

New England Governors' Renewable Energy Blueprint



**33RD ANNUAL CONFERENCE
NEW ENGLAND GOVERNORS
&
EASTERN CANADIAN PREMIERS
SAINT JOHN, NEW BRUNSWICK
SEPTEMBER 15, 2009**

The Blueprint's Path

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September 2008

NEGC Resolution

February 2009

Governors write to President Obama,
Congressional leaders

March 2009

States request ISO-NE perform technical analysis

July 2009

ISO-NE issues draft Renewable Development
Scenario Analysis

September 2009

Blueprint Consideration

Renewable Development Scenario Analysis

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BACKGROUND & OBSERVATIONS



Policy Choices Informed By Data

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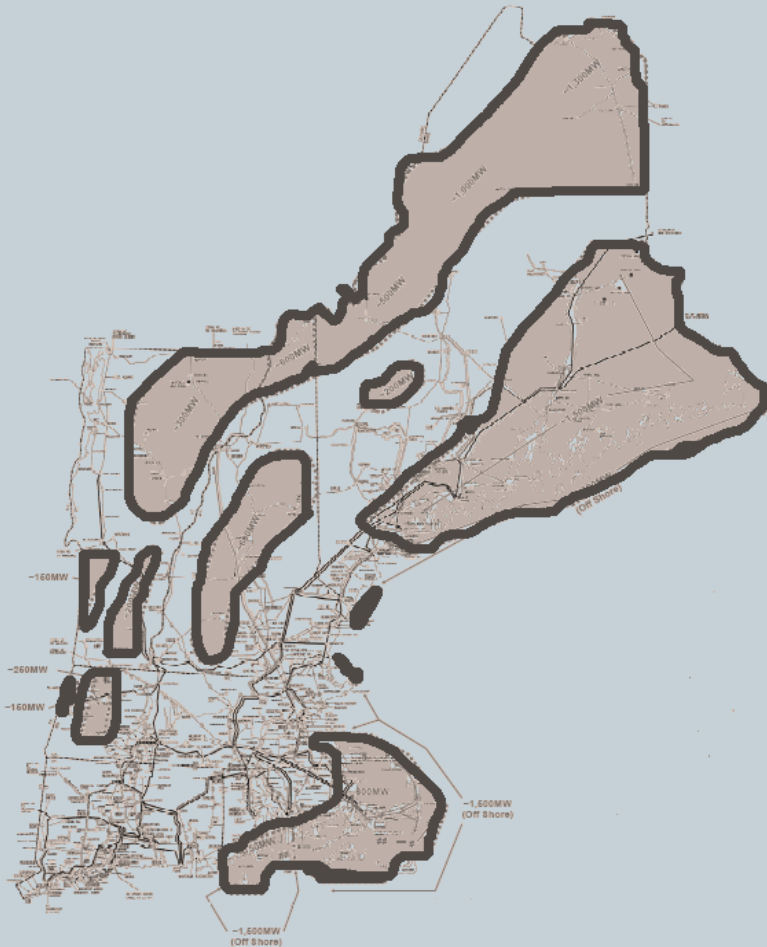
- States asked ISO-NE to study “significant sources of renewable energy available to New England, the most effective means to integrate them into our power grid, and the estimated costs” and then developed study assumptions
- ISO-NE conducted RDSA
 - Looks out 20 years
 - Focus on wind resources
 - Up to 12,000 MW of wind in New England
 - 7,500 MW onshore & 4,500 MW offshore
 - Incremental cases from 2,000 to 8,000 MW



Getting Wind to Load

map courtesy ISO-NE

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- Population & electricity demand concentrated along coast
- ISO identified 12,000 MW of on- and offshore wind potential
 - Eliminated wind sites near urban areas and sensitive geographic locations (i.e., Appalachian Trail)
- Transmission required to connect potential wind resources to load centers

9 Conceptual Transmission Scenarios



- Six connect wind in New England
- Three expand ties to neighbors
- Cost estimates based on project experience
- Detailed studies needed for specific projects
- Study does not identify preferred transmission pathways

New England has Options

slide courtesy ISO-NE; refer also to RDSA, dated September 1, 2009, page 23

Description <i>Partial list of scenarios</i>	New Capacity (Megawatts)	Percent of New England Energy (%)	Preliminary Transmission Cost Estimates (Billions)
<i>From New England:</i>			
4,000 MW of offshore wind <i>plus</i> 1,500 MW of inland wind	5,500 MW	12%	\$6 B
12,000 MW of wind	12,000 MW	23%	\$19 B to \$25 B
<i>From New England and Eastern Canada:</i>			
5,500 MW of wind (from above) <i>plus</i> 3,000 MW of additional imports from Québec and New Brunswick	8,500 MW	15%	\$7 B to \$12 B
12,000 MW of New England wind <i>plus</i> 3,000 MW of additional imports from Québec and New Brunswick	15,000 MW	26%	\$17 B to \$36 B

