieved in terms of increased capacity or reduced congestion; or (3) the Participating TO is required to perform a Facilities Study pursuant to the ISO Tariff.

9.1.1 Payment of Facilities Study’s Cost

9.1.1.1 Market Participant to Pay for Facilities Study

Where a Market Participant requests a Facilities Study and the need for the transmission addition or upgrade has not yet been established in accordance with the procedures established herein and the ISO Tariff, the Market Participant shall pay the cost of the Facilities Study.

9.1.1.2 Project Sponsor or Proponent to Pay for Facilities Study

Where the facilities to be added or upgraded have been determined to be needed in accordance with the procedures established herein and the ISO Tariff, the Project Sponsor, Project Proponent, or the ISO requesting the study shall pay the reasonable cost of the Facilities Study. When the Participating TO is the Project Sponsor in accordance with the ISO Tariff, the costs of the Facilities Study shall be recovered through its Access Charges and transmission rates.

9.1.1.3 Principal Beneficiaries to Pay for Facilities Study

Where the facilities to be added or upgraded have been determined to be needed and the principal beneficiaries have been identified by the ISO or ISO ADR Procedures in accordance with the ISO Tariff, the Project Sponsor and the identified principal beneficiaries shall pay the reasonable cost of the Facilities Study, in such proportions as may be agreed, or, failing agreement, as determined in accordance with the ISO ADR Procedures.
9.1.2 Payment Procedure

Where a Facilities Study is being conducted pursuant to this TO Tariff, the Participating TO shall, as soon as practicable, tender to the Market Participant, Project Sponsor, Project Proponent, ISO, or identified principal beneficiaries, as the case may be, a Facilities Study Agreement that defines the scope, content, assumptions, and terms of reference for such study, the estimated time required to complete it, and such other provisions as the parties may reasonably require and pursuant to which such Market Participant, Project Sponsor, Project Proponent, the ISO, or identified principal beneficiaries agree to reimburse the Participating TO the reasonable cost of performing the required Facilities Study. If the Market Participant, Project Sponsor, Project Proponent, the ISO, or identified principal beneficiaries, as the case may be, agree to the terms of the Facilities Study Agreement, they shall execute the Facilities Study Agreement and return it to the Participating TO within ten Business Days. If such Market Participant, Project Sponsor, Project Proponent, the ISO, or identified principal beneficiary elects not to execute a Facilities Study Agreement, the Participating TO shall have no obligation to complete a Facilities Study.

9.1.3 Facilities Study Procedures

Upon receipt of an executed Facilities Study Agreement, a copy of which has been provided to the ISO by the party requesting the Facilities Study, the Participating TO will use due diligence to complete the required Facilities Study in accordance with the terms of the Facilities Study Agreement.

9.2 Obligation to Build

9.2.1 Due Diligence to Construct

Subject to Section 9.3.3 of this TO Tariff, the Participating TO shall use due diligence to construct, within a reasonable time, additions or upgrades to its transmission system that it is obligated to construct pursuant to the ISO Tariff and this TO Tariff. The Participating TO’s obligation to build will be subject to: 1) its ability, after making a good faith effort, to obtain the necessary approvals and property rights under applicable federal, state, and local laws; 2) the presence of a cost recovery mechanism with cost responsibility assigned in accordance with the
ISO Tariff; and 3) a signed Participation Agreement. The Participating TO will not construct or expand its existing or planned transmission system, if doing so would impair system reliability as determined through systems analysis based on the Applicable Reliability Criteria.

9.2.2 Delay in Construction or Expansion

If any event occurs that will materially affect the time for completion of new facilities, or the ability to complete them, the Participating TO shall promptly notify: (1) the Project Sponsor with regard to facilities determined to be needed; (2) the Parties to the Participation Agreement with regard to facilities determined to be needed pursuant to the ISO Tariff where principal beneficiaries were identified; and (3) the ISO. In such circumstances, the Participating TO shall, within thirty days of notifying such Project Sponsor, Parties to the Participation Agreement, and the ISO of such delays, convene a technical meeting with such Project Sponsor, Parties to the Participation Agreement, and the ISO to discuss the circumstances which have arisen and evaluate any options available. The Participating TO also shall make available to such Project Sponsor, Parties to the Participation Agreement, and the ISO, as the case may be, studies and work papers related to the cause and extent of the delay and the Participating TO’s ability to complete the new facilities, including all information that is in the possession of the Participating TO that is reasonably needed to evaluate the alternatives.

9.2.2.1 Alternatives to the Original Facility Additions

If the review process of Section 9.2.2 determines that one or more alternatives exist to the originally planned construction project, the Participating TO shall present such alternatives for consideration to the Project Sponsor, Parties to the Participation Agreement, and the ISO, as the case may be. If upon review of any alternatives, such Project Sponsor, the ISO, or Parties to the Participation Agreement wish to evaluate or to proceed with one of the alternative additions or upgrades, such Project Sponsor, the ISO, or Parties to the Participation Agreement may request that the Participating TO prepare a revised Facility Study pursuant to Sections 9.1.1, 9.1.2, and 9.1.3 of this TO Tariff. In the event the Participating TO concludes that no reasonable alternative exists to the originally planned addition or upgrade and the Project Sponsor or Parties
to the Participation Agreement or the ISO disagree, the dispute shall be resolved pursuant to the ISO ADR Procedure.

9.2.2.2 Refund Obligation for Unfinished Facility Additions

If the Participating TO and the Project Sponsor, the ISO, or Parties to the Participation Agreement, as the case may be, mutually agree that no other reasonable alternatives exist, the obligation to construct the requested additions or upgrades shall terminate and any deposit not yet applied toward the expended project costs shall be returned with interest pursuant to FERC Regulation 35.19(a)(2)(iii). However, the Project Sponsor and any identified principal beneficiaries, as the case may be, shall be responsible for all costs prudently incurred by the Participating TO through the time the construction was suspended.

9.3 Transmission Construction On the Systems of Other TOs

9.3.1 Responsibility for Third Party Additions

A Participating TO shall not be responsible for making arrangements for any engineering, permitting, and construction of transmission or distribution facilities on the system(s) of any other entity or for obtaining any regulatory approval for such facilities. The Participating TO will undertake reasonable efforts through the coordinated planning process to assist in making such arrangements, including, without limitation, providing any information or data required by such other electric system pursuant to Good Utility Practice.

9.3.2 Coordination of Third-Party System Additions

Where transmission additions or upgrades being built pursuant to the ISO Tariff require additions or upgrades on other systems, to the extent consistent with Section 9.3.3 of this TO Tariff, the Participating TO shall coordinate construction on its own system with the construction required by others. The Participating TO, after consultation with the ISO, the Project Sponsor, and Parties to the Participation Agreement, as the case may be, may defer construction if the new transmission facilities on another system cannot be completed in a timely manner. The Participating TO shall notify such Project Sponsor, Parties to the Participation Agreement, and the ISO, in writing of the basis for any decision to defer construction and the specific problems
which must be resolved before it will initiate or resume construction of the new facilities. Within forty Business Days of receiving written notification by the Participating TO of its intent to defer construction pursuant to this section, such Project Sponsor, Parties to the Participation Agreement, or the ISO may challenge the decision in accordance with the ISO ADR Procedure.

### 9.3.3 Expansion by “Local Furnishing Participating TOs”

Notwithstanding any other provision of this TO Tariff, prior to requesting that a Local Furnishing Participating TO construct or expand facilities, the ISO or Project Sponsor shall tender (or cause to be tendered) an application under Section 211 of the FPA requesting FERC to issue an order directing the Local Furnishing Participating TO to construct or expand facilities as necessary to provide transmission service as determined pursuant to the ISO Tariff. Such Local Furnishing Participating TO shall thereafter, within ten Business Days of receiving a copy of the Section 211 application, waive its right to a request for service under Section 213(a) of the FPA and to the issuance of a proposed order under Section 212(c) of the FPA. Upon receipt of a final order from FERC under Section 211 of the FPA that is no longer subject to rehearing or appeal, such Local Furnishing Participating TO shall construct or expand facilities to comply with that FERC order and shall transfer to the ISO Operational Control over the Local Furnishing Participating TO’s expanded transmission facilities in accordance with the ISO Tariff.

### 10. Interconnection Process

#### 10.1 Applicability

All requests for Interconnection of wholesale load directly to the ISO Controlled Grid from parties eligible to request such Interconnection consistent with Section 210(a) of the FPA shall be processed pursuant to the provisions of this Section 10. All requests for Interconnection of wholesale generation directly to the ISO Grid shall be processed pursuant to the provisions of the ISO Tariff.

#### 10.2 Applications

A party requesting Interconnection shall submit a written Interconnection Application which provides the information required in Section 10.3 to the Participating TO and shall send a
copy of the application to the ISO. The Participating TO shall time-stamp the application to establish study priority.

10.3 Interconnection Application

An Interconnection Application shall provide all of the information listed in 18 CFR § 2.20, including, but not limited to, the following:

(i) The identity, address, telephone number, and facsimile number of the party requesting interconnection;

(ii) The Interconnection point(s) to the ISO Controlled Grid contemplated by the applicant;

(iii) The resultant (or new) maximum amount of Interconnection capacity;

(iv) The proposed date for energizing the Interconnection and the term of the Interconnection service;

(v) Such other information as the Participating TO reasonably requires to process the application.

In addition to the information specified above, the following information may also be provided in order to properly evaluate system conditions:

(vi) The electrical location of the source of the power (if known) to be transmitted pursuant to the applicant’s request for Interconnection. If the source of the power is not known, a system purchase will be assumed.

Within ten (10) Business Days after receipt of an Interconnection Application, the Participating TO shall determine, whether the application is complete (“Completed Interconnection Application”). Wherever possible, the Participating TO will attempt to remedy deficiencies in the Interconnection Application through informal communications with the applicant. If such efforts are unsuccessful, the Participating TO shall return the Interconnection Application to the applicant.
The Participating TO will treat the information provided in the Interconnection Application, including the applicant’s identity, as confidential at the request of the applicant except to the extent that disclosure of this information is required by this TO Tariff, by regulatory or judicial order, for reliability purposes pursuant to Good Utility Practice, or pursuant to RTG or ISO transmission information sharing agreements. The Participating TO shall treat this information consistent with the standards of conduct contained in Part 37 of FERC’s regulations.

10.4 Review of Completed of Interconnection Application

After receiving a Completed Interconnection Application, the Participating TO, will determine on a non-discriminatory basis whether a System Impact Study is required. Whenever the Participating TO, determines that a System Impact Study is not required and that neither Reliability Upgrades nor changes in existing operating procedures are required, the Participating TO shall notify the applicant within fifteen (15) Business Days of the Completed Application Date. If the Interconnection can be accommodated without any Direct Assignment Facilities, then within thirty (30) Business Days of such notice from the Participating TO, the applicant shall request the Participating TO to tender to the applicant an Interconnection Agreement within thirty (30) Business Days of such request. The Participating TO shall tender to the applicant an Interconnection Agreement as provided in Section 8.1.3. If the Participating TO determines, upon the review of the Completed Interconnection Application, that Direct Assignment Facilities are required, the Participating TO shall tender to the applicant a Facilities Study Agreement within twenty (20) Business Days of the Completed Application Date and continue the interconnection process pursuant to Section 10.8.

10.5 Notice of Need for System Impact Study

If the Participating TO, determines that a System Impact Study is necessary to accommodate the requested Interconnection, the Participating TO shall so inform the applicant, as soon as practicable. In such cases, the Participating TO shall within twenty (20) Business Days of receipt of a Completed Interconnection Application, tender a System Impact Study Agreement that defines the scope, content, assumptions and terms of reference for such study to
be completed by the Participating TO, the estimated time required to complete it, and such other provisions as the parties may reasonably require, and pursuant to which the applicant shall agree to reimburse the Participating TO for the reasonable actual costs of performing the required System Impact Study. A description of the Participating TO’s transmission assessment practices for completing a System Impact Study is provided in the Participating TO’s FERC Form 715. For an Interconnection request to remain a Completed Interconnection Application, the applicant shall execute the System Impact Study Agreement and return it to the Participating TO within ten (10) Business Days together with payment for the reasonable estimated cost of performing the System Impact Study. Alternatively, if the applicant requests the Participating TO to proceed with the System Impact Study and commits to abide by the terms, conditions, and cost assignments ultimately determined under the ISO ADR Procedures, including any determination by FERC or appeal of a FERC determination in accordance with that process, the Participating TO shall promptly proceed with the System Impact Study provided that such request is accompanied by payment for the reasonable estimated cost of the System Impact Study, and the parties shall submit the disputed terms for resolution under the ISO’s ADR Procedures. If the applicant elects not to execute a System Impact Study Agreement, and does not request that the Participating TO proceed with the System Impact Study, its application shall be deemed withdrawn, and the applicant shall reimburse to the Participating TO all costs reasonably incurred in processing the application.

