

ANCILLARY SERVICES REQUIREMENTS PROTOCOL (ASRP)

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ASRP 1.2 Definitions

ASRP 1.2.1 Master Definitions Supplement

~~Unless the context otherwise requires, a~~Any word or expression defined in the Master Definitions Supplement to the ISO Tariff shall have 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 ASRP are to this Protocol or to the stated paragraph of or Appendix to this Protocol.

ASRP 1.2.2 Special Definitions for this Protocol

In this Protocol, the following expression shall have the meaning set opposite it:

“Area Control Error (ACE)” means the sum of the instantaneous difference between the actual net interchange and the scheduled net interchange between the ISO Control Area and all adjacent Control Areas and the ISO Control Area’s frequency correction and time error correction obligations.

“Dynamic Schedule” means a telemetered reading or value which is updated in real time and which is used as a schedule in the ISO EMS calculation of ACE and the integrated value of which is treated as a schedule for interchange accounting purposes.

~~“EOE” means an Existing Operating Entity operating under and Existing Operating Agreement.~~

“ISO Home Page” means the ISO internet home page at www.caiso.com/iso or such other internet address as the ISO shall publish from time to time.

ASRP 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 agreement, ISO Protocol or instrument shall be a reference to that agreement

or instrument as modified, amended, supplemented or restated through the date as of which such reference is made.

- (c) The captions and headings in this Protocol are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Protocol.
- (d) This Protocol shall be effective as of the ISO Operations Date.

ASRP 1.3 Scope

ASRP 1.3.1 Scope of Application to Parties

This Protocol applies to the ISO and to the following:

- (a) Participating Generators
- (b) Operators
- (c) UDCs
- (d) Providers of Curtailable Demand
- (e) Scheduling Coordinators.
- ~~(f) an existing entity operating under an EOA.~~

ASRP 1.3.2 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.

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ASRP 4.1.3 Percentage Determination

The exact percentage required for each Settlement Period of the Day-Ahead Market and the Hour-Ahead Markets shall be determined by the ISO based upon its need to meet the WSCC and NERC control performance criteria.

ASRP 4.1.4 Publication of Estimated Percentage for Day-Ahead Market

In accordance with the requirements of SP 3.2.1, the ISO will publish on WEnet its estimate of the percentage it will use for determining the quantity of Regulation it requires for each Settlement Period of the Day-Ahead Market for that Trading Day.

ASRP 4.1.5 Publication of Estimated Percentage for Hour-Ahead Market

The ISO will publish on WEnet its estimate of the percentage it will use to determine the quantity of Regulation it requires for each Hour-Ahead Market.

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ASRP 4.2.2 Operational EMS/SCADA Equipment

Each Participating Generator must ensure that the ISO EMS control and related SCADA equipment [for its generating facility are](#) operational throughout the time period during which Regulation is required to be provided.

ASRP 4.3 SC's Obligation for Regulation

Each Scheduling Coordinator's Obligation for Regulation for each Settlement Period of the Day-Ahead Market and for each Hour-Ahead Market in each Zone shall be calculated based upon the ratio of metered Demand (excluding exports) by each Scheduling Coordinator in each identified Zone for that Settlement Period to the total metered Demand (excluding exports) for that Settlement Period in that Zone.

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ASRP 4.5 Standard for Regulation: Procurement

ASRP 4.5.1 Procurement of Non Self-Provided Regulation

Regulation necessary to meet ISO requirements not met by self-provided Regulation will be procured by the ISO as described in the ISO Tariff.

ASRP 4.5.2 Certification and Testing Requirements

Each Generating Unit and Generating Units which an EOE intends to include in any System Unit used to bid Regulation or used to self provide Regulation must have been certified and tested by the ISO using the process defined in Appendix A to this Protocol.

ASRP 4.5.3 Procurement as of Operations Date

The ISO will procure, with the exception of ASRP 4.4.1, Regulation only from providers with Generating Units [connected to and](#) operating within the ISO Control Area.

ASRP 4.5.4

Self Provision of Regulation

Scheduling Coordinators may not self provide Regulation from resources outside the ISO Control Area except under Existing Contracts as described in Section 4.4.1.

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ASRP 5.3

Standard for Spinning Reserve: Performance

ASRP 5.3.1

Spinning Reserve Capability

Each Generating Unit or external import of a System Resource scheduled to provide Spinning Reserve must be capable of converting the full capacity reserved to Energy production within ten minutes after the issue of the Dispatch instruction by the ISO, and of maintaining that output or scheduled interchange for at least two hours ~~or, if earlier, until such time as the ISO can Dispatch additional resources to permit the Generating Unit to return to its scheduled Set Point or to permit the Energy schedule of the external import to be returned to zero for the current Settlement Period or such other level directed by an ISO Dispatch instruction.~~

ASRP 5.3.2

Availability

Each Participating Generator shall ensure:

- (a) that its Generating Units scheduled to provide Spinning Reserve are available for Dispatch throughout the Settlement Period for which it has been scheduled; and
- (b) that its Generating Units scheduled to provide Spinning Reserve are responsive to frequency deviations throughout the Settlement Period for which they have been scheduled.

