

# MANUFACTURING

Production • Fabrication • Components • Supply Chain • Materials • Tooling • Machinery

## DOE FUNDS RESEARCH OF LARGE TURBINE BLADE DEVELOPMENT

The U.S. Department of Energy recently announced \$1.8 million in funding for the development of larger wind turbine blades that will help capture more power from wind resources and increase the efficiency of wind energy systems. This funding will support the research and development of technological innovations to improve the manufacturing, transportation, and assembly of wind turbine blades longer than 60 meters. Larger blades that can be installed on wind turbines with taller hub heights will help facilitate the deployment of the next generation of multi-megawatt wind turbines.

In December 2014, the Energy Department's National Renewable Energy Laboratory released maps that illustrate the potential for new wind energy resources that developers could unlock using next-generation wind turbine technologies. These taller turbines accompanied by longer blades have the potential to harness wind power resources from more than one million additional square miles of the United States, roughly triple the amount of developable land that was accessible with turbine technology in 2008. This funding opportunity will help mitigate the trans-

portation and logistical constraints associated with larger turbine blades, helping spur wind energy development in areas of the country where wind resources can be accessed at greater heights, especially in the Southeast.

This effort to develop larger blades complements the Energy Department's recent award to two companies that are using innovative construction and installation processes to cost-effectively manufacture taller wind turbine towers. It's part of the Department's broader Clean Energy Manufacturing Initiative, which aims to increase American competitiveness in the production of clean energy products and boost U.S. manufacturing competitiveness across the board by increasing energy productivity. Continued innovation in wind energy technologies and manufacturing will help push the boundaries of renewable energy deployment further than ever before. As quantified in the Energy Department's new Wind Vision Report, advancing wind power will help the country achieve the economic, environmental, and social benefits of a robust wind energy future.

— Source: U.S. Department of Energy



Photo: Portland General Electric

## 3A COMPOSITES EXPANDS NEW FOAM CORE EXTRUSION LINE IN THE U.S.

Brisk demand and the launch of the new product AIREX T10 stand behind 3A Composites' decision to invest in a new extrusion line in the U.S. to increase the capacity of its extruded AIREX core materials and spread their production footprint globally.

The company reports that it will further expand the production capacities of its AIREX PET core materials. In addition to the ongoing expansion of the extrusion capacities in Switzerland, the company is now installing a new extrusion line at its U.S. production location, which is to be operational in Q4 2015.

Consistent high demand and the planned growth of current customers as well as new markets and applications are behind the growth plans, which are further fuelled by the introduction of their new product AIREX T10, which

is expected to accelerate the growth of extruded PET-based core materials versus other polymer cores. Growth for extruded AIREX core materials is identified in the marine, aerospace and wind energy and markets as well as in the transportation and automotive industry where composites are increasingly used.

"Our new global production set-up with significantly increased capacities will form the basis for the successful growth of our business and our customer base," Roman Thomassin, CEO of 3A Composites Core Materials, said. "The state-of-the-art production equipment combined with the industrialized direct extrusion technology GEN2 will allow us to offer high-quality PET-based core material solutions at the cost effectiveness and supply flexibility that our markets demand from us, globally."



Courtesy: 3A Composites

Bottle-grade PET-based core materials have been increasingly used in myriad applications. Besides being recyclable and recycled, their growth is mainly attributed to the excellent price/performance ratio in the end application and the simplicity of the material's application. The material is produced in a continuous extrusion process, which assures a consistent, high quality while offering a very high level of automation.

— Source: 3A Composites



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