

Demand Resource Participation in New England's Forward Capacity Market

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Today's Objective

- How to define demand resources?
- What demand resource measures (i.e., programs, tariffs, or activities) have been implemented? Are any under consideration?
- What criteria are used for determining what measures to implement?
- What methods are used to determine if these measures are successful in providing the intended response?
- What methods are used to determine the value these measures produce for customers?

Definition of Demand Resources

- Demand Resources are installed measures (i.e., products, equipment, systems, services, practices and/or strategies) ***that result in additional and verifiable reductions in end-use demand on the electricity network.***
 - Such measures include Energy Efficiency, Load Management, and Distributed Generation.

Demand Resource Participation in the Forward Capacity Market

- The Forward Capacity Market (FCM) will procure capacity to meet New England's forecasted demand and reserve requirements three years into the future.
 - The design of the FCM resulted from a Settlement Agreement signed on March 6, 2006.
 - Generation and Demand Resources may participate in the FCM.
 - The Settlement Agreement was approved by the FERC on June 16, 2006.
 - Detailed FCM Rules were filed with the FERC on **Feb. 15, 2007.**

An Auction Will be Used to Procure Capacity Resources and to Establish Their Price

- The Settlement Agreement requires that capacity resources be selected through a competitive ***Forward Capacity Auction (FCA)*** process.
 - An auction is used to select resources needed to meet the Installed Capacity Requirement and to establish the market-clearing price.
 - To participate in the FCA, resources must pre-qualify.
 - The selected resources are paid the market-clearing price (\$/kW-month), subject to performance incentives and penalties.
 - To encourage investment, new resources can receive a long-term (up to 5 year) commitment.

Demand Resource Performance

- Hours of performance: when do Demand Resources need to reduce load to be a capacity resource?
- Different technologies – i.e., Energy Efficiency, Load Management, and Distributed Generation – reduce load in different ways.
 - Passive versus active (i.e., dispatchable)
 - Weather sensitivity
 - Reduction versus output
- Demand Resource Types:
 - On-Peak Demand Resources
 - Seasonal Peak Demand Resources
 - Critical Peak Demand Resources
 - Real-Time Demand Response Resources
 - Real-Time Emergency Generation Resources

Measurement & Verification (M&V) Needed to Determine Load Reduced During Performance Hours

- A project's M&V Plan describes the methods, assumptions, and measurements that will be used to determine monthly Demand Reduction Values.
- M&V Plans Address:
 1. Project Description
 2. M&V Methodologies
 3. Statistical Methods
 4. Measurement of Demand Resource Project Savings
 5. Data Collection, Validation and Management
 6. Reporting, Independence, Supplemental Information, Project Organization
 7. Special Requirements for Real-Time Demand Response and Real-Time Emergency Generation

Questions and Discussion

