DOE Program and Functional Offices Evaluation/Evidence-Building Activities, FY 2024 Evaluation Plan, Learning Agenda, and Capacity Assessment

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September 2022

Office of the Chief Financial Officer (CF)

U.S. Department of Energy

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1. Introduction

This paper provides the Department's approach to evaluation and evidence-building to improve performance across the broad range of the Department's program and functional offices. This documents the Department's means for making available to the public the wide range of information concerning the Department's broad range of programs. The implementation of evaluation and evidence-building actions (i.e., statistics, research, studies, and analysis) is embedded as part of the planning and execution efforts of each of the program and functional offices. This paper also discusses the methodologies currently used across the Department for evaluation and evidence-building. These different methodologies reflect the broad diversity in programs' missions and functional office responsibilities.

Given the variety of DOE activities the Department relies on Program Managers to accomplish program management objectives and related evaluation requirements, Program Managers tailor program strategies and oversight, including documentation of program information, program phases, the timing and scope of decision reviews and decision levels, to fit the conditions of that program, consistent with applicable laws and regulations and the time sensitivity of the capability need.[1]

DOE Portfolios and Programs utilize a tailored management approach based on program complexity[2]. This tailored approach to program management is based on risk and complexity of the program and, if needed, definition of different program categories to address risk and complexity. DOE programs cover a wide spectrum (ranging from nuclear security to research and development to building weatherization).

Based on this broad spectrum of programs, the broad range of players (DOE, other Federal agencies, national laboratories, universities, private sector, general public, international) and the myriad of interests, the Department invests significant emphasis and resources in making the Department's activities available through an extensive network of publicly accessible websites, document archives, budget allocations, performance results, etc. The Department's functional offices (Office of Chief Financial Officer (OCFO), Procurement, Project Assessment, Enterprise Assessment, etc.) also have extensive websites which make their activities available to the general public.

DOE's goal is to establish Program Management guidance that addresses the following attributes:[3]

[1] NNSA Policy 413.2, Program Management Policy, page 1: https://directives.nnsa.doe.gov/nnsa-policy-documents/nap-0413-002/@@images/file

[2] DOE Policy (P) 410.3, Program Management: https://www.directives.doe.gov/directives-documents/400-series/0410-3-apolicy

[3] NNSA Policy 413.2, Program Management Policy, Page 4: https://directives.nnsa.doe.gov/nnsa-policy-documents/nap-0413-002/@@images/file

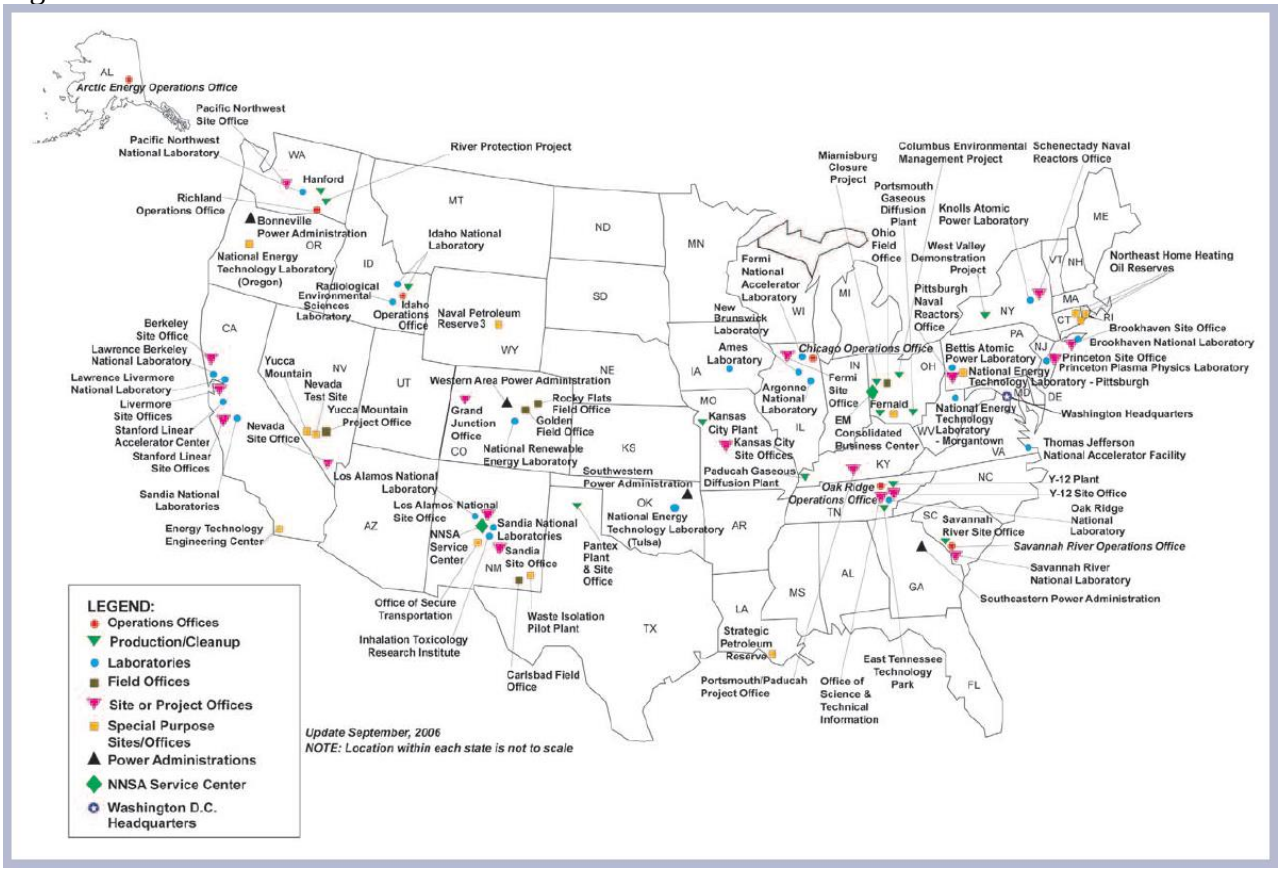
- Tailored and Flexible – Program management approaches are based on program complexity and the particular conditions related to that program
- Streamlined and Effective Management – Program responsibility should be decentralized when practicable and use a streamlined management structure during program execution, characterized by short, clearly defined lines of responsibility, authority, and accountability.
- Responsive and Cost-Effective – Programs should utilize an approach that aligns capability with available technology and resources to satisfy operational needs, while recognizing fiscal constraints.
- Cross-program coordination where appropriate – in support of agency-wide improvement efforts, cross-agency goals and standards will be established when beneficial.

This paper is based on open-source research using information available on Department of Energy (DOE) websites as well as open-source platforms. Links to the websites of some of the key program and functional offices are provided.

Also provided in this paper is the FY 2024 Evaluation Plan for several specific Learning Agenda efforts the Department plans to pursue. For information concerning the more detailed evaluation and evidence building efforts by each of the program and functional offices for enhancement of their knowledge base and to inform decision makers – as well as monitoring implementation of the Infrastructure Investment and Jobs Act (IIJA), Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act of 2022, and Inflation Reduction Act (IRA) – refer to the websites for each of the program offices and functional offices.

The following figure reflects the Department's headquarters and field offices, as well as the national laboratories.

Figure 1: DOE Locations



2. Strategic Plan

Each of the program and functional offices are engaged in supporting strategic goals. DOE is preparing a new Strategic Plan intended to cover FY 2022 – FY 2026. This Plan will include Goals and Objectives for the Department; Offices will then develop specific milestones to meet these. The requirements for this Plan are set in the Government Performance and Results Act Modernization Act (GPRA-MA).

2.1 DOE-wide Planning, Programming, Budgeting, and Execution (PPBE)

Recently, the Secretary of Energy sent to Departmental elements a memorandum titled, *Implementing a Planning, Programming, Budgeting, and Execution (PPBE) Process to Improve Outcomes of Long-Term Initiatives*. The process, established by the Deputy CFO, will assess the DOE's requirements in the context of the Department's strategic objectives, capabilities, capacity, and budget to determine cross-departmental achievements, gaps, barriers, opportunities for improvement, and potential near- and long-term budgetary implications. The output from this process will be used to develop the Department's Future-Years Energy Program (FYEP), required by Public Law 112-74, *Consolidated Appropriations Act, 2012*, and Future Years Nuclear Security Program (FYNSP).

To provide transparency of each portfolio, program, and project, DOE plans to use its PPBE process to allocate resources and develop its Future-Years Energy Program (FYEP) (and FYNSP), a plan that identifies five-year program resource requirements. The FYEP will provide the Department's annual President's Budget Request (PBR) and encourage efficiency in the execution – and phasing throughout the life cycle – of portfolios, programs, and projects (i.e., large construction projects) and allocation of resources (i.e., funding, facilities, equipment, and people) by enhancing transparency and accountability in the process, and by providing a mechanism for the systematic evaluation and review of performance, priorities, and commitments.

2.2 Learning Agenda Activities for FY 2024

The U.S. Department of Energy and its predecessor organizations have supported evidence-building for the purpose of improving outcomes for more than 50 years. This work includes rigorous implementation, outcome, and impact evaluations; grants to researchers for basic science, applied research, and evidence synthesis; and data collection in support of official statistics and performance improvement.

OMB Memoranda M-19-23[4] M-20-12[5], and M-21-27[6] discuss the process of developing and implementing a multi-year learning agenda that coincides with the four-year timeframe defined for agency strategic plans.[7] An agency learning agenda addresses priority questions (i.e., questions relevant for programmatic, operational, regulatory, or policy decision-making) across the entire agency.[8]

For FY 24, DOE is focused on the following four areas:

- Optimizing Carry-Over Balances for DOE Program and Support Functions
- Development of a Statistical Methodology Improvement Plan (SMIP)
- Management of Procurement Systems to utilize DOE and NNSA Category Management
- Optimizing DOE Corporate Business Systems & Services for Cloud-Based Delivery

[4] OMB Memorandum M-19-23, Phase 1 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Learning Agendas, Personnel, and Planning Guidance: https://www.whitehouse.gov/wp-content/uploads/2019/07/M-19-23.pdf
[5] OMB Memorandum M-20-12, Phase 4 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Program Evaluation Standards and Practices: https://www.whitehouse.gov/wp-content/uploads/2020/03/M-20-12.pdf
[6] OMB Memorandum M-21-27, Evidence-Based Policymaking: Learning Agendas and Annual Evaluation Plans: https://www.whitehouse.gov/wp-content/uploads/2021/06/M-21-27.pdf
[7] OMB Memorandum M-19-23, Phase 1 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Learning Agendas, Personnel, and Planning Guidance: https://www.whitehouse.gov/wp-content/uploads/2019/07/M-19-23.pdf
[8] GSA Evidence Act Toolkit, A Guide to Developing Your Agency's Learning Agenda: https://oes.gsa.gov/assets/toolkits/A_Guide_to_Developing_Your_Agency's_Learning_Agenda_updated.pdf

A detailed discussion of the learning agenda items is located at Appendix B: DOE Learning Agenda.

3. Program Evaluation Methodologies

Successful programs are essential to the effective accomplishment of the Department of Energy's (DOE) strategic and operational goals. These programs are diverse and reflect the scope and breadth of the Department's missions. These include (but are not limited to):

- Research and Development (R&D), including Laboratory Directed Research and Development[9] (LDRD) Programs;
- Environmental Management Programs;
- Legacy Management Programs;
- Nuclear Power Research and Development (including naval reactors);
- Nuclear Weapons Research, Development, Production, and Oversight;
- Energy Information Administration;
- Staff offices (e.g., Office of the Chief Financial Officer (OCFO), Office of the Chief Information Officer (OCIO), etc.); and,
- Capital Asset Programs[10].

Evaluation of programs is key for the DOE as it manages this myriad of dis-similar programs. Program evaluation is a systematic assessment using quantitative and/or qualitative data and analysis methods to answer specific questions about current or past programs, with the intent to assess their effectiveness and efficiency[11]. Often, the term "program evaluation" and "evaluation" are used synonymously. Evaluations include the following:

- A systematic method for collecting, analyzing, and using information to answer questions about projects, policies, and programs[12], particularly about their effectiveness and efficiency.
- Systematic outcome and impact studies to assess whether a program is achieving its goals, and why (or why not).
- Periodic assessments of a program's progress, including process implementation studies to determine where and how to make improvements, improve efficiencies, and ensure that the program is running as planned.

[9] DOE O 413.2C Laboratory Directed Research And Development: https://www.directives.doe.gov/directives-documents/0413.2-BOrder-c-chg1-minchg/@@images/file
[10] DOE O 413.3B, Program and Project Management for the Acquisition of Capital Assets: https://www.directives.doe.gov/directives-documents/400-series/0413.3-border-b-chg6-minchg
[11] EERE Program Evaluation: https://www.energy.gov/eere/analysis/eere-program-evaluation
[12] Administration for Children and Families (2010) The Program Manager's Guide to Evaluation. Chapter 2: What is program evaluation?

Evaluation means "an assessment using systematic data collection and analysis of one or more programs, policies, and organizations intended to assess their effectiveness and efficiency."[13] Evaluation standards (from OMB M-20-13)[14] include the following:

- **Relevance and Utility** - Evaluations must address questions of importance and serve the information needs of stakeholders to be useful resources.
- **Rigor** - Evaluations must produce findings that can be confidently relied upon, while providing clear explanations of limitations.
- **Independence and Objectivity** - Evaluations must be viewed as objective for stakeholders, experts, and the public to accept their findings.
- **Transparency** - Evaluations must be transparent in the planning, implementation, and reporting phases to enable accountability and help ensure that aspects of an evaluation are not tailored to generate specific findings.
- **Ethics** - Evaluations must be conducted to the highest ethical standards.

As a tool to support good management practice, evaluation helps inform key planning and budget decisions and enables managers to determine if adjustments are needed in program design to improve the rate or quality of achievement relative to the committed resources. Evaluations also help programs quantify achieved impacts. While program evaluation first focuses on this definition, important considerations[15] often include:

- Program costs;
- Potential program improvements;
- Determining whether it is worthwhile to continue with the program;
- Identifying better alternatives, if there are unintended outcomes; and,
- Verifying whether program goals are appropriate and useful.

Methodologies used at the Department to evaluate programs and program performance include examination of both objective and subjective information. These methodologies vary based on:

- Office Standards and Requirements;
- Organizational Mission/Requirements;
- Implementation methodology (including contract type, grant, etc.); and,
- Oversight requirements.

