

**TESTIMONY IN SUPPORT OF Amendment to S.B. 1 AN ACT CONCERNING
CONNECTICUT'S ENERGY FUTURE**

Senator Fonfara, Representative Nardello, and members of the Energy and Technology Committee, our names are _Nigel Ruddell and Leslie Higgins_ from Apricus Inc. a manufacturer of Solar Hot Water products.

Incentives:

- Limited incentive funds available <\$5M from ARRA with no additional Federal monies promised.
- No current state or utility financial support for Solar Hot Water.
- The current Solar Hot Water incentives were introduced in 2009 with a delay in implementation of over 6 months that caused much uncertainty in the CT marketplace that solar hot water sales were severely impacted for that year.
- The instability of incentives will continue to have too much influence over our industry. The Solar Hot Water industry was almost destroyed overnight in the mid 80's when Federal incentives were removed.
- Energy consumers, the plumbing, heating and HVAC trade industries **need** a signal that Solar Hot Water is here to stay.
- Solar Hot Water should have the right to expand and develop in a sustainable marketplace similar to the PV industry. Solar PV is currently the dominant Solar energy provider with an unfair advantage in SREC's.

Apricus: Investment and expansion in CT

- In the last 12 months
 - Hired and trained 4 new staff, (total of 8)
 - Currently utilizing local Temporary labor agencies as required
 - Growth plans to hire additional full-time staff as the market develops
 - relocated to a larger 7,000 sq/ft facility
- Working with local CT businesses
- Focused on developing a local workforce of installers through training and technical resources with the Trade Industries
- Partnered with local manufacturing company to develop new products

CT Investment in Solar:

- SRCC (Solar Rating and Certification Corporation) test lab currently in development at the University of New Haven
- 4 manufacturing companies with US headquarters located in CT.

**AMENDMENT OFFERED FOR SB 1
AN ACT CONCERNING CONNECTICUT'S ENERGY FUTURE**

January Session, 2011

LCO No. 4531

04531SB00001ET_

Referred to Committee on Energy and Technology

SB 1 (Fonfara, Looney, Williams)

Intent of Amendment: To make solar thermal energy for the purpose of solar water heating an eligible tier one solar resource eligible to receive Solar Renewable Energy Credits within the Renewable Portfolio Standard.

The amendment within is:

FOR the purpose of providing that energy from a certain solar water heating system is eligible for inclusion in meeting the renewable energy portfolio standard; providing that a person that owns and operates a certain solar water heating system shall receive a certain renewable energy credit under certain circumstances; requiring the total amount of energy generated and consumed by a nonresidential or commercial solar water heating system to be measured by a certain meter; requiring the total amount of energy generated and consumed by a residential solar water heating system to be measured in a certain way; defining a certain term; requiring that certain solar water heating systems be installed in accordance with applicable State and local plumbing codes; and generally relating to the eligibility of solar water heating systems for inclusion in meeting the renewable energy portfolio standard.

Sec. 8 (a)

53 "SOLAR WATER HEATING SYSTEM" MEANS A SYSTEM THAT: (A) (1) IS COMPRISED OF GLAZED LIQUID-TYPE FLAT-PLATE OR TUBULAR SOLAR COLLECTORS AS DEFINED AND CERTIFIED AS OG-100 BY THE SOLAR RATINGS AND CERTIFICATION CORPORATION; (2) GENERATES ENERGY USING SOLAR RADIATION FOR THE PURPOSE OF HEATING WATER; AND (3) DOES NOT FEED ELECTRICITY BACK TO THE ELECTRIC GRID. (B) A "SOLAR WATER HEATING SYSTEM" DOES NOT INCLUDE A SYSTEM THAT GENERATES ENERGY USING SOLAR RADIATION FOR THE SOLE PURPOSE OF HEATING A HOT TUB OR SWIMMING POOL. (C) A PERSON THAT OWNS AND OPERATES A SOLAR WATER HEATING SYSTEM SHALL RECEIVE A RENEWABLE ENERGY CREDIT EQUAL TO THE AMOUNT OF ENERGY, CONVERTED FROM BTUS TO KILOWATT-HOURS, THAT IS GENERATED BY THE SYSTEM THAT IS USED BY THE PERSON FOR WATER HEATING. (D) THE TOTAL AMOUNT OF ENERGY GENERATED AND CONSUMED FOR A NONRESIDENTIAL OR COMMERCIAL SOLAR WATER HEATING SYSTEM SHALL BE MEASURED BY AN ON-SITE METER THAT MEETS THE REQUIRED PERFORMANCE STANDARDS OF THE INTERNATIONAL ORGANIZATION OF LEGAL METROLOGY; (E) THE TOTAL AMOUNT OF ENERGY GENERATED AND CONSUMED BY A RESIDENTIAL SOLAR WATER HEATING SYSTEM SHALL BE: (1) MEASURED BY A METER THAT MEETS THE REQUIRED STANDARDS OF THE INTERNATIONAL ORGANIZATION

OF LEGAL METROLOGY; OR (2) MEASURED BY THE SOLAR RATINGS AND CERTIFICATION CORPORATION'S OG-300 THERMAL PERFORMANCE RATING FOR THE SYSTEM; AND (3) OG-300 CERTIFIED BY THE SOLAR RATINGS AND CERTIFICATION CORPORATION.

