

June 1, 2021

Submitted electronically to equitablesolar@ee.doe.gov

Re: Request for Information (RFI) on Equitable Access to Community-based Solar

To Whom It May Concern:

The National Rural Electric Cooperative Association (NRECA) respectfully submits the following comments in response to the U.S. Department of Energy's Request for Information (RFI) on Equitable Access to Community-based Solar (DE-FOA-0002527).

The National Rural Electric Cooperative Association (NRECA) is the national trade association representing nearly 900 local electric cooperatives and other rural electric utilities. America's electric cooperatives are owned by the people that they serve and comprise a unique sector of the electric industry. From growing regions to remote farming communities, electric cooperatives power 1 in 8 Americans and serve as engines of economic development for 42 million Americans across 56 percent of the nation's landscape.

Electric cooperatives operate at cost and without a profit incentive. NRECA's member cooperatives include 62 generation and transmission (G&T) cooperatives and 831 distribution cooperatives. The G&Ts generate and transmit power to distribution cooperatives that provide it to the end of line co-op consumer-members. Collectively, cooperative G&Ts generate and transmit power to nearly 80 percent of the distribution cooperatives in the nation. The remaining distribution cooperatives receive power directly from other generation sources within the electric utility sector. Both distribution and G&T cooperatives share an obligation to serve their members by providing safe, reliable, and affordable electric service.

We appreciate the opportunity to provide NRECA's perspective in response to DOE's RFI. We understand DOE's interest in the current barriers to rapid community solar deployment, and other community-serving models to increase solar access. This topic is important to electric cooperatives because many consumers in rural communities are less affluent than those in other parts of the U.S. In 2019, the median household income for electric cooperative consumer-members was 11% below the national average. Electric cooperatives serve 92% (364 of 395) of the persistent poverty counties in the United States, and cooperatives serve an average of eight customers per mile of line and collect annual revenue of approximately \$19,000 per mile; the other utility sectors average 32 customers and \$79,000 in annual revenue per mile. Electric cooperatives are consumer-owned so any new costs imposed on the co-op are ultimately passed on to their consumer-members. Oftentimes these are low and middle income (LMI) consumers, who can least afford cost increases. Community solar projects designed to meet the specific needs of LMI consumers can include them in the benefits of renewable energy while also potentially lowering peak demand costs which drive up energy burden for these same consumers.

By their very nature, electric cooperatives find innovative ways to provide low-cost solutions for their consumer-members and have lean, agile processes for decision-making. NRECA and its members have

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already instituted many projects and programs that meet the objectives of increasing access to community solar in this RFI. DOE has and continues to provide much-needed support to NRECA projects directly aimed at these objectives, including the SUNDA and ACCESS projects (discussed further below). With additional federal funding through DOE programs, NRECA and its members could further scale up that work to have an even greater impact in the communities they serve. As trusted energy advisors in their communities, co-ops are well-positioned to deliver community solar and other renewable energy and other technology solutions that will benefit their consumer-members.

Category 1: Equitable deployment and greater access

1. How, and please be as specific as possible, can SETO address the needs for greater community solar deployment and benefits to all customers? Tools and activities that can be leveraged include, but are not limited to:

• Data aggregation • Analysis • Decision tool development • Convening • Training • Peer exchange • Identifying best practices • Increasing market transparency • Consumer protection efforts • Innovative pilot programs • Prize and challenge programs • Providing financial assistance • Evaluation, measurement and verification

There is no one-size-fits-all solution so DOE should make multiple types of assistance available. Direct grants, cooperative agreements, and other similar mechanisms would help to encourage the voluntary development and deployment of community solar projects. DOE programs aimed at increasing access to community solar should require a very limited cost-share – for example, no more than 25 percent – in order to solicit the widest participation possible and should vary based on the community's need.

It is critical that community solar projects funded by DOE incorporate community engagement at the outset, with a specific focus on efforts to engage with LMI communities. Without direct engagement, it will be difficult to understand their specific needs and how a funded project may implement solutions that will have a meaningful impact to the community and their consumers' lives. Incentives to develop community solar projects that serve persistent poverty counties could help to ensure the program supports one or more of DOE's objectives laid out in this RFI.

2. What are specific needs, beyond financial support, for increased and more equitable community solar adoption and customer acquisition/management?

