



**Connecticut
Light & Power**

The Northeast Utilities System



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**TESTIMONY OF RICHARD A. SODERMAN
THE CONNECTICUT LIGHT AND POWER COMPANY
and YANKEE GAS SERVICES COMPANY
Energy and Technology Committee—March 4, 2010**

H.B. No. 5362 AN ACT CONCERNING RENEWABLE ENERGY

The proposed bill would create significant incentives and programs to increase the development of solar electric facilities. It includes provisions for dedicating significant funding for residential solar applications, solicitations for long term contracts for non-residential solar installations and rate designs to encourage solar installations. We support development of renewable resources, which is the basis of the proposed bill, but we have serious concerns regarding the timing and scope of deployment of this technology and its significant cost impact to customers. Further, we are concerned about the fact that the proposed bill dedicates a substantial and increasing financial commitment by electric consumers through rate increases specifically to solar photovoltaic energy, which is only one of the many renewable energy sources.

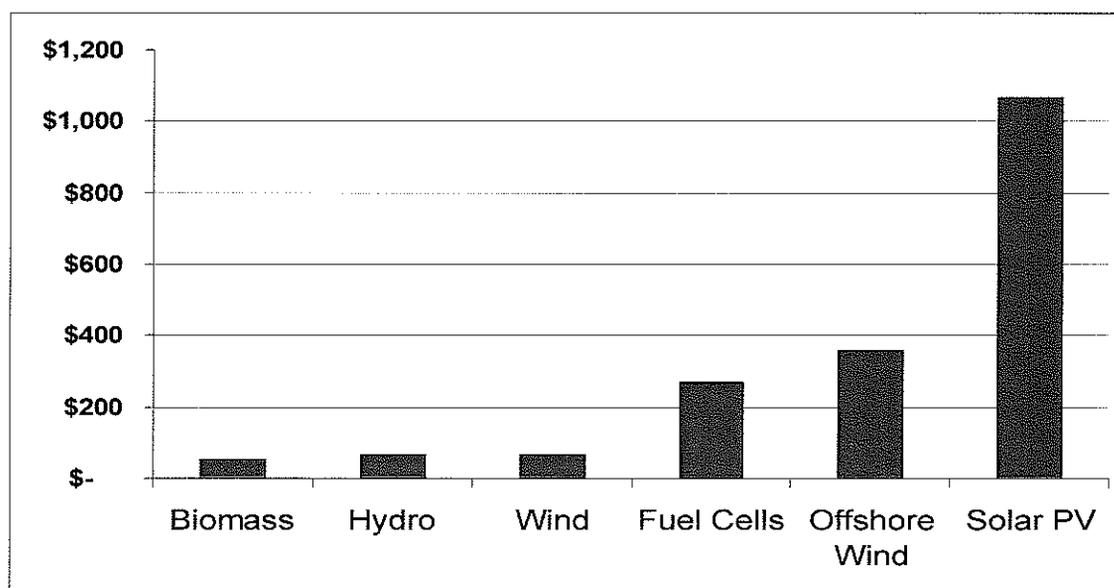
Connecticut has an assortment of clean energy strategies that have been implemented over many years. They include renewable portfolio standards, Project 150, the Regional Greenhouse Gas Initiative, and DEP emissions standards. To date, the Connecticut Clean Energy Fund has dedicated nearly \$200 million on renewables. Project 150 has not produced any energy yet, but the contracts that have been awarded are estimated to cost electric consumers between \$100-600 million in above market payments over the terms of the contracts. The renewable portfolio standards have and will continue to contribute significant additional subsidies to renewables. Thus, electric consumers are already spending substantial amounts in supporting renewable generation technologies in their monthly bills, a fact that contributes to our having among the highest rates in the nation.

As policy makers consider various renewable strategies, they need to consider the balance between goals and technologies and the impact on electric prices. As part of the Integrated



Resource Planning process we undertake pursuant to state law, we have searched for information on the costs of various technologies. Based on that research, it appears that, depending upon which technology is selected to meet our renewable standards, large scale deployment can have varying and sometimes adverse impact on rates, as the graph below shows:

Rate Impacts of ½ of 2020 RPS Class I met with Each Technology (CT)



In our analysis, solar PV has consistently been more costly than other means of meeting our renewable goals for 2020.

We have studied various means to comply with the resource portfolio standards as part of the integrated resource planning (IRP) process underway with the CEAB and DPUC. Within the IRP, the analysis suggests that the optimal strategy for meeting the State's RPS requirement is to procure renewable energy as part of a New England regional market, which has renewable potential substantially larger than needed to meet the various states' RPS. Unfortunately, Connecticut has limited cost-effective renewable potential in-state.



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As we try to reflect on the proposed solar bill, we are concerned that it is too much, too soon for this technology. If we read the various proposed targets correctly, we see that the bill calls for development of about 300 MWs of solar PV in many programs, ranging from residential installations to utility-scale projects, which are to be substantially funded through electric bills. Based on analysis of solar installations elsewhere (western Massachusetts utility scale application), we estimate a rate increase of about \$100 million for each 100 MWs of larger-scale installed solar generation. I wish it was not true, and that solar was free, but it represents the costliest technology available to us as we see it today. If, as some predict, the cost of solar PV comes down closer to grid parity in the 2020s, it may be time to then shift our commitment to the sun.

We appreciate the rate increase caps that are included in the bill. The bill caps funding sources for this program initially at ½% of utility revenues for the first two years, growing to 1% in the year beginning July 2015. That amounts to \$20-45 million per year, substantially less than needed to fund a 300 MW solar program.

We believe that Connecticut electric consumers deserve better policy directions than “one-off” commitments to individual programs. As such, we recommend that the legislature call a time out, reassess where it wants to go, and map out a reasonable course to get there with full information. For example, you could call upon the DPUC and DEP to assess the various clean energy programs already in place and emerging (e.g. federal) and develop a comprehensive strategy to achieve the most appropriate mix of clean energy resources. To the extent that some action must be done on renewables this session, then it should be for all technologies, and not for only one.

We also suggest that, if this bill goes forward, that the financial note should indicate the impacts on state and municipal energy budgets of the various renewable programs in place.

Thank you for the opportunity to testify on this proposed bill.



Here are some additional technical comments on the provisions of the bill.

- In addition to requiring contracts, it requires utilities to take a minimum amount of these contracts. This puts the utility in a "must take" situation that can result in projects bidding in higher prices because they know that the utilities have no choice but to take their proposal.
- The number of contracts required by Section 3 is very high. If the utility signs up projects that produce the minimum number of MWh (about 220 MW at a reasonable capacity factor), and does so with projects of the maximum allowable size (2 MW), the result will be in excess of 100 contracts. If the average size of the projects is at the breakpoint between the two size classes (50 kw or 0.05 MW), then the number of contracts will be in excess of 4,000.
- Section 6 requires a feed-in tariff for projects that are in excess of 1 MW. This raises two issues:
 - Why are feed in tariffs required for the larger size projects in Section 6, but contracts are required for the smaller projects in Section 3. It would make more sense for the smaller projects to have the feed-in tariff and the larger ones to have the contracts.
 - Projects between 1 MW and 2 MW would be eligible for both programs, creating a potential overlap problem. It could allow these projects to choose between the most lucrative of the two competing options.
- Section 6 allows the utilities to own some solar generation, but only subject to certain subjective criteria that will be decided by the DPUC at a later date. Other than this one uncertain possibility, there are no financial incentives for CL&P to take the significant risk and financial burden of these contracts.
- Section 9 puts caps of the amount of money that can be recovered to implement the provisions of this act. The costs associated with Section 3 alone are about three times the maximum (i.e., after July 1, 2015) cap. Hence, cost recovery is a substantial issue.
- Section 10 requires a Round 4 of Project 150. All contracts from the first three rounds are currently over market. If the fourth round goes like the first three, then it could make this over market situation worse.