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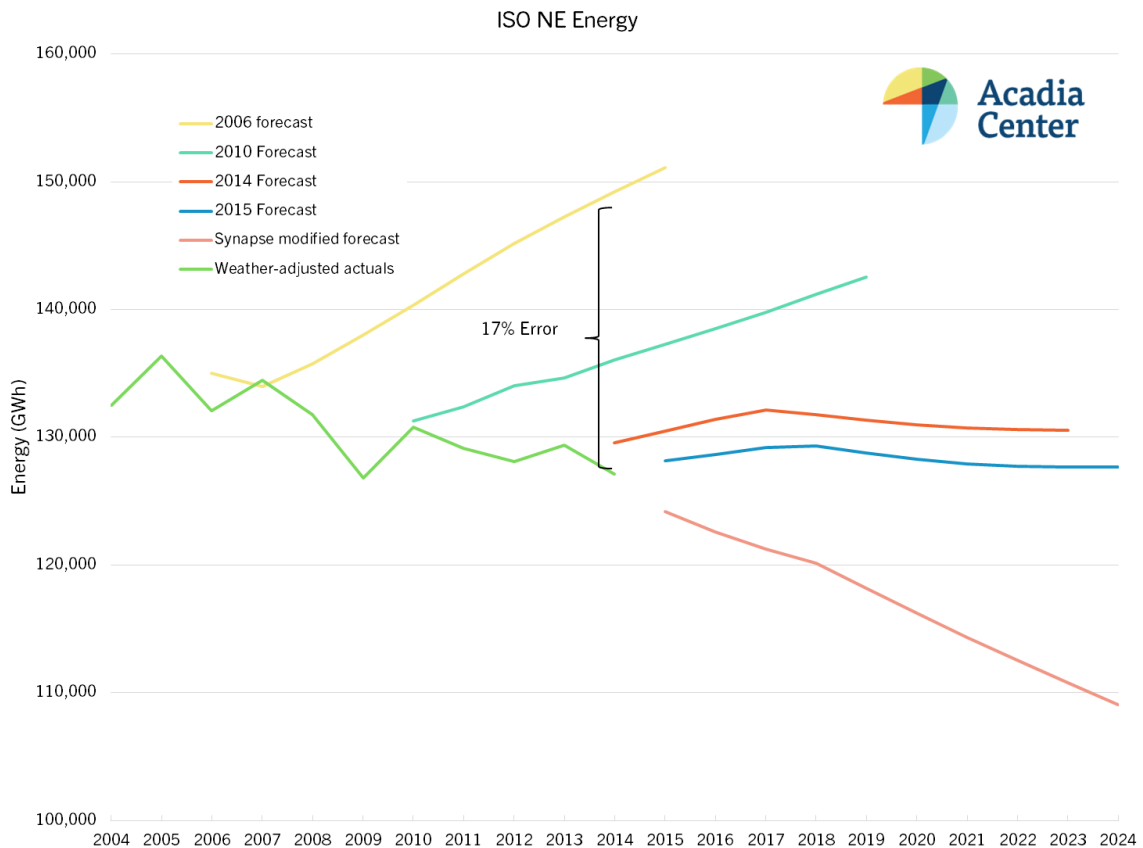
RGGI Member States:

On behalf of Acadia Center, we thank you for the opportunity to provide comments on the Draft 2016 Reference Case Analyses Assumptions. Acadia Center plans to submit additional comments on topics addressed during the November 17<sup>th</sup> stakeholder meeting. Our comments on the reference case focus on three key assumptions that will affect the modeling results significantly: regional energy and peak demand, clean energy procurement, and natural gas prices.

### **Regional Energy and Peak Demand**

In electric sector modeling energy consumption and peak demand are arguably the most influential assumptions, and states must endeavor to adopt assumptions that accurately account for trends in regional energy markets. In New England, the ISO-NE CELT forecast has consistently overestimated both consumption and peak demand, and adjustments to forecasts should be made to more accurately reflect the nation-leading investments that states are making in energy efficiency and distributed generation.

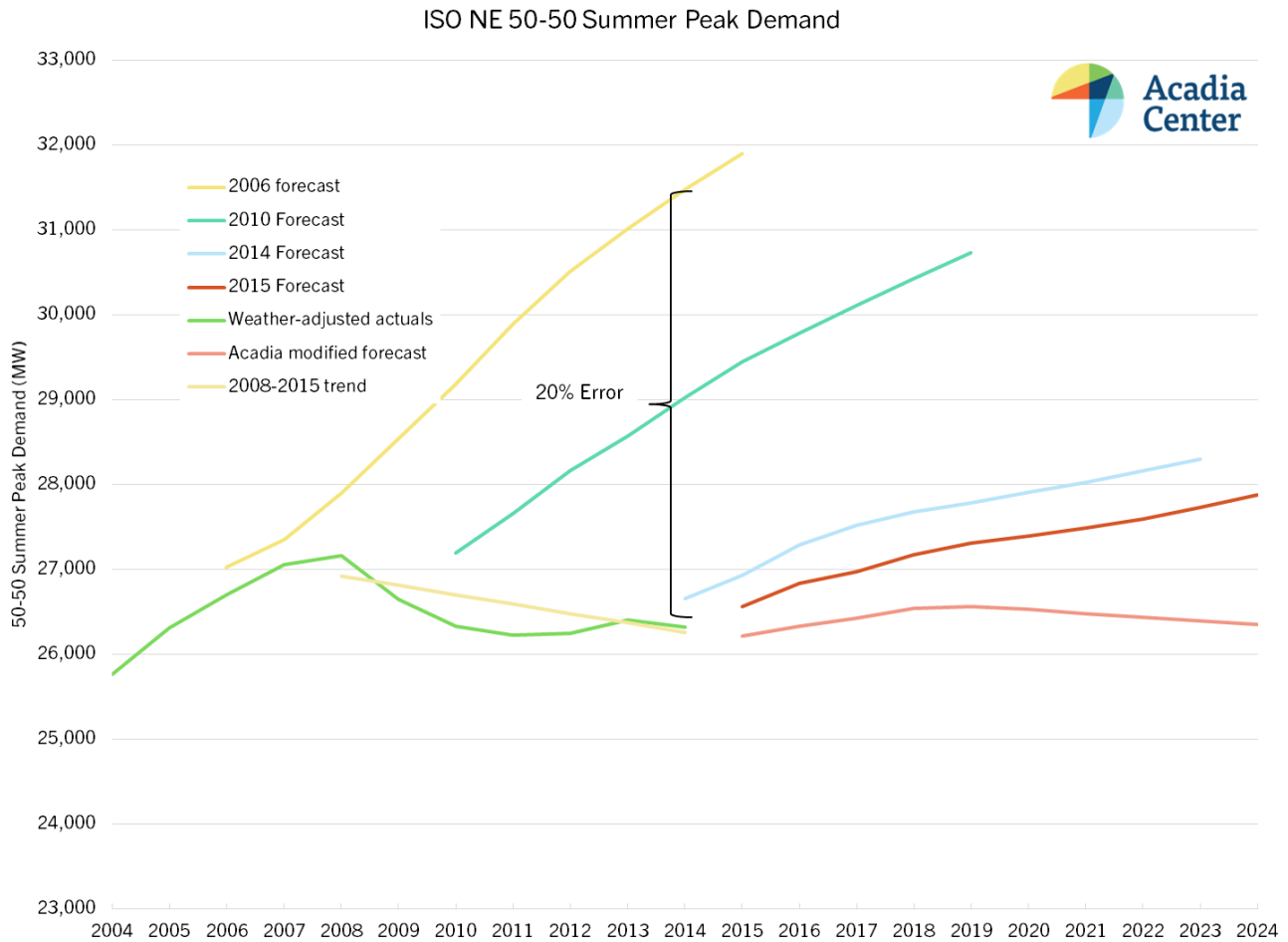
Acadia Center has recently compared historical energy and peak demand against ISO-NE's regional forecasting and discovered that their forecasts almost always predict far higher energy and peak demand than actually occurs, even after ISO's adjustments for future energy efficiency. The following chart compares actual energy consumption in the region over time to ISO-NE's energy forecasts. The forecasting bias is clear and significant, at a 17% error for 2014.



One source of the inaccuracy in ISO-NE's recent forecasts is the heavy discounting of future energy efficiency and distributed generation that occurs during the ISO-NE forecasting process. A recent study by Synapse Energy Economics examined the impact of those and other sources of inaccuracy and constructed a regional forecast that is likely to more accurately predict future demand, shown in the chart above.<sup>1</sup>

Acadia Center also constructed a revised regional forecast for summer peak demand. This corrected forecast, shown below, closely tracks recent historical data. These, or similar forecasts, should be used in Reference Case modeling and evaluation of policy cases. Otherwise RGGI states seriously risk overestimating the costs of RGGI going forward.

<sup>1</sup> See Synapse Energy Economics, Inc., *Challenges for Electric System Planning: Reasonable Alternatives to ISO-NE's Discounts for Uncertainty* (July 24, 2015) ([http://www.synapse-energy.com/sites/default/files/Challenges-for-Electric-System-Planning\\_o.pdf](http://www.synapse-energy.com/sites/default/files/Challenges-for-Electric-System-Planning_o.pdf)).



### Clean Energy Procurement

On November 12<sup>th</sup>, 2015 Massachusetts, Connecticut and Rhode Island released a joint solicitation<sup>2</sup> for significant quantities of non-emitting generation that should be reflected in reference case modeling. This procurement of at least 5,067 GWh – 4,250 GWh for CT, 817 GWh for MA, and an open-ended quantity for RI – of renewable energy and hydroelectricity could amount to 1,000 MW plus of capacity (depending on quantity of RI procurement and capacity factors), reflecting a significant quantity of non-emitting generation. This generation will displace significant quantities of emitting generation in the RGGI region, and thus must be reflected in firmly planned generation. Hydroelectric resources at this scale are likely to come from outside of the ISO-NE control area (likely from Eastern Canada), so should also be reflected in firmly planned transmission additions.

We defer to the states as to how to reflect this procurement in terms of date of availability, capacity, and transmission, but the procurement must be reflected for the model to reflect current policy and market developments. We also note

<sup>2</sup><http://cleanenergyrfp.com/2015/11/12/new-england-clean-energy-rfp-now-issued/>

that firm build assumptions provided by the RGGI states as part of supplemental materials to the November 17<sup>th</sup> meeting NY includes 120MW of wind labeled “2016 Solicitation,” coming online in 2019, and that a similar approach could be taken to reflect the joint MA, CT and RI RFP.

### Natural Gas Prices

Natural gas is supplying a growing portion of the region’s electricity, making natural gas prices one of the most significant factors affecting plant dispatch and costs in the RGGI region. At the November 17<sup>th</sup> stakeholder meeting states presented an average of the Base and High Resource gas price projections from EIA’s Annual Energy Outlook. This deviation from EIA’s Base forecast does not appear to be merited absent further justification. If states are interested in considering a range of potential gas prices, use of AEO’s Base case – with low and high price cases – would seem most appropriate.

The case for considering a high gas price sensitivity is further supported by the potential for natural gas exports to bring up domestic prices. With global prices remaining above domestic natural gas prices, the possibility of increased exports is real, and in its 2014 analysis dedicated to the potential price impact of exports, EIA projected that a significant and rapid increase in LNG exports (reaching 20bcf of exports over 10 years) combined with low gas production could cause natural gas prices in the Northeast to increase by 45%.<sup>3</sup>

Thank you for the opportunity to comment on the Reference Case Assumptions, and we look forward to continuing to engage with the RGGI states throughout the 2016 Program Review.

Sincerely,

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<sup>3</sup> See: <http://www.eia.gov/analysis/requests/fe/pdf/lng.pdf>