



Demand Response in Organized Electric Markets – FERC Technical Conference

Panel 1 – Value of and Appropriate Compensation for DR in Organized Electric Markets

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Introductory Points

1. New Learning on Calculating Baselines for Customer Settlements:

- Most all DR programs -- price based or load management based --require an estimated customer baseline to calculate the delivered MWs.
 - ◆ Accurate estimates of these load reductions are important as they determine the payments made to participating customers.
 - ◆ AND, these payments are funded by all electricity consumers.
- Considerable experimentation has occurred regarding appropriate baseline estimation but much of this information has not been consolidated.
- It should be possible to develop methods that more accurately estimate customer baselines and thereby more accurately estimate load impacts.
- Developing accurate customer baselines has been a point of debate in California, and at PJM, the NYISO, and the ISO NE with new methods recently proposed by PJM and the ISO NE.

Value of DR as a Resource

2. Estimating the Resource Value of a DR Program:

- Settlements based on customer baselines are subject to a number of considerations:
 - ◆ They should be readily understood by the customer.
 - ◆ They should allow for the customer to be paid promptly.
 - ◆ AND, they are part of designing and marketing a program.
- To meet the above criteria, customer baselines should be as accurate as possible, but they cannot be too complex.
 - ◆ Many are based on a subset of the previous 10 non-event days or other methods used such as Average Monthly Peak Demand.
- Accurately estimating a DR program's resource contribution over a season may require more sophisticated statistical methods.
 - ◆ That use all the data available; and,
 - ◆ Use data across customers in a single estimation model.

Market-Wide Benefits of DR

3. An increased ability for the demand-side of the market to respond to price and resource scarcity:

- ◆ Will help ensure efficient resource allocation in markets.
- ◆ Incent technology innovation.
- ◆ Improve productivity in one of the nation's most capital intensive industries.
- DR programs are still developing and value will increase in the future.
 - ◆ Increased automation of customers' load response.
 - ◆ Increased focus on firm reductions.
 - ◆ Targeted to benefit T&D and ameliorate system congestion.
- For this future to materialize, DR will require the sustained support of regulators and market operators.
 - ◆ The PJM DR road map certainly is a move in this direction.

DISCUSSION