The New England Forward Capacity Market and Other Initiatives: Further Integrating Demand-side Resources into System Planning Processes

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The Forward Capacity Market (FCM) is a wholesale market designed by the six New England states and industry stakeholders to promote investment in supply- and demand-side resources. It is the first capacity market in the nation that includes the full range of demand-side resource types, such as demand response, energy efficiency, load management, and distributed generation, as qualified capacity resources. Under the new FCM design, ISO-NE will project the needs of the power system three years in advance and then hold annual auctions to purchase the capacity resources that will satisfy the future regional requirements.

The inclusion of demand-side resources, which are defined as installed measures that result in additional and verifiable reductions in end-use demand on the electricity network in the New England Control Area, as qualified capacity resources in the FCM creates unique measurement and verification (M&V) needs for the resources to be considered as firm resources from the system planning perspective. Differences among demand-side resource types in terms of weather sensitivity, technology type (energy efficiency, load management, or distributed generation), and response mechanism (passive vs. active participation) all factor into the M&V considerations as does the specific set of performance hours across which load reductions will occur.

This panel session will update the AESP membership on the levels of demand-side resources currently eligible to compete in the first FCM auction in Feb 2008, and discuss key issues regarding the performance and M&V of the resources including:

- Acceptable M&V methods,
- Qualification/testing/auditing of resources
- Data reporting-frequency and monitoring
- Meter and equipment standards
- Baseline calculation
- Statistical sampling of non-interval metered loads.

The session will also inform the AESP membership of other regional and national efforts to develop common M&V protocols to assist in integrating demand-side resources into wholesale electricity markets including:

- North American Energy Standards Board (NAESB) M&V project for demand response and energy efficiency resources
- EPA's National Action Plan for Energy Efficiency's Model Impact Evaluation Guide
- PJM's Reliability Pricing Model, and current efforts to integrate demand-side resources into PJM's capacity market
- NEEP's current project to explore the feasibility of a regional Evaluation, Measurement and Verification (EM&V) Resource Center in the Northeast to help ensure consistency of demand-side resource savings in the context of energy and environmental policies.