

PowerOptions 2011 Annual Meeting



Connecting Generation to Load: Building Efficient Transmission

*New England States Committee on Electricity
June 8, 2011*

NESCOE

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- New England's Regional State Committee
- Governed by Managers Appointed by Each New England Governor
- Purpose: *represent the interests of the citizens of New England by advancing policies that will provide electricity at the lowest possible price over the long term, consistent with maintaining reliable service & environmental quality.*
- Focus: System Planning & Expansion, Resource Adequacy

OVERVIEW

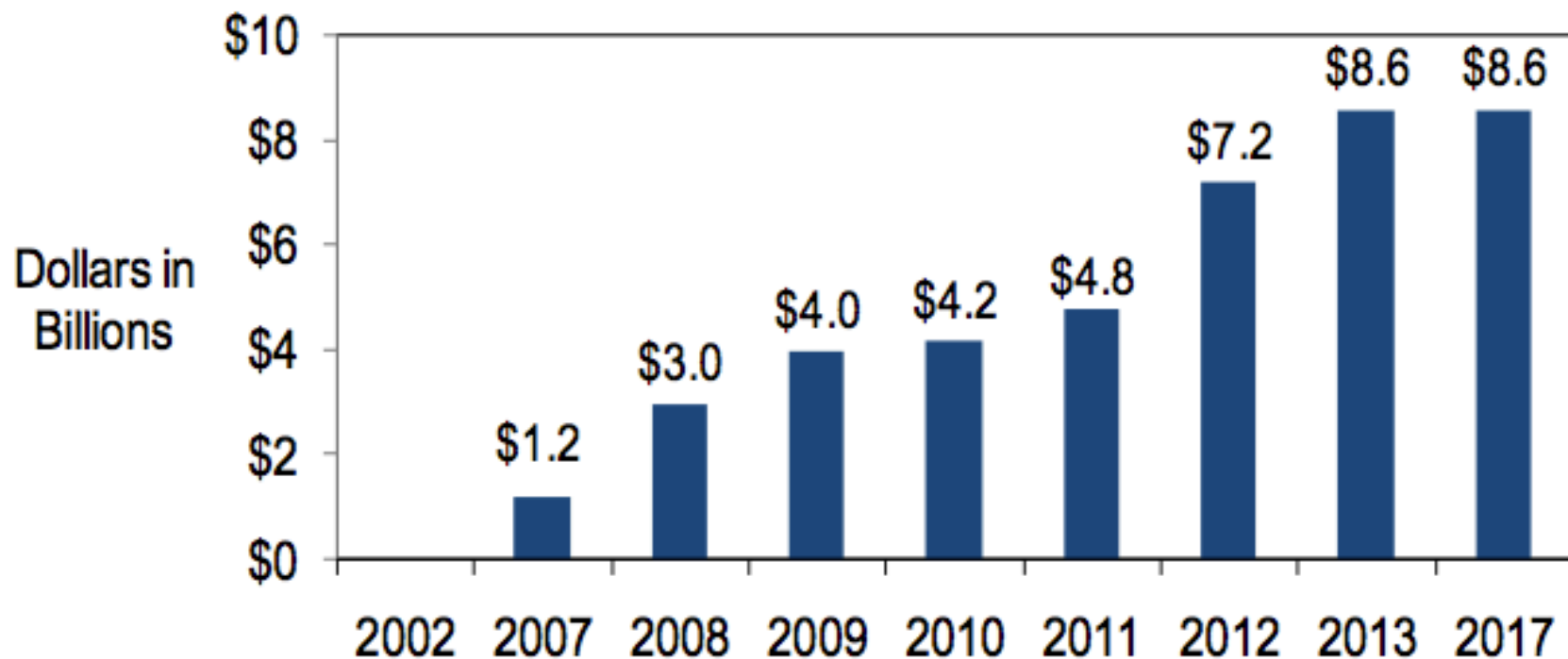
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- Some background on transmission investment here & elsewhere
- A few words on why there may be more ahead ...
- Given increasing transmission investment & costs, some ways we might maximize states' & market confidence in the region's transmission planning process

New England Transmission Investment

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Projected Cumulative Transmission Investment



Graph Source: ISO-NE Overview of Bulk Electric Power System Operations Presentation dated 4/27/09
(older data shows longer view over time)

Good News for New England

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New England no longer DOE *Congestion Area of Concern*