10.6 System Impact Study Cost Reimbursement

10.6.1 Cost Reimbursement

The System Impact Study Agreement shall clearly specify the charge, based on the Participating TO’s estimate of the cost and time for completion of the System Impact Study. The charge shall not exceed the reasonable actual cost of the study. In performing the System Impact Study, the Participating TO shall rely, to the extent reasonably practicable, on existing transmission planning studies. The applicant will not be assessed a charge for such existing studies; however, the applicant will be responsible for the reasonable charges associated with any modifications to existing planning studies that are reasonably necessary to evaluate the impact of the applicant’s request.
10.6.2 Multiple Parties

If multiple parties request Interconnection at the same location, the Participating TO may conduct a single System Impact Study. The costs of that study shall be pro-rated among the parties requesting Interconnection.

10.7 System Impact Study Procedures

Upon receipt of an executed System Impact Study Agreement or initiation of the ISO ADR Procedures and receipt of payment for estimated study costs, the Participating TO will use due diligence to complete the required System Impact Study within a sixty (60) calendar day period. The System Impact Study will identify whether any transmission additions or upgrades are necessary to serve a wholesale load. The System Impact Study will also identify any adverse impact on Encumbrances existing as of the applicants Completed Application Date. In the event that the Participating TO is unable to complete the required System Impact Study within such time period, it shall so notify the applicant, in writing, and provide an estimated completion date along with an explanation of the reasons why additional time is required to complete the required studies. A copy of the completed System Impact Study and related work papers shall be made available to the applicant and the ISO. The Participating TO will use the same due diligence in completing the System Impact Study for others as it uses when completing studies for its affiliated UDC load. The Participating TO shall notify the applicant and the ISO immediately upon completion of the System Impact Study.

10.7.1 Procedures Upon Completion of System Impact Study

Within fifteen (15) Business Days of completion of the System Impact Study, the Participating TO shall notify the applicant whether the transmission system will be adequate to accommodate all of a request for Interconnection. If no costs are likely to be incurred for any Direct Assignment Facilities, any Reliability Upgrades, or implementing any operating procedures, then within thirty (30) Business Days of receipt of the completed System Impact Study, the applicant shall request the Participating TO to tender an Interconnection Agreement within thirty (30) Business Days of such request. The Participating TO shall tender to the applicant an Interconnection Agreement as provided in Section 8.1.3. If costs are likely to be
incurred to accommodate a request for Interconnection, the Participating TO shall tender to the applicant a Facilities Study Agreement pursuant to Section 10.8.

10.8 Notice of Need for Facilities Study

If a System Impact Study indicates that additions or upgrades to the ISO Controlled Grid are needed to satisfy an applicant’s request for Interconnection, the Participating TO shall, within fifteen (15) Business Days of the completion date of the System Impact Study tender to the applicant a Facilities Study Agreement that defines the scope, content, assumptions and terms of reference for such study; the estimated time required to complete the required study; and such other provisions as the parties may reasonably require, and pursuant to which the applicant agrees to reimburse the Participating TO for the reasonable actual costs of performing the required Facilities Study. For an Interconnection request to remain a Completed Interconnection Application, the applicant shall execute the Facilities Study Agreement and return it to the Participating TO within ten (10) Business Days together with payment for the reasonable estimated costs of performing the Facilities Study. Alternatively, if the applicant requests the Participating TO to proceed with the Facilities Study and commits to abide by the terms, conditions, and cost assignments ultimately determined under the ISO ADR Procedures, including any determination by FERC or appeal of a FERC determination in accordance with that process, the Participating TO shall promptly proceed with the Facilities Study provided that such request is accompanied by payment for the reasonable estimated cost of the Facilities Study, and the parties shall submit the disputed terms for resolution under the ISO ADR Procedures. If the applicant elects not to execute a Facilities Study Agreement and does not request that the Participating TO proceed with the Facilities Study, its application shall be deemed withdrawn and the applicant shall reimburse to the Participating TO all costs reasonably incurred in processing the application not covered by the System Impact Study Agreement.

10.9 Facilities Study Procedures

Upon receipt of an executed Facilities Study Agreement or initiation of the ISO ADR Procedures and receipt of payment for the estimated study costs, the Participating TO will use due diligence to complete the required Facilities Study within a sixty (60) calendar day period.
In the event that the Participating TO is unable to complete the required Facilities Study within such time period, it shall so notify the applicant, in writing, and provide an estimated completion date along with an explanation of the reasons why additional time is required to complete the required studies. A copy of the completed Facilities Study shall be made available to the applicant.

10.9.1 Execution of Interconnection Agreement

Within thirty (30) Business Days of receipt of the completed Facilities Study, the applicant shall request the Participating TO to tender an Interconnection Agreement within thirty (30) Business Days of such request. The Participating TO shall tender to the applicant an Interconnection Agreement as provided in Section 8.1.3.

10.10 Partial Interim Service

If the Participating TO determines that there will not be adequate transmission capability to satisfy the full amount requested in a Completed Interconnection Application, the Participating TO nonetheless shall be obligated to offer and provide the portion of the requested Interconnection that can be accommodated without any additional Direct Assignment Facilities or Reliability Upgrades. However, the Participating TO shall not be obligated to provide the incremental amount of requested Interconnection that requires such additional facilities or upgrades until such facilities or upgrades have been placed in service.

