



U.S. Department of Energy

Categorical Exclusion Determination Form

Categorical Exclusion Number:	CX-270851
Loan Application Number:	EIR0044
Proposed Action Title:	Alabama Power Company, Distributed Energy Resource Management System (DERMS)
Program of Field Office:	Loan Programs Office
Location(s) (City/County/State):	Alabama

Proposed Action Description:

Description of Categorically Excluded Action

The United States Department of Energy (DOE), Loan Programs Office (LPO), may provide loan guarantees for energy infrastructure projects under Section 1706 of Title XVII of the Energy Policy Act of 2005, as amended by the Inflation Reduction Act of 2022 (42 U.S.C. 16517) and the One Big Beautiful Bill Act (Pub. L. No. 119-21, 139 Stat. 72 (July 4, 2025)) (the Energy Dominance Financing or EDF Program). The purpose of the EDF Program is to finance projects and facilities in the U.S. that retool, repower, repurpose, or replace energy infrastructure that has ceased operations or enable operating energy infrastructure to increase capacity or output (42 U.S.C. 16517(a)(2) and Pub. L. No. 119-21, 139 Stat. 72 (July 4, 2025)).

LPO is considering whether to issue a loan guarantee of a funding facility to Alabama Power Company (APC) pursuant to its authority under the EDF Program. In its application, APC has identified the Distributed Energy Resource Management System (DERMS) (Project) for inclusion in the funding facility that is the subject of DOE's loan guarantee. APC 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 these projects prior to their inclusion in the funding facility that is the subject of DOE's loan guarantee.

This project includes the design, development, and implementation of a DERMS, a software application platform to manage device information and monitor and enable control of distributed energy resources (DER) through Virtual Power Plants (VPP). VPPs are an efficient alternative to manage rising demand, making electricity more affordable for consumers while also increasing the overall efficiency of the grid by incorporating additional intermittent DERs into operations. Accordingly, the Proposed Action considered in this record of categorical exclusion is LPO's issuance of Federal financial support for the implementation of the Project.

Project Description

VPPs are a connected aggregation of distributed energy resource (DER) technologies that integrate renewables and demand flexibility, which in turn offers more consumers cleaner and more affordable power. Operating the grid with increasing levels of DERs presents unique challenges as DERs can mask system demand by adding generation of unknown capacity or type behind the meter on the system. As part of its VPP, APC proposes to design, develop, and implement a DERMS, a software application platform designed to manage device information and monitor and enable control of DERs.

The DERMS hardware will be co-located with existing Advanced Distribution Management System (ADMS) hardware in APC's data centers. DERMS hardware and software functionality will be deployed in a phased approach. Initial functionality will provide visibility of distribution connected Front-of-the-Meter (FTM) and Behind-the-Meter (BTM) DERs, as well as visibility of Demand Response (DR) and other Load Flexibility customer programs. This phase of the project will also enable forecasting of DERs and the ability to control Company-owned and operated DERs.

Visibility, forecasting, and control are expected to be in production by the end of 2025. In 2026-2028, additional hardware and software functionality would be deployed, providing the ability to leverage FTM and BTM DERs for optimization of the distribution grid and for requests received from Bulk Power operations. These more advanced capabilities are expected to be in production by the end of 2028. Implementation of DERMS would allow APC to obtain greater predictability, controllability, and operational knowledge of DERs in both real time and relevant forecasting horizons.



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The project would not require any construction or ground disturbance, no permits or authorizations are required, and no impacts are anticipated on any physical, biological, cultural, or socioeconomic resources.

In accordance with Section 7 of the Endangered Species Act, LPO's review of the Project found that there would be *no effect* to designated critical habitat or endangered species.

In accordance with the National Historic Preservation Act (NHPA), LPO's review of the Project found that the Project has no potential to cause physical effects on historic properties or other cultural resources. The design and development of the DERMS, the installation of DERMS hardware at existing data centers, and the implementation and operation of VPP software would not cause changes in the use or setting of historic properties.

Categorical Exclusion(s) Applied:

B1.7 - Electric equipment

B5.1 - Actions to conserve energy or water

Categorical Exclusion(s) Description:

The Project is consistent with and covered by DOE categorical exclusions in 10 Code of Federal Regulations (CFR) 1021, Appendix B4, Categorical Exclusions Applicable to Electric Power and Transmission. Specifically, the Project is covered by DOE Categorical Exclusion B1.7 Electronic equipment and B5.1 Actions to Conserve Energy and Water.