LMI communities may have less access to communications channels such as through broadband access at home. Efforts to communicate with LMI communities about community solar project opportunities should account for these barriers and incorporate strategies to reach out to them via other channels, such as community spaces that are frequently used, to ensure the widest awareness and participation rate possible. In addition, applications to any program or project funded by DOE should be simple and straightforward. For example, applicants should be able to fill out the application without needing to hire an engineering firm or outside consultant.

3. What are the specific barriers, if any, to provide greater access to capital and/or affordable tax equity for community solar deployment for all markets? Please describe in detail where access to capital or tax equity stopped a project from moving forward and possible SETO-focused tools and activities, as referenced above, that could have facilitated a solution.

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As not-for-profit businesses, electric co-ops pay state and local taxes, but most are tax exempt for federal income tax purposes. As a result, electric co-ops do not have access to the same federal tax incentives as for-profit businesses and are disadvantaged when implementing innovative technologies, including solar projects. Electric cooperatives should have access to the same incentives as their for-profit industry peers to promote energy innovation. Direct pay tax credits could level the playing field and mean more co-ops can invest in community solar projects. Reinstating a bond program, such as the New Clean Renewable Energy Bonds, on a basis equal to direct pay tax credits, to provide low-cost financing for renewable projects and other technologies could promote voluntary innovative community solar projects while helping to keep consumer-member rates low.

Category 2: Strategies for meaningful bill savings and other benefits of community solar

2. What is needed to promote and deploy additional community-owned solar facilities for the purposes of local wealth building?

a. How can additional energy technologies be integrated with community-owned solar for greater wealth building?

b. What elements should be considered in program or business model designs to ensure a community-owned facility provides resiliency benefits? What specific assets should be included?

The organizations closest to the communities they serve will be best suited to develop solutions that will meet their needs. Electric cooperatives and their locally-elected boards have a good deal of experience in designing voluntary programs that utilize renewable distributed energy resources, including community solar, while also promoting participation of their LMI consumer-members. Community solar projects can and have been designed to meet the specific needs of LMI consumers. For example, siting smaller capacity solar arrays on multiple plots of land rather than one larger array on one site to enable more consumers to benefit from leasing their land while also preserving more land for crop production, thus contributing to wealth building in multiple ways. Pairing community solar projects with virtual net metering enables LMI consumers to share in the energy benefits of solar without needing to invest in individual rooftop solar installations that are costly and many times their housing stock would be unable to host.

Integrating battery storage systems with community solar projects can enable electric cooperatives to reduce emissions more quickly by enabling greater utilization of intermittent renewable resources in their communities. Battery storage can also reduce or defer additional transmission costs, and will prove particularly valuable to sparsely populated, rural co-op territories that may be economically vulnerable as they continue to address aging delivery infrastructure and also work to enhance reliability.

3. How could DOE programming or funding ensure community solar facilities provide economic and environmental resiliency to the communities they are located in?

To maximize the benefit of federal assistance, DOE could give priority to small businesses which may have less opportunity to access traditional financing support mechanisms. Giving priority to small businesses could support the objectives laid out in the RFI of more equitable access to community solar. Another option would be to carve out a portion of funding for community solar projects for electric utilities that average less than 20 customers per mile of line. That way, DOE could ensure that the utilities receiving federal assistance are those able to serve more rural communities and in most need of

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financial support to pursue new solutions they might otherwise not be able to take the risk on because they bring in less revenue per customer to deliver the same reliable electric service as other utilities.

Category 3: Innovative Business Models

1. What types of business models exist that support community ownership of solar? What barriers exist to making community ownership of solar accessible, affordable, and scalable? How could DOE address specific barriers, if possible?

NRECA's Solar Utility Network Deployment Acceleration (SUNDA) project¹, financed through a U.S. Department of Energy Sunshot grant, resulted in solar capacity owned or contracted by electric cooperatives increasing from 94 MW to 868 MW, or a nine-fold increase, between 2013 and 2018. Electric cooperatives now host 75 percent of all utility-sponsored community solar projects and have developed several programs designed to give LMI consumer-members access to solar. The SUNDA project created a toolkit for co-ops to develop options for solar that would be affordable to communities regardless of income level. Some co-ops are applying the SUNDA materials to other technologies, such as microgrids. We encourage DOE to follow up with NRECA on the latest lessons learned from co-ops implementing options in the SUNDA toolkit.

