

# **U.S./Canada Cross Border Power Summit**

Implications of Power Plant Retirements for Market Fuel Prices,  
Regional Reliability, and Clean Energy Goals

March 14, 2016

**New England States Committee on Electricity**

**NESCOE**

NESCOE is New England's Regional State Committee, governed by a Board of Managers appointed by each of the New England Governors to represent the collective views of the six New England states on regional electricity matters

- ✓ **Focus:** Resource Adequacy, System Planning & Expansion
- ✓ **Resources:** 6 full-time staff with diverse disciplines & experience. Consultants, primarily for transmission engineering & independent studies
- ✓ **More information:** including filings & comments at
  - [www.nescoe.com](http://www.nescoe.com)
  - Twitter @NESCOEStates

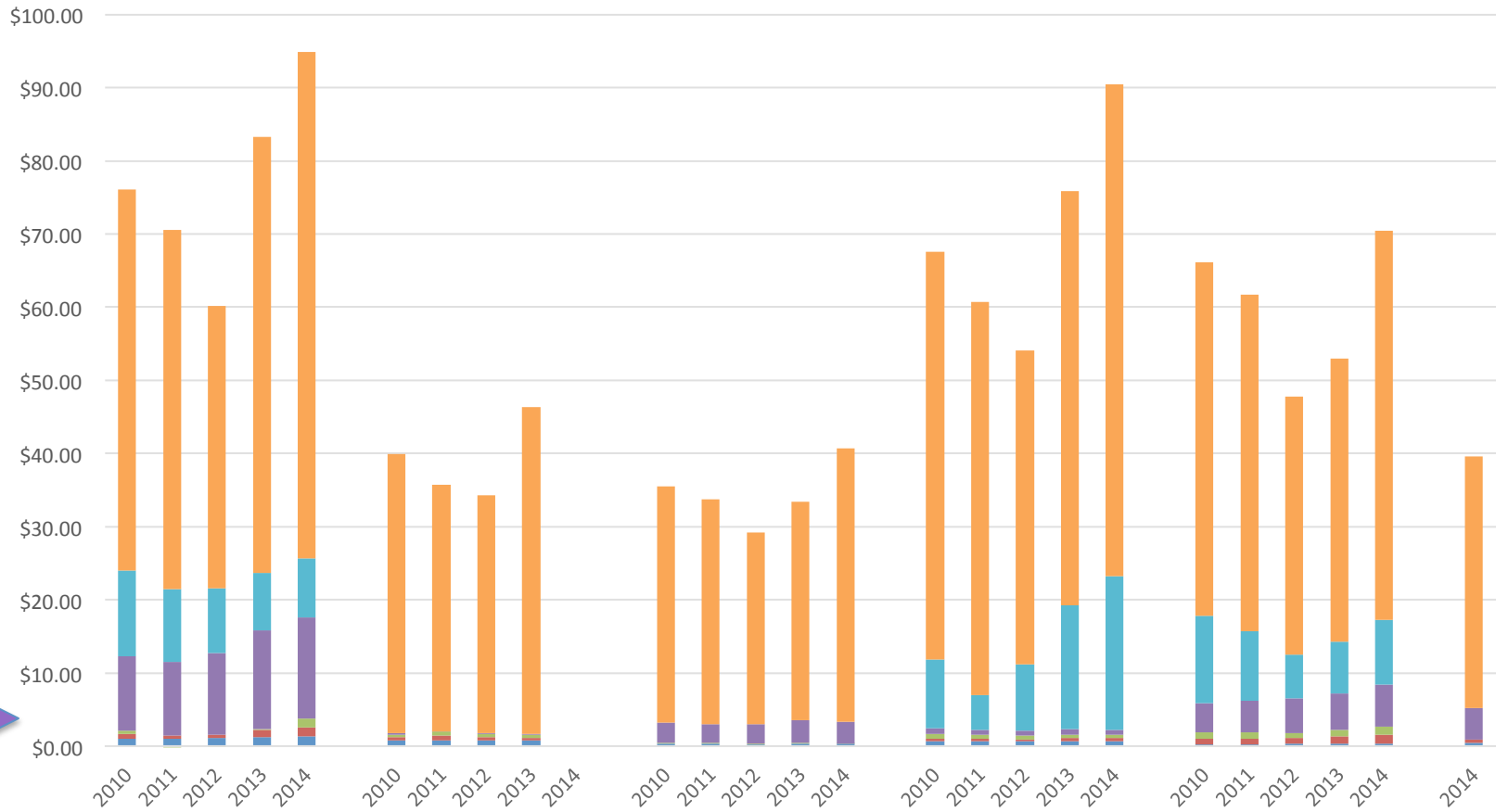
# Overview

- ✓ Quick look at New England transmission investment, comparative methodologies, the likelihood of consumer benefits of competitive dynamic and Order 1000's public policies provisions
- ✓ Multi-State Clean Energy RFP
- ✓ State Energy and Environmental Policy Execution

# New England has invested in reliability-based transmission, more than other regions from 2010 forward

Wholesale Power Cost Breakdown, 2010-2014 (\$/MWh)

- RTO Cost & Regulatory Fees
- Operating Reserves
- Ancillary Services
- Transmission
- Capacity
- Energy



**Transmission**

CAISO\*  
\*(Does Not Include Tx)

Data source: 2015 ISO/RTO Metrics Report

## Perennial Debate in New England:

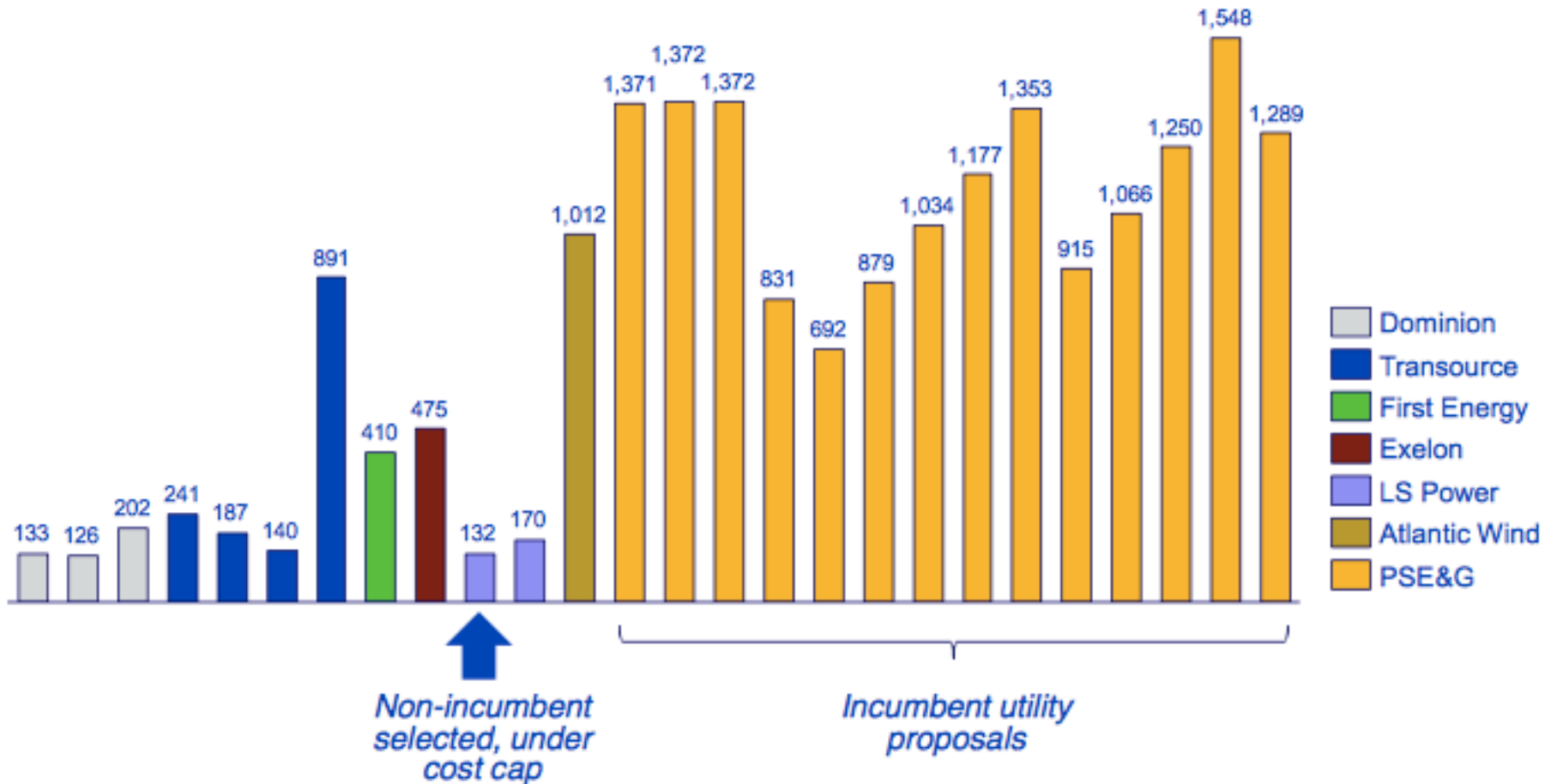
### How do ISO-NE's Transmission Planning Assumptions and Methodologies Compare to Those of Other Regional Transmission Operators?

