U.S. Department of Energy
Categorical Exclusion Determination Form

Proposed Action Title: Switch Station SW-A6 Backup Generation Pilot Project (LB-CX-20-04)

Program or Field Office: Bay Area Site Office, Lawrence Berkeley National Laboratory (LBNL)

Location(s) (City/County/State): Berkeley, California

Proposed Action Description: The US Department of Energy (DOE) proposes to install electrical power backup capability at LBNL's switch station SW-A6 as a temporary pilot project. The pilot project purpose is to evaluate the feasibility of using backup generators to meet critical institutional loads with distributed power over a discrete portion of LBNL's main campus. The pilot project need is to help find ways to address Pacific Gas & Electricity's (PG&E's) Public Safety Power Shutoff (PSPS) events that have occurred in recent years during northern California's annual fire season and that are expected to continue. The switch station SW-A6 Backup Generation Pilot Project (the Project) is a three-month proof-of-concept activity proposed to be installed and operated only during PSPS 2020: September 15, 2020 -- December 15, 2020. If successful, the pilot project could provide valuable information for planning wider-scale or more widespread use of backup generation elsewhere on the LBNL campus site.

The temporary installation would consist of two California Air Resources Board (CARB)-certified two-megawatt generators, for a total generation capacity of four megawatts. PG&E would provide the generators (for a rental fee) along with the necessary operating/air permits and additional necessary equipment: one trailer-mounted, auxiliary 3,000-gallon diesel fuel tank; one step-up 5-MVA transformer; and a closed-transition electrical switch to allow connection to LBNL's power distribution system.

During the three-month pilot project, the generators would be scheduled to operate for a combined total of (approximately) 16 hours: initial testing and commissioning would last about 15 hours, and three 20-minute monthly tests would be conducted. In addition, if there were PSPS events during this period, the generators would be expected to operate during all or a portion of those events. All scheduled generator testing would be conducted during daylight hours; however, PSPS events could require generator operation at any time of day or night. Each generator would consume about 105 gallons of fuel per hour when operating. With the 3,000-gallon ancillary fuel tank and two on-board 1,000-gallon tanks (one on each generator), the Project installation would have self-sufficient fuel capacity to operate for about 24 hours. Refueling would be achieved from delivery trucks (assumed to have a 3,000-gallon capacity) at a rate of up to two truck trips per day during full operation.

Switch station SW-A6 provides electrical power to much of the western and southwestern portion of the LBNL main campus (see Figure 1). This includes the Bldg. 50, 70, 90, and 91 complexes. The temporary Project installation would take place on a paved, previously developed surface within the Bayview Planning Area of the 202-acre LBNL main campus. The general Project location has been identified, but the exact installation footprint within that general location is still under design consideration. The temporary generators would be located at or near the site of an existing two-megawatt backup generator that has recently been retired from service. Surrounding or nearby to the installation would be Building 64 (a lab/office building), Building 91 (the recently constructed Integrative Genomics Building); Building 91U (an unoccupied modular utility building), and several small research-related facilities; a large surface parking area; a future construction site associated with the approved BioEPIC building and Bayview Cleanup projects; Alverez Road to the west; and a retaining wall leading to a steep, uphill, wooded slope to the east. The nearest sensitive receptors are a small number of single-family residential homes overlooking the site about 900 feet to the north with an elevation climb of about 300 feet. There would be several intervening features (Building 64, the retaining wall and terrain, and thickets of large trees) blocking or baffling Project noise and visibility from those nearest sensitive receptors.

Project installation would involve transporting and assembling the few pieces of equipment; no excavation or major construction activities would take place. At the pilot project's end, the equipment may be disassembled and transported back to PG&E. PSPS is not predictable and is considered an emergency event if it were to occur. All applicable LBNL "Standard Project Features" would be exercised throughout project installation, operation, and deactivation.

Categorical Exclusion(s) Applied:

B2.5 - Facility safety and environmental improvements

B4.6 - Additions and modifications to transmission facilities

B4.11 - Electric power substations and interconnection facilities

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR Part 1021.

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

☒ The proposal 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 proposal that may affect the significance of the environmental effects of the proposal.

☒ The proposal 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.

I concur that the above description accurately describes the proposed action.

LBNL Environmental Planner: Jeff Philliber — **June 22, 2020**

BASO Project Manager: Rick Chapman — 6/22/2020 (Date Determined)

The above description accurately describes the proposed action, which reflects the requirements of the CX cited above. Therefore, I recommend that the proposed action be categorically excluded from further NEPA review and documentation.

