PMC-ND

(1.08.09.13)

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

RECIPIENT: Ground Mounted PV: Northland Pines School District, Clintonville School District, Rooted WI Inc., Sheboygan Senior Community, Great Lakes Conservation Corps **STATE:** WI

PROJECT TITLE : Wisconsin Energy Innovation Grant 2020 - Renewable Energy and Battery Storage

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
SEP-ALRD-2020	DE-EE-0008669	GFO-0008669-003	

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:

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.
B5.16 Solar photovoltaic systems	The installation, modification, operation, and removal of commercially available solar photovoltaic systems located on a building or other structure (such as rooftop, parking lot or facility, and mounted to signage, lighting, gates, or fences), or if located on land, generally comprising less than 10 acres 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 funding to the Wisconsin Office of Energy Innovation through the Energy Innovation Grant Program to install Photovoltaic (PV) and battery energy storage systems (BESS) at schools, an urban farm, and a community center. In addition, solar kiosks would be installed at two to four different locations. These kiosks would be available to local residents to charge digital devices.

The proposed project locations include:

Northland Pines School District – St. Germain Elementary School at 8234 State Highway 70, St. Germain, WI 54558

St. Germain Elementary is in a rural area and abuts the Knowles-Nelson Stewardship conservation land. A 70 kW-dc ground-mounted, bifacial solar PV array and a 50 kW/100 kWh BESS would be installed. It is estimated that the array would contain 159 solar panels. The solar field and BESS would be located on school property, immediately behind the school on approximately 12,500 square feet of open, grass-covered land. The panels would extend to approximately 14-feet high and would be surrounded by a wire grid fence. The system would include two inverters and racking system to support the panels. The BESS would be located either in a nearby maintenance building or an existing hard surface parking area next to the school building on the northeast corner of the school surrounded by a wire grid fence. The solar PV and BESS system is anticipated to be in place for at least 30 years.

Ground disturbance would include steel posts driven into the ground to support the racking system and trenching to bury wires, including those between the solar PV field and a small outside utility building where the BESS is located. The total distance would be less than 100 feet. All trenches would be covered and seeded with grass. The utility company, Wisconsin Public Service, would provide interconnection to grid. The solar array would feed into the school behind the meter. Power would first go to the school, then the BESS, and only to the grid if there is more power than the school can use or than the BESS can store.

The U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) database shows two mammals (Canada Lynx and Northern Long-eared Bat) and one insect (Monarch Butterfly) that could be in the project area, however the project site does not include critical habitat for the mammals or the insect. Therefore, impacts to these species are not anticipated. Seven migratory birds (Bald Eagle, Black-billed Cuckoo, Common Tern, Eastern Whip-poor-will, Golden-winged Warbler, Lesser Yellowlegs, and Wood Thrush) also have the potential to be in or around the project area. The site does not contain preferred habitat conditions due to a lack of trees, ground nesting sites, or large, open expanses of water. The land is actively managed with regular mowing. As such, these migratory birds are not expected at the project site. There is a possibility that trees close to the project area could be used for nesting. However, installation of the PV system does not require timber clearing. Considering these conditions, DOE has determined that the proposed activities would have no effect on any special status species of concern.

Clintonville Public School District – Clintonville High School and Middle School, 64 Green Tree Road W, Clintonville, WI 54929

Up to a 400-kW ground-mounted solar PV system would be installed on land currently leased by the school district for soybean production, located immediately north of the Clintonville High School and adjoining Clintonville Middle School. The middle school is currently under construction. Approximately 70,000 square feet of land would be required for the PV project (350 feet by 200 feet). It is estimated that the array would contain 900 panels, 10 inverters, and a racking system. Panels would extend approximately 14-feet high. A 100 kW BESS would be located beside the high school building and installed adjacent to the electric meter. The system is anticipated to be in place for at least 30 years.

Ground disturbance would include driving vertical steel posts into the ground to support the racking system and trenching to bury wires. The approximate 200-foot trench would go around the middle school to the high school where the existing transformer, meter, and emergency generator are located. All trenched areas would be covered and seeded with grass; the solar field would be covered with grass/pollinator seed. Clintonville Municipal Utility would provide interconnection to the grid.

The USFWS IPaC database shows one mammal (Northern Long-eared Bat), one clam (Snuffbox Mussel), and two insects (Karner Blue Butterfly, Monarch Butterfly) that could be in the project area, however the project site does not include critical habitat for the above-mentioned species and no aquatic habitats. Therefore, impacts to these species are not anticipated. One migratory bird (Bald Eagle) also has the potential to be in or around the project area. The site does not contain preferred habitat conditions due to a lack of trees or large, open expanses of water. The land is actively managed with regular harvesting of crops. As such, the Bald Eagle is not expected at the project site. There is a possibility that trees close to the project area could be used for nesting. However, installation of the PV system does not require timber clearing. Considering these conditions, DOE has determined that the proposed activities would have no effect on any special status species of concern.

Wetlands are located at least 70 feet from the proposed site, but the solar array would not be within the wetlands.

