



U.S. Department of Energy Categorical Exclusion Determination Form



Program or Field Office: Office of Energy Efficiency and Renewable Energy:
Phase III Xlerator Program

Funding Opportunity Number DE-FOA-0000397

Applicant Name: WebCore Technologies, LLC

Location: Miamisburg, OH

Project Title Reducing Cost and Weight of Wind Turbine Blades Using Engineered Core

Proposed Action or Project Description American Recovery and Reinvestment Act:

As more wind turbines are being built, supply of core materials (balsa and PVC foam) is experiencing extreme demand pressure. WebCore has proven that TYCOR exceeds balsa and PVC in performance at a lower cost, and the Phase III program addresses the final technical and manufacturing hurdles preventing full commercialization. Wind turbine blade suppliers need cost-effective advanced composite materials to meet the growing challenges of larger blades and higher volumes. As global demand for composite wind turbine blades increased through 2008, blade suppliers experienced supply shortages and long lead times for sufficient core materials. Reliance on balsa wood and PVC foam as core materials has at times created a bottleneck in the blade production process. In the absence of new core materials, this bottleneck will only grow more severe as the number of blades needed to meet annual turbine production forecasts expands significantly. WebCore has successfully demonstrated that its innovative engineered core TYCOR is an enabling technology that can significantly decrease the cost of energy by increasing energy capture, reducing operations and maintenance costs, and reducing capital cost. In fact, the present Phase II program has been so successful that WebCore has virtually eliminated the technical risk for wind turbine blade customers to adapt to this technology by proving the TYCOR value proposition, achieving GL certification, deploying in multiple locations, and providing reliable delivery for over two years on time with high quality TYCOR product. In the Phase III program, WebCore will utilize DOE funding to overcome the final marketing and manufacturing hurdles limiting profitable growth and full-scale deployment as well as to extend the current TYCOR product offering into developing blade scenarios. The use of TYCOR in the manufacture of turbine blades will reduce the cost of wind energy for all consumers. WebCore believes that the unique fiber architecture of engineered composite core materials will allow a quick and convenient transition to new core materials. Based on customer experience in other applications, the WebCore enabling technologies have offered up to two-thirds process cost savings. Since WebCore's FRC core materials utilize low-cost, low-density foam, many applications realize nearly 50% material cost savings when compared to balsa and PVC. This also reduces the dependence on the decreasing international supply of balsa. This savings in the manufacture of turbine blades will lower the capital and operating costs associated with wind energy. The technical objectives of this Phase III project will be those necessary to complete the full-scale deployment of TYCOR into the wind energy market. These objectives are: complete scale-up for high-volume manufacturing and operational capacity; continue product development for maintaining value proposition advantage and addressing emerging performance needs; build capacity to support new and existing customers; and extend the TYCOR value proposition into emerging wind turbine applications.

Conditions: None

Categorical Exclusion(s) Applied: B3.6, B5.1



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*-For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, see Subpart D of 10 CFR 10 21

This action would not: threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders; require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities, but may include such categorically excluded facilities; disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; or adversely affect environmentally sensitive resources (including but not limited to those listed in paragraph B.(4)) of Appendix B to Subpart D of 10 CFR 1021). Furthermore, there are no extraordinary circumstances related to this action that may affect the significance of the environmental effects of the action; this action is not "connected" to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impacts, and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

Based on my review of information conveyed to me and in my possession (or attached) concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

ORO NEPA Compliance Officer

James L. Elmore

Date Determined:

9/14/2010