

Additional Services

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New York Market Orientation Course (NYMOC)

March 11-14, 2025 Rensselaer, NY



Additional Services

- Market Monitoring, Mitigation and Analysis
 - MMU
 - MMA

Financial Services

- Credit
- Metering/Settlements/Invoicing

Customer Support

- Member Relations
- Stakeholder Services



Objectives

- Upon completion of this session, participants will be able to:
 - Identify the responsibilities of the Market Monitoring Unit (MMU) and the Market Mitigation and Analysis Department (MMA)
 - Describe the purpose of the NYISO Credit Policy
 - Describe the role of the Stakeholder Services and Member Relations Teams

Market Monitoring, Mitigation and Analysis



Monitoring the Marketplace

MMU Market Monitoring Unit External – Potomac Economics

- Evaluate market rules and Tariff provisions
- Report on market performance
- Refer possible market violations and market design flaws to FERC
- Ensure competitive
 market outcomes
- Ensure market signals
 are appropriate
- Ensure transparency of market signals

Market Mitigation and Analysis Department *Internal - NYISO*

MMA

- Administer Market Mitigation Measures (MST, Attachment H)
- Implement other requirements of the NYISO Tariffs
- Respond to data requests
- Develop Reference Levels
- Develop Load Pocket Thresholds



Monitoring the Marketplace

- Market Monitoring Plan
 - Attachment O of the Market Services Tariff (MST)
- Market Mitigation Measures
 - Attachment H of the MST

Market Mitigation Measures



These measures are designed to:

- Monitor market outcomes and market participant conduct
 - For the exercise of market power that departs significantly from outcomes expected under competitive market conditions
- Authorize the mitigation of specific conduct that has market impact
 - Identify and respond to inappropriate conduct that materially changes market prices, market outcomes or increases guarantee payments

MST, Attachment H

• "Intended to provide the means for the ISO to mitigate the market effects of any conduct that would substantially distort competitive outcomes in the ISO Administered Markets, while avoiding unnecessary interference with competitive price signals."

Let's Review



Which of the following is NOT true of the Market Monitoring Unit (MMU)?

a) Ensures competitive market outcomes

b) Is an internal group to the NYISO

c) Reports on Market Performance d) Refers possible Market violations/market design flaws to FERC



Monitored Market Areas and Activities

Energy Market &	Energy Market	Virtual Trading	Transmission	Installed Capacity
Ancillary Services	Transactions		Congestion Contracts	Market
 Energy Market Bidding Bid Production Cost Guarantee Payments Uneconomic Production Persistent LSE Under Bidding Physical Generator Facility Audits Generator Availability Data System (GADS) Reporting 	 Multi-Hour Transactions Single-Hour Transactions 15-Minute Transactions 	 Virtual Supply Bidding Virtual Load Bidding 	 TCC Auction Paths TCC Auction Outcomes 	 ICAP Auction Outcomes ICAP Providers DAM Bid Compliance



Monitoring Conduct and Impact

- NYISO monitors behavior of a market participant (Conduct) and results of said behavior (Impact)
 - Conduct identify potential market power
 - Impact identify price and cost guarantee payments
- NYISO applies mitigation when *both Conduct and Impact tests are violated*

Conduct and Impact Tests



Conduct - Behavior indicating potential market power

- Physical Withholding
 - Failing to offer services that a generator is capable of providing (i.e. Incremental Energy, Ancillary Services, Capacity, etc.)
- Economic Withholding
 - Submitting bids that are unjustifiably high so that the generator will not be dispatched or scheduled, or the bids will set a high market clearing price
- Uneconomic Production
 - Increasing the output of an Electric Facility to levels that would otherwise be uneconomic in order to cause, and obtain benefits from, a transmission constraint

Impact - Results of behavior

- Market Clearing Prices
- Cost Guarantee Payments
- Virtual Bidding
 - Persistent deviation of RT and DAM LBMPs
- Load Bidding
 - Average % of DAM scheduled load
 - Persistent deviation of RT and DAM LBMPs
- ICAP Market
 - Supply-Side Mitigation
 - Physical & Economic Withholding
 - Buyer-Side Mitigation
 - Minimum Offer Floor

NYISO applies mitigation when both Conduct AND Impact Tests are violated

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Monitoring Conduct and Impact