[13] Evidence Act§ 101(e)(4)(B) (citing 5 U.S.C. § 311(3)), Public law 115-435, January 14, 2019: https://www.congress.gov/115/plaws/publ435/PLAW-115publ435.pdf

[14] OMB Memorandum M-20-13, Phase 4 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Program Evaluation Standards and Practices, page 4: https://www.whitehouse.gov/wp-content/uploads/2020/03/M-20-12.pdf

[15] Social Science Research Network (SSRN), What is Program Evaluation?: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3060080

4. Strategic Review

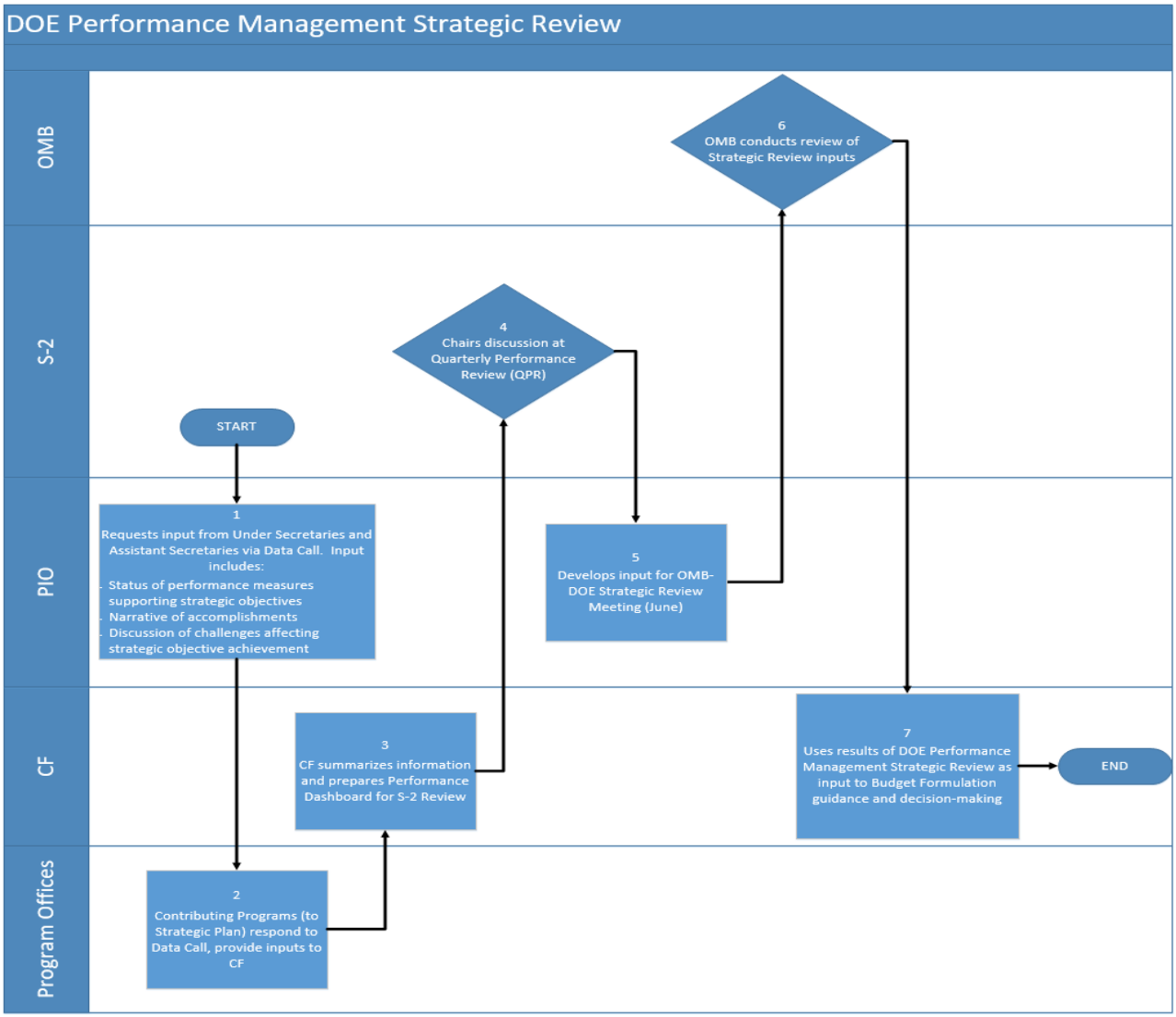
All agencies are required to conduct frequent data-driven performance reviews and strategic reviews. All agencies must follow the public reporting guidelines defined for strategic plans, Annual Performance Plans and Annual Performance Reports which will include a progress update by strategic objective.[16]

The strategic review serves as the agency's internal management process or set of processes which provide for an annual assessment of progress being made to improve program outcomes, assess whether the agency is using the best measures to identify progress on program outcomes, and look at opportunities for productivity gains using a variety of analytical, research, and evaluation methods to support the assessment. The results of these reviews should inform many of the decision-making processes at the agency, as well as decision-making by the agency's stakeholders. [17]

The strategic review process, facilitated by the Office of the CFO (CF) and overseen by the Department's Performance Improvement Officer (PIO), concludes with DOE leveraging the data collected (documented in the Strategic Planning Budget Formulation Performance Management (BFEM) system) and inputs provided by OMB to inform DOE's Budget Formulation.

Figure 2: DOE Performance Management Strategic Review Process

[16] SECTION 270—Program and Project Management, OMB Circular No. A-11 (2020) Page 2 of Section 270: https://www.whitehouse.gov/wp-content/uploads/2018/06/s270.pdf
[17] SECTION 260—Performance and Strategic Reviews, OMB Circular No. A-11 (2020) Page 7 of Section 260: https://www.whitehouse.gov/wp-content/uploads/2018/06/s260.pdf


DOE Performance Management Strategic Review
OMB
S-2
PIO
CF
Program Offices
START
1
Requests input from Under Secretaries and Assistant Secretaries via Data Call. Input includes:
Status of performance measures supporting strategic objectives
Narrative of accomplishments
Discussion of challenges affecting strategic objective achievement
2
Contributing Programs (to Strategic Plan) respond to Data Call, provide inputs to CF
3
CF summarizes information and prepares Performance Dashboard for S-2 Review
4
Chairs discussion at Quarterly Performance Review (QPR)
5
Develops input for OMB-DOE Strategic Review Meeting (June)
6
OMB conducts review of Strategic Review inputs
7
Uses results of DOE Performance Management Strategic Review as input to Budget Formulation guidance and decision-making
END

5. Quarterly Program Review (QPR)

QPRs (which are to be informed by program-level evaluations and evidence-building activities) are conducted between Federal headquarters staff, M&O contractor staff, and Federal field office staff. QPRs, chaired by the Deputy Secretary, are attended by DOE senior leadership and Goal Leaders; program management and subject matter experts attend as needed.

Senior leadership is informed of the Department's progress over the past quarter and of any impending challenges (including risks) that may disrupt program success. QPRs allow for senior leadership to ask in-depth questions of program management and for programs to request assistance from the highest levels of the Department.

6. Performance Evaluation Information

This paper presents the methodologies currently used across the Department. These different methodologies reflect the broad diversity in programs and missions. This paper is based on open-source research using information available on Department of Energy (DOE) websites as well as some open-source platforms.

7. Office of the Under Secretary for Infrastructure (S3)

In February 2022, the Department established the Office of the Under Secretary for Infrastructure (S3) to focus on deploying clean energy infrastructure in pursuit of national goals for affordable and reliable energy, creating high quality jobs, enhancing U.S. manufacturing, and addressing the climate crisis to achieve carbon-free electricity in the U.S. by 2035, a net zero economy by 2050, and delivering substantial benefits to the communities that are frequently left behind.

Working through the Bipartisan Infrastructure Law implementation teams, DOE has made progress in implementation. S3 was initially stood up with 12 Departmental Elements:

- Office of Clean Energy Demonstrations (OCED);
- Office of Cybersecurity, Energy Security, and Emergency Response (CESER);
- Grid Deployment Office (GDO);
- Office of Federal Energy Management Programs (FEMP);
- Office of Indian Energy Policy and Programs (IE);
- Loan Programs Office (LPO);
- Office of Manufacturing and Energy Supply Chains (MESC);
- Office of State and Community Energy Programs (SCEP);
- Bonneville Power Administration (BPA);
- Southeastern Power Administration (SEPA);
- Southwestern Power Administration (SWPA); and
- Western Area Power Administration (WAPA).

7.1 Office of Cybersecurity, Energy Security, and Emergency Response (CESER)

The Office of Cybersecurity, Energy Security, and Emergency Response (CESER) addresses the emerging threats of tomorrow while protecting the reliable flow of energy to Americans today by improving energy infrastructure security and supporting the Department of Energy's (DOE) national security mission. CESER's focus is preparedness and response activities to natural and man-made threats, ensuring a stronger, more prosperous, and secure future for the Nation. CESER's cybersecurity priorities are:

- ***Priority 1: Increase Cyber Visibility of Critical Energy Systems and Networks*** *– We are continuing to advance technologies and systems that increase the visibility of cyber threats targeting energy companies' industrial controls systems across the nation. With enhanced cyber visibility, detection, monitoring capabilities, we can respond and curtail confront malicious cyberattacks before they compromise critical systems.*
- ***Priority 2: Build Security Into Future, Clean Energy Grid*** *– As we transition to a 100% clean energy economy, it is critical to build effective cybersecurity measures into the evolving grid to ensure a reliable flow of energy across the nation. CESER and its stakeholders are ensuring renewable technologies – from wind to solar – will be able to deliver a high volume of energy while addressing grid vulnerabilities.*
- ***Priority 3: Manage Supply Chain Risks in Digital Components of Nation's Critical Energy Infrastructure*** *– Digital components in our national critical infrastructure are increasingly becoming the strategic target for adversary nations. We're partnering across the energy sector to identify high priority digital components prevalent in the nation's critical energy systems, perform expert testing, and share information about vulnerabilities in the digital supply chain.*
- ***Priority 4: Strengthen the Current and Future Energy Cyber Workforce*** *– A highly skilled cybersecurity workforce across the energy sector is critical to protecting the nation's energy systems. CESER is developing exercises, trainings, and resources that improve preparedness and coordination across governments and industry, while promoting a robust cybersecurity education for the next generation of cyber professionals. We are also utilizing Cyber-Informed Engineering – a methodology to ensure that cybersecurity is a core component in technologies from ideation to deployment.*
- ***Priority 5: Establish Policies, Procedures, and Capabilities to Enable Cyber Preparedness and Incident Response*** *– Through risk-based energy security planning and strategic partnerships across a broad range of stakeholders, CESER is establishing policies, procedures, and capabilities needed to improve energy sector cyber resilience, address new threats, conduct more efficient and effective response, and mitigate disruptions to energy infrastructure in case of a cyberattack.*

These priorities – as well as DOE's Multiyear Plan for Energy Sector Cybersecurity – drive the following CESER initiatives:

- **CESER Electromagnetic Pulse (EMP) Activities** – CESER accelerated efforts to

address high-altitude electromagnetic pulse (HEMP) and geomagnetic disturbance (GMD) risks to the Nation's energy system.

- **Cybersecurity for Energy Delivery Systems Research and Development** – CESER is investing in the ideas of partners in the Energy Sector, the cybersecurity community, academia, state and local governments, and the National Laboratories to reduce the risk of energy disruptions due to cyber events.
- **Cybersecurity Testing for Resilient Industrial Control Systems** – CESER works closely with energy sector owners and operators to better detect risks and mitigate them.
- **Cybersecurity for the Operational Technology Environment (CyOTE)** – Through CyOTE™, CESER looks to further its vision of secure and reliable energy delivery systems nationwide.
- **Department of Energy CyberForce Program** – The U.S. Department of Energy's CyberForce Competition™ challenges the next generation of cyber professionals to actively secure critical control.
- **Clean Energy Cybersecurity Accelerator Program** – As DOE works towards a zero-emissions future, CESER is also tackling the growing cyber threats to the U.S. energy sector.

7.2 Office of Federal Energy Management Programs (FEMP)

Mandated by law, the Federal Energy Management Program (FEMP) focuses on key services that help agencies meet energy- and water-reduction requirements and goals:

- Issue Legislative and Executive Guidance
- Facilitate Technology Integration
- Leverage Funding Sources
- Provide Technical Assistance
- Track Agency Accountability
- Develop Accredited Training

Focus areas include:

- Strategic Programming and Integration Planning
- Facility and Fleet Optimization, including:
  - Auditing
  - Commissioning
  - Data Centers
  - Energy-Efficient Products
  - Energy Management Information Systems
  - Federal Fleet Management
  - Healthy Buildings
  - Laboratories
  - Metering
  - Operations and Maintenance

  - Re-tuning
  - Sustainable Federal Buildings
  - Water Efficiency

- Energy and Water Resilience and Security
- Energy and Project Procurement Development Services, including:
  - Energy Savings Performance Contracts (ESPC)
  - ESPC ENABLE
  - ESPC Energy Sales Agreements
  - Utility Program and Utility Energy Service Contracts
  - Distributed Energy and Energy Procurement

- Federal Leadership and Engagement, including:
  - Agency Reporting and Data
  - Federal Energy and Water Management Awards
  - Interagency Working Groups
  - Training
  - U.S. Department of Energy Scholars Program

7.2 Grid Deployment Office (GDO)

The Grid Deployment Office (GDO) works to provide electricity to everyone, everywhere by maintaining and investing in critical generation facilities to ensure resource adequacy and improving and expanding transmission and distribution systems to make sure all communities have access to reliable, affordable electricity. Sponsoring the Building a Better Grid Initiative, GDO works to modernize and upgrade the nation's power sector, deploying cost-effective, cleaner, reliable, and more resilient electricity delivery technologies to Tribal, urban, and rural communities.

Currently, GDO is focused on ensuring the resilience of critical power generation facilities and the development of high-capacity electric transmission lines nationwide. GDO's work within the Transmission Development, Power Generation Assistance, and Grid Modernization Deployment Divisions will leverage unique authorities to drive transmission investment, improve resource adequacy by maintaining and investing in critical generation facilities, improve transmission and distribution system resilience, and provide access to technical assistance and national laboratory expertise, modeling, and analytical capabilities.

The Grid Modernization Laboratory Consortium (GMLC) was established as a strategic partnership between DOE and the national laboratories to bring together leading experts, technologies, and resources to collaborate on the goal of modernizing the nation's grid. The benefits of the GMLC include more efficient use of resources; shared networks; improving

learning and preservation of knowledge; enhanced lab coordination and collaboration; and regional perspective and relationships with local stakeholders and industry. One of the main components of the GMI portfolio is the Grid Modernization Lab Call, which includes 88 projects spanning 3 years that are managed by the national laboratories.

