

**GENERIC CATEGORICAL EXCLUSION FOR SMALL-SCALE RENEWABLE
ENERGY RESEARCH AND DEVELOPMENT AND PILOT PROJECTS IN
TERRESTRIAL ENVIRONMENTS,
PACIFIC NORTHWEST NATIONAL LABORATORY,
RICHLAND, WASHINGTON**

Proposed Action

Pacific Northwest National Laboratory (PNNL) proposes to deploy and operate equipment for the purpose of renewable energy research and development and pilot projects.

Location of Action

The actions may occur in previously disturbed or developed terrestrial environments anywhere within the United States.

Description of the Proposed Action

The proposed action includes, but is not limited to, the installation or deployment and the operation of instrumentation and equipment to characterize renewable energy resources, instrumentation to monitor and evaluate the potential environmental and biological impacts of technologies that harvest renewable energy resources, and small-scale pilot projects to test new means to harvest renewable energy resources. Instrumentation may include, but is not limited to, passive devices to monitor meteorological and physical parameters and active devices such as radar, lidar, or other technologies to characterize and monitor resources. Small-scale research and development and pilot projects may be installed to characterize, monitor, or utilize solar, wind, geothermal, or other renewable energy resources.

Biological and Cultural Resources

Installation and operation of research and development equipment or pilot projects is not likely to result in adverse impacts to sensitive biological or cultural resources. Biological and cultural resource reviews will be conducted prior to deployment and operation to assure that impacts to sensitive resources are avoided or minimized.

The biological resource review will identify the occurrence of federal and state protected species in the project area, such as avian species protected under the Migratory Bird Treaty Act, plant and animal species protected under the Endangered Species Act (ESA), including candidates for such protection, species listed as threatened or endangered by the state where the project is located, species protected under the Marine Mammal Protection Act (MMPA), and essential fish habitat as defined by the Magnuson-Stevens Fisheries Conservation and Management Act (MSA). Resource review guidance will be followed during deployment and operation to assure there are no adverse impacts to sensitive species and resources.

The cultural resource review will assure that impacts to sensitive cultural resources are avoided. Consultation with the State Historic Preservation Office and affected tribes, if deemed necessary, would be initiated before project implementation.

If the biological and/or cultural resource review determines that significant resources may be

adversely affected, the conclusions of this categorical exclusion (CX) would need to be reevaluated, and either the site would not be used, mitigation measures would be developed to render the impacts not significant, or additional National Environmental Policy Act (NEPA) analysis and review would be performed.

Categorical Exclusion to Be Applied

Because the proposed action is to perform renewable energy research and development in terrestrial environments, the following Categorical Exclusion (CX), as listed in the DOE National Environmental Policy Act (NEPA) implementing procedures, 10 CFR 1021, would apply:

B5.15 Small-scale renewable energy research and development projects and small-scale pilot projects, provided that the projects are located 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.

Generic CXs are authorized by 10 CFR 1021.410(f) for recurring activities to be undertaken during a specified period of time, after considering potential aggregated impacts.

Eligibility Criteria

The proposed activity meets the eligibility criteria of 10 CFR 1021.410(b) because the proposed action does not have any extraordinary circumstances that might affect the significance of the environmental effects, 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 environmental impact statement preparation.

The "Integral Elements" of 10 CFR 1021 are satisfied as discussed in the table below:

INTEGRAL ELEMENTS, 10 CFR 1021, SUBPART D, Appendix B (1)-(5)	
Would the Proposed Action:	EVALUATION:
Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health?	The proposed action would not threaten a violation of regulations or DOE or Executive Orders. Appropriate permits would be acquired prior to project implementation.
Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities?	No waste management facilities would be constructed under this CX. Any generated waste would be managed in accordance with applicable regulations in existing facilities. Waste disposal pathways would be identified prior to generating waste and waste generation would be minimized.

