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(1.08.09.13)

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



RECIPIENT: Wisconsin State Energy Office - Department of Administration

STATE: WI

PROJECT TITLE : Wood Pellet Boiler Implementation Grant

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000817	DE-EE0006222	GFO-0006222-001	

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 or water** (a) Actions to conserve energy or water, demonstrate potential energy or water conservation, and promote energy efficiency that would not have the potential to cause significant changes in the indoor or outdoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, manufacturers, and designers), organizations (such as utilities), and governments (such as state, local, and tribal). Covered actions include, but are not limited to weatherization (such as insulation and replacing windows and doors); programmed lowering of thermostat settings; placement of timers on hot water heaters; installation or replacement of energy efficient lighting, low-flow plumbing fixtures (such as faucets, toilets, and showerheads), heating, ventilation, and air conditioning systems, and appliances; installation of drip-irrigation systems; improvements in generator efficiency and appliance efficiency ratings; efficiency improvements for vehicles and transportation (such as fleet changeout); power storage (such as flywheels and batteries, generally less than 10 megawatt equivalent); transportation management systems (such as traffic signal control systems, car navigation, speed cameras, and automatic plate number recognition); development of energy-efficient manufacturing, industrial, or building practices; and small-scale energy efficiency and conservation research and development and small-scale pilot projects. Covered actions include building renovations or new structures, provided that they occur in a previously disturbed or developed area. Covered actions could involve commercial, residential, agricultural, academic, institutional, or industrial sectors. Covered actions do not include rulemakings, standard-settings, or proposed DOE legislation, except for those actions listed in B5.1(b) of this appendix. (b) Covered actions include rulemakings that establish energy conservation standards for consumer products and industrial equipment, provided that the actions would not: (1) have the potential to cause a significant change in manufacturing infrastructure (such as construction of new manufacturing plants with considerable associated ground disturbance); (2) involve significant unresolved conflicts concerning alternative uses of available resources (such as rare or limited raw materials); (3) have the potential to result in a significant increase in the disposal of materials posing significant risks to human health and the environment (such as RCRA hazardous wastes); or (4) have the potential to cause a significant increase in energy consumption in a state or region.

**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.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to the Wisconsin State Energy Office (SEO), Department of Administration, to replace existing propane boilers with wood pellet boilers at three sites. Funding would be used to convert boilers fueled by propane, fuel oil or electricity to heating systems using wood pellet biomass.

Work would be completed at the following three sites in the State of Wisconsin:

- Site 1: Tribal Conservation Department, Oneida Tribe of Indians of Wisconsin; Environmental Division, Little Bear Development Center, P.O. Box 365 Oneida, Wisconsin 54155
- Site 2: Grass Creek Greenhouse, 849 County Road F, Hamburg, Wisconsin 54411
- Site 3: County Park Recreation Facility, 212 River Drive, Suite 2, Wausau, Wisconsin 54403-5476

Site 1, the Tribal Conservation Department, is located on a farm currently used for forestry service activities. The

boiler would be installed outside on an existing concrete pad and a garage would be constructed around the boiler for protection. Three individual unit heaters would heat an existing 2,600 square foot facility. Thermal conveyance equipment would be routed through the existing barn to convey the pellets to the boiler and heated glycol to the three unit heaters. The replacement wood boiler system would have a capacity of 100,000 to 200,000 BTU per hour. Approximately 30 tons of wood pellets would be used and create about 300-600 pounds of ash that would be spread on the landscape annually. Prior to construction, the necessary zoning permit would be obtained.

The U.S. Fish and Wildlife Service (USFWS) Endangered Species Program website identifies two species in Oneida County as threatened or endangered: the Canada lynx and the northern long eared bat. Because the project would be located on previously disturbed land at an existing facility and is small in scale, DOE has determined the project is not likely to affect the listed species. The proposed scope of work would not have any adverse impacts to cultural resources, floodplains or wetlands at the proposed site.

Site 2, the Grass Creek Greenhouse, is a 4,680 square foot greenhouse located on an existing agricultural area consisting of three greenhouse structures. The existing propane boiler would be replaced with a wood pellet fired hydronic boiler housed outside the greenhouses on a poured concrete slab next to a separate building being built for servicing the equipment and boiler. An 8 foot by 8 foot bulk storage bin would also be installed outside of this servicing building. The wood boiler would have a capacity of 250,000 BTU per hour. Approximately 35 tons of pellets would be used and create 350-700 pounds of ash that would be spread on farm fields and incorporated into potting soil as an amendment annually. No permits would be required for this equipment.

Site 3, the County Parks Recreation facility, is a 5,500 square foot facility located in a rural area currently heated with two separate forced air LP furnaces, supplemented by a wood fireplace. A small room would be constructed inside an existing maintenance garage for the new boiler and a 9 foot by 9 foot concrete slab would be installed outside the small room where a 15 ton silo would be placed. The new boiler would generate 200,000 BTU per hour producing enough heat for the entire facility. A 250 foot trench to another building would be dug and two heat exchangers and insulated pipe would be installed. Approximately 14 tons of pellets would be used and would create 150-300 pounds of ash which would be spread as a soil amendment annually. Any necessary permits would be obtained from the Town of Rib Mountain prior to construction.

The Wisconsin State Energy Office (SEO), Department of Administration filled out an environmental questionnaire addressing potential impacts. Work performed at all sites would occur on previously disturbed land and at existing facilities. Modifications to any existing facilities comply with applicable standards and the proper permits would be obtained prior to the start of work. There are no known or potential health and safety hazards to the public or project workers and all appropriate safety measures would be followed during the course of the project. Emissions would occur within allowable amounts and any old equipment being replaced would be moved offsite for salvage or recycle in compliance with all applicable statutes, rules and regulations. Because the projects would be located on previously disturbed land at existing facilities and are small in scale, DOE has determined the proposed scope of work would not have any adverse impacts to cultural resources, floodplains or wetlands at the proposed sites.

Based on the review of the project information and the above analysis, DOE has determined the replacement of three existing propane boilers with wood pellet boilers at three different sites 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 B5.1 "actions to conserve energy" and B5.20 "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 :


This NEPA determination does not require a tailored NEPA provision.

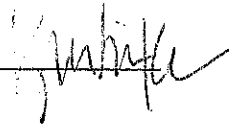
May Mock  
4/10/2014

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

NEPA Compliance Officer Signature:

Date: 4/17/2014

 Electronically Signed By: Kristin Kerwin  
NEPA Compliance Officer



4/17/2014

**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: \_\_\_\_\_  
Field Office Manager

Date: \_\_\_\_\_