THE UNIVERSITY OF NEW MEXICO

To: Distribution List

From: Faculty Research Development Office (FRDO)
Office of the Vice President for Research

Subject: Limited Competition: DOE/EERE: Large Wind Turbine Materials and Manufacturing (DE-FOA-0002960)

Date: February 23, 2023

The Large Wind Turbine Materials and Manufacturing funding opportunity is being issued by the Office of Energy Efficiency and Renewable Energy (EERE) on behalf of the Advanced Materials and Manufacturing Technologies Office (AMMTO). The goals of this opportunity are to:

- Further develop broad, foundational, manufacturing platform technologies and address gaps and barriers that are currently limiting use of composite materials in clean energy and decarbonization-related applications with wind energy applications as the primary FOA focus;
- Enable additive manufacturing processes for rapid prototyping, tooling, fabrication, and testing of large wind blades;
- Apply additive manufacturing to non-blade wind turbine components; and
- Mature nascent technologies, processes, and methods that improve one or more aspects of advanced composites manufacturing, including automation, and sustainability (including recycling) of these materials.

This FOA focuses on the application of composite materials and additive manufacturing (AM) to offshore wind energy systems; however, AMMTO recognizes and encourages the broad applicability of solutions developed under this FOA to other important clean energy and decarbonization areas such as transportation, compressed gas storage, recycling, and sustainability. AMMTO is committed to pushing the frontiers of materials and manufacturing science and engineering, catalyzing clean energy jobs through research, development, demonstration, and deployment (RDD&D), and ensuring environmental justice and inclusion of underserved communities.

EERE is requesting applications in three topic areas:

1. **Large Wind Blade Additive Manufacturing:** This topic seeks projects that build on polymer-based AM research to date in support of more cost-effective large wind turbine blades.
2. **Additive Manufacturing of Non-Blade Wind Turbine Components:** This topic seeks innovative additive manufacturing solutions for lower-cost, higher-performance non-blade wind turbine system components.
3. **Large Wind Blades – Advanced Manufacturing, Materials, and Sustainability** with four sub-areas of interest:

Area of Interest 1—Automation: This AOI builds on previous work on automated blade trimming and finishing by extending automation to any relevant wind blade manufacturing process.
Area of Interest 2—Digitalization: This AOI seeks projects that address industry-relevant simulation, machine learning, and digital twin opportunities for enhancing manufacturing and reducing LCOE.
Area of Interest 3—Sustainability: This AOI seeks projects that address remaining recycling and materials challenges to wind blade sustainability, particularly those specific to OSW deployments such as impacts (if any) of exposure to harsh OSW marine environments on composites recycling processes now being piloted or that are in early stages of commercialization.
Area of Interest 4—Modular Blade Construction/Joining: This AOI seeks projects that address joining wind blade segments which could enable modular and onsite construction, as well as easier blade customization.

EERE expects to make a total of approximately $30,000,000 ($30M) of federal funding available for new awards under this FOA, subject to the availability of appropriated funds. EERE anticipates making approximately 10 to 30 awards under this FOA. EERE may issue one, multiple, or no awards. Individual awards may vary between $0.5M and $3M. **There is a 20% cost share requirement for research and development projects.** The cost share must come from non-federal sources unless otherwise allowed by law. More information can be found in the solicitation: https://eere-exchange.energy.gov/FileContent.aspx?FileID=ceacd9f6-d733-403e-8fc7-4f640bfa1137. The deadline for submitting mandatory concept papers is **March 23, 2023.** Full applications are due **May 9, 2023.**

This is a limited competition. **Each institution is limited to ONE concept paper per topic area as lead.** If you are interested in submitting to this program, please submit a statement of interest with a tentative project title, a brief project description, and an acknowledgment that you have a plan to meet the 20% cost share requirement by **NOON**, **March 3, 2023** via UNM's **InfoReady Review portal**. ****Because of the short turnaround time, this limited competition will be conducted on a first-come, first-served basis. This means that the first three SOIs we receive (one per topic area) will be given the three UNM slots.****

Should you have any questions please feel free to contact us at limited@unm.edu.

If you are affiliated with HSC, please contact HSC Limited Competition at HSC-LimitedComps@salud.unm.edu for more information.