ATTACHMENT D

2. ISO OPERATIONS.

* * *

2.2.1 Scheduling Responsibilities and Obligations.

The provisions of this Section 2.2 shall govern the ISO's scheduling of Energy, ~~and~~ Ancillary Services, **and ACAP Resources** on the ISO Controlled Grid and Congestion Management. Nothing in this ISO Tariff is intended to permit or require the violation of Federal or California law concerning hydro-generation and Dispatch, including but not limited to fish release requirements, minimum and maximum dam reservoir levels for flood control purposes, and in-stream flow levels. In carrying out its functions, the ISO will comply with and will have the necessary authority to give instructions to Participating TOs and Market Participants to enable it to comply with requirements of environmental legislation and environmental agencies having authority over the ISO in relation to Environmental Dispatch and will expect that submitted Schedules will support compliance with the requirements of environmental legislation and environmental agencies having authority over Generators in relation to Environmental Dispatch. In contracting for Ancillary Services and Imbalance Energy the ISO will not act as principal but as agent for and on behalf of the relevant Scheduling Coordinators.

2.2.2 ISO Scheduling Responsibilities.

To fulfill its obligations with respect to scheduling Energy and Ancillary Services, **and verifying the availability of adequate ACAP Resources to maintain system reliability,** the ISO shall:

(a) provide Scheduling Coordinators with operating information and system status on a Day-Ahead and Hour-Ahead, Zonal and/or Scheduling Point basis to enable Scheduling Coordinators to optimize Generation, Demand and the provision of Ancillary Services;

(b) determine whether Preferred Schedules submitted by Scheduling Coordinators meet the requirements of Section 2.2.7.2, and whether they will cause Congestion;

(c) prepare Suggested Adjusted Schedules on a Day-Ahead basis and Final Schedules on a Day-Ahead and Hour-Ahead basis;

(d) validate all Ancillary Services bids and self provided Ancillary Services;

(e) reduce or eliminate Congestion based on Adjustment Bids and in accordance with the Congestion Management procedures; ~~and~~

(f) if necessary, make mandatory adjustments to Schedules in accordance with the Congestion Management procedures~~.~~**; and**

(g) determine Available Capacity Requirements for each Local Reliability Area and calculate corresponding Available Capacity Obligations(s) for each Load-Serving Scheduling Coordinator in a Local Reliability Area in accordance with the Relaibility Assurance Requirements Protocol.

2.2.3 Scheduling Coordinator Certification.

The ISO shall accept Schedules and bids for Energy and Ancillary Services only from Scheduling Coordinators which it has certified in accordance with Section 2.2.4 as having met the requirements of this Section 2.2.3. Scheduling Coordinators scheduling Ancillary Services shall additionally meet the requirements of Section 2.5.6.

2.2.3.1 Each Scheduling Coordinator shall:

(a) demonstrate to the ISO's reasonable satisfaction that it is capable of performing the functions of a Scheduling Coordinator under this ISO Tariff including (without limitation) the functions specified in Sections 2.2.6 and 2.2.7 and that it is capable of complying with the requirements of all ISO Protocols;

(b) identify each of the Eligible Customers (including itself if it trades for its own account) which it is authorized to represent as Scheduling Coordinator and confirm that the metering requirements under Section 10 are met in relation to each Eligible Customer for which it is submitting bids under this ISO Tariff;

(c) confirm that each of the End-Use Customers it represents is eligible for Direct Access **and identify each of the Load-Serving Entities (including itself, if it trades on its own account) which it is authorized to represent as a Scheduling Coordinator**;

(d) confirm that none of the Wholesale Customers it represents is ineligible for wholesale transmission service pursuant to the provisions of FPA Section 212(h);

(e) demonstrate to the ISO's reasonable satisfaction that it meets the financial criteria set out in Section 2.2.3.2;

(f) enter into an SC Agreement with the ISO; and

(g) provide NERC tagging data.

* * *

2.2.5.1 End Users Represented by Scheduling Coordinators

Each Scheduling Coordinator shall provide to, and maintain with, the ISO a list of all Eligible Customers, that are also End Users, which it represents.

* * *

2.2.6.12 Available Capacity Obligations. Identifying the Load-Serving Entity on behalf of which any Schedule is submitted, and submitting in accordance with the requirements and deadlines specified in the Reliability Assurance Requirements Protocol the ACAP Resources that will be relied upon by the Scheduling Coordinator and the Load-Serving Entity to meet their Available Capacity Obligations in each Local Reliability Area where they will serve load.

* * *

2.2.7.3 Limitation on Trading. A Scheduling Coordinator, UDC or MSS that does not maintain an Approved Credit Rating, as defined with respect to either payment of the Grid Management Charge, or payment of other charges, shall maintain security in accordance with Section 2.2.3.2. For the avoidance of doubt, the ISO Security Amount is intended to cover the entity's outstanding and estimated liability for either (i) Grid Management Charge; ~~and/or~~ (ii) Imbalance Energy, Ancillary Services, Grid Operations Charge, Wheeling Access Charge, High Voltage Access Charge, Transition Charge, Usage Charges, ~~and~~ FERC Annual Charges**, or (iii) deficiency charges assessed under the Reliability Assurance Requirements Protocol**. Each Scheduling Coordinator, UDC or MSS required to provide an ISO Security Amount under Section 2.2.3.2 shall notify the ISO of the initial ISO Security Amount (separated into amounts securing payment of the Grid Management Charge and amounts securing payments of other charges) that it wishes to provide at least fifteen (15) days in advance and shall ensure that the ISO has received such ISO Security Amount prior to the date the Scheduling Coordinator commences trading or the UDC or MSS commences receiving bills for the High Voltage Access Charge and Transition Charge. A Scheduling Coordinator, UDC or MSS may at any time increase its ISO Security Amount by providing additional guarantees or credit support in accordance with Section 2.2.3.2. A Scheduling Coordinator, UDC or MSS may reduce its ISO Security Amount by giving the ISO not less than fifteen (15) days notice of the reduction, provided that the Scheduling Coordinator, UDC or MSS is not then in breach of this Section 2.2.7.3. The ISO shall release, or permit a reduction in the amount of, such guarantees or other credit support required to give effect to a permitted reduction in the ISO Security Amount as the Scheduling Coordinator, UDC or MSS may select.

Following the date on which a Scheduling Coordinator commences trading, the Scheduling Coordinator shall not be entitled to submit a Schedule to the ISO and the ISO may reject any Schedule submitted if, at the time of submission, the Scheduling Coordinator's ISO Security Amount is exceeded by the Scheduling Coordinator's estimated aggregate liability for (i) Grid Management Charge**, (ii)** ~~and/or~~ Imbalance Energy, Ancillary Services, Grid Operations Charge, Wheeling Access Charge, Usage Charges, and FERC Annual Charges**, or (iii) deficiency charges assessed under the Reliability**

Assurance Requirements Protocol on each Trading Day for which Settlement has not yet been made in accordance with Section 11.3.1 and the Scheduling Coordinator's estimated liability for High Voltage Access Charge and Transition Charge for which Settlement has not yet been made in accordance with Section 11.3. The ISO shall notify a Scheduling Coordinator if at any time such outstanding liabilities exceed 90% of the relevant portion of the ISO Security Amount. For the purposes of calculating the Scheduling Coordinator's estimated aggregate liability, the estimate shall include (1) outstanding charges for Trading Days for which Settlement data is available, and (2) an estimate of charges for Trading Days for which Settlement data is not yet available. To estimate charges for Trading Days for which Settlement data is not yet available, the ISO will consider available historical Settlement data, appropriately adjusted to reflect recent market prices and trends, or other available information for individual Scheduling Coordinators.

