SECTION A. Project Title: Electric Vehicle Charging Station Installation at CFA

SECTION B. Project Description and Purpose:

Revision 1

Electric Motor Coach Battery Charging Station

This project is part of the Net Zero Infrastructure Initiative. The project will install a battery charging station to support the operation of new Electric Motor Coaches. The charging station will be installed and commissioned before the end of FY 2022 (Sept 2022).

The battery charging station will be installed at CFA-696 along the east edge of the bus depot parking lot. The charging station will require a substantial power source, that will be provided by extending Circuit 41 (12.47kV distribution line) on the east side of Main street to the location of the charging station AC Distribution Panel. ABB is the manufacturer of the battery charging equipment (part ABB-HVC 150C), which will accommodate three depot charge boxes. Three buses may be connected to the system at once and will charge sequentially in the order they are connected.

High Voltage Scope:

- Extend circuit 41 approximately 375’ from the east side of main street, to the location of the AC Distribution panel (near the bus depot fueling station (CF-796). This will include poles, conductor, shield wire, insulators, and hardware.
- Install a pole mounted transformer capable of meeting the battery charging system input requirements (This charger requires a 480 V, three phase, 250 ampere input with a rated input power of 170 kVA.)
- Connect the line to the transformer high side bushings, using fused cutouts or switches as necessary.

Civil Scope:

- Excavate 3’ down, provide bedding, compact and place a 4’x4’x30”D pre-cast vault/foundation for the AC Distribution Panel.
- Install 3 pier type foundations that are 24” deep and 16” in diameter and it will include excavating down with 8” compact bedding to support the depot charge box pedestals
- Excavate roughly 450’ and install conduits between the AC distribution panel and the three depot charge boxes. The conduits shall be daisy chained from the distribution panel to the depot charge boxes.
- Excavate roughly 30’ and install conduits from the AC distribution panel vault to the distribution line pole.
- Install roughly 480’ of ground cable in the conduit excavation for bonding to the above grade equipment.
- Backfill and compact excavations.

Low Voltage Scope:

- Install the AC distribution panel on the vault foundation.
- Install three depot charge box pedestals on the pier foundations
- Install three depot charge boxes on the box pedestals.
- Pull and terminate roughly 500’ of power conductors and 500’ of control cables between the AC panel and depot charge boxes.
- Bond equipment to the ground cables
- Pull and terminate the roughly 75’ of power feed cables from the pole mounted low side bushings to the AC distribution panel.
- Energize and commission the battery charging station.

See Figure 1 for location.

Figure 1
Idaho National Laboratory is required under the Energy Policy Act of 2005 (EPACT 2005) and Energy Independence and Security Act of 2017 (EISA 2007) to reduce petroleum consumption as well as Greenhouse Gas (GHG) emissions. In addition, Executive Order 13834, Efficient Federal Operations, mandates that federal agencies increase efficiency, optimize performance, eliminate unnecessary use of resources, and protect the environment. To meet these requirements, the INL fleet is adding plug-in electric vehicles and mandating that an infrastructure be in place to allow for fleet vehicle charging.

The Fixing America’s Surface Transportation Act (FAST Act) authorizes the General Services Administration and other Federal agencies including Department of Energy to install and operate plug-in electric vehicle (PEV) charging stations for privately owned PEVs in parking areas used by Federal employees and authorized users, and provides for the collection of fees to recover these costs.

The proposed project would install eleven ChargePoint CT4000 Level 2 electric vehicle charging stations at vehicle parking stalls located near CFA-609 (2 stations), CFA-612 (2 stations), CFA-623 (2 stations), CFA-696 (3 stations) and CFA-1611 (2 stations).

The ChargPoint stations would require the following activities:

- installation of concrete pedestals
- removal of concrete/asphalt
- trenching from each parking stall to the area building
- installation of direct buried cable in the trenches (18-inch depth)
- penetrating the building wall
- installing electrical transformers/panels/breakers/conduit inside the building, and
- repairing the concrete/asphalt where trenching occurred
Installation of the charging stations will begin with the CFA-696 project and will continue on with the other facilities as funding and resources become available.

**SECTION C. Environmental Aspects or Potential Sources of Impact:**

**Air Emissions**

Fugitive dust may be generated during soil disturbing activities.

**Discharging to Surface-, Storm-, or Ground Water**

N/A

**Disturbing Cultural or Biological Resources**

Nesting birds may be near the project. During migratory nesting bird season (April 1 – October 1), the project may encounter nests containing birds and / or eggs located in vegetation or under the eaves of buildings. If this occurs, contact the facility PEL immediately. Do not remove bird nests or eggs without permission from the PEL, and cease any activities near the nests that could disturb the birds or their nests.

A cultural resource review was completed for this project. BEA-22-H047

**Generating and Managing Waste**

General construction debris such as asphalt, concrete, scrap metal, wire, etc. would be generated during the project. Hazardous waste is not expected to be generated.

**Releasing Contaminants**

Standard construction chemicals such as fuels, adhesives, lubricants, asphalt, striping paints, etc. would be used during the project and can potentially be spilled.

**Using, Reusing, and Conserving Natural Resources**

Scrap metal such as conduit, wire, charging stations, etc. would be recycled or reused where practicable. Electric charging stations promotes non-fossil fuel electric vehicle use.

**SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification:**

For Categorical Exclusions (CXs), the proposed action must not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not “connected” to other action actions (40 CFR 1508.25(a)(1) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

**References:** 10 CFR 1021, Appendix B to subpart D, item B5.23, “Electric vehicle charging stations.”

**Justification:** Project activities are consistent with 10 CFR 1021, Appendix B, B5.23, “The installation, modification, operation, and removal of electric vehicle charging stations, using commercially available technology, within a previously disturbed or developed area. Covered actions are limited to areas where access and parking are 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.”

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act)  Yes  No
Approved by Jason L. Anderson, DOE-ID NEPA Compliance Officer on: 03/03/2022