

Record of Categorical Exclusion for
DTE Electric Clean Energy
Trenton Channel Battery Energy Storage System (BESS) Project

Description of Categorically Excluded Action:

The United States Department of Energy (DOE) Title XVII Energy Infrastructure Reinvestment (EIR 1706) Program was established pursuant to the Inflation Reduction Act of 2022, which amended Title XVII of the Energy Policy Act of 2005 to include the EIR Program. The EIR Program provides loan guarantees for projects that either: (1) retool, repower, repurpose, or replace energy infrastructure that has ceased operations; provided that if the project involves electricity generation through the use of fossil fuels, it is required to have controls or technologies to avoid, reduce, utilize, or sequester air pollutants and anthropogenic emissions of greenhouse gases; or (2) projects that enable operating energy infrastructure to avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases.

The DOE Loan Programs Office (LPO) is considering whether to issue a loan guarantee of a funding facility to DTE Electric Company (DTE) pursuant to its authority under the EIR 1706 Program. In its application, DTE has identified the Trenton Channel Battery Energy Storage System (BESS) Project in Trenton, Michigan (the Project), for inclusion in the funding facility that is the subject of DOE's loan guarantee (the Proposed Action). DTE may request inclusion of multiple individual projects with independent utility in the funding facility that is the subject of the DOE loan guarantee; accordingly, DOE will complete an environmental review pursuant to the National Environmental Policy Act (NEPA) for any other projects proposed by DTE prior to their inclusion in the funding facility that is the subject of DOE's loan guarantee.

Project Description:

The Project, which is included in DTE's recently released Integrated Resource Plan, entails constructing a 220-Megawatt (MW)/880 MWh lithium iron-phosphate (LFP) BESS, a new substation, and new transmission lines connecting the BESS and the substation. The BESS location is in an area where coal ash was used as beneficial fill material during operations of the former Trenton Channel Power Plant. The coal ash has been removed to support DTE's compliance obligation with the Environmental Protection Agency's (EPA's) Coal Combustion Residuals Rule (40 CFR 257). The substation site was previously a storage area that has been cleared and graded for future industrial development. Accordingly, the entire Project area has been previously disturbed and developed through past use as a storage area for the retired Trenton Channel Power Plant, and DTE's coal ash removal and site preparation activities. Coal ash removal and related site restoration activities have elevated the Project area above the 100-year floodplain such that construction of the Project will not impact floodplains. The Project will encompass up to 11 acres. The BESS (368 feet (ft) x 879 ft) will be located on approximately 6.99 acres in the northwest quadrant of the retired Trenton Channel Power Plant property; the substation (254 ft x 230.3 ft) will be located on 1.34 acres, approximately 400 feet south of the BESS adjacent to the retired power plant property; and the new transmission infrastructure will be installed underground (maximum depth of 4 ft) between the BESS and the substation (approximately 2.4 acres).

Construction of the BESS involves installing H-piles for the BESS strings and installing the BESS strings with inverters and a main string transformer. Piles will be driven until refusal or until a max depth of 20

ft. Construction of the substation entails laying concrete foundations for equipment and structures, fencing, a control building, and sectionalizing gear. The transmission infrastructure tying the BESS to the new substation will be installed underground using horizontal directional drilling (HDD) with a small area of open trench excavation used at the points of connection at either end.

Project components include:

- Construction of the BESS
 - H-piles that BESS strings will be mounted on up to 3,168 piles in total.
 - Sixty-six (66) BESS strings each comprised of:
 - up to 19 battery containers (up to 1,254 battery containers organized in a stacked platform);
 - one (1) inverter;
 - and one (1) collection transformer.
 - Fencing around the perimeter of the BESS
 - Gravel access road around the perimeter of the BESS
- Construction of the substation
 - One (1) generator step-up transformer (with footings between 4 ft and 8 ft wide)
 - One (1) current limiting reactor
 - One (1) capacitor bank
 - Concrete foundations for equipment
 - Gravel covering the substation footprint
 - Fencing around the perimeter of the substation
 - One (1) 20 ft x 50 ft control building
 - Sectionalizing gear (to facilitate maintenance procedures)
- Construction of transmission infrastructure
 - Four (4) feeder circuits and two (2) auxiliary feeder circuits connecting the BESS to the substation

The BESS will be connected to the substation via a 34.5 kilovolt (kV) transmission line. Underground electrical cables will connect to the alternating current (AC) side of the inverter skid of the BESS yard and travel underground beneath DTE's private road (encased in a thermal fill) to connect into the substation box structure. The substation will step up 34.5 kV to a 120 kV transmission voltage.

The BESS will have the capability to operate at either 220-MW for four (4) hours or at a lower capacity for a longer duration to maximize value to the grid. Each BESS string will be climate controlled with a rooftop mounted air conditioning unit and have a fire detection system to facilitate the appropriate monitoring and response to potential battery fires, in accordance with applicable county and local requirements. Each BESS string is monitored through a remote telemetry monitoring system to determine the battery's efficiency and monitor conditions such as temperature. The BESS is anticipated to have a 20-year lifespan based on its expected use. If the monitoring systems identify a battery failure, the BESS string will be depowered and the deficient battery(ies) will be removed, replaced, and disposed of in accordance with standard work procedures and waste management protocols.

On November 21, 2024, the Michigan Department of Environment, Great Lakes, and Energy determined that the Project is consistent with Michigan's Coastal Zone Management Program. In accordance with the Endangered Species Act (ESA), LPO's review of the Project found that there would be no effect to listed species or critical habitat. LPO identified that the Project site is completely disturbed and contains no suitable habitat or sensitive biological resources, and there will be no disturbance from construction or operation activities on listed species or their designated critical habitat.

In accordance with the National Historic Preservation Act (NHPA), LPO consulted with the Michigan State Historic Preservation Office (SHPO) and federally recognized Native American Indian Tribes and Tribal Nations (Tribes) that may have an interest in the Project area. The Michigan SHPO concurred with LPO's finding of no historic properties affected for this Project on November 4, 2024, and no Tribes expressed interest or concerns about the Project. In the event of a post-review unanticipated discovery of cultural resources and/or human remains during construction, DOE LPO will determine actions to resolve adverse effects and notify the SHPO, any Tribe that might attach religious and cultural significance to the affected property, and the Advisory Council on Historic Preservation (ACHP) within 48 hours of the discovery, pursuant to 36 CFR 800.13(b)(3).

DTE has obtained applicable environmental permits and approvals for construction and operation of the Project, including:

- U.S. Army Corps of Engineer (USACE), Nationwide Permit 51, Land-Based Renewable Energy Generation Facilities / USACE Section 404 Permit [Obtained August 22, 2024]
- Environment, Great Lakes, and Energy (EGLE), Individual Permit / EGLE Joint Permit [Obtained September 16, 2024]
- EGLE, Water Resource Division, Section 401 Water Quality Certification [Obtained September 16, 2024]
- EGLE, Water Resource Division, Part 91 Construction Stormwater Authorization [Obtained September 17, 2024]
- City of Trenton, Engineering Department, Soil Erosion and Sedimentation Control (SESC) Permit [Obtained September 6, 2024]

DTE will obtain required building permits and approvals prior to initiating construction of the Project, including:

- City of Trenton, Building Department, Building Permit (including Fire Safety Review, Site Plan Approval, and Stormwater Mitigation Plan)
- City of Trenton, Health Department, Water Supply Permit

Number and Title of Categorical Exclusion(s):

The actions being proposed under this Title XVII loan guarantee for the Project are consistent with and covered by DOE categorical exclusions in 10 Code of Federal Regulations (CFR) Part 1021, Appendix B to Subpart D of Part 1021—Categorical Exclusions Applicable to Specific Agency Action. The Project is covered by DOE Categorical Exclusions B4.11 and B4.14.

B4.11 Electric Power Substations and Interconnection Facilities

Construction or modification of electric power substations or interconnection facilities (including, but not limited to, switching stations and support facilities).

B4.14 Construction and Operation of Electrochemical-Battery or Flywheel Energy Storage Systems

Construction, operation, upgrade, or decommissioning of an electrochemical-battery or flywheel energy storage system within a previously disturbed or developed area or within a small (as discussed at 10 CFR 1021.410(g)(2)) area contiguous to a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as land use and zoning requirements) in the proposed project area and the integral elements listed at the start of appendix B of this part, and would incorporate appropriate safety standards (including the current National

Fire Protection Association 855, Standard for the Installation of Stationary Energy Storage Systems), design and construction standards, 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 for the actions described above was subjected to an environmental due diligence review by DOE 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 the requirements of Appendix B were met, LPO staff reviewed project-related documents obtained between April 2024 and August 2024 and participated in several conference calls with DTE 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 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. The environmental due diligence review determined the Proposed Action has not been segmented to meet the definition of a categorical exclusion.

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

Comment(s):

Corporate Validation:

Name and Title (Print):

Fadi Mourad, P.E./Director, Environmental Strategy

Signature and Date:

 11/21/2024

Determination:

Based on my review of information conveyed to me and in my possession concerning the actions associated with the proposed EIR Program (1706) loan guarantee described above, as National Environmental Policy Act (NEPA) Compliance Officer (as prescribed in 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 Part 1021 described above, and are hereby categorically excluded from further review under NEPA (42 United States Code 4321, as amended). DOE will complete a review of any future projects in accordance with NEPA prior to their inclusion in the funding facility that is the subject of the DOE loan guarantee.

Signature and Date:

Todd Stribley
NEPA Compliance Officer
DOE Loan Programs Office