

Distributed Wind Project Participation Opportunity

For immediate consideration: NRECA is seeking co-op partners to advise and provide guidance in the identification of gaps and creation of solutions that enable increased deployment of distributed wind generation across the country.

Research Opportunity Summary

The U.S. Department of Energy announced a \$3 million research grant to support an initiative spearheaded by NRECA to study electric cooperative deployment of distributed wind resources. Electric cooperatives and other rural utilities are prime candidates to evaluate distributed wind as a distributed energy resource (DER), as electricity resource that may provide added resiliency. NRECA will build off the successful “SUNDA” solar project to accomplish the goals of this new DOE distributed wind grant – currently being termed the “Rural Area Distributed Wind Integration Network Development (RADWIND)” project. Distributed wind solutions can utilize various wind technologies, ranging from small off-grid or residential scale turbines to one or more multi-megawatt turbines deployed alone or in conjunction other DER technologies including solar, storage, and microgrids.

Through RADWIND, NRECA will work with co-ops and industry stakeholders around the country to evaluate the market, challenges, opportunities, and gaps for distributed wind projects, and suggest solutions that can assist in successfully deploying diverse types of distributed wind projects and reducing soft costs. The project aims to increase awareness of the potential benefits of distributed wind and reduce the market barriers for the adoption of these technologies in rural areas. Like the SUNDA¹ project, which resulted in materials to spur utility-scale solar across rural America, NRECA believes this research project could result in a significant increase in the number of electric cooperatives incorporating distributed wind applications into their future resource planning.

While DOE has identified high technical potential totaling over 10 GW of distributed wind capacity on rural distribution grids, distributed wind deployment may be limited due to the following factors:

- Cost competition from other distributed and large-scale renewable technologies
- Incomplete understanding of the full spectrum of technology options
- Lack of documented Return On Investment (ROI) regarding distributed wind services
- Lack of in-house expertise

By standardizing business processes, developing feasible financing models and educating co-op personnel, the project aims to improve the cost-competitiveness of small-scale wind projects. The RADWIND project will include consideration distributed wind projects using small (< 100 kw), mid-size (100 kW<1 MW), and large (1 MW+) scale turbines, with projects of up to 10 MW of total output located on the distribution grid either in front of or behind the meter. These projects can be owned or under power purchase contracts by

¹ <https://www.cooperative.com/programs-services/bts/sunda-solar/Pages/default.aspx>

distribution or G&T cooperatives, through community ownership, or in partnerships with agricultural, commercial, and industrial consumer-members.

The tools and resources developed in the project will be made available to electric co-ops nationwide, as well as the broader utility industry.

The project is supported by DOE's Wind Energy Technologies Office, which aims to maximize stakeholder confidence in turbine performance and safety and improve project performance, while reducing installed cost to be competitive with retail electric rates and other forms of distributed generation.

Requirements and Benefits of the Advisory Role

In support of this research effort:

1. NRECA is seeking multiple distribution and G&T co-op partners who can provide feedback and guidance during this project, from beginning to end. There will be in-person meetings and teleconferences. Input will also be gathered from the distributed wind industry representatives and other stakeholders.
2. This project is a grant-funded effort from the Department of Energy. The costs incurred by cooperatives in attending meetings, providing input, etc. will form part of the cost share requirement for this award.
3. Expression of interest are requested to be sent to Michael Leitman at the contact information below, by **the end of February 2020**. NRECA can provide sample language for a letter of interest.
4. As part of disseminating more information about the project and to invite co-ops and other stakeholders to be part of the team, there will be a panel session on *Distributed Wind in Rural America* at the upcoming TechAdvantage in New Orleans. **The session is from 8-9 AM on Tuesday, March 3rd**. Interested cooperatives, including those willing to be part of the RADWIND Advisory Group, are encouraged to attend this session.

NRECA expects and hopes that cooperatives who participate directly in the RADWIND project will gain valuable experience on various aspects of distributed wind projects, interact with industry stakeholders, and help shape demonstration and deployment of distributed wind projects. In addition to the formal advisory group, the project seeks to build a community of electric cooperatives who are interested in learning more about distributed wind as a resource through conferences, webinars, and project materials.

Project Team

NRECA is the lead for the project team that consists of Pacific Northwest National Laboratory (PNNL), Hoss Consulting, and Mana Group LLC. The research is funded by the Department of Energy's Office of Energy Efficiency and Renewable Energy – Wind Energy Technologies Office – which aims to maximize stakeholder confidence in turbine performance and safety and improve project performance, while reducing installed cost in order to be competitive with retail electric rates and other forms of distributed generation.

Contact for More Information and How to Participate

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