



CLEAN WATER ACTION

CONNECTICUT

Testimony of Roger Smith, Campaign Director, Clean Water Action CGA Energy and Technology Committee March 10, 2009

Testimony in support of House Bill No. 6635 *AN ACT CONCERNING SOLAR POWER*

Thank you for the opportunity to testify before this committee. Clean Water Action is a non-profit organization which has worked in Connecticut on energy-related issues since 1998. Since 2002 we have worked with citizens across the state to lead town-level 20% by 2010 clean energy initiatives.

Clean Water Action strongly supports this bill to build a sustainable in-state solar industry.

Last year I testified before this committee to the success of the CT Clean Energy Fund in getting the solar photovoltaic (PV) rebate program to grow quickly and pointed out that the major barrier to the expansion of these programs is that the Clean Energy Fund's funding could not keep up with demand. In the past few years Connecticut has gone from almost no solar installations to close to 1000 systems. Early this year, a lack of funding forced the suspension of the residential and commercial rebate program. There is now a long waiting list for towns, schools, homeowners and businesses to install solar. At least one solar installer has left the market, laying off Connecticut employees last week.

Connecticut has the potential to be a national leader in solar electricity, rivaling New Jersey or California (on a proportional basis). Connecticut has greater access to sunlight than the world leader, Germany. Solar provides pollution-free power at peak times, when we need it the most and when electricity prices are highest. Our neighbors are moving ahead with solar as a green economic stimulus. New Jersey has a target of 1800 megawatts (MW) of solar by 2020, New York 100 MW by 2011, and Massachusetts 250 MW by 2017. Connecticut is currently at roughly 9 MW and lacks any long-term solar policy. As a result we are laying off solar workers and watching our solar businesses move to Massachusetts. Our funding for solar is also inadequate in bringing solar to an economy of scale where it can compete against conventional electric generation.

To solve these problems, over the last year we've worked together with the non-profit experts at the Vote Solar Initiative, as well as with Environment Connecticut and other partners to turn best practices from across the nation into a comprehensive program for Connecticut. We estimate that the full cost of this program would be less than \$1/month for an average residential ratepayer with a \$120 monthly electric bill and serve as a significant hedge against future fossil fuel price increases.

Key Elements of a Connecticut Solar PV Program

1. Residential solar- beyond boom and bust- 10,000 homes over the next decade (bill sections 1 and 2) The following features would improve the current Clean Energy Fund rebate program and install more solar at less cost to ratepayers.

- **Keep large systems from out-competing small ones**

Currently the CCEF rebate program funds both large installations (businesses, schools, etc) and small ones (homes) using the same pot of money. This bill would remove large systems from the Clean Energy Fund rebate program entirely, freeing up funding for residential systems. Larger systems do not need an up-front rebate to be financeable.

- **Set Funding based on achievable megawatt goals**

We currently set goals for solar based on available funding- this bill would do the opposite. This bill would continue the Clean Energy Fund's practice of reserving roughly half their funding for in-state solar PV. The main change with this bill is that in case of a shortfall the DPUC would be required to temporarily increase funding to bridge the gap so that solar companies are not forced to cancel projects, lay-off workers, and lose consumer and employee confidence, as is the case today.

- **Reduce and *Eliminate Residential Rebate Over Time***

This bill will improve the current residential rebate program by following California's example and **instituting a steadily declining rebate** which cuts the incentive each time a new milestone for solar installations is completed. Each year, as solar production increases world-wide, panel prices decline. As solar installation companies gain experience and become streamlined, experienced entities, installation costs drop. Ratepayers should benefit from these savings by reducing and eliminating solar subsidies as the industry matures. We estimate that with the right CT solar policies, solar will out-compete grid-supply before 2020.

2. Commercial solar- a market-based mechanism (sections 3, 4)

Rather than give large projects a sizable up-front rebate, it makes sense to pay for these systems as they produce power over time. This section creates a mechanism similar to the existing RPS to enable the installation of an estimated 350 medium sized non-residential systems (average size of 100kw) and an estimated 75 larger commercial and industrial sites (average size of 200kw).

Our neighbor Massachusetts announced in late January it will ramp up its solar initiatives dramatically, increasing from 4MW to 250MW by 2017. Connecticut needs to send similar long-term signals to draw more companies into the CT solar industry.

Towns and businesses will benefit as they will be able to sign "power purchase agreements" where they lease their roof space to developers who finance and install solar panels on their roof at no upfront cost. They then agree to buy the power produced by the system over 15-20 years at a reduced price. As the systems produce power the developers are paid a premium for "SRECs" or Solar Renewable Energy Credits, which makes solar economically viable sooner than it would be otherwise.

There is currently a sizable queue of public projects (schools and town buildings) at the Clean Energy Fund. This section would enable any town to be able to cover the roofs of appropriate

town buildings with solar panels at no up-front cost and lock in a portion of their energy budget for the next 15-20 years. We estimate that each 100 kilowatt system a town installs could save them an estimated \$100,000 over the next 20 years (if electricity rates only climb 3.5% per year.)

3. Community Solar (Section 7 b- e)

Many churches, non-profits, low-income housing authorities and towns would like to install solar but have some buildings that are unsuitable (roof angled improperly, shaded by trees, etc). This section (known elsewhere as "virtual net metering" is a billing arrangement that would allow these entities to build larger systems than they would need on one or more sites and count the output of that system against the electric bills on their other facilities. It is more cost-effective to install several large systems rather than many smaller ones, and this section would enable ratepayers and system owners to receive more solar benefit for less cost.

4. Solar for State buildings (section 5, 6)

This section authorizes \$150 million in bonding for solar photovoltaics to stabilize the electric bills of state facilities. The bonds would reduce the initial cost of solar and then the state could enter into long-term power purchase agreements with third parties who finance the remainder of the cost and install the solar systems at no upfront cost to the state. The resulting price for solar will be less than what the state would have otherwise paid for electricity and there will be greater predictability as a portion of the state's energy budget will be locked in for 20+ years.

5. Large Freestanding Grid-side solar (Section 8)

As I meet with town officials to discuss energy issues I have heard from several (including West Hartford and Middletown) that would be interested in putting freestanding solar PV systems on underutilized spaces, including landfills, brownfields and parking lots.

This plan would also implement part of Governor Rell's green jobs executive order no. 23 ¹

The Commissioner of the Department of Transportation, in consultation with the Commissioners of Economic and Community Development and Administrative Services, shall develop a plan to implement a green transportation corridor along interstate routes 91 and 95. The plan shall identify opportunities to require green improvements, including the use and distribution of alternative energy sources, along said corridor.

Currently solar has to be "net metered," and be sited where there is electric demand (at a building) rather than used to directly support the grid. This bill would allow private developers (and reserve up to 30% for the distribution companies) to build very large (2 megawatt minimum) grid-tied solar systems. The price per kilowatt to install very large systems is less than for small systems, and solar can be strategically sited at congested nodes in the grid and provide emissions-free peaking power. The bill makes this possible by requiring the DPUC to set a fixed tariff for solar with a 20 year contract.

Thank you for your consideration and do not hesitate to contact my office for more information.

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¹ Blueprint for Green Collar Job Creation: <http://www.ct.gov/governorrell/cwp/view.asp?A=3675&Q=433280>