

The Transformation of the New England Power System: Infrastructure Needs and Market Implications

New England Council Regional Energy Discussion

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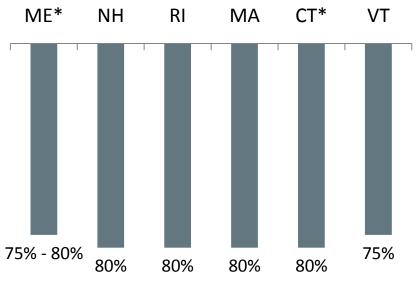
PRESIDENT & CEO

States Have Set Goals to *Increase* Renewable Energy and *Reduce* Greenhouse Gas Emissions



State Renewable Portfolio Standard (RPS) for Class I or New Renewable Energy by 2020

Percent Reduction in Greenhouse Gas (GHG)
Emissions Below 1990 Levels*
by 2050 (economy wide)



^{*} Vermont's standard recognizes all forms of new and existing renewable energy, and is unique in classifying large-scale hydro as renewable.

^{*} Connecticut's goal is tied to 2001 levels. Maine's goal is tied to 2003 levels.

NEPOOL Has Launched a New Initiative Called Integrating Markets and Public Policy (IMAPP)

- In August, NEPOOL launched a stakeholder process with the goal of identifying potential adjustment(s) to the wholesale electricity market(s) to accommodate and achieve the New England states' public policy objectives
- The region's competitive wholesale electricity markets are designed to maintain reliability through the selection of the most economicallyefficient set of resources
- The states have environmental and renewable energy goals that are beyond the objectives of the wholesale electricity markets



Overview of the IMAPP Schedule

- NEPOOL's goal is to develop a "framework document" by December 2 to provide guidance to the ISO regarding potential changes to the wholesale power markets
- This is an extremely important effort and we are encouraged by the attention of both NEPOOL and the New England states to this initiative
- In 2017, ISO New England will work with the states, NEPOOL and the FERC to determine the most effective path forward

Note: For information on the individual proposals, visit the NEPOOL website or the ISO's Wholesale Markets and State Public Policy Initiative webpage.

ISO-NE Will Continue to Work with Stakeholders to Manage the Transformation of the Power System

- New England's wholesale markets provide a framework to ensure resource adequacy and reliability
 - Competitive wholesale electricity markets have resulted in high levels of reliability, produced significant efficiencies and have driven billions of dollars of investment in New England's power system
 - However, the competitive market framework is vulnerable, and the transformation of the power system is presenting new risks
- New England needs additional energy infrastructure
 - Growing levels of renewable generation will require a fleet of flexible resources, with an equally flexible fuel system, to reliably balance the variability of renewable resources
- Thoughtful balance of public policy goals and wholesale market operations can achieve effective results
 - New England has a history of achieving environmental goals within the framework of wholesale energy markets

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