The project would convert approximately 1.6 acres of farmland of statewide importance to non-agricultural use, so a

Farmland Conversion Impact Rating form (AD-1006) was used to determine the impact of the conversion. The relative value of the farmland was rated at 148. Sites receiving a total score of less than 160 need not be given further consideration for protection and no additional sites need to be evaluated. Based on the AD-1006 rating, no further consideration for the protection of Prime Farmland is required.

The solar array would be installed approximately 1.75 miles northwest of Clintonville Municipal Airport. To ensure that the proposed project would not result in an impact on aviation safety as a result of the potential for glare and ocular impacts, a glare and ocular impact analysis was completed in accordance with Federal Aviation Administration (FAA) guidelines and policy. The exact tilt angles for the PV array modules were not known, so a range of discrete tilts from 20 to 60 degrees were analyzed in considering the potential for glare and ocular impacts. To demonstrate that a proposed solar project would not result in an impact to aviation safety, the FAA stipulates there should be no potential for glare or "low potential for after-image" along the final approach path for any existing or future landing thresholds (including any planned interim phases). The final approach path is defined as 2 miles from 50 feet above the landing threshold using a standard 3° glide path. At the Clintonville Municipal Airport, the final approach paths for incoming aircraft are for Runways 4, 14, 22, and 32 (Clintonville Municipal Airport does not have an Air Traffic Control Tower). The conclusion of the analysis was that the PV installation would not cause glare to incoming aircraft on final approach at an intensity above a "low potential for after-image" regardless of tilt angle considered. The level of glare meets the FAA standard for no objection to construction of the project if it were occurring on-airport. Based on this analysis, DOE does not anticipate any adverse impacts to incoming aircraft along the final approach path as a result of project activities.

Rooted, WI – Troy Farm, a project of Rooted, WI Inc, 502 Troy Drive, Madison, WI 53704

On an urban training and production farm operated by the nonprofit organization Rooted WI, Inc. an array of solar panels would be installed next to an existing array. The proposed project would be a 4.65 kW solar PV array combined with a battery energy storage system (BESS), including all components of a solar PV off-grid system. It would be 27 feet long with 15 panels. It would be installed on a portion of the site north of an abandoned/capped railroad bed. To support the solar panels, three posts would be set in concrete. This would include 3 concrete pads, 2 feet wide by 5 feet deep. The BESS would be located in an aluminum trailer near the cooler and wash/pack shed where the existing batteries are also located. Project work includes adding additional lithium batteries to increase energy storage capacity in an existing PV power trailer.

Ground disturbance would include trenching for underground wiring to extend power from a ground box to two sheds, a produce cooler, a backup generator, and two greenhouses. Additionally, one greenhouse and a movable cooler would be relocated from south of the railroad bed up to the farm portion of the site to be closer to the production site and the PV array. Necessary electrical connections at each building would be installed. Existing farm roads would be used to access project location.

USFWS IPaC database shows one mammal (Northern Long-eared Bat), one bird (Whooping Crane), two insects (Monarch Butterfly and Rusty Patched Bumble Bee), and three flowering Plants (Eastern Prairie Fringed Orchid, Mead's Milkweed, and Prairie Bush-clover) that could be in the project area, however the project site does not include critical habitat for the above-mentioned species. Therefore, impacts to these species are not anticipated. Nineteen migratory birds (American Golden-plover, Bald Eagle, Black Tern, Black-billed Cuckoo, Bobolink, Canada Warbler, Cerulean Warbler, Eastern Whip-poor-will, Golden Eagle, Golden-winged Warbler, Henslow's Sparrow, Le Conte's Sparrow, Lesser Yellowlegs, Long-eared Owl, Marbled Godwit, Red-headed Woodpecker, Rusty Blackbird, Short-billed Dowitcher, and Wood Thrush) also have the potential to be in or around the project area. The site does not contain preferred habitat conditions due to a lack of trees, ground nesting sites, or large, open expanses of water. The land is regularly disturbed, alongside an existing array. As such, these migratory birds are not expected at the project site. Considering these conditions, DOE has determined that the proposed activities would have no effect on any special status species of concern.

The project would convert less than 0.1 acres of prime farmland to non-agricultural use. Upon review by the Natural Resource Conservation Service, it was determined that the project is exempt from Farmland Protection Policy Act (FPPA) requirements because it is on lands already in urban development.

Sheboygan Senior Community Inc, 3505 County Road Y, Sheboygan, WI 53083

An approximate 200-kW ground mounted solar PV system along with a 120 kW/260 kWh BESS would be mounted in a rural area next to the Sheboygan Senior Community. The BESS would be located next to the facilities generator in close proximity to the building. The PV array would be approximately 30,055 square feet and would include 445

panels. The PV installations would be connected to the power grid. The solar PV and BESS system is anticipated to be in place for at least 20 years.

Ground disturbance would include trenching between arrays. Conduit would be laid at least 2 feet deep. Reflective gravel will be laid beneath the arrays to increase solar production, and the remaining ground cover will be the same prairie grass as is currently growing at the location. The array racking would require 90 4-inch by 9-inch support posts. There is a possibility that concrete may be needed to secure the posts in the ground.

