

# Energy Mitigation Measures for ESRs

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**MIWG**

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# Previous Discussions

Date	Working Group	Discussion points
08-04-16	MIWG	Initial discussion on <a href="#">alternatives for Energy Storage in the NYISO markets</a>
09-29-16	MIWG	<a href="#">Market Design ideas</a> discussion
11-29-16	MIWG	Presentation providing <a href="#">more detail on the Market Design</a> that the NYISO will pursue
05-05-17	MIWG	<a href="#">Proposed modeling enhancements</a> as the cornerstone of the Energy Storage Integration
07-19-17	MIWG	<a href="#">Eligibility criteria and RT scheduling logic</a> for Energy Storage Resources (“ESRs”).
08-25-17	MIWG	Discussion on the <a href="#">Settlements logic</a> for ESRs.
10-03-17	MIWG	<a href="#">Day-Ahead scheduling logic and Mitigation framework</a>
11-02-17	MIWG	<a href="#">Aggregations</a> in the ESR model
12-20-17	MIWG	<a href="#">Market Design Concept Proposal Summary</a>
02-21-18	MIWG	<a href="#">Ancillary Services Treatment</a> in the ESR Participation Model
04-26-18	MIWG	ESR <a href="#">Energy Level Monitoring</a>
05-23-18	MIWG	<a href="#">ESR Participation Model: Settlements</a>
06-19-18	MIWG	<a href="#">ESR Metering</a>
06-25-18	MIWG	<a href="#">ESR Settlements: Charges when deviating from NYISO Base Points</a>

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# Energy Mitigation Measures for ESRs

- **While ESRs are injecting, current mitigation measures should be sufficient in preventing the abuse of market power**
  - No major tariff revisions are expected to be necessary
- **This would require NYISO to calculate a Reference Level for ESRs**
  - A standard methodology for calculating the opportunity cost of these units would have to be created and communicated to Market Participants
  - Opportunity costs will reflect the net revenues that will be foregone by running in lower-price hours

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# Energy Mitigation Measures for ESRs

- **Current mitigation measures will not be sufficient for ESRs while they are withdrawing energy**
- **While withdrawing, an ESR would still be capable of setting price**
  - An ESR with market power could submit a high offer to purchase energy in an attempt to set price and benefit the market party's generators in the same load pocket(s)

# Energy Mitigation Measures for ESRs

- **Potential mitigation measures for ESRs that are withdrawing may include the following:**
  - Bi-directional conduct tests
  - Rules regarding Decreasing Bids in Real Time
    - These rules would also address potential manipulation of DAMAP
- **Detailed examples and discussion of the concerns will occur at a future meeting**

# Energy Mitigation Measures for ESRs

- **NYISO would likely have to create a means for ESRs to reflect real time changes to their opportunity costs while injecting or withdrawing**
  - This could work similar to a thermal unit utilizing a Fuel Cost Adjustment in order to revise the unit's Reference Levels
  - ESRs could instead submit updated opportunity costs to be used to revise the unit's Reference Levels
  - Rules for monitoring these submissions and confirming their accuracy would need to be developed

# Next Steps

- July - August 2018:
  - Review feedback received from stakeholders.
  - Present detailed examples on Energy Mitigation rules for ESRs.
  - Draft Tariff language and discuss with stakeholders.
- September - November 2018
  - Prepare and finalize FERC Order No. 841 compliance filing.

# Questions?

We are here to help. Let us know if we can add anything.



# 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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