PMC-EF2a
(2.04.02)

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

RECIPIENT: Sprint Communications Company L.P. **STATE:** VA

PROJECT TITLE: Demonstrating Economic and Operational Viability of 72-Hour Hydrogen PEM Fuel Cell

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-PS36-08GO98009	DE-EE0000486	GFO-0000486-003	EE486

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:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

Sprint Communications Company L.P. would use DOE funding to demonstrate the economic and operational viability of utilizing fuel cells to provide backup power for mission-critical communication sites that require 72-hours of autonomous operation.

Sprint would deliver, install, and operate 260 new hydrogen PEM fuel cell systems, 330 on site refillable medium pressure hydrogen storage systems (in support of 260 new sites and 70 existing sites), and provide periodic performance reports from the operating systems. The systems would be either 5kW or 10kW systems.
This project consists of the following tasks:
1. Configure 72-Hour Hydrogen Fuel Storage Options ["generic" (typical) Hydrogen Fuel Cell (HFC) deployment scenarios]
2. Address National Hydrogen Permitting Barriers to 72-Hour Fuel Storage Configurations
3. Define System Monitoring Requirements and Last Mile Re-Fueling Strategies
4. Identify Exact Site Locations and Local Siting & Permitting Barriers to Deployment
5. Procure, Install and Commission Fuel Cell Systems into Operation
6. Collect Fuel Cell System Data
7. Analyze Data, Produce Project Reports and Share Best Practices with DOE

Tasks 1 through 4 and Task 7 of this project were previously approved by GFO-10-071 on January 19, 2010 with a CX A9. Task 5 and 6 for the first 20 specific sites were approved by GFO-0000486-002 on April 19, 2011 with a CX B5.1. This NEPA determination is for the remaining 310 fuel cell installation sites with the understanding that all remaining sites that may be selected would be nearly identical and would have no environmental concerns beyond those already addressed in the determination for the first 20 sites (GFO-0000486-002). As part of the regulatory requirements for permitting by the Federal Communications Commission (FCC), all project sites have had a NEPA Land Use Screening Checklist completed pursuant to 47 CFR, Part 1, Subpart 1, Section 1.1307 (a) and (b) prior to the original permitting of the sites. Sprint agrees that if a particular site has additional concerns not already covered, they would either choose a different site or submit site specific information to the DOE for a determination specific to that site.

The following will apply to all site locations:
* Installations will occur at previously disturbed cell tower sites;
* Fuel Cells are "zero-emissions" devices that will result in no air quality deterioration;
* When operating, the Fuel Cells will generate noise levels not in excess of applicable local, county and state noise

limitations. Noise associated with the operation of the hydrogen fuel cells will be abated by enclosing equipment in a sound attenuated structure;
* Hydrogen will be delivered by truck and handled by trained professionals; expected deliveries will be intermittent, so impacts to traffic will be negligible;
* Sites are all fenced and locked. Fuel cell equipment and hydrogen storage is integrated into locked metal outdoor enclosures.
*Sprint has a FCC license in place for their towers and they are both FAA and EPA compliant.

Each site will acquire the following permits/approvals prior to construction:
* Construction/Building Permits
*Plumbing Permits
* Electrical Permits
*Mechanical Permits
* International Fire Code (IFC)
* National Fire Protection Association (NFPA)

Recipient commits to the following actions for all sites:
*Meet with local officials on compliance with NFPA and IFC code requirements;
* The local Authority Having Jurisdiction (AHJ) will review application for installation and assign permit, if needed;
* All required permits and processes will be undertaken and completed prior to the commencement of the proposed installation;
* No hazardous waste will be generated or disposed of as part of this project;
*All personnel will be trained and certified by the equipment manufacturer on their recommended installation procedures.

Based on the information discussed above and the supporting documentation submitted to DOE, this project's impacts to the human and natural environment can be deemed less than significant and this project qualifies for a CX B5.1 "actions to conserve energy".

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Insert the following language in the award:

You are required to:
If a potential fuel cell installation site has environmental concerns that have not been adequately addressed in this NEPA determination or the NEPA determination for the first 20 sites (GFO-0000486-002), then the recipient will either a) choose a different site without such concerns, or b) submit to DOE an Environmental Checklist and supplemental questionnaire specific to that site that addresses those specific concerns, per the normal NEPA determination process, and restrict any action at that site until a determination is made by DOE.

Note to Specialist :

EF2a prepared by Casey Strickland

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 5/11/2011
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

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