PMC-EF2a
(2.04.02)

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

RECIPIENT: Avalence, LLC **STATE:** CT

PROJECT TITLE : Hydrogen Production and Delivery - Hydrogen Fueling Station with Wind and Solar Capability

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
FY 2010 CDP	DE-EE0003225	GFO-10-609	0

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).

A9 Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.

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:

Avalence Inc proposes to use federal funds to develop the power electronics necessary to effectively realize hydrogen fueling stations that can directly utilize both wind and solar power inputs to produce hydrogen fuel. They will design the power conditioning input equipment and then build and test it on a small scale. They will then produce the preliminary design of a hydrogen fueling station based on a proposed site at the Hamden, CT Public Works Building.

This project will include preliminary design and build of test electronics and surrogate power supply, test electronics on an Avalence Inc unit using surrogate power supply, install a 2kW PV array at the Avalence Inc facility for testing of electronics, test installed electronics on Avalence Inc using the PV array, preliminary design of a large-scale renewably-powered hydrogen fueling station, and project management and reporting.

The wind aspect of the power generation will be simulated using acquired wind generated electricity data from a utility via computer. The Photovoltaic Array will be mounted on a pole in the rear of the Avalence Inc facility. The facility is located in an industrial park area and the soils have been previously disturbed by grading for building construction.

This project involves conventional laboratory work within existing facilities. The applicant has submitted an R & D Questionnaire that thoroughly addresses safety and handling protocols.

This project is comprised of conventional research and development as well as preliminary design of a hydrogen facility; therefore a CX A9 & 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 :

Eugene Brown 10/4/2010

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 10/5/10

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