# TPI Composites Partners with University of Maine and Oak Ridge National Laboratory to Leverage One of the World’s Largest Polymer 3D Printers for Wind Turbine Tooling

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SCOTTSDALE, Ariz., May 07, 2024 (GLOBE NEWSWIRE) -- TPI Composites, Inc., (TPI) (Nasdaq: TPIC) today announced a groundbreaking initiative in partnership with the University of Maine Advanced Structures and Composites Center (ASCC) and Oak Ridge National Laboratory to utilize one of the world's largest 3D printers for the production of wind turbine tooling. The goal of this project is to understand how new technologies can provide faster, lower-cost precision manufacturing of large modular wind blade tooling.

ASCC’s Composite Center’s Ingersoll MasterPrint®, the world’s largest polymer 3D printer can print modular wind blade tooling at 500lb/hour, with segments up to 18.3m long x 6.7m wide x 3.0m high. With a 5-axis machining head, the printer can achieve 5 mil precision, allowing tooling segments to be joined, to maintain vacuum integrity, and to provide the dimensional accuracy demanded in wind blade manufacturing. As part of the project, the tooling will also incorporate 3D-printed heating elements using coextruded resistive wire to achieve uniform mold temperatures within 5°C and heating rates of 0.5°C per minute.

As an important part of this program, TPI will utilize the section of full-scale tooling to fabricate actual composite components from the printed tooling assembly, which will be composed of assembled modules. Demonstration of this technology will enable lower cost transportation and rapid assembly of multi-megawatt scale wind blade molding systems anywhere on the globe.

"TPI Composites has a long-standing commitment to developing cutting-edge solutions for the wind energy industry," said Bill Siwek, President and CEO of TPI Composites. "By leveraging 3D printing technology, we are looking at ways to streamline our tooling process and pave the way for more efficient and cost-effective wind blade production."

ASCC’s Executive Director, Habib Dagher said “We have partnered with over 500 companies worldwide to drive advances in composite structures for the marine, defense, housing, renewable energy, and transportation industries. The 6.7m width of our Ingersoll MasterPrint® machine exceeds the chord width of modern wind blades, enabling us to conduct full-scale R&D applying Large Scale Additive Manufacturing to wind blade production.”

The tooling will be 100% recyclable and may reduce large blade product development cycles and tooling costs by as much as 50%. 3D printing offers a more environmentally friendly approach to tooling fabrication, minimizing resource consumption and overall production footprint. The partnership with the ASCC and Oak Ridge National Laboratory demonstrates the possibilities of manufacturing next-generation wind turbine blades with

improved performance and affordability, ultimately contributing to a cleaner and more sustainable future.

**About TPI Composites, Inc.**

TPI Composites, Inc. is a global company focused on innovative and sustainable solutions to decarbonize and electrify the world. TPI delivers high-quality, cost-effective composite solutions through long-term relationships with leading OEMs in the wind and automotive markets. TPI is headquartered in Scottsdale, Arizona and operates factories in the U.S., Mexico, Türkiye and India. TPI operates additional engineering development centers in Denmark and Germany and global service training centers in the U.S. and Spain.

**About the University of Maine Advanced Structures and Composites Center**

The University of Maine Advanced Structures and Composites Center (ASCC) is a world-leading, interdisciplinary center for research, education, and economic development encompassing materials science, advanced manufacturing, and engineering of composites and structures. Since its founding in 1996 with support from the National Science Foundation, the ASCC has financially sponsored more than 2,600 students, received 120 patents, created 14 spinoff companies, and been honored with more than 40 national and international awards for research excellence.

**Investor Relations**
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Source: TPI Composites, Inc.