Market Services Tariff Updates:

Fuel Cost Adjustments and

Min Oil Burn Compensation Program

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Agenda

- **Proposed Market Services Tariff Revisions**
  - Section 23: Attachment H
    - Changes to the review process for Real-Time Fuel Cost Adjustments ("FCAs") (Section 23.4.3.3.3)
    - Changes to the 7-Day Bias Test (Section 23.3.1.4.6.9)
  - Section 4: Market Services – General Rules
    - Clarification of Market Participant obligations to notify the NYISO in the Min Oil Burn Compensation program (Section 4.1.9.2)

Attachment H Revisions

Fuel Cost Adjustment Penalty Updates

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Fuel Cost Adjustments Background

- FCAs allow generators to submit a fuel type and/or price along with their energy offers

- If the FCAs are validated using posted thresholds[1], the generator's Incremental Energy and Min Gen Reference Levels are updated to reflect the submitted fuel type and/or price

- Market Mitigation & Analysis (MMA) reviews all FCAs in accordance with the Services Tariff

  - If the FCA fails the conduct and impact tests described in Section 23.4.3.3.3 of the Services Tariff, the Market Participant may be subject to penalty

1. http://www.nyiso.com/public/webdocs/markets_operations/services/market_monitoring/Fuel_Entry_Thresholds/Fuel_Entry_Thresholds/Fuel%20Entry%20Thresholds%20DA%20and%20RT%20Effective%2004-4-2017.pdf

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Fuel Cost Adjustments - Proposed Revisions

- NYISO proposes to change the Real-Time impact test and penalty calculation for misuse of the FCA functionality to align with the more precise Day-Ahead impact test and penalty calculation

Fuel Cost Adjustments - Revised Tariff Language

23.4.3.3.3.1 ~~Day Ahead~~ Conduct and Market Impact Tests

23.4.3.3.3.1.1 ~~Day Ahead~~ Conduct Test

23.4.3.3.3.1.2 ~~Day Ahead~~ Impact Test

23.4.3.3.3.1.2.1 The ISO shall perform the ~~Day Ahead~~ guarantee payment impact test for Generators that are committed in the Day-Ahead Market for local reliability or in the Real-Time Market via an SRE, and that are not located in a Constrained Area, at the 50% increase Constrained Area threshold specified in Section 23.3.2.1.2 of these Mitigation Measures.

Deleting sections 23.4.3.3.3.2, 23.4.3.3.3.2.1, 23.4.3.3.3.2.2, 23.4.3.3.3.2.3

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Fuel Cost Adjustments - Revised Tariff Language

23.4.3.3.3.~~3~~2   ~~Day Ahead~~ Penalty Calculation

If the results of the ~~Day-Ahead Market~~ impact test indicate that the Market Party's Bid had either LBMP or guarantee payment impact then the ISO shall charge the Market Party a penalty, calculated for each penalized day, for each of its Generators, for each hour of the day, as follows:

Daily Penalty = max [(Multiplier * [Σ_g ▲ ~~Day Ahead~~ BPCG payment$_g$] + (Multiplier) Σ_h Σ_g ([Market Party MWh$_{gh}$] x [▲ ~~Day Ahead~~ LBMP@PTID$_{gh}$]) + max [Σ_h TCC Revenue Calc for Market Party$_h$, 0]), 0]

Fuel Cost Adjustments - Revised Tariff Language

Where:

g = ~~an index running across all~~ each of the Market Party's Generators

h = for purposes of this Section 23.4.3.3.3, h is ~~an index running across all~~ each hour of the day in which inaccurate fuel type or fuel price information was supplied for any of the Market Party's Generators; provided that one of the Bids in that hour "h" for at least one of the Market Party's Generators failed the LBMP or guarantee payment impact test described in Section 23.4.3.3.3.1.2 of these Mitigation Measures

