

PMC-EF2a

(2.04.02)

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



RECIPIENT: Alabama Department of Economic &amp; Community Affairs

STATE: AL ✓

PROJECT TITLE : State of Alabama EECBG Methane Capture Subgrants

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000013	DE-EE0000831.001		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:

**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 NEPA determination (DE-EE0000831.001) is a result of a previous NEPA determination (DE-EE0000831, signed 2/1/10) which expressly prohibited the below described activities.

The State of Alabama Department of Economic and Community Affairs would fund two methane capture and reduction projects within the state. The projects would consist of the following:

A. Landfill Gas Recovery Project – Scottsboro Landfill: The project would consist of two phases that would install a methane/landfill gas (LFG) capture system (vertical extraction wells and horizontal collection trenches) at the existing cell no. 1 at the Scottsboro Landfill at 650 County Road 412, Hollywood, AL. Following extraction, LFG would be conveyed to a to-be-installed “candlestick” methane flare station. Equipment would be installed to remove condensate in the LFG and drain it into the landfill’s existing leachate collection system for treatment. The flare would destroy 98% of the methane collected. Phase II of the project would involve the LFG being captured and used to power a to-be-installed 365-600kW Caterpillar G3512 Gas Engine Generator Set on-site generator which would off-set the facility’s electrical demand (powering the facility’s main building – 6,875 sq ft, and Scale/Office Facility – 182 sq ft), as well as provide excess energy to the local electrical grid. The project would collect 222 Standard Cubic Feet per Minute (SCFM) of LFG (111 SCFM of methane) and there would be no on-site methane storage.

A slab foundation would be poured to support the generator, and new electrical components would be installed to monitor and transmit the electricity that would be generated. Existing infrastructure would not be modified but new transmission lines would be constructed within the landfill boundary to transport electricity produced by the generator to local power supplier’s nearby transmission lines adjacent to landfill property. Once the generator system is complete the flare would remain operable with a small stream of LFG.

All proposed activities would take place within the boundaries of the Scottsboro Landfill.

B. Southeastern Cheese Corporation Waste Water Treatment-Methane Recovery System: Southeastern Cheese Corporation, 92 Washington Street, Uniontown, Alabama, employs a five-stage treatment system to treat the facility’s wastewater. This system consists of five different cells; Cell #2 is an anaerobic digester. Anaerobic digestion technology produces methane gas, which the system currently captures and releases to the atmosphere. To do this, the wastewater treatment system utilizes an up-flow sludge bed digester connected to a series of gas collection pipes around the perimeter of the lagoon in Cell #2. The lagoon has a large polymer liner over the top, which serves as the method for capturing the methane. A blower, installed in 2008 (currently inactive), is connected to the collection pipes in the lagoon and has the capability to pull the gas from under the cover and into the piping system.

This proposed project would capture and use the methane that would be generated through the wastewater treatment process to provide a heat source for a new boiler system. The project would direct the methane via an existing pipeline to the facility's existing boiler room where it would supply a new boiler proposed for installation. The existing pipeline is approximately 0.8 miles in length and runs through existing pasture land. In order to capture and utilize the methane, a new boiler must be installed that can handle the delivery of between 250,000 and 400,000 cubic feet of gas per day.

This project's use of the methane as fuel would obviate the need to use over 22 billion BTU of conventional natural gas as fuel. While the methane is expected to meet the majority of the heating demands for the facility, it may be necessary to enrich the methane with natural gas in order to maintain a consistent BTU value. The project is expected to reduce methane emissions at the facility by approximately 90%, and CO2 emissions by approximately 61%.

All proposed activities would take place within the existing boiler room of the Southeastern Cheese Corporation.

The two proposed projects would each capture and reuse methane to the maximum extent practicable, thereby conserving the conventional energy/fuel currently being consumed at each facility, and are therefore categorically excluded under NEPA under CX B5.1.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Insert the following language in the award:

You are required to:

Prior to the expenditure of Federal funds to implement the above activity, the RECIPIENT has the affirmative responsibility to ensure compliance with Sec. 106 of the National Historic Preservation Act (NHPA). Section 106 applies to historic properties that are listed in or are eligible for listing in the National Register of Historic Places. If applicable, the RECIPIENT must contact the State Historic Preservation Officer (SHPO) to coordinate the Section 106 review outlined in 30 CFR Part 800.

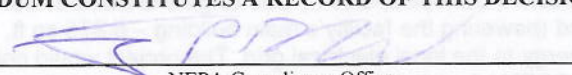
The RECIPIENT shall ensure that all necessary federal, state, and/or local permits with respect to planning, installation, and operation of the proposed methane recovery and reuse projects are obtained.

Note to Specialist :

None Given.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: \_\_\_\_\_

  
NEPA Compliance Officer

Date: \_\_\_\_\_

4/9/10

**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: \_\_\_\_\_

Field Office Manager

Date: \_\_\_\_\_