

Manual Updates

Hybrid GT Pricing Improvements
Coordinating without the ConEd/PSEG Wheel
DARU Notification Enhancements
Additional Revisions

Ethan D. Avallone

SENIOR MARKET DESIGN SPECIALIST – ENERGY MARKET DESIGN, NYISO

Business Issues Committee

June 14, 2017, Rensselaer, NY

Agenda

- **Background**
- **Manual Revisions**
 - Transmission & Dispatching Operations (T&D) Manual
 - Day-Ahead Scheduling (DAS) Manual
 - Transmission Congestion Contracts (TCC) Manual
- **Timeline**

Background

- Stakeholders approved Hybrid GT Pricing Improvements at the September 28, 2016 Management Committee meeting*
- At the January 31, 2017 Market Issues Working Group meeting, the NYISO clarified:
 - Which Out of Merit (OOM) types are eligible to set price
 - Which OOM types are posted to the NYISO's Operational Announcements
- The manual updates proposed today include:
 - A clarification of the description of OOM types in the Transmission & Dispatching Operations manual
 - Additional revisions not directly related to OOM types

Link to the 9/28/2016 Management Committee meeting presentation:

http://www.nyiso.com/public/webdocs/markets_operations/committees/mc/meeting_materials/2016-09-28/Agenda%2007_Hybrid%20GT%20Pricing%20Improvements.pdf



Background

- At the March 28, 2017 MIWG meeting, the NYISO presented enhancements to the Day-Ahead Reliability Units (DARUs) notification process
- Today's Day-Ahead Scheduling manual revisions include these DARU notification related enhancements

Link to the 3/28/2017 MIWG meeting presentation:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-03-28/DARU_notification_change_MIWG.pdf

Background

- **The Coordinating without the ConEd/PSEG Wheel project was implemented for the May 1, 2017 market day**
- **Manual changes presented today include revisions to the Transmission and Dispatching Operations manual and to the Day-Ahead Scheduling manual**

Background

- Other minor updates are included in the T&D Manual

Transmission & Dispatching Operations (T&D) Manual Revisions

T&D Manual – Additional Revisions

- **Section 2.3.2 – Normal State Criteria – revision added since the May 5, 2017 MIWG and May 9, 2017 SOAS**
 - At the discussion of Normal Transfer Criteria, include that the NYSRC Exceptions Process has been utilized to permit, under limited identified circumstances, post-contingency loading of transmission elements that may exceed STE rating
- **Section 2.5.5 - Backup Operations**
 - Updated to reflect that all Backup Operations information is in the Emergency Operations Manual (EOM)
 - Including a link to the EOM
- **Section 4.1.1 – NYISO Controlled Transmission System Operating Limits**
 - Since the May 5, 2017 MIWG and May 9, 2017 SOAS meetings, there have been further revisions to this section
 - The time durations have been removed from this section
 - e.g., deleted “4 hours within 24-hour period” from the Thermal Long Term Emergency (LTE) limit classification
 - Details on exceeding these limits are already included in section 2.3.2 on Normal State Criteria, section 2.3.4 on Warning State Criteria, and in the Emergency Operations Manual
- **Section 4.2.10 – Solar Magnetic Disturbances**
 - Updated to reflect changes to sources of geomagnetic data and updates to NYISO actions
 - Revisions include NYISO and TO actions for different alert levels K5 through K9
 - Since the May 5, 2017 MIWG and May 9, 2017 SOAS meetings, the reference to “Level K7 Warning or Alert” has been updated to “Level K7 or above Warning or Alert”

T&D Manual – Additional Revisions

■ Section 5.5 Inter-Control Area ICAP Energy

- Include IESO and HQ as part of the group agreeing to “General Principles” to facilitate access to the energy associated with ICAP contracts with suppliers located in external control areas in the event of a capacity shortage within a control area
 - Since the May 5, 2017 MIWG and May 9, 2017 SOAS meetings, we have clarified this section to refer to resources located in a neighboring ISO/RTO Control Area
- Revise “New England” to “ISO-NE”
- Include IESO in the list of entities where an alert is posted to the NYISO website when the NYCA is receiving energy to resolve a capacity deficiency
- At the discussion of capacity deliveries to the NYCA, include that “Transaction offers should identify the source as the appropriate external proxy bus and the sink as the NYCA reference bus. The specific ICAP unit should also be identified in the User Reference field of the MIS form.”
- Include that ICAP deliveries from the NYCA should identify the source as the specific ICAP resource and the sink as the appropriate external proxy bus

T&D Manual - OOM Treatment

■ Section 5.7.4 – Out-of-Merit Generation

- Include throughout that not all OOM units are eligible to set LBMP
- Note that OOM for reliability in NYC (Zone J) is considered OOM for ISO reliability because the NYISO secures the 138 kV system in Zone J
- Include the table on the next slide in the manual

