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Record of Categorical Exclusion for Sunwealth's Project Polo

Description of Categorically Excluded Action:

The US Department of Energy (DOE) Loan Programs Office (LPO) is considering whether to issue a Title XVII Innovative Clean Energy Program loan guarantee to Sunwealth's Project Polo for integrating Virtual Power Plant (VPP) aggregation software with new solar generation systems and battery energy storage systems (BESS) to increase participation in wholesale markets, support grid resiliency, and increase the scale of clean energy benefits to communities and investors while achieving returns that are market-rate on a risk-adjusted basis. Sunwealth applied for a loan guarantee under LPO's Title 17 Clean Energy Financing Program established pursuant to Title XVII of the Energy Policy Act of 2005, as amended, which provides for loans to projects that avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases and employ new or significantly improved technologies as compared to commercial technologies in service in the United States.

Project Description:

The Sunwealth Project (Project) consists of creating a portfolio of several hundred grid-connected distributed photovoltaic solar generation and battery storage assets integrated with VPP aggregation software. The portfolio would be comprised of projects both developed by Sunwealth and either co-developed or acquired through partnerships and with local Engineering, Procurement, and Construction (EPC) companies and developers. Project acquisitions are performed through Membership Interest Purchase Agreements (MIPAs) or Asset Purchase Agreements, which may involve the assignment and/or transfer of entitlements and/or property. In total, the Project would provide up to 225 MW in new generation and storage managed by the VPP aggregation software located throughout the United States. Project sites are selected based on the following three (3) primary conditions: (1) property ownership where legal documentation confirms the deed and property boundaries; (2) a review of flood maps, wind exposure, storm risks, fire risk, and risk of seismic activity, and (3) a review of the existing conditions to determine the most efficient use and installation of the solar generation systems and the BESS.

The photovoltaic solar generation systems consist of roof mounted systems, canopy mounted systems, and ground mounted systems, all on existing structures or in previously disturbed areas. The installations will vary in both generating and storage capacity and will include photovoltaic solar modules (solar panels), inverters, batteries, direct current (DC) (i.e. module, racking and wiring installation), alternating current (AC) (i.e. inverter, conduit, wiring, meter installation), and monitoring devices. Applicable feasibility reviews and studies (e.g. roof condition and structural load certifications, geotechnical survey, racking and supporting calculation, and/or canopy certifications) are completed during the site selection process. All projects will have applicable professional engineer (PE) approvals (e.g. stamped letters, drawings, certifications, calculations), as well as all relevant and applicable local, county, and state approvals prior to installation. Approvals include all ministerial and non-ministerial permits which may require but

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are not limited to special permits for the modification of existing properties (ex. solar canopy structures and lighting integration on parking garages), addition of fences to enclose electrical equipment (ex. ground-mounted), modification to existing infrastructure for emergency response (ex. emergency shunt-trips), and measures for stormwater drainage. Additionally, projects may be integrated into an existing property's building management software for further remote performance monitoring and reporting.

For projects involving energy storage (BESS), either lead acid, aqueous liquid, lithium-ion, or other Sunwealth-approved batteries will be used, and the size/capacity will vary based on the needs of the specific installation. The factors used to determine the battery used for a particular project include capacity, efficiency, charge/discharge rates, and depth of discharge, as well as environmental factors (e.g. geographic location, temperature, climate). These specifications are tailored to optimize the overall benefit and efficiency of the battery system for the host customer, ensuring that their specific needs and usage patterns are considered. Each BESS deployment will include Battery Management System (BMS) software to monitor the real-time energy inputs and outputs of the BESS), as well as applicable safety systems (e.g. fire monitoring and suppression systems). The BESS will be located on, within, or adjacent to existing infrastructure, or in previously disturbed areas. Applicable feasibility reviews and studies (e.g. structural certifications, interconnection agreements and design certifications) are completed during the site selection process. All projects will have applicable PE approvals (e.g. stamped letters, drawings, certifications, calculations), as well as all relevant and applicable interconnection agreements and local, county, and state approvals prior to installation. Approvals include all ministerial and non-ministerial permits which may require but are not limited to addition of fences to enclose electrical equipment (ex. energy storage systems), modification to existing infrastructure for emergency response (ex. alarm integration into existing annunciator panel), and addition of other safety measures (ex. dry- and standpipe installation for response to thermal runaway). Additionally, projects may be integrated into an existing property's building management software for further remote performance monitoring and reporting.

