

**SB 272 AAC The Use Of Microgrid Grants And Loans For  
Certain Distributed Energy Generation.  
Energy & Technology Committee, March 1, 2016**

Testimony by Joel N. Gordes, Consultant, dba Center for Energy Security Solutions  
38 Brookmoor Rd., West Hartford, CT 06107, (860) 561-0566

Co-Chair Doyle, Co-Chair Reed, Committee Members and staff, my name is Joel Gordes. I am an independent energy consultant representing myself.

I would like to offer my support for this bill that takes several steps to make this program more viable. While forward-looking in intent, as originally offered, this program has not previously provided the type of support required to attract many worthy projects. Microgrids, done correctly, offer the opportunity to provide greater resilience than the electric grid we have now. For instance, in the past week, utilities had upwards of 100,000 customers out of service from a storm with winds ~60 miles per hour,<sup>1</sup> far below even a Category I or Category II hurricane. While restoration times were more acceptable than during the Two Storms, one might expect even better results for the ~\$300 to \$400+ million approved to prevent outages to begin with. “Hardening” in a tightly coupled, complex centralized system such as in the grid today, may only make it more “brittle” when it encounters more newly emerging threats. Sometimes these threats can take place in combination with each other such as a cyber-attack in conjunction with a hurricane, ice storm or blizzard. Hardening does not aid at all in cyberattacks or in natural or manmade electromagnetic events.

The core problem is inaction to mandate changes to the over 100 year old utility business model. Other states have already begun. For instance, NY’s *Reforming the Energy Vision* (REV) process, begun by Gov. Cuomo after massive damage by Hurricane Sandy, may form one model for this. In REV and other models, progressive utilities are investigating or developing other products to offer customers and enhancing their own value streams to keep rates down. Because we have this bill before us, it is an opportunity for adding incremental steps toward this. Almost five years ago, in a published OP-ED on microgrids I wrote:

...but the key to successful implementation will be to compensate utilities with equal or better rates of return so they cooperate in installation of these systems. We have taken similar steps for their involvement in energy efficiency programs since 1988. Only by making the utilities monetarily whole can a secure, reliable distributed generation plan become a reality.<sup>2</sup>

Let me reiterate that in order to make them truly viable and more willing participants in programs such as this we should consider that same provision in 16a-49 for a 1% -5% bonus rate of return for utilities to reward their role for superior integration of microgrids. Instead of opposing a new business model(s), we can hope our utilities will follow suit and even profit from it but without infringing upon the private sector.

Finally, the integration of gas microturbines as eligible generation sources if they are able to attain a thermal efficiency of 40% or more does add greater flexibility for those times when other sources are unable to meet loads. That being said, the wording in the bill for eligibility says, “a gas microturbine with a thermal efficiency factor of at least forty percent **as established by the manufacturer...**” [emphasis added]. These last five words raise red flags as it is inappropriate to depend upon information solely from a manufacturer who has a vested interest or who may be hoping to stem competition. Appropriate substitute language might read “as certified by an independent, accredited testing laboratory.”

Thank you for your attention in this matter.

---

<sup>1</sup> Rondinone, Nicholas. Outages Drop, But Linger. February 27, 2016. P. B1

<sup>2</sup> Gordes, Joel N. *Smaller Electric Grids Safe, Reliable*. The Hartford Courant. September 4, 2011. P. C1.