10.11 Expedited Interconnection Procedures

In lieu of the procedures set forth above, the applicant shall have the option to expedite the processing of its Completed Interconnection Application. In order to exercise this option, the applicant shall submit in writing a Request for Expedited Interconnection Procedures to the Participating TO, within ten (10) Business Days after receiving a copy of the System Impact Study for the proposed Interconnection. Within ten (10) Business Days after receiving a Request for Expedited Procedures, the Participating TO shall tender an Expedited Interconnection Agreement that requires the applicant to compensate the Participating TO for all costs reasonably incurred pursuant to the terms of this TO Tariff for processing the Completed Interconnection
Application and providing the requested Interconnection. While the Participating TO agrees to provide the applicant with its best estimate of the costs of any needed Direct Assignment Facilities and, if applicable, Reliability Upgrades, and other charges that may be incurred, unless otherwise agreed by the parties, such estimate shall not be binding and the applicant must agree in writing to compensate the Participating TO for all actual Interconnection costs reasonably incurred pursuant to the provisions of this TO Tariff. The applicant shall execute and return such Expedited Interconnection Agreement within ten (10) Business Days of its receipt or the applicant’s request for Interconnection will cease to be a Completed Interconnection Application and will be deemed terminated and withdrawn. In that event, the applicant shall reimburse the Participating TO for all costs reasonably incurred in processing the application not covered by the terms of the System Impact Study Agreement.

11. Uncontrollable Forces and Indemnification

11.1 Procedures To Follow if Uncontrollable Force Occurs

In the event of the occurrence of an Uncontrollable Force which prevents a Party from performing any of its obligations under this TO Tariff, such Party shall (i) immediately notify the other Parties in writing of the occurrence of such Uncontrollable Force, (ii) not be entitled to suspend performance in any greater scope or longer duration than is required by the Uncontrollable Force, (iii) use its best efforts to mitigate the effects of such Uncontrollable Force, remedy its inability to perform, and resume full performance hereunder, (iv) keep the other Parties apprised of such efforts on a continual basis and (v) provide written notice of the resumption of performance hereunder. Notwithstanding any of the foregoing, the settlement of any strike, lockout, or labor dispute constituting an Uncontrollable Force shall be within the sole discretion of the Party to this TO Tariff involved in such strike, lockout, or labor dispute and the requirement that a Party must use its best efforts to remedy the cause of the Uncontrollable Force and mitigate its effects and resume full performance hereunder shall not apply to strikes, lockouts, or labor disputes. No Party will be considered in default as to any obligation under this TO Tariff if prevented from fulfilling the obligation due to the occurrence of an Uncontrollable Force.
11.2 Indemnification

A Market Participant, to the extent permitted by law, shall at all times indemnify, defend, and save the Participating TO harmless from any and all damages, losses, claims, (including claims and actions relating to injury or to death of any person or damage to property), demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the Participating TO’s performance of its obligations under this TO Tariff on behalf of a Market Participant, except in cases of negligence or intentional wrongdoing by the Participating TO.

12. Regulatory Filings

Nothing contained herein shall be construed as affecting, in any way, the right of any FERC jurisdictional Participating TO furnishing services in accordance with this TO Tariff, or any tariff and rate schedule which results from or incorporates this TO Tariff, unilaterally to make application to FERC as it deems necessary and appropriate to recover its Transmission Revenue Requirements, or for a change in its rates, including changes in rate methodology, or for a change in designation of transmission facilities to be placed under the ISO’s control, in each case under Section 205 of the FPA and pursuant to the FERC’s Rules and Regulations promulgated thereunder.

12.1 Open Access

For purposes of the Stranded Cost Recovery available under Order Nos. 888 and 888-A, this Tariff, combined with the ISO Tariff and wholesale distribution access tariff, if any, shall be considered an open access tariff under FERC Order Nos. 888 and 888-A.

12.2 Stranded Cost Recovery

If a retail customer becomes a legitimate wholesale transmission customer of a public utility or transmitting utility, e.g., through municipalization, and costs are stranded as a result of the retail turned wholesale customer’s access to wholesale transmission under this TO Tariff, the utility may seek recovery of such costs through rates for wholesale transmission services to that
customer, as provided in FERC Order Nos. 888 and 888-A, provided that nothing in this Section 12.2 shall be deemed in derogation of stranded cost recovery rights under state law.

13. **Creditworthiness**

13.1 **UDCs, MSSs and Scheduling Coordinators Using Low Voltage**

For the purpose of determining the ability of a UDC, MSS or Scheduling Coordinator to meet its obligations related to service hereunder using the Participating TO’s Low Voltage Transmission Facilities, the Participating TO may require reasonable credit review procedures for the UDC, MSS or Scheduling Coordinator. This review shall be made in accordance with standard commercial practices. In addition, the Participating TO may require the UDC, MSS or Scheduling Coordinator to provide and maintain in effect during the term of the service, an unconditional and irrevocable letter of credit as security to meet its responsibilities and obligations under this TO Tariff, or an alternative form of security proposed by the UDC, MSS or Scheduling Coordinator and acceptable to the Participating TO, and consistent with commercial practices established by the Uniform Commercial Code, that protect the Participating TO against the risk of non-payment.

13.2 **End-Users**

Creditworthiness rules applicable to End-Users shall be pursuant to the then-current rules of the applicable Local Regulatory Authority.

14. **Disputes**

Except as limited below or as otherwise limited by law, the ISO ADR Procedures shall apply to all disputes between parties which arise under this TO Tariff or under or in respect of the proposed terms and conditions of a Facilities Study Agreement, System Impact Study Agreement or Expedited Service Agreement. The ISO ADR Procedures set forth in Section 13 of the ISO Tariff shall not apply to disputes as to whether rates and charges set forth in this TO Tariff (other than charges for studies) are just and reasonable under Sections 205 and 206 of the FPA.
15. **Recovery of Reliability Services Costs**

All Reliability Services Costs payable by a Participating TO shall be recovered from End-Use Customers, TO Tariff Wholesale Customers, and Existing Contract customers who take service under the Reliability Services Tariff or a Reliability Services Rate Schedule in their Existing Contracts, whichever is applicable, withdrawing Energy from the ISO Controlled Grid on the Participating TO’s transmission system. Reliability services billed to the Participating TO by the ISO include costs which are deemed by the ISO as necessary to maintain reliable electric service in the ISO Control Area pursuant to the ISO Tariff and are defined as “Reliability Services Costs” in the Master Definitions Supplement, Appendix A to the currently effective ISO Tariff.

16. **Miscellaneous**

16.1 **Notices**

Any notice, demand, or request in accordance with this TO Tariff, unless otherwise provided in this TO Tariff, shall be in writing and shall be deemed properly served, given, or made: (i) upon delivery if delivered in person, (ii) five days after deposit in the mail if sent by first class United States mail, postage prepaid, (iii) upon receipt of confirmation by return electronic facsimile if sent by facsimile, or (iv) upon delivery if delivered by prepaid commercial courier service, in each case addressed to a Party at the address set forth in Appendix V. Any Party may at any time, by notice to the other Parties, change the designation or address of the person specified in Appendix V to receive notice on its behalf. Any notice of a routine character in connection with service under this TO Tariff or in connection with operation of facilities shall be given in such a manner as the Parties may determine from time to time, unless otherwise provided in this TO Tariff.

