

PMC-ND
(1.08.09.13)

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



RECIPIENT: Arizona State University

STATE: AZ

PROJECT TITLE : Mixed Ionic Electronic Conducting Quaternary Perovskites: Materials by Design for Solar Thermochemical Hydrogen

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001647	DE-EE0008090	GFO-0008090-001	GO8090

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), 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.)
--	--

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Arizona State University to discover new materials through fundamental quantum mechanics investigations (computational and computer modeling methods) for improved solar thermochemical hydrogen systems. Only Budget Period 1 (BP1) is being negotiated at this time so this NEPA review is for BP1 activities only. Additional NEPA review will be required if DOE proposes to continue funding the project into subsequent budget periods.

The proposed project activities include model development, computational calculations, and analysis on the thermodynamics of complex metal oxides that have mixed ionic electronic conductivity. Work would primarily take place at Arizona State University in Tempe, Arizona. The project partner is Princeton University in Princeton, New Jersey.

The project is limited exclusively to intellectual, academic, or analytical activities. The proposed project activities include model development, computational calculations, and analysis on the thermodynamics of complex metal oxides that have mixed ionic electronic conductivity. No modifications to buildings or new permits, additional licenses and/or authorizations are expected to be required as a result of the proposed project.

Based on the review of the proposal, DOE has determined the following task(s) Budget Period 1 fit within the class of action(s) selected above. DOE has also determined that: (1) there are no extraordinary circumstances (as defined by 10 CFR 1021.410(2)) related to the proposal that may affect the significance of the environmental effects of the proposal; (2) the proposal has not been segmented to meet the definition of a categorical exclusion; and (3) the proposal is not connected to other actions with potentially significant impacts, related to other proposals with cumulatively significant actions, or an improper interim action. Budget Period 1 is categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Budget Period 2

This restriction does not preclude you from:

All tasks and subtasks associated with Budget Period 1

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

Fuel Cell Technologies Office

This NEPA determination requires a tailored NEPA provision.

Review completed by Chris Rowe on 7/17/2017

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:



Casey Strickland

Date:

7/17/2017

NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

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

Field Office Manager's Signature:

Field Office Manager

Date: