



STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

THE ENERGY & TECHNOLOGY COMMITTEE

Senate Bill 1081: AAC Class III Renewable Energy Credits

March 1, 2011

TESTIMONY OF THE DEPARTMENT OF PUBLIC UTILITY CONTROL

The Department of Public Utility Control (Department) appreciates the opportunity to comment on Senate Bill 1081. Senate Bill 1081 will significantly increase the Class III renewable energy requirements. The bill requires 6% in 2011 and increases 1% each year. As proposed by this bill, in 2020 the Class III requirement will be 15%.

The Department notes that Class III renewable resources are defined as combined heat and power (CHP), demand response, waste heat recovery and energy efficiency projects. Currently the law requires that 4% of generation service be supplied by Class III resources. The law currently does not increase the requirement any further in future years.

The current Class III Renewable Energy Credit (REC) market has an over supply of projects. These are mostly CHP projects and utility sponsored energy efficiency projects. The Department has approved some independent energy efficiency projects. Due to over supply, Class III RECs are selling at or near the floor price of 1 cent/kWh and some REC's cannot be sold at all.

By raising the Class III requirement, this proposal would increase the demand and price of Class III RECs. This would encourage the development of more Class III projects. These projects must be located in Connecticut, thus providing employment opportunities and other benefits to the state and local communities.

The Department estimates the incremental cost to ratepayers of the current 4% requirement to be \$12.5 million in 2010. The provisions of this bill would increase that cost within a range of \$22.0 to \$68.4 million in 2012 when the requirement would increase to 7% under the proposed bill. These estimates are based on REC prices of 1 cent/kWh under the low scenario and 3.1 cents /kWh under the high case. The estimated incremental costs in 2020 (when the requirement reaches 15%) would be between \$49.6 to approximately \$153.6 million. These costs would be collected through the generation service charge.

While there will be additional ratepayer costs as a result of increasing the Class III requirements, the Department also notes that these are mitigated by substantial ratepayer benefits that are also realized.

Energy Efficiency and CHP projects create electric system benefits by reducing energy and capacity costs. This results in reduced revenue requirements that are reflected in the generation charge. Customers who install these measures reap significant benefits by reducing their electric consumption and consequently, lowering their bills.

In the aggregate, measures such as this have a blended system and customer benefit/cost ratio of 2.5 to 1. Therefore, while this proposal would put upward pressure on rates, it would also result in reduced costs to participating customers as well as system benefits to all customers.

The Department points out that it appears that the bill as currently proposed would implement the higher requirements beginning in 2011. The Committee may wish to consider the impacts of such a near term change as the EDC's have already fully procured their standard service requirements for 2011.

The Committee may also be aware that The Connecticut Energy Advisory Board, (CEAB) is currently undertaking a comprehensive examination and evaluation of Connecticut's Renewable Portfolio Standards for Class I, II and III.

Finally, the bill requires electric distribution companies (EDCs) to meet the Class III RPS with respect to its standard service only and excludes last resort service. Standard Service and Last Resort Service are both subject to Class I and II standards. Therefore, the bill as currently written would have the effect of imposing the Class III RPS on Standard Service while exempting Last Resort Service from the same standard.

With respect to Section 2 of the bill, the Department submits the following comments. The Department currently requires that all CHP facilities demonstrate compliance with the CHP Standards on a **quarterly** basis, not a rolling annual basis as proposed by this bill. (See Decision dated February 11, 2010 in Docket No. 05-07-19RE02, DPUC Proceeding to Develop a New Distributed Resources Portfolio Standard (Class III) – 2009 Revisions, pages 21-24).

As mentioned above, Conn. Gen. Stat. §16-1(a)(44) defines "Class III source" to include "the electricity output from combined heat and power systems with an operating efficiency level of no less than fifty per cent that are part of customer-side distributed resources developed at commercial and industrial facilities in this state on or after January 1, 2006."

The 50% efficiency criterion is the primary one that is affected by whether CHP systems are required to comply on a quarterly or annual reporting basis. Conventional and CHP generating facility efficiency is highly dependent on operating conditions. Many conditions can reduce operating efficiency, including ambient temperature, plant equipment failures (particularly those that result in reduced power output), and disruptions in the process steam load. It is notable that, with the exception of ambient temperature, most potential disruptions to CHP operation are within the control or influence of the facility operator.

The statutory efficiency criterion of 50% establishes a very low threshold for qualifying CHP systems. Given the large range between typical efficiencies of CHP facilities and the statutory minimum, the Department concludes that the statutory minimum implicitly includes a significant allowance for decreased efficiencies due to operational disturbances. A quarterly reporting requirement provides an incentive to CHP facilities to utilize thermal capacity during summer months, when such units are less efficient. For example, many CHP facilities utilize process steam to serve absorption chillers, which utilize the heat from the steam to provide area cooling. Such uses maximize CHP efficiency during summer months, with the additional benefit of removing potential electric load from the grid during summer peak periods. This is entirely consistent with the objectives of Public Act 05-01, the Energy Independence Act.

Furthermore, given the substantial margin between the minimum efficiency and actual CHP operating efficiency, an operational disturbance would have to be of significant magnitude and duration to cause quarterly efficiency to decrease below 50%. CHP developers therefore have substantial operating margin to allow for disturbances in facility operation.

The Department believes the 50% standard was developed not merely to serve as a technological divider between conventional and CHP generating facilities, but to provide some level of expected efficiency to reward CHP operators for efficient operation. To reward CHP operators for extended periods of inefficient operation would be counter to the goals of the legislature in enacting Public Act 05-01.

The Department thanks the Committee for this opportunity to provide testimony and looks to working with the Committee on this matter.