16.2 **Waiver**

Any waiver at any time by any Party of its rights with respect to any default under this TO Tariff, or with respect to any other matter arising in connection with this TO Tariff, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in
connection with this TO Tariff. Any delay short of the statutory period of limitations in asserting or enforcing any right shall not constitute or be deemed a waiver.

16.3 Confidentiality

16.3.1 Maintaining Confidentiality If Not for Public Disclosure

The Participating TO shall maintain the confidentiality of all of the documents, data, and information provided to it by any other Party that such Party may designate as confidential, provided, however, that the information will not be held confidential by the receiving Party if (1) the designating Party is required to provide such information for public disclosure pursuant to this TO Tariff or applicable regulatory requirements, or (2) the information becomes available to the public on a non-confidential basis (other than from the receiving Party).

16.3.2 Disclosure of Confidential Information

Notwithstanding anything in this Section 16.3.2 to the contrary, if any Party is required by applicable laws or regulations, or in the course of administrative or judicial proceedings, to disclose information that is otherwise required to be maintained in confidence pursuant to this Section 16.3.2, the Party may disclose such information; provided, however, that as soon as such Party learns of the disclosure requirement and prior to making such disclosure, such Party shall notify the affected Party or Parties of the requirement and the terms thereof. The affected Party or Parties may, at their sole discretion and own costs, direct any challenge to or defense against the disclosure requirement and the disclosing Party shall cooperate with such affected Party or Parties to the maximum extent practicable to minimize the disclosure of the information consistent with applicable law. The disclosing Party shall cooperate with the affected Parties to obtain proprietary or confidential treatment of confidential information by the person to whom such information is disclosed prior to any such disclosure.

16.4 TO Tariff Supersedes Existing Tariffs

This TO Tariff, together with the ISO Tariff and wholesale distribution access tariff, if any, supersedes any pre-existing open access transmission tariff of the Participating TO.
16.5 Titles

The captions and headings in this TO Tariff are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the rates, terms, and conditions of this TO Tariff.

16.6 Severability

If any term, covenant, or condition of this TO Tariff or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest, by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this TO Tariff and their application shall not be affected thereby but shall remain in force and effect. The Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination, unless a court or governmental agency of competent jurisdiction holds that such provisions are not severable from all other provisions of this TO Tariff.

16.7 Preservation of Obligations

Upon termination of this TO Tariff, all unsatisfied obligations of each Party shall be preserved until satisfied.

16.8 Governing Law

This TO Tariff shall be interpreted, governed by, and construed under the laws of the State of California, without regard to the principles of conflict of laws thereof, or the laws of the United States, as applicable, as if executed and to be performed wholly within the State of California.

16.9 Appendices Incorporated

The several appendices to this TO Tariff, as may be revised from time to time, are attached to this TO Tariff and are incorporated by reference as if fully set forth herein.
APPENDIX I:
TRANSMISSION AND RELIABILITY SERVICES
REVENUE REQUIREMENTS

Total revenue requirement associated with transmission facilities and entitlements turned over to the operational control of the ISO by the Participating TO, which reflects a reduction or increase for Transmission Revenue Credits.

1. The Transmission Revenue Requirement for purposes of calculating End-User transmission rates shall be $1,544,088,871, which is composed of the Base Transmission Revenue Requirement of $1,792,489,839, and the TRBAA of ($248,400,968).

2. For purposes of the ISO’s calculation of Access Charges under Section 26.1 of the ISO Tariff:
   a. The High Voltage Transmission Revenue Requirement shall be $617,032,124, which is composed of a High Voltage Base Transmission Revenue Requirement of $793,361,114, Standby Transmission Demand Revenue credit of ($3,588,451), and a High Voltage TRBAA of ($172,740,539).
   b. The Low Voltage Transmission Revenue Requirement shall be $943,189,026, which is composed of a Low Voltage Base Transmission Revenue Requirement of $986,397,863, Standby Transmission Demand Revenue credit of ($4,318,270), and a Low Voltage TRBAA of ($38,890,567).
   c. The forecast of Gross Load at the High Voltage/Low Voltage interface is 87,216,119 megawatt-hours.
3. The Reliability Services Balancing Account shall be equal to $170,367,440, which includes the forecast of Reliability Services payments PG&E will make to the ISO during 2018 of $140,140,339, plus an adjustment of $30,227,101. This amount shall be effective until amended by PG&E in accordance with Appendix V to this Tariff.

The Reliability Service Balancing Account shall be allocated to End-Use Customers as follows:

<table>
<thead>
<tr>
<th>Retail Total</th>
<th>$170,367,440</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 RMR Costs</td>
<td>$140,140,339</td>
</tr>
<tr>
<td>Adjustment</td>
<td>$30,227,101</td>
</tr>
</tbody>
</table>

The End-Use Customer Refund Balancing Account Adjustment shall be allocated to End-Use Customers and include a Revenue Requirement of ($11,752,788).
# APPENDIX II:
## ACCESS CHARGES FOR WHOLESALE TRANSMISSION

<table>
<thead>
<tr>
<th>Charge Type</th>
<th>Description</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Voltage Access Charge</td>
<td>See ISO Tariff</td>
<td></td>
</tr>
<tr>
<td>Low Voltage Access Charge</td>
<td></td>
<td>$0.0108144</td>
</tr>
<tr>
<td>High Voltage Utility-Specific Access Charge</td>
<td></td>
<td>$0.0070747</td>
</tr>
<tr>
<td>High Voltage Wheeling Access Charge</td>
<td></td>
<td>See ISO Tariff</td>
</tr>
<tr>
<td>Low Voltage Wheeling Access Charge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Voltage Wheeling Access Charge</td>
<td></td>
<td>See ISO Tariff</td>
</tr>
<tr>
<td>Low Voltage Wheeling Access Charge</td>
<td></td>
<td>$0.0108144</td>
</tr>
</tbody>
</table>
APPENDIX III:
ACCESS CHARGES FOR END-USE SERVICE

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SCHEDULE E-19
SCHEDULE E-20
SCHEDULE E-37
SCHEDULE S

AGRICULTURAL SCHEDULES

STREETLIGHTING SCHEDULES

These charges represent the rates for recovery of the Base Transmission Revenue Requirement.

