April 29, 2021

Submitted via *www.regulations.gov*

Re: **Request for Information and Notice of Stakeholder Listening Session on a Rural Energy Pilot Program, 86 Fed. Reg. 16575 (March 30, 2021); Docket No. RBS–21–Business–0010**

To Whom It May Concern:

The National Rural Electric Cooperative Association (NRECA) respectfully submits the following comments in response to the USDA Rural Business-Cooperative Service Request for Information and Notice of Stakeholder Listening Session on a Rural Energy Pilot Program (86 *Fed. Reg.* 16575) (March 30, 2021).

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 the Request for Information (RFI) on USDA's nascent Rural Energy Pilot Program. We understand USDA's interest in the RFI in how the program can be structured to impact environmental justice, racial equity and economic opportunity. 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.

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 already instituted many projects and programs that meet the objectives laid out in the RFI. With additional federal funding through a program such as the Rural Energy Pilot Program, NRECA and its members could scale up that work to have an even greater impact in the communities they serve. As trusted energy advisors in their communities, electric cooperatives are well-positioned to deliver renewable energy and other technology solutions that will benefit their consumer-members.

Electric cooperatives also enjoy a longstanding relationship with USDA to support and empower rural communities through the Rural Utilities Service (RUS). Today, more than 500 electric co-ops are RUS borrowers. Given their critical role in providing affordable, reliable, and universally accessible electric service, electric co-ops are vital to the economic health of the communities they serve, and this pilot program will provide a new opportunity to help support that mission.

NRECA would like to share its perspective below in response to USDA's questions in the RFI below.

1. How might distributed energy technologies, innovations, and/or solutions be deployed to advance environmental justice, racial equity, and economic opportunity?

Low-income households spend a disproportionately higher percentage of their income on energy bills, and rural households throughout the U.S. spend a higher share of household income on energy bills than others in their region and urban/suburban households. Therefore, they stand to benefit from distributed energy technologies, innovation and/or solutions that are tailored to meet their specific needs and can help reduce energy costs over time.

Distributed energy technologies, innovations and/or solutions can and should be designed to benefit the greatest number of people in the communities in which they are located. Electric cooperatives have utilized distributed energy resources (DER) and associated programs to benefit the communities they serve, which include community solar projects, energy efficiency programs, on-bill financing, demand response programs, and more. These programs can advance environmental justice, racial equity and economic opportunity through design elements tailored to meet the needs of their specific communities. Electric cooperatives have been serving this need for decades and could do more with additional funding through this pilot program. For example:

- Roanoke Electric Cooperative in North Carolina offers several programs to their consumer-members designed to address poverty and energy burden simultaneously. To provide equitable access to consumer-members, Roanoke paired their existing Sustainable Forestry and Land Retention Project with their Upgrade to $ave program and new community solar program.[1] 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.

[1] More information can be accessed at: https://www.cooperative.com/programs-services/bts/access/Documents/Advisory-ACCESS-Case-Study-Roanoke-Oct-2020.pdf

- Anza Electric Cooperative in California is working to make solar more affordable to a local Tribe community.[2] Anza built a 1 MW solar array that will be owned and maintained by the co-op and located on land owned by the Santa Rosa Band of Cahuilla Indians. Anza and the Tribe worked together to develop a unique time-of-use tariff structure that uses virtual net metering and encourages participating members to shift their energy use to better align with peak solar generation times of the day. Any additional generation will go towards other LMI members in Anza's territory.
- San Isabel Electric Association in Colorado developed its Empower program to make its energy efficiency programs more accessible to their consumer-members. Seventy five percent of their territory's housing stock is at least 45 years old, but being remotely located can make it difficult to find contractors at reasonable prices. San Isabel offers on-bill financing for major mechanicals, and includes insulation, window upgrades, electric vehicle charging stations and energy storage systems as eligible improvements.[3]
- Cherryland Electric Cooperative in Michigan began participating in a Low Income Solar Pilot Program that seeks to reduce the energy cost for the LMI households they serve by combining weatherization and clean energy initiatives.[4] In the program, fifty low-income households receive the benefit of energy output from nine solar panels at a community solar project via virtual net metering. The program is funded in part by the Department of Energy's Clean Energy for Low Income Communities Accelerators (CELICA) program.

Each of these programs highlighted enables a greater number of people to participate and to enjoy in the benefits of renewable energy and cost savings through energy efficiency.

2. What specific distributed energy technologies, innovations, and/or solutions are available or have the potential to advance environmental justice, racial equity, and economic opportunity through their deployment and/or development?

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. For example, Roanoke, Anza and Cherryland as described above have designed their solar programs to remove barriers for LMI consumer-member participation, which leads to a more inclusive result in these solutions and lowers costs for them at the same time.

