

U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION



RECIPIENT: Narragansett Bay Commission

STATE: RI

PROJECT TITLE: Enhanced Biogas Collection and Energy Recovery Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
Congressionally Directed Project	DE-EE0010139	GFO-0010139-001	GO10139

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

A9 Information gathering, analysis, and dissemination

Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

B2.5 Facility safety and environmental improvements

Safety and environmental improvements of a facility (including, but not limited to, replacement and upgrade of facility components) that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements include, but are not limited to, replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground or belowground tanks and related piping, provided that there is no evidence of leakage, based on testing in accordance with applicable requirements (such as 40 CFR part 265, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities" and 40 CFR part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks"). These actions do not include rebuilding or modifying substantial portions of a facility (such as replacing a reactor vessel).

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to administer congressionally directed spending to the Narragansett Bay Commission (NBC) to rehabilitate the anaerobic digester complex at their Bucklin Point Wastewater Treatment Facility (BP-WWTF) in East Providence, RI. BP-WWTF has a Combined Heat and Power (CHP) system that uses biogas, a methane rich byproduct of an anaerobic wastewater sludge digestion process. Biogas is the primary fuel (natural gas is the supplemental fuel) used to operate the BP-WWTF. The award aims to maximize the production of biogas thus minimizing the need for natural gas, stabilizing NBC user rates through reduced operational costs, improving overall sustainability of NBC operations, and helping NBC meet mandated carbon reduction goals.

Proposed award activities include data analysis, preliminary engineering/design, and modifications to existing facilities. The award consists of three Budget Periods (BP). BP1 would focus on the gathering and analysis of data from the existing digester complex by Black & Veatch engineers (B&V; Burlington, MA). These activities would include site visits, interviews, and inspections. The data collected by B&V engineers would be used to complete the digester gas system rehabilitation design and a CHP conditioning system modification recommendations report. BP2 would involve contract bidding for proposed BP3 activities. The tasks in BP3 would include the emptying and dewatering of the digester tanks, inspection of the interior of the tanks, rehabilitation of the digester equipment, and temporary modification of the CHP conditioning system.

Minor surface ground disturbance associated with usage of heavy equipment for digester equipment rehabilitation activities and mobile wastewater solids dewatering equipment is proposed. However, all staging and equipment storage areas are within the previously developed and existing footprint of the BP-WWTF.

Award activities would involve typical hazards associated with utilization of heavy and hot equipment, entry of confined spaces, and management of wastewater and wastewater solids. An Environmental Protection Plan (EPP) would be prepared to prevent environmental pollution or damage during and as a result of award activities. Existing health, safety, and environmental policies and procedures, including all OSHA required standards, would be followed to mitigate hazards to acceptable levels. Mitigated hazards would pose negligible risks to the public and environment. All

activities would comply with existing federal, state, and local laws and regulations.

Emptying and dewatering of the digester tanks would generate approximately 250 Dry Tons (DT) of biosolids that would be disposed of off-site at a landfill. During rehabilitation activities, the amount of biosolids for off-site disposal would increase from 6 to 10 DT per day. Additionally, cleaning of the digester tanks would generate 3 million gallons of wastewater that would be sent to the headworks of the BP-WWTF. NBC does not anticipate modifications to existing discharge permits, including the National Pollutant Discharge Elimination System (NPDES) permit. All discharge associated with award activities, will be in accordance with existing BP-WWTF permits.

NEPA Provisions:

1. If activities outside of the activities listed below are identified during BP1, an additional NEPA review will be required.
 - a. Cleaning of anaerobic digester tanks
 - b. Repairs to digester tanks
 - c. Replacement of mechanical appurtenances on digesters
 - d. Replacement of key sludge valves and pipe segments in the Digester Control Building
 - e. Modifications to the existing biogas flare
 - f. Modifications to the CHP biogas conditioning system
2. If biogas flare modification requirements are identified during BP1 activities, a new air permit under the Clean Air Act (42 U.S.C. 7401 et seq.) must be obtained. BP3 award activities cannot commence until a new permit is received.
3. An EPP must be developed and sent to the Rhode Island Department of Environmental Management (RIDEM) and DOE for review.

DOE has considered the scale, duration, and nature of proposed activities to determine potential impacts on resources, including those of an ecological, historical, cultural, and socioeconomic nature. DOE does not anticipate impacts on these resources which would be considered significant or require DOE to consult with other agencies or stakeholders.

NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

1. If activities outside of the activities listed below are identified during Budget Period (BP) 1, an additional NEPA review will be required.
 - a. Cleaning of anaerobic digester tanks
 - b. Repairs to digester tanks
 - c. Replacement of mechanical appurtenances on digesters
 - d. Replacement of key sludge valves and pipe segments in the Digester Control Building
 - e. Modifications to the existing biogas flare
 - f. Modifications to the CHP biogas conditioning system
2. If biogas flare modification requirements are identified during BP1 activities, a new air permit under the Clean Air Act (42 U.S.C. 7401 et seq.) must be obtained. BP3 award activities cannot commence until a new permit is received.
3. An Environmental Protection Plan (EPP) must be developed and sent to the Rhode Island Department of Environmental Management (RIDEM) and DOE for review.

Notes:

Bioenergy Technologies Office

This NEPA determination requires legal review of the tailored NEPA provision.

NEPA review completed by Corrin MacLuckie, 08/07/2023.

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous

substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



Electronically Signed By: [Andrew Montano](#)

NEPA Compliance Officer

Date: 8/7/2023

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
- Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____