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March 2, 2021

House Committee on Corporations
The Honorable Joseph J. Solomon, Chairman
State House
Providence, Rhode Island 02903

Re: Testimony on H 5327:
An Act Relating To Public Utilities And Carriers -- Net Metering

Mr. Chairman,

I am writing in support of H5327 and the expansion of the community net metering program in Rhode Island. My perspective on this matter is shaped by many experiences: my degree in Environmental Studies; experience as an advocate for local agriculture starting successful farmers markets soon out of college; developing and operating solar projects on about eighty low income apartment buildings, non-profit agencies and municipal buildings; developing several large scale community solar and net metering projects, again primarily serving low income communities and non-profits; signing up hundreds of customers for community solar projects; participating over decades in energy and land use policy debates in Rhode Island and Massachusetts; and serving in leadership roles in a couple renewable energy advocacy organizations.

Through those varied experiences, I have come to know a few things with a high level of confidence, all of which favor community solar as an ideal means to provide cost effective access to solar benefits to the largest number of people:

1) Community solar can provide the benefits of solar to everyone.

   Many properties are shaded by neighboring buildings or have roofs with poor orientation for solar production. Solar and trees are often in conflict in urban and suburban areas where trees that provide shading, aesthetic beauty and pleasant environments for people would need to be cut in order to avoid shading the solar systems. Many buildings do not have adequate structural capacity to support solar. In many cases the remaining life expectancy of the roofing is not compatible with the expected life expectancy of solar installations. Parking lot canopies are expensive and also often limited by shading from trees and nearby buildings. A 2016 study by the National Renewable Energy Lab suggested that only 22% to 27% of residential rooftop space in the US is suitable for PV, depending on the local environment. Many otherwise qualified homes will never get solar due to the cost, lack of credit, complexity of financing or because they rent and there is not clear alignment of interests for solar between building owners and their tenants. While rooftop solar and parking canopies can be appropriate in many situations, community solar can be an easy solution for the vast majority of people who don't have access to the benefits of solar on their homes.

2) Large scale solar projects can provide a very important economic benefit for family farms while co-locating solar with agricultural endeavors.

   Since long before I was starting farmers markets in the late 1970s, New England farmers have been looking for creative ways to diversify their revenue. Co-locating solar and agriculture is a great way to support local farms while preserving agricultural soils. We just finished construction on a project I developed in Tiverton. The eight and a half acre fenced area will be maintained using sheep rather than mowing equipment. Both inside the fenced area and in the surrounding shade mitigation areas, we planted pollinator species to feed honey bees and wild pollinators. In addition to direct income from selling honey and lamb, the farmers will earn payment from the solar facility owner for maintaining the solar field that would otherwise be spent on labor, equipment and fuel for mowing.

3) Solar is far more effective at mitigating carbon impacts on the climate than forests.

   I want to address one erroneous argument that is being proposed by some people opposed to ground mounted solar projects - the suggestion that cutting forest to build solar exacerbates climate change. That is simply wrong. The reality is that an acre of solar offsets over 300 times as much carbon emissions as is sequestered by an acre of forest. This is very simple to show using a readily accessible tool from the US Environmental Protection Agency. Each time I present this calculation the disparity grows because affordable solar panels keep getting more efficient.

   My recent Tiverton project has about 266 kw/acre capacity, including the shading mitigation area, which is probably fairly typical for a recent project. A reasonable number to use for the annual production from ground mounted solar in Rhode Island is about 1,275 kWh of electricity per kW of system capacity. So that system will generate over 339,000 kWh per acre in an average year. According to this EPA carbon equivalent calculator for comparisons of carbon impacts 339,000 kWh of electricity generated from one acre of solar would offset the equivalent of carbon sequestered by 313 acres of forest on an annual basis.
   https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

   Forests are clearly critically important to our environment for all kinds of reasons. But for anyone who cares sincerely about climate issues, it is important to recognize how much more efficient solar is in addressing concerns related to carbon emissions.

4) We need to find appropriate compromises between solar development, agriculture and forest protection.

   According to the US Forest Service, at the peak of Rhode Island agriculture, only 25% of Rhode Island was forested. Many old farms have reverted to woodlands. Today forests cover about 56% of the state land area. While many special areas of forest need to be protected for a variety of reasons, not all forested land is critical wildlife habitat, recreation areas or otherwise in need of protection.

   The solar industry has at times not done a good enough job of siting and screening solar projects, thus raising legitimate complaints from neighbors and others who don't like the aesthetic impact of solar in rural areas. I have been able to develop five large scale projects with none of them visible from any road or home except for one on an industrial zoned brownfield which can be seen from the industrial area access road and from one house. I have similar projects with minimal neighborhood or environmental impact in development and have seen many more from other developers.

   Good planning and land use regulation, along with appropriate levels of attention to community and environmental concerns, can assure protection of critical forest areas, increase revenue opportunities for Rhode Island farmers and provide all the economic and environmental benefits that solar offers.