For all the systems deployed (solar and BESS), Sunwealth creates maintenance schedules based on the manufacturers' suggested best practices and solar industry standards. In general, Sunwealth will conduct preventative maintenance for solar arrays at least once a year, and battery preventative maintenance is conducted based on manufacturer-stated best practices.

Number and Title of Categorical Exclusion:

The actions being proposed under this Title XVII loan guarantee for the Sunwealth Project Polo are consistent with and are covered by DOE categorical exclusions in 10 CFR 1021, Appendix B (B1.7, B1.11, B1.24, B2.2, B5.1, B5.16) because the Project involves the acquisition and installation of new solar generation systems and BESS on existing infrastructure or in previously disturbed areas that have been subject to screening reviews as well as certifications and approvals. The following categorical exclusions to further NEPA review apply:

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B1.7 “Electronic Equipment”

Acquisition, installation, operation, modification, and removal of electricity transmission control and monitoring devices for grid demand and response, communication systems, data processing equipment, and similar electronic equipment.

B1.11 “Fencing”

Installation of fencing, including, but not limited to border marking, that would not have the potential to significantly impede wildlife population movement (including migration) or surface water flow.

B1.24 “Property transfers”

Transfer, lease, disposition, or acquisition of interests in personal property (including, but not limited to, equipment and materials) or real property (including, but not limited to, permanent structures and land), provided that under reasonably foreseeable uses (1) there would be no potential release of substances at a level, or in a form, that could pose a threat to public health or the environment and (2) the covered actions would not have the potential to cause a significant change in impacts from before the transfer, lease, disposition, or acquisition of interests.

B2.2 “Building and equipment instrumentation”

Installation of, or improvements to, building and equipment instrumentation (including, but not limited to, remote control panels, remote monitoring capability, alarm and surveillance systems, control systems to provide automatic shutdown, fire detection and protection systems, water consumption monitors and flow control systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment).

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.

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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...

B5.16 “Solar photovoltaic systems”

The installation, modification, operation, and removal of commercially available solar photovoltaic systems located on a building or other structure (such as rooftop, parking lot or facility, and mounted to signage, lighting, gates, or fences), or if located on land, generally comprising less than 10 acres 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.

10 CFR 1021.410 Application of categorical exclusions (classes of actions that normally do not require EAs or EISs).

(g) The following clarifications are provided to assist in the appropriate application of categorical exclusions that employ the terms or phrases:

(1) “Previously disturbed or developed” refers to land that has been changed such that its functioning ecological processes have been and remain altered by human activity. The phrase encompasses areas that have been transformed from natural cover to nonnative species or a managed state, including, but not limited to, utility and electric power transmission corridors and rights-of-way, and other areas where active utilities and currently used roads are readily available.

Regulatory Requirements defined in 10 CFR § 1021.410 (b):

The proposed loan and related actions described above were subjected to an environmental due diligence review by DOE Loan Programs Office (LPO) staff to ensure they are consistent with the specific category of actions (categorical exclusion) contained in Appendix B of 10 CFR Part 1021 and the conditions for applying categorical exclusions specified in Section 410 of Part 1021. To ensure that the requirements of Appendix B were met, LPO staff reviewed numerous project-related documents obtained between June 2023 and November 2023 and participated in several conference calls with Sunwealth staff to ensure a complete understanding of the activities associated with the Project.

The environmental due diligence review determined that there is no controversy regarding the potential environmental impacts of the proposed Sunwealth Project, and that the actions associated with the loan guarantee would not adversely affect any physical, biological, or socio-cultural resources associated with the deployment of the Project.

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The Comment section below is provided for any necessary clarifications concerning the findings listed above. Signature by Sunwealth’s designated representative in the Corporate Validation section is an indication of Sunwealth’s concurrence with the findings and determinations presented above.

Comment(s):

Corporate Validation:

Name and Title (Print): Jon Abe CEO

Signature:  B8F21F679993449... Date: 2/9/2024

Determination:

Based on my review of information conveyed to me and in my possession concerning the actions associated with the proposed Title XVII loan guarantee described above, as NEPA Compliance Officer (as prescribed by DOE Policy Directive 451.1), I have determined that the actions involve no extraordinary circumstances and fit within the specified category of actions in Appendix B of 10 CFR 1021 described above, and are hereby categorically excluded from further review under the National Environmental Policy Act (42 USC 4321, as amended).

Signature
Todd Stribley, LPO NEPA Compliance Officer
Director, Environmental Compliance
Loan Programs Office

Date