

PMC-EF2a

(0.04.02)

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



RECIPIENT: Ohio Department of Development

STATE: OH

PROJECT TITLE : SEP ARRA - Northwest Bioenergy, LLC

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
	DE-EE0000165	GFO-0000165-040	GO

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:

**B5.20 Biomass power plants** The installation, modification, operation, and removal of small-scale biomass power plants (generally less than 10 megawatts), using commercially available technology (1) intended primarily to support operations in single facilities (such as a school and community center) or contiguous facilities (such as an office complex); (2) that would not affect the air quality attainment status of the area and would not have the potential to cause a significant increase in the quantity or rate of air emissions and would not have the potential to cause significant impacts to water resources; and (3) would be located within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

## Rational for determination:

The U.S. Department of Energy (DOE) provided federal funding to the State of Ohio Department of Development (ODOD) under the DOE's American Recovery and Reinvestment Act of 2009 (ARRA) State Energy Program (SEP). ODOD is proposing to provide federal ARRA funding to Northwest Bioenergy, LLC (Northwest) to partially fund the purchase of equipment and the installation of an anaerobic digester system and facility with an 810 kW combined heat and power (CHP) generator at a former Class IV yard-waste compost facility in Toledo, Ohio. The facility would generate electricity and thermal heat from the combustion of biogas produced from approximately 80 wet tons per day of biomass feedstock composed of food-waste, FOGs (fats, oils and grease), and bio-solids. Northwest would provide the electricity to the local utility (Toledo Edison) via a net-metering agreement and generated thermal heat would be reintroduced into the anaerobic digestion process.

A previous NEPA determination for an ODOD sub-award to Northwest, (CX B5.1; GFO-0000165-032; 5/17/2011), was made on activities involving the purchase of equipment, the installation of an anaerobic digester system and facility, and the installation of a small Compressed Natural Gas (CNG) fueling station within the facility. Northwest did not construct the facility and has subsequently made modifications to the system's design and project scope, however the facility is still proposed for the same location. The changes to the system include; a reduction in the size of the CHP generator from 1.2 MW to 810 kW; use of a larger 230,000 gallon feedstock tank instead of two smaller 75,000 gallon feedstock tanks; use of a larger 40 foot by 40 foot operations building instead of two smaller 40 foot by 10 foot containers; and a redesign of the facility layout. Northwest has also removed the installation of the small Compressed Natural Gas (CNG) fueling station from the proposed scope of work and all produced biogas would now be burned in the CHP generator. This NEPA determination applies to the redesigned system and facility as it is currently proposed.

The facility, as previously proposed, would be constructed on a portion of a former Class IV yard-waste compost facility owned by Northwest and located at 5315 Stickney Road in Toledo, Ohio. The site has been heavily disturbed due to its previous use as a yard-waste compost facility and is graded nearly flat. To the north of the site are agricultural fields, to the south and east are industrial and commercial facilities and operations, and to the west are vacant wooded land, a channelized creek and railroad tracks. Farther out in all directions are residential neighborhoods. The closest residence is approximately 2000 feet.

Installation of the facility would involve activities including; site preparation grading, trenching for utilities (approximately 300 linear feet), excavation for foundations (four feet deep), and installation/construction of process tanks, infrastructure and components. Approximately three acres of previously disturbed land would be temporarily disturbed during installation of the facility. The final footprint of the facility would be approximately one acre. Infrastructure would include a 750,000 gallon anaerobic digester tank, a 230,000 gallon feedstock tank, two 12,000 gallon liquid receiving pits (12 feet deep), a solids receiving station, a 40 foot by 40 foot operations building, a 810 kW



CHP generator unit housed within a noise reducing container equipped with a sound damping muffler (68 dB at two meters), a gas flare, and a truck unloading/turnaround area. All other access/operation roads already exist.

Operation of the facility would process approximately 80 wet tons per day of feedstock. Feedstock would be delivered in dump and tank trucks. Biogas generated from the anaerobic digester would be burned in the 810 kW CHP unit and thermal heat would be reintroduced into the process. As an additional by-product the system would generate Class B effluent (digestate) which would contain plant nutrients and organic matter. The storage, disposal and land application of effluent has been permitted by Ohio Environmental Protection Agency (EPA). Approximately a combined ten trucks a day would transfer feedstock in and transport effluent out of the facility.

Prior to the previous NEPA determination, the Ohio Dept. of Natural Resources and the U.S. Fish and Wildlife Service were consulted and both determined that the proposed project would not result in adverse effects to state or federal threatened and endangered species. Prior to the previous determination, the Ohio State Historic Preservation Office was consulted and concluded the proposed project would not affect historic properties. As the project is proposed for the same previously disturbed project site and proposed the modifications to the system's design are contained within the previously assessed project site, DOE has determined no additional consultations are needed. The proposed project would not have adverse impacts to a floodplain or wetlands, as either does not occur at the proposed project site.

Northwest has received and supplied DOE with copies of pertinent Ohio Environmental Protection Agency (EPA) permits in regards to air emissions, handling and disposal of bio-solids, wastes, and effluents, and storm water discharges during construction:

- Air Pollution Permit-to-Install and Operate (PTIO) (Facility ID 0448011922; Permit # P0108745)
- Storm Water Construction General Permit - OHC000003 (Facility Permit #2GCO2980\*AG);
- National Pollutant Discharge Elimination System (NPDES) permit authorization to handle bio-solids, discharge Stormwater and land apply system effluents (Permit # 2IN00244\*AD);
- Wastewater Permit-to-Install (PTI) wastewater disposal system (#832683)

Based on the review of the project information and the above analysis, DOE has determined the installation the anaerobic digester system and facility with a CHP generator to produce electricity, in a previously disturbed area would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined the proposed project is consistent with actions contained in DOE categorical exclusion B5.20 "installation of small-scale biomass power plants" and is categorically excluded from further NEPA review.

#### NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

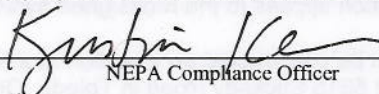
If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing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

Note to Specialist :

Obadiah Broughton 6/10/2013

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

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

  
NEPA Compliance Officer

Date: 6/14/2013

#### 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.