PMC-EF2a

(2/04/02)

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

RECIPIENT: Natel Energy, Inc. **STATE:** CA

PROJECT TITLE : Development and endurance testing of SLH timing belt powertrain in hydraulic laboratory environment

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000486	DE-EE0005412	GFO-0005412-001	GO0

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:

DOE is proposing to provide federal funding to Natel Energy, Inc. (Natel) to conduct laboratory research and development activities that advance Natel's hydroengine technology. Compared to the current design, the new powertrain would be fifty percent less expensive and ten times lighter.

The proposed project would develop enabling technologies for efficient and low cost deployment, create advanced powertrain manufacturing methods and reduce the LCOE to be cost competitive with natural gas. Hydraulic turbine testing would be conducted at Alden Research Laboratory, Inc. (Alden) located at 30 Shrewsbury Street, Holden, Massachusetts 01520. Testing would be performed in Alden's Closed Loop Facility. The turbine would be installed in the test loop and water would be circulated by a 150 horsepower centrifugal pump. City water would be used to fill the supply tanks.

Alden has completed an R&D questionnaire addressing the protocols for laboratory safety, risk management, chemical handling and waste disposal. Alden complies with standard laboratory safety procedures. Labs are inspected by staff and safety personnel. Internally, the department is monitored by Alden's Safety Coordinator and Safety Committee. Externally, Alden's safety protocols are reviewed by Alden's insurance provider, AIM. Alden has all applicable permits in place to conduct research on site including a National Pollutant Discharge Elimination System (NPDES) permit number MA0028801.

Based on this information, DOE has determined the work outlined is consistent with activities identified in categorical exclusion A9 (information gathering) and B3.6 (indoor bench-scale research and conventional laboratory operation).

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 :

Cristina Tyler 1.26.2012

DOE Funding: $300,000
Cost Share: $153,767
Total Project Cost: $453,767

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 1/26/2012
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