

PMC-EF2a

(20402)

**U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION**



RECIPIENT: General Motors LLC

STATE: MI

PROJECT TITLE : Light Duty Fuel Cell Demonstration Data

Funding Opportunity Announcement Number
DE-FOA-0000625

Procurement Instrument Number
DE-EE0005969

NEPA Control Number
CID Number
EE5969

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.)

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.

Rational for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to General Motors, LLC (GM) to validate light-duty fuel cell electric vehicle (FCEV) performance and durability by collecting and analyzing dynamometer fuel cell system data and real-world vehicle performance data. Performance and reliability data would be submitted to the National Renewable Energy Laboratory's Hydrogen Secure Data Center for analysis and would enable the DOE to track the status of the technical progress of the fuel cell systems and to provide feedback to GM's research and development efforts. The proposed data collection and analysis project would occur over four years and two phases.

In Phase 1, data would be collected from five of GM's baseline FCEV, the GMT101X, which would be equipped with GM's Gen 1 commercial-design Fuel Cell Stacks and Fuel Cell Systems (FCS). The vehicles would be subject to real-world operation in the Los Angeles, California metro area on public and private roads and would be operated by GM fleet customers, employees, and contractors in a typical day-to-day operation plan under a variety of driving conditions, terrain, and temperatures. Vehicle emissions are limited to pure water vapor, oxygen, and trace amounts of hydrogen gas. Trace amounts of hydrogen gas may be released during refueling events; however this amount is considered normal, controlled, and de minimus.

In Phase 2, dynamometer fuel cell system data would be collected and analyzed from GM's Gen 1 and Gen 2 commercial-design Fuel Cell Stacks and Fuel Cell Systems which would be tested under indoor simulated operating environments at GM test laboratories at their CET Headquarters Complex located at 895 Joslyn Road in Pontiac, Michigan.

GM completed an NEPA R&D questionnaire addressing their protocols for laboratory and facility safety, risk management and waste disposal. The laboratories and facilities comply with standard safety procedures and all processes and procedures are monitored by Environmental Health and Safety staff and proper safety equipment is in place. The laboratories and facilities have all applicable permits in place, and would not need additional permits for the proposed activities. All handling and disposal of gases, chemicals, wastes and liquid effluents comply with appropriate regulations.

Based on review of the project information and above analysis, DOE has determined the data collection and analysis activities under real-world operating conditions and simulated operating conditions in a laboratory would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined the proposed

project is consistent with the actions contained in DOE categorical exclusions A9 "information gathering, analysis, and dissemination," and B3.6 "small-scale research and development, laboratory operations and pilot projects," and is categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

DOE funding: ~\$1,999,301
Cost Share: ~\$1,999,302
Total Project Cost: ~\$3,998,603

Obadiah Broughton 2/21/2013

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

Electronically
Signed By: Kristin Kerwin
NEPA Compliance Officer

Date: 2/21/2013

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: _____