

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



RECIPIENT: Wisconsin Office of Energy Innovation

STATE: WI

PROJECT TITLE : EGIP PY21 - Charter Steel

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
SEP-ALRD-2021	DE-EE0008669	GFO-0008669-018	

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.)

**B1.31
Installation or
relocation of
machinery
and
equipment**

Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.

**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.

Rationale for determination:

The U.S. Department of Energy is proposing to provide funding to the Wisconsin Office of Energy to design, engineer, and install a waste heat to power system to extract heat energy from exhaust at the Charter Steel facility in Saukville, WI. The proposed system would run an Organic Rankine Cycle (ORC) turbine to generate clean electricity for on-site consumption. The proposed project would interface with the existing furnace exhaust stream to divert the exhaust into a Waste Heat Recovery Unit (WHRU) to recover heat from the exhaust before it is released to the atmosphere.

The new equipment would be installed on a paved parking lot adjacent to the facility. Ground disturbing activities would only be required for the piling foundation supports for the equipment. The WHRU exchanger would have a footprint of 10'x10' and would be located directly adjacent to the existing exhaust stack. The balance of equipment would encompass the transfer loop, ORC loop, power generation equipment, and cooling system which would be located next to the WHRU. The footprint for this equipment would be approximately 50'x70'. Modifications to the existing exhaust system and electrical infrastructure would be needed to accommodate the new equipment.

The U.S. Fish and Wildlife Service's Information for Planning and Consultation database shows one mammal, (Northern Long-eared Bat), two insects (Hine's Emerald Dragonfly and Monarch Butterfly), one flowering plant (Eastern Prairie Fringed Orchid), and twenty migratory birds (American Golden-plover, Bald Eagle, Black Tern, Black-billed Cuckoo, Bobolink, Canada Warbler, Cerulean Warbler, Chimney Swift, Eastern Whip-poor-will, Golden-winged Warbler, Henslow's Sparrow, Lesser Yellowlegs, Long-eared Owl, Marbled Godwit, Red-headed Woodpecker, Ruddy Turnstone, Rusty Blackbird, Short-billed Dowitcher, Western Grebe, and Wood Thrush) with the potential to occur in the project area. Because of the nature of the project (i.e. installation of equipment on paved ground at a steel manufacturing facility), it is unlikely that any of the species of concern would be present in the project area. Additionally, the proposed project site is outside of the critical habitat of all listed species. Accordingly, DOE has determined the proposed project will have no effect on federally listed threatened or endangered species. Further, DOE does not anticipate adverse impacts to migratory bird species.

Project work would involve the use and handling a chemical refrigerant and equipment operating at high temperatures. The ORC equipment is a closed loop system, and no fluid would be entering or existing the system. Potential hazards for the refrigerant and the high temperatures would be mitigated through adherence to established institutional health and safety policies and procedures. Protocols would include staff training and engineering controls. Charter Steel and its project partners would adhere to all applicable federal, state, and local health, safety, and environmental regulations.

The recipient is working directly with their State Historic Preservation Officer (SHPO) to ensure protection of cultural resources during the course of project activities, per their historic preservation programmatic agreement with DOE and the Wisconsin SHPO.

The project site is outside of the 100-year floodplain.

Any changes to the project activities or location are subject to additional NEPA review by DOE and are not authorized for Federal funding unless and until the Contracting Officer provides written authorization on those additions or modifications.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Weatherization and Intergovernmental Programs Office - State Energy Program
NEPA review completed by Diana Heyder, 9/13/2022

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: Casey Strickland** Date: 9/14/2022
NEPA Compliance Officer

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: _____ Date: _____
Field Office Manager