Advancing the Clean Energy Future

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Secretary Mark D. Marini and Hearing Officer Alan Topalian
Massachusetts Department of Public Utilities
One South Station, 5th Floor
Boston, MA 02110

Re: Comments on D.P.U. 15-84

Secretary Marini and Mr. Topalian:

Acadia Center appreciates the opportunity to submit comments on the electric distribution companies' petition for approval of Section 83A procurements of long-term contracts for renewable energy. 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 proposed RFP, submitted with the companies' filing. In order to most cost effectively achieve these goals and meet our energy needs, we encourage the Department of Public Utilities ("Department") to take a number of important steps to strengthen the RFP.

- Require procurements to include a minimum share of RPS Class I renewable energy
- Strengthen consumer protections by including the Massachusetts Attorney General 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 the RFP procurement has committed to achieving deep reductions in electric sector and economy-wide emissions.[1] 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.[2]

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[1] Connecticut's *Act Concerning Global Warming Solutions* (2008) 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* (2008) requires a 25% reduction in GHG emissions from 1990 levels by 2020, and an 80% reduction by 2050. The *Resilient Rhode Island Act* r(2014) requires a 10% reduction from 1990 levels by 2020, and an 80% reduction by 2050.

[2] *See* Erin Ailworth, BOSTON GLOBE, *Wind power now competitive with conventional sources* (Sept. 23, 2013) available at: http://www.bostonglobe.com/business/2013/09/22/suddenly-wind-competitive-with-conventional-power-sources/g3RBhfV440kJwC6UyVCjhI/story.html

Hydroelectricity can contribute to achieving Massachusetts' 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 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. 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.[3] 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, the Department 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, the Department should impose 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. A specific bonus for proposals that include renewable energy would 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,– the proposed scope of the RFP and potential 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 related transmission. The prices for hydroelectricity and renewables are based on EIA projections. Transmission costs are based on available estimates from project proposals. Contract lengths are based on ranges provided in the RFP, and for Massachusetts hydro are conservatively calculated at 10

[3] 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 come from onshore wind generation in Maine. See: https://www.maine.gov/energy/pdf/NESCOE%20Executive_Summary_Jan_20121.pdf.

years, though long term contracts for up to 25 years would be authorized in proposed legislation to authorize utility procurement of hydroelectricity.[4],[5]

Acadia Center	Resource	Procurement GWh	Price 2012$/MWh	Annual Cost 2012 $m	Contract/ Commitment Years	Net Present Value 2012 $m
Connecticut	Renewables	125	77.1	$ 10	20	$ 168
	Hydro	1,375	84.5	$ 116	15	$ 1,567
Massachusetts	Renewables	817	77.1	$ 63	15	$ 850
	Hydro	18,900	84.5	$ 1,597	10	$ 14,838
Rhode Island	Renewables	??	77.1	??	??	??
	Hydro	??	84.5	??	??	??
Transmission	--	--	--	--	--	$ 3,200
Total	--	21,217	--	$ 1,786	--	$ 20,622

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.

The Department should ensure protections for ratepayers and the public by promoting transparency and minimizing potential conflicts of interest. The proposed 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[6], requiring measures to manage commercial conflicts that could lead to overestimating the need for transmission expenditures.

Recommendation

The Department should require the participation of the Attorney General's Office in both the evaluation and selection process to strengthen consumer protections. 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

[4] See. S1757, available at: https://malegislature.gov/Bills/189/Senate/S1757, and Governor Baker's Act Relative to energy sector compliance with the Global Warming Solutions Act, available at: http://www.mass.gov/governor/legislationexecorder/legislation/compliance-with-the-global-warming-solutions-act.html.

[5] Note that the following figures do not include expanded hydroelectric procurement authorized by Connecticut's Public Act 15-107, which, if utilized, would increase committed costs.

[6] Even after being limited by FERC in recent decisions, utilities' rates of return are still considered reasonable if they are as high as 11.74%. *See* FERC, Opinion No. 531-A, Docket EL11-66 (October 16, 2014).

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 perspective provided by the Massachusetts Attorney General's Office. The Attorney General and should also be included in the "Selection Team" to further safeguard against conflicts and ensure that the interests of Massachusetts 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. Moreover, participation of the Attorney General's Office in both the evaluation and selection process is likely required under G.L. c. 169, §83A, which states 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.*

Ensuring Performance On-Peak

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 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.[7] Massachusetts 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 also supports provisions to ensure the environmental attributes, in order to ensure that, even during periods of peak demand, clean energy exports to New England states are not causing emissions to increase in the exporting provinces.

Recommendation

The proposed RFP includes a number of provisions addressing peak performance, but the Department should strengthen each to ensure reliable delivery of power and maximize the value of energy procurements. The RFP requires bidders to describe the amount of capacity and commitment period for which they expect eligible facilities to qualify. Massachusetts should be more specific in requiring commitments during peak hours. The Department should also require capacity commitments offered in the bid be matched by actual qualification as capacity resources for the same parameters as 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 to support system reliability. Furthermore, requiring qualification as capacity resources will ensure that

[7] See remarks of ISO-NE President Gordon van Welie at Restructuring Roundtable, slide 10: http://www.raabassociates.org/Articles/Gordon%20van%20Welie%20Presentation%209.19.14.pdf

new resources are subject to ISO-NE's Pay for Performance Program (PFP),[8] and the strong incentive it creates to follow through on capacity commitments.

Beyond requiring qualification as capacity resources, the Department 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 accrue to ratepayers to compensate for higher costs and increased emissions reduction requirements that would result from non-performance.

Lastly, the Department can prioritize on-peak performance by weighting the evaluation to favor guaranteed on-peak energy delivery.

Conclusion

Thank you for the opportunity to comment on the proposed RFP. Acadia Center supports Massachusetts and the electric distribution companies in pursuing this coordinated regional procurement of clean energy, and believes that the improvements suggested within these comments will help Massachusetts and other participating states achieve significant benefits for ratepayers, the environment, and the regional economy.

Sincerely,

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[8] Generators that do not follow through on capacity commitments are required to pay penalties, 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