NRECA's Achieving Cooperative Community Equitable Solar Sources (ACCESS) project², currently funded by DOE's Solar Energy Technologies Office (Award No. DE-EE0009010), is exploring and amplifying the use of innovative, cost-effective energy access programs to help increase solar affordability, with particular focus on assisting LMI consumers. ACCESS is researching varying financing mechanisms and program designs to identify optimal solutions for small utilities, including field tests of diverse co-op solar projects around the country. Tools and resources are being developed to assist electric co-ops and the broader industry deploy solar projects to benefit LMI consumers. It is critical that DOE maintain the funding committed for the ACCESS project as originally committed for the next two years. To put the ACCESS project on hold or redirect funding would negatively impact the communities the project has engaged and built relationships with, and could have a lasting impact on their willingness to engage in community solar projects. Maintaining funding for the ACCESS project will directly contribute to achieving the objectives that DOE lays out in this RFI for achieving more equitable access to community solar for LMI communities.

Another example lies with Roanoke Electric Cooperative in North Carolina which designed their solar program to remove barriers for LMI consumer-member participation, leading to a more inclusive result in these solutions and lowering costs for the co-op at the same time. To provide equitable access to consumer-members, Roanoke paired their existing Sustainable Forestry and Land Retention Project with their Upgrade to Save program and new community solar program. By building solar and battery installations on four smaller sites with 250 kW each instead of a single site, it allowed more landowners to benefit from leasing their land while keeping some land available for crop production. Using the existing SFLR project made this leasing opportunity for solar available and accessible for Roanoke members to participate.

2. How can community solar facilities better leverage micro-grids, storage and other technologies to provide greater value and meaningful benefits to customers and communities?

¹ More information can be accessed at: <https://www.cooperative.com/programs-services/bts/sunda-solar/Pages/default.aspx>

² More information can be accessed at: <https://www.cooperative.com/programs-services/bts/access/Pages/default.aspx>

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Electric cooperatives are evaluating the benefits and implementing multiple distributed energy solutions where it makes the most sense, is voluntary, and adds value for their consumer-members. As one example, Butler Farms in North Carolina installed a biogas system on its hog farm that added 185 kW of generation capacity in addition to an existing 100 kW diesel generator. It later added 20 kW of solar. Butler then worked with South River EMC and North Carolina Electric Membership Corporation (NCEMC) to incorporate these existing pieces into a microgrid. NCEMC installed a 250 kW/735 kWh battery and microgrid system to integrate them together. The farm's microgrid can feed into the South River EMC distribution system, or it can power the farm and 28 neighboring homes for at least four hours during an outage, thus enhancing resiliency to the community.³

4. How can SETO support scalable business models and programs that target greater numbers of low to moderate income customers that include meaningful bill reduction or other benefits?

DOE could support programs that make it possible for more people, including LMI consumers, to share in the benefits of renewable energy projects, such as community solar, by spreading out the up-front costs for installation or subscription. For example, more than 100 electric cooperatives across the U.S. utilize on-bill financing (OBF) programs to support their consumer-members who may wish to purchase energy efficiency upgrades but unable to pay upfront for these project costs. Many more co-ops could implement such programs. The OBF program allows the co-op to lend the money, sometimes financed through the Rural Utilities Service (RUS) Energy Efficiency and Conservation Loan Program, to pay for efficiency upgrades and then recoup the loan through their monthly electric bills. Most OBF programs focus on home weatherization or heat pumps, but some include rooftop solar. Such programs enable consumers who are least able to afford the energy burden that comes with inefficient housing stock to make improvements that will lower their energy bills or be a part of renewable energy solutions. They make it possible for more people to be included who would traditionally face obstacles to participation, even though they often face high energy usage and electric bills but lack the money or credit to invest in efficiency upgrades. Some OBF programs work around traditional financing barriers for low-income consumers, such as low credit scores, by instead using utility bill payment history for qualification.

In conclusion, NRECA and its members are well-suited to voluntarily provide renewable energy solutions, including community solar, for rural communities specifically designed to meet their needs and thereby increase equitable access to such projects. Electric cooperatives focus on member needs while working for the sustainable development of their communities. NRECA's members are dedicated to improving the communities in which they serve and are active in rural economic development efforts.

Thank you for considering our comments. Please contact me at stephanie.crawford@nreca.coop or 703-907-5732 if you have any questions regarding these comments.

Sincerely,

Stephanie Crawford
Senior Regulatory Manager
National Rural Electric Cooperative Association

³ More detail can be accessed at: <https://www.cooperative.com/remagazine/articles/Pages/Fertile-Ground-for-a-Microgrid.aspx>