Following the date on which a UDC or MSS commences operation, the UDC's or MSS's Scheduling Coordinator shall not be entitled to submit a Schedule to the ISO and the ISO may reject any Schedule submitted if, at the time of submission, the UDC's or MSS's ISO Security Amount is exceeded by the UDC's or MSS's estimated aggregate liability for Grid Management Charge, and/or High Voltage Access Charges and Transition Charges for which Settlement has not yet been made in accordance with Section 11.3. The ISO shall notify a UDC or MSS if at any time such outstanding liabilities exceed 90% of the relevant portion of the ISO Security Amount. For the purposes of estimating the UDC's or MSS's aggregate liability for High Voltage Access Charges and Transition Charges, the UDC's or MSS's liability shall be equal to the billed Load (in MWh) for a month in the UDC's or MSS's Service Area (including exports from the Service Area) multiplied by the ISO's estimated High Voltage Access Charge and Transition Charge for that month, as such estimated cost is notified by the ISO to UDCs and MSSs from time to time.

* * *

2.2.9 ~~[Not Used]~~ **Information to be Provided by Load Servind Scheduling Coordinators to the ISO.**

2.2.9.1 Monthly Load Forecast. Each LSSC shall provide to the ISO a load forecast for each calendar month for each Local Reliability Area where such Load-Serving Entity will serve loads as provided in RARP Appendix D.

2.2.9.2 Advance Reports of ACAP Resources. Each LSSC shall provide to the ISO lists of ACAP Resources intended to meet the Load-Serving Entity's Monthly Available Capacity Obligation(s) for the next calendar as provided in RARP Appendix D.

2.2.9.3 Day Prior Report of ACAP Resources. Each LSSC shall provide to the ISO a list of ACAP Resources intended to meet the Load-Serving Entity's Daily Available Capacity Obligation(s) for the following day as provided in RARP Appendix D.

* * *

2.3.3.2 Requirement for Approval. An Operator shall not take: (i) facilities that comprise the ISO Controlled Grid, **(ii) facilities that are ACAP Resources,** or (iii) Participating Generators out of service for the purposes of planned maintenance or for new construction or other work except as approved by the ISO Outage Coordination Office.

2.3.3.3 Requests for Outages in Real Time Operation. Requests for Outages of: (i) facilities that comprise the ISO Controlled Grid**, (ii) facilities that are ACAP Resources** or (iii) Participating Generators in real time operation shall be made by the Operator to the ISO Control Center. The ISO will not approve any Outage request made within seventy-two (72) hours of the requested Outage start time unless: (i) the requested Outage could not have been reasonably foreseen and scheduled through the Outage coordination process provided in Section 2.3.3; and (ii) the requested Outage will not compromise ISO Controlled Grid reliability.

* * *

2.3.5 Assurance of Adequate Generation and Transmission to meet Applicable Operating and Planning Reserve.

2.3.5.1 Generation Planning Reserve Criteria. Generation planning reserve criteria shall be met as follows:

2.3.5.1.1 ~~On an annual basis,~~ **T**the ISO shall prepare **for each calendar month** a forecast of ~~weekly~~ Generation capacity and ~~weekly~~ peak Demand **for each UDC** on the ISO Controlled Grid. This forecast shall ~~cover a period of twelve months and~~ be posted on the Wenet **at least 90 days prior to the first day of such month** and the ISO may make the forecast available in other forms at the ISO's option.

2.3.5.1.2 ~~If the forecast shows that the applicable WSCC/NERC Reliability Criteria can be met during peak Load periods, then the ISO shall take no further action.~~ **The ISO shall seek to ensure the availability of adequate resources and the security of the system through its administration of the Reliability Assurance Requirements Protocol.**

2.3.5.1.3 If, during the period prior to the Effective Date of the Reliability Assurance Requirements Protocol, as determined therein, ~~If~~ the forecast shows that the applicable WSCC/NERC Reliability Criteria cannot be met during peak Load periods, then the ISO shall facilitate the development of market mechanisms to bring the ISO Controlled Grid during peak periods into compliance with the Applicable Reliability Criteria (or such more stringent criteria as the ISO may impose pursuant to Section 2.3.1.3.2). The ISO shall solicit bids for reserves in the form of Ancillary Services, short-term Generation supply contracts of up to one (1) year with Generators, and Load curtailment contracts giving the ISO the right to reduce the Loads of those parties that win the contracts when there is insufficient Generation capacity to satisfy those Loads in addition to all other Loads. The curtailment contracts shall provide that the ISO's curtailment rights can only be exercised after all available Generation capacity has been fully utilized unless the exercise of such rights would allow the ISO to

satisfy the Applicable Reliability Criteria at lower cost, and the curtailment rights shall not be exercised to stabilize or otherwise influence prices for power in the Energy markets.

* * *

2.3.5.1.6 **[Not Used]** ~~The ISO may, in addition to the required annual forecast, publish a forecast of the peak loads and Generation resources for two or more additional years. This forecast would be for information purposes to allow Market Participants to take appropriate steps to satisfy the Applicable Reliability Criteria, and would not be used by the ISO to determine whether additional resources are necessary.~~

2.3.5.1.7 **[Not Used]** ~~In fulfilling its requirement to ensure that the applicable Generation planning reserve criteria are satisfied, the ISO shall rely to the maximum extent possible on market forces.~~

* * *

SETTLMENT AND BILLING PROTOCOL

* * *

SABP 3.1 Description of Charges to be Settled

(p) the amount due from or to Load Serving Scheduling Coordinators for the costs associated with the monthly and daily ACAP deficiency charges in accordance with Section 7 of the Reliability Assurance Requirements Protocol.

RELIABILITY ASSURANCE REQUIREMENTS PROTOCOL

RELIABILITY ASSURANCE REQUIREMENTS PROTOCOL

Table of Contents

RELIABILITY ASSURANCE REQUIREMENTS PROTOCOL (RARP)

RARP 1 OBJECTIVES, DEFINITIONS AND SCOPE

RARP 1.1 Objectives

(a) The ISO must provide all necessary support to its core function of providing non-discriminatory and reliable transmission service to all customers.

(b) The ISO must ensure that adequate ACAP Resources will be available to provide reliable service to loads within the ISO Control Area, to assist Load Serving Entities during System Emergencies and to coordinate planning of resources relied on to meet Load Serving Scheduling Coordinators' Available Capacity (ACAP) Obligations.

(c) The ISO seeks to implement this Protocol in a manner consistent with the development of a robust competitive marketplace.

(d) The ISO seeks to ensure efficient use and reliable operation of the transmission grid consistent with the achievement of planning and operating reserve criteria no less stringent than those established by the Western Electricity Coordinating Council, consistent with the ISO's statutory mandate.

(e) This Protocol requires every entity which is or will become a Load Serving Scheduling Coordinator to procure, in a forward market timeframe, resources sufficient to satisfy the ISO's peak monthly and daily operating requirements. This Protocol imposes such obligation through the Scheduling Coordinators who schedule for Load Serving Entities.

(f) This Protocol directs each Load-Serving Scheduling Coordinator to share Available Capacity with other LSSCs to reduce the overall Capacity Reserve requirements for LSSCs while maintaining reliability on the ISO Controlled Grid.

(g) This Protocol describes the ISO's determination of its peak monthly and daily capacity requirements.

(h) This Protocol sets forth standards for certifying the capability of a resource to meet the ISO's monthly and daily capacity requirements.

(i) The ISO does not intend by means of this Protocol to duplicate or assume any of the functions or responsibilities already performed by other entities in California.

(j) This Protocol does not intend to abridge, alter or otherwise affect the System Emergency powers that the ISO may exercise pursuant to Section 4.5 of the ISO Tariff.

RARP 1.2 Definitions

RARP 1.2.1 Master Definitions Supplement

Unless the context otherwise requires, any word or expression defined in the Master Definitions Supplement to the ISO Tariff has the same meaning where used in this Protocol. A reference to a Section or an Appendix is to a Section or an Appendix of the ISO Tariff. References to RARP are to this Protocol or to the stated paragraph of, or Appendix to, this Protocol.

