New England States
Committee on Electricity

NESCOE Concludes *Hydro Imports Analysis*

November 8, 2013 - The New England States Committee on Electricity (NESCOE) has completed the *Hydro Imports Analysis* (the Hydro Analysis), conducted by Black & Veatch. The Hydro Analysis is one additional piece of information, together with NESCOE's Gas-Electric Study, NESCOE's September 2013 *Incremental Hydro Imports Whitepaper* and other studies, data and information produced by ISO-NE, individual states and market participants that may inform policymakers' consideration of issues related to power system reliability, natural gas congestion and states' environmental objectives.

The Hydro Analysis: The Hydro Analysis provides a high-level view of economic and environmental impacts associated with hypothetical incremental hydro import levels. Specifically, Black & Veatch analyzed the electricity market price and electric sector emissions implications of adding 3,600 MW of hydroelectric imports from Eastern Canadian Provinces into the New England region. The analysis assumed *incremental* imports enabled by three (3) new 1,200 MW transmission lines from different points in Canada into different areas of the New England power grid. Working with the New England states, Black & Veatch identified the following three hypothetical new transmission configurations for purposes of this analysis: 1) a 1,200 MW transmission line from New Brunswick to Massachusetts, 2) a 1,200 MW transmission line from Quebec through New York to Connecticut, and 3) a 1,200 MW transmission line from Quebec to Vermont. These illustrative transmission configurations are for study purposes and do not indicate preferred or recommended geographic locations for potential projects. Black & Veatch analyzed imports enabled by these incremental transmission lines together with two different supply level resource assumptions in Quebec, Newfoundland and Labrador: 1) a base Canadian supply case and 2) a Canadian supply case that assumes incremental hydro supply.

The actual cost of incremental hydroelectric imports is unknown absent a competitive process to identify a fixed bid price, a negotiated price in relation to a specific project, or an actual project advancing to operation. Moreover, the actual cost of hydroelectric imports may be influenced by New England's electricity market prices, which may in turn be influenced by a number of factors *not* assessed in this study, such as natural gas supply and prices. Accordingly, the Hydro Analysis does not present annual carrying costs associated with the hypothetical incremental transmission configurations and imported hydro supply. It should be viewed for what it is: *directionally indicative* information.

Transmission Development Approaches: Separately, NESCOE requested Black & Veatch to provide a summary of the various means to develop incremental transmission to enable increased hydroelectric imports and to provide its professional judgment about the preferred means to facilitate such transmission development, should the New England states elect to do so. In sum, Black & Veatch prefers a cost-based participant funded commercial approach to transmission development designed to increase hydro imports.

Study Limitations: The Hydro Analysis is not a resource plan. Such studies are based on hypothetical assumptions, any one or more of which history may prove wrong in the near-term or at any time during the study period. Further, study results are directional and indicative. They are not predictive or precise. As noted, capital cost estimates in the study are not substitutes for costs that would emerge in a competitive solicitation, as the result of a negotiation, or that could be identified when a project becomes operational. By assessing different hypothetical futures, the analysis does not pretend to have perfect foresight. Rather, it assumes policymakers will apply their judgment to the assumptions in each of the hypothetical scenarios studied, and their proximity to policymakers' beliefs about of the future. The Hydro Analysis should be viewed accordingly and critically.