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Independent System Operator

2025 - 2029 ICAP Demand Curve Reset: Proposed Tariff Revision (Real-Time Energy Prices for Net EAS Revenue Estimates)

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Agenda

- Background
- Proposed Tariff Revision
- Next Steps

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Background

Background

- **Section 5.14.1.2.2.2 of the Market Administration and Control Area Services Tariff (MST) addresses the requirements for estimating net Energy and Ancillary Services (EAS) revenue earnings of peaking plant options as part of determining the ICAP Demand Curves**
  - As part of the ICAP Demand Curve reset (DCR), a model(s) is(are) developed for use in determining the net EAS revenue offset of each peaking plant (commonly referred to as the "net EAS revenue model")
- **Currently, Section 5.14.1.2.2.2 does not allow for the use of 5-minute real-time LBMPs when estimating net EAS revenues for peaking plants**
  - Section 5.14.1.2.2.2 prescribes use of hourly zonal LBMPs for both Day-Ahead and real-time

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Background

- **At the 01/25/2024 ICAPWG meeting, stakeholders requested that Analysis Group evaluate the impact of using of 5-minute real-time prices in the net EAS revenue model for energy storage**
  - As discussed at the 02/29/2024 ICAPWG meeting, Analysis Group is conducting initial analysis on the potential impacts of using 5-minute real-time prices and expects to have initial results for discussion in March 2024
- **As potential peaking plant technology options evolve over time, the operating characteristics of certain technologies may warrant consideration of using 5-minute real-time prices instead of hourly prices as part of estimating net EAS revenues**
- **To allow for the potential consideration of utilizing 5-minute real-time LBMPs in the net EAS model, the NYISO is proposing a revision to MST Section 5.14.1.2.2.2**
  - The proposed revision provides the ability to consider the use of 5-minute real-time pricing and establishes the determination of whether to do so for a given technology option as a decision to be made as part of each reset
  - Provides for consistency with the treatment of the various inputs and assumptions that are evaluated and determined as part of each DCR

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Background

- **At the 02/29/2024 ICAPWG meeting, stakeholders requested that Analysis Group also assess the potential for developing an alternative solution for considering the potential impact of 5-minute real-time prices if the net EAS revenue model for energy storage continues to use only hourly prices**
  - To facilitate the potential consideration of an alternative approach, if warranted, the NYISO proposes revisions to expand the existing allowable "adder" for net Ancillary Services revenues that are not determined by the model to include potential net real-time Energy revenues not determined by the model
    - For the past two resets, this "adder" has been used to account for voltage support service revenue
  - Consistent with the current construct, any "adder" for such real-time Energy revenue would be determined as part of the DCR and remain fixed for the reset period

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Proposed Tariff Revision

Proposed Tariff Revision

The model will determine whether each peaking plant could earn positive net revenue by producing Energy in each hour of the period encompassed by the model in a manner consistent with the following equation:

$$\textit{Net Energy revenue}_{z,t} = max(([Output_{z,t} * (LOE_{z,t} * LBMP_{z,t})] - MC_{z,t}),0)$$

where:

$Ouput_{z,t}$ = the quantity of Energy produced by the peaking plant for Load Zone z in hour t;

$LOE_{z,t}$ = the applicable adjustment factor for Load Zone z and hour t used to adjust for the prescribed level of excess. The adjustment factors shall be determined as part of the periodic review, identified in the filing required by Section 5.14.1.2.2.4.11 and remain fixed for the entire period covered by the periodic review;

$LBMP_{z,t}$ = the Day-Ahead zonal LBMP ~~or~~, time-weighted/integrated zonal RTD LBMP, or zonal RTD LBMPs, as applicable, for Load Zone z and hour t. The use of hourly or interval pricing in real-time for each peaking plant shall be determined as part of the periodic review, identified in the filing required by Section 5.14.1.2.2.4.11 and remain fixed for the entire period covered by the periodic review;

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Proposed Tariff Revision (cont.)

The results of the model will be used to determine an average annual net revenue value earned by each peaking plant over the period encompassed by the model. Such value will be increased by an adder(s) to account for the estimated annual value of any applicable net Ancillary Services revenue and/or real-time Energy revenue for each peaking plant that is not determined by the model, which adder(s) shall be determined as part of the periodic review, identified in the filing required by Section 5.14.1.2.2.4.11 and remain fixed for the entire period covered by the periodic review. The resulting value for each peaking plant shall be the updated net Energy and Ancillary Services revenue offset value to be used in establishing the ICAP Demand Curves for the applicable Capability Year.

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Next Steps

Next Steps

- The schedule initially developed for the 2025-2029 DCR contemplated seeking approval of any process-related tariff revisions by no later than the March 2024 Business Issues Committee (BIC) and Management Committee (MC) meetings
- The NYISO seeks to maintain alignment with the initial schedule to help provide certainty regarding the requirements applicable for the reset
- March 2024 BIC and MC: Seek stakeholder approval of the proposed tariff revision

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Questions?

Our Mission & Vision

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future

Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

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