ISONEW YORK INDEPENDENT SYSTEM OPERATOR

Balance-of-Period TCC Auctions

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Business Issues Committee

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Agenda

- Balance-of-Period (BoP) TCC Auction Market Design and Credit Policy Overview
- Overview of Tariff Revisions
- Next Steps

BoP TCC Auction - Benefits

- The BoP TCC auction provides Market Participants (MPs) the ability to reconfigure their portfolios in all the remaining months of a Capability Period
 - The current Reconfiguration Auction structure consists of a single period (i.e., one month) auction that does not provide MPs the ability to reconfigure their portfolios for more than one month in the future
- Credit policy revisions associated with BoP TCC auction
 - The BoP TCC auction structure will allow the NYISO to recalculate TCC credit holding requirements monthly, which will result in holding requirements that more accurately reflect TCC market risk over time

BoP TCC Auction - Overview

- Market Participants (MPs) can bid in one or more months (or "periods") in a BoP TCC auction
- The BoP TCC auction design includes functionality to evaluate and solve multiple months either independently (decoupled mode) or simultaneously (across periods)
 - The NYISO currently anticipates that the BoP TCC auction structure will initially be administered in decoupled mode, thereby requiring separate bids for each month in which the MP is seeking to participate
 - To the extent that across period bid functionality within a single bid is made available, MPs can choose to submit a single bid that covers more than one period (multi-period bid)
 - Each period in a multi-period bid shall clear the same number of MWs or the entire bid shall not clear

Credit Policy - Proposed Update to Bidding Requirement

- One Month TCC higher of \$600 or Bid price (currently in the Tariff)
- Two Month TCC higher of \$900 or Bid price
- Three Month TCC higher of \$1,200 or Bid price
- Four Month TCC higher of \$1,500 or Bid price
- Five Month TCC higher of \$1,800 or Bid price
- Six Month TCC higher of \$2,000 or Bid price (currently in the Tariff)

Proposed Credit Policy Holding Requirement

- The BoP TCC auction credit policy will be made up of three components
 - Current month credit requirement
 - Current month includes the upcoming month once the BoP TCC auction has run for the remainder of the Capability Period but has not yet started
 - Future month credit requirement
 - The BoP TCC auction credit requirements reflect the need for a fundamental extension of the current TCC collateral design to define credit requirements for future month TCCs
 - Future six-month credit requirement
 - The goal of this credit requirement is to establish sufficient credit support to cover the expected payments due on the TCC portfolio at the time credit support is posted to cover the last six months of an annual TCC

Credit Policy – Proposed Update to Holding Requirement

- Under the proposed BoP TCC auction credit policy, credit coverage for the current month of a TCC purchased as a six-month or annual TCC will be determined by the current month TCC formula
- The future month credit requirement will be recalculated each month using the prices as determined in the most recent BoP TCC auction
- Given that the NYISO will not have a market clearing price for the second six months of the annual TCC in the BoP TCC auctions, the NYISO will use an implicit price, calculated from the Centralized TCC auctions, to determine the credit requirement for the second six months of an annual TCC
- The credit requirement for each month will be rolled off as the settlements for that month are completed
- There will not be a credit holding requirement for a TCC that is sold within the current Capability Period
- Additional details can be found in the March 23, 2016 MIWG presentation
 - http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materi als/2016-03-23/agenda%204%20TCC%20BoP%20Design%20Review%2003232016%20MIWG%20final.pdf

Tariff Revisions Summary

Impacted Tariffs

- Market Administration and Control Area Services Tariff (MST)
 - Sections 2, 7, 17, and 26
- Open Access Transmission Tariff (OATT)
 - Sections 1, 14, 19, and 20

Reasons for Change

- Changes made to support BoP TCC auction structure
- Changes made to correct and/or clarify existing tariff language where appropriate for consistency with existing procedures and removal of obsolete language
- Tariff revisions are designed to support all possible auction modes for Reconfiguration Auction (single month, decoupled BoP and across period BoP)

