



Start-up Bids Treatment

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Agenda

- ◆ Background
 - *Timeline*
 - *Issues Identified*
 - *Current Tariff provisions*
 - *NYISO's proposal*
- ◆ Tariff revisions
- ◆ Next Steps
- ◆ Questions/Feedback

Background

- ◆ During the 1/17 MIWG, the NYISO presented to Stakeholders two self-identified issues regarding the treatment of Start-up Bids.
- ◆ The NYISO proposes to allow all Generators to increase Start-up Bids in Real Time (RT).
 - *During the 01/26 MIWG, the NYISO expanded on the rationale for its proposal*
- ◆ The NYISO discussed its proposed changes to the DAMAP provisions at the 02/16 MIWG.
- ◆ The proposed Tariff revisions were presented at the 02/28 MIWG.

Issues Identified

- ◆ The NYISO identified two issues regarding the treatment of Start-up Bids:
 - Generators scheduled for Energy and/or Regulation services in the DAM, have been able to inappropriately increase their Start-up Bids in RT. This occurs due to the order of precedence for single point and multi-point Start-up Bids.
 - Generators scheduled for Reserve services in the DAM, who should be allowed to increase Start-up Bids in RT, cannot do so.

Different Types of Start-up Bids

- ◆ Generators can submit two types of Start-up Bids:
 - *Single point Start-up Bid*, which specifies the cost to start the Generator as part of hourly offers.
 - *Multi-point Start-up Bid*, which specifies the cost to start the Generator based on how long the Generator has been offline and how long it takes to start.
- ◆ If both types are submitted, the single point Start-up Bid takes priority over the multi-point Start-up Bid. The Bids are exclusive.

Energy and Regulation Bids Must Not Be Increased

- ◆ Pursuant to NYISO's Market Administration and Control Area Services Tariff (MST), if a Generator is scheduled in the Day-Ahead Market ("DAM") to provide Energy and/or Regulation services, the Start-up Bids in Real-Time ("RT") must not exceed the Bids made in the DAM for any hour in which the Generator was scheduled. [Section 4.4.1.2.1, MST]

Reserve Bids Can Be Changed

- ◆ In March 2011, the Attachment D of the NYISO's MST was removed.
- ◆ This change lifted the prohibition for Generators scheduled to provide reserves in the DAM to increase Start-up Bids in Real-Time.

Allow Generators to Increase Start-up Offers in RT

- ◆ The NYISO's proposal to address the issues identified allows all Generators scheduled in the Day-Ahead Market (DAM) to increase Start-up Offers in RT.
 - *Under the NYISO's proposal, if a Generator scheduled for Energy and/or Regulation in the DA that increased its Start-up Bid in RT was re-evaluated by RTC, then:*
 - That Generator would become ineligible for DAMAP for the hour in which it increased its Bid, as well as the two previous and following hours.
 - This is consistent with the current treatment of Incremental Energy Bids.

Long Term Benefits

- ◆ Allowing Generators to increase Start-up Bids in RT regardless of the DA commitments, would result in more efficient RT scheduling decisions, and consequently, more efficient market outcomes.

Tariff Revisions

- ◆ Section 4.4.1.2.1 – Real-Time Bids to Supply Energy and Ancillary Services, other than External Transactions
 - *The prohibition for DAM-scheduled Generators to increase Start-up Bids in RT is lifted.*

Tariff Revisions

- ◆ Section 25 (Attachment J) – Determination of Day-Ahead Margin Assurance Payments and Import Curtailment Guarantee Payments
 - *New Section 25.2.2.5 added addressing the provisions for DAMAP eligibility of DAM-scheduled Generators, which are re-evaluated by RTC, and are providing Energy and/or Regulation Services.*
 - This section specifies that when a DAM-scheduled Generator that is available for commitment by RTC increases its RT Start-up Bid, that Generator becomes ineligible for DAMAP for the hour in which it increased its Bid as well as the prior two hours and the following two hours.

Next steps

- ◆ April 2017
 - *NYISO Board of Directors and FERC Filing.*
- ◆ June/July 2017
 - *Targeted implementation.*

Questions/Feedback

Please contact

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Appendix A – How inefficient scheduling may occur

- ◆ Simplified scenario:
 - ◆ *The only bid components are Energy and Start-up costs*
 - ◆ *One-hour day*
 - ◆ *Quick-start Generators*
 - ◆ *Total Load equals 1 MWh*

<i>Generator</i>	<i>A</i>			<i>B</i>		
	Energy [\$/MWh]	Start-up [\$]	Total [\$]	Energy [\$/MWh]	Start-up [\$]	Total [\$]
DA offer [Energy + Start-up]	20	10	30	20	20	40
DA Schedule		✓			✗	
RT costs	25	20	45	20	20	40
RT Schedule (if allowed to increase)		✗			✓	

Appendix B – DAMAP eligibility: Non-Quick-Start Units

- ◆ If a DAM-scheduled Generator does not have the capability to start in 30 minutes or less, its Start-up Offer is not re-evaluated in RT.
 - *Therefore, the NYISO does not propose any changes to DAMAP eligibility for such resources.*

Appendix B – DAMAP eligibility: Quick-Start Units

- ◆ If a Generator does have the capability to start in 30 minutes or less, it is re-evaluated in RT.
 - *Therefore, if it increases its Start-up Offer in RT, it could be de-committed.*
 - Under the NYISO’s proposal, if a Generator capable of starting in 30 minutes or less was scheduled in the DAM to provide energy and/or regulation, and it increases its Start-up Offer in RT, it would become ineligible for DAMAP.
 - If a Generator capable of starting in 30 minutes or less was scheduled in the DAM to provide non-synchronous reserves, its Start-up Offer would not have been considered for the award.
 - Consequently, under the NYISO’s proposal it should remain eligible for DAMAP.

The mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefit to consumers 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*

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