



**Legislative Testimony of Sunrun Inc.
Before the Energy and Technology Committee
March 5, 2020**

Regarding:

H.B. 5351, An Act Concerning Certain Programs and to Incentivize and Implement Electric Energy Storage Resources

H.B. 5349, An Act Concerning the Ownership of Certain Solar Energy Projects by Electric Distribution Companies

Dear Co-Chairs Needleman and Arconti, Ranking Members Formica and Ferraro, Vice Chairs Lesser and Allie-Brennan, and distinguished members of the Energy & Technology Committee:

Thank you for the opportunity to testify on this important legislation. Sunrun is the nation's leading home solar, battery storage and energy services company in the country, and has helped Connecticut residents go solar since 2015. Our local office and warehouse is located at 75 Brainard Road in Hartford, and our employees and customers live across Connecticut.

When Sunrun was founded in 2007, it pioneered the “solar-as-a-service” business model, which has expanded the benefits of solar energy to hundreds of thousands of American households. In addition to selling solar energy systems, Sunrun installs, owns and maintains systems on customer homes for a contract term, creating a worry-free way to go solar and achieve utility bill savings without a significant upfront payment or loan. This “third-party ownership” model has expanded solar access to tens of thousands of Connecticut residents who could not have accessed solar otherwise, and accounts for about 75% of the state's residential solar market.¹

Introduction

In states across the country, Sunrun is now installing energy storage systems or “home batteries” as a component of home solar systems. These batteries are roughly the size of a large TV and are typically installed on a garage wall or in a basement. Home batteries can provide significant value to homeowners and the entire electric grid. For example, home batteries provide back-up power to homeowners in the event of grid outages, replacing the need for fossil fuel generators. Home batteries can also optimize home energy management for residents on time-of-use rates. During the day, the solar system powers the home and charges the battery, which discharges during “peak” periods when electricity is most expensive. Finally, home batteries can benefit all

¹ Connecticut Green Bank data.



ratepayers through participation in demand management programs and “virtual” power plants, which lower system costs and can replace the need for polluting fossil fuel peaker plants.²

In terms of capabilities, home solar and batteries can be managed to provide the same services as large energy storage installations on the grid. These include system-level peak capacity and ramping services; fast-responding energy dispatches, filling the need for spinning reserves; and automated inverter-based response to frequency deviations. In addition, home solar and batteries have unique capabilities and value that may not be accessible to large energy storage systems, depending on their location on the grid. These capabilities include peak capacity in localized areas, reducing the need for transmission capacity; peak capacity on the distribution grid, reducing strain or the need for investments; distribution services, including voltage management; and even neighborhood resilience,³ in addition to the ability of individual homes to keep the lights on when the grid goes down.

H.B. 5351, Regarding Programs to Incentivize Energy Storage

Sunrun strongly supports H.B. 5351, which would establish a policy to encourage the deployment of 1,000 megawatts of energy storage by 2030 and create programs to achieve that goal. A growing number of states have recognized the benefits of home batteries by establishing storage targets and programs to incentivize storage deployment. Examples include the Self-Generation Incentive Program (SGIP) in California,⁴ the Megawatt Block program in New York,⁵ and the Solar Massachusetts Renewable Target (SMART) program,⁶ which has a storage adder and has created one of the most robust storage markets in the country. Sunrun applauds the Energy and Technology Committee for taking a major step toward joining these leading states, which are on the cutting edge of the clean energy transition.

Despite the many benefits of solar energy and home battery systems, their cost today puts them out of reach for too many Connecticut households. While equipment costs have fallen dramatically over the last decade, the price of adding a home battery to a solar system today presents an obstacle to achieving the clean and distributed electric grid Connecticut must build to achieve its climate goals. In response to this challenge, other leading states have sought to reduce upfront costs, accelerate deployment and reduce total installation costs over time as the solar and battery industries mature. Incentives have been essential to animate nascent storage markets, attract investment and achieve deployment that can be leveraged for the benefit of all ratepayers.

² In 2019, Sunrun won a first-in-the-nation bid to provide the ISO-NE wholesale market capacity from small solar and battery systems, competing on price with traditional generating power plants. Sunrun’s winning 20 MW bid will aggregate the capacity of roughly 5,000 residential solar and battery systems across four New England states.

³ See Sunrun’s most recent report, “Smart, Clean Neighborhood Grids,” available here:

<https://www.sunrun.com/home-solar-blog/sunrun-neighborhood-grid>

⁴ <https://www.cpuc.ca.gov/sgip/>

⁵ <https://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun/Contractors/How-the-Dashboard-Works>

⁶ <https://www.mass.gov/info-details/solar-massachusetts-renewable-target-smart-program>



While battery technology is fully mature and proven, the regulations and programs to derive full value from home batteries are relatively immature. Massachusetts has led the nation through its SMART incentive, which attracted outside investment, created jobs and drove battery deployment over the last few years. Massachusetts is now driving value from its fleet of deployed batteries through nascent grid service programs, including utility-led demand management programs and soon through its clean peak program. In addition, there are certain wholesale market participation pathways in ISO-New England. When a home solar and battery provider is able to participate in grid service programs – reducing grid costs for all ratepayers – the provider is also able to reduce the upfront cost of the home battery to the homeowner (through subsequent pay-for-performance revenue from grid service programs). As Connecticut utilities and policymakers develop these programs, incentives are necessary to start deploying home batteries and bridge the gap between their cost today and these programs in the future.

Sunrun applauds the Energy and Technology Committee for its work on H.B. 5351 and looks forward to working with policymakers and regulators to optimize its implementation.

H.B. 5349, Regarding Ownership of Solar Projects by Electric Distribution Companies

Sunrun opposes H.B. 5349 because it is unwarranted, contradicts long-standing state policy and represents an inappropriate attempt by monopoly electric distribution companies (EDCs) to threaten well-functioning competitive markets. In 1998, the Connecticut General Assembly approved Public Act 98-28 to restructure the state's electricity market, replacing monopoly ownership of power generation with competitive markets in order to lower electric rates. H.B. 5349 runs counter to this law by allowing EDC ownership of solar power electrical generation facilities. This legislation is unwarranted because the EDCs have failed to demonstrate a market failure in which competitive suppliers cannot meet the EDCs' desire for solar energy. In addition, following last year's H.B. 5002 (now Public Act 19-35), which gave the EDCs broad authority to own and rate-base energy storage, H.B. 5349 represents the latest EDC attempt to interfere in competitive markets to improve their return on equity, while exposing ratepayers to undue risks.

For these reasons, Sunrun opposes H.B. 5349 and encourages members of the Energy and Technology Committee to vote against it.

Thank you for the opportunity to provide testimony on these important issues. As a national solar, storage and energy services company, Sunrun has a broad view of states' clean energy policies and stands ready to assist the Committee and Connecticut with its policy goals.

Sincerely,

Stephen Lassiter
Manager, Public Policy
Sunrun