Fuel Cost Adjustments - Revised Tariff Language

▲ ~~Day-Ahead~~ BPCG payment$_g$ = the change in the ~~Day-Ahead Market~~ guarantee payment ~~that the Market Party receives~~ for Generator g determined when the ISO performs the ~~Day-Ahead Market~~ guarantee payment impact test in accordance with Section 23.3.2.1.2 of these Mitigation Measures

Market Party MWh$_{gh}$ = (a) for Day-Ahead Market penalties, the MWh of Energy scheduled in the Day-Ahead Market for Generator g in hour h; or (b) for Real-Time Market penalties, the max of (1) the MWh that Generator g was scheduled to produce in the Day-Ahead Market in hour h, or (2) the MWh that Generator g was scheduled to produce in the Real-Time Market in hour h, or (3) the MWh produced by Generator g that was scheduled to produce energy in hour h in the Real-Time Market

Fuel Cost Adjustments - Revised Tariff Language

▲ ~~Day-Ahead~~ LBMP@PTID$_{gh}$ = the change in the ~~Day-Ahead Market~~ LBMP for hour h at the location of Generator g, as determined when the ISO performs the relevant ~~Day-Ahead Market~~ LBMP impact test in accordance with Section 23.3.2.1.1 or 23.3.2.1.3 of these Mitigation Measures

TCC Revenue Calc for Market Party$_h$ = the change in TCC Revenues that the Market Party receive for hour h, determined when the ISO performs the relevant Day-Ahead Market LBMP impact test

Deleting section 23.4.3.3.3.4

Attachment H Revisions

FCA Bias Test Updates

7-Day Bias Test Background

- MMA reviews generators' FCAs over the prior seven days to determine if there is any tendency toward an upward bias

  - FCAs are considered biased if, over the past seven days, the submitted fuel price and/or type exceeds the higher of the NYISO's indexed fuel price or the generator's actual cost by more than 10%, on average.

- If submitted FCAs were biased in the Market Party's favor the NYISO must cease using the Market Party's FCAs to revise Reference Levels for a specified period of time

  - Section 23.3.1.4.6.9 of the Mitigation Measures

FCA Bias Test Proposed Revisions

- Instead of reviewing FCAs submitted over the prior seven days, review all of a generator's FCA submittals over the previous 90 days as long as FCAs were submitted for at least 100 hours

- Rather than using a 10% threshold to identify bias, use the greater of 10% or $0.50/MMBtu

- Allow the Market Party an opportunity to demonstrate to the NYISO and MMU that the FCAs were consistent with competitive behavior even when the difference between the FCA and the actual fuel cost exceeds the proposed threshold

- Modify the periods of time that NYISO must cease using a Market Party's FCAs after submission of inaccurate fuel type or fuel price information

FCA Bias Test - Revised Tariff Language

23.3.1.4.6.9   If (i) the ISO determines, following consultation with the Market Party and review by the Market Monitoring Unit, that the Market Party or its representative has~~, over a time period of at least one week,~~ submitted inaccurate fuel type or fuel price information that was biased in the Market Party's favor, or (ii) if a Market Party is subject to a penalty or sanction under Section 23.4.3.3.3 of these Mitigation Measures for submitting inaccurate fuel price or fuel type information, *then* the ISO shall cease using the fuel type and fuel price information submitted to the ISO's Market Information System along with the Generator's Bid(s) to develop reference levels for the affected Generator(s) in the relevant (Day-Ahead or real-time) market for the duration(s) set forth below, unless the Market Party demonstrates to the ISO that the questioned conduct is consistent with competitive behavior.

FCA Bias Test - Revised Tariff Language

23.3.1.4.6.9.1   The first time the ISO ceases using the fuel type and fuel price information submitted to the ISO's Market Information System along with the Bid(s) for a Generator to develop Day-Ahead or real-time reference levels for that Generator, it shall do so for 630 days. The 630 day period shall start two business days after the date that the ISO provides written notice of its determination that the application of mitigation is required.

