



# 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: Native American Technologies Company

Location: Golden, CO

Project Title Development of Nacelle Assembly Lifting System

Proposed Action or Project Description American Recovery and Reinvestment Act:

Native American Technologies has proposed a Phase III project with a goal to demonstrate the fabrication, on-site, and the self-erection of a wind energy system. This will be the first proof-of-concept for the LiftCap with an actual turbine, rotor, blades, and nacelle on-board for the erection process. The nacelle and rotor, including the blades, are subjected to significant wind loading as the tower is self-erecting. Both computer simulation and testing with dummy loads will provide significant confidence that the system will perform this task. However, the turbine is a dynamic load, capable of being rotated around it's bearing axis so that the nacelle can point into the wind, but also subjected to turbulence and wind loading as winds may shift. This is a crucial step in the process of research and development designed to reduce the risk to a level where investment can be attracted. This will include the research and development necessary to take the new welding process developed with ARRA funding and creating new welding procedures with testing and verification (American Welding Society standard testing guidelines will be used). Also included will be the research and development necessary to verify that a neural network based real-time weld monitoring system can be used for weld quality control. A secondary goal is to complete the IEC Type Certification for the tower, by operating a turbine on a full-scale tower with instrumentation to document and verify that the finally erected tower is reacting to wind and turbine loading in accordance with the computer aided design (CAD) model and as predicted by the finite element analysis (FEA) modeling of the tower in operational situations.

Conditions: None

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

\*-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