PMC-EF2a
(2.06.02)

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

RECIPIENT: FDC Enterprises, Inc. **STATE:** KS

PROJECT TITLE: Design and Demonstration of an Advanced Agricultural Feedstock Supply System for Lignocellulosic Bioenergy Production

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000060	EE0001033	GFO-10-532	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:

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.

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).

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:

This project is divided into two budget periods (BP) separated by a Go/No-Go decision.

In the first BP (BP1), funds will be used to design and build new and/or improved harvesting and concuct a Go/No-go review meeting. The equipment design and build is handled by companies that currently manufacture forage harvesting and handling equipment in their normal course of business. While these design/build activities are happening, the project will also perform baseline testing of current harvest, storage, and transport costs for several herbaceous crops using the currently available technology/equipment.

Assuming a positive outcome of the Go/No-go review meeting, the project will proceed to demonstration of the newly designed/built equipment and performance evaluation activities in BP2.

All harvest activities in both BP1 and BP2 will be performed on fields that are already established with the various target crop species (ie, corn stover, switchgrass, mixed grasses, sorghum), and that are grown using the currently accepted farming practices for that crop. Harvested material will be stored either in a bale storage yard in Hugoton, KS, or near the originating fields, or delivered directly to end users (i.e., feedlots, biorefineries, etc.) and handled in a manner consistent with currently accepted practices.

The performance evaluation activities consist of data analysis and report generation and are not expected to involve any additional on-field activities. All data analysis activities will be performed in pre-existing buildings.

Some corn varieties may be GMO varieties, but since they are commercial varieties they have been de-regulated by the USDA-APHIS.

Potential environmental impacts of the proposed project and associated actions include:

Soil Quality – The harvesting of biomass will follow USDA guidelines for minimizing wind erosion. On a field by field basis, biomass removal would have a negligible to minor adverse impact on soil organic matter content. The recipient

has been and will be working with USDA-NRCS at the proposed project sites to implement the USDA-NRCS General Guidelines for Sustainable Residue Harvest.

Land Use – Impacts related to land use changes associated with the crops to be used for the proposed project have been determined by the DOE to be minimal and potentially beneficial. Generally, the crops harvested for the proposed project are resistant to many pests and plant diseases and use less pesticide, fertilizer and water.

Transportation – Transportation of harvested material will occur on existing roadways where agriculture-related traffic is already present. The proposed project will be a replacement of, and not an addition to, the normal cropping practices that take place at the project locations; therefore, there will be no increase in the amount of traffic as a result of the proposed project.

Cultural Resources – The areas where the proposed project will occur are actively farmed agricultural lands. The top layers of soil are considered to be previously disturbed; therefore, there will be no adverse effects to cultural resources as a result of the proposed project.

The proposed project is consistent with activities outlined in A9, B3.6 and B5.1 and has been determined to be categorically excluded from further NEPA review.

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: Kristin Kerwin Date: 9/1/2010

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