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March 19, 2013

The Hon. Bob Duff, Co-Chair
The Hon. Lonnie Reed, Co-Chair
Energy and Technology Committee
Room 3900, Legislative Office Building
Hartford, CT 06106

RE: Testimony on SB 1138, *An Act Concerning Connecticut's Clean Energy Goals*

Dear Senator Duff, Representative Reed and members of the Energy and Technology Committee:

On behalf of First Wind, thank you for the opportunity to offer this testimony on SB 1138. We wish to offer support for the long-term procurement section in the proposed substitute language for SB 1138 (LCO No. 4767), as we believe it would make significant improvements to Connecticut's energy policy.

First Wind is a New England headquartered, independent renewable energy company focused on the development, financing, construction, ownership, and operation of utility-scale wind and solar energy projects in the United States. First Wind has developed and operates 980 megawatts (MW) of generating capacity at 16 wind energy projects in six states from Maine to Hawaii. Six of our facilities are located in New England and supply energy to the regional grid, and we have a robust development pipeline in this region (including development opportunities we are pursuing in Connecticut).

Long-term procurement

The Connecticut Comprehensive Energy Strategy (CES) reflects Governor Malloy's agenda of moving toward a cleaner, cheaper, and more reliable energy future for the state. First Wind believes that cheaper, cleaner, and more reliable opportunities exist and can be accessed by tools such as the competitive long-term procurements proposed in SB 1138. This is supported by real world evidence, which shows that done correctly, long-term Power Purchase Agreements (PPAs) can both drive down costs for consumers and result in more investment in clean and renewable power.

A properly executed procurement process that uses the power of competition to incentivize lower priced and more innovative bids can provide numerous benefits, such as:

- Direct consumer savings from cost-effective contracts
- Indirect consumer savings from regional wholesale energy price suppression
- Indirect consumer savings from Renewable Energy Certificate (REC) price suppression
- A hedge against electricity price instability
- Reduced air pollutant and greenhouse gas emissions
- Economic development and employment opportunities
- Progress toward renewable and climate goals

There are positive examples in the region where long-term procurement processes that were competitive and focused on cost resulted in significant benefits to consumers. For instance, in 2010 NSTAR Electric and Western Massachusetts Electric (both Northeast Utilities' subsidiaries) competitively procured contracts for onshore wind with total direct savings of $158 million (on average $28 per megawatt hour) when compared to forecasted cost of energy and RECs (as was identified during the review and approval of the contracts by the Massachusetts Department of Public Utilities).[1] The utilities and regulators also expect indirect savings, such as lower energy and REC market prices, to accrue as a result of the contracts. In fact, a 2011 report estimated the energy price suppression benefits of new renewable generation as far exceeding the cost of Renewable Portfolio Standard (RPS) compliance.[2] This experience with well-run long-term procurement led Massachusetts last year to expand and extend the use of competitive PPAs for renewables, as estimates showed that upwards of $1 billion could be saved.

An additional benefit of long-term contracts is that PPAs for RPS eligible renewables are the single most effective means of driving future investment in eligible generation to ensure that sufficient supplies will be available in the region to meet the targets of Connecticut and other New England states. More supply will mean lower REC prices, and increasing investment in eligible renewables would help address the REC shortage predicted for 2018 in the 2012 Integrated Resource Plan.

The language in Sec. 5 of SB 1138 would authorize long-term procurement through PPAs "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." Longer duration contracts will bring greater price benefits. Financing over a longer time horizon enhances project financing, which translates into a better deal for consumers when contracts are procured via a competitive process. In fact, the ideal contract duration for many renewables (including onshore wind) is at least 30 years, which matches expected asset lives. The current

[1] There was intense competition among project developers for PPAs in these processes. According to one report, NSTAR received 23 times more in bids for supply than was needed.
[2] *Recent Electricity Market Reforms in Massachusetts: A Report of Benefits and Costs*, issued by the MA Executive Office of Housing and Economic Development, and the MA Executive Office of Energy and Environmental Affairs, July 2011, page 1.

low interest rate environment is a favorable climate for long-term contracts and an opportunity for Connecticut, as project developers can take advantage of lower cost financing and pass on the savings to consumers through lower priced PPAs. Additionally, we would recommend that the 150 megawatt target for long-term procurement be clarified, for example, by using instead a percentage of either Class I requirements or of overall load.

In summary, First Wind strongly supports the inclusion of long-term procurement in SB 1138, as PPAs can be used to increase the amount of renewable and low-carbon energy serving Connecticut, to lower the cost of power and RECs, and to improve system diversity, reliability, and integration.

Renewable Portfolio Standard

First Wind has concerns about some aspects of the RPS changes proposed in SB 1138. While we recognize the time the committee has to deliberate is brief, we encourage careful analysis of the likely effect of the RPS sections. Taken together, it is not a simple thing to understand what the changes proposed in this legislation – including large hydropower, extending the RPS for five additional years, altering biomass and smaller hydropower eligibility – would mean to the REC market and therefore to the continued growth of renewables. It is possible that such alterations (especially extending eligibility to large hydropower) would have significant impact on the effectiveness of the RPS. The REC market tends to be highly responsive to even subtle changes in RPS policy. Accordingly, we would be concerned about the impact on the REC market to the extent that SB 1138 reduced demand beyond a commensurate offset in reduced REC supply.

The compliance cost of the RPS should be viewed in the context of the value of adding significant amounts of price-taking resources like wind to the regional wholesale market. With the goal of cheaper energy in mind, it is essential that Connecticut and the region stay committed to renewables that have a price suppressing effect, as even a small impact on the marginal price of power can translate into many millions of dollars of net savings for consumers. Additionally, a concern has been repeatedly raised In Connecticut (including most recently in the CES[3]) that New England's wholesale electricity auction structure makes ratepayers vulnerable to fluctuations in natural gas prices. Using the RPS and long-term contracts to increase the amount of resources like wind in the system that have hedge value in smoothing price volatility caused by fossil fuels is one of the most effective ways to address that vulnerability.

[3] *2013 Comprehensive Energy Strategy for Connecticut*, February 19. 2013, page 73.

Thank you for the opportunity to share First Wind's views on this important legislation.

Respectfully submitted,

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