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.

B5.1 Actions to Conserve Energy and 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); 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. 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. Covered actions do not include rulemakings, standard- settings, or proposed DOE legislation, except for those actions listed in B5.1(b) of this appendix.

(b) Covered actions include rulemakings that establish energy conservation standards for consumer products and industrial equipment, provided that the actions would not:

- (1) Have the potential to cause a significant change in manufacturing infrastructure (such as construction of new manufacturing plants with considerable associated ground disturbance);*



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- (2) involve significant unresolved conflicts concerning alternative uses of available resources (such as rare or limited raw materials);*
- (3) have the potential to result in a significant increase in the disposal of materials posing significant risks to human health and the environment (such as RCRA hazardous wastes); or*
- (4) have the potential to cause a significant increase in energy consumption in a state or region.*

Per 10 CFR 1021.102, application of categorical exclusions (classes of actions that normally do not require EAs or EISs), the following clarifications are provided to assist in the appropriate application of categorical exclusions that employ the terms or phrases “previously disturbed or developed” and “small” or “small- scale”:

- (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.*
- (2) DOE considers terms such as “small” and “small-scale” in the context of the particular proposal, including its proposed location. In assessing whether a proposed action is small, in addition to the actual magnitude of the proposal, DOE considers factors such as industry norms, the relationship of the proposed action to similar types of development in the vicinity of the proposed action, and expected outputs of emissions or waste. When considering the physical size of a proposed facility, for example, DOE would review the surrounding land uses, the scale of the proposed facility relative to existing development, and the capacity of existing roads and other infrastructure to support the proposed action.*

Regulatory Requirements Defined in 10 CFR § 1021

The proposed loan guarantee for actions described above was subjected to an environmental due diligence review by DOE LPO staff to ensure consistency with the specific category of action (categorical exclusion) contained in Appendix B of 10 CFR Part 1021 and the conditions for applying categorical exclusions specified in Section 102 of Part 1021. To ensure that the requirements of Appendix B were met, LPO Environmental Compliance obtained numerous project-related documents between August and October 2025 and participated in several conference calls with APC 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.

Signature by APC’s designated representative in the Corporate Validation section (below) is an indication of APC’s concurrence with the findings and determinations presented herein.



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For the DOE procedures regarding categorical exclusions, including the full text of each categorical exclusion, see [10 CFR 1021.102](#) and Appendix B to 10 CFR Part 1021, and also Section 5.4 (Applying one or more categorical exclusions to a proposal) and Appendices B and C of [DOE's National Environmental Policy Act Implementing Procedures](#) (June 30, 2025).

Requirements and guidance in 10 CFR 1021.102 and DOE's NEPA Implementing Procedures: (See full text in regulation and in Implementing Procedures)

- ☒ The proposal fits within a class of actions that is listed in Appendix B to 10 CFR Part 1021 or Appendix B and C of DOE's NEPA Implementing Procedures (June 30, 2025).

To fit within the classes of actions listed in Appendix B to 10 CFR Part 1021, or Appendix B of DOE's NEPA Implementing Procedures, a proposal must satisfy the conditions that are integral elements of the classes of actions in Appendix B of both 10 CFR Part 1021 and DOE's NEPA Implementing Procedures.

- ☒ There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal. DOE or an applicant may modify the proposal to avoid reasonably foreseeable adverse significant effects such that the categorical exclusion would apply.

- ☒ The proposal has not been segmented to meet the definition of a categorical exclusion.

[Note: For proposals that fit within the categorical exclusions listed in Appendix C of DOE's NEPA Implementing Procedures, see DOE's notice of adoption for the subject Appendix C categorical exclusion for additional considerations. DOE notices of adoption for other agency categorical exclusions may be found on [DOE's Section 109 webpage](#).]

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

Corporate Validation:

Applicant Signatory: Stacey Turner
Vice President, Environmental Affairs
Alabama Power Company

Signature:

Date:

10.28.25

DOE Signatory: Todd Stribley
Director, Environmental Compliance
DOE Loan Programs Office

Signature:

Date Determined:

10/29/2025