March 19, 2013

Testimony of EDP Renewables: Senate Bill 1138

EDP Renewables (EDPR) is the third largest Independent Power Producer of wind energy in the United States, having developed, constructed, and now operating over 3700 MWs of utility scale wind energy from Washington to New York. While EDPR has been developing wind farms in Maine since 2003, the possibilities of long-term contracting in Massachusetts and Connecticut has recently led our company into developing projects in southern New England.

EDP Renewables thanks the Administration and Energy Committees for taking up this important legislation. With a sizeable share of the total electricity load in New England, Connecticut changing its RPS requirements will have a big impact on the entire ISO-NE market. EDPR understands the legislative intent of wanting to provide cheaper, cleaner and more reliable power to Connecticut ratepayers, and has several suggestions to ensure that the legislative intent is met while also not harming the existing growth of renewable energy in the state and region. Renewable energy, and in particular utility-scale wind energy, has dropped significantly in price over the last few years as technological advances are now allowing considerably higher capacity factors in relatively low wind speed areas; with the right market structure, Connecticut ratepayers will be able to take full advantage of these lower prices.

Positives:

1. **Authority for Long-Term Contracting** - EDPR applauds this legislation for conveying explicit authority for the state to participate in Class I long-term renewable energy Power Purchase Agreement efforts. Large-scale renewable energy projects have high capital costs, no fuel costs, and relatively low Operations & Maintenance costs, therefore long-term contracts are necessary for developers to attain the lowest cost of financing. The bundling of electric energy and Renewable Energy Credits (RECs) in long-term contracts will lock in revenue certainty for Connecticut residents. If in the later years of the contract electricity prices rise above the bundled contract price (of electricity plus RECs), Connecticut ratepayers will be saving money compared to traditional generation (i.e. paying a negative REC price).

2. **Allows for non-bypassable charges** – By allowing non-bypassable charges, Connecticut removes regulatory risk of recovery for the EDCs. In other states new builds of renewable energy are facing challenges as non-bypassable charges are not allowed; Connecticut removes this risk by putting this into statute.

3. **Provides visibility for hydro power –** Moving New England to a cleaner electricity future will require additional hydropower to have a clear role in the New England energy portfolio. With a significant amount of wind energy possible in upstate Maine, a combination of wind energy and hydro power will be able to provide Connecticut with cleaner, cheaper and more reliable power. However, the markets for renewable energy are extremely tight, and we have seen multiple instances in other states where allowing in new technologies lowers the price of renewable energy to such an extent that it no longer

makes economic sense to build new renewable energy projects. As such, and as described below, hydro should be in its own separate tier, with a carve-out in addition to the existing Tier 1 structure.

Negatives:

1.**Need for additional long-term contracting** - Long-term contracting provisions are necessary to ensure the lowest cost of energy for Connecticut ratepayers, and to provide a clear market for renewable energy developers to feel comfortable investing the millions of dollars necessary to get a project construction-ready. The 150 MWs of long-term contracting represents roughly 1% of Connecticut's electric load. We request a step-up function to be aligned with the RPS demand to ensure that there is a clear market, as indicated with the highlighted language below.

> If the commissioner finds such proposals to be in the interest of ratepayers and consistent with the energy goals of the state, the commissioner may direct the electric distribution companies to enter into power purchase agreements for periods of not more than twenty years for not more than one hundred fifty megawatts of electricity generated by Class I renewable energy sources on behalf of all customers of electric distribution companies to comply with all or part of the renewable portfolio standards obligations of the electric suppliers and electric distribution companies pursuant to this section. The Commissioner may direct the utilities to procure an additional 150 MWs every two years through 2025 in long term contracts for compliance with all or part of the renewable portfolio standards obligations of the electric suppliers and electric distribution companies pursuant to this section.

2. **Large hydro has the potential to very negatively affect the market –** EDPR has been developing renewable energy projects over the last decade in New England – and has spent millions of dollars in development costs -- with the expectation of meeting the Connecticut RPS. Diminishing the size of the RPS—with a change in expectations starting in 2014—creates an unstable market for any new renewable energy projects to be built. While EDPR is not opposed to new hydro on the ISO-NE system, doing a carve-out of the existing Tier 1 creates an unstable market.

This new RPS changes from an expected 20% by 2020 to what is effectively 16% in 2020 and 18% in 2025 (see chart below). In some years incremental non-hydro renewable energy will be down to 0%, which does not lead to a clear and stable regulatory framework for any new reneable energy builds. While EDPR understands the legislative intent for cheaper, cleaner and more reliable energy, we would encourage the contracting for hydro to be *in addition* to the existing Tier 1 contracting. If Connecticut does want to move some of the Tier 1 percentages in later years of the RPS, EDPR strongly urges Connecticut to make sure there is at least 1% annual growth for renewable energy. Additionally, to insure that New England receives the output from cleaner energy sources of hydro and not just from base load generation, Connecticut needs to insure that there is appropriate tracking of cleaner energy certificates from any facility contracted with.

Year	RPS Today	Proposed RPS	Proposed Hydro		Proposed Opportunities for wind energy	Annual Opportunities for wind energy
2013	10%	10%	0%		10%	
2014	11%	11%	2%		9%	-1%
2015	12.5%	12.5%	3%		9.5%	0.5%
2016	14%	14%	3%		11%	1.5%
2017	15.5%	15.5%	3%		12.5%	1.5%
2018	17%	17%	3.5%		13.5%	1%
2019	19.5%	19.5%	4%		15.5%	2%
2020	20%	20%	4.5%		15.5%	0%
2021		21%	5%		16%	0.5%
2022		22%	5.5%		16.5%	0.5%
2023		23%	6%		17%	0.5%
2024		24%	6.5%		17.5%	0.5%
2025		25%	7.5%		17.5%	0.0%

3. Vintage Date of 2003 applies to large-scale hydro – This allows a windfall to existing projects that were not built with the expectation of ever qualifying for the Connecticut RPS. To match the legislative intent of moving to a more clean energy environment, EDPR encourages this vintage date be moved up to the date that any legislation is modified – with the earliest project start date of January 1, 2013.

Clarification:

1. Disqualification of generation applied towards RPS or goals in other states - While EDPR appreciates the legislative intent on not wanting double-counting renewable energy projects, this legislation has to be done in such a way that it does not harm projects that were built with the expectation of there being a REC value in later years of a project. Financial models for renewable energy projects account for REC prices over the lifetime of the project (20 years). For situations where there is a 10 or 15 year REC revenue stream through qualification for another state (such as the Massachusetts RPS), renewable energy companies still model some residual value of the REC in the later years. By fully disqualifying projects that may have counted towards the 10 or 15 year RECs in other states does not create a transparent market for developers and will lead to higher REC prices needing to be charged in earlier years to ensure financial returns are above the cost of capital.

EDPR appreciates the opportunities to comment on this legislation. Please feel free to contact me with any further questions.

Jeff Bishop

Sr. Manager, Governmental and Regulatory Affairs
EDP Renewables
332 S. Michigan Avenue, Suite 200
Chicago IL 60604
Tel: 312.435.1295
Email: jeff.bishop@edpr.com