The USFWS IPaC database shows one mammal (Northern Long-eared Bat), one bird (Red Knot), one insect (Monarch Butterfly), and two flowering plants (Eastern Prairie Fringed Orchid and Pitcher's Thistle) that could be in the project area, however the project site does not include critical habitat for the above-mentioned species. Therefore, impacts to these species are not anticipated. Twelve migratory birds (American Golden-plover, Bald Eagle, Black-billed Cuckoo, Bobolink, Canada Warbler, Cerulean Warbler, Eastern Whip-poor-will, Golden-winged Warbler, Lesser Yellowlegs, Red-headed Woodpecker, Rusty Blackbird, and Wood Thrush) also have the potential to be in or around the project area. The site does not contain preferred habitat conditions due to a lack of trees, ground nesting sites, or large, open expanses of water. As such, these migratory birds are not expected at the project site. The land is actively managed with regular mowing. Considering these conditions, DOE has determined that the proposed activities would have no effect on any special status species of concern.

The project would convert less than 1 acre of prime farmland/farmland of state-wide importance to non-agricultural use. Upon review by the Natural Resource Conservation Service, it was determined that the project is exempt from Farmland Protection Policy Act (FPPA) requirements because it is on lands already in urban development.

Great Lakes Community Conservation Corp

Solar kiosks would be installed at up to four different training facilities owned by the Great Lakes Community Conservation Corp. These kiosks would provide free access to local residents to charge digital devices. Students trained in U.S. Environmental Protection Agency's Environmental Workforce Development and Job Training Program would design, fabricate, and install the kiosks.

Each solar kiosk bank would feature one small PV panel at each of the selected sites. Each module would have a combined solar output of 2.5 kW. A concrete pad (approximately 9 square feet) may be placed at sites where a foundation is needed. The support post for the kiosk would be placed on the concrete pad or inserted into the ground at a depth of 24 inches for sites without a concrete pad. The box for battery storage would be placed on the post with a small solar module on top. The solar modules are expected to be approximately 12 inches by 24 inches.

Kiosk locations order of installation preference and priority would be:

• Placement on the front lawn of the Training Facility; 1437 Marquette Street; Racine, Wisconsin 53404

• Placement on the front lawn of the Training Facility; 731 W. Washington Avenue; Milwaukee, Wisconsin 53204

• Placement on the front lawn of the housing redevelopment training site; 2039 S. Green Bay Road; Mt. Pleasant, Wisconsin 53406

• Placement on the front lawn of the Training Facility; 910 N. 23rd Street; Milwaukee, Wisconsin 53233

USFWS IPaC database shows one mammal (Northern Long-eared Bat), one bird (Red Knot), and one insect (Monarch Butterfly) that could be in the project area, however the project site does not include critical habitat for the above-mentioned species. Therefore, impacts to these species are not anticipated. Twenty-one migratory birds (American Golden-plover, Bald Eagle, Black Tern, Black-billed Cuckoo, Bobolink, Canada Warbler, Cerulean Warbler, Eastern Whip-poor-will, Golden-winged Warbler, Henslow's Sparrow, Le Conte's Sparrow, Kentucky Warbler, Lesser Yellowlegs, Long-eared Owl, Marbled Godwit, Prothonotary Warbler, Red-headed Woodpecker, Ruddy Turnstone, Rusty Blackbird, Short-billed Dowitcher, and Wood Thrush) also have the potential to be in or around the project areas. The sites do not contain preferred habitat conditions due to a lack of ground nesting sites or large, open expanses of water. The land is actively managed with regular mowing. As such, these migratory birds are not expected at the project site. There is a possibility that trees close to the project areas could be used for nesting. However, installation of the kiosks does not require timber clearing. Considering these conditions, DOE has determined that the proposed activities would have no effect on any special status species of concern.

The following applies to all proposed project locations:

With the exception of the solar kiosks which do not require permitting of any type, necessary permits would be obtained and electrical inspections performed.

According to the Federal Emergency Management Agency Flood Map Service Center all locations of the proposed projects are outside of the 100-year floodplain.

The recipient worked directly with their State Historic Preservation Office (SHPO) to ensure protection of cultural resources during the project activities on all proposed sites. The SHPO reviewed all proposed project activities at each site location listed above and determined that no eligible properties will be affected (i.e. none are present or there are historic properties present but the project will have no effect upon them), however if plans change or cultural materials/human remains are found during the project, project activities must halt and the SHPO must be contacted. DOE is in agreement with this determination from the Wisconsin SHPO.

Any changes to the project activities or locations 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.

Include the following condition in the financial assisstance agreement:

If during project activities any cultural materials are discovered, the Recipient and/or its assignees must stop work immediately and inform the Wisconsin State Historic Preservation Office of the discovery so that an evaluation of the discovery can be completed prior to continuing work. If any discovery includes human remains, the Recipient and/or its assignees must also contact any other appropriate agency.

Notes:

Office of Weatherization and Intergovernmental Programs – State Energy Program
This NEPA determination does require a tailored NEPA provision.
Review completed by Shaina Aguilar on 11/17/2021.

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: Kristin Kerwin Date: 11/18/2021

NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

- [x] 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