“... while some transmission congestion remains in New England, most of the significant transmission constraints have been eliminated by the region’s multi-faceted approach. **The region has shown that it can permit, site, finance, cost-allocate and build new generation and transmission, while encouraging new demand-side resources as well.**”

DOE National Electric Transmission Congestion Study, 2009

And, as ISO-NE discussed, **congestion is being mitigated.**

Increasing Transmission Investment Not Unique to New England Edison Electric Institute reports:

- From **2001 to 2009**, EEI members invested nearly **\$55.3 Billion** in transmission
- In **2009**, EEI members invested **\$9.3 Billion** in Transmission
- They plan to invest an additional **\$45.1 Billion** from **2010 to 2013**

Source figures & graph: *EEI Transmission Projects: At A Glance March 2011, Intro. at p. viii.*

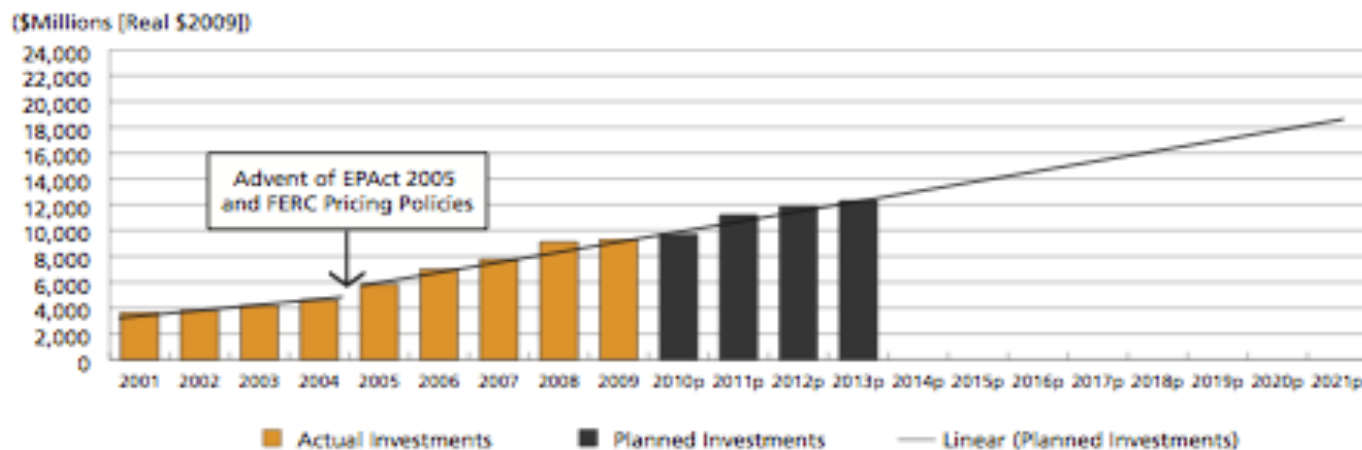


Figure 1: Transmission Investment (\$ millions)

Given significant increases in transmission investment, are we almost done?



Not necessarily.
Potential for more transmission on horizon.

Federal Activity on Transmission

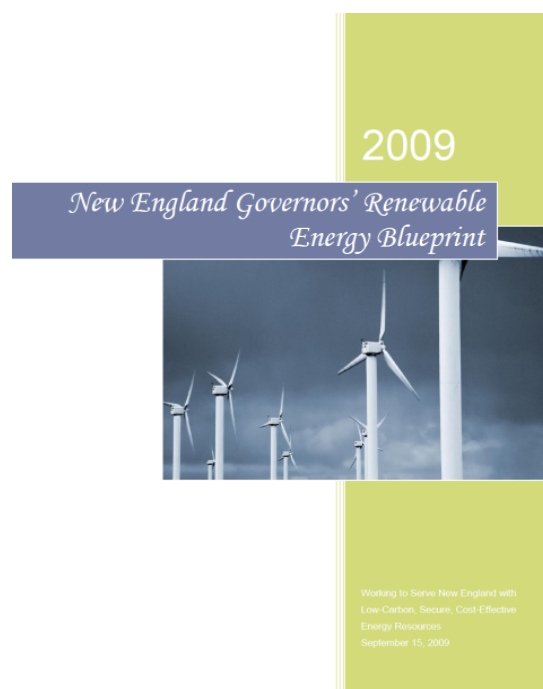
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- **Department of Energy** funds Eastern Interconnection Planning Collaborative (EIPC)
 - States & stakeholders from Rockies to east coast creating scenario analysis/futures based on various policy options, leading to 3 conceptual transmission build-out analysis – not plans - by 2012
 - New England well-situated to meet its own needs & policy objectives; focus on achieving its policy objectives through most cost-effective resources
- **FERC** rulemaking on transmission planning & cost allocation. Transmission planners may be required to consider state & federal public policies in planning
 - Order expected anytime
 - New England working on competitive processes to identify cost-effective resources to meet policy objectives

