



STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

THE ENERGY & TECHNOLOGY COMMITTEE

Senate Bill 255: AAC SOLAR RENEWABLE ENERGY CERTIFICATES

February 10, 2011

TESTIMONY OF THE DEPARTMENT OF PUBLIC UTILITY CONTROL

The Department of Public Utility Control, (Department) appreciates the opportunity to comment on Senate Bill No. 255. Senate Bill No. 255 proposes the broad concept of creating a solar renewable energy credit market. The Department offers several observations for the Committee's consideration of this proposal.

Connecticut ratepayers have made a significant commitments to meet the state's renewable portfolio standards (RPS). The Department estimates that the cost will be between \$79 and \$178 million in 2012 rising to \$152 to \$379 million in 2020. In addition, the Clean Energy Fund spends an additional \$31 million annually for grants to renewable energy projects. Connecticut also spends over \$100 million annually for conservation. As this Committee is well aware, many of the resources used to meet Connecticut 's RPS are located outside the state. Proposals such as this bill would incent the production of indigenous renewable resources.

As you consider the development of solar RECs or similar incentives, it may be helpful to consider the relative costs of various renewable s that were identified in the 2010 Integrated Resource Plan (IRP).

Costs of Renewable Technology

Table with 2 columns: Technology, Estimated Levelized Costs (Cents/kwh). Rows include Landfill Gas (5.6), Biomass (11.0), Hydro (11.0), Wind (11.2), Fuel Cells (17.4), Offshore Wind (19.9), and Solar PV (52.0). A note states: 'Today's power supply costs are in the range of 7-8 cents/kWh.'

Source: Integrated Resource Plan for CT (Jan. 1, 2010), prepared by The Brattle Group, Inc.; p. 3-30, Table 3.15

Currently, most solar projects are sited on houses or businesses and are eligible for net energy billing. Under net energy billing, a customer can net their consumption

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against kWh's they produce from a Class I resource. This allows customers to essentially be paid the retail price of electricity, approximately 18 to 20 cents/kWh. Any excess consumption at the end of the year is paid the ISO-NE energy rate. This rate is currently approximately 6 to 8 cents a kWh.

In addition, solar is currently considered a Class I renewable resource. Customers can sell their renewable energy credits (REC's) to generate additional revenues. Class I RECs currently sell for approximately 1.5 cents/kWh and are capped at 5.5 cents/kWh.

The Clean Energy Fund provides grants to solar projects to improve their economics. During the 2009/2010 fiscal year the Clean Energy Fund spent over \$62 million on solar projects in Connecticut.

While solar RECs are one method to increase funding to incent solar projects, there are many other ways to provide subsidies to projects. Other states have utilized such mechanisms such as: grants, tax incentives, long term contracts, net energy billing and purchase power rates or "feed-in tariffs".

With regard to solar RECs, the price of the REC is determined by the demand for the RECs, which equates to the RPS requirement and the supply of power produced.

The Committee may wish to consider that the creation of solar RECs be specific as to what the renewable requirement is for each year and that a cap be set on the price of the Solar RECs. For example, a 1% Solar REC requirement would equate to approximately 314 gigawatt hours in 2012. At a Solar REC price of 35 cents/kWh it would cost ratepayers an additional \$110 million annually. .

A few states have solar REC markets that can provide lessons learned for Connecticut. New Jersey currently has a solar REC program where solar REC's are currently priced around 57 cents/kWh. The program initially used installation cost rebates to create incentives for solar projects, but the program changed in 2009 by phasing out rebates and increasing the ceiling price of solar RECs from \$300/MWh to \$711/MWh. The Solar Alternative Compliance Payment (ceiling price) will decline by 3% each year and be \$594/MWh in 2016. Under the rebate program the state was paying on average \$4.2 million/MW and 90 MW of solar power had been built by 2008. Under the revised program, the average spot price of solar RECs has been around \$600/MWh and as of December 2010 approximately 200 MW of solar power had been achieved through 6,800 projects. There were approximately 3,000 applications for solar projects filed in 2010 alone. In 2010, New Jersey issued approximately 190,000 MWh of solar RECs, well below the annual solar RPS goal, which is slated to be 442,000 MWh in 2012 and will climb to approximately 2,500 MWh (2.12% of retail sales) by 2021. By 2021, New Jersey is striving to have roughly 2300 MW of installed solar capacity.

The Department thanks the Committee for this opportunity to testify and is ready to work with this Committee on this matter.