

**New England States
Committee on Electricity**

To: Mark R. Babula, ISO New England
From: NESCOE (contact: Ben D'Antonio and Dorothy Capra)
Date: July 15, 2012
Subject: Comments on Final Draft of the 2011 Natural Gas Study

The New England States Committee on Electricity (NESCOE) appreciates the opportunity to provide comments on ISO New England's (ISO-NE) Final Draft of the 2011 Natural Gas Study (Final Draft), performed by ICF International. The Final Draft appears to address many stakeholder comments raised in response to ISO-NE's December 14, 2011 presentation to the Planning Advisory Committee. NESCOE commends ISO-NE's incorporation of stakeholder input into the Final Draft and the ongoing efforts in support of the Strategic Planning Initiative.

As ISO-NE begins work scoping the next phase (Phase II) of the analysis of the electric sector's growing dependence on natural gas, NESCOE encourages ISO-NE to consider the following:

- **The so-called “Bad Behavior” of natural gas-fired electric generators consuming more gas than nominated should be explored to a greater extent.** The need for electric system reliability and the incentives for fuel supply risk management have an effect on the operational integrity of the natural gas pipeline under high-demand conditions, as well as an economic impact on contracts for firm capacity. Phase II of the analysis should examine the conflicting requirements and incentives natural gas-fired electric generators face as they participate in these two dissonant markets. The analysis should discuss measures to ensure compliance with established pipeline operating rules.
- **The Final Draft's major conclusion that “the natural gas pipeline capacity will be insufficient to satisfy gas needs at New England's power plants during the next ten years”¹ should be re-evaluated and subjected to more sophisticated analytical techniques, including probabilistic risk assessment and flow duration.** The Final Draft presumes coincidence of natural gas “design days” with various levels of electric sector demand, regardless of the likelihood of such coincidence or an estimation of its potential duration. As the Final Draft concedes, “intra-day balancing of gas supply with load has not

¹ ICF International; *Assessment of New England's Natural Gas Pipeline Capacity to Satisfy Short and Near-Term Electric Generation Needs*; June 15, 2012; at 65.

[been] investigated.”² To facilitate an appropriate comparison of alternative measures to address potential capacity shortfalls and their associated costs, ISO-NE’s Phase II study should consider the probability of occurrence of these events. The analysis needs to include a more granular assessment of the timing and duration of these events in order to adequately estimate the social costs to electric customers of insufficient gas supply. In addition, the scope of Phase II should include a discussion and analysis of the consequences of different levels of gas supply deficiency on electric system reliability, energy costs and power plant emissions. Finally, Phase II should consider the reconciliation of natural gas pipeline and electric sector risk management conventions. The natural gas design day anticipates a much less frequent outcome than the loss of load expectation, which could introduce bias into the analysis. It is also unclear whether the natural gas design day concept in this analysis has incorporated current warmer winter weather trends and natural gas local distribution company energy efficiency measures, as is now done for electric sector forecasts.

- **The potential solution set studied in Phase II should be robust and recommendations well supported.** To the extent the Phase II study recommends that natural gas-fired electric generators enter into firm contracts for pipeline capacity, ISO-NE should examine the likelihood of such a requirement to result in additional, timely constructed pipeline capacity. ISO-NE should also consider the availability of liquefied natural gas imports and the assumed flows of natural gas in the pipeline network under a variety of scenarios in Phase II, given the evolving marketplace dynamics resulting from current drilling techniques. Finally, ISO-NE should include analysis of demand side management and alternative electric system transmission configurations as potential solutions.

NESCOE acknowledges the complexity of the issues associated with electric sector dependence on natural gas and the challenge of finding market-based solutions for addressing these issues. NESCOE appreciates ISO-NE’s commitment to analyzing these issues in collaboration with the region’s stakeholders, as well as the opportunity to comment on the Final Draft. NESCOE looks forward to continuing to work with ISO-NE on the next phase of the analysis.

² *Id.*