FCA Bias Test - Revised Tariff Language

23.3.1.4.6.9.2   The second time the ISO ceases using the fuel type and fuel price information submitted to the ISO's Market Information System along with the Bid(s) for a Generator to develop Day-Ahead or real-time reference levels for that Generator, it shall do so for 60 days. The 60 day period shall start two business days after the date that the ISO provides written notice of its determination that the application of mitigation is required. Any subsequent time the ISO ceases using the fuel type and fuel price information submitted to the ISO's Market Information System along with the Bid(s) for a Generator to develop Day-Ahead or real-time reference levels for that Generator, it shall do so for 120~~180~~ days. The 120~~180~~ day period shall start two business days after the date that the ISO provides written notice of its determination that the application of mitigation is required.

FCA Bias Test - Revised Tariff Language

23.3.1.4.6.9.5 . . . . . . (b) as a result of the change(s) in fuel type, the fuel prices that the ISO uses to develop reference levels for a Generator exceeded the fuel price that the ISO would have used to develop reference levels for that Generator by greater than the higher of 10% or $0.50/MMBtu, on average, over the previous 90 days a seven-day period. For purposes of calculating the seven-day average, only hours in which the Market Party changed the Generator's fuel type to a more expensive fuel type will be considered and the Market Party must have submitted revised fuel type or fuel price information for that Generator for at least 100 hours during the previous 90 days. The Day-Ahead and Real-Time Markets shall be considered separately for purposes of this analysis.

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FCA Bias Test - Revised Tariff Language

23.3.1.4.6.9.6   . . . . . . exceeded the greater of the actual fuel price (as substantiated by supplier quotes or invoices) or the ISO's indexed fuel price, by greater than the higher of 10% or $0.50/MMBtu, on average, over the previous 90 days a seven-day period. For purposes of calculating the seven-day average, only hours in which the fuel price submitted exceeds the ISO's indexed fuel price will be considered and the Market Party must have submitted revised fuel type or fuel price information for that Generator for at least 100 hours during the previous 90 days. The Day-Ahead and Real-Time Markets shall be considered separately for purposes of this analysis.

Market Services – General Rules Revisions

Min Oil Burn Updates

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Min Oil Burn Proposed Revisions

- Clarify that tax information must be submitted by a Market Participant to receive accurate compensation

- Revisions to Services Tariff Section 23.4.3.3.3 to remove NYSRC numeric rule designation
  - Prevents NYISO Tariff from citing legacy NYSRC rule numbers in the future

- MMA uses the most up-to-date data in its possession to calculate the payments for the Min Oil Burn program

Min Oil Burn - Revised Tariff Language

23.4.3.3.3 . . . . . . unless: (i) the Market Party shows that the information was submitted in compliance with the requirements of Section 4.1.9 of the ISO Services Tariff (Cost Recovery for Units Responding to Local Reliability Rules Addressing Loss of Generator Gas Supply ~~Incremental Cost Recovery for Units Responding to Local Reliability Rule I R3 or I R5~~), or (ii) the total penalty calculated for a particular Day-Ahead or Real-Time Market day is less than $5,000, in which case the ISO will not apply a penalty.

Min Oil Burn - Revised Tariff Language

4.1.9.2   Variable Operating Cost Recovery

. . . . . . The owner or bidder of an Eligible Unit shall notify the ISO when variable operating costs change due to a change in tax rates.

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Next Steps

- September BIC and MC
  - Vote on Tariff revisions
- October NYISO Board of Directors
- FERC Filing

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Questions?

Supporting Data

DA Market 128 Total Units have submitted an FCA since 2014		RT Market 154 Total Units have submitted an FCA since 2014	
Minimum Attempts	# of Units Exempt from the Bias Test	Minimum Attempts	# of Units Exempt from the Bias Test
168	43	168	87
100	39	100	85
50	34	50	70

The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefits 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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