



Environmental Review Form for Argonne National Laboratory

<b>Form:</b>	ANL-985
<b>Version:</b>	5
<b>Your Form ID:</b>	ANL-985-1658
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<b>Created By:</b>	Harris, Shana E

**Creator**

Badge:	311196	Name:	Harris, Shana E
Cost Center:	254	Division:	WSH
Job Title:	ESH Multi-Functional 3	Employee Type:	Regular Full-Time Exempt
Building:	203	Lab Extension:	2-5482

**General Information**

Project/Activity Title: Pollinator and other Wildlife Surveys at Minnesota Solar Facilities and Agricultural Fields 2018 & 2021

ASO NEPA Tracking No.:	Type of Funding:	
B & R Code: SL0400000	Identifying Number: ANL-985-1658	
SPP Proposal Number:	CRADA Proposal Number:	
Work Project Number: PRJ1009444	ANL Accounting Number:	(Item 3a in Field Work Proposal)

Other (explain): Directly Related to Approved NEPA GFO-0009371-001

List appropriate NEPA Owners:  
Division: EVS NEPA Owner:

**Financial Plans**

To select a Financial Plan, click the magnifying glass icon to open a search window.

Cost Center: Project: Phase: Task:

**Description of Proposed Action**

The purpose of the overall project is to conduct surveys for insect pollinators in pollinator habitats newly developed at commercial solar energy facilities, in existing natural areas if present on the solar facilities, and in adjacent agricultural fields. Activities will include the placement of wire surveyor flag markers approximately 3 inches into the ground to mark the beginning, end, and several intermediate locations of each transect. Each transect will be 100 ft in length and have a width of 6 ft, and as many as 8 such transects may be established at any single solar facility. An additional 4-6 similar transects will be established in agricultural and (if present) natural areas that are directly adjacent to the solar facility. At some facilities we will also setup and use wildlife acoustic and/or ultrasonic monitors and cameras that will be mounted on tripods and secured with sandbags. Restrictions: Any work performed on public or private land will solicit the consent of the owner prior too commencing any work on the site grounds. Facility management staff will be consulted prior to each visit to ensure all local and state rules are followed during the project. Any ground penetrations must follow local and state requirements around use of 811 for (Call Julie) prior to performing work along with any requirements from the hosting facility. Any actions planned that do not meet these restrictions or fall within the scope described shall require additional NEPA review.

**Description of Affected Environment**

Field Activities will be conducted at the following locations throughout Minnesota: Atwater, MN ; Anoka, MN and Mankato, MN and agricultural fields adjacent to the solar energy fields in the identified locations.

**Potential Environmental Effects**

- Attach explanation for each "yes" response near bottom of form.
- See Instructions for Completing Environmental Review Form.

