



Testimony of SunPower Corporation in Support of

Senate Bill 10 – AAC Certain Recommendations Regarding Climate Change

House Bill 5351 – AAC Certain Programs and to Incentivize and Implement
Electric Energy Storage Resources

Senator Needleman, Representative Arconti, Senator Formica, Representative Ferraro, and members of the Joint Committee on Energy and Technology:

My name is Robin Dutta, and I am the Director of Market Development and Policy for SunPower Corporation. SunPower is a global technology company involved in every step of the solar system supply chain. SunPower has over 7,000 employees worldwide, the world's highest efficiency solar photovoltaic panel technology, growing development of solar plus storage projects, and an extensive national dealer network mostly consisting of locally-owned small businesses. In Connecticut, SunPower has 13 local companies in our dealer network, who develop and install residential and commercial projects, representing several hundred full-time workers in the state. SunPower also has an operations facility in Newington that supports our residential business.

SunPower supports the goals of the two bills listed above, though it is our testimony that these bills could effectively achieve their stated intents and combat climate change only with amendments.

Governor's Bill/Senate Bill 10

Senate Bill 10 is a step in the right direction towards Connecticut achieving significant reductions in carbon emissions over the long-term and full decarbonization of the electric sector by 2040. It is important to set that marker in order for the state government to incorporate that goal in their actions and policies. SunPower strongly supports this decarbonization target.

However, SB 10 would be much more effective if it included more near-term actions than a small demand response procurement. States with forward thinking climate response policies (ie. Massachusetts, California, New York) are centering their decarbonization strategies on renewables deployments. In 2020, for example, New Jersey released their Energy Master Plan, with a goal of 100 percent clean energy by 2050 and plans to phase out natural gas and electrify the transportation sector. As part of their plan, the Murphy Administration proposed a 17 Gigawatt solar deployment target, which is over 5 times as much solar as currently installed in

the Garden State. New Jersey has announced procurement schedules for off-shore wind and is currently developing a long-term solar incentive program.

The demand response and energy storage procurement proposed to be run by the Department of Energy and Environmental Protection (DEEP) appears to be no more than a pilot program. The annual statutory cap of 300,000 megawatt-hours in Senate Bill 10 is small compared to the statewide electric load (measured at nearly 29 million megawatt-hours in 2018 by the Energy Information Administration). And, if Connecticut employs policies that electrify the transportation sector and building heating systems, that load will be increasing, making the demand response procurement even less significant over the long term. SunPower recommends that there be no statutory cap, in order for the implementing agencies to have maximum discretion to size this program to meet the needs of Connecticut climate and electric grid.

SunPower expresses reservations that the demand response and energy storage procurement could involve the Electric Distribution Companies (EDCs). With the 2019 legislation that granted the EDCs a blanket exemption to own energy storage systems, private companies participating in this procurement could be at a disadvantage. If there is a difference between private distribution grid information accessible only by the EDCs, and what renewable and energy storage developers can access publicly, the EDCs could be at an unfair competitive advantage. SunPower recommends that the EDC allowance to own energy storage be curtailed or removed, or they not be allowed to participate in this procurement program.

SunPower applauds Governor Lamont for setting the target of 2040 electric decarbonization. However, we feel that Senate Bill 10 needs to be more than a small step forward, It needs to spur near-term action that builds momentum and grows Connecticut's renewable energy adoption among its residents and businesses.

Raised House Bill 5351

House Bill 5351 also sets an ambitious and necessary target, by proposing a 1 Gigawatt deployment target of energy storage systems in Connecticut by 2030. SunPower strongly supports this section in HB5351 and looks forward to the follow-up actions that will be taken to achieve this target.

SunPower also supports the development of a residential energy storage incentive program, as well as providing the Public Utility Regulatory Authority (PURA) the opportunity to develop a storage incentive program for commercial energy users. However, this proposal lacks various necessary companion policies in order to be effective. Currently, energy storage system deployment is tied to renewable energy system deployment, in part because the only way for energy storage to qualify for the Federal investment tax credit is for it to be part of a renewable energy system. Storage deployment is focused on state markets where there are storage incentive

programs for renewables plus storage systems, primarily solar plus storage systems. This is key in California, New York, and Massachusetts. HB 5351 would only create a storage incentive, but would not extend the Residential Solar Homes Investment Program (RSIP) which will likely expire as soon as the Summer of 2020. Since PURA does not have to start a docket to implement storage incentive programs, there may be no time when there are both storage incentives and residential solar incentives available.