RARP 1.2.2 Special Definitions for this Protocol

In this Protocol, terms have the meaning set forth below:

"ACAP Requirement" has the meaning set forth in RARP 2.2.

"ACAP Supplier" means, depending upon the context, either (i) an entity with a contractual obligation with an LSE to have ready and make available, as called upon by the ISO, electric energy from a ACAP Resource (and if the ACAP Resource is a long-start unit, offer its capacity in the Day-ahead market and the RUC process) or (ii) an entity, including a LSE that owns or controls a ACAP Resource, sponsoring the certification of a resource as a ACAP Resource for the purpose of entering into such a contractual obligation. All such contracts, must, at minimum meet the criteria for the certification of the underlying resource as a ACAP Resource set forth in Appendix B.

"ACAP Supplier Scheduling Coordinator or ASSC" means any Scheduling Coordinator responsible for the operation and performance of a ACAP Resource during the Operating Hour (in real-time). Depending on the contractual agreements between the ACAP Supplier and the Load Serving Entity, the ASSC may also be responsible for availability of the relevant ACAP Resource after the day-ahead market, i.e., for its participation in the Residual Unit Commitment (RUC) process, the Hour-ahead Energy and Ancillary Service markets, and Pre-dispatch/real-time.

"Capacity Reserve Deficiency Hour" means any hour during which the total available amount of available capacity is less than the load plus the Daily Reserve Margin (DRM).

"Credible Demand Resource" (CDR) means an amount of load nominated by an ACAP-deficient LSE that is subject to involuntary curtailment during Capacity Reserve Deficiency Hours. The Credible Demand Resource limit is based on the represented Load Serving Entity's historical load, and is calculated as the level exceeded in 95 percent of the hours during the corresponding months in a relevant historical reference period.

"Daily Available Capacity Obligation or DACO" has the meaning set forth in RARP 2.4.

"Daily Reserve Margin or DRM" has the meaning set forth in RARP 2.1.2 and is calculated in accordance with the method provide in RARP Appendix C.

"Effective Date" means, January 1, 2004 or such other date deemed appropriate by the ISO Governing Board and approved by the FERC.

"Force Majeure" means any act of God, labor disturbance, act of public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental military or lawfully established civilian authorities, or any other cause beyond a Load Serving Scheduling Coordinator's control. No Load Serving Scheduling Coordinator shall be considered in default as to any obligation under this Protocol if prevented from fulfilling the obligation due to an event of Force Majeure. However, a Load Serving Scheduling Coordinator whose performance under this Protocol is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Protocol.

"Monthly Available Capacity Obligation or MACO" has the meaning set forth in RARP 2.3.

"Monthly Reserve Margin or MRM" has the meaning set forth in RARP 2.1.1 and is calculated accorded the method provided in RARP Appendix C.

"Outage Incidence" has the meaning as the term is used in RARP 8.2.1.

"Qualified Contract Resource" means capacity made available by contract to a LSSC or Load Serving Entity and which is certified as a qualifying ACAP Resource by the ISO in accordance with Appendix B.

"Qualified External Resource" means capacity made available from outside the ISO Control Area which is certified as a qualifying ACAP Resource by the ISO in accordance with Appendix B.

"Qualified Generation" means a generation facility which is certified as a qualifying ACAP Resource by the ISO in accordance with Appendix B.

"Qualified Interruptible Load or QIL" means load (including pumped storage hydroelectric generation in the pumping mode) subject by contract to interruption by the ISO and which is certified as a qualifying ACAP Resource by the ISO in accordance with Appendix B.

"Qualified Portfolio" means a portfolio of ACAP Resources consisting of Qualified Generation and Qualified Interruptible Load as defined Appendix B.

"Related Load Serving Entities" means, solely for purposes of the cost responsibility provisions of this Protocol any joint municipal agency and one of its members. For purposes of this Protocol, representatives of state or federal government agencies will not be deemed Related Load Serving Entities with respect to each other, and a public body's regulatory authority over an entity will not render it a Related Load Serving Entity with respect to such entity.

"Reliability Must-Run Phase-Out Period" means the period from the Effective Date until January 1, 2006 or until such other date upon which, subject to the approval of the ISO Governing Board, the ISO declares that this Reliability Must-Run Phase-Out Period is expired.

"Special Resource Plan" has the meaning set forth in RARP 4.5.

RARP 1.2.3 Rules of Interpretation

(a) Unless the context otherwise requires, if the provisions of this Protocol and the ISO Tariff conflict, the ISO Tariff will prevail to the extent of the inconsistency. The provisions of the ISO Tariff have been summarized or repeated in this Protocol only to aid understanding.

(b) A reference in this Protocol to a given Protocol, ISO Protocol or instrument will be a reference to that Protocol or instrument as modified, amended, supplemented or restated through the date as of which such reference is made.

(c) The captions and headings in this Protocol are inserted solely to facilitate reference and will have no

bearing upon the interpretation of any of the terms and conditions of this Protocol.

RARP 1.3 Effective Date

This Protocol has no force or effect prior to the Effective Date.

RARP 1.4 Scope

This Protocol applies to the ISO and to the following:

(a) Scheduling Coordinators,

(b) Load Serving Entities,

(c) ACAP Suppliers, and

(d) ACAP Resources

RARP 2 AVAILABLE CAPACITY OBLIGATIONS

RARP 2.1 Calculation of Reserve Margins

RARP 2.1.1 Calculation of Monthly Reserve Margin (MRM)

The ISO will establish a Monthly Reserve Margin, which generally means the percentage level of capacity determined by the ISO to be needed in excess of the amount of capacity needed to provide energy equal to the ISO's forecast monthly peak load. The ISO will determine such need in accord with the objectives of this Protocol set forth in RARP 1.1 and in reference to its interpretation of the standards set forth in the Minimum Operating Reliability Criteria (MORC) of the WECC and the Criteria set forth by the NERC to the extent that they are applicable to the ISO Controlled Grid. The specified method used by the ISO for determining the Monthly Reserve Margin is set forth in RARP Appendix C.

RARP 2.1.2 Calculation of Daily Reserve Margin (DRM)

The ISO will establish a Daily Reserve Margin, which generally means the percentage level of capacity determined by the ISO to be needed in excess of the amount of capacity needed to provide energy equal to the ISO's forecast day-ahead peak load. The ISO will determine such need in accord with the objectives of this Protocol set forth in RARP 1.1 and in reference to its determination of the corresponding MRM. The specified method used by the ISO for determining the Daily Reserve Margin is set forth in RARP Appendix C.

RARP 2.2 Calculation of ACAP Requirements

RARP 2.2.1 Determination of System Base Available Capacity Requirement

The ISO will first determine a base available capacity requirement for the ISO Control Area in megawatts equal to the product of: (i) the monthly peak load for the ISO Control Area and (ii) the quantity one (1) plus the Monthly Reserve Margin. The system base available capacity requirement shall be determined so as to ensure a loss of load probability (LOLP) of no more than 1 day in 10 years.

RARP 2.2.2 Determination of ACAP Requirement for Each LRA

The ISO will then determine the ACAP Requirement for each LRA by calculating the product of: (i) the base available capacity requirement determined pursuant to RARP 2.2.1 and (ii) the ratio of the LRA's historical coincident monthly peak to the total system forecast monthly peak.

RARP 2.3 Calculation of Monthly Available Capacity Obligation (MACO).

For each Load Serving Schedling Coordinator that the ISO anticipates will serve load in a Local Reliability Area during a future month, the ISO will calculate a Monthly Available Capacity Obligation by determining the amount in megawatts equal to the product of: (i) the ratio of the sum of the historical coincident monthly peak loads of the Load Serving Entity(s) represented by the LSSC to the historical peak load for the LRA and (ii) the LRA's ACAP Requirement. Consequently, a single Load Serving Scheduling Coordinator may have multiple MACOs (i.e., a separately derived MACO in every LRA in which it represents load). For purposes of determining a Load Serving Scheduling Coordinator's historical contribution to the peak load of an LRA, the ISO will use historical load data provided by the Load Serving Scheduling Coordinator and the Load Serving Entities represented by the LSSC, as appropriately adjusted in accordance with RARP 2.3.1. For purposes of determining a Load Serving Scheduling Coordinator's historical contribution to the peak load of an LRA, the ISO will use load data from the same calendar month (e.g., for purposes of determining the MACO for November 2004, the ISO will utilize historical load data from November 2003 and other years, as appropriate).

