



U.S. DEPARTMENT
of ENERGY

U.S. Department of Energy

Open Data Plan

July 2025

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Purpose

The U.S. Department of Energy's (DOE's) Open Data Plan aligns with Office of Management and Budget (OMB) [Memorandum M-25-05](#) and the [Foundations for Evidence-Based Policy Making Act of 2018](#) (Evidence Act) OPEN Government Data Act (OGDA), demonstrating our commitment to transparent and accessible government data. We aim to make DOE's extensive data assets (over 3,700 on [Data.gov](#)) more findable, accessible, interoperable, and reusable, empowering data-driven decisions across our vital energy, science, and security missions.

DOE Enterprise Data Strategy

DOE's [FY25-28 Enterprise Data Strategy](#) addresses key components of OGDA while reinforcing the Department's commitment to increasing the discoverability of and access to our data across our vastly different mission areas encompassing Headquarters Offices and Programs, Power Marketing Administrations, National Laboratories, Field Sites, and Plants. The strategy sets a comprehensive framework for strengthening data governance and promoting the use of data for strategic decision-making, subject to appropriate safeguards for privacy, confidentiality, and security, through five goals:

- Goal 1: Establish and Scale Federated Data Governance and Stewardship
- Goal 2: Build and Maintain Data Architecture and Infrastructure Foundations
- Goal 3: Strengthen Capabilities that Improve Discoverability, Usability, Quality, and Trustworthiness of Our Data
- Goal 4: Foster and Sustain Our Next Generation Data and Analytics Workforce
- Goal 5: Ensure the Trusted and Scalable Use of Data for AI

DOE Data Requirements

This plan follows the structure of OMB M-25-05 section 6, Agency Data Requirements: OPEN Data Plan:

- A. Data Collection Processes for Open Formats
- B. Data Usage Information
- C. Collaboration with Data Users
- D. Open Data Point of Contact
- E. Improvement Processes
- F. Open Data Goal Requirements
- G. Prioritizing Public Data Asset Review
- H. Compliance Status
- I. Updating the Strategic Information Resources Management Plan

The activities described below also address requirements listed in section 4, Agency Requirements that Apply to All Data Assets, and section 5, Requirements that Apply to All Public Data Assets of OMB M-25-05.

A. Data Collection Processes for Open Formats

DOE has processes and procedures in place to ensure data is collected and maintained in open, machine-readable formats.

- Establish and enforce guidance that ensures DOE data assets are available in accessible, machine-readable, open formats. This includes metadata conformance to Data Catalog Vocabulary (DCAT)-US 3.0 per M-25-05 guidance.
- Promote and enhance mission-related open data sharing initiatives that support AI use case and broader scientific innovation, such as but not limited to:
 - *Open Energy Data Initiative (OEDI)* – hosted by the National Renewable Energy Laboratory (NREL)
 - *DOE Data Explorer* – hosted by the Office of Scientific and Technical Information (OSTI)
 - *Data Hub* – hosted by Pacific Northwest National Laboratory (PNNL)
 - *Livewire Data Platform* – hosted by the Office of Energy Efficiency and Renewable Energy (EERE)
 - *Open Data Initiative (ODI)* – hosted by Lawrence Livermore National Laboratory (LLNL).
- Review all public data assets for machine-readability and license compliance.
- Enhance integration of DOE-hosted applications to automate the evaluation and promotion of relevant datasets.
- Establish and direct DOE federal employees and contractors to implement best practice frameworks to improve the exchange and security of data, focusing on methods like machine-readable metadata, unique identifiers, data tagging, and standard access protocols.

B. Data Usage Information

DOE collects and analyzes digital information on data asset usage from users internal and external to the Department.

- Develop key performance indicators and leverage display metrics (e.g., views, downloads) for dataset usage insights.
- Consult with other federal agencies to identify leading practices for user-centric data publication, enhancing public access and maximizing the impact of DOE data.

C. Collaboration with Data Users

DOE facilitates engagement and collaboration to expand the use of public data assets.

- Leverage Deputy Secretary-led governance structures that include Artificial Intelligence, Data, Cybersecurity, and Enterprise Architecture Governance Boards. These boards provide senior-level oversight of data management initiatives and ensure compliance with federal requirements.

- Engage with the public through regular outreach and engagement activities, such as hackathons and contests that promote innovative use of DOE datasets.

D. Open Data Point of Contact

Bridget Carper, Deputy Chief Information Officer for Architecture, Engineering, Technology, and Innovation, within the Office of the Chief Information Officer (OCIO), and the ocio-dcat@hq.doe.gov mailbox, serve as the agency Open Data Point of Contact.

E. Improvement Processes

DOE ensures and regularly advances the discoverability, usability, quality, trustworthiness, and availability of open government data assets.

- Progress and promote DOE's [FY25-28 Enterprise Data Strategy](#) goals and objectives related to maturing data management best practices, scaling metadata standards, and promoting data quality frameworks.
- Expand DOE's [Open Energy Data](#) web page to be a modern, centralized front door for the public to efficiently discover and use DOE data.
- Mature metadata management strategies and DOE's Data Stewardship Playbook to enforce the data quality, lineage, and classification activities required to improve the discoverability and use of DOE data while balancing security and risk factors.
- Conduct an annual review of DOE's [Open Data Catalog](#), tasking data owners to check their data assets for quality.

F. Open Data Goal Requirements

DOE leverages its advanced data capabilities and skilled workforce to facilitate open data sharing for innovation and mission readiness.

- DOE's [FY25-28 Enterprise Data Strategy](#) defines data roles and responsibilities across the Department and also ensures the data and analytics workforce is fully equipped with the expertise required to support open data activities.
- Ensure compliance with current [Data.gov](#) reporting requirements.
- Identify new data-sharing opportunities to drive data-driven decisions across the DOE enterprise and increase open data access.

G. Prioritizing Public Data Asset Review

DOE engages with data owners and sponsors across the enterprise to determine whether data assets are a priority to the public and deemed an appropriate data asset to be included on [Data.gov](#).

- DOE's Public Access Plan¹ ensures scholarly publications, data, and related information from DOE-funded research are made immediately and freely available to the public.
- Develop a formalized framework for the evaluation and prioritization of DOE data assets for public dissemination based on demand, impact, quality, and risk criteria.
- Coordinate with DOE's Freedom of Information Act (FOIA) Office to understand data assets that receive frequent requests to be made publicly available.
- Facilitate public access to scientific data through relevant, mission-specific platforms that power transformative, interdisciplinary research through seamless data sharing and open collaboration.
- Ensure data is appropriately assessed for privacy, confidentiality, and security risks.

H. Compliance Status

DOE will comply with all requirements of OMB M-25-05 and the requirements of 44 U.S.C. § 3511² when disseminating a public data asset pursuant to the Evidence Act.

- Manage DOE's [Open Data Catalog](#) to maintain updates to the Department's diverse metadata and ensure alignment with [Data.gov](#).
- Coordinate with key DOE leadership officials and other relevant agency officials and/or governance bodies to ensure activities are lawful, appropriate, and adhere to data privacy, confidentiality, and security requirements.
- Integrate open data processes and technology with the internal DOE Enterprise Data Catalog to account for all data assets in the possession of the Department. The data designated as "Public" in the Enterprise Data Catalog should be published on the public-facing [Open Data Catalog](#), thus reflecting a more accurate and comprehensive data inventory while streamlining the publication process.
- Refine governance processes to ensure the internal DOE Enterprise Data Catalog, as well as externally published data on DOE's [Open Data Catalog](#) and [Data.gov](#), continue to conform with federally mandated technical requirements.

I. Updating the Strategic Information Resources Management Plan

DOE will make updates to this plan and post it on its publicly accessible energy.gov website.

¹ U.S. Department of Energy [Public Access Plan](#) (2023).

² [44 U.S.C. § 3511: Data inventory and Federal data catalogue.](#)



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