



U.S. Department of Energy

Categorical Exclusion Determination Form

Program or Field Office: Advanced Research Projects Agency - Energy (ARPA-E)

Project Title: 25A1786 - Scaling and Commercialization of Algae Harvesting Technologies

Location: *- Multiple States - Ohio, Indiana, Alabama, California

Proposed Action or Project Description:

American Recovery and Reinvestment Act:

Univenture / Algaeventure Systems (AVS) has demonstrated an innovative technology for removing the water from suspended algae that dramatically reduces energy consumption by utilizing surface physics and capillary action to more effectively harvest, dewater, and dry algae (HDD). The HDD offers the potential to transform the economics of algae-based biofuel production, removing the major barrier to large-scale commercialization of this renewable alternative fuel source. A lab-scale prototype system has demonstrated 95% energy reduction in comparison to conventional centrifuge methods. Based on surface physics of materials, it uses several interacting web surfaces to continually extract algae from very low algae-water concentrations and dry it to less than 5% moisture content. The development approach is to scale the lab prototype system, using it as a testing platform and in parallel mature core component technologies including web materials and process controls. This approach provides an efficient and low-cost approach to parallel development and testing of new materials and devices to accelerate technology development. Production scale HDD systems will be designed, fabricated and tested on mobile platforms in both salt water and fresh water environments.

Categorical Exclusion(s) Applied:

X - B3.6 Siting/construction/operation/decommissioning of facilities for bench-scale research, conventional laboratory operations, small-scale research and development and pilot projects

*-For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, see Subpart D of 10 CFR 10 21 [Click Here](#)

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.

NEPA Compliance Officer: /s/ William J. Bierbower Digitally signed by William J. Bierbower
DN: cn=William J. Bierbower, o, ou,
email=william.bierbower@hq.doe.gov, c=US
Date: 2010.01.14 12:56:09 -05'00' Date Determined: 01/14/2010

Comments:

Webmaster:

