

PMC-EF2a

(2.04.02)

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



RECIPIENT: Genera Energy LLC

STATE: TN

PROJECT TITLE : Development of a Bulk-Format System to Harvest, Handle, Store and Deliver

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000060	EE0001034	GFO-10-133-001	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:

Genera Energy LLC proposes to use federal funds to design and install a biomass bulk storage and compaction facility. This new facility will allow Genera Energy LLC to add to existing operations while also aiding the in the feedstock supply for development of cellulosic ethanol. This project will focus on the new bulk biomass feedstock storage and processing facility.

This project will include the final design and installation of a new facility used for the storage, compaction, and associated handling of switchgrass bulk storage for refinement. This will entail in the excavations needed for further grading and storage pits. The site was graded in 2008 as part of a previous Genera Energy project; the site has not been used since. The storage pit and 2 silos, constructed 30 feet tall, will involve the removal of 2,508 cubic yards of soil with 800 cubic yards being backfilled.

Construction of a three-sided pole barn storage building will also be included in this project for the lay-down covered storage of delivered biomass. This construction will entail drilling holes for the barn pole supports. Furthermore, this project will entail paving an existing one-lane gravel road as well as parking for 10 vehicles on the existing disturbed lands. These excavations and paving will take place on previously disturbed lands and thus is not anticipated to impact cultural resources or wildlife habitat. Increased traffic is not anticipated to be a concern as the trucks delivering switchgrass biomass to the facility will be part of daily business to support current operations.

Objective 1 of this project is the installation and refinement of the process in which switchgrass will be handled and will consist of capacity analysis, harvest of switchgrass, harvest-to-storage hauling of switchgrass, storage and handling, compaction, storage-to-end use Haul Under Compacted Conditions analysis, Biorefinery handling unit installations, Environmental Analysis as needed.

Objective 2 of this project will consist of measurements and analysis of the performance of the new bulk supply storage system.

Objective 3 will consist of quality assessments of the new system vs. conventional baling methods and develop

documentation methods to explain differences in methods of storage.

Objective 4 will establish project coordination for services such as data collection, analysis, and project reporting by the principle investigator to the lead applicant.

This project is comprised of construction of a new biomass storage facility as well as information gathering and data analysis; therefore a CX A9, B3.6, and B5.1 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 10/25/2010

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: *Kristin Kerwin* Date: 11/15/2010
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