PMC-EF2n

(2.04.02)

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



RECIPIENT: Jadoo Power Systems, Inc.

STATE: CA

PROJECT TITLE: Recovery Act: Jadoo Power Fuel Cell Demonstration: An Efficacy demonstration of an integrated solid

oxide fuel power system over a two year period.

Funding Opportunity Announcement Number DE-PS36-08GO98009 Procurement Instrument Number
DE-EE0000479

NEPA Control Number CID Number

GFO-10-099

FE479

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:

B3.6 Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

## Rational for determination:

Jadoo's objective for this project is to develop and demonstrate their specialized integrated solid oxide fuel mobile power system. They will purchase two portable 1000 watt solid oxide fuel cell generators (SOFC) from Delphi Automotive, develop and demonstrate an electromechanical liquid propane fuel interface, deploy the units for off-grid demonstrations, and collect/report data on the overall performance of the units.

Development and fabrication of the SOFC units will take place at Jadoo's facilities in Folsom, California and at two of Delphi's facilities in Brighton, New York and in Fenton, Michigan. An R&D and facility questionnaire has been filled out for all three locations. The questionnaires thoroughly address Jadoo's and Delphi's safety, waste stream and hazardous materials handling protocols. Additional fabrication and testing of the SOFC generator technology will occur at DOE's National Renewable Energy Laboratories.

The SOFCs being fabricated will be small portable generators that produce hydrogen from reformed propane gas. The propane gas used will be contained in 20 pound tanks, similar to BBQ tanks, and will have LPG storage certification for each demonstration site.

The first series of demonstrations will be conducted at various NASCAR race sites across the United States for approximately nine months. The portable SOFC power generators will be used to provide power for a range of applications, including lighting, cameras, and communications equipment. Per Jadoo Power Systems, Inc., the NASCAR Media Group will control of what will be powered and where at the race event where the demonstration will take place.

Delphi staff will train a NASCAR Media Group engineer on all operational and safety aspects of the SOFC power generator and they will be present at several of the demonstrations to ensure proper operations of the generators.

Additional demonstrations will be conducted in the City of Folsom, CA at all their Police and Fire Departments to test the efficiency of the emergency power application of the SOFC power generators. The deployed equipment will be supported by trained Delphi personnel and will be demonstrated in power applications typically encountered by first responders. Training will also be conducted by Delphi staff for operators at these demonstration sites. The same portable generators and propane gas units, with LPG storage certification, will be utilized at this demonstration site.

This project comprises conventional laboratory operations and small scale pilot demonstrations that will occur over a nine month period; therefore a CX B3.6 will apply.

## NEPA PROVISION

	DOE has made a final NEPA determination for this award
	Insert the following language in the award:
	Note to Specialist :
	None Given. Bades Power Fuel Call Demonstration. An Efficacy demonstration of an entries.
SIC	NATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.
NE	A Compliance Officer Signature: PBV Date: 1/21/10
FIE	D OFFICE MANAGER DETERMINATION
	Field Office Manager review required
	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.
BA	ED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO:
Fiel	Office Manager's Signature: Date: Date:
	Jados a objective for this project in to develop and demonstrate their specialized inhogened solid colde flust mobile power errorem. They will prochase two particles 1,000 walt solid cotto flust cell generalizes (SOFC) from Delphi Automotive, develop and demonstrate an electromechanical liquid propers had interface, deploy the units for other demonstrations, and collective particles where the world performance of the units.
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