

ASRP 4	REGULATION STANDARDS
ASRP 4.1	Standard for Regulation: Quantity Needed
ASRP 4.1.1	<p>Basis for Standard</p> <p>The ISO needs sufficient Generating Units immediately responsive to Automatic Generation Control (AGC) in order to allow the ISO Control Area to meet the WSCC and NERC control performance criteria by continuously balancing Generation to meet deviations between actual and scheduled Demand and to maintain interchange schedules.</p>
ASRP 4.1.2	<p>Determination of Regulation Quantity Needed</p> <p>The quantity of Regulation capacity needed for each Settlement Period of the Day-Ahead Market and the Hour-Ahead Markets shall be determined as a percentage of the aggregate scheduled Demand for that Settlement Period. The percentage shall range between a minimum of one percent to a maximum of five percent.</p>
ASRP 4.1.3	<p>Percentage Determination</p> <p>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.</p>
ASRP 4.1.4	<p>Publication of Estimated Percentage for Day-Ahead Market</p> <p>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.</p>
ASRP 4.1.5	<p>Publication of Estimated Percentage for Hour-Ahead Market</p> <p>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.</p>
ASRP 4.1.6	<p>Additional Regulation Requirement</p> <p>Additional Regulation capacity may be procured by the ISO for the real-time operating period if needed to meet the WSCC and NERC control performance criteria.</p>

- ASRP 4.4.1** **Dynamic Scheduling of Regulation from External Resources**
- Scheduling Coordinators are allowed to self-provide their Regulation obligation in whole or in part from resources located outside the ISO Control Area by dynamically scheduling such use of existing transmission service rights under Existing Contracts: ~~providing~~ if it can be demonstrated that the control function will use existing computer links (either directly or through existing utility EMS computers) to provide this function.
- 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**
- ~~Beginning January 1, 1998, t~~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 ~~Controlled-Grid~~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.
- ASRP 5** **OPERATING RESERVE STANDARDS**
- The ISO needs, as a minimum, Operating Reserve, consisting of Spinning Reserve and Non-Spinning Reserve, sufficient to meet WSCC MORC. The Operating Reserve requirement shall be equal to (a) 5% of the Demand (except the Demand covered by firm purchases from outside the ISO Control Area) to be met by Generation from hydroelectric resources, plus 7% of the Demand (except the Demand covered by firm purchases from

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; ~~and~~
- (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,

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 ~~and~~;
- (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 ~~not~~ self provide Spinning and Non-Spinning Reserves from resources outside the ISO Control Area ~~except under Existing Contracts~~.

ASRP 6.5.2 Procurement ~~as of Operations Date~~ Not Limited to ISO Control Area

~~Beginning January 1, 1998, t~~The ISO will procure Replacement Reserves ~~only~~ from providers with Generating Units connected to and operating within the ISO Controlled Grid Area and external imports of System Resources.

ASRP 6.5.3 Self Provision of Replacement Reserve

Scheduling Coordinators may ~~not~~ self provide Replacement Reserves as external imports from System rResources located outside the ISO Control Area ~~except under Existing Contracts.~~

ASRP 6.5.4 Certification and Testing Requirements

Replacement Reserve may only be provided from resources including

- (1) Loads;
- (2) Generating Units; ~~and~~
- (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.