7.3 Office of Indian Energy Policy and Programs (IE)

The Office of Indian Energy Policy and Programs (IE) is authorized to fund and implement a variety of programmatic activities that assist American Indian Tribes and Alaska Native villages with energy development, capacity building, energy cost reduction, and electrification of Indian lands and homes. IE works with American Indian Tribes and Alaska Natives to maximize the value of their energy resources through:

- Facilitation of energy development
- Education and training
- Technical assistance
- Funding

IE also leverages public-private partnerships, inter- and intra-governmental coordination, and government-to-government partnerships to maximize the return on investments in the future of Native American communities,[18] and annual Program Review meetings to provide an opportunity for tribes and Alaska Native villages to share their successes and best practices.[19]

7.3.1 Arctic Energy Office (AEO)

The Arctic Energy Office (AEO) leads cross-cutting operations in the Arctic with a mission to tackle the energy, science, and national security challenges of the 21st Century. The office acts as a nexus for DOE activities and represent the Department in engagements involving the Arctic. AEO, with the Office of Technology Transitions (OTT), co-hosts ArcticX, an InnovationXLab series exploring the Arctic's largely untapped potential to serve as a living laboratory of clean energy innovation, and includes discussions on innovative solutions and furthering existing energy projects. DOE's work in the Arctic is strengthened through partnerships with national labs, federal agency partners, academia, tribal organizations, and industry partners.

[18] About Us, Office of Indian Energy Policy and Programs: https://www.energy.gov/indianenergy/about-us
[19] Office of Indian Energy Program Reviews: https://www.energy.gov/indianenergy/projects/program-review

7.4 Loan Programs Office (LPO)

The [20]Loan Programs Office (LPO) finances large-scale, all-of-the-above energy infrastructure projects in the United States. LPO administers three distinct loan programs, but each offers a similar value to borrowers:

1. Provide first-of-a-kind projects and other high-impact energy-related ventures with access to debt capital that private lenders cannot or will not provide.
2. Provide flexible, custom financing that helps to meet the specific needs of individual borrowers.
3. Encourages early engagement and is a valuable partner to applicants throughout the entire lifetime of a project.

Once LPO closes a loan or loan guarantee, projects are monitored and evaluated throughout project development, construction, commissioning, and operation until the loan has been repaid in full. LPO's team of financial, technical, environmental, and legal professionals is dedicated to advancing an all-of-the-above energy strategy that avoids, reduces, or sequesters greenhouse gases.

After financial close or first funding, responsibility for managing a project transfers from the LPO Origination Division to the Portfolio Management Division (PMD). PMD provides ongoing monitoring and oversight to ensure that the construction and completion phase of a project is executed in accordance with the terms and conditions of the loan documents. PMD is also responsible for maintaining compliance with the loan documents terms and conditions after project completion. Some of PMD's responsibilities include, but are not limited to, monitoring borrower activities to ensure compliance with the loan documents; monitoring and analyzing project costs, schedule, and performance quality; and review borrowers requests for amendments, consents, or waivers to the loan documents.

Technical monitoring activities performed by LPO's Technical and Project Management Division (TPMD) during construction and after project completion are focused on monitoring that the project is completed on budget, on schedule, and at a performance level that produces revenue sufficient to repay the loan.

An assigned project engineer provides technical monitoring support for specific projects. The federal project engineer retains the services of an independent engineer to perform detailed project monitoring activities, including validation of project status, evaluation of project risk, review and certification of milestone completion, evaluation of payment requests, and evaluation of change requests. The federal project engineer serves in a technical oversight capacity, directing and reviewing the activities of the independent engineer, summarizing, and interpreting

[20] DOE-LPO-Brochure-2020-AA (energy.gov)

borrower and independent engineer technical input for submission to PMD, and recommending responses to borrower requests.

LPO publishes an Annual Portfolio Status Report for each FY. The latest can be found here: LPO21-002-APSR-2020-v11 (energy.gov).

7.5 Office of Manufacturing and Energy Supply Chains (MESC)

The Office of Manufacturing and Energy Supply Chains is responsible for strengthening and securing manufacturing and energy supply chains needed to modernize the nation's energy infrastructure and support a clean and equitable energy transition.

The office is catalyzing the development of an energy sector industrial base through targeted investments that establish and secure domestic clean energy supply chains and manufacturing, and by engaging with private-sector companies, other Federal agencies, and key stakeholders to collect, analyze, respond to, and share data about energy supply chains to inform future decision making and investment. The office manages programs that develop clean domestic manufacturing and workforce capabilities, with an emphasis on opportunities for small and medium enterprises and communities in energy transition.

The Office of Manufacturing and Energy Supply Chains coordinates closely with the Office of Clean Energy Demonstrations for the management of major demonstration projects, and across all of DOE's programs on manufacturing and supply chain issues, including with the Advanced Manufacturing Office in the Office of Energy Efficiency and Renewable Energy.

DOE Bipartisan Infrastructure Law Provisions led by MESC include:

- Advanced Energy Manufacturing and Recycling Grant Program
- Battery and Critical Mineral Recycling - Retailers as Collection Points, and State and Local Programs
- Battery Manufacturing and Recycling Grants
- Battery Material Processing Grants
- Energy Efficient Transformer Rebates
- Extended Product System Rebates
- Implementation Grants for Industrial Research and Assessment Centers
- Industrial Assessment Centers
- Rare Earth Elements Demonstration Facility
- State Manufacturing Leadership

7.6 Office of Clean Energy Demonstrations (OCED)

Office of Clean Energy Demonstrations (OCED) was established in December 2021 with a mission to deliver clean energy technology demonstration projects at scale in partnership with the private sector to accelerate deployment, market adoption, and the equitable transition to a decarbonized energy system.

OCED is a technology-neutral office that serves as a project management center of excellence, implementing key multi-billion dollar demonstration projects in the Bipartisan Infrastructure Law, as well as supporting the applied programs and other offices to ensure a consistent approach to implementing capital intensive late-stage technology demonstrations across the Department of Energy (DOE). OCED supports commercial-scale demonstration projects that have viability at scale and an expectation of achieving cost competitiveness and bankability. OCED investments are part of a clear progression between the research, development, and early-stage demonstration projects within DOE technology offices and initial deployments supported by the private sector or other programs, such as the Loan Programs Office, ensuring coherent strategies for advancing and deploying clean energy technologies and systems. Funding decisions are made to support scalable outcomes that lead to commercialization and deployment, while focusing on greenhouse gas emission reductions, job creation, environmental justice and Justice40 Initiative priorities, and energy transition communities.

OCED is hiring employees from all backgrounds across America to help tackle the climate crisis, create good-paying American jobs, and spur economic growth.

Scope of OCED in the Bipartisan Infrastructure Law includes:

- Advanced Reactor Demonstration Program
- Carbon Capture Large-Scale Pilot Projects
- Carbon Capture Demonstration Projects Program
- Clean Energy Demonstration Program on Current and Former Mine Land
- Energy Improvement in Rural and Remote Areas
- Energy Storage Demonstration and Pilot Grants
- Industrial Emissions Demonstration Projects
- Long Duration Demonstration Initiative and Joint Program
- Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency
- Regional Clean Hydrogen Hubs

7.7 Office of State and Community Energy Programs (SCEP)

The Office of State and Community Energy Programs (SCEP) was established in January 2022 and is responsible for managing a portfolio of nearly $6 billion in funding from the Bipartisan Infrastructure Law and annual appropriations.

The Office of State and Community Energy Programs works with state and local organizations to significantly accelerate the deployment of clean energy technologies, catalyze local economic development and create jobs, reduce energy costs, and avoid pollution through place-based strategies involving a wide range of government, community, business and other stakeholders.

Foundational programs like the Weatherization Assistance Program and State Energy Program, which both have more than 40 years of successfully delivering energy savings across the country, will complement newly formed programs such as the Local Government Energy Program and Energy Futures Grants, enabling DOE to work for the first time ever, with local governments and communities for the long term.

Through the disbursement of formula grants, DOE will extend the core capabilities of state energy offices and expand the weatherization provider network to assist low-income families with home energy retrofits. Competitive awards will further the innovation by states and local governments seeking to implement high-impact and self-sustaining clean energy projects. In addition, technical assistance will help to facilitate clean energy programs and practices through "best practice" tools, “lead-by-example” methods, peer-to-peer forums, and other strategic partnerships.

Programs led by the Office of State and Community Energy Programs include:

- Building, Training, and Assessment Centers
- Career Skills Training
- Energy Auditor Training Grant Program
- Energy Efficiency Materials Pilot Program
- Energy Efficiency Revolving Loan Fund Capitalization Grant Program
- Energy Efficiency and Conservation Block Grant Program
- Grants for Energy Efficiency Improvements and Renewable Improvements at Public School Facilities
- State Energy Program
- Weatherization Assistance Program

7.8 Power Marketing Administrations

The federal government, through the Department of Energy, operates four regional Power Marketing Administrations (PMAs)[21] including - Bonneville Power Administration (BPA), Western Area Power Administration (WAPA), Southeastern Power Administration (SEPA), and Southwestern Power Administration (SWPA) – which operate electric systems and sell the

[21] The Power Marketing Administrations: Background and Current Issues, March 1, 2019, Congressional Research Service, R45548: https://fas.org/sgp/crs/misc/R45548.pdf

electrical output of federally owned and operated hydroelectric dams in 34 states.[22] Organizationally, the Power Marketing Administrations are aligned with the Office of Electricity (OE).[23]

The PMAs are unique in that they primarily use power rates to pay annual expenditures, such as operating and maintenance costs, interest costs, and the cost of power purchased from other utilities for resale. Each PMA will prepare and publish annually a power repayment study for each power system. Each power repayment study consists of two parts, historical data, and future data (forecasts). The development of future data requires the forecast of revenues, expenses and investment as detailed in DOE Order RA 6120-2.[24] Rates must also be sufficient to repay debt, including the appropriations that financed completed generation and transmission facilities.[25]

The PMAs determine the adequacy of rates by performing annual reviews of their projected costs and revenues, using processes and assumptions that are to identify and factor into rates, costs that are legally recoverable, while keeping rates as low as possible. Southwestern, Southeastern, and most Western projects make this determination through power repayment studies (PRS); Bonneville uses a revenue requirement study (RRS). These studies analyze historical data and project estimated future costs and revenues as a key part of rate setting. The primary goal of the review is to determine whether existing rates will generate sufficient revenue to recover identified costs over the period under review.[26]

7.8.1 Bonneville Power Administration (BPA)

BPA has created a Strategic Plan[27] centered on what BPA intends to do – with input from the region – in the near term to deliver on their public responsibilities. This strategic plan is updated with a Strategic Progress Update.[28]

BPA also conducts an Integrated Program Review (IPR)[29], which plays a significant role in BPA's overall financial planning process. It provides the public an opportunity to review and comment on BPA's spending levels for its capital and expense programs before establishing them in rate cases. This 2018 Financial Plan includes targets for expense program spending levels, which are described in the financial health objectives.[30]

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[22] Power Marketing Administrations: https://www.energy.gov/ea/power-marketing-administrations
[23] Office of Electricity: https://www.energy.gov/oe/office-electricity
[24] DOE O RA 6120.2, September 20, 1979: https://www.swpa.gov/pdfs/ra6120-2.pdf
[25] GAO/AIMD-00-114 Power Marketing Administrations, page 10: https://www.gao.gov/archive/2000/ai00114.pdf
[26] GAO/AIMD-00-114 Power Marketing Administrations, page 9: https://www.gao.gov/archive/2000/ai00114.pdf
[27] Bonneville Power Administration Strategic Plan, 2018-2022: https://www.bpa.gov/StrategicPlan/Pages/Strategic-Plan.aspx
[28] Bonneville Power Administration, 2020 Strategic Update: https://www.bpa.gov/StrategicPlan/StrategicPlan/2020-Strategic-Update.pdf
[29] Bonneville Power Administration, Integrated Program Review, Initial Publication, June 2020: https://www.bpa.gov/Finance/FinancialPublicProcesses/IPR/2020IPR/20200612-BP-22-IPR-Initial-Detailed-Publication.pdf
[30] Bonneville Power Administration, Financial Plan 2018, page 6: https://www.bpa.gov/Finance/FinancialInformation/FinancialPlan/Documents/Financial-Plan-2018.pdf

The IPR occurs every 2 years, before each rate case, giving interested parties an opportunity to review and comment on BPA's proposed spending levels. The IPR integrates both long-term capital forecasts and near-term program spending levels for the next rate period into one forum. The final spending levels will serve as a foundation for developing the power and transmission rates for the next rate period. BPA incorporates program plans in 4 areas:

- Power
- Transmission
- Energy Efficiency
- Environment, Fish & Wildlife

BPA incorporates the program plan framework into the IPR. Operating plans and program plans provide a 2-year comprehensive and integrated view of the business, workforce, and financial performance of each program. [31]

7.8.2 Southeastern Power Administration (SEPA)

The Southeastern Power Administration (SEPA) constantly evaluates and works to improve execution of their program. This includes evaluation of the workforce, facilities and operating systems management that support their functions. This includes awareness of overhead expenses associated with program execution and management of those expenses and their impact on power rates.[32] Program reporting is via annual reports, which discusses program status and financial performance.

7.8.3 Southwestern Power Administration (SWPA)

The Southwestern Power Administration's (SWPA's) mission is to market and reliably deliver Federal hydroelectric power with preference to public bodies and cooperatives. As one of four Power Marketing Administrations in the United States, SWPA markets hydroelectric power in Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas from 24 U.S. Army Corps of Engineers multipurpose dams with a combined generating capacity of approximately 2,193 MW.[33]

The SWPA announced its new Strategic Plan in October 2020.[34] This Strategic Plan, focused on their vision for SWPA both the short and long-term providing a pathway to future workforce development, operations, partnerships, and evolving services. This plan is coupled with an

[31] Bonneville Power Administration, BP-22 Integrated Program Review, Initial Publication, June 2020, page 1: https://www.bpa.gov/Finance/FinancialPublicProcesses/IPR/2020IPR/20200612-BP-22-IPR-Initial-Detailed-Publication.pdf
[32] Southeastern Power Administration, 2019 Annual Report: https://www.energy.gov/sites/prod/files/2020/09/f79/2019_SEPA_ANNUAL_REPORT.pdf
[33] Southwestern Power Administration, 2018 Annual Report: https://swpa.gov/PDFs/ARs/SWPA_FY2018_annual_report.pdf
[34] Southwest Power Administration, Strategic Plan, October 2020: https://swpa.gov/StrategicPlan.aspx

annual SWPA Performance Plan – including a Goal Overview.[35] SWPA details performance in SWPA Annual Reports (with the 2018 Report cited here).

