

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

2024 Small Turbine Certification and/or Listing Awardee: NPS Solutions LLC

Project dates: Dec. 19, 2024–Sept. 18, 2026

Project Overview

Turbine Certification Brings Innovation to Market

Wind turbine certification to ANSI/ACP 101-1 assures quality, helps bring innovation to market, and drives down the cost of energy. Certification is also a requirement for wind turbine manufacturers to take advantage of U.S. tax incentives. However, certification costs can be difficult or even prohibitive for many manufacturers of small- to medium-sized wind turbines to shoulder independently.

With the help of this 2025 CIP award, NPS Solutions LLC (NPS, <https://www.nps100.com/wp>) plans to complete ANSI/ACP 101-1 wind turbine certification and UL 6141 electrical safety listing on the NPS 100C wind turbine platform. This builds on NPS' past CIP awards focused on component improvement, design evaluation, blade testing, and inverter listing—as well as prior certification and field evaluation efforts to obtain a fully compliant product for the U.S. market.

“The technical and financial support provided through CIP is vital for smaller wind turbine manufacturers like NPS to obtain and maintain electrical and turbine-level certifications, which help to ensure the safety, quality, and performance of our products.”

Chris Connor, Principal Investigator, NPS



Obtaining and maintaining electrical and turbine-level certifications helps ensure the safety, quality, and performance of small wind turbines like the NPS 100C (shown here). *Photo from Chris Connor, NPS*

Project Outcomes and Deliverable

Through this project, NPS will complete ANSI/ACP 101-1 wind turbine certification and UL 6141 electrical safety listing on the NPS 100C wind turbine platform.

Project Approach

NPS will pursue ANSI/ACP 101-1 certification for its NPS 100C wind turbine, which will be one of the first wind turbines to achieve this certification. NPS will also seek UL 6141 electrical safety listing for the NPS 100C wind turbine, which should reduce cost and project planning/permitting time.

To complete its goals, NPS will collaborate with an accredited certification body and an approved nationally recognized testing laboratory.

Project Collaborators

Current and future project partners include:

- *Small Wind Certification Council* (<https://smallwindcertification.org>)—Certification body
- *RE Innovations LLC* (<https://reinnovationsllc.com>)—Testing oversight and electrical certification consulting
- *TÜV Rheinland* (<https://www.tuv.com/usa/en>)—Nationally recognized testing laboratory and electrical certification body.

Project Financial Information

Award Amount: \$295,979

Awardee Share: \$109,471

Total: \$405,450

“CIP helps ensure that distributed energy consumers have options that are certified for performance and quality. At the same time, CIP supports the certification and listing efforts of companies like NPS so that a wide range of proven wind technology solutions can be brought to market.”

Brent Summerville, Technical Monitor, National Renewable Energy Laboratory (NREL)

Small Turbine Certification and/or Listing Award

One of 10 types of CIP awards, Small Turbine Certification and/or Listing projects apply to turbines up to 150 kW peak power that are seeking certification to ANSI/ACP 101-1-2021, *The Small Wind Turbine Standard*. Projects might also include work to list the turbine assembly or component(s) to applicable electrical safety standards.

About the Competitiveness Improvement Project

The U.S. Department of Energy’s (DOE’s) CIP awards cost-shared subcontracts and technical support to manufacturers of small and medium-sized wind turbines. Managed by NREL on behalf of DOE’s Wind Energy Technologies Office, CIP helps advance wind energy as a cost-effective, distributed generation technology option.



Through its 2024 CIP award, NPS will complete ANSI/ACP 101-1 wind turbine certification and UL 6141 electrical safety listing on the NPS 100C wind turbine platform (shown here). *Photo from Chris Connor, NPS*

More Information

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

NPS Solutions SUB-2025-10111