■ Section 6.3.1 – Limit Updates

- Include a reference to the OOM treatment table

T&D Manual – OOM Treatment

Action Type	OOM	GT Eligible to Set Price?	Public Notice Posted?	Example Message
ISO Action	ISO VOLTAGE SUPPORT	No	Yes	ISO REQUESTS HUNTLEY__67 OUT OF MERIT. ISO VOLTAGE SUPPORT AT START TIME 08/02/2007 10:00 FOR VOLTAGE SUPPORT @ GARDENVILLE / WESTERN VOLTAGES..
	OPS INTERVENE/MODIFY MINGEN	Yes	No	N/A
	OPS INTERVENE/MODIFY UOL	Yes	No	N/A
	OPS INTERVENE/MODIFY BOTH	Yes	No	N/A
	START-UP/SHUT DOWN	Yes*	No	N/A
	OOM FOR TESTING	Yes*	No	N/A
	NYISO GEN AUDIT	Yes	No	N/A
	COMMITTED FOR ISO RELIABILITY	Yes	Yes, Unless the unit is a GT	ISO REQUESTS GILBOA__3 OUT OF MERIT. COMMITTED FOR ISO RELIABILITY AT START TIME 08/24/2016 12:00 FOR Security..
	ISO ENERGY LIMITED RES	Yes	No	N/A
Gen Action	OOM FOR RESERVES	Yes	Yes, Unless the unit is a GT	ISO REQUESTS GILBOA__4 OUT OF MERIT. COMMITTED FOR ISO RESERVES AT START TIME 02/01/2008 11:00 FOR 10 MIN SYNC.
	GEN REQUEST/MODIFY MINGEN	Yes	No	N/A
	GEN REQUEST/MODIFY UOL	Yes	No	N/A
TO Action	GEN REQUEST/MODIFY BOTH	Yes	No	N/A
	OOM FOR TO RELIABILITY	No	Yes	Metering Authority - New York State Electric & Gas REQUESTS MILLIKEN__2 OUT OF MERIT. OOM FOR TO RELIABILITY AT START TIME 07/06/2015 07:00 FOR security.
	TO VOLTAGE SUPPORT	No	Yes	Metering Authority - Niagara Mohawk UPDATES HUNTLEY__68 OUT OF MERIT. TO VOLTAGE SUPPORT AT START TIME 08/02/2006 12:00 FOR Var support in western NY.

*Note: OOM for Testing and START UP/ SHUT DOWN are two additional OOM types assigned by the NYISO's settlements department after the market software has run



T&D Manual – Coordinating without the ConEd/PSEG Wheel

■ Section 4.2.5 Phase Angle Regulators – NYISO/PJM Interconnection

- Modify reference from Market Services Tariff (MST) Attachment M-1 to Open Access Transmission Tariff (OATT) Attachment CC
- Change interconnection references to “Hopatcong-Ramapo, ABC, and JK interconnections”

■ Section 6.3.5

- Update to reflect that the percentages of incremental interchange scheduled to flow on the ABC, JK, and Hopatcong – Ramapo interconnections are posted consistent with Section 17 of the Market Services Tariff (MST)
 - http://www.nyiso.com/public/webdocs/markets_operations/market_data/power_grid_info/NY-NJ_PAR_Interchange_and_OBF.pdf

Day-Ahead Scheduling (DAS) Manual Revisions

DAS Manual – DARU Notifications

- **Section 4.2.6 Day Ahead Reliability Unit (DARU) Commitment**
 - Modify the following statements to apply to all units, not just units located in Zone J (New York City)
 - In addition to the posting at DAM close, non-binding, advisory postings will be made at the time of DARU entry, modification, or deletion
 - A supplemental process will be used whereby a non-binding, advisory e-mail will be sent for every creation, modification, or deletion of a DARU entry by NYISO Operators

DAS Manual – Coordinating without the ConEd/PSEG Wheel

- **Section 4.2.7 – Phase Angle Regulator Scheduling**
 - Update to reflect that the percentages of incremental interchange scheduled to flow on the ABC, JK, and Hopatcong – Ramapo interconnections are established consistent with Section 17 of the Market Services Tariff (MST)
 - Include a link to the NY-NJ PAR Interchange & OBF posting, which includes the interchange percentages for each interconnection, the Operational Base Flow (OBF) value, and information on reductions in the OBF due to PAR outages
 - [http://www.nyiso.com/public/webdocs/markets_operations/market_data/power_grid_info/NY-NJ PAR Interchange and OBF.pdf](http://www.nyiso.com/public/webdocs/markets_operations/market_data/power_grid_info/NY-NJ_PAR_Interchange_and_OBF.pdf)

TCC Manual Revisions

TCC Manual – Coordinating without the ConEd/PSEG Wheel

- **Section 3.5.1 – Operating Assumptions**
 - Minor change to the description of the Farragut, Goethals, and Waldwick PARs
- **Attachment T – TCC Market PJM – NYISO Interconnection Scheduling Protocol (Incorporation of Technical Bulletin 240)**
 - Replace the current description of the TCC Market implementation of the PJM/NYISO interconnection scheduling protocol with the revised implementation described in Technical Bulletin 240

Timeline

- **June BIC/ OC**
 - Vote on draft manual revisions

The Mission of the New York Independent System Operator is to:

- Serve the public interest and
- Provide benefit to stakeholders by
 - Maintaining and enhancing regional reliability
 - Operating open, fair and competitive wholesale electricity markets
 - Planning the power system for the future
 - Providing factual information to policy makers, stakeholders and investors in the power system



www.nyiso.com

