

March 27, 2015

Connecticut Department of Energy and Environmental Protection  
Massachusetts Department of Energy Resources  
Rhode Island Office of Energy Resources

## Re: Acadia Center Comments on Draft New England Clean Energy RFP

Commissioner Klee, Secretary Beaton, and Commissioner Gold:

Acadia Center appreciates the opportunity to provide comments on your states' draft Request for Proposals for Clean Energy and Transmission. Increasing the amount of non-emitting generation in the region, facilitating transmission for renewables, and continuing to build a foundation for regional coordination on clean energy procurement are all worthy objectives promoted through the draft RFP. In order to most cost effectively achieve these goals and meet our energy needs, we encourage states to take a number of important steps to strengthen the RFP.

- Require each procurement to include a minimum share of RPS Class I renewable energy
- Strengthen consumer protections by including the Massachusetts Attorney General, Rhode Island Office of Energy Resources, and Rhode Island Division of Ratepayer Advocacy in project evaluation and selection processes
- Ensure delivery of power during peak periods in order to achieve the greatest value out of ratepayer-funded expenditures on energy infrastructure

### The Need for Renewable Energy

Each of the states participating in this procurement has committed to achieving deep reductions in electric sector and economy-wide emissions.<sup>1</sup> Joint procurement of renewable energy can enable states to achieve economies of scale, drive development of renewable energy, and achieve lower prices. In 2013, Massachusetts and Connecticut jointly contracted for 815MW of renewable energy at a cost of less than \$0.08/kWh, below the market rate for wind power and other conventional generation sources.<sup>2</sup>

Hydroelectricity can contribute to achieving the states' climate goals and meeting our future energy needs, but purchases of hydro power should be used to compliment RPS Class I renewable energy rather than supplant it. To the greatest degree possible, long-term commitments of ratepayer expenditures should be structured to achieve multiple

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<sup>1</sup> Connecticut's *Act Concerning Global Warming Solutions* requires a 10% reduction in GHG emissions from 1990 levels by 2020, and an 80% reduction from 2001 levels by 2050. Massachusetts' *Global Warming Solutions Act* requires a 25% reduction in GHG emissions from 1990 levels by 2020, and an 80% reduction by 2050. The *Resilient Rhode Island Act* requires a 10% reduction from 1990 levels by 2020, and an 80% reduction by 2050.

<sup>2</sup> See: <http://www.bostonglobe.com/business/2013/09/22/suddenly-wind-competitive-with-conventional-power-sources/g3RBhfV440kJwC6UyVCjHl/story.html>

public policy objectives. In the context of large-scale and potentially long-lived energy expenditures, these public policies should include reducing greenhouse gas, limiting expenditures on infrastructure, reducing reliance on fossil fuels, facilitating achievement of renewable portfolio requirements, and supporting in-region economic growth. Optimizing the benefits of transmission projects considered as part of this joint RFP will depend on achieving these multiple objectives.

This RFP must also be considered in the context of other relevant initiatives, in particular large scale procurements of hydroelectricity for Massachusetts proposed under the draft Clean Energy Standard (CES) developed by the Department of Environmental Protection<sup>3</sup> or the Clean Energy Resources (CER) bill filed by Sen. Ben Downing.<sup>4</sup> Either approach could lead to far larger requirements for procurement of hydroelectricity (~30% of Massachusetts load, or ~18.9TWh), which would likely require two or more large transmission lines to bring the power into the region. Since the region will and should not build an unlimited number of transmission lines, it would be most efficient to structure these multi-billion dollar lines to carry renewable energy as well as hydroelectricity.

Favoring proposals that include a minimum share of renewable energy could facilitate achievement of RPS requirements and GHG emission reductions at lower costs to consumers. Large-scale renewables, particularly onshore wind, are largely being developed in northern New England, particularly in Maine.<sup>5</sup> Hydroelectric resources in Eastern Canada could be paired with these wind resources to deliver round-the-clock power and transport wind energy to load centers more cost-effectively than through standalone transmission lines serving wind alone.

### **Recommendation**

In order to ensure that proposals bundle renewables and hydroelectricity, states should require that each procurement include at least 30% RPS Class I renewables. In order to make most efficient use of the transmission build-out, states should add a specific bonus for proposals including 30% RPS Class I renewables in the quantitative evaluation, for example making 20 of the total 80 points contingent on bundling renewables and hydroelectricity in any proposal. While potential reductions in the costs of Renewable Energy Credits (RECs) are included in Section 2.3.1 describing quantitative evaluation criteria, a specific bonus for proposals that include renewable energy would better support the objective of building transmission for achievement of both GHG and RPS objectives.

## **Strengthening Consumer Protections**

Maximizing the benefits of energy procurement requires strong consumer protections in the processes to evaluate and select proposals. Promoting best outcomes for ratepayers, the environment, and the economy is particularly important in relation to long term, significant commitments of ratepayer funding. While final costs will not be determined until contracts are signed – or, depending on contracting structures, until actual payments are made, –

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<sup>3</sup> A proposed requirement for utilities to meet 30% of load with ‘clean energy’, which in practice would most likely be hydroelectric generation, as the region is unlikely to build new nuclear plants. See: <http://www.mass.gov/eea/agencies/massdep/climate-energy/climate/ghg/ces.html>.

