



Demand Response Participation in MISO

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Demand Response: MISO Market Philosophy

- Open wholesale energy market where market participants can buy or sell energy in fair, efficient, and non-discriminatory markets, while providing reliable grid operation
- Demand response can:
 - Reduce the need for new generating capacity
 - Address real-time reliability challenges
 - Mitigate peak prices and peak volatility
 - Limit supplier market power

A Market Rather Than A Program

- MISO currently has no demand-side “*programs*”; MISO conducts markets that support reliable grid operation, where demand response can compete
- “Program” as used in some jurisdictions typically refers to *temporary* initiatives to promote a certain activity or action
- “Program” may also provide payments for participation
 - Funded by charges socialized across some/all market participants
- MISO’s approach is to provide *market* mechanisms that provide opportunities and incentives for full participation
- States, utilities and retail providers in the MISO footprint do have demand “programs”

MISO can employ demand response to...

...reduce loads when values to end-use customers are less than the costs of serving those loads

**Economic Demand Response
(Energy)**

...provide regulating, contingency or ramp reserves

**Operating Reserves
Demand Response**

...substitute for generating capacity

**Planning Resources
Demand Response**

...reduce demand during system emergencies

**Emergency Demand
Response**

Settlement Challenges for Demand Response acting as a Supply Resource

Most of the current challenges revolve around M&V procedures (measurement & verification), including but not limited to:

How to observe the counterfactual consumption level?

- Adverse selection problem
- Moral hazard problem

Attachment TT (consumption baselines)

- Metered generation baseline (BTMG)
- Meter before/meter after
- Firm service level
- Calculated baseline
 - 10 in 10
 - With symmetric adjustment
 - With weather adjustment
- Direct load control baseline
- Custom baseline

Problems with Demand Response acting as a Supply Resource

Payment for Artificial Curtailments

- Demand Response Resources are getting payment from the MISO market for doing nothing, i.e. claiming that they decreased their load when they didn't.
 - MP must take action (i.e. drop load) in response to a MISO instruction.

Payment for “inflated” baselines - how performance is measured

- MPs have engaged in market manipulation by inflating their baselines.

Fraudulent Registration

- Creating demand response assets (e.g., LMRs) from an aggregation of end-use customers without consent or contractual arrangements of such customers