PMC-EF2a

(2.04.02)

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

RECIPIENT: MTI Micro Fuel Cells Inc. **STATE:** NY

PROJECT TITLE : Recovery Commercialization Effort for 1 Watt Consumer Electronics Power Pack

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-PS36-08GO98009	EE0000477	GFO-09-123-001	EE0

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.

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:

This NEPA review is being conducted due to an additional phase being added to the scope of MTI's original Statement of Work. Phases 1 and 2 were reviewed and signed, receiving a categorical exclusion (CX B3.6 and B5.1) on May 20, 2009 (NEPA control number, GFO-09-123). Since then, a third phase has been added to the scope of work being conducted by MTI. This review is being conducted for all tasks (Tasks 9-12) under Phase 3.

MTI Micro Fuel Cells (Albany, NY) would use DOE and cost share funding to develop a 1 Watt DMFC fuel cell powered charger for the consumer electronics industry. This project would involve research on component cost reduction, redesign for manufacturability, safety certification, performance and reliability testing, system integration, and pilot field testing.

Phase I would demonstrate DVT (Design Verification Test) level of capability and readiness for a consumer product (CX B3.6 determination).

Phase II would demonstrate PVT (Product Verification Test) level of capability and readiness. This involves field testing a small number power packs by MTI staff and by a select group of customers (CX B3.6 and B5.1 determination)

In Phase III (tasks 9 – 11) would MTI will build, deploy, and field test an additional 75-100 power packs with potential customers for Beta testing. These micro fuel cell power packs are small hand held units used to charge electronic devices such as cell phones, cameras, etc.

MTI has Standard Operating Procedures (SOP) in place for critical pieces of equipment and trains operators on all equipment used in the lab. MTI has both hard copy and electronic MSDS(s) available for onsite chemicals. MTI has posted Emergency Evacuation Routes throughout the facility. MTI managers and a designated safety committee monitor safety protocols internally. MTI employees have attended onsite safety training. All employees received a Laboratory Safety Pocket Handbook. MTI keeps compressed gas bottles in a locked cage when not in use. When compressed gas bottles are in use they are chained securely to the work station. MTI stores chemicals in corrosive chemical storage cabinets and flammable goods storage cabinets. Typical waste (Methanol & IPA, Acetone) is stored in a locked storage facility in steel drums. These are emptied on a regular basis by a contract waste disposal company. Recyclable waste such as precious metal from the MEA is recycled periodically. MTI has smoke alarms (room & duct) and heat detectors, fire extinguishers, fume hoods, combustible waste trash cans, 5 eye wash stations,

and 1 shower in place. Employees have access to personal protection equipment (Safety glasses, face splash shields, hearing protection, gloves, etc.).

This project comprises small-scale pilot projects and field testing that is being conducted to verify a concept and renewable energy research and development projects to verify energy conservation; therefore a CX B3.6 and B5.1 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.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 4/29/10

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: _____ Date: _____

Field Office Manager