

U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION



RECIPIENT: Plug Power Inc.

STATE: NY

PROJECT TITLE : Fully Unitized Fuel Cell Manufactured by a Continuous Process

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002446	DE-EE0009614	GFO-0009614-001	

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

- | | |
|---|--|
| A9 Information gathering, analysis, and dissemination | Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.) |
| B3.6 Small-scale research and development, laboratory operations, and pilot projects | Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment. |

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Plug Power, Inc. to design, fabricate, and test fuel cells with a novel bipolar plate (BPP) assembly compatible with continuous, roll-to-roll manufacturing methods. The resulting fuel cells would be intended for heavy-duty applications.

Award activities would be completed over three budget periods (BPs). Award activities would include data analysis, computer modeling, design, preliminary engineering, device fabrication, and laboratory research and experimentation. Early activities (BP1) would focus on design, modeling, material selection, and evaluation of fuel cell components and manufacturing processes to determine feasibility of success for later fabrication and testing activities (BP2-3). Fabrication and device testing would start with a single-cell prototype (BP2) and progress to testing of a small-stack (i.e. multi-cell) assembly (BP3). Other award activities would include non-laboratory research, analysis, meetings with consultants, and writing of reports to prepare the resulting fuel cell design and prerequisite manufacturing process for commercialization. All design and fabrication activities would occur at the Plug Power facility (Rochester, NY). Laboratory research and testing activities would occur at Plug Power, the University of Tennessee – Knoxville (UTK) (Knoxville, TN), and Oak Ridge National Laboratory (ORNL) (Oak Ridge, TN).

The Plug Power, UTK, and ORNL facilities are preexisting purpose-built facilities for the type of work to be conducted for this project. Modifications would not be required for any facility. Award activities would involve the use and handling of hazardous materials and equipment, including industrial solvents, metals, catalyst ink, and machinery with moving parts. All such handling would occur within the facilities and would follow existing policies and procedures. Handling and disposal of hazardous materials would be done in accordance with existing federal, state, and local laws and regulations. Existing corporate health, safety, and environmental policies and procedures consistent with industry-standard best practices would be followed at all facilities, including: employee training, proper personal protective equipment (PPE), engineering controls, monitoring, and internal assessments.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Hydrogen and Fuel Cell Technologies Office (HFTO)

This NEPA determination does not require a tailored NEPA Provision.

NEPA review completed by Dan Cahill, 11/8/2021.

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

 Electronically
Signed By: Kristin Kerwin

NEPA Compliance Officer

Date: 11/9/2021

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
 Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____