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Committee: Economic Matters

Testimony on: HB440 “Electricity - Community Solar Energy Generating Systems - Generating Capacity”

Position: Support

Hearing Date: February 10, 2022

The Maryland Chapter of the Sierra Club submits this testimony in support of HB440, which will increase the maximum generating capacity of a solar energy generating system under the state’s legislatively established Community Solar Pilot Program from 2 megawatts to 5 megawatts. This legislation will increase the benefits from our state’s Community Solar program.

- **Maryland needs to accelerate its solar energy development.** The 2019 Clean Energy Jobs Act established an essential but ambitious target for solar energy growth in the state: 14.5 percent of total electricity consumption is to come from in-state solar by 2030. Even with no increase in that consumption – a conservative assumption considering expected increases in electrification of vehicles, buildings, and other sectors – the capacity required to achieve this target is more than 4,500 megawatts (MW) of solar. As of September 2021, the Solar Energy Industry Association identifies the total of all solar installed in Maryland – including residential, commercial, utility-scale, and Community Solar – to be 1,396.5 MW.¹ This means that during the next 9 years, we need to build almost 3,200 MW of new solar – an average of more than 350 MW per year. This is more than we have ever built.
- **Community Solar can provide solar power to those who cannot have rooftop solar.** An estimated roughly three-quarters of Maryland households cannot have solar on their own roof, for multiple reasons: they are renting their home, live in apartments, have roofs that are unsuitable for solar, have too much shade, or cannot afford it. The legislature’s establishment of the Community Solar Pilot Program is intended to find approaches that can effectively bring locally produced electricity from clean, renewable solar generation at low cost to households in this majority segment of our residents. In doing so, Community Solar can potentially play an important role in expanding solar.
- **Expanding project capacity to 5 MW is consistent with practice in other states.** Community Solar programs like Maryland’s Pilot Program are currently operational in 21 states through third-party solar developers (larger programs implemented by utilities themselves exist in additional states).² Of these 21 states, all but Maryland and Delaware set Community Solar project capacity limits at 5 MW or greater.

Larger size projects result in lower cost per kilowatt-hour.

While a 5 MW project is small by solar industry standards, it still offers substantial advantages to Community Solar programs. The larger size allows for greater economies of

¹ Maryland Solar Factsheet – <https://www.seia.org/state-solar-policy/maryland-solar>

² Coalition for Community Solar Access

scale, both in terms of solar array construction and ancillary costs like inverters, interconnection, and maintenance. These savings can be passed on to consumers, allowing for lower energy costs. This is especially important for projects serving low- and moderate-income (LMI) households.

- **Larger projects can have less land-use impact than smaller projects.** The Pilot Program is seeking to achieve its purpose through multiple approaches, including finding viable ways to build Community Solar on commercial rooftops and parking lots, on disturbed land (landfills and brownfields), and in other ways that are technically and financially feasible. However, a certain amount of solar energy development, including Community Solar, needs to be built on open land, including some agricultural land. The Governor’s Task Force on Renewable Energy Siting acknowledged this reality and estimated that between 0.4% and 1.7% of agricultural land would be needed to meet the state’s overall solar targets.³

In addition to the space needed for solar panels themselves, ground-based solar projects require space for ancillary equipment, access roads, and buffer zones. The total space required for a single 5 MW project is less than what would be required for the same amount of solar capacity from two and a half 2 MW projects.

This larger size of 5 MW projects also promotes “agrivoltaic” practices that combine solar generation with productive agricultural practices. Agrivoltaics makes solar projects more expensive, so the economies of scale associated with 5 MW projects will facilitate these emerging practices and their evaluation here in Maryland. This is another learning – especially for our agricultural community – that needs to come from the Pilot Program.

- **Evaluating the benefit of 5 MW projects under the Pilot Program requires action now.** The final allocation of Pilot Program project capacity will happen in July 2023. Development of new projects at 5 MW capacity will require lead time. In addition, processing of these project applications is likely to take longer, because projects larger than 2 MW will need to undergo the additional step of a Certificate of Public Convenience and Necessity review by the Public Service Commission. Therefore, if the Pilot Program is to successfully evaluate the effects of any such larger projects, this legislative session is effectively the last opportunity to make that happen.

In summary, the Sierra Club believes that allowing the development of 5 MW Community Solar projects is an important action to take now, in the context of the legislatively established Pilot Program. Doing so will allow us to evaluate this potentially important option, which has proven effective in other states. The possibilities of achieving greater savings to customers, making more efficient use of available sites, and supporting the acceleration of solar development that Maryland urgently needs to reach its own targets make this a significant step. For these reasons, we urge a favorable report on HB440.

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³ Governor’s Task Force on Renewable Energy Development and Siting, Final Report; August 14, 2020