Business & Technology Advisory

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Opportunity for Cooperatives to Participate in DOE Research Project "ACCESS" To Expand Solar Energy Affordability

Key Highlights

- **For immediate consideration:** NRECA is seeking up to 4 co-op partners to participate as "LEADER" co-ops in a research project to implement solar projects in Opportunity Zones* and/or on tribal lands, address reduction in solar deployment soft costs and help expand the benefits of solar energy and investment further into co-op communities. Potential partners would be willing to explore project financing through community regional and development financial institutions.
- The U.S Department of Energy (DOE), through the Solar Energy Technology Office (SETO), awarded NRECA a cooperative agreement to research how to make solar energy affordable for communities with fewer financial resources and extend the benefits of solar development to low-and moderate-income consumers. With this funding, NRECA has launched the *Achieving Cooperative Community Equitable Solar Sources* (ACCESS) Project.

*Opportunity Zones are "low income census tracts nominated by governors and certified by the U.S. Department of the Treasury into which investors can now put capital, (opportunity funds), to work financing new projects and enterprises in exchange for certain federal capital gains tax advantages."

What has Changed?

On April 7, 2020, the U.S Department of Energy (DOE), through the Solar Energy Technology Office (SETO), awarded NRECA a cooperative agreement to research how to make solar energy affordable for communities with fewer financial resources. While solar photovoltaics (PV) have matured over the past two decades from research to product, and from ideas that "might work" to an accepted and fundamental part of the grid of the future, there are still challenges in how to make PV universally available and extend its benefits to low and moderate income (LMI)¹ individuals and communities.

NRECA's project, *Achieving Cooperative Community Equitable Solar Sources* (ACCESS), will explore and amplify the use of innovative, cost-effective energy access programs to serve co-ops' LMI members. ACCESS will research financing mechanisms and program designs including engagement strategies to maximize participation for these hard to reach audiences. ACCESS will evaluate the financial mechanisms and program designs to identify optimal solutions for small utilities. These solutions may include integration of new technologies, such as battery storage, hybridization of energy efficiency and solar programs, philanthropic partnerships, utility-scale, community solar, and rooftop solar options, etc. This research will incorporate analysis and evaluation from field tests (individual solar projects) sited at diverse co-ops that will provide recognizable models for the broader co-op community. By the end of the ACCESS project, NRECA

¹ "A household whose income does not exceed 80 percent of the median income for the area, as determined by HUD" https://www.hud.gov/program_offices/comm_planning/library/glossary/l

will have tools and resources developed and available to assist electric cooperatives successfully deploy solar projects to benefit LMI consumers. The resources will also be made available to the broader utility industry to further the benefits to LMI consumers.

Advancing Energy Access for All

ACCESS is the flagship project from NRECA's <u>Advancing Energy Access for All</u> initiative which spotlights co-ops' involvement in facilitating healthy communities, explores the innovative ways they do it, and uncovers new directions community assistance programs are taking. This initiative helps ensure rural communities are not left behind and creates a sustainable practice around supporting our co-ops as they holistically serve their members, especially those who struggle to pay their bills and other consumers in need. One of the key objectives of this initiative is to identify and establish partnerships to advance community solutions for NRECA members. Partnerships such as the ACCESS project with DOE satisfy the objectives of this initiative.



Project Team

NRECA is the lead for the project team that consists of two financial institution partners, National Rural Utilities Cooperative Finance Corporation (CFC) and CoBank; GRID Alternatives, an organization dedicated to making renewable energy technology and job training accessible to underserved communities; and the Pacific Northwest National Laboratory (PNNL). Four co-ops have committed to participate in ACCESS as "LEADER" co-ops and target benefits from their solar projects to LMI members in their respective communities. These co-ops will use a combination of the financing mechanisms and program designs from the research to implement their projects.

