



**TESTIMONY OF THE
NEW ENGLAND CLEAN ENERGY COUNCIL**

Regarding
Proposed Substitute Bill No. 1138 (LCO No. 4767)
An Act Concerning Connecticut's Clean Energy Goals

Submitted by
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Senator Duff, Representative Reed and Members of the Energy and Technology Committee:

The New England Clean Energy Council (NECEC or Council) greatly appreciates the opportunity to comment on Proposed Substitute Bill No. 1138 (LCO No. 4767), *An Act Concerning Connecticut's Clean Energy Goals*.

The New England Clean Energy Council is a clean energy business association whose mission is to accelerate New England's clean energy economy to global leadership by building an active community of stakeholders and a world-class cluster of clean energy companies. The Council's members and sponsors include clean energy businesses, services and technology companies, venture investors, major financial institutions, universities, industry associations, utilities, labor and large commercial end-users. They span the broad spectrum of the clean energy sector, including energy efficiency, renewable energy (e.g., solar, wind, hydro, anaerobic digestion), combined heat and power (CHP), biofuels, advanced and "smart" technologies (e.g., smart grid, fuel cells, storage, batteries, materials), among others.

A cross-section of our members are operating and investing in Connecticut and more are interested in doing so. Connecticut's Renewable Portfolio Standard (RPS), the advances made with the reorganization of energy and environmental agencies under the Department of Energy and Environmental Protection (DEEP), and creation of CEFIA have led a number of our members to invest in facilities and hiring in Connecticut, and have also brought down the price for recently procured renewable and clean energy. While we welcome policy improvements that continue to make progress on cost-effective, cleaner energy and contributions to the state and regional economy, stepping back from standards and goals that are driving private investment is a move in the wrong direction, and we are concerned that may be one consequence of Bill No. 1138.

The New England Clean Energy Council notes that Bill No. 1138, *An Act Concerning Connecticut's Clean Energy Goals*, focuses on two separate issues: (1) changing the definition of renewable and clean energy resources that qualify as Class I and (2) allowing for long-term contracting for Class I resources. The first of these – changing

what qualifies as a Class I resource under the RPS – is problematic. The second – establishing long term contracting for Class I resources – is very positive.

Specifically, Sections 1-3 change the definition of the energy resources that qualify as Class I under Connecticut's RPS. Section 1 introduces a new "Class I contracted tier" that includes large hydro. Related to the new definitions, Section 4 adjusts the RPS targets to accommodate this new tier. Section 5 then allows for long-term contracting for both the "traditional" Class I resources and the new "contracted tier."

THE DEFINITION OF CLASS I RENEWABLE AND CLEAN ENERGY SOURCES

The New England Clean Energy Council does not support the changes to the definition of Class I renewable and clean energy sources in Bill No. 1138 that would create a new class for large hydro by reducing the RPS targets for Class I.

While we believe that there is a role for large hydro to play in meeting Connecticut's, and other New England states' greenhouse gas (GHG) emissions reduction goals, it should not come at the expense of developing renewable and clean energy technologies and the local economic, energy diversity and environmental benefits they are delivering for Connecticut energy consumers. Bill No. 1138 would reduce the target for these renewable and clean energy technologies from 20% in 2020 to 15.5% in order to accommodate large hydro in Class I. This reduction equates to approximately 145 MW in 2014, increasing to about 340 MW in 2020, significantly reducing the market for these technologies. Including large hydro in this manner not only limits the development of these technologies but also reduces local economic activity because many of these projects are built locally, affecting the workers who build them, the businesses that install them, and the broader economy that benefits from more dollars circulating in state and in region.

In addition, support for large hydro should not come at the dollar expense of making it eligible for Renewable Energy Certificates (RECs). Large hydro has been part of Connecticut's and New England's electricity mix for over twenty years. There is no rationale to support providing RECs to large hydro. Renewable Portfolio Standards with credits for emerging renewable generation were established in Connecticut and in a majority of U.S. states to meet two important goals: (1) a recognition that we need targets for investment for cleaning up our electricity system and reducing greenhouse gas emissions; and (2) that many of the renewable and clean technologies are highly distributed, leading to the creation of local and regional jobs, adding to the diversity of our energy mix and stability of long term energy bills, and reducing fuel and energy purchases which send dollars out of the regional economy. The RPS and RECs are also an acknowledgement that while these renewable and clean generation technologies are more costly today than large-scale mature fossil generation, they are rapidly declining in cost through consistent investment in scale-up and technological and financial innovations. Consistent standards are needed to continue to drive investment and cost-declines. RECs are designed as a transitional (not permanent) mechanism to support emerging technologies. They should not be applied to already commercial and scaled technologies, particularly large hydro.

There seem to be two implicit assumptions underlying the argument for including large hydro in the RPS. The first is that large hydro will reduce the costs of compliance with the RPS because it is less expensive than other renewable and clean energy sources.

The second is that large hydro is needed to meet RPS targets because there are not enough other renewable and clean energy resources expected to be available. The first assumption is not necessarily correct. While it is true that electricity can be generated at low cost from large hydroelectric facilities in Canada (including many fully or partially depreciated facilities), the cost of large hydro to Connecticut consumers, and whether such purchases will prove cost-effective, will depend on the terms of the exported power contract(s) plus the cost of new transmission to deliver the power to Connecticut. New England states have had experience with contracts for large hydro, with pricing tied to fossil fuels, which have not been as attractive as initially anticipated.