Tariff Language Overview

MST Section 2

- Revisions to Section 2.2 to add reference to the new "Balance-of-Period Auction" definition in the ISO OATT
- Revisions to Sections 2.3, 2.4, 2.5, 2.6, 2.7, 2.9, 2.14, 2.15, 2.16, 2.18, 2.19, and 2.20 to remove duplicative definitions and replace with references to OATT definitions of terms
- Revisions to Section 2.16 to remove the "Primary Owner" definition

MST Section 7

 Revisions to Section 7.2.5 to correct numbering in subsections

MST Section 17 (Attachment B)

 Revisions to Section 17.5 to remove duplicative information that already exists in Attachment N of the ISO OATT (OATT Sections 20.1 – 20.3)

MST Section 26 (Attachment K)

Revisions to TCC credit policy

OATT Section 1

- Revisions to Section 1.2 to add the new "Balanceof-Period Auction" definition
- Revisions to Section 1.4, 1.5, and 1.15 to clarify definitions
 - Revisions to Section 1.18 to reflect that Reconfiguration Auction will consist of either the current one-month auction structure or BoP TCC auction structure

OATT Section 14 (Attachment H)

- Revisions to Section 14.1 to:
 - Support BoP TCC auction structure
 - Clarify tariff to include references to both Centralized TCC and Reconfiguration Auctions
 - Reorganize existing language to improve clarity
 - Remove obsolete language
 - **Revisions to Section 14.2.2 to:**
 - Support BoP TCC auction structure
 - Clarify tariff to include references to both Centralized TCC and Reconfiguration Auctions
 - Remove obsolete language

- OATT Section 19 (Attachment M)
 - Revisions to Section 19.2.1.1 to clarify the language to support BoP TCC auction structure
 - Minor, editorial revisions to Sections 19.6.1 and 19.6.2
 - Revisions to Section 19.7 to clarify language
 - OATT Section 19.8
 - Revisions to Sections 19.8.1 and 19.8.5 to support the BoP TCC auction structure
 - Revisions to Sections 19.8.2, 19.8.3, 19.8.4 to clarify language
 - OATT Section 19.9
 - Revisions to Sections 19.9.4, 19.9.5, 19.9.7, and 19.9.8 to support the BoP TCC auction structure
 - Revisions to Sections 19.9.1, 19.9.2, 19.9.3, 19.9.4, 19.9.5, 19.9.6, 19.9.7, and 19.9.8 to clarify language

- OATT Section 19 (cont'd)
 - Revisions to Section 19.10 (including Tables 1 and 2) to clarify language
- OATT Section 20 (Attachment N)
 - OATT Section 20.1
 - Revisions to Sections 20.1.2 to support the BoP TCC auction structure
 - Revisions to Sections 20.1.1 and 20.1.2 to clarify language
 - Revisions to Section 20.1.2 to add a definition for "Auction Constraint Residual"

OATT Section 20 (cont'd)

- Revisions to Section 20.2
 - Revisions to the formulae in Sections 20.2.4 and 20.2.5 and Section 20.2.4.4.2 to support the BoP TCC auction structure
 - Revisions to Sections 20.2.3, 20.2.4.4.4 and 20.2.5 to remove obsolete language
 - Clarifying revisions to the definition of "Deemed Qualifying DAM Outage" in Section 20.2.4.2.1.1 and Formula N-15 in Section 20.2.5

Revisions to Section 20.3

- Revisions to Sections 20.3.2, 20.3.4, 20.3.6 (including formulae therein), and 20.3.7 (including formulae therein) to support the BoP TCC auction structure
- Revisions to Sections 20.3.1, 20.3.3, 20.3.5, Formula N-17 in Section 20.3.6.1, Section 20.3.6.4.1, and Formula N-29 in Section 20.3.7 to clarify language
- Revisions to remove obsolete language in Section 20.3.5 and Formula N-29 in Section 20.3.7

Next Steps

- December 2016 Management Committee (MC)
 - Seek MC approval

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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