BASO NEPA Program Manager: MARY GROSS Digitally signed by MARY GROSS Date: 2020.06.26 10:31:11 -07'00' — Mary Gross — Click here to enter a date. (Date Determined)

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1 B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer: Peter Siebach Digitally signed by Peter Siebach Date: 2020.07.13 09:47:01 -05'00' Click here to enter a date.

Peter Siebach — Date Determined

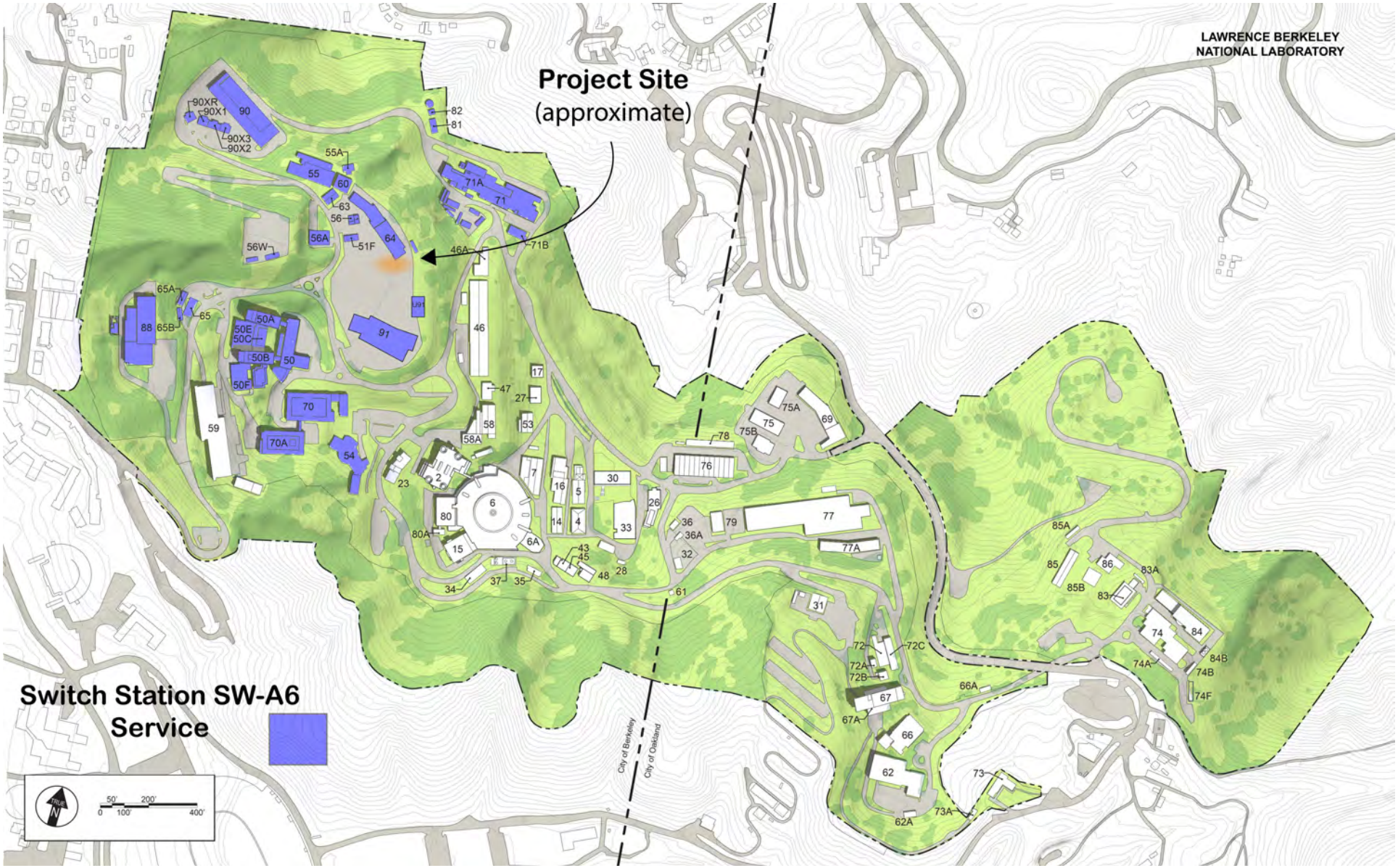
LAWRENCE BERKELEY
NATIONAL LABORATORY
Project Site
(approximate)
Switch Station SW-A6
Service
City of Berkeley
City of Oakland
TRUE
50' 200'
0 100' 400'

FIGURE 1