A TRBAA Rate of ($0.00301) per kWh and a TACBAA Rate of $0.00533 per kWh shall also apply to all of the rate schedules described in this Appendix.

The applicability of these rates is described in the California Public Utilities Commission jurisdictional retail tariffs.
RESIDENTIAL SCHEDULES

SCHEDULE E-1 AND EL-1 (CARE)
SCHEDULES E-6 AND EL-6 (CARE)
SCHEDULES E-7 AND EL-7 (CARE)
SCHEDULE E-8 AND EL-8 (CARE)
SCHEDULE E-9

SCHEDULE EM AND EML (CARE)
SCHEDULE EM TOU AND EML TOU (CARE)
SCHEDULE ES AND ESL (CARE)
SCHEDULE ESR AND ESRL (CARE)
SCHEDULE ET AND ETL (CARE)

<table>
<thead>
<tr>
<th>TO RATES</th>
<th>ECRBAA RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Charge ($/kWh)</td>
<td>$0.02734</td>
</tr>
</tbody>
</table>

COMMERCIAL & INDUSTRIAL SCHEDULES

SCHEDULE A-1
SCHEDULE A-6
SCHEDULE A-15

SCHEDULE TC-1

<table>
<thead>
<tr>
<th>TO RATES</th>
<th>ECRBAA RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Charge ($/kWh)</td>
<td>$0.02244</td>
</tr>
</tbody>
</table>
SCHEDULE A-10

BASIS FOR DEMAND CHARGE: The customer will be billed for demand according to the customer's "maximum demand" each month. The number of kW used will be recorded over 15-minute intervals; the highest 15-minute average in the month will be the customer's maximum demand. SPECIAL CASES: (1) If the customer's use of energy is intermittent or subject to severe fluctuations, a 5-minute interval may be used, and (2) If the customer uses welders, the demand charge will be subject to the minimum demand charges for those welders' ratings, as explained in Section J of PG&E's CPUC Rule 2.

<table>
<thead>
<tr>
<th>TO RATES</th>
<th>ECRBAA RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Demand Charge ($/kW/mo)</td>
<td>$7.46</td>
</tr>
<tr>
<td>Energy Charge ($/kWh)</td>
<td>($0.00014)</td>
</tr>
</tbody>
</table>

SCHEDULE E-19

BASIS FOR DEMAND CHARGE: Demand will be averaged over 15-minute intervals. "Maximum demand" will be the highest of all the 15-minute averages for the billing month. If the customer's use of electricity is intermittent or subject to severe fluctuations, a 5-minute interval may be used. If the customer has any welding machines, the diversified resistance welder load, calculated in accordance with Section J of PG&E's CPUC Rule 2, will be considered the maximum demand if it exceeds the maximum demand that results from averaging the demand over 15-minute intervals.

<table>
<thead>
<tr>
<th>TO RATES</th>
<th>ECRBAA RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Demand Charge ($/kW/mo)</td>
<td>$7.46</td>
</tr>
<tr>
<td>Energy Charge ($/kWh)</td>
<td>($0.00014)</td>
</tr>
</tbody>
</table>

SCHEDULE E-20

BASIS FOR DEMAND CHARGE: Demand will be averaged over 15-minute intervals. "Maximum demand" will be the highest of all the 15-minute averages for the billing month. If
the customer's use of electricity is intermittent or subject to severe fluctuations, a 5-minute interval may be used. If the customer has any welding machines, the diversified resistance welder load, calculated in accordance with Section J of PG&E's CPUC Rule 2, will be considered the maximum demand if it exceeds the maximum demand that results from averaging the demand over 15-minute intervals.

<table>
<thead>
<tr>
<th>TO RATES</th>
<th>ECRBAAS RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Demand Charge ($/kW/mo)</td>
<td>$8.01</td>
</tr>
<tr>
<td>Energy Charge ($/kWh)</td>
<td>($0.00011)</td>
</tr>
</tbody>
</table>

**SCHEDULE E-37**

<table>
<thead>
<tr>
<th>TO RATES</th>
<th>ECRBAAS RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Charge ($/kWh)</td>
<td>$0.01734</td>
</tr>
</tbody>
</table>

**SCHEDULE S**

RESERVATION CAPACITY: The Reservation Capacity to be used for billing under the above rates shall be as set forth in the customer's contract for service. For new or revised contracts, the Reservation Capacity shall be determined by the customer. However, if the customer's standby demand exceeds this new contracted capacity in any billing month, that standby demand shall become the new Reservation or Contract Capacity for 12 months, beginning with that month. See Special Condition 7 for the definition of Reservation Capacity for Supplemental Standby Service customers.

The Reservation Charge, in dollars per kilowatt (kW), applies to 85 percent of the customer's Reservation Capacity, as defined in Special Condition 1 of the tariffs.

<table>
<thead>
<tr>
<th>TO RATES</th>
<th>ECRBAAS RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reservation Charge ($/kW/mo)</td>
<td>$0.95</td>
</tr>
<tr>
<td>Energy Charge ($/kWh)</td>
<td>$0.01918</td>
</tr>
</tbody>
</table>
AGRICULTURAL SCHEDULES

The CPUC-jurisdictional retail tariffs should be referred to for detailed descriptions of how agricultural demand charges are assessed.

SCHEDULE AG-1
SCHEDULE AG-R
SCHEDULE AG-V
SCHEDULE AG-4
SCHEDULE AG-5
SCHEDULE AG-ICE

<table>
<thead>
<tr>
<th></th>
<th>TO RATES</th>
<th>ECRBAA RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Charge ($/kWh)</td>
<td>$0.01734</td>
<td>($0.00011)</td>
</tr>
</tbody>
</table>

STREETLIGHTING SCHEDULES

SCHEDULE LS-1
SCHEDULE LS-2
SCHEDULE LS-3
SCHEDULE OL-1

<table>
<thead>
<tr>
<th></th>
<th>TO RATES</th>
<th>ECRBAA RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Charge ($/kWh)</td>
<td>$0.01589</td>
<td>($0.00010)</td>
</tr>
</tbody>
</table>
APPENDIX IV:
RATES FOR CERTAIN ANCILLARY SERVICES
AND REPLACEMENT RESERVE

1. **Availability:** Pacific Gas and Electric Company makes Regulation, Spinning Reserve, on-Spinning Reserve, and Replacement Reserve available at wholesale under this Rate Schedule to the ISO and to others that are self-providing ancillary services to the ISO.

2. **Applicability:** This Rate Schedule applies to all such wholesale sales of Regulation, Spinning Reserve, Non-Spinning Reserve, and Replacement Reserve by Pacific Gas and Electric Company that are not otherwise subject to a particular rate schedule or contract to the ISO.

3. **Rates:** Sales made under this Rate Schedule shall be at rates established between Pacific Gas and Electric Company and the purchaser of Regulation, Spinning Reserve, Non-Spinning Reserve, and/or Replacement Reserve.

4. **Other Terms and Conditions:** All other terms and conditions of sale shall be established by agreement between Pacific Gas and Electric Company and the purchaser of Regulation, Spinning Reserve, Non-Spinning Reserve, and/or Replacement Reserve.

5. **Prohibited Affiliate Transactions:** Sales of Regulation, Spinning Reserve, Non-Spinning Reserve and Replacement Reserve will not be made pursuant to this rate schedule to PG&E Corporation or any other marketer affiliated with PG&E.

6. **Effective Date:** This Rate Schedule shall be effective for service rendered on and after November 3, 1998.


The rates filed under this Appendix for Voltage Support Service in Schedule 4 are cost-based and applicable when PG&E generation resources (other than must-run resources) bid to supply this service to the ISO under the terms of the ISO Tariff. PG&E may bid to supply this
Voltage Support Service subject to the availability of its resources under the applicable terms and conditions of the ISO Tariff. PG&E may submit discounted ancillary service bids on a nondiscriminatory basis. Ancillary Service and Replacement Reserve Service Schedules are listed below.

- Spinning Reserve Service: Schedule 1.
- Non-Spinning Reserve Service: Schedule 2.
- Replacement Reserve Service: Schedule 3.
- Regulation Service: Schedule 5.
SCHEDULE 1

Spinning Reserve Service

Spinning Reserve Service is needed to serve load immediately in the event of a system contingency. Spinning Reserve Service may be provided by PG&E generating units (other than must run units) that are on-line and loaded at less than maximum output.

The charge for this service will be determined under the ISO Tariff.
SCHEDULE 2

Non-Spinning Reserve Service

Non-Spinning Reserve Service is needed to serve load immediately in the event of a system contingency. Non-Spinning Reserve Service may be provided by generating units that are off-line and can be synchronized to the grid and loaded with in 10 minutes with the capability to sustain that load for 2 hours.

The charge for this service will be determined under the ISO Tariff.
SCHEDULE 3

Replacement Reserve Service

Replacement Reserves are those reserves that the ISO may need when system conditions require the ISO to use both Spinning and Non-Spinning Reserves to maintain system stability and reliability.

The charge for this service will be determined under the ISO Tariff.
SCHEDULE 4

Voltage Support Service

In order to maintain transmission voltages on the ISO Controlled Grid within acceptable limits, generation facilities within the ISO Controlled Grid may be operated to produce (or absorb) reactive power.

Voltage Support Service may be provided directly from PG&E generation resources (other than must run units). Cost-based rates for Voltage Support Service are set forth below.

Yearly Service Rate: $1.52/kW-year
Monthly Service Rate: $0.1267/kW-month
Weekly Service Rate: $0.0292/kW-week
Daily Service Rate: $0.0042/kW-day
Hourly Service Rate: $0.00017/kW-hour

The charge for this service will be determined under the ISO Tariff.
SCHEDULE 5

Regulation Service

Regulation Service is necessary to provide for the continuous balancing of resources (generation and interchange) with load and for maintaining scheduled interconnection frequency at sixty cycles per second (60 Hz). Regulation Service is accomplished by committing on-line generation whose output is raised or lowered (predominantly through the use of automatic generating control equipment) as necessary to follow the moment-by-moment changes in load.

The charge for this service will be determined under the ISO Tariff.
APPENDIX V:
BALANCING ACCOUNT FOR
RELIABILITY SERVICES CHARGES RECOVERY

1. **Applicability.** This balancing account is applicable to End Use Customers, TO Tariff Wholesale Customers, and Existing Contract customers who take service under the Reliability Services Tariff or a Reliability Services Rate Schedule, whichever is applicable, withdrawing Energy from the ISO Controlled Grid on the Participating TO's transmission system.

2. **Description.** Reliability Services that the ISO may bill to the Participating TO include 1) RMR services provided pursuant to ISO Tariff Section 5.2; and 2) Outof-Market services provided pursuant to ISO Tariff Section 11.2.4.2.1.

3. **Reliability Services Revenue Requirement.** For purposes of this Appendix V, the term "High Voltage" shall also mean "Regional" and the term "Low Voltage" shall also mean "Local" as it applies to Existing Contract customers who take service under the Reliability Services Tariff or a Reliability Services Rate Schedule, whichever is applicable. The initial reliability services revenue requirement as allocated between High Voltage and Low Voltage Transmission Facilities, which is effective beginning on the Effective Date of this rate schedule, shall be established through a filing by the Participating TO with the FERC under Section 205 of the Federal Power Act. The initial reliability services revenue requirement shall be equal to the forecasted reliability services payments the Participating TO will make to the ISO during the twelve month period following the Effective Date. The Participating TO's initial reliability services revenue requirement is shown on Appendix I.

Subsequent to the establishment of the initial High Voltage and Low Voltage reliability services revenue requirements, the High Voltage and Low Voltage reliability services revenue requirements and associated High Voltage and Low Voltage Reliability Services Charges shall be revised annually to be effective on January 1 of each year. To implement this annual revision, the Participating TO shall file with the FERC for a
revision to the High Voltage and Low Voltage reliability services revenue requirements and Regional and Local Reliability Services Charges by January 31 of the calendar year in which the charges are to be effective, requesting as necessary, waiver of all prior notice requirements. In the annual revision, the High Voltage and Low Voltage reliability services revenue requirements shall be established based on the forecast High Voltage and Low Voltage reliability services payments the Participating TO will make to the ISO for the calendar year, plus the recorded balance in the Reliability Services Balancing Account (RSBA) as of November 30 of the year prior to commencement of the following calendar year.

