

PMC-EF2a

(201002)

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



**RECIPIENT:** State of North Carolina - Subrecipient Rutherford County

**STATE:** NC

**PROJECT TITLE :** EECBG - Rutherford County Gas to Green Project

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
	DE-EE0000771	GFO-0000771-009	EE771

**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:**

Rutherford County is proposing to use EECBG funding to support infrastructure design for the landfill energy recovery project, equipment purchase and installation of the gas collection system, and two, 200kW generators. Existing landfill gas vents that were installed in the landfill during closure will be used to extract the gas; infrastructure costs anticipated for the project include two blower/generators that utilize the landfill gas, heat transfer piping and electrical wiring for the greenhouses, and approximately one-quarter of a mile of underground piping to collect the gas from the existing vents and deliver the gas to the future generators. The majority of the electricity produced would go to power onsite greenhouses, with any excess electricity being fed back into the grid. The site already has electrical service, so no new transmission lines should be needed, only various electrical components to feed electricity into the existing grid service. The proposed project will occur on the closed MSW landfill which takes up 16 acres of the 240 acre Rutherford County-owned landfill property. The landfill property is surrounded by farmland and low-density residential with wooded areas separating the landfill property from all other properties.

Potential environmental impacts of the project and associated actions include:

- **Air Quality** – Air quality should improve as a result of the proposed project. Methane gas that is currently being vented directly into the atmosphere will be captured and used to produce electricity.
- **Water Quality** – Existing erosion control measures, in place for the construction and operation of the landfill, will be utilized to restrain any sedimentation on site. The proposed project is not expected to have adverse effects to water quality.
- **Ground Disturbance** – Approximately 11,380 square feet of disturbance is expected from installation of the gas collection system piping and concrete pads for the greenhouses. All aspects of the proposed project will occur within the landfill property boundary on previously disturbed land. There will be no adverse effects to threatened and endangered species, critical habitat, wetlands, floodplains or cultural resources as a result of the proposed project.
- **Visual** – The proposed project will occur at a closed landfill in a rural area that is surrounded by wooded areas with no nearby residences. Adverse visual effects are not expected as a result of the proposed project.
- **Noise** – The generators will be housed in a simple enclosure. The nearest neighbors to the site are a quarter mile or more away. Adverse effects from noise will be negligible.
- **Threatened and Endangered Species** – The proposed project will occur on a closed landfill that is regularly mowed and otherwise maintained. There will be no adverse effects to threatened and endangered species or critical habitat

as a result of the proposed project.

- Permits – A review by the NC DENR Division of Waste Management, Solid Waste Section will be required, as the project is a minor modification to an existing solid waste permit.

DOE has assessed potential impacts from all phases of the proposed project. After a thorough review of the information submitted for the proposed project, it has been determined that the actions involved will not have a significant impact to human health and /or the environment. The proposed project will result in a reduction in the use of conventional fossil fuels; therefore it is hereby Categorical Excluded B5.1 "actions to conserve energy," from further NEPA review.

**NEPA PROVISION**

Note to Specialist :

EF-2a completed by Logan Sholar

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

NEPA Compliance Officer Signature:



NEPA Compliance Officer

Date:

10/8/10

**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:

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Field Office Manager

Date:

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