New England Governors' Renewable Energy Blueprint

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Policy



Governors' Renewable Energy Blueprint

Technical Analysis



New England 2030 Power System Study

Report to the New England Governors

2009 Economic Study:
Scenario Analysis of Renewable Resource Development

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February 2010

New England 2030 Power System Study

ISO-NE Renewable Development Scenario Analysis

Following the Blueprint...

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- *2010 Report to Governors on Coordinated Renewable Procurement*
- 2011 Request for Information from Renewable Resources (& Transmission)
- Current: Discussing with ISO-NE tariff mechanisms that could help support transmission development potentially required for coordinated competitive procurement effort
- Point: To identify most cost-effective resources on an “all-in” basis, considering cost of generation & transmission required to deliver it to load

Given increasing transmission investment & costs -
value in **maximizing states' & market confidence**
in New England's **transmission planning process**



Some ways to do that...

RSP Analysis

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New England's Regional System Plan is required to:

(iii) specify the physical characteristics of the physical solutions that can meet the needs defined in the Needs Assessments and include information on market responses that can address them

Attachment K, Section 2.1

In 2009 & 2010, NESCOE asked ISO-NE to focus in future RSPs on presenting this information in a more clear, straightforward way

Crisp presentation of this information will be valuable to states & to the market – especially as proposed solutions to identified needs seek support, approvals & state permits

Could also help states & market participants identify whether markets are sending adequate signals about needs in a timely way

Energy Efficiency in Transmission Planning

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One way to maximize confidence in transmission plans is a load forecast with *reasonable* assumptions about levels of other resources, like energy efficiency. (Not super aggressive. Not super conservative.)

Transmission studies are based on load levels/need - if they don't assume reasonable energy efficiency resources, they don't accurately project load levels.

The Issue: ISO-NE's load forecast methodology does not incorporate projected energy savings from energy efficiency resources that do not participate in the FCM. It assumes no new energy efficiency in future years.

We don't know precisely what energy efficiency levels will be in 2020.

We do know that assuming no new energy efficiency in future years is almost certainly wrong.

The states appreciate ISO-NE current effort to develop a new methodology to estimate energy efficiency resources in future years

Planning Manual?

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How else could we maximize states' & market confidence in planning processes?

One potential option that merits discussion: a **Planning Manual** to more clearly define the process & substance of Needs & Solutions' Assessments. For example,

- Detail process – timelines, work products
- Define reliability needs assessment approach - assumptions, modeling parameters & analyses
- Delineate the process & criteria used to evaluate potential solutions

Information Flow Earlier in the Planning Process?

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Another potential way to maximize confidence in planning that merits discussion:
increasing information paths to and from Needs & Solution Assessment Study Groups

- Study Groups generally include ISO-NE & transmission owners
- *Sometimes*, good reasons for closed doors – to protect CEII/Information Policies, for example
- *Sometimes*, good reasons for increased information flow to & from interested & affected stakeholders earlier in the planning process, executed in a way that preserves the highly technical nature of the work

And finally, FERC Transmission Incentives

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In 2006, FERC began awarding incentives to transmission owners - ROE adders, recovery of 100% of prudently incurred abandoned plant costs, inclusion in rate base of 100% of prudently incurred CWIP, recovery of pre-commercial operations costs, etc.

FERC asking for input on its incentives program at the end of July:

- What factors should FERC consider in evaluating an application for incentives?
- What obstacles are faced by transmission developers & what incentives are best suited to addressing those obstacles?
 - How should FERC consider changes in cost estimates?

If carefully crafted & applied in specific circumstances & in consideration of their cumulative impact, incentives can serve a useful purpose...

Continually assessing incentive policies makes good sense

Thanks

More Information: www.nescoe.com