

MARCH 1, 2018 PUBLIC HEARING TESTIMONY FROM SOLARCONNECTICUT EXECUTIVE DIRECTOR MIKE TRAHAN TO THE CGA'S ENERGY & TECHNOLOGY COMMITTEE ON S.B. 9

[SolarConn is the state's business group for home solar installers and commercial solar developers.]

The DEEP Comprehensive Strategy leans heavily on the cost-shift argument to make the case that a successor to Net Energy Metering (NEM) is "urgently needed" (*Strategy 4. Page 35*).

Our view is that transitioning away from NEM will be necessary at some point to ensure fairness in electricity costs across all ratepayers. Although, numerous studies, including a report from U.S. Department of Energy researchers clearly shows that the small amount of solar installed in states like Connecticut does not merit a policy change at this time. There is no analysis showing how much Connecticut ratepayers not using solar are impacted by ratepayers that do. None.

For our purposes, a "cost shift" occurs when delivery charges not paid by solar customers are spread over (shifted) to non-solar customers causing an increase in their electric costs.

While a lot has been made (assumed mostly) about solar-related cost shifting, how much in shifted costs the average non-solar user in Connecticut has never been documented. Those that claim non-solar users bear an unfair cost-shift burden have yet to produce detailed analysis to back up claims that customers without panels on their roof wind up subsidizing those who do when costs are balanced against benefits.

Still, it seems rational to think that ratepayers who install solar shift some costs to non-solar users. But just how much costs are shifted from the fraction of Connecticut ratepayers who've installed solar to the vast, vast majority of property owners who have not? No one knows for sure.

Without supportive data, we question why the CES, and now SB 9 got so far out in front of the cost shift argument as to propose a radical change to the well-functioning NEM policy that all agree has helped Connecticut consumers become more energy independent, cut energy costs, created thousands of new jobs in the state, and contributed tens of millions in tax revenue to the state.

Many argue that while solar customers shift costs to other grid users, the small percentage of consumers that have installed onsite generation (solar) on their rooftops return the favor with a number of benefits for the much larger group of non-solar participants including economic and employment gains, public health, a reduction of peak power requirements, reduced grid strain, improved grid security and more.

That's part of the reason why three out of four Americans support NEM policies. According to a national poll by University of Michigan researchers (<https://phys.org/news/2017-09-americans-net-energy-metering.html#iCp>). The support for net metering flies in the face of efforts in some states to stifle or eliminate NEM policies.

Last year, the Lawrence Berkeley National Laboratory (LBNL), the U.S. Department of Energy federal research laboratory set out to provide clarity in the cost-shift debate by issuing a report "Putting the Potential Rate Impacts of Distributed Solar Into Context" (see attached executive summary).

The report is clear that rooftop solar can affect the electric prices paid by non-participants. It is a point that SolarConnecticut concedes. The report though goes further to say that in general, there is so little rooftop solar in the United States that the issue is insignificant in nearly all regions of the country. Solar electric customers can trigger measurably higher electricity prices for property owners without solar, but only in places where a sizable number of people install solar the LBNL report found.

The reports goes on to say that for the vast majority of states (including Connecticut), "the effects of distributed solar on retail electricity prices will likely remain negligible for the foreseeable future."

Given current solar penetration levels of about 0.4% of total U.S. retail electricity sales (roughly 1.0 % in Connecticut), distributed solar likely raises the average national rate by roughly \$0.0003/kWh.

The exception, the report found, are sun-drenched states like Arizona, Hawaii, and California where a significant number of rooftops are outfitted with solar. Data carefully collected in those states confirmed electric rates in some utility territories were close enough to 10 percent to warrant NEM policy change. Armed with hard data, state lawmakers rightly acted to ensure electric bill fairness by adjusting NEM policies.

The DOE lab report based its estimate of a 5 percent electric price increase on markets where 10 percent of the electricity supply comes from rooftop solar. That would amount to a \$5 to \$6 a month increase for the average residential customer. DOE research finds that only four utilities, all in Hawaii, have solar penetration rates near 10% of electricity sales.

The federal report dismissed solar growth as a main contributor to increased electricity prices. A utility's cost to purchase new power plants and transmission lines, have a much bigger impact on consumer electricity prices than solar cost shifting. Others have stated that Connecticut ratepayers would save tens of millions on their electric bills each year if utilities' guaranteed rate of return on capital investments was lowered.

Given that the U.S. DOE research finds rooftop solar penetration levels remain so low that the cost-shift issue is of little significance outside a few states, the fact that an overwhelming number of Americans support NEM, and the absence of data collected in Connecticut demonstrating need to upset the current NEM system, we see no basis for abandoning Connecticut's NEM policy in favor of an untested new tariff as DEEP proposes.

In some states, charges related to energy efficiency, renewable energy and low-income programs shift costs and benefits between participating and non-participating ratepayers. These cost shifts have been deemed acceptable by legislators and regulators as furthering broader public policy goals.

In summary, the CES creates a problem where one doesn't exist. The DOE research is proof. And there are many other state level reports that come to the same conclusion. That NEM successor programs only make sense when states reach 10 percent solar penetration. In Connecticut, we'd have to quadruple current penetration levels just to reach 5 percent. Proposals in the CES will disrupt one of the most successful job-creating clean energy programs any state in America has ever developed.

On this matter, SolarConn's recommendation is to instruct PURA to monitor PV penetration levels in CT and alert DEEP staff once levels reach 5% so that lawmakers and DEEP are afforded the time needed to prevent cost shifting from unfairly impacting non-participants. [END]