<sup>4</sup> SD 554 would require utilities to solicit proposals for up to 18.9 TWh of hydroelectric generation and RPS class I generation.

<sup>5</sup> A 2012 study by the New England States’ Committee on Electricity found that 72% of the lowest cost energy required to meet regional requirements for renewable energy would be onshore wind generation in Maine. See: [https://www.maine.gov/energy/pdf/NESCOE%20Executive\\_Summary\\_Jan\\_20121.pdf](https://www.maine.gov/energy/pdf/NESCOE%20Executive_Summary_Jan_20121.pdf).

the proposed scope of the RFP and parallel Massachusetts hydro procurements suggests that states could be on the cusp of making commitments of tens of billions of dollars over the coming decades.

Rather than making a precise prediction, the figure below was compiled to provide a sense of scale for the potential ratepayer commitments through long term contracts, pre-established purchase obligations (referred to as delivery commitment agreements in the joint RFP and MA CER bill), and related transmission. The prices for hydroelectricity and renewables are based on EIA projections. Transmission costs are based on available from project proposals. Contract lengths are based on ranges provided in the RFP, and for Massachusetts hydro are conservatively calculated at 10 years, though long term contracts for up to 25 years would be authorized in the CER bill.

Acadia Center	Procurement		Price	Annual Cost	Contract/ Commitment	Net Present Value
	Resource	GWh	2012\$/MWh	2012 \$m	Years	2012 \$m
Connecticut	Renewables	125	80.3	\$ 10	20	\$ 175
	Hydro	1,375	84.5	\$ 116	15	\$ 1,567
Massachusetts	Renewables	817	80.3	\$ 66	15	\$ 885
	Hydro	18,900	84.5	\$ 1,597	10	\$ 14,838
Rhode Island	Renewables	??	80.3	??	??	??
	Hydro	??	84.5	??	??	??
Transmission	--	--	--	--	--	\$ 3,200
<b>Total</b>	--	<b>21,217</b>	--	<b>\$ 1,789</b>	--	<b>\$ 20,665</b>

**Notes:**

- \* MA hydro procurement size based on 18.9TWh in Clean Energy Resources bill, equal to ~ 30% of load in CES
- \* MA hydro procurement would not have contract length, but used 10 for illustrative purposes
- \* Transmission costs based on assumption of two lines costing an average of \$1.6b each, based on Northeast Energy Link (\$2b), New England Clean Power Link (\$1.2b)
- \* Energy costs based on costs of new hydroelectricity and wind from EIA, [http://www.eia.gov/forecasts/aeo/electricity\\_generation.cfm](http://www.eia.gov/forecasts/aeo/electricity_generation.cfm)
- \* Net Present Value is calculated using a real discount rate of 1.36% from AESC 2013 Synapse Report.

With such significant investments being considered, the interests of ratepayers and the public must be prioritized. The complexity of potential contracting structures for renewables, hydroelectricity, and transmission makes this process distinct from earlier joint procurements by Massachusetts and Connecticut, which did not include hydroelectricity or transmission.

Protections for ratepayers and the public will additionally require promoting transparency and minimizing potential conflicts of interest. The draft RFP proposes to minimize conflicts by requiring electric distribution company representatives to execute a Standard of Conduct prohibiting discussion of the RFP between utility personnel submitting and evaluating projects, but additional consumer protections will be needed to reassure the public that conflicts have not materially affected the procurement process. Utility representatives participating in the evaluation and selection process will be able to determine which projects have been proposed by their companies without needing to discuss the RFP with project proponents, creating an inherent conflict that cannot be addressed by the Standard of Conduct alone. Additionally, utilities make high returns on transmission projects (base returns of 10.57%

rate of return on equity,<sup>6</sup> plus adders), requiring measures to manage commercial conflicts that could lead to overestimating the need for transmission expenditures.

### Recommendation

Consumer protections should be strengthened by including consumer advocates from Massachusetts and Rhode Island in both the evaluation and selection process, and by including all participating states in the selection process. The most effective means of avoiding potential conflicts would be to remove utilities from the “Evaluation Team” and enable states’ executive agencies and ratepayer advocates to conduct the first review of proposals. However, recognizing that utility staff may bring valuable perspective to the evaluation process, the Evaluation Team should supplement utility perspectives with consumer perspectives provided by the Massachusetts Attorney General’s Office, the Rhode Island Office of Energy Resources, and the Rhode Island Division of Ratepayer Advocacy, corresponding to members of the Evaluation Team from Connecticut. These entities and the Massachusetts Department of Energy Resources should also be included in the “Selection Team” to further safeguard against conflicts and ensure that the interests of Massachusetts and Rhode Island ratepayers are as well represented as Connecticut’s are through the participation of the Connecticut Department of Energy and Environmental Protection, Office of Consumer Counsel, and Office of the Attorney General.

