

New England States Committee on Electricity

To: Mark Babula, ISO New England
From: NESCOE (contact Dorothy Capra)
Date: October 05, 2012
Subject: Comments on Phase II Gas Study Scope of Work

In response to ISO New England's (ISO-NE) September 20, 2012 presentation to the Planning Advisory Committee (PAC), *Draft ISO-NE Natural Gas Study (Phase II) Scope of Work*, the New England States Committee on Electricity (NESCOE) offers some comments and respectfully requests clarification on two items.

First, NESCOE appreciates the effort that ISO-NE has put into studying the gas supply into New England and its proactive approach to analyzing this important issue.

Second, as you know, NESCOE will be conducting a related study on gas-electric coordination. To the extent possible, NESCOE intends its study to complement ISO-NE's work. Accordingly, if there are items important to NESCOE, described below, that ISO-NE will *not* address in its study, we are interested in knowing that fact as soon as possible so that we can consider the way in which NESCOE will consider them in its study.

- Based on Section 7 "Next Steps" of the Draft Report: Assessment of New England's Natural Gas Pipeline Capacity to Satisfy Short and Near-Term Electric Generation Needs (June 15, 2012), NESCOE is unclear whether Phase II of the study was going to look at pipelines at a "more granular geographic level." Such an approach could identify choke points and determine whether one, some, or all pipelines need to be upgraded. NESCOE is interested in the "cost effective combination of options" mentioned on page 65, such as minor compressor upgrades that could add extra capacity at a smaller cost. After the September 20, 2012 presentation to the PAC, NESCOE remained unclear whether Phase II will only look at the New England region as a whole and not at the level of granularity described above. Could you please clarify this?

ISO-NE Response:

The scope of work for the ISO's Phase II Natural Gas Study does not attempt to assess the regional natural gas delivery system at a more granular level than what was already done under Phase I of the analysis. Under both Phase I and Phase II of the ISO's Natural Gas Studies, the regional natural gas delivery system is modeled as one aggregate system, and the additional sensitivity studies contemplated under Phase II will be performed deterministically using spreadsheet analysis. The scopes of work for the ISO's natural gas studies are focused on providing an order-of-magnitude assessment of the capability of the regional natural gas supply and

pipeline system to serve needs of New England gas-fired generators under multiple scenarios.

- NESCOE seeks more information regarding the Regional Natural Gas Market Model that ISO will be developing, as described on slides 14-21 of the September 20, 2012 presentation. NESCOE views this model as a potentially useful tool for probabilistically analyzing utilization of the gas pipeline infrastructure. However, based on the September 20 presentation, NESCOE is unclear whether *only* the forecast office would be using this model. Could you clarify whether this model will be used for analysis of the system, or only in operations?

ISO-NE Response:

ISO-NE is examining the use of several natural gas market products to support control room operations. ISO-NE has temporarily postponed the development of a Regional Natural Gas Market Model, which was described within the scope of work for the ISO's Phase II Natural Gas Study, to allow sufficient time to investigate customizing some of Genscape's¹ natural gas products, which may provide similar functionality. Once the Genscape products are fully considered, ISO may decide to pursue the development of a Natural Gas Market Model to support control room operations.

- Finally, we also want to ensure that Phase II is sufficiently looking at new gas-fired generation in the queue, whether from repowering or not. We wish to clarify that generation the new Footprint plant at Salem Harbor is included in the study.

ISO-NE Response:

As part of the ISO's 2011 Phase I Natural Gas Study, ISO-NE performed a Repowering Analysis as a sensitivity to the Reference Case. The Repowering Analysis assumed all of New England's coal and heavy-oil generating units were repowered generators with the same electrical capacity using the latest natural gas-fired technologies. The Salem Harbor facility was modeled using a G.E. FlexEfficiency-50 combine-cycle (650 MW) station with a heat rate of 5,900 Btu/kWh.²

Thank you for helping us better understand the intent for the Phase II Study on the points above.

¹ More information about Genscape's products can be found at: www.genscape.com.

² For more information on these new power technologies, please visit the G.E. Electric Generation web site located at: http://www.ge-energy.com/products_and_services/industries/power_generation.jsp. The Repower cases assume at-risk units are replaced with gas-fired units operating at more efficient heat rates. The need for additional flexibility to follow load changes and swings in renewable generation may result in the selection of replacement capacity with higher heat rates due to the need for providing load following.