Battery storage systems can enable electric cooperatives and the communities to reduce emissions more quickly by enabling greater utilization of intermittent renewable resources. 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. There may be opportunities for distribution cooperatives to partner with their G&T to help finance the project and make use of investment tax credit (ITC) incentives, thereby making the project more cost-effective for the co-ops and their consumer-

[2] More information can be accessed at: https://www.cooperative.com/programs-services/bts/access/Documents/Advisory-ACCESS-Case-Study-Anza-Oct-2020.pdf
[3] More detail can be accessed at: https://www.electric.coop/colorado-co-ops-empower-program-helps-make-energy-efficiency-affordable
[4] More detail can be accessed at: https://www.cooperative.com/programs-services/bts/energy-access/Documents/Advisory-Advancing-Energy-Access-for-All-Case-Study-Cherryland-June-2019.pdf

members. As one example of pairing renewables with storage, 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.[5]

Another solution that could help meet the objectives of the RFI is co-op projects that utilize on-bill financing (OBF). More than 100 electric cooperatives across the U.S. already utilize OBF programs to support their consumer-members who may wish to purchase energy efficiency upgrades but are not able 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 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 focused 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. Such programs contribute to environmental justice, racial equity and economic opportunity by making 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.

3. What type of assistance or incentive (made available through a Rural Energy Pilot Program) would encourage the development and deployment of such distributed energy technologies, innovations, and/or solutions?

Direct grants, cooperative agreements, and other similar mechanisms would help to encourage the development and deployment of DER technologies and solutions through programs. The program 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. There is no one-size-fits-all solution so USDA should make multiple types of assistance available through the pilot program.

The Low Income Home Energy Assistance Program (LIHEAP) provides critical home heating and cooling help to millions of vulnerable Americans, including many electric cooperative consumer-members. While there may be lessons learned from the LIHEAP program that can be applied to this pilot program, NRECA urges USDA not to pursue re-purposing any LIHEAP funds for this program as some other stakeholders have raised as a possibility. It is critical that the assistance provided through LIHEAP remain available for its core mission of helping low-income households pay their home heating and cooling bills.

4. How should USDA measure, assess, and analyze the impacts of distributed energy solutions on environmental justice, racial equity, and economic opportunity?

[5] More detail can be accessed at: https://www.cooperative.com/remagazine/articles/Pages/Fertile-Ground-for-a-Microgrid.aspx

NRECA will not address at this time.

5. Who should be eligible to receive such assistance?

This program would benefit from a wide cross-section of organizations being eligible for assistance. The organizations closest to the communities they serve will be best suited to develop solutions that will meet their needs. Eligible entities should include electric cooperatives, non-governmental organizations, community organizations, faith-based organizations, and tribal communities. Commercial entities should be able to participate in consortia as they may ultimately become customers of the solutions developed in the pilot program.

Electric cooperatives make excellent partners in consortia that could come together under this program. Electric co-ops are consumer-owned and governed not-for-profit electric utility companies. They are by their very nature consumer-centric utilities. They are also the trusted local energy advisors in their communities and have longstanding relationships with other local officials. For example, about 250 co-ops have reservation lands in their service territories, and many frequently consult with tribal leaders or officials to satisfy the needs and concerns that can arise on tribal lands.

To maximize the benefit of federal assistance, the pilot program 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 environmental justice, racial equity and economic opportunity. Another option would be to only provide assistance under the pilot program to electric utilities that average less than 20 customers per mile of line. That way, USDA could ensure that the utilities receiving federal assistance are those in most need of financial support to pursue new solutions that 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 electric utilities.

6. What types of technology and/or infrastructure should be eligible under such a Rural Energy Pilot Program?
a. Generation;
b. Storage;
c. Controller/smart grid.

Technologies or infrastructure that provide or support generation, storage or controller and smart grid capabilities should all be eligible under the pilot program. Specific examples of technologies that should be eligible under the pilot program include solar PV, distributed wind, small hydro, geothermal, battery storage, microgrids, hybrid renewable systems, novel feedstock generators (such as blue and green hydrogen, wastewater, biofuels, and landfill gas), electric vehicles and associated infrastructure (including electric agriculture equipment and high torque EVs), demand response, energy efficiency and other behind-the-meter technologies. Allowing a wide slate of technologies to be eligible will help ensure that the pilot program is able to support the different needs that vary across communities.