With respect to the concern that there will be insufficient renewables to meet RPS targets, the inclusion of large hydro in the RPS is likely to make that a self-fulfilling prophecy. By reducing the demand for new renewable and clean energy and hence the value of RECs and the financial support to bring these resources to market, the inclusion of large hydro will undermine achievement of the objectives of the RPS – encouraging deployment of new renewable and clean energy sources using market mechanisms that increase competition and bring about price declines, along with local economic development benefits.

LONG TERM CONTRACTING FOR RENEWABLE AND CLEAN ENERGY

Bill No. 1138 includes a better and proven way to reduce the costs of renewable and clean energy and to ensure that RPS targets are met than including large hydro in the RPS – that is, long term contracting for the energy, as well as the RECs, produced by renewable and clean energy. **The New England Clean Energy Council strongly supports long term contracting**, similar to the provisions in Section 5 of the bill, to reduce the costs of renewable and clean energy development. Competitively bid, long-term contracts have been so successful in encouraging renewable and clean energy development for Massachusetts that the program was expanded and the term of contracts extended to 20 years last year. Further increasing the scale by enabling long term contracts in conjunction with other states, should further reduce costs for customers by reducing financing and transaction costs for renewable and clean energy developers.¹

RECOMMENDATIONS FOR AMENDMENTS TO BILL NO. 1138 REGARDING LARGE HYDRO AND LONG-TERM CONTRACTING

To enable Connecticut to achieve its clean energy goals and the Comprehensive Energy Strategy's objectives of cheaper, cleaner and more reliable energy for Connecticut's future, the New England Clean Energy Council recommends the following changes to Bill No. 1138:

- Maintain the RPS targets for Class I at current levels aimed at 20% by 2020.
- Create a separate "No REC contracted" class that includes large hydro (and Class I renewable and clean energy sources that choose to participate) and set targets for this class at 2% for 2014, 3% for 2017, 4.5% for 2020, and 7.5% in

¹ See New England Governors Conference, Inc. Resolution No. 205, *A Resolution Directing The New England State Committee on Electricity (NESCOE) to Implement a Work Plan for the Competitive Coordinated Procurement of Regional Renewable Power*.

2025, in line with the targets for the contracted tier in the current version of Bill No. 1138, but do not make large hydro eligible for RECs.

- Determine eligibility for the new “no REC contracted” class to include any Class I renewable and clean energy sources that choose to participate and large hydro defined broadly to ensure that multiple sources are eligible to compete to enter into long-term contracts. For example, hydro from the Atlantic Provinces to Ontario should be eligible for this new class if it can be delivered to Connecticut. (Also, if the objective of creating this class is to tap into potentially low cost, existing hydro, there is no need to set a vintage for existing projects.)
- Establish long-term contracting authority for both Class I eligible sources and the new “No REC contracted” class including large hydro, where half of Class I and all of the “No REC contracted” class can enter into long-term contracts. Further, should DEEP forecast that Connecticut will not meet its RPS targets, long-term contracts should be required for half of Class I targets.
- Require competitive solicitations and establish criteria for selection of contracts, based on delivered price, consistency with policy goals, including, but not limited to, peak load shaving, and promotion of wind, solar and other renewable energy technologies.

The New England Clean Energy Council will offer legislative language consistent with these recommendations.

OTHER RECOMMENDATIONS

- In Section 1, Bill No. 1138 increases the size of eligible hydropower facilities from five to 30 MW. Thanks to economies of scale, large hydro has proven it can operate economically. Providing additional REC revenues would simply increase the profit of the owners without providing an additional benefit to Connecticut customers. Conversely, by limiting Class I eligibility and RECs to projects of 5 MW or less, customers can be assured that REC revenues are going to facilities that need the funds in the short term to develop a long term sustainable source of renewable energy.
- In addition we question the value of requiring in law that new hydro projects be certified by the Low Impact Hydropower Institute (“LIHI”). Projects built within the last 10 years have already gone through a rigorous federal and state review process based on current environmental and scientific knowledge about the impact of hydropower on the environment.
- Sections 1 and 3 also change the eligibility requirements for biomass. The New England Clean Energy Council recommends that any change in biomass eligibility be phased in so that projects already under way or with financing and contracts in place that rely on RECs remain eligible for a reasonable period of time under the terms by which they originally qualified.
- In Section 1, Bill No. 1138 deletes the reference “from landfills” following methane gas. We understand that this language change is intended to make it clear that anaerobic digestion is an eligible Class I energy source. However, the present reference to “methane gas” is too broad. It would include landfill gas and gas from anaerobic digestion but potentially also fossil fuel-derived natural gas, which is also composed of methane. Clearly, this is not the intent of the legislation. Therefore, the New England Clean Energy Council recommends that

the language “from landfills” be retained and that a specific reference to anaerobic digestion be added immediately following it, so that the list of eligible energy sources would read, in part, “(IV) methane gas from landfills, (V) anaerobic digestion, (VI) ocean thermal power...” with the numbering of the listed items adjusted accordingly.

The New England Clean Energy Council notes that the Executive Summary of the RPS Restructuring Study was released late in the day on Monday, March 18, 2013, and notice was given that the Study itself will be released on March 19, 2013. As a result, we may supplement this testimony once we have had a chance to review the Study. We would also be glad to answer any questions the Committee may have now or later after it has had an opportunity to review the Study.

Thank you for the opportunity to provide these comments and recommendations. The New England Clean Energy Council looks forward to working with you as you enact legislation to implement policies to support the development of clean energy and capture its economic, energy and environmental benefits for Connecticut.

Sincerely,



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