INTEGRAL ELEMENTS, 10 CFR 1021, SUBPART D, Appendix B (1)-(5)	
Would the Proposed Action:	EVALUATION:
Disturb hazardous substances, pollutants, or contaminants that preexist in the environment such that there would be uncontrolled or unpermitted releases?	No preexisting hazardous substances, pollutants, or contaminants would be disturbed in a manner that or results in uncontrolled or unpermitted releases.
Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species?	The proposed action would not involve the use of 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).
<p>Have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited, to:</p> <ul style="list-style-type: none"> • protected historic/archaeological resources • protected biological resources and habitat • jurisdictional wetlands, 100-year floodplains • Federal- or state-designated parks and wildlife refuges, wilderness areas, wild and scenic rivers, national monuments, marine sanctuaries, national natural landmarks, and scenic areas. 	<p>No environmentally sensitive resources would be adversely affected by the proposed actions. Resource reviews would be conducted for special circumstances. Refer to the Biological and Cultural Resources section for details regarding the application of cultural and biological resource reviews.</p> <p>The proposed action would not adversely affect floodplains, wetlands regulated under the Clean Water Act, national monuments, or other specially designated areas, prime agricultural lands, special sources of water, or other special habitats.</p>

Summary of Environmental Impacts

The following table summarizes environmental impacts considered when preparing this CX determination.

Environmental Impacts Considered when Preparing this CX Determination	
<i>Would the Proposed Action:</i>	Evaluation
Result in more than minimal air impacts?	The proposed action would not have significant air impacts.
Increase offsite radiation dose measurably?	The proposed action would not affect offsite radiation dose.
Require a radiological work permit?	The proposed action would not require radiological work permits.
Discharge any liquids to the environment?	The proposed action would not discharge liquids to the environment.
Require a Spill Prevention, Control, and Countermeasures plan?	Some installations may store diesel fuel or gasoline on site for an emergency generator or have batteries for backup power or for storing produced energy.

Environmental Impacts Considered when Preparing this CX Determination

<i>Would the Proposed Action:</i>	Evaluation
	Best management practices, including development and implementation of a spill prevention, control, and countermeasures plan, will be instituted as needed to assure that environmental releases are prevented or controlled.
Use carcinogens, hazardous, or toxic chemicals/materials?	The proposed action would not use carcinogens, hazardous, or toxic chemicals or materials.
Involve hazardous, radioactive, polychlorinated biphenyl, or asbestos waste?	The proposed action would not involve hazardous, radioactive, polychlorinated, biphenyl, or asbestos waste.
Cause more than a minor or temporary increase in noise level?	Some of the equipment, such as wind turbines, RASS (Radio-Acoustic Sounding system), and others may create noticeable increases in ambient noise levels. Noise impacts will be evaluated for each proposed activity to determine the potential impacts on people and the local environment. If needed, project modifications or mitigation actions will be implemented to reduce or eliminate potential adverse noise impacts.
Create light / glare, or other aesthetic impacts?	Some solar energy research could have minor glare impacts in the vicinity of project site. Wind energy research project could have minor aesthetic impacts.
Require an excavation permit (e.g., for test pits, wells, utility installation)?	Some installations will require excavation to install subsurface utilities. Other installations may require small excavations for equipment foundations, supports, fencing, and other purposes. Biological and cultural reviews will be performed to assure that impacts to these resources are avoided or minimized, and coordination with appropriate utility providers and land owners will be performed to minimize the potential to interact with subsurface electrical, gas, or water lines or other subsurface obstructions.
Disturb an undeveloped area?	Because the research and development would be limited to small-scale activities, any development would be small and usually within or adjacent to previously developed areas. Reviews and permits would be obtained for any proposed research in undeveloped areas.
Result in more than minimal impacts on transportation or public services?	The proposed action would not impact transportation or public services.
Disproportionately impact low-income or minority populations?	The proposed action would not disproportionately impact low-income or minority populations.

Environmental Impacts Considered when Preparing this CX Determination	
<i>Would the Proposed Action:</i>	Evaluation
Require environmental or other permits from federal, state, or local agencies?	Depending on the specific equipment and proposed location, permits may be required from federal, state, and local agencies. These permits may include federal permits from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act, the US Fish and Wildlife Service and/or National Marine Fisheries Service under the ESA, Bald and Golden Eagle Protection Act, and Migratory Bird Treaty Act, state fish and wildlife permits, and local building and shoreline development permits, among others.

Compliance Action

I have determined that the proposed action satisfies the DOE NEPA eligibility criteria and integral elements, does not pose extraordinary circumstances, and meets the requirements for the CX referenced above. Therefore, using the authority delegated to me, I have determined that the proposed action may be categorically excluded from further NEPA review and documentation. This determination must be reviewed at least once every 5 years.

Signature: _____

Date: 10-19-2020

Tom McDermott, PNSO NEPA Compliance Officer

cc: MR Sackschewsky, PNNL