

Joel N. Gordes
38 Brookmoor Road
West Hartford Connecticut 06107
(860) 561-0566
gordesj@comcast.net
March 1, 2018

Testimony on SB 9 AAC Connecticut's Energy Future

My name is Joel N. Gordes and I appreciate the opportunity to exercise my right to comment on SB 9, AAC Connecticut's Energy Future. Opinions in these comments are solely my own and do not reflect those of any past clients or public boards with which I've been affiliated. I will confine my comments primarily to treatment of behind the meter renewable resources in this proposed legislation as it affects the residential market and related loss of jobs in the solar field. This legislation may also have potential legal implications over underfunding the residential sector.

SB 9 at Sections 5(4)b, lines 360-364 on to 5(4)c, lines 374-375 read:

(b)...The authority shall initiate a proceeding not later than September 1, 2018, to establish a rate on a cents-per-kilowatt-hour basis for such tariff, which may be based upon the results of one or more competitive solicitations issued pursuant to subsection (a) of this section and shall be guided by the Comprehensive Energy Strategy prepared pursuant to section 16a-3d of the general statutes. The authority may modify such rate for new customers under this subsection based on changed circumstances and may establish an interim rate prior to the expiration of the residential solar investment program pursuant to subsection (b) of section 16-245ff of the general statutes as an alternative to such program.

(c) The aggregate procurement and tariff purchases of energy and renewable energy certificates by electric distribution companies pursuant to subsections (a) and (b) of this section shall be up to thirty-five million dollars in year one and increase by up to an additional thirty-five million dollars per year in each of the years two through twelve of such a tariff, provided the annual purchases ...

While I am unsure how many legislators have actually read the Comprehensive Energy Strategy (CES), I hope the final version of SB 9 will not include usage of CES for guidance in (b) or the \$35 million limit in (c). Deferring to the CES for guidance may have devastating effects on the residential solar market. Eliminating net metering as we currently know it will lead to significant job losses and Connecticut becoming a laggard in behind-the-meter renewable energy sources. What follows this opening section are my comments on the draft CES which serve to make my points above and are still largely applicable to DEEP's final product. I was particularly stunned by their denigration of current behind the meter rates on which DEEP has not conducted a rigorous benefit/cost basis. They use cost almost exclusively which seeks to show that cost shifting between PV owners and ratepayers is taking place. Quite the opposite is true as the study cited on page 2 of this testimony shows PV owners and ratepayers all show net benefits from net-metered PV systems.

(Note: All the following is from my CES comments, "CESS" was my company's acronym):

Value of Solar and Residential Behind the Meter Systems

The treatment and limitations of small, residential solar installations and value of solar as presented in this CES should be reconsidered as it captures only limited value streams and unfairly treats the

behind the meter renewables/net metering most often used by the residential sector. While CESS can appreciate the need for cost-effectiveness (as opposed to “Cheaper”), **DEEP should be mindful the funding stream for much of the programs comes from that residential sector. Funding should be commensurate with the programs specifically for residential and not limited to a mere 20MW/year for rooftop, behind the meter solar.** [Emphasis added] DEEP explains its position on this as being those who install systems do so at a cost to all other ratepayers. This zero/sum proposition is currently expressed in the CES thusly:

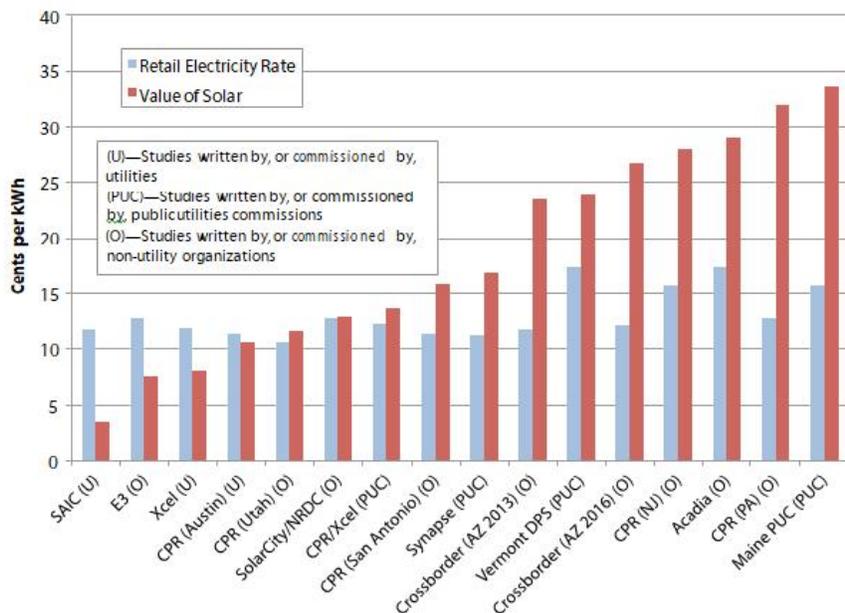
These incentives lower the cost to participants, but raise the cost to all other ratepayers that must fund these incentives. When the total cost of net metering and other ratepayer incentives are included, the cost of behind the meter renewable programs is over 20 cents/kWh. [page 21 , paragraph 3]

This is reiterated with some further explanations on page 22 which states:

These incentives lower the cost to participants, but raise the cost to all other ratepayers that must fund these incentives. When the total cost of net metering and other ratepayer incentives are included, the cost of behind the meter renewable programs is over 20 cents/kWh.