7. Should a Rural Energy Pilot Program incentivize efficiency, resilience, or some other value?

Low income households spend a disproportionately high proportion of their income on energy bills, making energy efficiency upgrades attractive. But the housing stock they are using, often manufactured or mobile homes, may need improvements before you can fully realize the benefits of investing in

efficiency upgrades or even of adding renewables such as solar. In many cases, health and safety concerns in the housing stock need to be addressed first. For example, forty percent of Roanoke's members who asked about the co-op's energy efficiency program could not participate because they needed significant repairs to their housing before efficiency upgrades could be made. Valuing improvements made to address health and safety concerns as part of the pilot program's design will help ensure those most vulnerable will not be left out of benefitting from its solutions. Coupling these attributes with efficiency could generate beneficial outcomes for LMI consumers.

Incentivizing resiliency in the pilot program could lead to innovations in battery or microgrid solutions that could benefit LMI communities in the most remote and difficult to reach areas of the country.

8. Should the Rural Energy Pilot Program include minimum standards for equipment? Or a recognized standard of development such as commercially available?

Any standards of development utilized in this pilot program should be cost-effective, scalable, and replicable across communities throughout the United States.

9. What types of efforts have proven to be effective to promote the deployment of distributed energy solutions or innovations that advance or have the potential to advance environmental justice, racial equity, and economic opportunity?
a. What are the technologies associated with these efforts?
b. Why and how do these technologies advance of environmental justice, racial equity, and economic opportunity?
c. Should there be a minimum investment requirement?

As detailed above, electric cooperatives have a good deal of experience in designing programs that utilize renewable distributed energy resources 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. 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.

10. If cost-sharing is required, what minimum level of cost-share (owner contribution) should be required of recipients of funding? What would you consider to be the most cost-effective level of cost-share while also supporting the objective of advancing environmental justice, racial equity, and economic opportunity?

If the program is seeking to pilot technology, programs or solutions that are not fully commercial yet, then cost-share should be in the 10-20% range. Lower cost-share for new and emerging technology allows greater flexibility and minimizes some of the risk inherent in a precommercial pilot. For commercially available technology, cost-share of 30-40% would be appropriate. However, the lower the cost-share the more positive impact can be made in the nation's vulnerable communities.

11. What programmatic or administrative structures, policies, incentives, or requirements will support the advancement of environmental justice, racial equity, and economic opportunity

through the Rural Energy Pilot Program? What structures, policies, incentives, or requirements might obstruct or otherwise undermine its advancement?

It is critical that projects funded by the pilot program 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 projects that serve persistent poverty counties could help to ensure the program supports one or more of the pilot program's objectives.

12. What programmatic or administrative and other barriers exist that may limit participation in the Rural Energy Pilot Program or the availability of program benefits? What should be done to ensure equitable program participation by those who would otherwise be unlikely to apply? What specific actions could USDA take to guide a transformation and/or expansion of a Rural Energy Pilot Program, in both the short- and long-term?

Again, the pilot program should support projects that incorporate community engagement at the outset, with a specific focus on efforts to engage with LMI communities. LMI communities may have less access to communications channels such as through broadband access at home. Efforts to communicate with LMI communities 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 the program 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.

13. Given the objective, how should USDA measure the outcomes of the Rural Energy Pilot Program?

NRECA will not address at this time.

14. To what extent should current investments be required to accommodate future, anticipated technologies?

It is critical that investments made through the pilot program today utilize technologies and solutions that will be interoperable with future technologies. Successful results achieved in this pilot program will more easily scale for widespread deployment if they can be operated with other technologies that will be widely deployed.

15. Please provide feedback on the effectiveness of any known distributed energy or rural energy pilot program of which you are aware.

NRECA's Solar Utility Network Deployment Acceleration (SUNDA) project[6], 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

[6] More information can be accessed at: https://www.cooperative.com/programs-services/bts/sunda-solar/Pages/default.aspx

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.

NRECA's Achieving Cooperative Community Equitable Solar Sources (ACCESS) project[7], 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.

16. From your perspective, how much post-award reporting is reasonable for recipients of funding?

Post-award reporting should be limited given that this is a pilot program rather than a deployment program. For example, there should not be a requirement for a participant to provide annual certifications on the effectiveness of energy efficiency products installed. Post-award reporting should also not incur additional costs by participants. Such requirements on post-award reporting could be adapted if this pilot program is expanded in the future to a multi-year deployment program. The most effective and impactful reporting will be in the case studies, presentations and human stories that emerge from this pilot program, and those should be shared to the broadest extent possible.

In conclusion, NRECA and its members are well-suited to provide renewable energy solutions for rural communities through distributed energy technologies and solutions, including those that serve the objectives of environmental justice, racial equity and economic opportunity. 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. We welcome an opportunity to discuss our recommendations further with your team.

Sincerely,

Stephanie Crawford

Stephanie Crawford
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National Rural Electric Cooperative Association

[7] More information can be accessed at: https://www.cooperative.com/programs-services/bts/access/Pages/default.aspx