ASRP 5.4

Standard for Non-Spinning Reserve Performance

ASRP 5.4.1

Non-Spinning Reserve Resources

Non-Spinning Reserve may be provided by, among others, the following resources:

- (a) Demand which can be reduced by Dispatch;
- (b) interruptible exports;
- (c) on-demand rights from other entities or Control Areas;
- (d) off line Generating Units qualified to provide Non-Spinning Reserve; and
- (e) external imports of System Resources.

ASRP 5.4.2

Non-Spinning Reserve Capability

Each resource providing Non-Spinning Reserve must be capable of converting the full capacity reserved to Energy production within ten

minutes after the issue of the Dispatch instruction by the ISO, and of maintaining that output for at least two hours, ~~or, if earlier, until such time as the ISO can Dispatch additional resources to permit the resource to return to its scheduled Set Point or operating level for the current Settlement Period or such other level directed by an ISO Dispatch instruction.~~

ASRP 5.4.3

Availability

Each provider of Non-Spinning Reserve must ensure that its resources scheduled to provide Non-Spinning Reserve are available for Dispatch throughout the Settlement Period for which they have been scheduled.

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ASRP 5.8

Standard for Operating Reserve: Procurement

ASRP 5.8.1

Procurement of Non Self-Provided Operating Reserve

Operating Reserve necessary to meet ISO requirements not met by self-provided Operating Reserve will be procured by the ISO as described in the ISO Tariff.

ASRP 5.8.2

Procurement Not Limited to ISO Control Area

The ISO will procure Spinning and Non-Spinning Reserves from Generating Units ~~connected to and~~ operating within the ISO Control Area and external imports of System Resources.

ASRP 5.8.3

Spinning Reserve Certification and Testing Requirements

Spinning Reserve may only be provided from

- (1) Generating Units;
- (2) System Resources from external imports; or
- (3) Generating Units which an EOE intends to include in any System Unit;

which have been certified and tested by the ISO using the process defined in Appendix B to this Protocol.

ASRP 5.8.4

Non-Spinning Reserve Certification and Testing Requirements

Non-Spinning Reserve may only be provided from resources including

- (1) Loads;
- (2) Generating Units;
- (3) System Resources from external imports; and

- (4) Generating Units which an EOE intends to include in any System Unit;

which have been certified and tested by the ISO using the process defined in Appendix C to this Protocol.

ASRP 5.8.5 Self Provision of Operating Reserve

Scheduling Coordinators may self provide Spinning and Non-Spinning Reserves from resources outside the ISO Control Area.

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ASRP 6.2 Standard for Replacement Reserve: Performance

ASRP 6.2.1 Replacement Reserve Supply Capability

Each resource providing Replacement Reserve must be capable of supplying any level of output up to and including its full reserved capacity within sixty minutes after issue of Dispatch instructions by the ISO.

ASRP 6.2.2 Replacement Reserve Availability

Each resource providing Replacement Reserve must be capable of sustaining the instructed output for at least two hours, ~~or, if earlier, until such time as the ISO can Dispatch additional resources to permit the Replacement Reserve resource to return to its scheduled Set Point or operating level for the current Settlement Period or such other level directed by an ISO Dispatch instruction.~~

ASRP 6.2.3 Resources already Providing Ancillary Service

Replacement Reserve may be supplied from resources already providing another Ancillary Service, such as Spinning Reserve, but only to the extent that the ability to provide the other Ancillary Service is not restricted in any way by the provision of Replacement Reserve. The sum of Ancillary Service capacity supplied by the same resource cannot exceed the capacity of said resource.

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ASRP 6.5 Standard for Replacement Reserve: Procurement

ASRP 6.5.1 Procurement of Non Self-Provided Replacement Reserve

Replacement Reserve necessary to meet ISO requirements not met by self-provided Replacement Reserve will be procured by the ISO as described in the ISO Tariff.

ASRP 6.5.2 Procurement Not Limited to ISO Control Area

The ISO will procure Replacement Reserves from Generating Units ~~connected to and~~ operating within the ISO Control Area and external imports of System Resources.

ASRP 6.5.3 Self Provision of Replacement Reserve

Scheduling Coordinators may self provide Replacement Reserves as external imports from System Resources located outside the ISO Control Area.

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ASRP 10.7.2 Penalties for Failure to Pass Performance Audit

The Scheduling Coordinator for an Ancillary Service Provider whose resource fails a performance audit shall be subject to the financial penalties provided for in the ISO Tariff. In addition the sanctions described in ASRP [4011](#) shall come into effect.