Section A (Complete For All Projects)		Yes	No	Explanation
1.	Project evaluated for Pollution Prevention and Waste Minimization opportunities and details provided under items 2, 4, 6, 7, 8, 16, and 20 below, as applicable	<input checked="" type="radio"/>	<input type="radio"/>	No chemicals are being used during the project and thus waste minimization and pollution prevention are N/A.
2.	Air Pollutant Emissions	<input type="radio"/>	<input checked="" type="radio"/>	
3.	Noise	<input type="radio"/>	<input checked="" type="radio"/>	
4.	Chemical/Oil Storage/Use	<input type="radio"/>	<input checked="" type="radio"/>	
5.	Pesticide Use	<input type="radio"/>	<input checked="" type="radio"/>	
6.	<b>Toxic Substances Control Act (TSCA) Substances</b>			
6a.	Polychlorinated Biphenyls (PCBs)	<input type="radio"/>	<input checked="" type="radio"/>	
6b.	Asbestos or Asbestos Containing Materials	<input type="radio"/>	<input checked="" type="radio"/>	
6c.	Other TSCA Regulated Substances	<input type="radio"/>	<input checked="" type="radio"/>	
6d.	Import or Export of Chemical Substances	<input type="radio"/>	<input checked="" type="radio"/>	
7.	Biohazards	<input type="radio"/>	<input checked="" type="radio"/>	
8.	Effluent/Wastewater (If yes, see question #12 and contact Peter Lynch (HSE) at 2-4582 or lynch@anl.gov)	<input type="radio"/>	<input checked="" type="radio"/>	
9.	<b>Waste Management</b>			
9a.	Construction or Demolition Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9b.	Hazardous Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9c.	Radioactive Mixed Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9d.	Radioactive Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9e.	Asbestos Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9f.	Biological Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9g.	No Path to Disposal Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9h.	Nano-material Waste	<input type="radio"/>	<input checked="" type="radio"/>	
10.	Radiation	<input type="radio"/>	<input checked="" type="radio"/>	
11.	Threatened Violation of ES&H Regulations or Permit Requirement	<input type="radio"/>	<input checked="" type="radio"/>	
12.	New or Modified Federal or State Permits	<input type="radio"/>	<input checked="" type="radio"/>	
13.	Siting, Construction, or Major Modification of Facility to Recover, Treat, Store, or Dispose of Waste	<input type="radio"/>	<input checked="" type="radio"/>	
14.	Public Controversy	<input type="radio"/>	<input checked="" type="radio"/>	
15.	Historic Structures and Objects	<input type="radio"/>	<input checked="" type="radio"/>	
16.	Disturbance of Pre-existing Contamination	<input type="radio"/>	<input checked="" type="radio"/>	
17.	Energy Efficiency, Resource Conserving, and Sustainable Design Features	<input type="radio"/>	<input checked="" type="radio"/>	
<b>Section B (For Projects that Occur Outdoors)</b>		<b>Yes</b>	<b>No</b>	
18.	Threatened or Endangered Species, Critical Habitats, and/or other Protected Species	<input type="radio"/>	<input checked="" type="radio"/>	
19.	Wetlands	<input type="radio"/>	<input checked="" type="radio"/>	
20.	Floodplain	<input type="radio"/>	<input checked="" type="radio"/>	
21.	Landscaping	<input type="radio"/>	<input checked="" type="radio"/>	
22.	Navigable Air Space	<input type="radio"/>	<input checked="" type="radio"/>	
23.	Clearing or Excavation	<input checked="" type="radio"/>	<input type="radio"/>	Minor Ground Disturbances. Local AHJ will be contacted prior to placing surveyor flags or conducting other ground penetrating activities.
24.	Archaeological Resources	<input type="radio"/>	<input checked="" type="radio"/>	
25.	Underground Injection	<input type="radio"/>	<input checked="" type="radio"/>	
26.	Underground Storage Tanks	<input type="radio"/>	<input checked="" type="radio"/>	

27.	Public Utilities or Services	<input type="radio"/>	<input checked="" type="radio"/>	
28.	Depletion of a Non-Renewable Resource	<input type="radio"/>	<input checked="" type="radio"/>	
<b>Section C (For Projects Outside of ANL)</b>		<b>Yes</b>	<b>No</b>	
29.	Prime, Unique, or Locally Important Farmland	<input type="radio"/>	<input checked="" type="radio"/>	
30.	Special Sources of Groundwater (such as sole source aquifer)	<input type="radio"/>	<input checked="" type="radio"/>	
31.	Coastal Zones	<input type="radio"/>	<input checked="" type="radio"/>	
32.	Areas with Special National Designations (such as National Forests, Parks, or Trails)	<input type="radio"/>	<input checked="" type="radio"/>	
33.	Action of a State Agency in a State with NEPA-type Law	<input type="radio"/>	<input checked="" type="radio"/>	
34.	Class I Air Quality Control Region	<input type="radio"/>	<input checked="" type="radio"/>	

### Categorical Exclusion

#### ANL NEPA Reviewer Use Only

- My approval is the final approval necessary
- This form requires additional approval from DOE