Sec. 8 (a) (26). "...(B) any electrical or solar water heating generation, including distributed generation, generated from a Class I renewable energy source;"

Sec. 8 (a) (40) "Customer-side distributed resources" means (A) the generation of electricity from a unit with a rating of not more than sixty-five megawatts on the premises of a retail end user within the transmission and distribution system including, but not limited to, fuel cells, photovoltaic systems or small wind turbines, or (B) a reduction in the demand for electricity on the premises of a retail end user in the distribution system through methods of conservation and load management, including, but not limited to, peak reduction systems and demand response systems, or (C) the generation of energy from a solar water heating system with a rating of not more than sixty-five megawatts on the premises of a retail end user located within the transmission and distribution system;

Sec. 57. (NEW) (*Effective July 1, 2011*) (a) The Renewable Energy Investments Board, created in section 16-245n of the general statutes, as amended by this act, shall structure and implement a residential solar investment program pursuant to this section and shall result in a minimum of thirty megawatts of new residential solar photovoltaic and/or solar water heating installations made up of any combination thereof located in this state on or before December 31, 2022. For the purposes of this section and sections 65 and 66 of this act, "residential" means dwellings with one to four units.

Sec. 57 (b) "The Renewable Energy Investments Board shall offer direct financial incentives, in the form of performance-based incentives or expected performance-based buydowns, for the purchase or lease of qualifying residential solar photovoltaic or solar water heating systems." "...The board shall consider willingness to pay studies and verified solar photovoltaic or solar water heating system characteristics, ..."

Sec. 57 (c) "... and (5) provide comparable economic incentives for the purchase or lease of qualifying residential solar photovoltaic and solar water heating systems." "...Nothing in this subsection shall restrict the board from modifying the approved incentive schedule before the issuance of its next comprehensive plan to account for changes in federal or state law or regulation or developments in the solar market when such changes would affect the expected return on investment for a typical residential solar photovoltaic or solar water heating system by twenty per cent or more."

Sec. (d) "...(3) procedures to provide reasonable assurance that such reservations are made and incentives are paid out only to qualifying residential solar photovoltaic or solar water heating systems demonstrating a high likelihood of being installed and operated as indicated in application materials; and ..."

Sec. 58. (NEW) (*Effective July 1, 2011*) (a) Commencing on January 1, 2012, and within the period established in subsection (a) of section 21 of this act, each electric distribution

company shall solicit and file with the Department of Energy and Environmental Protection for its approval, one or more long-term power purchase contracts with owners or developers of customer-sited solar photovoltaic or solar water heating generation projects that are less than two thousand kilowatts in size, located on the customer side of the revenue meter and serve, or are located within, the distribution system of the electric distribution company.

Sec. 58. (b) "Solicitations conducted by the electric distribution company shall be for the purchase of solar renewable energy credits produced by eligible customer-sited solar photovoltaic or solar water heating generating projects over the duration of the long-term contract. ..."

Sec. 58. (c) "The aggregate procurement of solar renewable energy credits by electric distribution companies pursuant to this section shall be no less than four million three hundred fifty thousand. The production of a megawatt hour of electricity or energy equivalent from a Class I solar renewable energy source first placed in service on or after the effective date of this section shall create one solar renewable energy credit. ..."

Sec. 59. (f) "...Funds collected by the department pursuant to this section shall be used to support the deployment of solar photovoltaic and solar water heating generating systems installed in the state with priority given to otherwise underserved market segments, including, but not limited to, low-income housing, schools and other public buildings and nonprofits."

Sec. 60. (NEW) (*Effective July 1, 2011*) (a) "...The survey shall rank state-owned or operated facilities based on their technical feasibility to accommodate solar photovoltaic and solar water heating generating systems by considering such factors as: ..."

Sec. 60 Sec. (b) "The Department of Energy and Environmental Protection, shall, within available funding, issue one or more requests for proposals for the deployment of solar photovoltaic or solar water heating generating systems at state-owned or operated facilities." "The department may seek in any request for proposals the services of an entity to finance, design, construct, own or maintain such solar photovoltaic or solar water heating system under a long-term solar services agreement. ..."

Sec. 61. (NEW) (*Effective July 1, 2011*) (a) Each electric distribution company shall, not later than July 1, 2012, file with the Department of Energy and Environmental Protection for its approval a tariff for production-based payments to owners or operators of Class I solar renewable energy source projects located in this state that are not less than one megawatt and connected directly to, or located within, the distribution system of an electric distribution company

Sec. 62. (NEW) (*Effective July 1, 2011*) The Department of Energy and Environmental Protection in consultation with the Renewable Energy Investment Fund established in section 16-245n of the general statutes, as amended by this act, and the Conservation and Load Management Fund established in section 16-245m of the general statutes, as amended by this act, ~~shall~~ may develop coordinated programs to create a self-sustaining market for solar thermal systems for electricity, natural gas and fuel oil customers.