After still further discussion on avoided cost and possibly some additional funds for deferred T&D costs, essentially the same pronouncement is made on subsidization. What is not recognized is: 1) avoided cost is not the same as Value of Solar (VoS) as other value streams, including DRIPe, are added in by states (See [Shining Rewards](#) and summary below)

Figure ES1: Retail Electricity Rates and the Values of Solar Energy in 16 Cost-Benefit Analyses.



2) The vast majority of states show benefits to all ratepayers and; 3) that in order to commercialize new technology and/or business models some investment by government may be required to overcome risks. This has been true of everything from the telegraph to the Colt .45 pistol to the airplane—and yes, taxpayers aided those private investments so businesses were provided some

assurance that inordinate risk would not be a barrier to innovation. 4) Even private sector businesses recognize certain values to consumers from power sources that may provide them greater profits. For instance, a study by General Electric found that consumers would be willing to pay an additional \$10 per month for a more reliable power. This might also be a proxy for an additional value of solar that has not been considered by DEEP.¹

One of the greatest examples of this is the monopoly electric utility as we know it today. The electric business in the late 1800's was made up of many small electric companies and a goodly number of them regularly went out of business stranding their investors and customers. It was not until one Samuel Insull convinced electric power entrepreneurs George Westinghouse and Nicola Tesla that they needed to go to the states to create regulated monopolies that would bring stability. Talk about subsidies? That monopolization has been and still is the biggest continuing subsidy ever provided but at that time, with the technology at hand, it was the proper solution—and it worked. The price of power went down rapidly making everyone's life better.

While CESS in no way am representing The Connecticut Academy of Science & Engineering (CASE), in 2014-15 CESS served as a Study Advisor on *Shared Clean Energy Facilities* (see [this link](#)). We had ~19 of the top science, engineering and economic minds in the state come together to develop program parameters to help meet the desires and needs of those who might want to utilize solar but did not have the proper physical orientation or roof condition, funds, or were renters. On the first page of the actual study (ix) in the Executive Summary, it was clearly stated, “Furthermore, a value of clean energy analysis should be conducted to assure rate fairness for all business interest and classes of ratepayers including low-income populations.” This call for a value of clean energy/solar study was reiterated throughout the report multiple times. At page xii it specifically stated, “The proceeding should be a transparent process involving all stakeholders”. With DEEP developing its own version internally, that is not what took place. The CASE-suggested collaborative process should be instituted to re-accomplish this.

In joint testimony with long-time colleague, David Anderson in support of 2015's *PSB 928 AAC Shared Clean Energy Facilities* we also included a section on “Utility Driven Myth of ‘Subsidization’”. The strange thing about that legislative hearing was the lack of formal, written or oral testimony by DEEP prior, during or even after the hearing. One cannot help but wonder why there was no position on it at that time and why only now? Unfortunately, DEEP failed to heed the CASE study on other key points including DEEP's adding another key restriction (below) brought up in a later document on implementation which stated:

DEEP proposes to require in the RFP that SCEFs participating in this pilot program may not receive other Connecticut ratepayer-funded incentives of any kind, including Solar Home Renewable Energy Credits (“SHRECs”), ZREC/LREC program incentives or ratepayer supported low-interest loans. The purpose of this requirement is simply to ensure fair competition between projects and make the full ratepayer cost of this program transparent for evaluation purposes.

¹ *GE Survey Results: Millions of Americans Willing to Pay \$10 More on a Monthly Bill for Reliable Grid*. August 14, 2014. www.gegridsolutions.com/press/gepress/grid-resiliency-survey.htm

This was in direct conflict with the 30+ year old, much-respected Interstate Renewable Energy Council's (IREC) model rules on SCEFs which represents the best practices of such programs throughout the nation. IREC's fourth guiding principle clearly states:²

Program benefits should mirror, to the extent possible, benefits received by participants in the state's other, more established, renewable energy programs.

To say that the path to implementation for a Shared Clean Energy Facility program was tortuous is an understatement and after having to reissue portions of the initial RFP and even then rejecting all of the first 19 projects submitted, followed in the second offering when only 7 submissions came in. Reports followed that several firms were no longer willing to do business in this state. And we wonder why we have a state deficit. Surely this treatment might send some very clear signals not just to those firms but renewable businesses in general and businesses beyond. Not great for Connecticut's economic development reputation as a whole either. Some of the language in this CES also appears to move us in a similar direction and may serve to send a negative signal to progressive companies like Amazon, Tesla, and others that employ up and coming millennials interested in clean energy who we need to reinvigorate our dire economy. Connect the dots.

² *Shared Clean Energy Facilities*. A Report by the Connecticut Academy of Science and Engineering for the Connecticut General Assembly Energy and Technology Committee. March 2015. p. Full Disclosure: This author has at times been a consultant to IREC pertaining to certification & accreditation/educational functions.