7.8.4 Western Area Power Administration (WAPA)

The Western Area Power Administration's (WAPA) mission to market and deliver clean, renewable, reliable, cost-based federal hydroelectric power and related services.[36] WAPA provides program status and reporting via annual reports. Status is based on objectives laid out in the WAPA Tactical Action Plan.[37] WAPA has a created a website (called The Source), which offers a one-stop shop for financial and operational information. With the latest expansion below, WAPA partnered with customers to determine data elements and information that would be most helpful to understand cost drivers and expenditures.[38] Results are also released by quarter, providing performance data based on established goals. An example report is linked here.[39]

8. National Nuclear Security Administration (NNSA)

Major missions of the National Nuclear Security Administration include[40]:

- Maintaining the Stockpile - NNSA ensures the United States maintains a safe, secure, and reliable nuclear stockpile through the application of unparalleled science, technology, engineering, and manufacturing.
- Nonproliferation - NNSA works to prevent nuclear weapon proliferation and reduce the threat of nuclear and radiological terrorism around the world. The agency endeavors to prevent the development of nuclear weapons and the spread of materials or knowledge needed to create them.
- Counter-terrorism and Counter-proliferation - NNSA plays a key role in preventing, countering, and responding to a terrorist or other adversary with a nuclear or radiological device.
- Powering the Nuclear Navy - NNSA provides militarily effective nuclear propulsion plants and ensures their safe, reliable, and long-lived operation.

[35] Southwestern Power Administration Performance Plan – goal Overview: https://swpa.gov/PDFs/swpa-perf-plan-current.pdf
[36] Western Area Power Administration, FY 2020 Annual Report: https://www.wapa.gov/newsroom/Publications/Documents/FY-2020-annual-report.pdf
[37] WAPA Tactical Action Plan (roadmap 24): https://www.wapa.gov/About/Documents/roadmap-2024-refresh-tactical-action-plan.pdf
[38] WAPA Financial Transparency: https://www.wapa.gov/About/the-source/Pages/financial-transparency.aspx
[39] WAPA Reports 4th Quarter Results: https://www.wapa.gov/newsroom/NewsFeatures/2020/Pages/fourth-quarter-performance.aspx

[40] NNSA Missions: https://www.energy.gov/nnsa/missions

In July 2022, NNSA completed a reorganization that resulted in the transformation of the Office of Safety, Infrastructure and Operations (NA-50) and the Office of Acquisition and Project Management (NA-APM) to address the growth in both the weapons and infrastructure programs. This reorganization established three new organizations to focus on the challenges facing the Nuclear Security Enterprise, the Nation, and the world:

- Office of Partnership and Acquisition Services (NA-PAS),
- Office of Environment, Safety, and Health (NA-ESH), and
- Office of Infrastructure (NA-90)

These new offices will allow NNSA to strategically manage their M&O partnerships for mission delivery; position NNSA for the growing infrastructure revitalization efforts; and continuously improve environment, safety and health. NA-PAS, NA-ESH, and NA-90 will facilitate the attainment of these goals through the repositioning of the work units from both NA-50 and NA-APM.

In support of these missions, the NNSA has established procedures to ensure that the planning, programming, budgeting, and evaluation (PPBE) activities of the NNSA comply with sound financial management principles, specifically to assess and determine whether progress has been made toward achieving identified performance measures at multiple levels within the NNSA. NNSA's Office Management & Budget Office (NA-MB), specifically its Office of Programming, Analysis, and Evaluation (NA-MB-90), provides fiscal planning, programming, cost estimating and associated analytics services to the NNSA. NA-MB-90 (PA&E) enhances the PPBE process using sound financial and fiscal management principles. NA-MB-90 coordinates and collaborates with Program Offices to ensure data-informed program fiscal plans are developed and provide defensible cost estimates for the fiscal planning and programming process. NA-MB-90 leads the NNSA planning and programming process with a goal of informing decision makers on fiscal requirements for the Future Years Nuclear Security Program (FYNSP). NA-MB-90 provides decision support to Program Offices including DOE O 413.3B analyses of alternatives (AoAs) and other studies, including business case analysis. NA-MB-90 is responsible for interfacing with the Office of Corporate Budget (NA-MB-50); the Resource and Matrix Directorate (NA-MB-80); and, when appropriate, Office of Financial Performance (NA-MB-60) and Business Systems and Integration (NA-MB-1.4). The Office of Cost Estimating and Program Evaluation (NA-1.3) provides the NNSA Administrator with independent, data-driven analysis on all aspects of the Nuclear Security Enterprise, leading to better mission planning and performance. Accurately estimating costs, assessing alternatives, and evaluating NNSA's program performance are vital to national security and the responsible expenditure of taxpayer dollars.[41]

[41] Office of Cost Estimating and program Evaluation: https://www.energy.gov/nnsa/nnsa-offices/supporting-nnsas-missions

The NNSA is responsible for eight (8) Government Owned, Contractor Operated (GOCO) facilities and laboratories, including three (3) FFRDC national laboratories; all supported by M&O Contracts:

- Kansas City National Security Complex (KCP)
- Lawrence Livermore National Laboratory (LLNL) (FFRDC)
- Los Alamos National Laboratory (LANL) (FFRDC) (also supported by the Office of Environmental Management)
- Savannah River Site (SRS) (FFRDC) (Operated in conjunction with the Office of Environmental Management (EM))
- Naval Nuclear Laboratory
- Nevada National Security Site (NNSS)
- NNSA Production Office (NPO) Pantex Plant and Y-12 National Security Complex
- Sandia National Laboratory (SNL)

Every fiscal year, the NNSA completes an assessment of their management and operating (M&O) partners' effectiveness in meeting the performance expectations as established by NNSA in NNSA NAP 540-3.[42] This assessment is based on an evaluation of the annual Performance Evaluation and Measurement Plans (PEMPs) linked to each NNSA site.[43] NNSA performance assessments are documented annually in a Performance Evaluation Report (PER), and award fee amounts are documented in a Fee Determination Memorandum.[44] This involves assessment against standardized strategic performance goals outlined in an annual PEMP for each M&O Contract. For the period including Fiscal Years 2015-2020, The NNSA uses 6 standardized performance evaluation goal areas as the basis for award fee determination, including the following performance goals for each site (for FY 2020)[45]:

1) Mission Execution: Nuclear Weapons
2) Mission Execution: Nuclear Security
3) DOE & Strategic Partnership Projects Mission Objectives
4) Science, Technology, & Engineering (STE)
5) Mission Enablement
6) Mission Leadership

[42] NNSA Policy Letter NAP 540.3, Corporate Performance Evaluation Process for Management and Operating Contractors: https://directives.nnsa.doe.gov/nnsa-policy-documents/nap-0540-003

[43] NNSA releases performance evaluation summaries for contractors that run its labs, plants, and sites, February 6, 2020: https://www.energy.gov/nnsa/articles/nnsa-releases-performance-evaluation-summaries-contractors-run-its-labs-plants-and

[44] NNSA releases Performance Evaluation Summary for Consolidated Nuclear Security, June 23, 2020: https://www.energy.gov/nnsa/articles/nnsa-releases-performance-evaluation-summary-consolidated-nuclear-security

[45] NNSA releases 2020 performance evaluation summaries for contractors that run its labs, plants, and sites, January 14, 2021: https://www.energy.gov/nnsa/articles/nnsa-releases-2020-performance-evaluation-summaries-contractors-run-its-labs-plants

These goals are refined annually in the PEMP for each location. Supplemental Award Fee Definitions for NNSA Performance Evaluation and Master Plans (PEMP) are contained in NAP 54.3, Appendix I as discussed in Table 1:

Table 1: Supplemental Definitions for FAR 16.401(e)(3) as used by NNSA[46]

Rating	%	Supplemental Award Fee Rating Definitions For NNSA Performance Evaluation and Measurement Plan (PEMP)
Excellent	91-100%	Contractor has exceeded almost all the objectives and key outcomes under the goals in the PEMP and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate for the evaluation period. *This performance level is evidenced by at least one significant accomplishment, or a combination of accomplishments that significantly outweigh very minor issues, if any. No significant issues in performance exist.*
Very Good	76-90%	Contractor has exceeded many of the objectives and key outcomes under the goals in the PEMP and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate for the evaluation period. *This performance level is evidenced by accomplishments that greatly outweigh issues. No significant issues in performance exist.*
Good	51-75%	Contractor has exceeded some of the objectives and key outcomes under the goals in the PEMP and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate for the evaluation period. *This performance level is evidenced by accomplishments that slightly outweigh issues. No significant issues in performance exist.*
Satisfactory	No Greater than 50%	Contractor has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the objectives and key outcomes under the goals in the PEMP for the evaluation period. *This performance level is evidenced by issues that slightly outweigh accomplishments.*
Unsatisfactory	0%	Contractor has failed to meet overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the objectives and key outcomes under the goals in the PEMP for the award-fee evaluation period. *This performance level is evidenced by issues that significantly outweigh accomplishments, if any.*

[46] NNSA Policy Letter NAP 540.3 Corporate Performance Evaluation Process for Management and Operating Contractors, Appendix I: https://directives.nnsa.doe.gov/nnsa-policy-documents/nap-0540-003/@@images/file

The NNSA provides summary documents that feature easy-to-read and transparent assessment scorecards for each lab and site assessment. The summaries include links to the corresponding contract and the Performance Evaluation and Measurement Plan (PEMP). Performance Evaluation Reports (PERs) provide a detailed summary report detailing the award fee (via a scorecard) and providing specific comments against each performance objective/goal. Fee determination memorandums including ratings earned in each of the Accomplishments and issues for the six performance evaluation goals, at-risk fees available for each, and the final fees awarded by goal are listed in each M&O summary.[47]

9. Office of Science (SC)

The Office of Science (SC) supports scientific research for energy and the physical sciences both by directly supporting such research, for example, through grants to and cooperative agreements with universities, and by supporting the development, construction, and operation of scientific user facilities. The Office builds and maintain an array of large-scale scientific facilities at the DOE national laboratories.[48] This includes SC administering management and operating (M&O) contracts at 10 national laboratory sites:

Indicate their websites

- Ames Laboratory in Ames, Iowa (https://www.ameslab.gov/)
- Argonne National Laboratory in Argonne, Illinois (https://www.anl.gov/)
- Brookhaven National Laboratory in Upton, New York (https://www.bnl.gov/world/)
- Fermi National Accelerator Laboratory in Batavia, Illinois (https://www.fnal.gov/)
- Lawrence Berkeley National Laboratory in Berkeley, California (https://www.lbl.gov/)
- Oak Ridge National Laboratory, in Oak Ridge, Tennessee (https://www.ornl.gov/)
- Pacific Northwest National Laboratory in Richland, Washington (https://www.pnnl.gov/)
- Princeton Plasma Physics Laboratory in Princeton, New Jersey (https://www.pppl.gov/)
- SLAC National Accelerator Laboratory in Stanford, California (https://www6.slac.stanford.edu/)
- Thomas Jefferson National Accelerator Facility in Newport News, Virginia (https://www.jlab.org/)

The Office of Science is the nation's largest federal sponsor of basic research in the physical sciences and has been a major supporter of research in such key scientific fields as physics, materials science, and chemistry. The Office is also the lead federal agency supporting fundamental scientific research related to energy and sponsors research at hundreds of universities, national laboratories, and other institutions across the country.

Various methodologies are used by the Office of Science to evaluate programs. This includes (but not limited to):

[47] Contracts, modifications, and performance evaluations for NNSA's sites: https://www.energy.gov/nnsa/leadership-and-offices/acquisition-and-project-management
[48] Office of Science: https://www.energy.gov/science/mission

- Office of Project Assessment
- Laboratory Appraisal Process
- Other SC Programs

9.1 Office of Project Assessment

The Office of Project Assessment provides independent advice to the Director of the Office of Science (SC) relating to those activities essential to constructing and operating major research facilities. In addition, this office provides professional management and staff support regarding these functions to SC program offices.

The primary responsibilities of the Office of Project Assessment are:[49]

- Conducting technical, cost, schedule, and management peer reviews ("Lehman" reviews) of SC construction projects and large experimental equipment;
- Directing and supervising the development, initiation, and implementation of policies, plans, and procedures for design, fabrication, construction, commissioning, operation and decommissioning of research/conventional facilities and devices required to support the SC program offices; and,
- Representing the Director of Science in meetings with DOE, Office of Management and Budget (OMB), Congress, and other oversight or investigatory bodies on all matters involving the planning, design, construction, and operation of research facilities.

9.2 Laboratory Appraisal Process

SC stewards 10 of the 17 DOE National Laboratories, ranging from single-purpose laboratories like Fermi lab to broad, multi-program laboratories such as Argonne.[50]
The laboratories are managed and operated by Management and Operating (M&O) contracts, which are characterized by their special purpose.[51] The work performed under M&O contracts is intimately related to DOE's mission, is of a long-term and continuing nature, and, among other things, includes special requirements for work direction, safety, security, cost controls, and site management.

[49] Office of Science, Office of Project Management: https://www.energy.gov/science/mission/project-assessment-opa
[50] Office of Science, Laboratory Locations: https://www.energy.gov/science/science-innovation/office-science-national-laboratories
[51] M&O contracts are agreements under which the government contracts for the operation, maintenance, or support, on its behalf, of a government-owned or -controlled research, development, special production, or testing establishment wholly or principally devoted to one or more of the major programs of the contracting agency. See 48 C.F.R. § 17.601.

The Office of Laboratory Policy coordinates the laboratory appraisal process[52].on behalf of the Director of the Office of Science. The laboratory appraisal process uses a common structure and scoring system across all its Laboratories. Structured around eight Performance Goals, it emphasizes the importance of delivering the science and technology necessary to meet the missions of DOE; of operating the Laboratories in a safe, secure, responsible, and cost-effective way; and of recognizing the leadership, stewardship and value-added provided by contractor managing the Laboratory. The eight Performance Goals are[53]:

1. Mission Accomplishment (Delivery of S&T)
2. Design, Construction and Operation of Research Facilities
3. Science and Technology Project/Program Management
4. Leadership and Stewardship of the Laboratory
5. Integrated Environment, Safety and Health Protection
6. Business Systems
7. Facilities Maintenance and Infrastructure
8. Security and Emergency Management

Each Performance Goal is comprised of a small number of Objectives. Within each Objective, Science Programs and Site Offices can further identify a small number of "Notable Outcomes" that illustrate or amplify important features of the laboratory's performance for the coming year. The Performance Goals, Objectives, and Notable Outcomes are documented at the beginning of each year in a Performance Evaluation and Measurement Plan (PEMP) that is appended to the respective Laboratory contract. Information regarding an individual PEMP may be obtained by contacting the appropriate SC Site Office.

Each year, SC conducts an evaluation of the scientific, technological, managerial, and operational performance of the contractors who manage and operate its ten national laboratories. It was designed to improve the transparency of the process, raise the level of involvement by the SC leadership, increase consistency in the way the laboratories are evaluated, and more effectively incentivize contractor performance by tying performance to fee earned, contract length, and the public release of grades.

SC follows a Science and Energy Lab approach to evaluate its M&O contractors that uses broad, office-wide performance criteria that are mostly subjective. These evaluations provide the basis for determining annual performance fees and the possibility of winning additional years on the contract through an "Award Term" extension. They also serve to inform the decisions that DOE makes regarding whether to extend or to compete the management and operating contracts when they expire.

The current laboratory appraisal process used by the SC has been in place since Fiscal Year 2006. It was designed to improve the transparency of the process, raise the level of involvement of SC leadership, increase consistency as to how laboratories are evaluated, and more effectively

[52] Office of Science Lab Appraisal Process: https://www.energy.gov/science/office-science-lab-appraisal-process
[53] Office of Science Lab Appraisal Process: https://www.energy.gov/science/office-science-lab-appraisal-process

incentivize contractor performance by tying performance to fee earned, contract length, and the public release of performance grades.[54]

At the conclusion of each Fiscal Year, the S&T (Goals 1-3) performance of the Laboratory is evaluated by the organizations that fund work at the Laboratory. In addition to the SC science programs, SC solicits input from all organizations that spend more than $1 million at the Laboratory. This S&T input is weighted according to the dollars spent at the Laboratory. Each Site Office evaluates the Laboratory's performance against the M&O Objectives (Goals 5-8). Site Offices and Science Programs provide input regarding the contractor's performance with respect to Goal 4 to the SC leadership who subsequently determine the Laboratory's score in this area. In determining these grades, the SC Science Programs and Site Offices consider the laboratory's performance against the Notable Outcomes, defined in the PEMP, as well as other sources of performance information that becomes available to DOE throughout the year. These include independent scientific program and project reviews, external operational reviews conducted by the Government Accountability Office (GAO), DOE Inspector General (IG), and other parts of DOE, and the results of SC's own oversight activities. The evaluation process includes end-of-year normalization meetings for all the Goals, during which rating organizations report their proposed scores/grades and work to ensure a consistent and fair scoring/grading approach across all ten Laboratories.

The SC appraisal process uses a five-point (0-4.3) scoring system with corresponding grades for the Performance Goals and Objectives. A grade of "B+" is awarded for performance at the Objective level that meets SC's expectations for performance. SC intentionally set its expectations associated with a B+ very high, and does not equate performance below a B+ as necessarily unsatisfactory, but as offering opportunity for improvement. The grade for each of the Performance Goals is based on a weighted computation of the scores of the individual Performance Objectives identified for each Goal, and SC uses the resultant Performance Goal grades to create annual "Report Cards" for each Laboratory that are publicly available on the SC website. The scale SC uses for assigning scores and letter grades is provided in the table below.

Table 2: SC Score/Letter Grade Scale

Score/Letter Grade Scale											
Final Grade:	**A+**	**A**	**A-**	**B+***	**B**	**B-**	**C+**	**C**	**C-**	**D**	**F**
Score:	**4.3 - 4.1**	**4.0 - 3.8**	**3.7 - 3.5**	**3.4 - 3.1**	3.0 - 2.8	2.7 - 2.5	2.4 - 2.1	2.0 - 1.8	1.7 - 1.1	1.0 - 0.8	0.7 - 0

*SC defines a grade of "B+" as "Meets Expectations."

9.3 Other SC Programs[55]

SC also sponsors other programs, including basic research at over 300 institutions across the country, including universities, national laboratories, nonprofits, and private sector institutions.

[54] Office of Science Appraisal Process and Scoring System: https://science.osti.gov/lp/Laboratory-Appraisal-Process
[55] Science Programs: https://www.energy.gov/science/mission/science-programs

Funding is awarded on a competitive basis using peer review. Research efforts range from single-investigator grants to large team-based projects.

SC administers research through six major program offices, spanning a broad range of disciplines:

- Advanced Scientific Computing Research,
- Basic Energy Sciences,
- Biological and Environmental Research,
- Fusion Energy Sciences,
- High Energy Physics, and,
- Nuclear Physics.

10. Office of Energy Efficiency and Renewable Energy (EERE)

The Office of Energy Efficiency and Renewable Energy (EERE) conducts program evaluations to assess whether programs are meeting planned goals and achieving commercialization and market results. Evaluations identify opportunities for efficient and effective management of public investments. Evaluations also identify opportunities to improve programs to more effectively and efficiently manage public investments.

Technology development programs in DOE extensively and successfully utilize peer review to evaluate research and development (R&D) activities at the project and program levels. In addition to peer review, R&D Program Managers are encouraged to use other evaluation methods to obtain information on program effectiveness and realized benefits that cannot be provided using the peer review method.[56]

The potential benefits of periodically doing systematic studies using other R&D evaluation methods are considerable. Programs could:

- Generate additional important information for use in continuous program improvement
- Document knowledge benefits that are often unaccounted for when communicating programs' value to stakeholders
- Document realized market benefits associated with past research successes
- Better answer questions about cost-effectiveness of the longer-term research

EERE consists of several offices that support EERE's mission:

Table 3: EERE Functional Areas and Programs

Functional Area	Program	Description
	Communications	Leads strategic communications and outreach activities for the Office of Energy Efficiency and Renewable

[56]Overview of Evaluation Methods for R&D Programs: https://www.energy.gov/sites/prod/files/2015/05/f22/evaluation_methods_r_and_d.pdf

Functional Area	Program	Description
Principal Deputy Assistant Secretary's Office		Energy (EERE) by ensuring that key information about the nature and impact of EERE activities is accessible, reliable, and delivered through multiple communications channels to stakeholders and the public. • Manages and continually updates the EERE web enterprise and its digital tools, including EERE's corporate website, the EnergySaver.gov content on Energy.gov, and several other EERE sites. Ensures compliance with federal requirements and enables the broad distribution and management of content. • Leads the planning and execution of EERE's press and public announcements, media outreach, social media, multimedia activities, and major cross-cutting media communications campaigns to maximize impact. • Conducts consumer research, creates cross-cutting outreach materials, and executes national informational campaigns to increase consumer adoption of energy-efficient and renewable technologies. • Develops, coordinates, and manages internal and external strategic messaging and cross-cutting EERE materials to ensure effective targeting and use by the EERE community, including EERE's senior leadership. • Leads EERE's internal communication activities that aim to ensure sufficient use of information flows across the EERE organization and engage staff on internal and external efforts of interest to the EERE community. • Responds to letters and inquiries from the public and congressional members and maintains comprehensive EERE publications. Work includes: • Branding and quality control with Communication Standards and Guidelines • EERE News • EERE Blog and Success Stories • Contributions to DOE's Energy Blog • Creating Consumer-Friendly Resources
	External Relations	Provides strategic advice to EERE's leadership team and program offices on interactions with key external stakeholders that involve relevant policy and opportunities to advance the office's mission. The team helps lead

Functional Area	Program	Description
		interactions with stakeholders to leverage relationships and educate audiences about the impact of EERE's activities. Spans three (3) focus areas: 1. Communications 2. Stakeholder Engagement 3. Legislative Affairs
	Strategic Analysis	Develops tools and methods to enable consistent evaluation and analysis across EERE.
Energy Efficiency	Advanced Manufacturing	Supports R&D projects, R&D consortia, and early-stage technical partnerships with national laboratories, companies (for-profit and not-for profit), state and local governments, and universities through competitive, merit reviewed funding opportunities designed to investigate new manufacturing technologies. For more regarding AMO's resources for industry participants, refer to next Stakeholder Webinar.
	Buildings	Building Technologies Office (BTO) develops, demonstrates, and accelerates the adoption of cost-effective technologies, techniques, tools and services that enable high-performing, energy-efficient and demand-flexible residential and commercial buildings in both the new and existing buildings markets, in support of an equitable transition to a decarbonized energy system by 2050, starting with a decarbonized power sector by 2035. BTO conducts work in three (3) key areas in order to continually develop innovative, cost-effective, energy-saving solutions: 1. Research and Development (R&D) • Spearhead the development of new, energy-efficient technologies. • Lead R&D activities that reduce home energy use through Building America. • Collaborate with industry to improve the energy efficiency of new and existing commercial buildings. 2. Market Stimulation • Help communities improve efficiency through the Better Buildings Residential Network.

Functional Area	Program	Description
		• Work with partners to offer whole-house upgrades through Home Performance with ENERGY STAR®. • Promote the adoption of energy-efficient technologies and methods in new homes through the DOE Zero Energy Ready Home program. • Provide home owners, buyers, and renters information about a home's energy use and offer cost-effective solutions to improve efficiency through Home Energy Score.™ • Encourage building owners and operators to commit to an energy-savings pledge with the Better Buildings Challenge. • Improve commercial retail, real estate, and health care buildings through Better Buildings Alliance. • Help grow new technologies through awareness programs like Solid-State Lighting. • Inspire the next generation of builders and architects through the U.S. Department of Energy Solar Decathlon. • Give engineers, architects, and designers better insight into building energy use through modeling software for programs such as EnergyPlus and OpenStudio Plug-in for SketchUp. • Develop and demonstrate tools, resources, and strategies for residential efficiency technologies and trade practices through the Home Improvement Catalyst. 3. Building Codes and Equipment Standards • Set test procedures and minimum efficiency standards for residential appliances and commercial equipment. • Help states implement building energy codes, provide compliance tools to building professionals, and participate in developing the technical basis cost-effective codes that continue to drive greater efficiency.
	Weatherization and Intergovernmental	Weatherization and Intergovernmental Programs Office (WIP) is made up of two (2) programs focused on state and local governments—the Weatherization Assistance Program (WAP) and the State Energy Program (SEP)—and two teams that develop and deliver targeted technical

Functional Area	Program	Description
		assistance and strategic initiatives to state and local governments. WAP and SEP provide funding and technical assistance to states, territories, the District of Columbia, and Native American tribes to enhance energy security, advance state-led energy initiatives, maximize the benefits of decreasing energy waste, and reduce energy costs for low-income households. Each state is the decision maker and administrator for SEP and WAP program activities tailored to their unique resources, delivery and production capacity, and energy goals. For more, refer to: • SEP FY21 ALRD and Grant Application Instructions • SEP FY17 Competitive Awardees • Apply for Weatherization Assistance • WIP Fact Sheet • WAP Fact Sheet • SEP Fact Sheet • Partnerships and Technical Assistance Fact Sheet • Strategic and Interagency Initiatives Fact Sheet WAP: • Bipartisan Infrastructure Law Funds for WAP • Visual Guides for Home Energy Efficiency Upgrades • E&I and SERC Project Selections Announced SEP: • Program Activities and Outcomes • State Energy Program Impacts • State Energy Program National Evaluation
Renewable Power	Geothermal	Includes program areas such as: • Enhanced Geothermal Systems (EGS) hold the potential to power tens of millions of American homes and businesses. GTO actively supports R&D initiatives that guide enhanced geothermal toward a commercially viable platform by 2030, including technology validation, cost reduction,

Functional Area	Program	Description
		and improved performance. • Development of advanced exploration tools and technologies will accelerate the discovery and utilization of the U.S. Geological Survey's estimated 30,000 MWe of undiscovered hydrothermal resources in the Western United States by increasing exploration and confirmation well success rates. More effective exploration methods address a major barrier to increased geothermal energy production by lowering the high upfront risk and cost of project development. Locating undiscovered geothermal resources will support the near-term expansion of renewable energy because once found, hydrothermal resources can be brought online quickly using current technologies. ○ Play Fairway Analysis ○ Roadmap for Strategic Development of Geothermal Exploration Technologies • Low Temperature & Coproduced Resources represent a small but growing sector of hydrothermal development in geothermal resources below 150°C (300°F). Considered non-conventional hydrothermal resources, these technologies are bringing valuable returns on investment in the near-term, using unique power production methods. The Geothermal Technologies Office (GTO) works with industry, academia, and national laboratories to develop and deploy new low-temperature and coproduction technologies that will help the geothermal community achieve widespread adoption of under-utilized low-temperature resources. • Systems Analysis program in the Geothermal Technologies Office focuses primarily on: ○ Environmental issues ○ Policy, regulatory, and financing ○ Economic analysis and validation ○ Data and tools that support geothermal exploration and development

Functional Area	Program	Description
		As a key part of the Systems Analysis portfolio, a two-year, comprehensive Vision Study for geothermal energy development is underway to project growth scenarios over the coming decades. To support these primary functions, GTO's analysis activities support: ○ Environmental Analysis: GTO works to address the environmental impacts of geothermal technologies through research and analysis of geothermal project life cycles and water use, and seismicity issues related to enhanced geothermal systems. • New Studies Aid in Optimizing Water Use in Geothermal Applications ○ Market and Policy Analysis: GTO analysts strive to help the geothermal community increase the use of geothermal resources in the marketplace and provide options for strengthening current geothermal policies through vigorous market and policy analysis. The Energy Department's 2013 Geothermal Market Report is now available online. ○ Strategic Planning: GTO develops a detailed Geothermal Technologies Multi-Year RD&D Plan that is updated every two years. This document provides input to program planning, budgeting and analysis. ○ Geothermal Data Systems: GTO collects nationwide geothermal data, conducts analyses and maintains this information in a National Geothermal Data System (NGDS) for widespread public use to reduce the risk of geothermal energy development. More information about NGDS is available in our NGDS Fact Sheet. ▪ DOE Geothermal Data Repository (DOE-GDR) Data Provision Instructions ○ Economic Impact Tools: GTO evaluates each geothermal technology's benefits and risks by reviewing the costs and economic impacts of

