To: Vermont System Planning Committee

From: Frank Ettori, VELCO Director of NEPOOL/ISO-NE Relations and Power Accounting

Date: July 16, 2014

Re: Update on ISO-New England issues

ISO-NE winter out-of-market procurement to repeat, expand next winter

During winter 2013-2014—December-February—ISO-New England operated a Winter Reliability Program to mitigate potential reliability issues caused by natural gas pipeline shortages and the region's dependence on natural gas-fired generation. The Winter Reliability Program paid oil-fired generators to ensure a sufficient fuel inventory, paid for additional demand response, and incented testing for dual-fuel resources. The costs for this program were approximately $75M. ISO-NE originally characterized the Winter Reliability Program as a one-time out-of-market expense; however, this spring ISO-NE announced that it will develop a similar out-of-market program for winter2014-2015. ISO will likely expand the program to include the carrying cost of liquefied natural gas storage and provide longer term incentives for generators to provide dual-fuel capability.

ISO-NE conducting new studies of wind integration in multiple states

ISO-NE is conducting localized wind capability studies to identify whether local and regional constraints to existing and planned wind resources could be relieved by system upgrades that do not involve new major transmission line construction. The studies evaluate the system taking existing, and some new, transmission into account. ISO intends to perform a similar wind integration effort for Vermont by the end of 2014.

NESCOE and the Governors' infrastructure initiatives continue to move forward

The New England States Committee on Electricity (NESCOE) and state representatives continue to meet weekly to move the Governors' gas pipeline and power import infrastructure initiatives forward. Proposed Massachusetts legislation requiring significant amounts of renewable generation to meet future renewable goals will, if adopted, serve as a major driver for bringing the Governors' initiative to fruition. Currently, Vermont seems to be the most likely corridor for delivery of energy under this effort, with requests for more than 3,500 MW to interconnect in Vermont already filed with ISO-NE. More details about the status of the Governors' initiative are contained in a separate presentation in this Board package.

FERC approves zone modeling plan with VT, NH and Western MA combined

The Federal Energy Regulatory Commission (FERC) has accepted ISO-NE's methodology for capacity zone modeling and its triggers for creating new zones in the future. ISO is now implementing the new zone modeling plan. The approved plan allows Vermont, New Hampshire, and Western Massachusetts to be modeled as a single zone, relieving the fear that loss of Vermont Yankee from the generation fleet would result in a binding, and potentially costly, constraint constituting a capacity deficiency that would require additional generation. ISO-NE's decision that Vermont will be part of the New Hampshire and Western Massachusetts zone tempers Vermont's local capacity needs. This initiative may also result in higher capacity prices that may incent new resources to build in transmission constrained areas, thereby advancing Vermont's non-transmission alternative objectives.

New England air emissions from electric generation sharply reduced

ISO-NE annually conducts an air emissions study to determine the amount of nitrogen oxide (NOx), sulphur dioxide (SOx) and carbon dioxide (CO_2) produced by electric generation in the region. The study's data has a year of latency, but nevertheless provides trend information for air emissions for our region. The following graph of emissions by year illustrates significant emissions reductions, especially in SOx, due to increased natural gas generation, new renewables, and the significant reduction in coal generation.