The MACO is established for the peak hours of the month, and is defined as the number of hours during the forecast month when the system load forecast exceeds ninety-five percent of the monthly system peak load forecast.

RARP 2.3.1 Adjustments for New and Departing Customers

To the extent that the ISO deems it practical, the ISO shall assign an estimated peak load to a new customer coincident with the peak load in the LRA, and, accordingly, shall prospectively calculate all MACOs for LSSCs active in the LRA.

Upon receipt of notice and reasonable supporting documentation acceptable to the ISO from an LSSC that a customer included in the calculation of such LSSC's MACO has requested disconnection of service, the ISO shall, where it deems practical and appropriate, subtract the amount appropriately attributable to the disconnected customer from such LSSC's MACO. The ISO shall, within three business days after its receipt of such notice and documentation from an LSSC, provide a response (i) specifying an approved adjustment to such LSSC's MACO, (ii) denying an adjustment as impractical and/or inappropriate, or (iii) stating the reasons that the supporting documentation provided is inadequate.

RARP 2.3.2 Transitional Adjustment to MACOs for Reliability Must-Run Generation

During each calendar month of the Reliability Must-Run Phase-Out Period in each LRA where an amount in megawatt-hours of Reliability Must-Run Generation may be called upon by the ISO pursuant to an RMR Contract, the ISO will subtract such amount from the ACAP Requirement for each LRA. Upon expiration of the Reliability Must-Run Phase-Out Period, this Section shall have no further force or effect.

RARP 2.4 Calculation of Daily Available Capacity Obligation (DACO)

The ISO will calculate the Daily Available Capacity Obligation by determining the amount in megawatts equal to the product of: (i) the quantity (1) plus the Daily Reserve Margin, (ii) the ISO's day-ahead peak load forecast, (iii) the LRA's share of the system peak load, and (iv) the Load Serving Entity's daily forecast coincident with the daily peak for the applicable LRA. As in the case of MACOs, a single Load Serving EntityLoad Serving Entity may generate multiple DACOs.

The DACO of each LSE shall be capped at the LSE's MACO.

RARP 2.5 Resources Qualifying to Meet Available Capacity Obligations

Only specific resources pre-certified by the ISO in accordance with RARP 6 and Appendix B shall qualify for use by a Load Serving Scheduling Coordinator to meet its Available Capacity Obligation.

RARP 2.6 Review of Available Capacity Obligations

RARP 2.6.1 Grid Operations Committee Review

The Grid Operations Committee will periodically undertake a review of the ISO Controlled Grid operations and the Available Capacity Obligations imposed by this Protocol and may recommend to the ISO Governing Board that the ISO Governing Board, at its discretion, amend such obligation. The Grid Operations Committee also will conduct such periodic reviews to accommodate revisions to WECC and NERC standards.

The Grid Operations Committee will also establish any restrictions on the total amount of ACAP that can be supplied from a local area (e.g., generation pocket) to satisfy ACAP obligation of LSEs outside the local area.

RARP 2.6.2 Contents of Grid Operations Committee Reviews

Periodic reviews may include, but are not limited to:

(a) analysis of the deviation between actual and forecast monthly peak load;

(b) analysis of compliance with NERC and WECC Criteria.

(c) analysis of Local Reliability Area boundaries

(d) analysis of MRM and DRM levels, and MACO and DACO requirements

(e) analysis of Credible Demand Resource eligibility levels

(f) analysis of Monthly and Daily Deficiency Charge levels.

(g) analysis of maximum amount of ACAP that may be supplied from a local area to serve the ACAP obligations outside the local area.

RARP 3 RESPONSIBILITIES OF THE ISO

With regard to the implementation of the provisions of this Protocol, the ISO will:

(a) Perform all calculations and analyses, and prepare all studies and forecasts, necessary for (i) the determination of ACAP Requirements for each LRA listed in RARP Appendix A, (ii) the calculation of the corresponding MACO and DACO for each LSCC serving load in each LRA, and (iii) the administration of this Protocol;

(b) Monitor the compliance of each LSSC with its obligations under this Protocol;

(c) Provide timely notice of MACOs, DACOs, potential and actual deficiency charges, and such other information in accordance with the deadlines specified in Appendix D;

(d) Assess, bill, collect and distribute deficiency charges (as described in RARP Section 7), in accordance with the terms of this Protocol;

(e) Assist with the development of rules and procedures for determining and demonstrating the capability of resources relied on, or to be relied on, by the LSSC as a ACAP Resource;

(f) Establish the capability to provide available capacity of resources relied on, or to be relied on, by the LSSC as ACAP Resources consistent with the requirements of this Protocol;

(g) Coordinate maintenance schedules for generation resources operated as part of the ISO Control Area with the schedules of planned outages submitted by LSSCs and anticipated transmission planned outages in accordance with the applicable provisions of the SO Tariff;

(i) Determine and declare that a System Emergency exists or ceases to exist in all or any part of the ISO Control Area or announce that a System Emergency exists or ceases to exist in a Control Area interconnected with an Control Area in the ISO Control Area;

(j) Enter into agreements for (i) the transfer of energy in System Emergencies in the ISO Control Area or in a Control Area interconnected with the ISO Control Area and (ii) mutual support in such System Emergencies with other Control Areas interconnected with a Control Area in the ISO Control Area; and

(k) Coordinate the curtailment or shedding of load, or other measures appropriate to alleviate a System Emergency, to preserve reliability in accordance with FERC, NERC or WECC principles, guidelines, standards and requirements, and to ensure the operation of the ISO Control Area in accordance with Good Utility Practice.

RARP 4 COMPLIANCE OF LOAD SERVING SCHEDULING COORDINATORS

RARP 4.1 Requirements for Compliance by Load-Serving Scheduling Coordinators

In order to comply with the requirements established in this Protocol, each Load Serving Scheduling Coordinator, in conjunction with any other LSSCs representing the same Load Serving Entity, shall:

(a) Secure from ACAP Suppliers the ACAP Resources needed to timely satisfy each MACO and DACO applicable to the Load Serving Entity(s) it represents;

(b) Include, or have their associated Load Serving Entity(s) include, provisions in their contractual arrangements with ACAP Suppliers that such ACAP Suppliers shall comply with RARP 5, Appendices D & E, and all other provisions in this Protocol applicable to ACAP Suppliers;

(c) Specify to the ISO, in accordance with the deadlines set forth in RARP Appendix D, the ACAP Resources which, as of the time of such specification, are expected to be available to the LSSC for its use in meeting its Available Capacity Obligations in each LRA wherein it will be active;

(d) Develop (or, to the maximum extent its legal rights allow, cause to be developed) and submit to the ISO schedules of planned outages of the resources relied on to meet its Available Capacity Obligations established in this Protocol and the applicable provisions of the ISO Tariff;

(e) Cooperate with other LSSCs as describe in RARP 4.4;

(f) Submit Special Resource Plans to the ISO in accordance with RARP 4.5;

(g) Collect and submit to the ISO the data indicated in Appendix E; and

(h) Provide all data submitted to the ISO in accordance with this Protocol in the time, manner and format set forth in RARP 4.6 and Appendix D, and, in the case of load forecasts, in compliance with the Demand Forecasting Protocol (DFP).

