PMC-EF2a
(2.04.02)

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

RECIPIENT: Montana DEQ **STATE:** MT

PROJECT TITLE: Developing Railway Markets for Montana Biodiesel

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA0000052	DE-EE0000138	GFO-0000138-006	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.

Rational for determination:

The Montana Department of Environmental Quality is proposing to provide $125,000 of SEP ARRA funds to Opportunity Link, a non-profit organization, to conduct a one year study on the performance of a switch train running on a 20% biodiesel blend in extreme weather conditions. Opportunity Link would collect engine performance and emissions data to inform railroad operators, rail regulators, and state and federal policy makers of demonstrated performance properties and benefits to air quality when biodiesel is used to fuel a locomotive switch engine. The study is expected to show that green house emissions can be reduced while boosting the local economy by using locally produced biodiesel. The project is located at the Burlington Northern Santa Fe Railroad rail yard in Havre, MT.

Opportunity Link would partner with the Burlington Northern Santa Fe Railway (BNSF), and MSU-Northern Bio-Energy Center to purchase locally produced biodiesel and blend it to 20% biodiesel and 80% diesel for use in the switch train engine. Depending on the availability of oil and seed, the biodiesel used in this project may be derived from camelina, canola, or safflower grown and pressed in Montana. Opportunity Link would contract with Earl Fisher Biofuels, LLC (DOE Project No. GFO-0000138-007) to supply the majority of biodiesel and the MSU-Northern Biodiesel Pilot Plant would supply the balance of fuel needed.

The project consists of 10 Tasks:
1 Obtain DOE NEPA approval
2 Purchase locally produced biodiesel and ensure it meets ASTM standards
3 Transport locally produced biodiesel to BNSF Havre facility for blending and storage
4 Collect engine performance data
5 Collect engine emissions data
6 Perform standard locomotive engine maintenance every 3 months
7 Inform BNSF, other national and state railroads, rail regulators, state and federal policy makers on the results of the study
8 Draft and disseminate public education materials including economic and environmental benefits of biodiesel
9 Display the ARRA logo
10 Produce a final report
SEP funds would be used for Tasks 2, 5 and 8.

A fuel trucking firm, Fraser Conoco, would transport the biodiesel from Earl Fisher Biofuels in Chester, MT to BNSF's Diesel shop in Havre, a distance of 61 miles. Over the course of the study, fifty trips to deliver the bio-fuels to the BNSF Diesel shop are anticipated. Once delivered, the bio-fuel is placed in a mixing tank for blending and storage, and then utilized to fill the switch train engine. Opportunity Link would collect engine performance and emissions data using wireless monitoring devices to monitor and record vital engine performance parameters and fuel consumption

under normal field operations throughout a duty cycle of the switch engine. Standard locomotive maintenance would be performed every three months and any performance issues compared with a locomotive engine fueled with regular diesel fuel. The study results would be disseminated to a target audience of industry experts and rail regulators, and federal and state policy makers. Opportunity Link would draft and disseminate education materials to biodiesel stakeholders including the economic and environmental benefits of using biofuels.

All study activities would occur at BNSF's existing facility. No new buildings would be constructed and no building modifications are needed. There would be no impacts to biological resources including threatened and endangered species, wildlife, sensitive habitat, wetlands or floodplains. Since there would not be any construction or modifications to existing facilities, the project would not disturb any historic, archeological, or cultural sites.

The Montana Department of Environmental Quality, Air Resources Management Bureau, determined that the study falls under the Administrative Rules of Montana 17.8.744 Montana Air Quality Permits – General Exclusions and determined that an air quality permit is not needed.

Based on the above information, this project is Categorically Excluded from further NEPA review under 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:

Note to Specialist :

This EF2a was prepared by Chris Paulsen

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 12/14/10

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