New York ISO
Independent System Operator

Enhanced Fast-Start Pricing

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Agenda

- Background
- Implementation Challenge
- Proposal Updates
- Next Steps

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Background

Background

Date	Working Group	Discussion points and links to materials
05-30-19	Market Issues Working Group (MIWG)	Background information about existing fast-start pricing.
09-26-19	Market Issues Working Group (MIWG)	Updated Proposal
10-28-19	Market Issues Working Group (MIWG)	Proposal
10-27-20	Market Issues Working Group (MIWG)	Updated Proposal

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Background

- On April 18, 2019, FERC issued an Order concerning fast-start pricing in the NYISO's energy markets. FERC required the NYISO to:
    1. Modify pricing logic to allow fast-start resources' commitment costs (*i.e.*, start-up costs and minimum generation (no-load) costs) to be reflected in prices; and
    2. Allow the relaxation of all dispatchable fast-start resources' economic minimum operating limits by up to 100 percent for the purpose of setting prices.
- On Feb. 6, 2020, FERC accepted the NYISO's December 20, 2019 Fast-Start Resource compliance filing to implement the April 2019 FERC Order.
- The NYISO has been working on development of the new software and is targeting an implementation prior to December 31, 2020.

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Overview of Fast-Start Pricing Changes

Today

- **Existing fast-start pricing logic relaxes minimum generation constraints of these resource types in the ideal (pricing) dispatch:**
  1. Fixed Block Units that can start up and synchronize to the grid in 30 minutes or less, that have a minimum run time or one hour or less, and that submit economic offers for evaluation.
- **In the ideal dispatch, RTD adds the start-up costs of eligible offline 10-minute Fixed Block Units to their incremental offers, which impacts the LBMP calculation.**
  - 10-minute Fixed Block Units cannot offer minimum generation costs

Future

- **Revised fast-start pricing will extend the existing logic to dispatchable units.**
- **After implementation, fast-start pricing will apply to:**
  1. All resources that can start up and synchronize to the grid in 30 minutes or less, that have a minimum run time of one hour or less, and that submit economic offers for evaluation.
- **Revised fast-start pricing logic will include the start-up and minimum generation costs of all fast-start resources in the LBMP calculation in the ideal dispatch.**
- **Revised fast-start pricing logic will also apply in the withdrawal state, for fast-start resources that are eligible to submit commitment costs.**

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Implementation Challenge

Start-up Cost

- **Start-up cost is determined through one of two methods for every unit:**
  - Submitted single point start-up cost bid; or
  - Multi-point start-up cost curve as a function of downtime in Unit Commitment Parameters
- **The multi-point start-up cost curve is utilized when a single point start-up cost is not submitted by a unit**

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Challenge

- Currently, NYISO's Real-Time Dispatch (RTD) does not require or include the functionality to calculate units' start-up cost and therefore, the current RTD software does not incorporate units' downtime into the optimization
- This presents a challenge for the implementation of fast-start pricing since when a single point start-up bid is not submitted, RTD/RTD-CAM is unable to determine the corresponding start-up cost of a Fast-Start Resource based on the start-up cost curve and downtime
- RTD/RTD-CAM would not be able to ensure the proper start-up cost from the multi-point curve is included in the adjusted cost curve for the Fast-Start Resource

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Proposal Update

Proposal Updates

- The NYISO is proposing that a single start-up cost will be used in Real-Time Commitment (RTC) and RTD for all fast-start units and will be determined through the following means:
  - The submitted single point start-up cost bid; or
  - If a bid is not submitted, the first corresponding point on the start-up cost curve provided in Unit Commitment Parameters
- This will ensure RTD/RTD-CAM is only presented with a singular start-up cost from a fast-start unit
- This solution is consistent with expectations of fast-start units' costs while also resolving the issue with RTD/RTD-CAM and limiting any impacts to the implementation timeline
- Clarifying tariff language is being proposed in MST 4.4 and 17.1

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Next Steps

Next Steps

- **November 2020**
  - Seek stakeholder approval of proposal at BIC and MC
- **December 2020**
  - File updated tariff language with FERC
  - Implementation of enhanced fast-start pricing

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Our mission, in collaboration with our 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 policymakers, stakeholders and investors in the power system

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Questions?