

**U.S. DEPARTMENT OF ENERGY
OFFICE OF CRITICAL MINERALS AND ENERGY INNOVATION
NEPA DETERMINATION**

RECIPIENT: University of Arizona

STATE: AZ

PROJECT TITLE : Agrivoltaics creates more sustainable energy, food, and water futures for the Southwestern United States: Opportunities at the MW scale

Notice of Funding Opportunity Number

Procurement Instrument Number
DE-EE0010438

NEPA Control Number
GFO-0010438-002

CID Number
GO10438

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:

**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 University of Arizona (UA) to design, develop, and implement agrivoltaic treatments that would be implemented at industrial-scale solar facilities.

This project (award number DE-EE0010438) received a NEPA determination (GFO-0010438-001; CX A9, A11, and B3.1) on July 12th, 2023. Project efforts under this review included the design, development, and implementation of an agrivoltaic project at a utility-scale photovoltaic (PV) facility. It also included the examination of food production practices, native grass mixes, and climate smart crops and their interaction with PV installations within a laboratory setting.

Project efforts under the current review include the design, development, and analysis activities related to agrivoltaic treatments, which would occur at the Barron-Gafford Laboratory within University of Arizona's campus in Tucson, AZ. Equipment calibration, in laboratory analysis and storage of plant material would also occur at the facility. The National Laboratory of the Rockies (Golden, CO) would assist in design and development of the research plan and data analysis. The revegetation of plots with specialty crops within and near solar voltaics would occur at UAs' purpose-built Campus Agricultural Center. Plant, soil, and microclimate revegetation and micrometeorological monitoring would occur at various agrivoltaic treatments that would be installed at a AES' East Line solar facility in Casa Grande, AZ. Grazing grasses would be grown and examined at and near solar voltaics at AES's Grassland Creek Solar Facility in Mona, UT. Micrometeorological monitoring and plant photosynthesis and transpiration rates would be measured at both solar facilities.

The U.S. Fish and Wildlife Information for Planning and Consultation (IPaC) website identifies three threatened or endangered species, the cactus ferruginous pygmy-owl, the Yellow-billed Cuckoo, and the Gila topminnow at the East Line solar facility in Casa Verde, AZ. The IPaC system identified the Yellow-billed Cuckoo at the Grassland Creek solar

facility in Mona, UT. Migratory bird species of conservation concern may be present seasonally within the project areas. The sites in Arizona and Utah are working industry-scale PV sites and revegetation and monitoring efforts would result in negligible ground disturbance, with no impacts to native habitats (e.g., aquatic or riparian habitat). DOE has determined that no adverse impacts to species of concern are to be expected as a result of the proposed activities at the two solar facilities.

The proposed project activities may include the use of pesticides if needed to successfully grow crops. Only natural or non-hazardous pesticides would be used, and all staff would be appropriately trained in their safe and effective use. All working conditions would be managed in accordance with federal, state, and local environmental regulations. Existing corporate health and safety policies and procedures would be followed, including employee training and proper protective equipment.

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.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

If during project work cultural or archaeological artifacts are encountered, the recipient shall stop the site-based activities immediately and inform the DOE Project Officer of the finding. A Class III: Intensive Cultural Resources Inventory shall be required prior to re-commencing project work.

Notes:

Solar Energy Technologies Office (SETO)
NEPA review completed by Chris Akios on 08/07/2026.

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the ‘Rationale for Determination’ above) fits within a class of actions that is listed in Appendix B to 10 CFR Part 1021 or Appendix B and C of DOE’s NEPA Implementing Procedures.

To fit within the classes of actions listed in Appendix B to 10 CFR Part 1021 or Appendix B of DOE’s NEPA Implementing Procedures, 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 Appendix B to 10 CFR Part 1021; (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 Appendix B to 10 CFR Part 1021.

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, is not related to other actions with individually insignificant but cumulatively significant impacts and is not precluded by applicable regulations or procedures 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

NEPA Compliance Officer

Date: 8/7/2026

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: _____