Functional Area	Program	Description
		geothermal development to recognize possible technology outcomes. A variety of analysis methodologies are used in combination to provide a sound understanding of GTO. Working closely with technology managers and developers is key to including realistic assumptions, both market- and technology-based. The GTO Strategic Planning and Analysis Working Group provides a peer review of analytical efforts. Featured publications include: ○ Doubling Geothermal Generation Capacity by 2020: A Strategic Analysis ○ NREL Doubling Geothermal Capacity ○ Geothermal Exploration Policy Mechanisms ○ Geothermal Regulatory Roadmap ○ National Geothermal Data System (NGDS) Fact Sheet ○ Seismicity Protocol ○ Geothermal Electricity Technology Evaluation Model (GETEM)
	Solar	Solar Energy Technologies Office (SETO) funds research and development across the solar energy spectrum to drive innovation, lower costs, and support the transition to a decarbonized power sector by 2035 and a decarbonized economy by 2050. Research areas include: • Photovoltaics • Concentrating Solar-Thermal Power • Systems Integration • Manufacturing and Competitiveness • Soft Costs • Solar Workforce Development • Equitable Access to Solar Energy **NOTE:** For more, refer to the Solar Energy Research Database. SETO research priorities and highlights include: • Solar Futures Study • Solar Energy Technologies Office Multi-Year Program Plan

Functional Area	Program	Description
		• 2020 SETO Portfolio Book • SETO 2020 Peer Review Report • 2018 SETO Portfolio Book • 2018 SETO Peer Review Report • PV Innovation Roadmap • Concentrating Solar Power Gen3 Demonstration Roadmap • On the Path to SunShot • SunShot 2030 • SunShot Vision Study
	Wind	Wind Energy Technologies Office (WETO) invests in applied energy science research and development (R&D) activities that enable industry technological innovation and deployment. While some of these investments are targeted at a specific sector, many of them are relevant across all wind applications: land-based utility-scale, offshore, and distributed wind. These activities are conducted in partnership with the academic community, national laboratories, and industry, and are aimed at improving performance, lowering costs, and reducing market barriers for U.S. wind energy. **WIND RESOURCE CHARACTERIZATION AND PLANT OPTIMIZATION** The Atmosphere to Electrons (A2e) initiative will play a major role in optimizing wind plant systems that produce more power and need less maintenance, leading to the wind plant of the future—a collection of intelligent and innovative machines operating in a highly coordinated way. • Measure and characterize domestic wind energy resources for both land-based and offshore wind energy systems • Improve the understanding of wind farm design conditions and complex aerodynamics • Leverage the high-performance computing (HPC) abilities at the national laboratories to model the complexity of the atmosphere and wind plant flow physics, and enable industry to take the next steps in developing both evolutionary and transformational technologies

Functional Area	Program	Description
		• Improve the reliability of wind plant systems that address the complex dynamics of winds created by turbulent weather, variable terrain, and rotor wakes • Develop and validate open-source design tools for evaluating new concepts and enabling industry innovation in next-generation wind turbine designs. **WIND COMPONENT AND SYSTEM RESEARCH, DEVELOPMENT, AND TESTING** • Partner with industry, universities, and national laboratories on aerodynamic, structural and electrical test centers for wind plants, wind turbines, rotor blades, and drivetrains • Investigate new drivetrain configurations that weigh less and have higher efficiency than current designs and are installed on taller towers that can access the stronger wind resources at greater heights • Conduct research needed to address U.S.-specific offshore wind challenges such as deep water, weak soils, and hurricanes • Enable industry to meet performance and safety standards by establishing frameworks for small wind turbine certification • Participate in the development of national and international wind energy standards. **MARKET BARRIER MITIGATION** • Conduct research aimed at understanding and mitigating the impacts of wind energy on bird, bat, marine, and insect species and their habitats • Investigate and mitigate potential impacts of wind energy on society, including auditory, visual, radar, and competitive-use impacts • Understand critical wind integration challenges related to electricity supply and demand, wind forecasting, wind speed variability, and cyber security • Develop solutions and best practices for wind energy grid integration • Provide independent cost of energy analyses, economic assessments, and market information publications • Use the WINDExchange platform to help communities weigh the benefits and costs of wind energy, understand the deployment process, and make

Functional Area	Program	Description
		wind development decisions supported by fact-based, relevant, and actionable information. WETO held its last virtual Peer Review in August 2021. The purpose of the Peer Review is to evaluate projects funded by DOE to assess their contribution to the mission and goals of the office, track progress against stated objectives, and assess the office's overall management and performance. Approximately 90% of the projects in WETO's Fiscal Year 2019–2020 research and development portfolio were publicly presented and systematically reviewed by external subject-matter experts from industry, academia, and federal agencies. The 2021 Peer Review included two parallel tracks across 10 focus areas: 1. Analysis and Modeling 2. Atmospheric Science 3. Distributed Wind 4. Environmental Research 5. Grid Integration 6. Materials and Manufacturing 7. Offshore Wind Demonstrations 8. Offshore Wind 9. Regulatory and Siting 10. Stakeholder Engagement and Workforce Past peer reviews include: • 2021 Peer Review Report and Presentations • 2019 Peer Review Report and Presentations • 2017 Peer Review Report and Presentations • 2014 Peer Review Report and Presentations • 2012 Peer Review Report • 2010 Peer Review Report WETO projects are listed here: Wind Energy Technologies Office Projects Map | Department of Energy For more, visit: WINDExchange | Department of Energy
	Water	The mission of the Water Power Technologies Office (WPTO) is to enable research, development, and testing of new technologies to advance marine energy as well as next-generation hydropower and pumped storage

Functional Area	Program	Description
		systems for a flexible, reliable grid. To reduce marine energy costs and fully leverage hydropower's contribution to the grid, WPTO invests in research and technology design; validates performance and reliability for new technologies; develops and enables access to necessary testing infrastructure; and disseminates objective information and data for technology developers and decision makers. WPTO's work directly supports EERE's strategic objectives of increasing the Nation's energy affordability, integration, and storage capabilities. This, in turn, supports DOE's mission to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions. WPTO consists of two R&D programs: the Marine Energy Program and the Hydropower Program. WPTO's Multi-Year Program Plan (MYPP) serves as an operational guide to help the Water Power Technologies Office manage and coordinate its activities, as well as a vehicle to communicate WPTO's mission, goals, and plans to water power stakeholders and the public. The Office's first MYPP, this report details WPTO's research, development, demonstration, and commercial activities for the coming years and outlines how these efforts are important to meeting the nation's energy and sustainability goals. WPTO projects are listed here: Water Power Technologies Office Projects Map | Department of Energy
Sustainable Transportation	Bioenergy	The Bioenergy Technologies Office (BETO) supports research, development, and demonstration to enable the sustainable use of domestic biomass and waste resources for the production of biofuels and bioproducts. This includes: • Advanced Algal Systems program supports research and development (R&D) to lower the costs of producing algal biofuels and bioproducts. • Bioproduct Production program develops bio-based products and chemicals that can enable biofuel production.

Functional Area	Program	Description
		• CO_2 Utilization portfolio investigates technical pathways for converting carbon dioxide into biofuels and bioproducts. • Conversion Technologies program supports research and development in technologies for converting biomass feedstocks into finished liquid transportation fuels—such as renewable gasoline, diesel, and jet fuel—co-products or chemical intermediates, and biopower. • Data, Modeling, and Analysis program supports research, analysis, and tool development to address the economic and environmental dimensions of bioenergy and bioproducts. • Feedstock Technologies program focuses on technologies and processes that transform renewable carbon sources into conversion-ready feedstocks. • Systems Development and Integration program works to lower the risk of bioenergy production technologies through verified proof of performance at the pilot or lower scales, facilitating further development and validation at demonstration and pioneer scales by private stakeholders. • BETO's transportation biofuels research aims to accelerate the production of advanced biofuels capable of decarbonizing heavy modes of transportation, such as the aviation and maritime sectors. • Research on converting waste to energy as potential high-impact resources for the domestic production of biofuels, bioproduct precursors, heat, and electricity. A list of BETO publications by name, description, and date that showcase key research and development activities for all BETO technologies can be found here: BETO Publications | Department of Energy
	Hydrogen and Fuel Cells	Hydrogen and Fuel Cell Technologies Office (HFTO) conducts work in several key areas to advance the development of hydrogen and fuel cell technologies. **Research, Development, and Demonstration** Key areas of research, development, and demonstration (RD&D) include the following: • Fuel cell R&D, which seeks to improve the durability, reduce the cost, and improve the

Functional Area	Program	Description
		performance of fuel cell systems, through advances in fuel cell stack and balance of plant components • Hydrogen fuel R&D, which focuses on enabling the production of low-cost hydrogen fuel from diverse renewable pathways and addressing key challenges to hydrogen delivery and storage • Manufacturing R&D, which works to develop and demonstrate advanced manufacturing technologies and processes that will reduce the cost of fuel cell systems and hydrogen technologies • Technology validation, which demonstrates and validates pre-commercial technologies before the deployment phase. To ensure that advances in the laboratory can be realized in the marketplace, the Hydrogen and Fuel Cell Technologies Office conducts a range of activities to address economic and institutional barriers: • Education and outreach activities aim to increase public awareness and understanding of the technologies, facilitating the implementation of near-term demonstration projects and early market fuel cell installations, while easing the way for long-term market adoption. • Market transformation activities provide financial and technical assistance for the use of hydrogen and fuel cell systems in early market applications, with the goals of achieving sales volumes that will enable cost reductions through economies of scale, supporting the development of a domestic industry, and providing feedback to testing programs, manufacturers, and potential technology users. • Safety, codes and standards efforts develop information resources and best practices to address safety issues, and to provide critical information needed for technically sound codes and standards—these efforts in codes and standards will be ongoing as new technologies emerge and mature. **Advisory Panels** The National Research Council and the Hydrogen and Fuel Cell Technical Advisory Committee provide

Functional Area	Program	Description
		technical and programmatic advice for DOE's Hydrogen Program. Hydrogen and Fuel Cell Technical Advisory Committee The Hydrogen and Fuel Cell Technical Advisory Committee (HTAC) was established under Section 807 of the Energy Policy Act of 2005. Selected in June 2006, committee members advise the Energy Secretary on issues related to hydrogen and fuel cell technology development. For more information about HTAC, its committee members, and related publications, visit the DOE Hydrogen Program website. National Research Council The National Academy of Sciences, through its National Research Council (NRC), reviews the research and demonstration programs of DOE's Hydrogen Program every fourth year as directed by the Energy Policy Act of 2005. The NRC is administered jointly by the National Academy of Science, the National Academy of Engineering, and the Institute of Medicine through the NRC Governing Board. For more information about NRC and related publications geared toward DOE's Hydrogen Program, visit the DOE Hydrogen Program website. **Consortia** The Hydrogen and Fuel Cell Technologies Office funds lab-led consortia to coordinate national laboratory research and development activities and serve as a resource for universities and industry. **H2@Scale** H2@Scale is a DOE initiative that brings together stakeholders to advance affordable hydrogen production, transport, storage, and utilization to increase revenue opportunities in multiple energy sectors. It is a framework in which national laboratories and industry can work together through government co-funded projects to

Functional Area	Program	Description
		accelerate the early-stage research, development, and demonstration of applicable hydrogen technologies. **Systems Integration** The breadth and complexity of the overall DOE Hydrogen Program RD&D effort, as well as the interaction of program elements, requires an integrated approach to reduce risk and maximize the potential for success. The focus of systems integration is to understand the complex interactions among program areas, components, and the tradeoffs between them. **Partnerships and International Activities** Cooperative hydrogen and fuel cell technology R&D will play a central role in advancing the transition to widespread adoption of hydrogen and fuel cell technologies. **H2USA** H2USA is a public-private collaboration focused on addressing the key challenges of hydrogen infrastructure. **International Energy Agency** Member countries across the globe address the technological, financial, and institutional barriers to widespread commercialization of hydrogen and fuel cells. International Partnership for Hydrogen and Fuel Cells in the Economy This multinational partnership coordinates research, development, and deployment programs to advance the commercialization of hydrogen and fuel cell technologies. **OVERVIEW** Program Accomplishments: Web page and fact sheet describing how DOE efforts have advanced the state of

Functional Area	Program	Description
		the art of hydrogen and fuel cell technologies, making significant progress toward overcoming key challenges to widespread commercialization. Technology Overview Fact Sheets: Easy-to-understand fact sheets and other information designed to introduce hydrogen and fuel cell technologies to non-technical audiences. Organization Chart and Contacts: Organizational structure and contact information for the Hydrogen and Fuel Cell Technologies Office. Hydrogen and Fuel Cell Technologies Office News: Recent news stories and press releases. Hydrogen and Fuel Cell Technologies Office Newsletter: Quarterly recap of office news, funding opportunities, workshops, events, and recent publications. **PLANS** Hydrogen and Fuel Cell Technologies Office Multi-Year Research, Development, and Demonstration Plan: Describes the goals, objectives, technical targets, tasks, and schedules for all activities within the Hydrogen and Fuel Cell Technologies Office. DOE Hydrogen Program Plan: Outlines the strategy, activities, and plans of the DOE Hydrogen Program, which includes hydrogen and fuel cell activities within the EERE Hydrogen and Fuel Cell Technologies Office and the DOE offices of Fossil Energy, Nuclear Energy, Electricity, Science, and ARPA-E. U.S. DRIVE Technical Team Technology Roadmaps: Current roadmaps and previous accomplishments reports from U.S. DRIVE (Driving Research and Innovation for Vehicle efficiency and Energy sustainability), a non-binding and voluntary government-industry partnership

Functional Area	Program	Description
		focused on advanced automotive and related infrastructure technology research and development. Hydrogen and Fuel Cell Technologies Office Budget: Outline of the Hydrogen and Fuel Cell Technologies Office's major activities and budget. DOE Hydrogen Program Budget: Budget information for hydrogen and fuel cell research, development, and other activities for DOE's Offices of Energy Efficiency and Renewable Energy, Fossil Energy, Nuclear Energy, Science, and ARPA-E. **IMPLEMENTATION** **Technology Evaluations** Independent Peer Reviews: Independent technical reviews convened by DOE's System Integrator to gauge progress toward meeting specific technical targets and to provide technical information necessary for key decisions. Technical Publications: Technical information about hydrogen; fuel cells; safety, codes and standards; hydrogen and fuel cell technology market analysis; and jobs and economic impacts resulting from fuel cell deployment. **Deployment and Diffusion** Fuel Cell Technologies Market Reports: Data on trends in the fuel cell industry. State of the States Reports: Snapshots of fuel cell and hydrogen activity in the 50 states and District of Columbia. **In-Progress Peer Reviews and Process Assessments** Annual Merit Review and Peer Evaluation Reports: Summaries of the comments of expert peer reviewers at the Annual Merit Review and Peer Evaluation, where each

Functional Area	Program	Description
		year projects funded by DOE's Hydrogen Program are reviewed for their merit. U.S. DRIVE: Technical accomplishment highlights and other publications from U.S. DRIVE (Driving Research and Innovation for Vehicle efficiency and Energy sustainability), a government-industry partnership among DOE; USCAR, representing FCA US LLC, Ford Motor Company, and General Motors; five energy companies—BP America, Chevron Corporation, ExxonMobil Corporation, Phillips 66 Company, and Shell Oil Products US; Tesla Motors; two utilities—Southern California Edison and Michigan-based DTE Energy; and the Electric Power Research Institute. Hydrogen and Fuel Cell Technical Advisory Committee (HTAC): Reports and meeting presentations from HTAC, which was established under Section 807 of the Energy Policy Act of 2005 to provide technical and programmatic advice to the Energy Secretary on DOE's hydrogen research, development, and demonstration efforts. U.S. Government Accountability Office Report: A review of the status and progress of the DOE-led Hydrogen Fuel Initiative established in 2003 to perform research, development, and demonstration for developing hydrogen fuel cells for use as a substitute for gasoline engines. **Internal Controls, Project Tracking, and Progress Reports** DOE Hydrogen Program Annual Progress Reports: Summaries of annual hydrogen and fuel cell research and development and analysis activities and accomplishments from work conducted by industry, academia, and national laboratories for the DOE Hydrogen Program and the offices of EERE, Fossil Energy, Nuclear Energy, and Science.