Historical Law & Policies Support Development

- Each New England state has historically encouraged development of renewable resources in & outside state borders
 - ✦ clean energy grants, net metering rules, renewable portfolio standards, etc.
- Wind is eligible under all definitions of renewable energy credits in current state & proposed federal renewable portfolio standards
 - ✦ Provides revenue stream from REC sales



Ample Resources, Choices

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- The New England region has a vast quantity of untapped renewable resources
 - ✦ more than 10,000 MW (nameplate) on & off-shore wind power potential
- If developed at conservative levels, there are ample renewable resources to enable New England to meet renewable energy goals
- More aggressive development could enable New England to export renewable power to neighboring regions

Transmission Options

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Potential transmission projects can be identified to transfer power from off & on-shore wind resources to New England load & for export to our neighbors

- ✦ Transmission costs vary with level of resource development
- ✦ Expansion of near off-shore wind resources could be accomplished incrementally with lower-voltage, lower-cost interconnections directly into coastal load centers

Informed Choices

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The level of renewable resources that will succeed in regional markets will be driven primarily by cost considerations, including transmission infrastructure and other development costs, as well as revenue opportunities that derive from federal & state policy mechanisms & incentives



Helping to Bring New, Cost-Effective, Renewable Resources to Market

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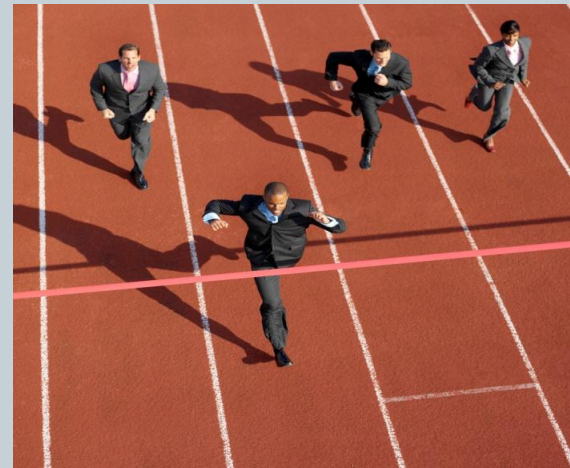
PROCUREMENT AND CONTRACTING



Long-Term Contracting Authority

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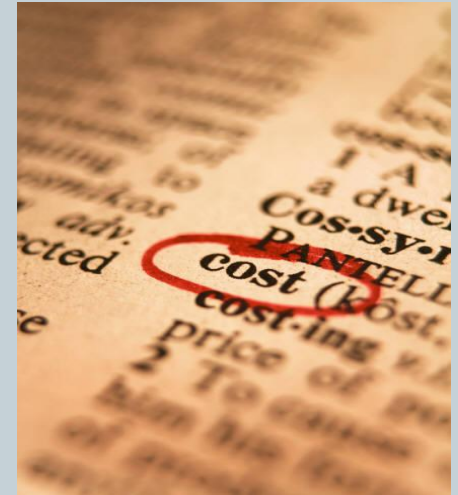
- All six states have **authority to approve long-term contracts for capacity, energy and/ or renewable energy credits**
- Across New England, procurement is generally executed through **competitive solicitations**
- Typically, competitive procurement is implemented by utilities, subject to review & approval by Public Utility Commissions



Contract Synchronization Opportunities

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- States generally have authority over **contract term length**
- A majority have flexibility with respect to contracts with resources **within or out** of state
- States with integrated resource planning have added flexibility to synchronize procurement with others
- **Common goal** in each state's contracting authority relates to securing **low cost, cost-effective or cost-stabilizing power**



Helping to Bring New, Cost-Effective, Renewable Resources to Market

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SITING INTERSTATE TRANSMISSION



Siting Authority

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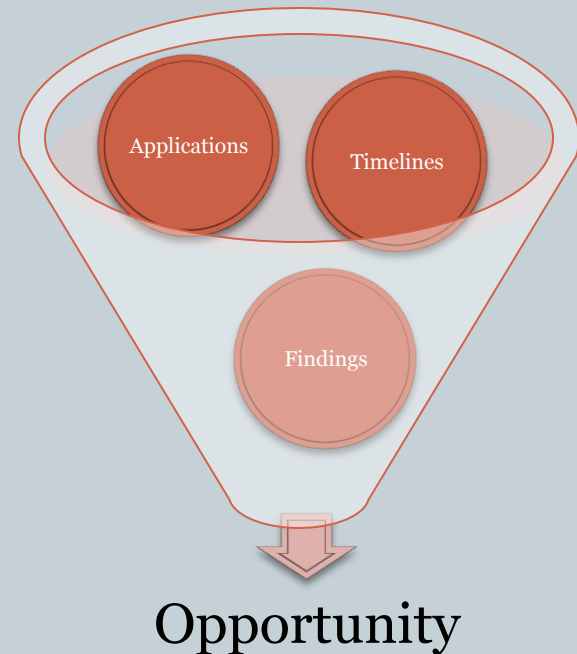