- NYISO establishes thresholds for each product within a category
 - A <u>Reference Level</u> is a "proxy" that is intended to reflect the offer(s) that a Market Participant would submit for a generator if it was in a competitive market and could not exercise Market Power
 - The reference level for a Generator's Energy Bid is intended to reflect the Generator's marginal costs
 - The methods used to develop Reference Levels are set forth in Attachment H to the NYISO Market Administration and Control Area Services Tariff
 - Attachment H requires that Generators maintain accurate reference levels at all times
 - Constrained area vs. Rest-of-State (ROS)
 - A Load Pocket Threshold is a value associated with a particular constrained location that is used for the conduct and impact tests for mitigation



Reference Levels

- Physical parameters, including time, and dollar based references are established for each Generator
 - Updated for fuel prices when appropriate
- Reference Level Consultation Request Process
- Fuel Cost Update Functionality
- Relationship between reference levels and mitigation
 - A comparison of Reference Levels to Generator Bids are used to perform conduct and impact tests



Determination of Reference Levels

- Attachment H hierarchy for determining the most appropriate reference level:
 - Bid-based
 - LBMP-based
 - Cost-based or NYISO determined
 - Marginal operating costs submitted for a unit, reviewed by MMA and approved by NYISO
 - Can include review of bids for similarly-situated units, unit operating cost data, and best available information to NYISO



Reference Level Software (RLS)

• Marketplace User Interface:

- Access to current and historical reference levels
- Mechanism to submit and check status of cost-based data submissions and reference level adjustment requests (either normal or urgent)
- Allows for dynamic web-based form submission and upload/download options
- RLS generates DAM and RT market reference levels by unit on a daily and hourly basis
 - Incorporates updated fuel and emission cost data



Applying Mitigation Measures

- MMU/MMA may act if reporting indicates non-competitive outcomes (price divergence)
 - Gather data/determine cause
 - Rule Changes
 - May be necessary to contact FERC enforcement
- Not all investigations/conversations lead to mitigation or action



Applying Mitigation Measures

- Mitigation Measures for behavior violating defined Conduct and Impact Thresholds may include:
 - Operational Directives/Actions
 - NYISO adjustment of bid dollar
 - NYISO adjustment of physical parameters
 - Sanction/Penalty
 - Financial
 - Suspension or Revocation of Bidding Privileges
 - Section 205 Filing
 - FERC-ordered measures





Market mitigation measures would be imposed for which of the following conditions?

a) When both conduct and impact tests are violated

b) Only when conduct test is violated

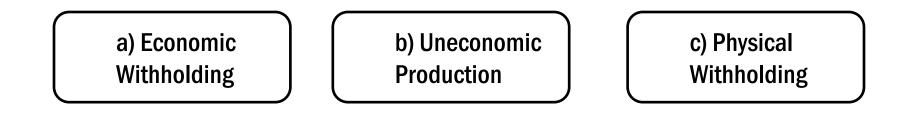
c) Only when an impact test is violated

d) None of the above





Not offering to sell electrical energy is an example of





When a bid dollar exceeds a threshold as defined by Attachment H, this is classified as

a) Physical Withholding

b) Underbidding by LSE

c) Uneconomic Production

d) Economic Withholding

Let's Review



RLS allows users to

a) Access historical reference levels b) Submit reference level adjustment requests

c) Submit cost-based data to support reference level data

d) All of the above

Financial & Customer Support Services

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Financial Services



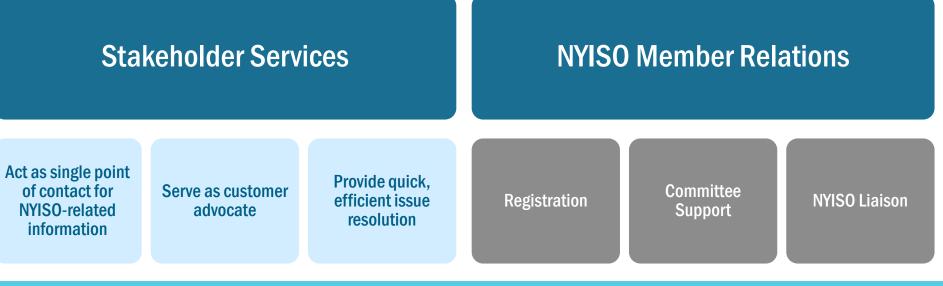
Metering/Settlements/Invoicing

Assess creditworthiness of MPs and manage and mitigate credit exposure

Perform all settlement activities and issue customer bills detailing all charges and credits that apply