RARP 4.2 Requirements for Compliance by ACAP Supplier Scheduling Coordinators

In order to comply with the requirements established in this Protocol, each ACAP Supplier Scheduling Coordinator, in conjunction with the LSSCs representing the Load Serving Entity, shall:

(i) Develop (or, to the maximum extent its legal rights allow, cause to be developed) and submit to the ISO schedules of planned outages of the ACAP Resources;

(j) Offer all ACAP capacity not successfully scheduled in the day-ahead market by the LSSC in the RUC process.

(k) Offer adequate Supplemental Energy bids into the real-time (BEEP) stack to cover for forced outage of the ACAP resources in its portfolio, or else be liable for uninstructed deviation charges.

RARP 4.3 Prohibited Sales of ACAP Resources

No Load Serving Scheduling Coordinator may sell a generating facility serving as a ACAP Resource unless it has such facilities to sell in excess of its Available Capacity Obligations plus its other contractual obligations to sell capacity.

RARP 4.4 Coordination and Cooperation

Each LSSC shall cooperate with the other LSSCs in the coordinated planning and operation of their owned or contracted for ACAP Resources to obtain a degree of reliability consistent with WECC and NERC regional practices. In furtherance of such cooperation each LSSC shall:

(a) cooperate with the members and associate members of WECC to ensure the reliability of the ISO Control Area;

(b) make available its ACAP Resources to the other LSSCs through the ISO for coordinated operation and to supply the needs of the ISO Control Area;

(c) provide or arrange for transmission service to the projected load of the Load Serving Entity; and

(d) provide or arrange for sufficient reactive capability and voltage control facilities to meet Good Utility Practice

RARP 4.5 Submission of Special Resource Plans

Each Load Serving Scheduling Coordinator shall, with respect to every Qualified Interruptible Load (QIL) and Qualified Contract Resource (QCR) which such LSSC intends to rely on as a ACAP Resource for meeting its Available Capacity Obligations, submit and have on file with the ISO a Special Resource Plan to be implemented by direction of the ISO.

The Resource plan for QILs shall include at least the following:

(i) A description of the location of the relevant load with appropriate resolution (node, load group, demand zone, or Aggregation Point) commensurate with the relevant LRA boundaries, and

(ii) The maximum level of QIL desired.

The Resource plan for QCRs shall include the following at a minimum:

(i) For import contracts, specification of the Scheduling Point of the resource (or in the case of the QCRs backed by network service rights the set of Scheduling Points). ISO may require additional information about the supplier(s) of the external ACAP Resources, such as their total resource availability, their load serving obligation and their contract obligation on their ACAP Resources. This information will be used to assess the capability and feasibility of the external ACAP Resource.

(ii) For internal control area delivery contracts, specification of the physical resource(s) from which the ACAP Obligation will be satisfied.

RARP 4.6 Data Submittals

To perform the studies required to determine the ACAP Requirement and other needs under this Protocol and to determine compliance with the obligations imposed by this Protocol, each LSSC and ACAP Supplier shall submit data (other than load forecasts) to the ISO in conformance with the following minimum requirements:

(a) All data submitted shall satisfy the requirements, as they may change from time to time, of any procedures or guidelines adopted by the ISO Governing Board.

(b) Data shall be submitted in an electronic format, or as otherwise specified by the ISO Governing Board.

LSSCs shall submit load forecasts in compliance with the Demand Forecasting Protocol (DFP).

RARP 5 COMPLIANCE OF ACAP SUPPLIERS

RARP 5.1 Requirements for Compliance by ACAP Suppliers

LSSCs or their associated Load Serving Entity(s) shall include in their contracts with ACAP Suppliers, and enforce, if necessary, terms sufficient to require compliance with obligations imposed on ACAP Suppliers in this Protocol.

RARP 5.2 Effect of Transfer of ACAP Resources

When the owner of a ACAP Resource sells or leases the ACAP Resource to another party, they may agree to designate the purchaser as the ACAP Supplier. Such designation shall be made in writing to the ISO at least five calendar days before the date by which any of the relevant obligations or requirements must be fulfilled. If no designation is made to the ISO, the seller shall continue to be the ACAP Supplier, and will be responsible for fulfilling all of the obligations and requirements set forth in the ISO Tariff.

RARP 6 CERTIFICATION AND TESTING OF ACAP RESOURCES

RARP 6.1 Resources Eligible for ACAP Resource Status

Pursuant to the procedures set forth in RARP Appendix B, the ISO will consider certification as a ACAP Resource of the following types of the resources:

(a) Specific generation within the ISO Control Area (which, upon certification, are Qualified Generation);

(b) Load-based resources within the ISO Control Area that can be controlled by the ISO, (which, upon certification, are Qualified Interruptible Loads);

(c) Contract power that can serve in the manner of available capacity (which, upon certification, are Qualified Contract Resources);

(d) External resources (which, upon certification, are Qualified External Resources), and

(e) Qualified Generation and Qualified Interruptible Load aggregated into LRA-specific portfolios (which, upon certification, are Qualified Portfolios).

RARP 6.1.1 Eligible Amount

The Eligible Amount of ACAP Resources from a ACAP supplier can not exceed the unforced capacity of the supplier's portfolio minus its load serving obligation and other contractual obligation.

There may be limits on the total amount of ACAP that can be supplied from a local area (e.g., generation pocket) to satisfy ACAP obligation of LSEs outside the local area.

RARP 6.2 Compliance Testing

RARP 6.2.1 Testing of a Generating Unit, System Unit or System Resource

The ISO may test the capability of a ACAP Resource by issuing unannounced dispatch instructions requiring the generation facility to come on line and ramp up. Such tests may not necessarily occur on the hour. The ISO will measure the response of the generating facility to determine compliance with its stated capabilities.

RARP 6.2.2 Testing of Qualified Interruptible Load

The ISO may test the capability of a Load providing QIL by issuing unannounced Dispatch instructions requiring the operator of the Load to report the switchable Demand of that Load actually being served by the operator at the time of the instruction. No Load will be disconnected as part of the test.

RARP 7 DEFICIENCY AND CHARGES

RARP 7.1 Deficiency

To the extent any Load Serving Scheduling Coordinator fails to specify, or specifies but fails to provide, ACAP Resources sufficient to meet any of its Monthly Available Capacity Obligations or its Daily Available Capacity Obligations, and the Load Serving Scheduling Coordinator's failure is not excused by an event of Force Majeure, it has a deficiency.

The deficient LSSC shall designate an amount of Credible Demand Resource (CDR) equal to its MACO or DACO shortfall, and must choose between two options:

(a) Pay no deficiency charge and have its CDR curtailed when ISO declares Stage 1 Emergency, or

(b) Pay the deficiency charge as specified in RARP 7.2, and have its CDR curtailed when ISO declares Stage 3 Emergency (in which case the CDR will be curtailed before other rotating blackouts).

The ACAP-deficient LSE may elect the two options for different parts of its CDR. In general, the ACAP-deficient LSE may designate an amount of CDR along with a Demand Resource Curtailment Priority.

The Demand Resource Curtailment Priority shall state whether the Demand Resource may be curtailed in the context of an ISO declaration of (i) a Stage 1 Emergency (Stage 1 Demand Resource) or (ii) a Stage 3 Emergency conditions (Stage 3 Demand Resource).

The Credible Demand Response limit is based on the represented Load Serving Entity's historical load, and shall be calculated as the level exceeded in 95 percent of the hours during the corresponding months in the historical reference period.

RARP 7.2 Deficiency Charges

RARP 7.2.1 Deficiency Charges For Shortfalls With Respect to MACOs

A Load Serving Scheduling Coordinator with a deficiency as described in RARP 7.1 with respect to a MACO shall pay to the ISO a deficiency charge in the amounts specified below depending upon the calendar month during which the deficiency was incurred:

(a) During the months of June, July and August, the deficiency charge is $50,000 per megawatt of deficiency.

(b) During the months of March, May, September, October, the deficiency charge is $30,000 per megawatt of deficiency.