#### To be Completed by DOE/ASO

Section D	Yes	No
Are there any extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal?	<input type="radio"/>	<input checked="" type="radio"/>
Is the project connected to other actions with potentially significant impacts or related to other proposed action with cumulatively significant impacts?	<input type="radio"/>	<input checked="" type="radio"/>
If yes, is a categorical exclusion determination precluded by 40 CFR 1506.1 or 10 CFR 1021.211?	<input type="radio"/>	<input type="radio"/>
Can the project or activity be categorically excluded from preparation of an Environment Assessment or Environmental Impact Statement under Subpart D of the DOE NEPA Regulations?	<input checked="" type="radio"/>	<input type="radio"/>
If yes, indicate the class or classes of action from Appendix A or B of Subpart D under which the project may be excluded: This project can be excluded under the following classes/categories of action from Appendix B of 10 CFR 1021, Subpart D: B 3.3 Research related to conservation of fish, wildlife and cultural resources B 3.8 Outdoor terrestrial ecological and environmental research		
If no, indicate the NEPA recommendation and class(es) of action from Appendix C or D to Subpart D to Part 1021 of 10 CFR.		

### Attachments

**File Description:** MN SETO Project SOW [View Attachment](#)

**File Description:** UIC SETO Project CX NEPA Approval [View Attachment](#)

### Comments

This ANL-985 is the addition of new locations throughout Minnesota not originally referenced in the approved NEPA Document attached.

### Add Approver

Approver Name	Approver Badge	Reason	Delete
Hartmann, Heidi M.	40468	Project PI	
Walston, Leroy J., Jr.	57760	Supporting Project PI	

### Notifications

The approval notification email will be copied to the people listed below.

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Badge	Name	Division	Delete
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## ASO-CX Number

**ASO-CX- 388**

Comments:

This DOE NEPA CX approval is tracked as ASO-CX-388. Determination coordinated with DOE EERE.

## Approval

<u>Approver</u>	<u>Action</u>	<u>Date Routed</u>	<u>Action Date</u>	<u>Approval Reason / Comments</u>	<u>Approval Type</u>
Harris, Shana E	APPROVED	2021-07-02	2021-07-02 13:00:21.0	Creator :	PRIMARY
Harris, Shana E	APPROVED	2021-07-02	2021-07-02 13:00:21.0	Project Manager :	PRIMARY
Hartmann, Heidi M.	APPROVED	2021-07-02	2021-07-02 13:18:46.0	Project PI :	PRIMARY
Walston, Leroy J., Jr.	APPROVED	2021-07-02	2021-07-02 13:20:42.0	Supporting Project PI :	PRIMARY
Wozny, Bryan M.	APPROVED	2021-07-02	2021-07-06 10:32:50.0	NEPA Owner Approval for Argonne Environmental Review : <b>For adding new locations in MN to existing work tasks and NEPA approval in place. Hope that the MN site for this will also be added to the EERE NEPA.</b>	PRIMARY
Ptak, Jill S.	APPROVED	2021-07-06	2021-07-09 11:00:51.0	ANL NEPA Reviewer : <b>Scope for Offsite work in MN not covered under attached DOE-EERE CX</b>	PRIMARY
Hellman, Karen B.	APPROVED	2021-07-09	2021-07-13 14:57:49.0	ANL-985 Review and Approval :	PRIMARY
Dunn, Michael W.	APPROVED	2021-07-13	2021-07-13 15:36:55.0	ANL-985 ANL Deputy COO Review and Approval :	PRIMARY
Joshi, Kaushik N.	APPROVED	2021-07-13	2021-07-19 16:30:41.0	ANL-985 DOE-ASO Review and Approval : <b>This DOE NEPA CX approval is tracked as ASO-CX-388.</b>	PRIMARY
Siebach, Peter Rudolf	APPROVED	2021-07-19	2021-07-19 16:55:38.0	ANL-985 DOE NEPA Compliance Officer Review and Approval :	PRIMARY

Argonne National Laboratory  
Statement of Work  
Transect Sampling of Pollinator Communities at Solar Energy Facilities  
In Minnesota  
May 2021

Argonne National Laboratory (Argonne) has been contracted by the U.S. Department of Energy's Solar Energy Technologies Office (SETO) to conduct pollinator surveys at solar energy generating facilities and adjacent agriculture lands in Minnesota, 2018-2021. The list of solar energy sites to be surveyed are listed in Table 1 and tentative dates of travel in 2021 are listed in Table 2. At all survey locations, the work will entail walking multiple 100-ft transects and recording the types and numbers of pollinators observed along the transects, as well as the types of vegetation blooming along each transect. Argonne field personnel involved in field activities are listed in Table 3; health and safety planning for this field work is presented in the project HASP.

The purpose of the overall project is to conduct surveys for insect pollinators in pollinator habitats newly developed at commercial solar energy facilities, in existing natural areas if present on the solar facilities, and in adjacent agricultural fields. The only ground disturbing activities will be the placement of short surveyor flags to mark the beginning end, and several intermediate locations of each transect. Each transect will be 100 ft in length and have a width of 6 ft, and as many as 8 such transects may be established at any single solar facility. An additional 4-6 similar transects will be established in agricultural and (if present) natural areas that are directly adjacent to the solar facility.

At each transect, two Argonne staff will begin a timed 7.5-minute walk along the transect centerline, recording the types and numbers of pollinators observed on flowering plants within 3 feet on each side of the centerline. Photos will also be collected to provide images for later taxonomic identification. At each solar facility, surveys will be initiated no earlier than 10AM and cease by no later than 4PM that same day. No surveys will be conducted during periods of rain, and no surveys will be allowed during ongoing or imminent stormy conditions.

Argonne staff will use commercially provided (e.g., National) rental vehicles or personal vehicles to travel along township, county, and state-maintained roads to get from one solar facility to another. No off-road travel is anticipated with the exception of the possible need for occasional use of privately maintained gravel and dirt farming roads to access agricultural fields.

Two staff from the Argonne's Environmental Science Division (EVS) will be conducting the surveys. Survey staff may include Lee Walston, Heidi Hartmann, or Lauren Jenkins and their emergency contact information is presented in Table 3. Lee Walston is designated as the Argonne Field Health and Safety Coordinator (FHSC). The FHSC will oversee health and safety issues and be responsible for providing required health and safety information to team members, be available on site to gather information, and ensure that team members act in accordance with the HASP.

Table 1. Solar Energy Facilities to Be Surveyed

<b>Solar Site Name</b>	<b>Location</b>
Atwater Solar Energy Facility	Atwater, Minnesota
Connexus Solar Energy Facility	Anoka, Minnesota
Eastwood Solar Energy Facility	Mankato, Minnesota

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** The Board of Trustees of the University of Illinois**STATE:** IL

**PROJECT TITLE** Evaluation of Economic, Ecological, and Performance Impacts of Co-Located Pollinator Plantings at Large-Scale Solar Installations

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0002243	DE-EE0009371	GFO-0009371-001	

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.)

**A11 Technical advice and assistance to organizations**

Technical advice and planning assistance to international, national, state, and local organizations.

**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 federal funding to The Board of Trustees of the University of Illinois to study the solar photovoltaic (PV) performance impacts, economic considerations, and ecological benefits of co-locating pollinator plantings at large-scale solar facilities through field research at up to five operating solar sites. The proposed project would also develop an implementation manual and three online tools to assist developers in considering pollinator plantings at large-scale solar facilities and would form an Industrial Advisory Group (IAG) of solar industry representatives and a Technical Advisory Group (TAG) of other solar pollinator stakeholders to advise the project.

The proposed project would consist of three Budget Periods (BP) with an expected duration of one year each. Since pollinator plantings become established over 2 to 5 years and pollinator planting would be introduced during the first year of the study at most or all of the solar facility sites included in the study (described below), the performance and ecological impacts of the presence of pollinator plantings at solar facilities would be evaluated over time as plantings become more established. The team would review BP1 results with solar facility test sites and revise field research plans as needed. As such, there is insufficient information available at this time to review BP2 or BP3 activities. This NEPA determination applies only to BP1.

BP1 is comprised of eight tasks. Associated activities would include data analysis, outreach and stakeholder engagement, outdoor installations, and site monitoring and characterization. Subtasks 2.3 and 3.1 would involve the installations of plantings and equipment. Subtasks 4.1 and 4.2 would involve field-based pollinator research and data collection.

During Subtask 2.3, the project team would coordinate as necessary with site operators, vendors, contractors, and landowners to install pollinator plantings at solar facility test sites and adjacent control sites where applicable. Planting and ongoing maintenance activities would be managed by site operators and contractors. During Subtask 3.1, the project team would install commercially-available environmental monitoring sensors (temperature, humidity, wind speed, and luminosity) mounted on small equipment skids. During Subtasks 4.1 and 4.2, the project team would conduct year 1 field research on ecological impacts of pollinator plantings at solar facility test sites. Proposed activities include the following:

#### Subtask 4.1

- Annual installation of up to 30 100-ft flagged transects using wire stakes and collecting observations of pollinator insects along the transects on 8-10 occasions during each of the 3 summers.
- Netting of insects over 30 minutes at two site locations on 8-12 occasions during each of the three summers.
- Installation of small pan-trap infrastructure (likely on a pole, fence, or other existing onsite infrastructure) in 1 to 3 locations per site, setting up pan traps for 8 to 24 hours 4 times per summer, collecting the trapped insects, refrigerating, and sending to lab for analysis.

#### Subtask 4.2

- Installation of an acoustic monitor and an ultrasonic monitor (likely on a pole, fence, or other existing onsite infrastructure), and monthly collection of data cards and replacement of batteries from these monitors.

Seven existing, privately-owned solar facilities have been identified as confirmed or potential locations for the aforementioned field activities. Site agreements would be finalized during initial BP1 tasks. All of the solar facilities are currently under construction. During 2021, construction should be partially complete or complete for all facilities and seeding with pollinator-supportive seed mixes would take place within some portions of the facilities:

1. University of Illinois at Urbana-Champaign Solar Farm 2.0 (UIUC; Urbana, IL). This confirmed location is a 12 MW, 54 acre solar PV facility.
2. Logansport Solar (Alchemy Renewable Energy; Logansport, IN). This confirmed location is a 16 MW, 80 acre solar PV facility.
3. Point Beach Solar (Two Creeks, WI). This confirmed location is a 100 MW, 465 acre solar PV facility.
4. Bellflower Solar Farm (Lightsource BP; Rush County, IN). This confirmed location is a 170 MW, 1,400 acre solar PV facility.
5. Electric City Solar Park (Greenbacker Capital; Sturgis, MI). This tentative location is a 19 MW, 130 acre solar PV facility.
6. Riverstart Solar Park (EDP Renewables; Randolph County, IN). This tentative location is a 200 MW, 2,450 acre solar PV facility.
7. Two Creeks Solar (NextEra; Two Creeks, WI). This tentative location is a 150 MW, 800 acre solar PV facility.

All of the solar facilities are within the historic range of the Rusty Patch bumble bee (*Bombus affinis* - listed as endangered under the Endangered Species Act). The U.S. Fish and Wildlife Service (FWS) has recommended that UIUC obtain scientific recovery permits for proposed project activities that may result in the capture of *B. affinis* within its historic range. In consultation with FWS Region 3, UIUC has developed a permitting plan regarding the collection of bees at solar sites. UIUC is in the process of having project work added to a pre-existing, university-held scientific recovery permit that explicitly allows for *B. affinis* monitoring. In addition, project leads have begun preparing a broader permit request specific to the proposed research. It is anticipated that such approval will likely take several months and would not be in place until the 2022 field season. Therefore, UIUC is restricted from performing Subtask 4.1 activities involving the netting of insects, installation of pan traps, and periodic collection of

insect specimens at any project location pending the conclusion of FWS review. UIUC is required to submit documentation of all permits to the DOE Project Officer and must receive approval from the DOE Contracting Officer prior to initiating these activities. UIUC may perform Subtask 4.1 activities involving the installation of transects and collection of visual observations, only.

