

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Unalakleet Native Corporation**STATE:** AK

PROJECT TITLE: Unalakleet Microgrid Optimization for Tribal community Resilience

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001847	DE-IE0000112	GFO-0000112-001	

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1A), 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.)
- B1.31 Installation or relocation of machinery and equipment** Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.
- 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.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Unalakleet Native Corporation (UNC) to upgrade and increase the voltage of a portion of Unalakleet's microgrid, in Unalakleet, AK. Specifically, the voltage of a 1.45 mile transmission line connecting a 100kW wind farm to the town's power plant would be increased from 4.16 kV to 12.47 kV. Upgrades would also include improvements to the Supervisory Control and Data Acquisition (SCADA) and associated data management systems in the plant.

UNC would serve as the entity responsible for management of grant funding. Unalakleet Valley Electric Cooperative (UVEC) would serve as the lead technical resource on the project, coordinating local hiring and equipment rental. UVEC owns and operates the current microgrid that would be upgraded as part of this project. Accordingly, UVEC would operate and maintain the new system components to be installed. Individual consultants from Deerstone Consulting (Anchorage, AK), Intelligent Energy Systems (IES - Anchorage, AK), and TDX Power (Anchorage, AK) would all serve as subcontractors on the project, providing technical support for design and implementation of the transmission line installation and upgrades, as well as the SCADA upgrades and associated data management improvements to power plant systems.

Proposed project activities would be divided into two broad groupings: 1) increasing voltage on the transmission line, and 2) SCADA upgrades. Activities relating to increasing the voltage on the line would include: engineering design, costing, site engineering, and inspections; mobilization; transformer replacement (4.16 kV to 12.47 kV); installation of new single-phase transformers at the home sites of customers along the transmission line; installation of a new 0.8 mile overhead line; overhead line upgrades; structural improvements to transmission infrastructure; replacement of conductor and transformers along the current power line; and replacement of poles as needed along the current power line. Activities relating to SCADA upgrades would include: systems analysis; hardware installation; programming and hardware configuration; development of an operations manual; and operator training.

The portion of the transmission line that would be upgraded is divided into two sections; a section that runs an underground line connecting the power plant in the town center of Unalakleet to the second section, located near the Unalakleet Airport, which consists of a 0.8 mile overhead line (known as the Federal Aviation Authority 'FAA' Line, though it is owned and operated by UVEC) that crosses the Unalakleet River and connects the underground line to an existing wind turbine farm located outside of the town center. A portion of the underground line runs under one of the runways at the airport. Upgrades to this line would not require excavation of the runway, taxiway, or any other service roads. No trenching would be required. Replacement of the overhead line and associated upgrades would not require siting any new pole locations. No clearance issues are anticipated either, as there would be no elevation changes.

Permission would not be required from the FAA in order to complete any of the proposed work activities. However, UNC/UVEC would engage with the FAA and notify it of upcoming work activities as construction is initiated. UNC/UVEC would notify the FAA of any scheduled outages and would consult with air carriers to minimize disruption of air traffic. UNC/UVEC would request access to the airport when needed and would be escorted by Alaska Department of Transportation & Public Facilities employees.

Because all work activities relating to the transmission would occur along the existing line path, it is not anticipated that any additional permits or authorizations would be required. Nonetheless, UNC/UVEC would confirm this prior to commencing work activities, and if any permit is required, it would be obtained prior to commencing project work.

Any potential safety hazards associated with the transmission line and SCADA upgrades would be mitigated through adherence to established health and safety policies and procedures. All power system equipment would be installed in accordance with the National Electric Safety Code. All project activities would be conducted in accordance with local, state, and Federal health, safety and environmental regulations.

The U.S. Fish and Wildlife Service's (USFWS) Endangered Species database indicates that populations of Spectacled Eider and Steller's Eider have been known to occur in the region of the project area. Both species are classified as Threatened. Considering the types of activities proposed as part of the project and all project work would be conducted within developed areas already disturbed by human activities, DOE has determined that project activities would have no effect on any ESA-listed species.

DOE also conducted a review of potential issues relating to other resources of concern and found that no effects would be expected to result from the project.

Based on the review of the proposal, DOE has determined the proposal fits within the class of action(s) and the integral elements of Appendix B to Subpart D of 10 CFR 1021 outlined in the DOE categorical exclusion(s) 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.

Notes:

Office of Indian Energy Policy and Program
This NEPA determination does not require a tailored NEPA Provision.
NEPA review completed by Jonathan Hartman, 10/30/2018

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Casey Strickland Date: 10/31/2018
NEPA Compliance Officer

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: _____ Date: _____
Field Office Manager