- ✓ NESCOE commissioned a consultant to develop an objective, fact-based detailed comparative summary of RTOs' transmission system reliability planning approaches and methodologies
- ✓ *Comparison of Transmission Reliability Planning Studies of ISO/RTOs in the U.S.* will inform conversations going forward

[http://nescoe.com/wp-content/uploads/2016/02/ICF\\_RTOReliabilityStudiesComparison\\_4Feb2016.pdf](http://nescoe.com/wp-content/uploads/2016/02/ICF_RTOReliabilityStudiesComparison_4Feb2016.pdf)

# Competition in (reliability) Transmission Development Good Results for Consumers Elsewhere

Illustration: Cost Variation in Bids



# FERC's Order 1000 on Public Policy

- ✓ NESCOE/5 States challenging FERC's compliance orders at D.C. Circuit
- ✓ FERC unlawfully expanded the rule to require project *selection* rather than *consideration* of public policies

## **The problem with Order 1000 is not academic**

By requiring project selection and at the same time denying states a central role in that process, FERC substitutes ISO-NE judgment for the judgment of state officials implementing state laws.

# What's the Vision?

The half of ISO-NE  
that determines how  
to *transmit* electricity  
must consider  
state public policies  
under Order 1000



The half of ISO-NE  
that determines what  
resources will  
*generate* electricity  
generally  
do not consider  
state public policies



# Multi-State Clean Energy RFP Objective

To explore whether a multi-state procurement might attract larger-scale projects and transmission than single state procurements and achieve individual states' clean energy goals more cost effectively than if each state proceeded on its own.

**Initial Action:** Certain state agencies and utilities in CT, MA and RI developed, with NESCOE assistance, the joint RFP for clean energy projects based on each state's current authority.

All documents at [www.CleanEnergyRFP.com](http://www.CleanEnergyRFP.com)

# Multi-State Clean RFP Schedule

Feb 2015

- Draft RFP issued for public comment

June -  
October  
2015

- RFP posted and filed at DPUs
- MA and RI DPU's approved RFP for issuance

Fall  
2015

- RFP Issued November 12<sup>th</sup>
- Bidder Conference December 3<sup>rd</sup>
- Bidder Q&A ended December 29<sup>th</sup>

Winter  
2016

- Final Q&A posted January 14<sup>th</sup>
- Bids submitted January 28<sup>th</sup>

**NOW**

- **Evaluation of bids through July 2016**

Summer

- Submission of selected projects to regulatory authorities for review

# Bid Evaluation

## RFP Issuers jointly *and* individually evaluate bids



- ✓ No obligation to procure anything at all
- ✓ Each state, EDC use own authority, criteria, judgment to determine whether a proposed project is cost-effective and beneficial for its consumers

NESCOE facilitated development and issuance of RFP instruments and has no role in bid evaluation or project selection

# Proposed Projects

based on publicly available information

**Sizes:** 20 MW to more than 600 MW

**Locations:** Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New York, and eastern Canada

**Types:**

**Traditional PPAs  
No Transmission  
Requirement**

**PPAs with  
associated  
Transmission**

**Clean energy  
delivery  
commitments**



- Clean energy delivery commitment approach ties transmission-only payments to project's performance in fulfilling commitments for clean energy delivery
- Support payments under a FERC filed/accepted Tx tariff/rate schedule paid for by participating states; Tx developer, clean energy supplier negotiate commercial terms

# Proposals with No Transmission

:

## SOLAR PROJECTS (no transmission)

### Ameresco

20MW  
New Milford, CT

### EDP-ibvogt Solar

Eight projects  
Range from 22MW - 54 MW  
CT, MA, RI

### GRE 501 MIRA

20MW  
Windsor, MA

### Deepwater Wind

26.4MW  
Simsbury, CT

### RES America

Two 20MW projects - assumed solar  
Type and location redacted

### Ranger Solar

Five projects  
4 50MWs  
1 20MW  
CT, ME, NH

## Wind Projects Proposals with No Transmission

### Antrim Wind

28.8MW  
Antrim, NH

### Blueberry Hills

249.9MW  
Cherryfield and Deblois, Maine

### Canton Mountain

22.8MW  
Canton, Maine

### Cassadaga Wind

126MW  
Cherry Creek, New York

### Weaver Wind

72.6MW  
Eastbrook, Maine

## Hydro Dam - RECS Only (no transmission)

### Conowingo by Exelon

572MW  
Conowingo, Maryland

## FUEL CELL PROJECT (no transmission)

### Beacon Falls Energy Park

63.3MW  
Beacon Falls, CT

# Transmission Proposals with Associated Generation.

## Review generation projects at [www.CleanEnergyRFP.com](http://www.CleanEnergyRFP.com)

### 1. Clean Energy Connect

600 MW HVDC from Alps Substation in NY to Berkshire Substation in western MA

### 2. Vermont Green Line

400 MW HVDC from Plattsburgh, NY, under Lake Champlain to New Haven, VT

### 3. Northern Pass\*

1090 MW HVDC from Quebec to Deerfield, NH

### 4. Maine Renewable Energy Interconnect

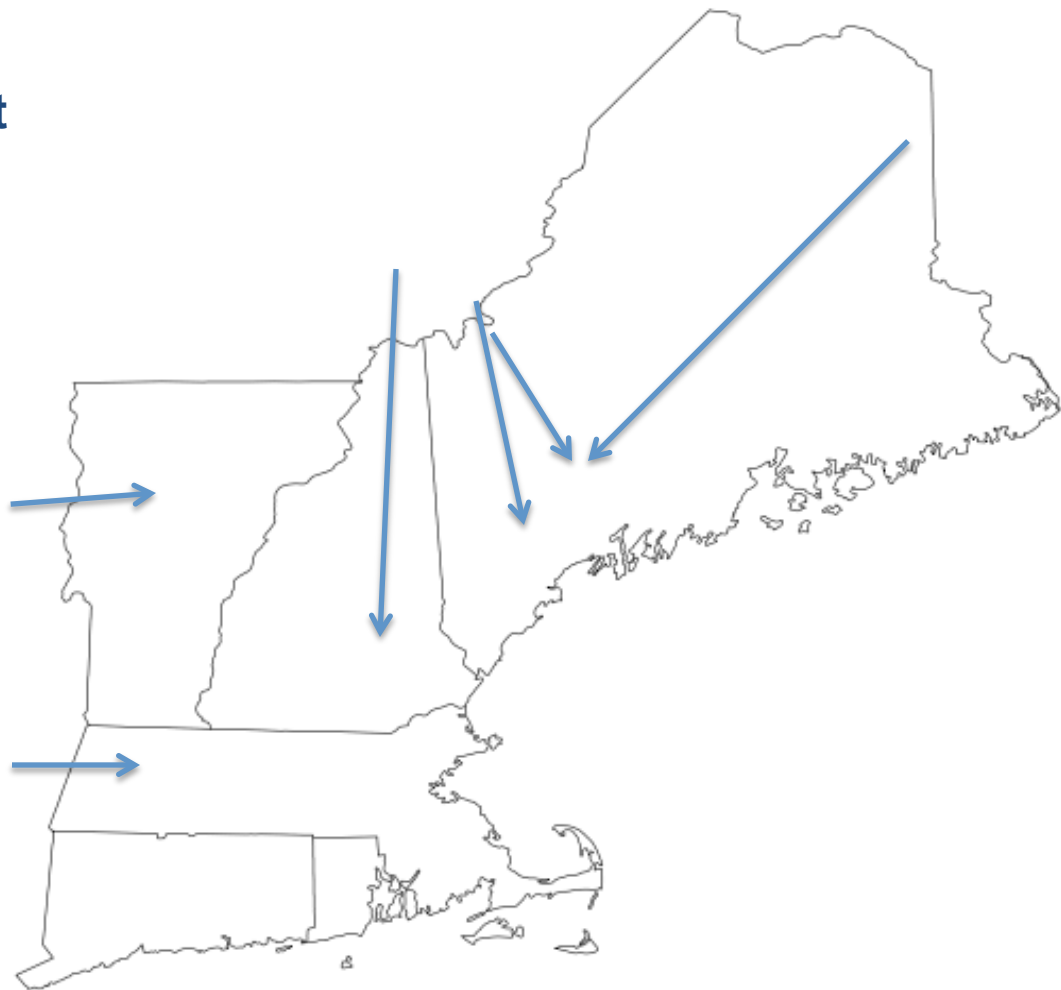
345 kV joint project of CMP and Emera ME, running from a new Hammond Substation in Hammond ME to a new substation in Pittsfield, ME