Functional Area	Program	Description
		Reports to Congress: Reports to Congress prepared by the DOE Hydrogen Program to fulfill the provisions of the Energy Policy Act of 2005 (EPACT). Graduations, Redirections, Terminations, Watch-List Annual Merit Review and Peer Evaluation Reports: Summaries of the comments of expert peer reviewers at the Annual Merit Review and Peer Evaluation, where each year projects funded by DOE's Hydrogen Program are reviewed for their merit. **RESULTS** **R&D Enabling Market Success** Pathways to Success: Innovations Enabled by the Fuel Cell Technologies Office: Reports describing the results of an effort to identify and characterize commercial and near-commercial (emerging) technologies and products that benefited from the support of the Hydrogen and Fuel Cell Technologies Office and its predecessor programs within DOE's Office of Energy Efficiency and Renewable Energy. **Technical Outcomes** Annual Merit Review and Peer Evaluation Reports: Summaries of the comments of expert peer reviewers at the Annual Merit Review and Peer Evaluation, where each year projects funded by DOE's Hydrogen Program are reviewed for their merit. **Case Studies** Case Studies: Easy-to-understand case studies fact sheets from the Hydrogen and Fuel Cell Technologies Office. Success Stories: Stories about EERE successes in advanced fuel cell and hydrogen technologies that pave the way for the adoption of cleaner fuels and more efficient energy storage in vehicles and buildings.

Functional Area	Program	Description
	Vehicles	Vehicle Technologies Office (VTO) provides low cost, secure, and clean energy technologies to move people and goods across America. Technology areas include: • Batteries, Charging, and Electric Vehicles • Energy Efficient Mobility Systems • Advanced Engine and Fuels Technologies • Lightweight and Propulsion Materials • Technology Integration VTO carries out its mission through collaboration with others in the Department and other federal agencies, national laboratories and universities, industry partners, and community leaders. Partners within the Department of Energy such as the DOE Office of Science, ARPA-E, the Advanced Manufacturing Office, the Bioenergy Technologies Office, the Fuel Cell Technologies Office, and others help remove technology and institutional barriers. VTO also coordinates research efforts with a number of other agencies across the federal government, including the Department of Transportation, the Environmental Protection Agency, and the Department of Defense. **U.S. DRIVE** U.S. DRIVE (Driving Research and Innovation for Vehicle efficiency and Energy sustainability), facilitates pre-competitive technical information exchange among experts in government and industry. These leaders identify research and development needs, develop technology-specific roadmaps, and evaluate progress toward jointly-developed goals and technical targets. **21st Century Truck Partnership** The 21st Century Truck Partnership is addressing important national challenges related to medium-duty and heavy-duty truck efficiency, safety, and emissions by pursuing collaborative research and development among government and industry partners. **Clean Cities Coalitions** Clean Cities coalitions support the nation's energy and economic security by building partnerships to improve transportation energy efficiency. The national network of

Functional Area	Program	Description
		nearly 100 Clean Cities coalitions brings together stakeholders in the public and private sectors to advance alternative and renewable fuels, idle-reduction measures, fuel economy improvements, and emerging transportation technologies. **National Clean Fleets Partnership** Through the National Clean Fleets Partnership, Clean Cities coalitions works with large private fleets to reduce petroleum use. The initiative provides fleets with specialized resources to incorporate alternative fuels and fuel-saving measures into their operations. **Vehicle Technologies Annual Merit Review** Annually, the Vehicle Technologies Annual Merit Review is held as advanced vehicle technologies projects funded by VTO are presented and reviewed for their merit. Reviewers come from a variety of backgrounds, including current and former members of the vehicles industry, academia, National Laboratories, and government. Each reviewer evaluates a set of projects based on how much they contribute to or advance the Energy Department's missions and goals. The reviewer considers the project's breadth, depth, appropriateness, accomplishments, and potential. The final reviews are described in the Vehicle Technologies Office Annual Merit Review Results Reports. Full list of VTO reports and publications can be found here: Reports and Publications.
Operations	Business Services Management	Office of Business Services Management (OBSM) works to ensure that EERE has clear and accessible business processes, world-class information systems, and a highly talented workforce to execute its mission effectively and efficiently. OBSM supports EERE in its effort to be an open and collaborative learning organization that recruits and retains top talent, builds and renews its intellectual capital, continuously improves its business processes, fosters creative problem-solving, and shares best practices. OBSM includes the work of three offices and an internal Business Administration Team:

Functional Area	Program	Description
		Information Technology Services Office: The Information Technology Services Office (ITSO) manages EERE's IT systems and assets and ensures their compliance with federal and Departmental requirements. ITSO implements IT solutions that create operational efficiencies and increase the integrity and quality of information and data management; oversees EERE's IT facilities management, IT acquisitions, and EERE data architecture; and ensures that EERE technical controls, processes, and procedures are effective in mitigating risks and cyber threats, while complying with DOE cybersecurity directives. **Knowledge Management and Systems Office:** The Knowledge Management and Systems Office (KMSO) delivers and manages the policies and procedures, systems, tools, training, and data analytics necessary for EERE to consistently, efficiently, and effectively execute its mission in accordance with DOE guidelines and leadership priorities. KMSO leads business process management and systems efforts, as well as related data, training, and collaboration activities. **Workforce Management Office:** Workforce Management Office (WMO) provides assistance and advice to EERE offices and employees in the areas of talent management, staffing and onboarding, performance management, employee engagement, and training. WMO also oversees EERE Headquarters facilities management activities. **Business Administration Team:** OBSM's Business Administration Team provides direct oversight of conference management, controlled correspondence, and Congressional Report activities to ensure timely and consistent action across EERE, as well as alignment with federal and Departmental policies. The team also manages EERE audit coordination and resolution activities. This includes developing policies and procedures to guide the management and execution of audit resolution; collecting and validating corrective action data; and performing reviews and evaluations of internal controls to ensure effective operation and compliance with policies and best practices.
	Golden Field Office	Golden Field Office was designated a Department of Energy (DOE) field office in December 1992 to provide the Office of Energy Efficiency and Renewable Energy

Functional Area	Program	Description
		(EERE) with enhanced capability to develop and commercialize renewable energy and energy-efficient technologies. Golden's mission is to support EERE as its Business Service Center by awarding grants and contracts for clean energy projects, facilitating research and development (R&D) partnerships to support those technologies, and overseeing the National Renewable Energy Laboratory (NREL), the only national lab solely dedicated to researching and developing renewable energy and energy efficiency technologies. Federal and contractor staff award and manage grants. Staff members also ensure that the legal, environmental and administrative elements of projects and contracts meet regulatory requirements. The awards provide funding to industry, non-profits, academia and DOE's national laboratories to support R&D projects in areas like photovoltaics (solar cells), wind energy, biomass and biofuels, hydrogen and fuel cells, advanced vehicles and industrial and building energy efficiency. Golden-based staff also helps implement the State Energy Program and Weatherization Assistance Program and support EERE with technology deployment activities. Employees have expertise in engineering, scientific research, project management, procurement, finance, information systems, environmental protection, safety, law and human resource management.
	Budget	**EERE FY 2023 Budget Request Fact Sheets** • FY 2023 Budget Fact Sheet: Decarbonizing the Agriculture Sector • FY 2023 Budget Fact Sheet: Reducing the Carbon Footprint of Buildings • FY 2023 Budget Fact Sheet: Decarbonizing the Electricity Sector • FY 2023 Budget Fact Sheet: Decarbonizing the Industrial Sector • FY 2023 Budget Fact Sheet: Decarbonizing the Transportation Sector

Functional Area	Program	Description
		EERE Prior Year Budgets • DOE FY 2022 Budget Request • DOE FY 2021 Budget Request • DOE FY 2020 Budget Request • FY 2019 Budget Request • FY 2018 Budget Request • FY 2017 Budget Request • Earlier Years

EERE programs use a variety of evaluation methods to quantify impacts, assess progress, and promote improvement.[57] These methods include:

- Outcome Evaluations
- Impact Evaluations
- In-Progress Peer Reviews

As noted in the Strategic Evaluation Planning section, the type of evaluations performed depend on the evidence needed and questions that need to be answered. This includes a consideration of questions that if answered are expected to help provide the organization or program with evidence it can use to improve how it does business.

Performance measures are derived from various sources including the Office of Energy Efficiency and Renewable Energy's (EERE) Strategic Plans, Annual Operating Plans, etc., aligned with the elements of the SOW, and that directly support EERE's strategic goals and commitments.

Performance measures consist of critical outcomes, performance objectives, and performance indicators. Critical Outcomes - The M&O Contractor for the National Renewable Energy Laboratory (NREL) is assessed against all elements of the SOW.[58] EERE provides a proposed grade and a score from the corresponding numerical range for each Goal (see Table 4 below) for Letter Grade Scale). Each evaluation will measure the degree of effectiveness and performance of the Contractor in meeting the corresponding Objectives.[59]

[57] EERE Types of Evaluations: https://www.energy.gov/eere/analysis/types-evaluations

[58] DE-AC36-08GO28308 Modification M1130: https://www.nrel.gov/extranet/primecontract/assets/pdfs/m1130_section_b.pdf

[59] Annual Performance Evaluation of the Alliance for Sustainable Energy at the National Renewable Energy Laboratory, FY 15, Part 2: https://www.energy.gov/sites/prod/files/2016/06/f32/GO-16-025%20Egger_Part2.pdf

Table 4: EERE Scoring/Letter Grade Scale

Score/Letter Grade Scale											
Final Grade:	**A+**	**A**	**A-**	**B+***	**B**	**B-**	**C+**	**C**	**C-**	**D**	**F**
Score:	**4.3 - 4.1**	**4.0 - 3.8**	**3.7 - 3.5**	**3.4 - 3.1**	3.0 - 2.8	2.7 - 2.5	2.4 - 2.1	2.0 - 1.8	1.7 - 1.1	1.0 - 0.8	0.7 - 0

To further support evidence building and informed decision-making, NREL developed OpenEI, which is a free and open knowledge sharing platform created to facilitate access to energy-related data, models, tools, and information to make energy-related data and information searchable, accessible, useful to both people and machines. All users can search, edit, contribute, and access data in OpenEI, which contains a wide variety of topics ranging from renewable energy, to policy and regulations, to analyzed data and raw data.

In addition, EERE's Strategic Analysis Team (SA) performs cross-cutting, gap-filling, and corporate analysis associated with the research, development, demonstration, and deployment of EERE technologies. SA develops tools and methods to enable consistent evaluation and analysis across EERE, and serves a leadership role in related analysis across DOE, other government agencies, and external stakeholders. EERE evaluation publications can be found here: https://www.energy.gov/eere/analysis/eere-evaluation-publications.

11. Office of Electricity (OE)

The Office of Electricity (OE) provides leadership to ensure that the Nation's energy delivery system is secure, resilient, and reliable. The office includes two divisions:

Table 5: OE Divisions and Priorities

Division	Priorities
Advanced Grid Research and Development	• Smart Grid Research and Development supports activities to adapt and integrate the use of advanced digital technology to modernize the nation's electric delivery network for enhanced operational intelligence and connectivity. The enhanced connectivity will allow different applications, systems, and devices to be interoperable with one another, through a combined use of open system architecture, as an integration platform, and commonly-shared technical standards and protocols for communications and information systems. • Microgrid Research and Development supports activities to improve microgrid functionality and operations, including development and improvement of key microgrid components. Microgrids are localized grids that can disconnect from the traditional grid to operate autonomously and help mitigate grid disturbances to strengthen grid resilience.

Division	Priorities
	• Energy Storage supports research in basic materials forming battery, electrolytic capacitor, and flywheel systems which need to be improved to improve energy storage and cycling capabilities and reduce costs. It also supports activities in advanced component development and field testing of storage systems in diverse applications to bring these technologies closer to market. This research will help lower life-cycle costs, improve performance, and reduce siting issues due to reduced size and environmental impact. For more, refer to: • OE R&D Fact Sheet • Technology Development • Smart Grid • Demand Response • Federal Smart Grid Task Force • Microgrids • Emissions Quantification Tool • DataGuard • Energy Storage • TRAC Program • Advanced Modeling • Transmission Reliability • Renewable Energy Integration • Small Business Innovation Research
Electricity Delivery Cybersecurity Research and Development	Strengthen electricity infrastructure against cyber-related threats and mitigate vulnerabilities aligned with OE's R&D programs

Through its Research, Development, and Deployment work, OE is pursuing technologies to improve grid reliability, efficiency, flexibility, functionality, and security; and making investments and sponsoring demonstrations aimed at bringing new and innovative technologies to maturity and helping them transition to market. Most of OE's efforts today are being conducted through the Grid Modernization Initiative, as DOE is conducting multiple studies:

- National Transmission Planning Study (NTP) to identify transmission that will provide broad-scale benefits to electric customers; inform regional and interregional transmission planning processes; and identify interregional and national strategies to accelerate decarbonization while maintaining system reliability.
- Formally known as the National Electric Transmission Congestion Study, the

Transmission Needs Study will identify high-priority national transmission needs and provide information about capacity constraints and congestion on the nation's electric transmission grid. Where previous Congestion Studies were limited to consider only historic congestion, this study considers both historic and anticipated future transmission needs driven by the increase in renewables, and transportation and building electrification.

