

PMC-ND

(1.08.09.13)

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



RECIPIENT: NREL

STATE: MN

PROJECT TITLE Vegetation Management and Research Test Plots for Multiple Solar Installations in MN; NREL Tracking
 : No. 17-007

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-17-007	GO28308

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:

B3.1 Site characterization and environmental monitoring Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to the National Renewable Energy Laboratory (NREL) to conduct scientific research on the performance of native and pollinator-friendly vegetation underneath utility-scale solar installations at four sites in Minnesota over a three year period.

Enel Green Power North America (EGP) is developing 16 utility-scale solar facilities in southeast Minnesota, known as the Aurora Project. NREL would partner with EGP to identify and develop vegetation management protocols for solar installations in Minnesota. DOE has determined that the Aurora Project has independent utility from the proposed project. Therefore, the construction and operation of the Aurora Project is not considered a connected action and is not analyzed in this NEPA review.

The soil at each of the 16 Aurora Project sites would be characterized and four test sites would be selected. Each of the four vegetation test plots would be approximately 0.25 acres, with 0.04 acres of the area to be used as a control plot. Six different seed mixes (consistent with seeds and mixes approved by the MN Department of Natural Resources) would be evaluated within the test plots. Vegetation seed mixes would include different combinations of native and available warm season grasses, cool season grasses, pollinator-friendly species, legumes, and early successional species. A series of monitoring devices would be installed in the test plots to characterize the impacts of vegetation on microclimate conditions, soil, and PV panel performance and temperature. Specific devices that would be used include air temperature probes, relative humidity probes, rain gauges, wind anemometers, pyranometers, soil moisture reflectometers, soil thermocouples, and soil heat flux plates, soil core samplers to measure soil carbon, and PV panel thermocouples. The test plots would not be mowed, sprayed, or grazed during the study period. NREL would maintain the test plot areas and would control noxious weeds as needed.

The proposed project would have short-term land disturbing impacts of approximately 0.25 acres at each of the four

locations. The disturbed areas would be revegetated for the proposed project and managed separately from the remainder of each solar development site. At the conclusion of the study the equipment would be removed and the test plots returned to the facility operator. All proposed activities would occur on non-utilized farmland and would not affect cultural resources, threatened or endangered species, wetlands, floodplains, or prime farmlands. No permits would be required.

Workers could be exposed to hazards involving herbicides and minor construction activities such as soil turning, soil augers, and environmental testing equipment. Existing corporate health and safety policies and procedures would be followed including employee training, proper protective equipment, engineering controls, proper material handling, monitoring, and internal assessments. Additional policies and procedures would be developed if additional health and safety risks are identified.

Mobile air emissions sources could be from pickup trucks, gasoline powered landscaping equipment such as rototiller, soil augers, and mowers. These emissions would be negligible and short-term.

Packaging and shipping materials used in establishing test plots and control areas would be reused, recycled, or disposed of in a sanitary landfill as appropriate.

Based on the review of the proposal, DOE has determined the proposal fits within the class of action and the integral elements of 10 CFR 1021 subpart B outlined in the DOE categorical exclusion selected above. DOE has also determined that: (1) there are no extraordinary circumstances (as defined by 10 CFR 1021.410(2)) related to the proposal that may affect the significance of the environmental effects of the proposal; (2) the proposal has not been segmented to meet the definition of a categorical exclusion; and (3) the proposal is not connected to other actions with potentially significant impacts, related to other proposals with cumulatively significant actions, or an improper interim action. This proposal 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 the Recipient intends to make changes to the scope or objective of this project, the Recipient is required to contact the Project Officer, identified in Block 15 of the Assistance Agreement before proceeding. The Recipient must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved. If the Recipient moves forward with activities that are not authorized for Federal funding by the DOE Contracting Officer in advance of a final NEPA decision, the Recipient is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

NREL

Prepared by Nicole Serio, June 1, 2017

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

Electronically
Signed By:

Kristin Kerwin
NEPA Compliance Officer

Date: 6/2/2017

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: