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Panel 2 – Barriers to Comparable Treatment and Solutions to Eliminate Potential Barriers

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Thank you for the opportunity to appear before the Commission.

Wholesale electricity markets have proven to be a solution to achieving comparable treatment for Demand Resources in New England. Innovative market rules now enable the full range of demand-side measures to participate in the markets, including both passive energy efficiency and active Real-Time Demand Response. New England is now moving beyond the barriers to Demand Resource participation in the markets to tackle the challenges of making Demand Resources operate in the market efficiently and reliably.

Just a few months ago – in February 2008 – ISO New England demonstrated this conclusion with the completion of its first Forward Capacity Market auction. Over 2,500 megawatts (MW) of Demand Resources cleared in that auction. Of that amount, about 1,200 MW – equivalent to the size of the largest power plant in New England – represented investment in *new* Demand Resources. Almost two times more new Demand Resources than new Supply Resources cleared the auction.

Another factor essential to removing barriers and accomplishing comparability for Demand Resources in the region has been the commitment of stakeholders. Several years ago, stakeholders in New England recognized the benefits of meeting the region's Installed Capacity Requirement by either increasing supply or reducing demand. This recognition led to an extensive stakeholder process that designed capacity market rules to achieve comparability.

The second Forward Capacity Auction, which will be held in December 2008, is further evidence that Demand Resources are no longer facing barriers in the capacity market. Another 1,800 MW of Demand Resources have expressed interest in participating in the market. As the market continues to attract additional demand response resources, new challenges are created.

In the near future, it is conceivable that ISO New England will be operating an electric system with almost 10 percent of its operable capacity being active demand response rather than traditional generation. Studies conducted by the ISO show that the frequency of dispatching demand response increases as generation capacity is displaced by greater amounts of demand response capacity. The

frequency of dispatching active demand response in the near future may be orders of magnitude greater than that experienced in New England to date. If the performance of active demand response diminishes in response to increased dispatch frequency, the ability of system operators to maintain system reliability also diminishes. We plan to work closely with our stakeholders in the near future to address these challenges.

The issues associated with the performance of demand response have been observed in our Demand Response Reserves Pilot Program, which permits small, dispersed resources (less than 5 MW) to provide operating reserves. During the first phase of the pilot, we found that small demand response resources yielded statistically significant levels of load relief during simulated reserve activation events. However, the performance of demand response varied substantially from one event to another – aggregate performance of these resources varied between 30 to 90 percent.

These results show that more must be learned to allow us to develop better predictors of how much load relief such resources can provide on a daily basis. We are presently working with our stakeholders to extend this pilot program. Furthermore, extending the pilot program would give us the time to implement a secure, low-cost, real-time, two-way communication infrastructure for small demand response resources to provide ancillary services, and to integrate that infrastructure into operations and market systems. Once accomplished, ISO New England will be able to integrate demand response into Ancillary Service Markets, which is expected by June 2010.

Finally, integration of Demand Resources into the energy market continues to be a substantial challenge. ISO New England has implemented Day-Ahead and Real-Time Energy Markets to provide efficient and transparent price signals that reflect marginal supply costs, which can be used to provide time-based retail products that encourage economic price response. Unfortunately, the majority of retail demand in New England purchases electrical energy pursuant to fixed price products, which give little to no incentive for price response in the energy market.

To address this market barrier, ISO New England has developed and implemented Real-Time Price Response and Day-Ahead Load Response Programs to encourage price-responsive demand in the region. These programs provide financial incentives for participants to reduce load in response to high Locational Marginal Prices. These programs are currently set to expire by June 2010, coincident with the delivery of resources in response to the first Forward Capacity Auction. The ISO has committed to conduct a stakeholder process beginning in October 2008 to address the issue of how to best promote price-responsive demand going forward.

Efficient markets need demand-side participation to address market power, to expand the resources available to maintain reliability, and to improve economic efficiency. New England has come a long way in addressing barriers to entry for Demand Resources by allowing comparable treatment in the wholesale electricity markets. Full market integration to make Demand Resources operate efficiently and reliably, however, will require significant infrastructure improvements to enhance the ability of system operators to rely on Demand Resources in the capacity and Ancillary Service Markets. To maintain reliability, system operators need to know how much Demand Resource capacity is available at any given time, and to see their response to dispatch instructions in real-time. To achieve economic efficiency in the energy market, consumption decisions by retail customers must be based on incentives that reflect actual, contemporaneous marginal supply costs. ISO New England is fully committed to addressing these remaining challenges.

Thank you.