

PMC-EF2a

(2010)

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



RECIPIENT: VI Waste Management Authority/VI Energy Office

STATE: VI

**PROJECT
TITLE :** Bovoni Gas to Energy

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000013	DE-EE0000860	GFO-0000860-003	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:

The U.S. Department of Energy (DOE) provided funding to the U.S. Virgin Island's Energy Office (VIEO) under the DOE's American Recovery and Reinvestment Act of 2009-funded Energy Efficiency and Conservation Block Grant Program (EECBG). VIEO selected the Bovoni Landfill (Bovoni) to receive \$3,014,046 in EECBG funding to partially fund Bovoni's landfill methane to energy project.

The Bovoni Landfill is located on Bovoni Rd. (Rte 38), St. Thomas, U.S. Virgin Islands and is approximately 34 acres in size. Bovoni accepts waste from St. Thomas, Water Island, and St. John.

This sub-recipient received an initial NEPA determination in April 2010 which allowed data analysis; preliminary design, feasibility studies, and analytical energy supply and demand studies. The DOE required Bovoni landfill to submit additional project-specific information prior to actual construction and operation of the methane to energy project.

This project also received funding from the U.S. Environmental Protection Agency (EPA). Bovoni utilized EPA funds to install fifty (50) vertical gas collection wells at the landfill. EECBG funds would be used for equipment purchases (i.e. blower, switchgear, generator), installation of equipment, site preparation, and installation of the building that will house the equipment.

The proposed project and associated actions have the potential to impact the following resource areas:

Air Quality – Bovoni is an existing landfill and conducts odor monitoring in conjunction with other system monitoring. This monitoring will continue and Bovoni has a detailed plan to deal with unexpected or adverse odors. Once the generators are installed and operational, air quality at the landfill should improve because 60 – 75% of the methane gas generated will be used to generate electricity as opposed to escaping into the atmosphere or being flared.

Water Quality – The landfill's existing erosion control measures will continue to be utilized. The proposed project is not expected to have adverse effects on water quality and will not require new or modifications to existing permits.

Ground Disturbance – All construction would take place on Bovoni property. Additional ground disturbance for the proposed project would consist of leveling an additional .15 acres of previously disturbed land, in the northeast portion of the landfill, for the construction of the building that will house the generators, blower, filters, switchgear, and gas treatment systems. All other work (i.e. condensation traps and piping) would occur on top of the landfill. There would be no gas pipelines installed outside of the boundaries of the landfill. If needed for the load, a small substation would be installed adjacent to the equipment building and electric transmission lines would transmit electricity from the

equipment building to the wastewater treatment facility. Transmission lines are wholly existing and located within the landfill's footprint. Installation of new transmission lines, if needed, would cause minimal ground disturbance. A flare system would also be installed adjacent to the equipment building. The flare system would be 10.5' Dia x 32' High and installed on a concrete pad. The attached pictures show existing wells, the proposed site of the equipment building on the landfill property, and a view of electrical lines near the proposed building site. The proposed project is located on previously disturbed land, within the boundaries of an operating landfill, therefore, DOE does not anticipate any adverse impacts related to ground disturbance.

Visual – The proposed project will occur at a closed landfill in an area that is surrounded by trees, hills, other commercial properties, a wastewater treatment facility. The proposed project is consistent with the current use of the area and DOE does not expect adverse visual impacts as a result of the proposed project.

Noise – The generators will be housed in a small building. Because of the commercial nature of the area, the existing operations at the landfill, the proposed project is expected to cause a negligible increase in noise levels at the landfill and no to minimal increase on noise levels at the project boundary (due to attenuation and existing noise levels).

Threatened and Endangered Species – The proposed project would occur on an operating landfill, which is highly disturbed and does not offer the potential for critical habitat for any listed threatened or endangered species. Therefore, DOE has determined the proposed project has No Effect on listed threatened or endangered species.

Cultural Resources - The proposed project would occur on an operating landfill, which is adjacent to/bordered by the Mangrove Lagoon Wastewater Treatment facility, other commercial facilities, a racetrack, and Bovoni Bay. It is largely shielded from view by hills and trees. Therefore, DOE has determined the proposed project would not adversely effect any listed or eligible historic properties, nor would it adversely effect cultural resources.

Permits – Bovoni has an Authority to Construct Permit and Conditional Permit to operate the gas collection and control system and flare system. Bovoni will be required to revise its Storm Water Pollution and Prevention Plan. Bovoni has also submitted its Title V Operation Permit application in accordance with the requirement of the New Source Performance Standard (NSPS) for municipal solid waste landfills (40CFR 60, Subpart WWW). The full permit application is attached. A modification to the Title V permit may be required for the installation/operation of the proposed generators. Bovoni will continue to work with the Virgin Islands DPNR/EPA when applying for and obtaining new or modifications to existing permits.

DOE has determined that the proposed project has no significant individual or cumulative impacts to the human environment and is consistent with the actions contained in DOE categorical exclusion B5.1 "actions to conserve energy." The proposed project will ultimately replace a portion of the wastewater treatment facility's electricity, currently generated by fossil fuels, with electricity generated by captured methane gases. DOE has determined the proposed project is categorically excluded from further NEPA review under DOE CX B5.1.

NEPA PROVISION

DOE has made a final NEPA determination for this award

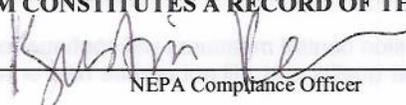
Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

DOE funding - \$3,014,046
EF2a prepared by Melissa Rossiter

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: 
NEPA Compliance Officer

Date: 11/4/2011

FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON: