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| **NPRR Number** | **218** | **NPRR Title** | **Resolution of Alignment Item A71 - Add Protocol Description of the Power Balance Penalty Factor used in the SCED** |
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| **Date** | | June 16, 2010 | |
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| **Submitter’s Information** | | | |
| **Name** | | Barbara Clemenhagen on behalf of the Wholesale Market Subcommittee (WMS) | |
| **E-mail Address** | | [bclemenhagen@topazpowergroup.com](mailto:bclemenhagen@topazpowergroup.com) | |
| **Company** | | Topaz Power Group | |
| **Phone Number** | | (512) 314-8621 | |
| **Cell Number** | |  | |
| **Market Segment** | | Independent Generator | |

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| **Comments** |

At the June 16, 2010 WMS meeting, WMS considered Nodal Protocol Revision Request (NPRR) 218. After discussion, WMS unanimously voted to endorse NPRR218 as amended by the 5/28/19 ERCOT comments as revised by WMS (language below).

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| **Revised Proposed Protocol Language** |

6.5.7.1.11 Transmission Network and Power Balance Constraint Management

(1) ERCOT may not allow any contingency anticipated to be active in SCED, identified by NSA, until it has verified that the contingency is accurate and appropriate given the current operating state of the ERCOT Transmission Grid. ERCOT shall continuously post to the MIS Secure Area any active contingencies in SCED and any contingencies that it has determined to be inaccurate or inappropriate and thus excluded from SCED under Section 5.5.1, Security Sequence. The ERCOT System Operator will flag for further review by ERCOT any contingencies deemed inaccurate or inappropriate.

(2) ERCOT shall establish a maximum Shadow Price for each network constraint as part of the definition of contingencies. The cost calculated by SCED to resolve an additional MW of congestion on the network constraint is limited to the maximum Shadow Price for the network constraint.

(3) ERCOT shall establish a maximum Shadow Price for the power balance constraint. The cost calculated by SCED to resolve either the addition or reduction of one MW of dispatched generation on the power balance constraint is limited to the maximum Shadow Price for the power balance constraint. .

(4) ERCOT shall determine the methodology for setting maximum Shadow Prices for network constraints and for the power balance constraint. Following review and recommendation by TAC, the ERCOT Board shall review the recommendation and approve a final methodology.

(5) The process for setting the maximum Shadow Prices as described above shall require ERCOT to obtain Board approval of the values assigned to these caps along with the effective date for application of the cap. Within two Business Days following approval by the ERCOT Board, ERCOT shall post the Shadow Price caps and effective dates on the MIS Public Area.

(6) When ERCOT identifies a binding network constraint on a repeated basis ERCOT shall have procedures established to contact the appropriate TSP and validate the accuracy of the Network Operations Model according to paragraph (5) of Section 3.10.4, ERCOT Responsibilities.

(7) If ERCOT determines that rating(s) in the Network Operations Model or configuration of the Transmission Facilities are not correct, then the TSP will provide the appropriate data submittals to ERCOT to correct the problem upon notification by ERCOT.

6.5.7.3 Security Constrained Economic Dispatch

(1) The SCED process is designed to simultaneously manage energy, the system power balance and network congestion through Resource Base Points and calculation of LMPs every five minutes. The SCED process uses a two-step methodology that applies mitigation prospectively to resolve network Non-Competitive Constraints for the current Operating Hour. The SCED process evaluates Energy Offer Curves and Output Schedules to produce a least cost dispatch of On-Line Generation Resources to the total current generation requirement determined by LFC, subject to power balance and network constraints. The SCED process uses the Resource Status provided by SCADA telemetry under Section 6.5.5.2, Operational Data Requirements, and validated by the Real-Time Sequence, instead of the Resource Status provided by the COP.