5) If we want low and moderate income people to benefit from solar, we have to make the process of participating in community solar easy.

   One of my clients is a large multifamily housing community here in Rhode Island. Each of the units is individually metered but the owner pays all those bills. We recently signed 158 of their accounts up for Community Net Metering. Because most of the residents are low income, we first looked at the Low and Moderate Income Community Net Metering program. But we found both the initial and annual reporting requirements for the LMI program onerous and there were no such requirements for the conventional Community Net Metering. The discount to the electricity rates provided on the two offerings were identical. We signed all those low income residents up for conventional community solar instead. As someone who has been serving low income communities with solar in a variety of ways for the last twelve years, I hope the lesson that can be taken from this experience is that reporting, qualification and participation requirements should be made as simple and minimal as possible. I very much encourage the proposed low income carve out with the caveat that the regulations governing qualification and reporting need to be kept minimal to encourage participation.

A couple years ago, many of us testifying on all sides of this issue participated in a remarkably good stakeholder process guided by the Office of Energy Resources and the Division of Statewide Planning to help develop both appropriate statewide legislation and appropriate municipal ordinances to address land use issues related to solar energy project development. The long effort toward consensus building was based largely on an effort spearheaded at the beginning of the process by Sheila Dormody of The Nature Conservancy and Meg Kerr of the Rhode Island Audubon Society. They insisted that we start our effort by establishing a shared set of guiding principles for the effort which were eventually accepted unanimously by all the participants present at the time. They are a great set of principles we should all embrace and that I strongly encourage your committee to consider as you evaluate both the bill before you and any proposed amendments. I am attaching that guiding principles document for your consideration.

In my view no other program meets these principles or our state's climate and environmental goals better than the community solar net metering program. Appropriately sited megawatt scale solar facilities participating in the community solar program will be the most sensible and cost effective way to provide the benefit of solar to any resident of Rhode Island who wants to enjoy discounted electricity costs while helping to protect our environment.

The program really should be expanded without any capacity limit, so that all Rhode Islanders can benefit economically from the program while supporting our state goals of reducing our impacts on the climate as much as possible.

Thank you for considering this testimony.

Sincerely

Fred Unger
President, Heartwood Group, Inc.

Rhode Island Principles for Renewable Energy Siting

Rhode Island is facing an immediate challenge to accelerate the development of clean, renewable energy sources while protecting our natural resources and unique community character. The Rhode Island Renewable Energy Siting Stakeholder Committee has adopted the following principles as a holistic framework to integrate competing interests in drafting policies and practices to facilitate the development of renewable energy in the state.

These principles reflect the participation of state and local officials, renewable energy developers, residents, property owners, businesses and utilities, and non-governmental organizations. The primary purpose of the principles is to guide the Stakeholder Committee in developing recommendations which are responsive to Rhode Island's reality as a place with a small geographic area, high population density, and a diversity of environments, landscapes and community types. The recommendations should respect the commitments that Rhode Island has made as a jurisdiction to mitigate greenhouse gas emissions, and enable people throughout the state to participate in and benefit from renewable energy programs.

1. Accelerate the pace toward achieving Rhode Island's renewable energy and greenhouse gas reduction goals through thoughtful and strategic development of renewable energy projects of all sizes.
2. Build support for achieving Rhode Island's renewable energy and greenhouse gas reduction goals by increasing public understanding of the multiple benefits of renewable energy including to the economy, the environment, to promote equity and to cultivate climate resiliency.
3. Provide predictability, consistency and fairness in state and local rules, regulations, zoning and ordinances to support development of renewable energy projects.
4. Promote proactive, comprehensive utility distribution system planning.
5. Ensure that regulations governing renewables are applied in a fair and balanced manner with those governing other land uses, while recognizing that local zoning is the authority of communities to establish public health and safety standards.
6. Honor commitments to keep permanently protected land free from development.
7. Encourage renewable energy development on commercial and industrial zoned land, on already developed land, and in other locations with environmental alterations such as closed landfills, brownfields, parking lots, commercial and residential rooftops, sand and gravel pits.
8. Support the economic viability of farms through appropriate renewable energy development as a complementary use in a manner which keeps farms in agricultural production while preserving agricultural soils.
9. Promote policies that recognize ecological services and sensitivity as well as habitat connectivity in the siting of renewable energy projects.
10. Respect landowner rights to realize value from their property within the context of established planning and zoning principles.
11. Ensure equitable access to renewable energy installations for all consumers, and recognize that delaying the transition to renewable energy disproportionately burdens environmental justice communities.
12. Provide local governments with guidance on smart renewable energy siting and to ensure consistency between the state guide plan and local ordinances and policies. Establish a timeline for all municipalities to adopt renewable energy siting ordinances and associated processes.
13. Provide opportunities for state and municipal governments to lead by example and use renewables to exercise more control over their energy use and production in meeting their energy needs.