SunPower has seen that solar plus storage markets require solid project economics for the solar and the storage components of a combination system. Massachusetts provides a strong example with the Solar MAssachusetts Renewable Target (SMART) program, which incentivizes both solar only and solar plus storage projects across residential and commercial market segments. Without either program component, residential solar plus storage systems would not be economical to finance or for mass customer adoption under any purchase or lease model.

Proposed Amendments

In HB5351, SunPower proposes that PURA be directed to implement an energy storage incentive for commercial-scale projects, instead of merely being given the discretion to do so. And, we propose that the timelines for storage program implementation allow for deployment as soon as possible. Paired with the existing (and potentially extended) solar programs, this legislation would create Connecticut's first viable energy storage market.

In SB10, SunPower proposes that the EDCs be barred from participating in the demand response and energy storage procurement, given the unfair competitive advantages they possess compared to private developers.

SunPower proposes two amendments, which could be applied to either SB10 and HB 5351. They are attached to this testimony, and summarized below.

1. Ensure our existing residential solar incentive program (RSIP) will continue until the new system is in place. The Connecticut Green Bank, which administers the RSIP, estimates that current authorization from the legislature will maintain the program only through Summer 2020. That will leave a gap of up to eighteen months during which residential solar will come to a halt in Connecticut. The legislature needs to extend the RSIP authorization by at least another 50 megawatts to ensure the program will bridge to the new programs to replace net metering in 2022. This is necessary to pair with any residential storage incentive program.
2. Eliminate auctions as the only mechanism for awarding commercial incentives – One problem that remains from 2018's SB9 is that it requires that the future incentive program for commercial-scale solar projects must maintain the "reverse auction" system currently

used in the LREC/ZREC program. These single annual auctions actually hinder new projects because they can't keep pace with how projects are developed today, nor do they provide the certainty needed to develop new projects and maximize energy bill savings for customers.

PURA should have the regulatory discretion to choose a program model for the successor commercial solar program, including the best program model to incentivize commercial solar plus storage system development. Given how much of a thought leader Chair Gillett has already established herself as, that discretion would be carefully and responsibly applied.

Decarbonization, Grid Modernization, and Resiliency

Connecticut is at a major inflexion point regarding its energy and electricity policies. Superstorm Sandy unearthed weaknesses in electric grid resiliency, which will only grow more dire as climate change and extreme weather events become more common. The distribution grids are long overdue for major upgrade and modernization, bringing with them anticipated costs in the billions of dollars. And, there is no more time to waste in every state, and every country, actively combatting climate change by decarbonizing our electric systems and economic sectors.

Connecticut renewables policies have been middling, at best, when compared to regional and national leaders. At its worst, Connecticut has repealed benchmark programs to encourage renewables development. Thankfully, that lapse was only temporary due to the reinstatement and extension of distributed solar programs in 2019. However, Connecticut is now set to fall behind more New England states, as Maine has passed landmark climate legislation that sets aggressive long-term decarbonization targets while also kickstarting their solar markets in the present day.

Boosting these renewables policies can not only provide these grid and environmental benefits, but also energize a Connecticut economy that is long overdue for sustained growth. Solar and energy storage industries are dominated by small businesses. As large and established as SunPower is as a company, we rely on our national dealer network made up of local installers. We help them grow, such as Farmington-based SAVKAT, who expanded their workforce after net metering was restored in 2019.

Connecticut can modernize the electric grid while improving resiliency and achieve decarbonization by encouraging the development of a distributed energy grid. The private sector can bring carbon-free, lower cost energy solutions to homeowners and businesses. We can bring in our investment capital, and leverage solar and storage incentives. This can be done without burdening the ratepayer, compared to the business-as-usual scenario when the EDCs control everything and pass on all the costs to their customers.

Conclusion

SB10 and HB5351 can stimulate the Connecticut economy and fight climate change, if amended as suggested here. Connecticut has as much potential to lead on solar deployment as Massachusetts. Even though Massachusetts has double the electric load of Connecticut, they have five times the solar jobs. That discrepancy is largely due to the superior solar policies in Massachusetts. SunPower looks forward to closing the gap with improved solar markets in Connecticut.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink that reads "Robin K. Dutta". The signature is written in a cursive style with a large, stylized 'R' and 'D'.

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