The first step in calculating the updated Reliability Service Charge rates shall be a calculation of the Reliability Service Charges that would have been allocated to End Use Customers, TO Tariff Wholesale Customers, and Existing Contract customers who take service under the Reliability Services Tariff or a Reliability Services Rate Schedule in their Existing Contracts, whichever is applicable, had actual reliability services costs and actual usage data been used in the reliability services costs allocation. The same formulas used to allocate High Voltage and Low Voltage reliability service costs, and End Use Customer, TO Tariff Wholesale Customer and Existing Contract customer reliability services costs will be repeated using actual data instead of forecasted data. The difference between what was actually collected and what should have been allocated is determined and carried forward in the reliability services cost allocation made in the subsequent year.

The RSBA is a mechanism that is designed to ensure that the Participating TO neither underrecovers nor overrecovers from customers the reliability services costs it is assessed by the ISO. The balance in the account represents the cumulative difference between the revenues billed by the Participating TO under Reliability Charges to Market Participants withdrawing Energy from the ISO Controlled Grid on the Participating TO's transmission system and the Reliability Services Costs paid by the Participating TO to the ISO, plus interest. Interest shall be calculated using the interest rate pursuant to Section 35.19a of the FERC's regulations under the Federal Power Act (18 CFR Section 35.19a). Interest
shall be calculated based on the average RSBA balance each month, compounded quarterly.

4. **Reliability Charges.** Charges for recovery of the High Voltage and Low Voltage reliability services revenue requirements are provided in Appendix II for Wholesale Transmission Customers and Appendix VI for End Use Customers.

5. **Effective Date.** This rate schedule is effectively for service rendered on and after the date designated by the Commission.
APPENDIX VI:
RELIABILITY SERVICE CHARGES FOR END-USE SERVICE

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SCHEDULE E-19
SCHEDULE E-20
SCHEDULE E-37
SCHEDULE S

AGRICULTURAL SCHEDULES

STREETLIGHTING SCHEDULES

The applicability of these rates is described in the California Public Utilities Commission jurisdictional retail tariffs.
RESIDENTIAL SCHEDULES

SCHEDULE E-1 AND EL-1 (CARE)
SCHEDULES E-6 AND EL-6 (CARE)
SCHEDULES E-7 AND EL-7 (CARE)
SCHEDULE E-8 AND EL-8 (CARE)
SCHEDULE E-9
SCHEDULE EM AND EML (CARE)
SCHEDULE EM TOU AND EML TOU (CARE)
SCHEDULE ES AND ESL (CARE)
SCHEDULE ESR AND ESRL (CARE)
SCHEDULE ET AND ETL (CARE)

Energy Charge ($/kWh) $0.00260

COMMERCIAL & INDUSTRIAL SCHEDULES

SCHEDULE A-1
SCHEDULE A-6
SCHEDULE A-15
SCHEDULE TC-1

Energy Charge ($/kWh) $0.00213

SCHEDULE A-10

BASIS FOR DEMAND CHARGE: The customer will be billed for demand according to the customer's "maximum demand" each month. The number of kW used will be recorded over
15-minute intervals; the highest 15-minute average in the month will be the customer's maximum demand. SPECIAL CASES: (1) If the customer's use of energy is intermittent or subject to severe fluctuations, a 5-minute interval may be used, and (2) If the customer uses welders, the demand charge will be subject to the minimum demand charges for those welders' ratings, as explained in Section J of PG&E's CPUC Rule 2.

Maximum Demand Charge ($/kW/mo) $0.71

---

**SCHEDULE E-19**

BASIS FOR DEMAND CHARGE: Demand will be averaged over 15-minute intervals. "Maximum demand" will be the highest of all the 15-minute averages for the billing month. If the customer's use of electricity is intermittent or subject to severe fluctuations, a 5-minute interval may be used. If the customer has any welding machines, the diversified resistance welder load, calculated in accordance with Section J of PG&E's CPUC Rule 2, will be considered the maximum demand if it exceeds the maximum demand that results from averaging the demand over 15-minute intervals.

Maximum Demand Charge ($/kW/mo) $0.71

---

**SCHEDULE E-20**

BASIS FOR DEMAND CHARGE: Demand will be averaged over 15-minute intervals. "Maximum demand" will be the highest of all the 15-minute averages for the billing month. If the customer's use of electricity is intermittent or subject to severe fluctuations, a 5-minute interval may be used. If the customer has any welding machines, the diversified resistance welder load, calculated in accordance with Section J of PG&E's CPUC Rule 2, will be considered the maximum demand if it exceeds the maximum demand that results from averaging the demand over 15-minute intervals.

Maximum Demand Charge ($/kW/mo) $0.76
SCHEDULE E-37

Energy Charge ($/kWh) $0.00165

SCHEDULE S

RESERVATION CAPACITY: The Reservation Capacity to be used for billing under the above rates shall be as set forth in the customer's contract for service. For new or revised contracts, the Reservation Capacity shall be determined by the customer. However, if the customer's standby demand exceeds this new contracted capacity in any billing month, that standby demand shall become the new Reservation or Contract Capacity for 12 months, beginning with that month. See Special Condition 7 for the definition of Reservation Capacity for Supplemental Standby Service customers.

The Reservation Charge, in dollars per kilowatt (kW), applies to 85 percent of the customer's Reservation Capacity, as defined in Special Condition 1 of the tariffs.

Reservation Charge ($/kW/mo) $0.08
Energy Charge ($/kWh) $0.00182

AGRICULTURAL SCHEDULES

The CPUC-jurisdictional retail tariffs should be referred to for detailed descriptions of how agricultural demand charges are assessed.

SCHEDULE AG-1
SCHEDULE AG-R
SCHEDULE AG-V
SCHEDULE AG-4
SCHEDULE AG-5

SCHEDULE AG-ICE

Energy Charge ($/kWh) $0.00165

STREETLIGHTING SCHEDULES

SCHEDULE LS-1

SCHEDULE LS-2

SCHEDULE LS-3

SCHEDULE OL-1

Energy Charge ($/kWh) $0.00151
APPENDIX VII:
NOTICES

Pursuant to Section 16.1, notices, demands or requests to PG&E in accordance with this TO Tariff shall be sent in writing to:

Pacific Gas and Electric Company

Electric Transmission Rates  Mail Code B13L

P.O. Box 770000

San Francisco, California 94177

Attention: Manager, Electric Transmission Rates