U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Distributed Wind Competitiveness Improvement Project

The Competitiveness Improvement Project (CIP) is a periodic solicitation through the U.S. Department of Energy (DOE) and its National Renewable Energy Laboratory (NREL). Manufacturers of small and medium wind turbines are awarded cost-shared grants via a competitive process to optimize their designs, develop advanced manufacturing processes, and perform turbine testing. The goals of the CIP are to make wind energy cost competitive with other distributed generation technology and increase the number of wind turbine designs certified to national testing standards. *Photo from Northern Power Systems, NREL 36193*

Increased Energy Production

CIP *system optimization* awardee Northern Power Systems of Barre, Vermont, achieved a 15% energy production increase for the NPS-100 100-kilowatt turbine by increasing blade length and improving blade aerodynamics.

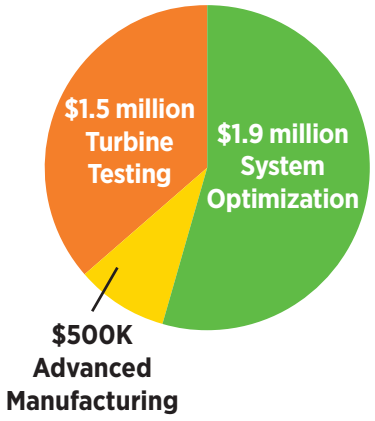
Reduced Hardware Costs

CIP *advanced manufacturing* awardee Pika Energy of Westbrook, Maine, reduced blade costs by approximately 90% by developing an innovative tooling and cooling strategy to produce blades using injection-molded plastic.

Certified Turbine Performance & Safety

Four CIP *turbine certification* awardees are testing their turbine designs to national standards. Turbine certification requires third-party verified testing for safety, function, performance, and durability to national standards.

As of May 2016, DOE and NREL awarded 16 subcontracts to nine manufacturers, totaling $3.9 million of investment across three topic areas



Endurance Windpower (Seattle, WA)

Northern Power Systems (Barre, VT)

Bergey Windpower (Norman, OK)

Pika Energy (Westbrook, ME)

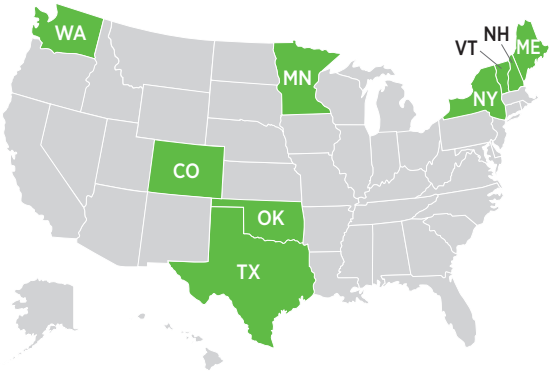
Primus Windpower (Lakewood, CO)

Ventera Wind (Duluth, MN)

Urban Green Energy (NYC)

Intergrid (Temple, NH)

Wetzel Engineering (Round Rock, TX)



Distributed wind systems are installed in remote communities or at residential, commercial, and industrial sites to supply all or a portion of onsite or local energy consumption. *Photo from Pika Energy, NREL 33943*

Why the U.S. Department of Energy Invests in the Competitiveness Improvement Project

The CIP encourages distributed wind system manufacturers to explore their technological potential and profit from its commercialization. The U.S. Department of Energy invests in the distributed wind CIP to support next generation technology development, implementation of advanced manufacturing processes, and wind turbine testing for certification to help provide Americans and global markets with lower-cost, reliable distributed wind systems for onsite power generation.

"The CIP program is helping us and other distributed wind original equipment manufacturers be more competitive and create more manufacturing jobs here in the United States."

Michael Bergey, president, Bergey Windpower

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For more information, visit: wind.energy.gov

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