Acoustic and ultrasonic recorders would be used to identify the types of birds and bats utilizing the sites through their vocalizations. The acoustic bird monitoring equipment would be used to collect species-specific avian vocalization data year-round both before and during pollinator plantings establishment; the ultrasonic bat monitoring equipment would be used to collect species-specific bat vocalizations. The bird acoustic recorders would be programmed to record vocalizations at sunrise and sunset, throughout the year, while the bat recorders would be programmed to record from sunset until sunrise and would be removed in winter when bats are hibernating. These research tools are non-intrusive and would not have the potential to impact any sensitive environmental resources that may occur in the project areas.

Equipment installations would be temporary and any resulting ground disturbance would be negligible. The transect flags (50-200 per site, depending on site size) are attached to 3 ft. thin wires that would be inserted into the soil to a depth of about 6 inches. They would be placed at the beginning of each field season (in early July) and removed during the last field work event (typically end of August). The acoustic and ultrasonic monitors are small electronic devices that would either be installed on small metal posts mounted on fences or driven no more than 1 foot into the ground. If using posts driven into the ground, permission and utility clearance from site operators would be obtained prior to installation. For performance monitoring, three small equipment skids would be used per site. The skids would be outfitted with data logging equipment to monitor temperature, humidity, and luminosity underneath panels. At each site, the skids would be placed underneath a PV panel with pollinator plantings, in a corridor on the site, and underneath a PV panel with no plantings. Field work would generate minor quantities of non-hazardous wastes, such as transect flags and alkaline batteries. All materials used and produced by the project would be transported back to research facilities and disposed of properly.

The proposed project would not involve the permanent modification of existing/planned facilities or any change in the use, mission, or operation of these facilities. There are no cultural resources, critical habitats, wetlands, or floodplains within the project areas. A migratory bird nesting survey shall be completed if project activities involving ground disturbance occur between March 15 and September 15. If nests or eggs are found, the area would be cordoned off with a proper buffer until nestlings fledge.

## NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Budget Period 1 Subtask 4.1 activities involving transects.

All other tasks and subtasks of Budget Period 1.

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Budget Period 1 Subtask 4.1 activities involving the netting of insects, installation of pan traps, and periodic collection of insect specimens, until approval is received from the DOE Contracting Officer.

All tasks and subtasks of Budget Period 2 and Budget Period 3.

Include the following condition in the financial assistance agreement:

The Recipient is prohibited from performing Subtask 4.1 activities involving the netting of insects, installation of pan traps, and periodic collection of insect specimens at any project location. UIUC shall provide documentation of all necessary U.S. Fish and Wildlife Service permits and approvals to the DOE Project Officer and must receive approval from the DOE Contracting Officer prior to initiating these Subtask 4.1 activities. The research team shall abide by any required mitigation measures and all other permit terms and conditions. UIUC may perform Subtask 4.1 activities involving the installation of transects and collection of visual observations, only.

A migratory bird nesting survey shall be completed if project activities involving ground disturbance occur between March 15 and September 15. If nests or eggs are found, the area would be cordoned off with a proper buffer until nestlings fledge.

Notes:

Solar Energy Technologies Office

This NEPA determination requires a tailored NEPA Provision.

NEPA review completed by Whitney Doss Donoghue, 5/7/2021

#### 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: \_\_\_\_\_

  
NEPA Compliance Officer

Date: 5/7/2021

#### 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: \_\_\_\_\_

Field Office Manager

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