(c) During the months of December, January, and February, the deficiency charge is $40,000 per megawatt of deficiency.

(d) During the months of April and November, the deficiency charge is $20,000 per megawatt of deficiency.

The MACO deficiency charge is waived if the LSE has designated adequate Credible Stage 1 Demand Resources in each relevant Local Reliability Area to match its MACO shortfall.

If the LSE has designated adequate Credible Demand Resource to match its MACO shortfall, to the extent that all or part of the designated resources are of Stage 3 Demand Resources, the LSSC will be subject to the MACO deficiency charge.

The MACO deficiency charge rate is doubled to the extent that the LSSC does not have adequate Credible Demand Resources to match its MACO deficiency.

RARP 7.2.2 Deficiency Charges For Shortfalls With Respect to DACOs

A Load Serving Scheduling Coordinator with a deficiency as described in RARP 7.1 with respect to a Daily Available Capacity Obligation shall pay to the ISO a DACO deficiency charge in the following amount in dollars/megawatt-day:

DACODF = 1/30 *MACODF if the ISO is not ACAP short for the day;

DACODF = 1/3 * MACODF

where

DACODF: DACO Deficiency Charge Rate (dollars/megawatt-day)

MACODF: MACO Deficiency Charge Rate (dollars/megawatt-month)

The DACO deficiency charge is waived if the LSSC has designated adequate Credible Stage 1 Demand Resources in relevant Local Reliability Areas to match its DACO shortfall.

If the LSSC has designated adequate Credible Demand Resources to match its daily DACO shortfall, to the extent that all or part of the designated resources are a Stage 3 Demand Resource, the LSSC will be subject to the daily ACAP deficiency charge. However, the LSE may not convert any Stage 1 Demand Resource it had designated towards its monthly ACAP shortfall to Stage 3 Demand Resource for its daily ACAP shortfall, even if the LSE is willing to pay the daily deficiency charge. In other words, the LSE is allowed to designate additional Stage 3 Demand Resources for its daily ACAP shortfall only if the shortfall is caused by the unanticipated unavailability of ACAP resources the LSE had acquired towards its monthly ACAP Obligation..

The DACO deficiency charge rate is doubled if the LSSC does not have adequate Credible Demand Resource to match its DACO deficiency.

To prevent false reporting of ACAP Resources, the ISO reserves the right to review any daily deficiency incident. If the investigation reveals the planned ACAP Resources are not credible for the month (e.g. hydroelectric generation is out of water/energy a month prior, or a unit is scheduled to be on

maintenance) the ISO will increase the daily deficiency charge to the level of the monthly deficiency charge. For repeated and serious violations there may be additional sanctions and penalties.

RARP 7.3 Distribution of Charge Receipts

Any deficiency charges collected under RARP 7.2 shall be distributed by the ISO, on a pro rata, megawatt basis for the month or day for which the deficiency was assessed, to the Load Serving Entities who satisfied their MACO or DACO for each month or day during which the deficiency was assessed. The basis for the allocation shall be the ACAP-sufficient LSE's ACAP that participated (i.e., scheduled or bid at prices within the prevailing bid caps) in the day-ahead market, limited to the higher of LSE's monthly or daily ACAP Obligation.

RARP 7.4 Annual Review and Determination of Charge Amounts

No later than November 1st of each year, the Grid Operations Committee will recommend to the ISO Governing Board such charges to be applicable under this Protocol for the next calendar year, which, upon approval of the ISO Governing Board, shall be modified accordingly, subject to the receipt of all required regulatory approvals.

RARP 8 PERFORMANCE PENALTIES

Each ACAP Supplier will be subject to (i) the provisions regarding the requirements for performance and sanctions for non-compliance, if any, contained in such ACAP Supplier's contract with its representative LSSC, and (ii) the provisions of the ISO Tariff applicable to real time deviations and penalties.

RARP 9 BILLING AND PAYMENT

RARP 9.1 Periodic Billing

Each LSSC shall receive a statement periodically setting forth (i) any amounts due from or to that LSSC as a result of any charges or penalties imposed pursuant to this Protocol. To the extent practical, such statements are to be coordinated with any billings or statements required pursuant to the ISO Tariff.

RARP 9.2 Payment.

The payment terms and conditions shall be as set forth in the billing statement and shall, to the extent practicable, be the same as those then in effect under the ISO Tariff

RARP 10 INDEMINIFICATION AND LIMITATION OF LIABILITIES

RARP 10.1 Indemnification

Each LSSC agrees to indemnify and hold harmless each of the other LSSCs, its officers, directors, employees or agents for all actions, claims, demands, costs, damages and liabilities asserted by third LSSCs against the LSSC seeking indemnification and arising out of or relating to acts or omissions in connection with this Protocol of the LSSC from which indemnification is sought, except (i) to the extent that such liabilities result from the willful misconduct of the LSSC seeking indemnification and (ii) that each LSSC shall be responsible for all claims of its own employees, agents and servants growing out of any workmen's compensation law. The amount of any indemnity payment under this section shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the LSSC seeking indemnification in respect of the indemnified actions, claims, demands, costs, damages or liabilities. If any LSSC shall have received an indemnity payment in respect of an indemnified action, claim, demand, cost, damage, or liability and will subsequently actually receive insurance proceeds or other amounts in respect of such action, claim, demand, cost, damage, or liability, then such LSSC shall pay to the LSSC that made such indemnity payment the lesser of the amount of such insurance proceeds or other amounts actually received and retained or the net amount of the indemnity payments actually received previously.

RARP 10.2 Liability of the ISO

Any liability of the ISO arising out of or in relation to this Protocol shall be subject to Section 14 of the ISO Tariff as if references to the ISO Tariff were references to this Protocol.

RARP 11 CONFIDENTIALITY

No LSSC shall have a right hereunder to receive or review any documents, data or other information of another LSSC, including documents, data or other information provided to

the ISO, to the extent such documents, data or information have been designated as confidential pursuant to the procedures adopted by the ISO or to the extent that they have been designated as confidential by another LSSC; provided, however, a LSSC may receive and review any composite documents, data and other information that may be developed based on such confidential documents, data or information if the composite document does not disclose any individual LSSC's confidential data or information.

RARP 12 AMENDMENTS TO THE PROTOCOL

If the ISO determines a need for an amendment to this Protocol, the ISO shall follow the requirements as set forth in Section 16 of the ISO Tariff.

RELIABILITY ASSURANCE REQUIREMENTS PROTOCOL

APPENDICES A-E

APPENDIX A

LIST OF LOCAL RELIABILITY AREAS

A 1	Humboldt
	Battle Creek
	North Bay
	Chico
	Greater Bay Area
	Sierra
	Stockton Area
	Fresno Area
	LA Basin
	San Diego County
	Vaca-Dixon

APPENDIX B

PROCEDURES FOR CERTIFICATION OF ACAP RESOURCES

B 1 Certification of Qualified Generation

All generation resources located within the ISO Control Area will be certified as Qualified Generation to the ACAP Supplier that demonstrates that it is committed by contract to the LSSC, or by agreement with the ISO, that it will:

(a) Perform Demonstrated Maximum Net Capability (DMNC) tests in accordance with established ISO Procedures for determining the Pmax of a PGA Resource.

(b) Provide the amount of capacity from its ACAP Resource through a combination of scheduling or bidding in the ISO's day-ahead market for every hour of any day equal to the amount of capacity from such ACAP Resource supplied to an LSSC that has been identified by such LSSC as counting towards the LSSC's DACO.

(c) Refrain from entering a contractual commitment to supply the same capacity from a ACAP Resource more than once during the same time period.

(d) Comply with the ISO's established procedures for Outage Coordination, as those requirements are specified in ISO Tariff Section 5.5.

(e) Make no objection to compliance testing performed in accordance with RARP 6.1.

(f) Provide to the ISO, by the 20th day of each month, GADS data or data equivalent to GADS data pertaining to the previous month.

The eligible level of each Qualified Generation is limited, with respect to DACO, by the facility's actual available capacity in the day-ahead time frame (day-ahead energy market and RUC), and with respect to MACO, the unforced capacity (UCAP), where UCAP is determined according the following calculation:

$$UCAP = DMNC \times (1 - FOR)$$

where

$$FOR = (FOH / MH)$$

where

FOH: The number of hours of forced outage during a historical reference period (rolling 12-months).

MH: The number of hours of the historical reference period, excluding the hours when the unit had no schedule or

bid into the market and was not on scheduled maintenance.

B 2 Certification of Qualified Interruptible Loads

In order to provide a ACAP Resource in the form of Qualified Interruptible Load, the ACAP Supplier must demonstrate, at a minimum, that it will obligate itself by contract to an LSSC to perform as follows:

(a) Bid into the day-ahead market as price cap bid load, and, consequently, be scheduled based on their bids and day-ahead prices;

(b) Determine in real-time whether, and at what level, to purchase energy or to interrupt through their bids into the hour-ahead market;

(c) Pay the nodal price for the difference between its scheduled load and the load for which it is purchasing, if choosing to purchase energy;

(d) Interrupt promptly upon request by the ISO;

(e) Provide notice to the ISO at least 30 days prior to the beginning of a scheduled maintenance period that would reduce their ability to interrupt during an upcoming period;

(f) Provide notice promptly to the ISO of any major equipment that is out of service and not using power and again when such equipment returns to service;

(g) Provide to the ISO a written commitment that any scheduled maintenance that will impair their ability to interrupt with no corresponding reduction in load will only be conducted from November 1st through March 31st of any calendar year.

The eligible level of each QIL is limited based on actual historical consumption for similar periods (similar month, or similar day, distinguished by peak and off-peak hours). The eligible level is that exceeded at least [95] percent of the time during the reference historical similar period.

B 3 Certification of Qualified Contract Resources

The ISO will consider upon request the certification of certain existing contracts as Qualified Contract Resources. The ISO will grant summarily such requests with respect to any contract endorsed by the CERS. For all other contracts, the ISO reserves the authority to make this determination on a case-by-case basis, and, where appropriate, to make determinations establishing an equivalence of available capacity. The ISO will summarily deny

any request for certification where the contract fails to meet the following threshold criteria:

(a) Executed prior to October 1, 2002; and

(b) Provides for firm capacity and energy, according to WECC standards.

B 4 Certification of External Resources

In order for the ISO to certify an external resource proposed by an LSSC or ACAP Supplier, the sponsor must demonstrate to the ISO's satisfaction the following:

(a) The control area in which the resource is located will not recall or curtail, for purposes of satisfying its own control area load, imports from that control area into the ISO Control Area of an amount of energy equal to the capacity that resource proposes to supply to the ISO Control Area;

(b) The control area in which the resource is located will afford the ISO Control Area the same curtailment priority that it affords its own control area load;

(c) The delivery point into the ISO system;

(d) Verification that all arrangements required by the host control area have been made to ensure the sale and delivery of energy associated with the resource to the ISO control area;

(e) Verification of the acquisition of transmission rights (ETCs, converted ETC FTR Options, LSE FTR Obligations, or Firm Transmission Rights acquired through primary FTR auction or secondary FTR markets) that originate at the point of delivery identified in (c) above;

(f) Identification of the underlying source of the power; and

(a) Adequate means of contractual control.

B 5 Certification of Qualified Portfolios

Within an LRA, an ACAP Supplier may aggregate Qualified Generation and Qualified Interruptible Loads into a portfolio for the purpose of creating a Qualified Portfolio, provided that, for every hour of any day that a Qualified Portfolio has been identified by an LSSC as supplying an amount of capacity to contribute towards its DACO, the ACAP Supplier shall provide such amount of capacity through a combination of scheduling or bidding in the ISO's day-ahead market.

APPENDIX C

METHOD FOR CALCULATION OF RESERVE MARGINS

C 1 The ISO proposes that the Monthly Reserve Margin (MRM) be calculated by summing historical ISO operating reserve and regulation requirements, a contingency for load forecast error, and a contingency for outages. The contingencies for load forecast error and outages will consider the following:

(a) Historical accuracy of ISO monthly load forecasts;

(b) Generating unit capability and types for every existing and proposed unit;

(c) Generator forced outage rates for existing mature generating units based on data submitted by the each LSSC for each of its Load Serving Entities' respective systems, from recent experience, and for immature and proposed units based upon forecast rates related to unit types, capabilities and other pertinent characteristics; and

(d) Generator maintenance outage factors and planned outage schedules.

C 2 Based on the above, the ISO proposes that the MRM be determined as follows:

$$MRM = ORM + FCM + OCM$$

where

FMP: The forecast monthly peak for the ISO system, which will be the weather-normalized, 50/50 probability load.

ORM: The operating reserve margin, as determined by a review of historical ISO operating reserve procurement levels.

FCM: Forecast contingency margin, as determined by historical data and statistical analysis.

OCM: Multiple outage contingency margin, as determined by historical data and statistical analysis. This margin is to cover for simultaneous outages of power system elements (e.g., a power plant and a transmission line, the outages due to Remedial Action Schemes, RAS, etc.) beyond the contingencies covered by operating reserve margin. Initially this margin will be set to zero.

C 3 The Daily Reserve Margin shall be calculated as the sum of the Operating Reserve and Regulation percentage requirements.

APPENDIX D

TIMELINES

D 1 Minimum Periods Prior to Month of Obligation

90 Days Prior	ISO issues ISO forecast, by UDC
75 Days Prior	ISO identifies new generation resources identified as potential ACAP providers
40–45 Days Prior	LSSCs provide to the ISO 12-month load forecasts for each Load Serving Entitys represented by LRA, as provided in DFP Section 2.1
30 Days Prior	ISO reviews each LSE's forecast and determines if sum of LSEs' forecasts is greater than or equal to ISO forecast (on a UDC basis)
25 Days Prior	If there is a deficiency, ISO allocates the additional forecast amount to LSEs by LRA
20 Days Prior	ISO posts MACOs for LSEs by LRA
17 Days Prior	Each LSE submits to ISO a list of ACAP Resources to meet MACO(s)
14 Days Prior	ISO reviews for feasibility and deliverability each LSE's list of ACAP Resources
10 Days Prior	ISO informs each LSE of infeasible ACAP Resources.
7 Days Prior	LSEs report to ISO final list of ACAP Resources, and in case of ACAP deficiency, its credible Demand Resources
1 day prior	ISO issues Monthly Deficiency penalty notifications

D 2 Schedule Within Month of Obligation

Day Before, 5 AM	LSSCs submit to the ISO on behalf of each Load Serving Entity represented (i) a list designating ACAP Resources for the day ahead and (ii) 7-day load forecasts, as provided in DFP Section 2.2 The DACO deficient LSSCs designate credible Demand Resources.
Day Before, 6 AM	ACAP Suppliers confirm to ISO the LSSCs' List

	Day Before, 10 AM	ACAP Resources schedule and bid in day-ahead markets
	Day Before, 2 PM	ACAP Resources bid in day-ahead RUC
	Day Before, 6 PM	ISO issues Daily Deficiency penalty notifications
	Day of Obligation	ACAP Resources schedule and bid in hour-ahead and real-time markets
D 3	Maximum Period Following Month of Obligation	
	15 Days	ISO determines final monthly deficiency charges and non-compliance penalties for prior month
	Next Scheduled Bill	ISO bills LSSCs for charges, penalties and costs

APPENDIX E

DATA REQUIREMENTS

E 1 Each LSSC, on behalf of the Load Serving Entity it represents, shall submit to the ISO the following data:

(a) Annual five-year resource plans conforming to the requirements of the WECC;

(b) Periodic compilations of historic Load Serving Entity load data on an LRA basis;

(c) Month-and Day-ahead load forecasts, in accordance with the Demand Forecasting Protocol; and

(d) Availability, operating, outage, meter and other data for ACAP Resources, including such data provided to the LSSCs by ACAP Suppliers.

