PMC-EF2a
(2.04.02)

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

RECIPIENT: State of North Carolina - Subrecipient Scotland County **STATE:** NC

PROJECT TITLE : Scotland County Methane to Energy

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-EE0000771		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:

Scotland County is proposing to use $ 250,000 in EECBG ARRA funding to complete a landfill gas capture system that will generate electricity to be fed into the grid. The EECBG funding will be used to drill 5 wells, install a gas collection system and purchase and install all the necessary equipment. Equipment to be purchased and installed includes piping, blower, flare, and 200kW generator. The proposed project will occur on a closed landfill cell which takes up 10.9 acres of the 142 acre landfill property and no additional acreage will be used.

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 – The site's existing erosion and sedimentation control plan would require amendment (through NC Division of Land Resources – Land Quality Section) to add the area disturbed for the LFG project. The proposed project is not expected to have adverse effects to water quality.
• Ground Disturbance – Five wells will be drilled. These wells will have a bore diameter of 2-3 feet. The well pipe will be 6" HDPE plastic pipe, surrounded by an envelope of gravel. The wells will be sealed with a clay plug and/or a synthetic pipe boot. This type of well is an industry standard. Trenching will be dug to connect piping to the existing collection system and approximately 500-800 feet of additional landfill gas collection and delivery pipes will be installed. These pipes will be HDPE plastic pipe of a size specified by the engineering design. A 25ft x 12ft concrete pad will be set as foundation for the generator shed. There will be approximately 1,500 LF disturbed for the installation of collection piping for the project. Also, there is expected to be approximately 0.5 Acres disturbed for installation of the flare and genset. The proposed project will occur on land that is a closed landfill and previously disturbed. Interconnection to the grid will be managed by switchgear, a step-up transformer, and a pole and short span of wire to the adjacent transmission line. There will be no adverse effects to threatened and endangered species or critical habitat as a result of the proposed project.

• Noise – The project site is in a rural location with no nearby neighbors. However, noise is not expected to exceed 85 dBa in close proximity to the generator. The muffled generator and associated equipment will be housed in a small shed that is insulated to prevent noise impacts.
• Visual – The proposed project will occur at a closed landfill in a rural area that is surrounded by a wooded area. Adverse visual effects are not expected as a result of the proposed project.
• Threatened and Endangered Species – The proposed project will occur on a closed landfill that is fenced. There will be no adverse effects to threatened and endangered species or critical habitat as a result of the proposed project.
• Permits – A solid waste permit modification (through NC DENR Division of Waste Management) will be required for the LFG collection & control system. Also, an air permit (or acknowledgement that the flare is exempt due to size and

emissions) may be required through the NC Division of Air Quality.

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 Categorically Excluded B5.1 "actions to conserve energy," from further NEPA review.

NEPA PROVISION

Insert the following language in the award:

You are required to:
The recipient is required to obtain the necessary permits for all actions involved in the proposed project.

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 9/7/10
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