Customer Support Services





Additional Services Summary

- Responsibilities of the Market Monitoring Unit (MMU) and the Market Mitigation and Analysis Department (MMA)
- Purpose of the NYISO credit department
- Role of the Stakeholder Services and Member Relations Teams

Market Monitoring, Mitigation and Analysis NYISO Website Information



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	✓ Consultation Request Form		^
	✓ Fuel Entry Thresholds		
port	✓ ICAP Market Mitigation		
Budget & Finance ↓ Customer Registration Market Monitoring Member Community	✓ Investigations		
	✓ Load Pocket Thresholds		
	 Market Mitigation Announcements 		

Market Settlements NYISO Website Information

Billings and Settlements – Main Page



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Billing Rates NYISO Credit	✓ Billing Notices						
Customer Registration	➤ Invoice Support						
Market Monitoring Member Community	✤ Processing and Invoice Sc	hedule					

Settlement & Market Reports



- Decision Support System (DSS)
 - DSS Introductory Online Courses

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TRAINING / ONLINE LEARNING ONLINE LEARNING The Online Learning section offers narra your own pace. Begin your self-paced lea	ted courses capable of being compl	eted from	To View Videos: Use Internet Explorer browser. If using Chrome or Microsoft Edge, Adobe Flash is required. Videos will not play in Firefox.
Market Training	COURSE NAME	TIME	DESCRIPTION
Course Catalog & Registration Online Learning Course Materials	Behind-the-Meter: Net Generation	45 min.	This E-Learning Module provides information on Behind-the-Meter: Net PLA' Generation (BTM:NG) Resources, including minimum participation requirements and details surrounding participation in the Energy, Ancillary Services and Capacity Markets.
	DSS Session 1	9 min.	This E-Learning Module explains the purpose and benefits behind DSS, PLA* identifies reports available, and explains how to access it.
	DSS Session 2	10 min.	This E-Learning Module steps through logging into DSS, the DSS homepage options, resources within DSS, and DSS data versioning.
	DSS Session 3	12 min.	This E-Learning Module demonstrates how to access DSS corporate reports, PLA utilize Automated Data Delivery Files, and identifies supporting documentation.
	DSS Session 4	10 min.	This E-Learning explains the organization of DSS Data, and teaches basic PLA' custom query building.

DSS Intermediate Workshop

Billings and Settlements – Mapping



Documents

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		Billing & Settlements	× ⁷
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Support	Billing & Settlements	 Billing and Reference Documents 	^
		Daily Customer Statement Template - active November 2018	2018/11/05 xls
Budget & Finance Budget & Priorities Working Group Billing & Settlements	Name	Daily Customer Statement Template - active November 2018	2018/10/24 xls
	 Billing and Reference Documents 	DSS Mapping Guide_V1_Effective June 2017	2017/10/02 pdf
		DSS Mapping Guide_V2_Effective November 2018	2018/11/02 pdf
Billing Rates	 Billing Notices 	Hourly Customer Statement Template - active April 2017	2018/10/24 xls
NYISO Credit		Hourly Customer Statement Template - active April 2017.xls	2018/11/05 xls
Customer Registration	 Invoice Support 	Rate Schedule 1 Universe Object Name Updates for Custom Reporting-Updated 041717	2017/04/18 pdf
Market Monitoring	Drassasing and Inveites Cabadula	Settlement Report for April 2018 4 Month Settlement	2018/10/18 pdf
Member Community	 Processing and Invoice Schedule 	Settlement Report for August 2018 Initial Settlement	2018/10/18 pdf

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Additional Resources

- Market Services Tariff
 - MST 23 Attachment H Market Mitigation Measures
 - MST 30 Attachment 0 Market Monitoring Plan
- Monthly, Quarterly and Annual Statistics
 - Monthly Reports
 - Quarterly Reports
 - <u>State of the Market Annual Reports</u>



Additional Resources

- Reference Level Manual
- Reference Level Software User's Guide
- ICAP Reference System User's Guide
- Technical Bulletin 104 Requesting a formal NYISO investigation