- All six states generally have exclusive siting authority
- All six states have sufficient statutory flexibility to coordinate
- Several states have specific & broad coordination authority

Commonalities Create Opportunity

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- States' siting review **timelines** sufficiently similar to enable some degree of simultaneous review
- Common **application** elements
- Common required **findings**



Coordination Opportunities

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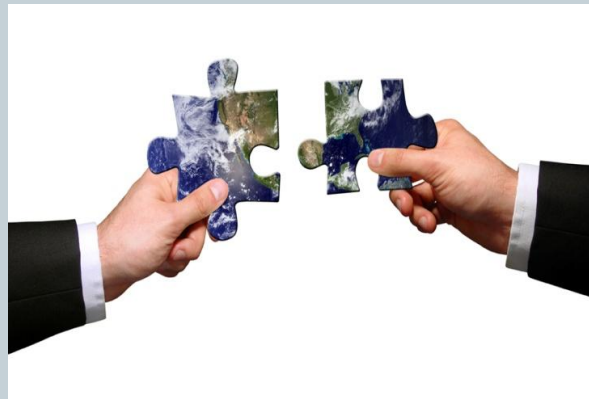
- Conduct approximately **concurrent state siting reviews**
- Develop **common component of the application**
 - ✦ project description
 - ✦ maps
 - ✦ information on system impact
 - ✦ costs
 - ✦ testimony on facility need
- Issue **coordinated discovery** on overall project, streamline responses



Further Coordination Opportunities

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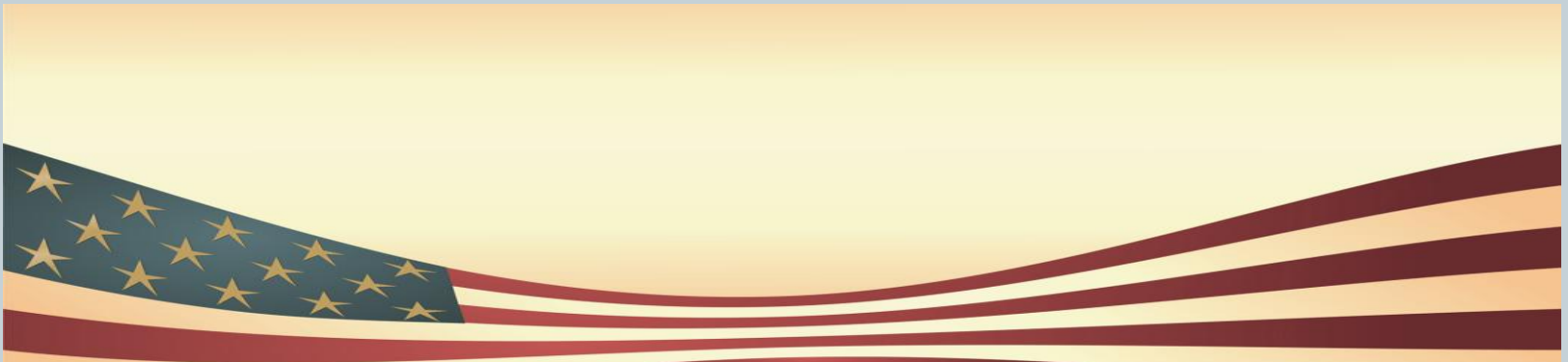
- Hold **joint hearing** on issues relating to common findings
 - ✦ **Local Processes Preserved**: joint hearing not to displace local hearings on local matters
- Consider **adopting joint or concurrent orders** on common required findings



State-Federal Partnership

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State and federal officials working together will reinforce our ability to simultaneously advance our clean energy goals & the nation's interest in reducing carbon emissions, diversifying energy supply and reducing reliance on foreign fossil fuel



Regional Processes Informing Federal Action

- New England's work to date will add considerable value to national planning dialogue
- Federal administrative agency actions and/ or any federal financial assistance should be linked to regional planning & scenario analyses and should:
 - ✦ Support New England's plan to encourage development of renewable resources in the context of competitive market mechanisms or solicitations
 - ✦ Give priority to renewable resources identified in regional processes

Conclusion

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New England has the essential elements in place to help bring our cost-effective, secure, low-carbon resources to market

- ✦ natural resources
- ✦ technical analysis to inform policy choices
- ✦ cooperative experience and authority to do more
- ✦ statutory flexibility
- ✦ mutual state and national interest in increasing renewable power