



Renewable Transmission Planning in New England Reconciling Demand, Costs and Policy

NECA Fall Dinner Meeting

*Boston, MA
September 3, 2009*

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Energy Security Analysis Inc.*

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Transmission Planning Over the Years

YESTERDAY

Build to deliver base-load generation (coal, nuclear) to load centers

TODAY

Build to keep the lights on and to reduce congestion & uplift costs

TOMORROW?

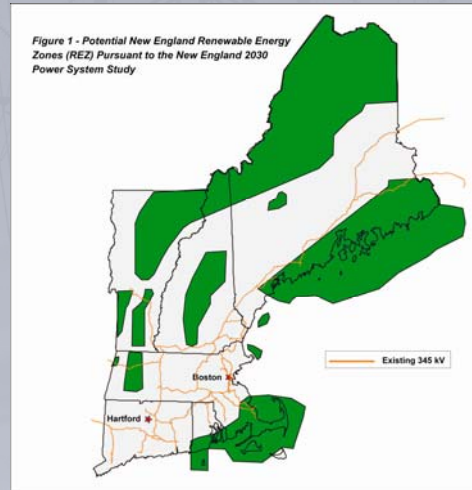
Build to meet environmental and public policy objectives?

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A Renewable Blueprint for New England

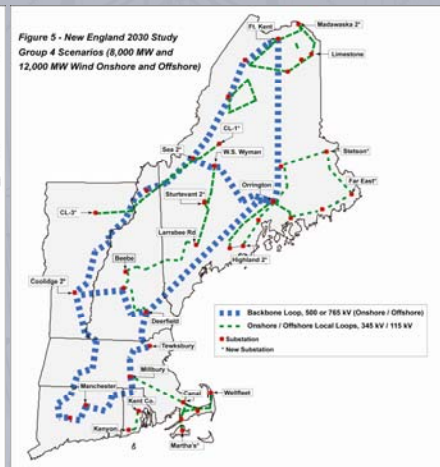
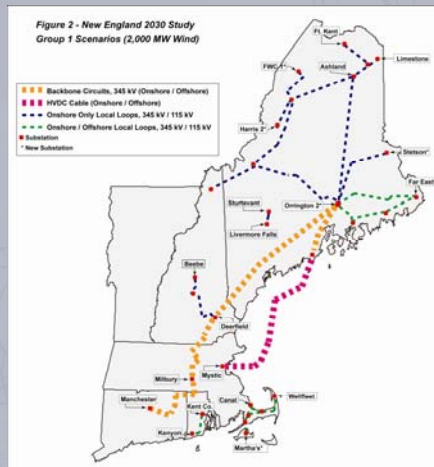
- First attempt to link policy & planning
- Analysis of multiple scenarios of resource development
 - Economic & environment impacts
- Transmission overlays and cost estimates



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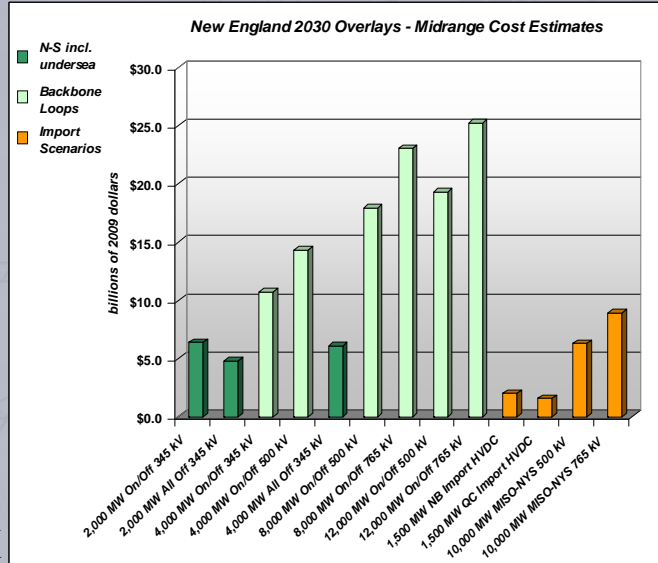
NE 2030 Transmission Overlays



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NE 2030 Relative Cost Estimates



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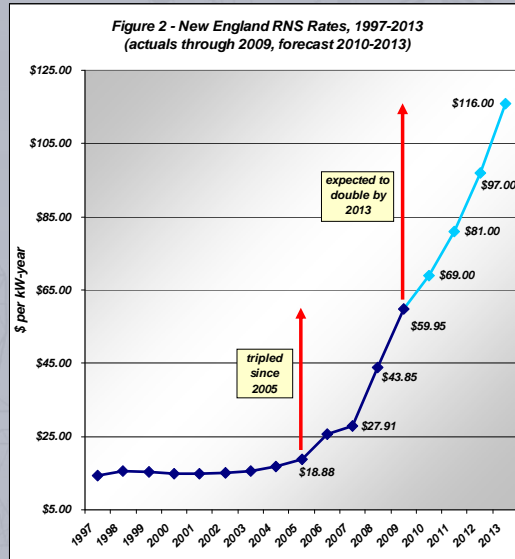
New England 2030 Takeaways

- Transmission for offshore resources costs less
 - But generation may cost more...
- Conceptual REZ identification & overlays
- Credible response to Midwest & Washington
 - Alternative to JCSP; input into EIPC
- Calling the renewable energy policy bluff
 - Or, How green do you want to be?
 - How to balance multiple challenges?

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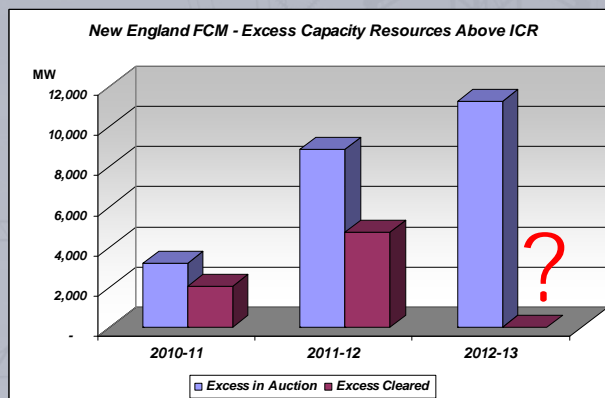
Challenge: Rate Shock



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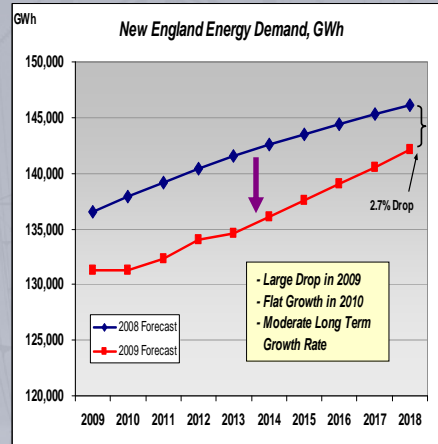
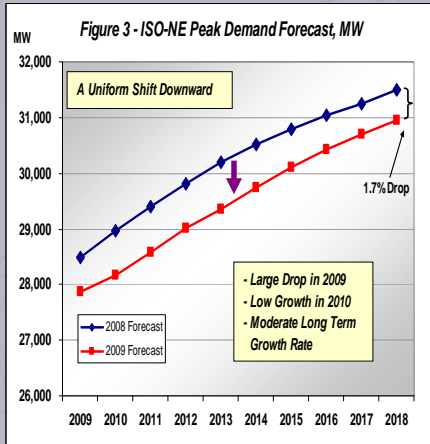
Challenge: Need for Resources



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Challenge: Drop in Demand



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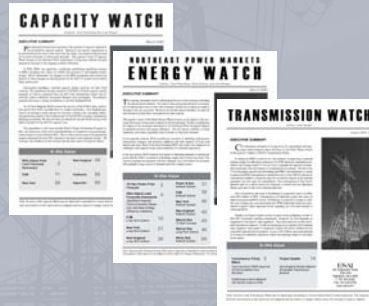
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Thanks!

- The content and opinions in this presentation are my own and may not necessarily represent the views or opinions of ESAI or any of its clients.
- Questions? jrotger@ESAI.com; (781) 245-2036

ESAI's Northeast Power Service provides a series of reports with in-depth views of the Northeast (PJM, NY & NE) power markets. Reports include:

- Northeast Energy Watch Quarterly** – 10-year analysis and outlook of market prices and policy issues.
- Northeast Energy Watch Monthly** – 6-month zonal pricing forecast & review of policy and market changes.
- Northeast Bi-Weekly** – 1-week review & outlook for price analysis & trading.
- Capacity Watch** – Quarterly analysis of capacity markets & policy issues.
- Transmission Watch & Memos** – Quarterly & monthly analysis of transmission investment and development from a national perspective.
- Congestion Watch** – Monthly analysis of next month's congestion and nodal pricing dynamics in the Northeast.
- Natural Gas FundWatch** – 1-week outlook & analysis of key near term factors in natural gas market.



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