

U.S. Department of Energy Competitiveness Improvement Project (CIP)

2022 Product Commercialization and Market Development Awardee: Bergey Windpower

Project dates: Dec. 27, 2022–Sept. 26, 2024

Project Overview

New Consumer Financing Options To Increase Adoption of Distributed Wind Energy Systems

In 2023, consumers will finance more than 80% of the residential solar energy systems they purchase, which they use as collateral (called "non-recourse loans"). Similar loans are not yet offered to fund distributed wind energy systems. To accelerate deployment of small wind systems, which power individual rural homes and farms, the United States will need to make consumer loans available at reasonable rates with modest downpayments and collateral requirements.

A team led by **Bergey Windpower Co.** is creating new consumer financing options to reduce or eliminate the upfront cash needed to buy distributed wind energy systems. This new financing structure would decrease purchase costs for small wind turbines produced by Bergey Windpower and possibly other manufacturers. Product financing is instrumental in growing wind power market share, clean energy manufacturing, and installation jobs while reducing greenhouse gas emissions. Bergey Windpower's previous Competitiveness Improvement Project (CIP) awards have led to the development of affordable, high-performance wind turbines, microgrids, and components.

Project Outcomes and Deliverable

The Bergey Windpower team will develop an innovative longterm, low-cost financing solution to support the installation of distributed wind energy systems for rural homes and farms. "Readily available consumer loans have been critical to rapid deployment of residential solar systems. Dealers and developers of small wind turbines must be able to offer similar options to grow sales and the share of clean energy in rural markets."

Mike Bergey, president & CEO, Bergey Windpower Co.

Project Approach

Bergey Windpower will develop a plan to establish its own customer financing affiliate capable of making non-recourse loans directly to consumers in selected states. Bergey Windpower will also seek to add its Bergey Excel 15 wind turbine to the eligible equipment lists of organizations offering financing for solar power systems.

Project Collaborators

Bergey Windpower will collaborate with finance organizations of solar energy and farm equipment.

Project Financial Information

Award Amount: \$150,000

Awardee Share: \$57,640

Total: \$207,640

Product Commercialization and Market Development Awards

One of nine types of CIP awards, Product Commercialization and Market Development projects focus on the development of markets for new products or existing products into new markets. This topic area helps address cost barriers to commercialization and rapid, large-scale deployment of improved distributed wind energy technology.

About the Competitiveness Improvement Project

The U.S. Department of Energy's (DOE's) CIP supports U.S. leadership in distributed wind technologies. Managed by NREL on behalf of DOE's Wind Energy Technologies Office, CIP supports innovation to advance wind energy as a low-cost, distributed generation technology option.



A Bergey Excel 15 wind turbine installed at a residence in Avon, Connecticut. *Photo from Mike Bergey, Bergey Windpower*



A Bergey Excel 15 turbine on a 100-foot self-supporting lattice tower at a rural business in Juniata, Nebraska. *Photo from Mike Bergey, Bergey Windpower*

"Bergey's CIP projects keep pushing down the cost of wind energy. Last year, the company doubled the annual energy production of its Excel 15 wind turbine, cutting the levelized cost of energy by more than 50%. This new project promises to deliver more immediate economic benefits to consumers, making it more affordable to buy a system in the first place."

Heidi Tinnesand, technical monitor, National Renewable Energy

More Information

Visit NREL's website at www.nrel.gov/wind/ competitiveness-improvement-project.html

Bergey Windpower SUB-2023-10195



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