### 5. Maine Clean Power Connection

345 kV CMP project running from a new substation in Johnson Mountain Township, ME to a new substation in Pittsfield, ME

### 6. Evergreen Express

345 kV joint project of New Hampshire Transmission and CMP, running from a new Jim Pond Switching Station to Larrabee Substation



\* Northern Pass is the only project that proposes a delivery commitment model rather than a power purchase agreement 14

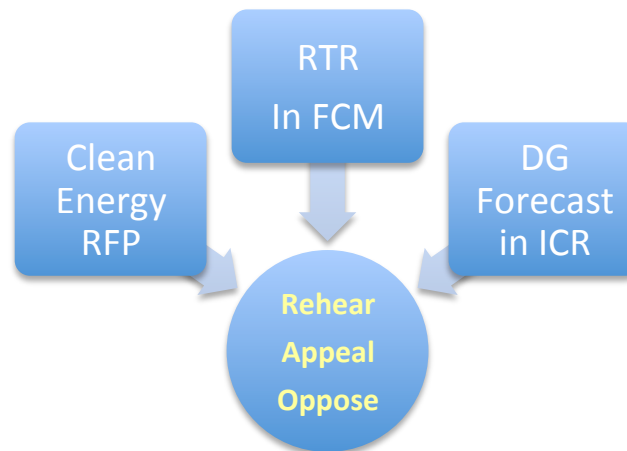
# Green Tracking

- ✓ Verification of clean energy attributes for imported power is critical if Canadian resources wish to be credited with helping states satisfy carbon reduction requirements or environmental objectives
  - No uniform structure currently in place in Eastern Canada to measure, verify, and track emissions characteristics of imports into New England.
- ✓ In 2013, N.E. Governors and Eastern Canadian Premiers adopted a resolution encouraging Canadian provinces to evaluate existing options and opportunities to adopt verification mechanisms of generation sources and environmental attributes that correspond with the existing New England Power Pool GIS verification system
  - **Recent changes to NEPOOL GIS rules to facilitate tracking *but corresponding changes* likely needed on other side of the New England's borders.**

**While improvement to the suite of market rules and policy mechanisms is always a subject of discussion, New England states will move forward to implement policy requirements and will seek to do so in the most cost-effective way for consumers.**

See also, [http://nescoe.com/wp-content/uploads/2015/12/PublicPolicyMechanisms\\_December2015.pdf](http://nescoe.com/wp-content/uploads/2015/12/PublicPolicyMechanisms_December2015.pdf)

**In the Meantime, Some Oppose  
State Energy and Environmental Policy Execution At Every Turn**





# Opposition To Implementation of State Laws Is Not A Productive Plan

**1. Competitive markets must accommodate state policies in order for markets to be sustainable over the long-term**

**2. States must execute state policies – with or without generators' support, in- or out-of-market as needed**

**3. Even if generators "succeed" to weaken in-market mechanisms, it won't eliminate state energy and environmental laws**

**2016 - the year to move forward productively...**

## **An example – A Modest Clean Energy Mechanism in the FCM: “Renewable Technology Resource” Exemption**

**In February 2016 auction, 55 MW of new renewable resources  
cleared under the exemption –  
roughly .15% of the resources procured**

- Generators challenged the RTR Exemption at FERC
  - FERC disagreed
- NRG, PSEG and NextEra petitioned for review in the D.C. Circuit. Entergy supported.
  - Remanded to FERC
- Some now challenge the RTR Exemption at every corner
  - by seeking to tie it to the DG Forecast
  - in stakeholder discussions about other proposed market changes to advocate for changes more favorable to them

## And another - Recognizing Consumer Investment In Distributed Resources

ISO-NE uses DG Forecast to determine  
the level of resources consumers must buy via ISO-NE markets



This helps to ensure consumers do not buy resources  
as if that solar did not exist

- Generators challenged ISO-NE's use of the DG Forecast at FERC
  - FERC disagreed
- NRG recently asked FERC to rehear the matter

[www.nescoe.com](http://www.nescoe.com)