

LA MALBAIE  
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Québec 

# New England States Committee on Electricity

Status Report on Coordinated Procurement  
Summary of Gas-Electric Study  
Hydro Analysis Update

# Coordinated Competitive Renewable Power Procurement

## OBJECTIVE

To consider identifying, through joint or separate but coordinated **competitive processes**, those resources that have the greatest potential to help meet the region's renewable energy goals at the **lowest “all-in” delivered cost to consumers** – the cost of generation & transmission combined

Governors directed NESCOE to develop *Work Plan* to execute CP

Identified goal of issuing RFP by end of 2013



August 2012: NESCOE issued draft *Work Plan*

Requested & considered stakeholder input



November 2012: NESCOE adopted final *Work Plan*

December 2012: Began Implementation of *Work Plan*

### **Work Plan**

- ✓ identified activities & illustrative timeframes toward state regulatory proceedings to consider long-term contracts
- ✓ identified issues to be addressed in advance of solicitation

# Progress

- **Procurement Team (states, electric distribution companies & NESCOE) progressed to near-final Request for Proposal, scoring criteria & illustrative Power Purchase Agreement**
- **Legal Sub-team (New England state lawyers) worked through most details of coordinating mechanics**
  - Mechanics adaptable based on specifics of solicitation
  - Coordinated procurement mechanics valuable to states in variety of future scenarios & power system-related needs that could be used for other products or infrastructure

## **Intervening Issue: Expiration of Federal Tax Credits for Wind Drove Interest in Additional Near-Term State Action**

- **Post 2012 Governors' Resolution, federal tax credit for wind extended, with expiration at end of 2013**
- **To capture tax credit benefits, some states pursued expedited, near-term procurement**
  - Given high stakes of tax credit & corresponding need for speed, several states concluded 'tried & true' single state process for fast-track RFP preferable to 1<sup>st</sup> time coordinated process
- **Regional procurement process awaiting several states to conclude procurement processes**
  - Provide state & market participant certainty about results of state solicitations before introducing another
- **Next Steps: Following states' determination on preferred timing, final internal document review and stakeholder comment opportunity on procurement documents**

# Black & Veatch Gas-Electric Study: Purpose & Limitations

## Study Purposes

- Assess sufficiency of gas infrastructure to support power generation
- Identify cost-benefit of solutions that could alleviate gas constraint

(Study Period: 2014 - 2029)

## Study Limitations

The study is not a plan. It is based on hypothetical assumptions, any one or more of which history may prove wrong. Further, study results are directional and indicative. Studies are not predictions of 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 study 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 relation to policymakers' beliefs about the future. The Gas-Electric Study should be viewed accordingly, and critically.

# Gas-Electric Study: Three Possible Futures & Solutions

Base Case

Future with higher gas demand, reduced availability of other power sources

Future with low growth in demand for power & gas



| Base Case Scenario<br>5 Solutions Studied<br>(2, 3, 4a, 4b, 5) | High Demand Scenario<br>3 Solutions Studied<br>(7, 8, 9) | Low Demand Scenario<br>3 Solutions Studied<br>(12, 13, 14) |
|--|--|--|
| 1. No New Infrastructure                                       | 6. No New Infrastructure                                 | 11. No New Infrastructure                                  |
| 2. Pipeline  | 7. Pipeline  | 12. LNG Peak Shaving                                       |
| 3. LNG Import  | 8. LNG Import  | 13. Imported Firm Canadian                                 |
| 4. Imported Canadian:<br>a.) Economic* & b.) Firm              | 9. Imported Firm Canadian                                | 14. Dual Fuel and Demand Response                          |
| 5. Dual Fuel and Demand Response                               | 10. Weather (Design Day)                                 | 15. Negative Demand Growth                                 |

\*Amount of Canadian imports varies with market prices (economic), rather than a set amount of imports equal to the maximum capacity of infrastructure (firm)



## Gas-Electric Study Findings

- In the absence of infrastructure or demand reduction solutions, New England will experience capacity constraints that will result in high natural gas & electric prices
- Gas-supply requirements driven by episodes of extremely cold weather can be very costly & create significant reliability risks
- Short- & long-term solutions are needed to relieve the natural gas market constraints under the Base Case & High Demand Scenarios
- No long-term infrastructure solutions are necessary under the Low Demand Scenario; The costs of measures that could bring about the Low Demand Scenario, an additional alternative, would require study
- In the absence of demand reduction solutions, a Cross-Regional Natural Gas Pipeline solution, after construction and operational costs, presents higher net economic benefits to New England consumers than do alternative long-term solutions studied

# Hydro Solution Analysis in the Gas-Electric Study

## Economic Based Imports

## Firm Imports

### Both assume cost of a new 1200 MW line

- Assumes import levels determined by energy needs & price differentials in New England & other markets
- Assumes firm import levels by contract (24/7/365)
- *Assumes additional cost of new dam at cost of service*
- Enables imports even during Canadian winter peak

### Both reduce natural gas demand in New England Both lower regional electric prices in New England

- Greater reduction in gas demand during winter peaks
- Greater reduction in electric prices

# Hydro Analysis Update

## Hydro Whitepaper

*Complete*

- Context for policymakers
- Overview of New England's competitive energy markets, New England & Eastern Canadian Provinces' generation resource mixes
- Power system synergies between Eastern Canadian Provinces & New England
- Potential benefits & risks associated with increasing hydro imports, need for resource tracking system
- Options for increasing hydro imports & implications for further consideration

## Hydro Imports Study

*Underway*

- Analyzing economic & emissions implications of adding 3,600 MW of imports
- Assuming incremental imports via 3 new *hypothetical* 1200 MW lines from different points in Canada into different areas in New England
  1. New Brunswick to MA
  2. Quebec through NY to CT
  3. Quebec to VT
- Assuming 2 hydro supply outlooks
  1. Base Supply Case: existing, under construction
  2. Alternative Supply Case: Base Case + 5000 MW (permitted and proposed)
- Cost of Service basis. Will not reflect prices that would emerge in an RFP or via negotiations