DEMAND FORECASTING PROTOCOL

* * *

DEMAND FORECASTING PROTOCOL

Table of Contents

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DEMAND FORECASTING PROTOCOL (DFP)

DFP 1.1 Objectives

The objective of the DFP is to set forth procedures for submission of Demand Forecasts which will provide information to the ISO for projecting future Demand requirements to be served by the ISO Controlled Grid. The ISO shall utilize such forecasts to enable it to assess system reliability**, preserve system security, and ensure short-term availability of adequate resources,** and **to** carry out its functions under the Scheduling Protocol (SP)**, the Reliability Assurance Requirements Protocol (RARP)** and the Outage Coordination Protocol (OCP).

* * *

DFP 1.3.1 Scope of Application to Parties

The DFP applies to the following entities:

(a) Scheduling Coordinators (SCs);

(b) Load-Serving Entities (LSEs), as represented by Load Serving Scheduling Coordinators (LSSCs);

(**c**~~b~~) Utility Distribution Companies (UDCs); and

(**d**~~c~~) the ISO.

* * *

DFP 2 **Scheduling Coordinator Twelve-Month Demand Forecast Responsibilities**

DFP 2.1 **Twelve-Month Data to be Submitted to the ISO by SCs**

At the time specified in DFP 2.3, each SC shall submit to the ISO its **Monthly** ~~Weekly~~ Peak Demand Forecast by Location reflecting ~~(1)~~ the **Monthly** ~~Weekly~~ Peak Demand Forecasts of the **Load-Serving Entities**~~**UDCs**~~ that it proposes to Schedule ~~and (2) any other non-UDC Demand that it proposes to Schedule~~. All **Monthly** ~~Weekly~~ Peak Demand Forecasts submitted shall include Demand Forecasts for the following **12 months** ~~52 Weeks~~.

* * *

DFP 2.4.2 **Required Performance**

Each SC~~s~~ submitting its Demand Forecasts to the ISO shall take all necessary actions to provide Demand Forecasts that reflect the best judgment of the submitting SC to help avoid potential System Reliability concerns and to enable the ISO to administer a meaningful market for Energy and Ancillary Services **and to ensure the reliability of the ISO Controlled Grid**. From time to time the ISO may publish information on the accuracy of SC Demand Forecasts.

***

DFP 2.4.3 **Incomplete or Unsuitable Demand Forecasts**

If the Demand Forecasts supplied by a SC to the ISO are, in the ISO's opinion, incomplete or otherwise unsuitable for use, or a particular Demand Forecast has not been supplied by a SC to the ISO as required under this Protocol, the ISO will substitute the last valid Demand Forecast received from the SC in replacement for any incomplete, unsuitable or not supplied Demand Forecasts**, adjusted as the ISO sees fit**.

* * *

DFP 3 **Scheduling Coordinators Seven-Day Forecast Demand Responsibilities**

DFP 3.1 **Seven-Day Data to be Submitted to the ISO by** ~~**UDC**~~**SCs**

At the time specified in DFP 3.3, each SC shall submit to the ISO its **Daily** ~~Weekly~~ Peak Demand Forecasts by Location reflecting the **Daily**

~~Weekly~~ Peak Demand Forecast for load expected to be served by ~~facilities~~**resources** under the control of ~~the~~ **a represented LSE or UDC**. All **Daily** ~~Weekly~~ Peak Demand Forecasts submitted shall include Demand Forecasts for the following **seven days**~~52 weeks~~.

* * *

DFP 3.3 Timing of Submission of Demand Forecasts

The Demand Forecasts described in DFP 3.1 shall be submitted by **each SC** ~~UDC~~ to the ISO ~~on a monthly basis~~ by **10 A.M.**~~noon~~ **each day**~~of the twelfth working day of the month~~.

* * *

DFP 3.4.1 Avoiding Duplication

Each ~~UDC~~**SC** submitting Demand Forecasts to the ISO ~~and its SC~~shall ensure, to the best of its ability, that any Demand Forecasts that it is submitting to the ISO ~~and its SC~~are not duplicated in another SC's Demand Forecasts.

* * *

DFP 3.4.2 Required Performance

Each ~~UDC~~**SC** submitting its Demand Forecasts to the ISO ~~and its SC~~ shall take all necessary actions to provide Demand Forecasts that reflect the best judgment of the submitting ~~UDC~~**SC** to help avoid potential System Reliability concerns and to enable the ISO to administer a meaningful market for Energy and Ancillary Services **and to ensure the reliability of the ISO Controlled Grid**. The ISO may publish information on the accuracy of ~~UDC~~**SC** Demand Forecasts from time to time.

DFP 4 ISO Responsibilities

DFP 4.1 Advisory Control Area Demand Forecasts

The ISO will publish on WEnet and supply to the SCs advisory Control Area Demand Forecasts comprised of Hourly Demand Forecasts for each Location for each Settlement Period of the relevant Trading Day. The ISO will publish this information in accordance with the timing requirements set forth in the SP **and the RARP**.

* * *

DFP 4.2 **ISO Demand Forecasts**

The ISO shall publish monthly on WEnet the following two (2) Demand Forecasts for the next **twelve months** ~~52 weeks~~.

(i) Consolidated SC Forecast. This forecast will be developed by adding together the **Monthly** ~~Weekly~~ Peak Demand Forecasts of the individual SCs.

(ii) Independent ISO Forecast. This forecast will be developed by the ISO.

The ISO may, at its discretion, publish on WEnet additional Demand Forecasts for two or more years following the next year.

* * *

SCHEDULE 1

SC MONTHLY DEMAND FORECAST FORMAT

SC Twelve Month~~52 Weeks~~ **Load Forecast (for the next twelve months**~~52 operating weeks~~**)**

This template is used to post the Twelve-Month Load Forecast.

(a) SC's ID code

(b) Forecast **Monthly**~~**Weekly**~~ Maximum Generation capacity for each of the next **twelve months**~~**52 weeks**~~.

(c) Forecast **Monthly** ~~Weekly Maximum~~ **Peak** Demand for each of the next **twelve months**~~52 weeks.~~

* * *

SCHEDULE 2

~~UDC~~SC DAILY DEMAND FORECAST FORMAT

SC/UDC Direct-Access Load Forecast

This template is for use by the SCs to forecast their direct-access loads for each LSE. The forecast must be for seven ~~(7)~~ future days ~~including~~**starting with** the current Day-Ahead Market.

(a) SC's ID code

(b) Trading Day of current Day-Ahead Market (month/day/year)

(c) UDC's ID code

(d) Hourly Demand Forecast for the 168 hours beginning with the first hour of the current Day-Ahead Market

ISO TARIFF APPENDIX A

Master Definitions Supplement

* * *

ACAP Resource	Means megawatts of net capacity from owned, or contracted for, Qualified Generation, Qualified Interruptible Load, Qualified Contract Resource, or Qualified Portfolio all of which are accredited pursuant to the procedures set forth or referenced in RARP 6 and RARP Appendix B below and which otherwise qualify to satisfy Load Serving Entities' Available Capacity Obligations established in this Protocol.

* * *

Load Serving Scheduling Coordinator or LSSC	Any Scheduling Coordinator representing a LSE.

* * *

Available Capacity Obligation	Means, depending upon the context, a MACO, a DACO, or both, as described in RARP Section 2.

Local Reliability Area or LRA	Means an area within the ISO Control Area that, due to transmission constraints (or other constraints), must rely on local generation to meet demand in the area and to ensure reliable system operation. LRAs are used by the ISO for assessing needs for local generation services to support reliability. A LRA is defined by the transmission constraints into and out of the area and the Operating Procedures and Nomograms used by the ISO to manage the area in real time. The existing LRAs are listed in RARP Appendix A.