- 1. Anza Electric Cooperative's SunAnza Photovoltaic (PV)/Battery Energy Storage System (BESS) project is a 4 MW grid interactive PV solar array project installed in two phases. Phase I, which has been operating for a couple of years, is a 2 MW system. Phase II aims to install 1.4 MW PV array with a 2 MW/4 MWh BESS. In combination with a time-of-use program, Anza aims to keep energy costs consistent with or below current avoided costs, offset greenhouse gas reduction and mitigation costs, and provide low income members access to renewable energy.
- 2. Oklahoma Electric Cooperative is planning a solar park and learning center in coordination with the Norman OK Public Schools. The project is a 2 MW/5,000 MWh solar array with a science and learning center and will also support the community where 50% of students receive free or reduced school meals. OKEC aims to explore additional ways to engage the community either through educational scholarships and/or community partnerships and help the City of Norman reach their renewable energy goals by 2030.







3. Orcas Power & Light's project is a community solar installation sized between 500KW to 1MW (dependent on available land and member subscription). It will include a BESS connected to the solar array by a distribution switchgear. Objectives include reducing barriers to solar energy access for their members and expanding local energy independence and resiliency by adding renewable energy sources to their portfolio. The solar array will serve any subscribed member and provide a dedicated carve-out to benefit their low-income members.



4. Roanoke Electric Cooperative's SolarShare Strategy" aims to explore how to leverage the existing Upgrade 2 \$ave program, (modeled on the Pay As You Save tariff-based financing program)² and their nascent community solar program (with a proposed battery project) to provide energy benefits to members who struggle to pay their bills. There is significant need in their territory, and 40% of member inquiries to the Upgrade 2 \$ave program cannot fully participate in the program due to certain health and safety concerns at the members' residences. Roanoke is exploring philanthropic partnerships to combine efforts to address health and safety concerns and provide access to savings through community solar subscriptions.



What is the impact on cooperatives?

Opportunity to Participate as a Leader Cooperative

In support of this research effort:

- 1. NRECA is seeking to recruit up to 4 additional co-op partners as "LEADER" co-ops who are in the ideation stage of developing solar projects in the 1 to 20 MW range.
- 2. Specifically, these "LEADER" co-ops would have parts of their territories designated as Opportunity Zones and be willing to explore siting a project in the zone.
- 3. Additionally, the "LEADER" co-ops would be willing to explore alternative financing mechanisms, such as community banks, credit unions and other community development financial institutions, as part of this research effort.
- 4. Co-ops serving tribal communities and looking to site new projects are encouraged to respond.
- 5. Distribution co-ops who are ready to implement projects can respond to this advisory in partnership with their generation and transmission cooperative (G&T). G&Ts can also participate in their capacity or nominate a distribution co-op within their member co-ops.

To inquire about "LEADER" co-op opportunities, please contact the ACCESS project manager, Adaora Ifebigh at Adaora.Ifebigh@nreca.coop



² https://www.eetility.com/pays

Benefits of Participating in ACCESS as a "LEADER" Co-op

- Work with a group of co-ops rather than going it alone. Access to the experiences of a diverse group of co-ops from across the nation.
- Tap into NRECA's national network of experts.
- Contribute to all tools and resources developed as part of the project.
- Demonstrate leadership within the co-op community.
- Gain national visibility as a leading co-op committed to innovation and service to members.

Additional Opportunity to Participate as an "AFFILIATE" Cooperative

Co-ops that are interested in the ACCESS project but not yet ready to implement LMI solar initiatives are invited and encouraged to sign up for the ACCESS "AFFILIATE" email list. Because so many co-ops serve economically challenged areas, we expect the larger group of affiliate co-ops to be interested in reviewing and/or using ACCESS work products to revise existing programs or develop new initiatives. ACCESS will actively engage affiliate co-ops. They will be invited to participate in ACCESS activities, provide inputs and review ACCESS products.

To sign up for the ACCESS email list as an "AFFILIATE" co-op, please contact our team at: SolarAccessProject@nreca.coop

Contacts for More Information and How to Participate

- Our ACCESS Team: SolarAccessProject@nreca.coop
- Maria Kanevsky, Affiliate Co-op Task Lead, Analyst, Energy Consumers: <u>Maria.Kanevsky@nreca.coop</u>
- Adaora Ifebigh, ACCESS Project Manager, Senior Manager R&D Engagements: <u>Adaora.Ifebigh@nreca.coop</u>

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