

**Record of Categorical Exclusion
for
Zum Services, Inc., Leasing of Existing School Bus Yards, Battery Electric
Bus Acquisition, and Vehicle-to-Grid Compatible Charging Yard Development**

Description of Categorically Excluded Action:

The U.S. Department of Energy (DOE) Loan Programs Office (LPO) is considering whether to issue a Title XVII Innovative Clean Energy Program loan guarantee to Zum Services, Inc. (hereinafter “ZUM”) for the establishment of lease agreements with existing/operating school bus yards (“Bus Yard”), the acquisition of Battery Electric (school) Buses (“BEBs”), and the development of Vehicle-to-Grid (“V2G”) compatible charging yards within the leased area of the Bus Yard (Project). The Project includes the establishment and execution of lease agreements for individual Bus Yards, the acquisition of BEBs from electric school bus manufacturers (e.g. BYD USA (Ride), GreenPower, Collin Bus, Lion Electric, Thomas Built, and Blue Bird Vision), the acquisition of EV charging station equipment from EV supply equipment manufacturers (e.g., Tellus Power Green, Blink Charging, BorgWarner (Rhombus)), and the construction and development of charging yards (e.g. installation of transformers, voltage meters, control panels/switchboards, power cabinets and associated connections and control software) within the lease area of a Bus Yard. ZUM applied for a loan guarantee under LPO’s Title 17 Clean Energy Financing Program established in 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:

ZUM will only establish long-term lease agreements (e.g. 10+ year agreements) and develop V2G compatible charging yards at Bus Yards that have a power source (a Point-of-Connection (POC)) available and accessible. As part of the BEB acquisition process, ZUM will purchase BEBs from existing manufacturers specifically to replace its existing fleet of diesel-powered school buses (e.g. Type A, C or D school buses¹) already in operation. To support the operation of the BEB fleet, ZUM will develop charging yards at the Bus Yard. A charging yard includes the following general features: a POC to a power source (e.g. 12.47 to 34.6 kilovolt (kV) distribution line), which supplies power to a transformer that provides power to the main switchboard (switchgear). The main switchboard distributes power to one or more power (distribution) cabinets and the power cabinet is able to charge BEBs in EV-bus charging stalls, via a 30 kW and/or 60kW DC Fast-Chargers. All of charging yards developed by ZUM will have the capability for V2G charging, when made available by the utility.

¹ Type A school buses range from 21 to 26 feet in length and weigh up to 22,350 pounds, Type C school buses range from 25 to 40 feet in length and weigh up to 35,000 pounds, and Type D school buses range are approximately 40 feet in length and weigh up to 43,000 pounds.

ZUM will establish a long-term lease (e.g a 10+ year lease agreement) of a Bus Yard, and the ZUM charging yard equipment will be installed by ZUM, in partnership with its contractors, within the developed area of the Bus Yard. ZUM will maintain and operate the BEBs, as well as maintain and operate the charging yard and associated infrastructure. ZUM anticipates that a typical charging yard will contain between 6 and 300 EV-bus charging stalls (each charging yard will be sized to service the BEBs that replaced the former fleet of diesel-powered school buses). Typical charging yard equipment includes 30kW to 60kW or as necessary DC fast charging stations and/or appropriate switchgear systems.

As part of the development of a charging yard, ZUM will execute an interconnection agreement (IA) with the applicable utility to fund and construct, operate, and maintain V2G capabilities, and will work with the utility to be able to install equipment such as transformers, power lines, and other associated infrastructure, as necessary. ZUM and/or its contractor will obtain all necessary permits, approvals, and authorizations; perform the site construction-related work; and commission the charging yard. Development of the charging yard includes trenching; installation of conduit; development of concrete pads, footings and foundations for the electrical distribution equipment; installation of bollards; installation of transmission lines and transformers, V2G-capable EV charging stations and connections; installation of signage and markings for the BEB charging facilities and stalls; and repairing and resurfacing paved areas altered during development of the charging yard. Once the construction work is complete, ZUM will work with the local utility to energize the charging yard. The development of the charging yard will conclude with operational staff training, completion of non-critical punch list items, development of as-built drawings, and preparing the charging yard for operating and servicing the BEB fleet.

As part of site design and development, ZUM ensures all permits and approvals, including construction and utility reviews and approvals and zoning requirements, are obtained before commencing site construction at each Bus Yard. The permitting and approvals are specific to each Bus Yard; however, the installations will all require building permits and undergo a plan review and approval process with the appropriate local authorities. ZUM will address any site-specific design and development requirements related to parking surface grade, zoning, site drainage, and storm water runoff and obtain necessary approvals through the local building and planning departments. Each charging yard will be tested and commissioned to ensure all installed systems function as intended. Testing and commissioning include load testing, safety inspections, and performance assessments to ensure that all systems meet the necessary standards for safe and efficient operation and servicing of the BEB fleet.

Staff employed by ZUM will operate the BEBs, as well as operate each charging yard. Each charging yard will have a dedicated operations manager that oversees all aspects of operation; charging technicians responsible for charging the BEBs and maintaining the charging infrastructure; and maintenance technicians responsible for performing routine maintenance and repairs on the BEBs. ZUM staff will also perform administrative tasks, handle BEB dispatching, and manage the day-to-day operation of each charging yard.

Number and Title of Categorical Exclusion:

The actions being proposed under this Title XVII loan guarantee for ZUM are consistent with and are covered by DOE categorical exclusions in 10 CFR 1021, Appendix B (B1.24 and B5.23) because the Project involves the leasing of Bus Yards, the acquisition of BEBs, and the development of charging yards on previously disturbed or developed areas within the Bus Yard that have been subject to screening reviews, to include land use and zoning, as well as reviews, certifications, and approvals. The following categorical exclusion to further NEPA review apply:

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 for 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.

B5.23 Electric vehicle charging stations

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.

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 guarantee and related actions described above were subjected to an environmental due diligence 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 2022 and August 2024, visited an

existing V2G charging yard in July 2024, and participated in several conference calls with ZUM staff to ensure a complete understanding of the activities associated with the Project.

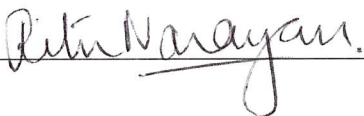
The environmental due diligence review determined that there is no controversy regarding the potential impacts of the proposed Project, and that the actions associated with the loan guarantee would not adversely affect any physical, biological or socio-cultural resources at the site installations and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

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

Comment: Nil

Corporate Validation:

Name and Title (Print): Ritu Narayan, CEO

Signature: 

Date: September 27, 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