Inclusion of the Massachusetts Attorney General’s Office furthermore appears to be necessitated by Massachusetts’ authorizing statute,<sup>7</sup> which requires that:

*“The distribution companies shall consult with the department of energy resources and the attorney general’s office regarding the choice of contracting methods and solicitation methods.”*

Rhode Island’s authorizing statute names the Office of Energy Resources as the primary entity tasked with regional energy planning and development of procurements of transmission, hydroelectricity, and renewable energy.<sup>8</sup> While a role for the Attorney General is not explicitly contemplated, the complexity of the proposed procurement, potential ratepayer impacts, and in particular the open-ended scale of potential Rhode Island procurement argue strongly for expanding Rhode Island’s participation in project evaluation and selection. This power is currently delegated solely to Naragansett Electric Company (National Grid). Naragansett’s sole interest in the “Qualified Clean Energy Via Transmission Project Under a Performance-Based Tariff Containing a Qualified Clean Energy Delivery Commitment; No PPA” contracting method highlights the need for additional consumer representation on behalf of Rhode Island. The justification for this preference is not readily apparent from a consumer perspective and does not appear to be based on statutory limitations. However, this transmission plus delivery commitment contracting approach would enable significant transmission expenditure with minimal impact on utility balance sheets.

## Ensuring Performance On-Peak

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<sup>6</sup> See: <http://www.ferc.gov/media/news-releases/2014/2014-2/06-19-14-E-7.asp#.VRLT-fnF9qV>

<sup>7</sup> Sec. 83A, Available at: <https://malegislature.gov/Bills/BillHtml/119629?generalCourtId=1>

<sup>8</sup> See RI GL 39-31-4 through 39-31-4(2), available at: <http://webserver.rilin.state.ri.us/BillText/BillText14/HouseText14/H7991A.pdf>

Properly structured procurements can enable the use of clean energy to meet the region’s electric reliability needs on a year-round basis. Bundled procurements of renewables and hydroelectricity can be designed to provide high capacity factors if hydroelectricity is used to back up intermittent renewables. High capacity factors are particularly valuable during winter peaks when the generation from natural gas is least reliable and most expensive, as well as during summer peaks when overall system demand reaches its highest levels.

Ensuring on-peak performance within the RFP and potential accompanying procurements by Massachusetts is particularly important as imports of hydroelectricity from Eastern Canada may be subject to interruptions during winter peak periods when Provincial demand peaks and hydropower first serves Provincial needs.<sup>9</sup> States must thus establish specific measures to ensure that power will be provided to New England’s consumers when it is needed and valued most. Failing to ensure on-peak performance for clean energy could either cause in-region prices to increase during peak periods as more expensive existing generation sources are called on, or could require expenditure on additional infrastructure and/or new peaking generation that would rarely be used.

Acadia Center additionally supports provisions to ensure the environmental attributes of ‘clean’ energy imports in order to ensure that during periods of peak demand exports to New England states are not causing emission to increase in the exporting provinces.

### Recommendation

The draft RFP includes a number of provisions addressing peak performance, but each of these provisions should be strengthened to ensure reliable delivery of power and maximize the value of energy procurements. Section 2.4 requires bidders to describe the amount of capacity and commitment period for which they expect eligible facilities to qualify. States should be more specific in requiring commitments during peak hours. The section should also be strengthened to require that capacity commitments offered in the bid be matched by actual qualification as capacity resources in the quantity and for the duration offered in the bid. If bidders do not follow through on commitments, contracts should be nullified. This requirement would ensure that bidders do not inflate capacity offerings but rather provide realistic quantities of capacity that can support system reliability. Furthermore, requiring qualification as capacity resources will ensure that new resources are subject to ISO-NE’s Pay for Performance Program (PFP),<sup>10</sup> and the strong incentive it creates to follow through on capacity commitments.

Beyond requiring qualification as capacity resources, states can promote actual performance by imposing significant liquidated damages on facilities that do not meet their capacity obligations. These damages should be layered on top of penalties incurred under the PFP to account for the greater risk to ratepayers of financing transmission to serve these new resources. Damages could, for example, be equivalent to PFP penalties, but would accrue to ratepayers to compensate for higher costs and increased emissions reduction requirements that would result from non-performance.

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<sup>9</sup> See remarks of ISO-NE President Gordon van Welie at Restructuring Roundtable, slide 10:

<http://www.raabassociates.org/Articles/Gordon%20van%20Welie%20Presentation%2009.19.14.pdf>

<sup>10</sup> Generators that do not follow through on capacity commitments are required to pay penalties equivalent to price impacts of such non-performance, with corresponding bonuses paid to generators that do meet capacity commitments. For additional details see: <http://www.iso-ne.com/committees/key-projects/fcm-performance-incentives>

Lastly, states can prioritize on-peak performance by weighting the evaluation to favor guaranteed on-peak energy delivery. Within the quantitative evaluation, on-peak performance should be called out explicitly, potentially by appending 2.3.1 b to read:

“b. Benefits in customer energy cost savings, particularly on-peak energy cost savings.”

Thank you for the opportunity to comment on the draft RFP. We support the states in pursuing this coordinated regional procurement of clean energy, and believe that the improvements suggested within these comments will help participating states achieve significant benefits for ratepayers, the environment, and the regional economy.

Sincerely,

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