- To inform the integration of offshore wind (OSW), DOE will conduct supportive analyses to identify transmission pathways and develop transmission strategies to integrate OSW, consistent with the Administration's goal of 30 gigawatts of OSW by 2030 and to set the stage for a more ambitious 2050 OSW deployment target. In November 2021, DOE launched the Atlantic Offshore Wind Transmission Study, a two-year study led by National Renewable Energy Laboratory (NREL) and Pacific Northwest National Laboratory (PNNL). Through robust engagement with diversified stakeholder groups, this work evaluates coordinated transmission solutions to enable OSW energy deployment along the U.S. Atlantic Coast, addressing gaps in existing analyses.

In September 2022, DOE will be holding – with energy storage stakeholders – its 2nd Annual Department of Energy (DOE) Energy Storage Grand Challenge Summit at Argonne National Laboratory to provide a forum for attendees to provide DOE with ideas on how to facilitate new connections to achieve the Energy Storage Grand Challenge and Long Duration Storage Shot goals.

OE is also laying the framework for a modern electricity system by contributing to the development and implementation of electricity policy at the Federal and State level.

Prior program valuations/peer reviews of OE programs include:

TRANSFORMER RESILIENCE AND ADVANCED COMPONENTS

- 2019 Transformer Resilience and Advanced Components Program Review, *Knoxville, TN*, August 13-14, 2019

TRANSMISSION RELIABILITY

- 2018 Reliability & Markets Program Peer Review, June 5, 2018
- 2018 Transmission Reliability Program Peer Review, June 6, 2018
- 2017 Transmission Reliability Program Peer Review, Washington, DC, June 13, 2017
- 2017 Reliability & Markets Agenda and Presentations, Washington, DC, June 14, 2017
- 2016 Reliability & Markets Agenda and Presentations, *Arlington, VA, June 9-10, 2016*
- 2016 Transmission Reliability Program Peer Review, *Washington, DC, June 7-8, 2016*
- 2015 Reliability & Markets Agenda and Presentations, *Ithaca, NY, August 4-5, 2015*
- 2015 Transmission Reliability Program Peer Review, *Washington, DC, June 10-11, 2015*

NOTE: Evaluations conducted prior to 2015 can be found here: https://www.energy.gov/oe/reviews-archived

12. Office of Fossil Energy and Carbon Management (FECM)

The Office of Fossil Energy and Carbon Management (FECM) manages the Strategic Petroleum Reserve Office (SPRO) M&O Contract. The Strategic Petroleum Reserve (SPR), the world's largest supply of emergency crude oil), consisting of salt caverns storing crude oil in Texas and Louisiana. This was established primarily to reduce the impact of disruptions in supplies of petroleum products and to carry out obligations of the United States under the international energy program. FECM manages this support using an M&O Contract.

FECM follows a Site Specific approach to evaluate its M&O contractors that uses detailed performance criteria. Under this approach, most performance criteria are objective criteria, and a few are broader, subjective criteria. FECM's objective performance criteria are defined based on quantifiable metrics and performance targets[60] performance goals are established in the overarching M&O contract for the Strategic Petroleum Reserve.[61] The Available Award Fee shall be established considering the level of complexity, difficulty, cost effectiveness, and risk associated with specific objectives/incentives defined in the Performance Evaluation and Measurement Plan (PEMP).[62] The Performance Evaluation and Measurement Plan(s) sets out the criteria upon which the Contractor will be evaluated relating to any technical, schedule, management, and/or cost objectives selected for evaluation. These criteria are generally objective, but may also include subjective criteria.[63]

13. Office of Nuclear Energy (NE)

The Office of Nuclear Energy's (NE) primary mission is to advance nuclear power as a resource capable of making major contributions in meeting U.S. energy supply, environmental, and energy security needs.

NE manages the Idaho National Laboratory (INL) M&O Contract.[64] INL is the nation's leading center for nuclear energy research and development. INL works in each of the strategic goal areas of DOE: energy, national security, science, and environment. NE follows a Science and

[60] GAO-19-5 DEPARTMENT OF ENERGY - Performance Evaluations Could Better Assess Management and Operating Contractor Costs, page 84. https://www.gao.gov/assets/700/697103.pdf
[61] Contract DE-FE 0011020, M&O Contract for the Strategic Petroleum Reserve: https://www.spr.doe.gov/reports/FFPOContract/Contract%20No.%20DE-FE0011020.pdf
[62] Contract DE-FE0011020, Modification 0021, Page 3, Paragraph B.2.(b) Total Available Award Fee: https://www.spr.doe.gov/reports/FFPOContract/21/Attachment%20to%20Mod%200021.pdf
[63] Contract DE-FE0011020, Modification 0049, Performance Evaluation and Measurement Plan(s), Section I, Page I-19, paragraph I.109, (d): https://www.spr.doe.gov/reports/FFPOContract/49/Attachment%20to%20Mod%200049.pdf
[64] Idaho National Laboratory Management and Operation Contract: https://www.id.energy.gov/doeid/INLContract/INL-Contract.htm

Energy Lab approach to evaluate its M&O contractor that uses broad, office-wide performance criteria that are mostly subjective.[65]

This performance evaluation provides a standard by which to determine whether the M&O contractor is acting in a managerially and operationally responsible manner and is meeting the mission requirement and performance expectations/objectives of the Department as stipulated within their contract.

In partnership with the Contractor, the DOE Office of Nuclear Energy (NE) and DOE-Idaho Operations Office (DOE-ID) define the measurement basis that serves as the Contractor's performance-based evaluation. The Performance Goals, Performance Objectives and set of Notable Outcomes are developed in accordance with expectations set forth within the contract. The Notable Outcomes for meeting the Objectives set forth within this plan have been developed in coordination with NE program offices as appropriate.

This performance-based approach focuses the evaluation of performance against Performance Goals. Progress against these Goals is measured using a set of Objectives. The success of each Objective will be measured based on demonstrated performance by the INL, and on a set of Notable Outcomes that focus Laboratory leadership on the specific items that are the most important initiatives and highest risk issues the Laboratory must address during the year. These Notable Outcomes should be objective, measurable, and results-oriented to allow for a definitive determination of whether the specific Outcome was achieved at the end of the year.[66]

The DOE policy for implementing performance-based management, as implemented at INL, are detailed in annual Performance Evaluation and Measurement Plans[67], and include the following guiding principles:

- Performance Objectives are established in partnership with affected organizations and are directly aligned to the DOE strategic goals;
- Resource decisions and budget requests are tied to results; and
- Results are used for management information, establishing accountability, and driving long-term improvements.

[65] GAO 19-5, Appendix VII: Additional Information on the Office of Nuclear Energy's Performance Evaluations, page 99: https://www.gao.gov/assets/700/697103.pdf
[66]2022 INL Performance and Measurement Plan, Contract No. DE-AC07-05ID14517:
[67] 2022 INL Performance and Measurement Plan, Contract No. DE-AC07-05ID14517: https://www.id.energy.gov/doeid/INLContract/SEC%20J/SecJAttachK-Mod489.pdf

For FY 22 the following performance goals were established for the INL contract[68]:

Table 6: FY 22 Performance Goals for INL

Performance Goal	Weight
GOAL 1.0 Efficient and Effective Mission Accomplishment	70%
GOAL 2.0 Efficient and Effective Stewardship and Operation of Research Facilities	15%
GOAL 3.0 Sound and Competent Leadership and Stewardship of the Laboratory	15%
GOAL 4.0 Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health and Environmental Protection	30%
GOAL 5.0 Deliver Efficient, Effective, and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)	25%
GOAL 6.0 Sustain Excellence in Operating, Maintaining, and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs	20%
GOAL 7.0 Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems	25%

Table 7: Award Fee Pool linked to Adjectival Ratings

Award-Fee Pool Available To Be Earned	Adjectival Rating
91%-100%	Excellent
76%-90%	Very Good
51-75%	Good
No Greater Than 50%	Satisfactory
0%	Unsatisfactory

In a manner similar to the Laboratories managed by the Office of Science, NE provides a proposed grade and a score from the corresponding numerical range for each Objective (see Figure below) for Letter Grade Scale). Each evaluation will measure the degree of effectiveness and performance of the Contractor in meeting the corresponding Objectives.

Table 8: NE Scoring/Letter Grades

Score/Letter Grade Scale											
Final Grade:	A+	A	A-	B+*	B	B-	C+	C	C-	D	F
Score:	**4.3 - 4.1**	**4.0 - 3.8**	**3.7 - 3.5**	**3.4 - 3.1**	3.0 - 2.8	2.7 - 2.5	2.4 - 2.1	2.0 - 1.8	1.7 - 1.1	1.0 - 0.8	0.7 - 0

14. Advanced Research Projects Agency-Energy (ARPA-E)

In 2005, leaders from both parties in Congress asked the National Academies to "identify the most urgent challenges the U.S. faces in maintaining leadership in key areas of science and technology," as well as specific steps policymakers could take to help the U.S. compete, prosper, and stay secure in the 21st Century. In its report for Congress, *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future*, the National

[68] For the most part, these performance criteria have remained unchanged from fiscal year 2007, GAO-19-5 Management and Operating Contracts, p. 99: https://www.gao.gov/assets/700/697103.pdf

Academies called for decisive action, warning policymakers that U.S. advantages in science and technology – which made the country a world leader for decade – had already begun to erode. The report recommended that Congress establish an Advanced Research Projects Agency within the U.S. Department of Energy (DOE) modeled after the successful Defense Advanced Research Projects Agency (DARPA) – the agency credited with such innovations as GPS, the stealth fighter, and computer networking.

Authorized via Public Law 110-69, America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act, ARPA-E's goals include:

- Enhancing the economic and energy security of the United States through the development of energy technologies that result in:
  - Reductions of imports of energy from foreign sources;
  - Reductions of energy-related emissions, including greenhouse gases; and
  - Improvements in the energy efficiency of all economic sectors; and
- Ensuring that the United States maintains a technological lead in developing and deploying advanced energy technologies.

ARPA-E funds a wide range of individual technology projects (1,149). Typically, these projects are organized into focused technology programs (69) that revolve around a common technical area. All ARPA-E programs and projects are created through a process of rigorous debate over the technical and scientific merits and challenges of potential research areas. ARPA-E Program Directors are constantly exploring potential topics for future program areas.

ARPA-E also issues periodic open funding solicitations[69] for a broader range of projects that do not fall into a single technical area to address the full range of energy-related technologies, as well as targeted funding solicitations aimed at supporting America's small business innovators. ARPA-E also funds projects on a rolling basis through "special projects" funding opportunities that are meant to inform potential new program areas for the future.

ARPA-E Exploratory Topics are developed through the FOAs, and include:

- **Exploratory Topic A: Extremely Durable Concretes and Cementitious Materials –** Extremely durable concretes and cementitious materials to tackle technology challenges in the development of widely applicable concrete and cement.
- **Exploratory Topic B: Downhole Tools to Enable Enhanced Geothermal Systems** – Novel, low-cost sensor technologies that can help mitigate risks and lower costs for deep, extremely hot enhanced geothermal systems (EGS) by better characterizing rock formations and fluid enthalpy at depth.
- **Exploratory Topic C: Leveraging Innovations Supporting Nuclear Energy** –

[69] OPEN Programs | arpa-e.energy.gov

Advancements in nuclear facility sensors, tools, analytics, and controls.

- **Exploratory Topic D: Diagnostic Resource Teams to Support the Validation of Potentially Transformative Fusion-Energy Concepts** – State-of-the-art diagnostic measurements to be made on potentially transformative, ARPA-E-supported fusion-energy concepts to validate their performance, uncover problems, and guide research priorities.
- **Exploratory Topic F: High Value Methane Pyrolysis** – High value methane pyrolysis, including approaches that can economically convert natural gas to both fuel cell-grade hydrogen and higher value carbon materials (e.g., carbon fiber) with a low CO2 footprint.
- **Exploratory Topics G & T: Supporting Entrepreneurial Energy Discoveries** – An ongoing funding opportunity for a range of the most innovative and unconventional ideas across the energy technology spectrum, exploring high-risk R&D that could lead to the development of disruptive technologies
- **Exploratory Topic H: Establishing Validation Sites for Field-Level Emissions Quantification of Agricultural Bioenergy Feedstock Production** – "Ground truth" solutions to establish measurements and protocols for emissions monitoring at the field level to create publicly available, open-source, high-resolution datasets to support testing and validation of emerging biofuel production monitoring technologies.
- **Exploratory Topic I: Electricity System Models for Carbon Capture Resources** – Electricity system models and associated analysis that can inform technology development for new grid resources.
- **Exploratory Topic J: Biotechnologies to Ensure a Robust Supply of Critical Materials for Clean Energy** – Novel approaches in microbiology, synthetic biology, and process engineering in support of addressing mining industry challenges to ensure a robust mineral supply chain for clean energy applications.
- **Exploratory Topic K: Recycle Underutilized Solids to Energy** – Processes to convert plastics, rubber, composites, and paper to create a high-energy content liquid that can be easily shipped to and stored at points of aggregation.
- **Exploratory Topic L: Insulating Nanofluids and Solids to Upgrade our Large Aging Transformer Equipment** – Vital insulating elements in large power transformers (LPTs) to increase their durability, reliability, and resilience.
- **Exploratory Topic M: Mining Incinerated Disposal Ash Streams** – Recovery and reclamation of critical materials (CMs) and other valuable elements from Municipal Solid Waste Incineration (MSWI) ashes.
- **Exploratory Topic N: Waste into X** – Improvement of the physical or chemical properties of Municipal Solid Waste Incineration (MWSI) ash into valuable products.
- **Exploratory Topic O: Direct Removal of Carbon Dioxide from Oceanwater** – Direct removal of carbon dioxide from oceanwater and other natural waters by addressing challenges and opportunities specifically found in operation in an oceanic environment.
- **Exploratory Topic P: Direct Removal of Carbon Dioxide from Ambient Air** – Robust, energy efficient, and low-cost strategies for direct removal of carbon dioxide from ambient air.
- **Exploratory Topic Q: Connecting Aviation By Lighter Electric Systems** – Medium-voltage (>10 kV) power distribution cables, connectors, and circuit breakers for fully

electric aviation applications.

- **Exploratory Topic R: Lowering CO_2: Models to Optimize Train Infrastructure, Vehicles, and Energy Storage** – Planning tools for identification, evaluation, and prioritization of energy storage-related technology developments whose deployment would significantly reduce GHG emissions from the rail freight sector.
- **Exploratory Topic S: Topology Optimization and Additive Manufacturing for Performance Enhancement of High Temperature and High Pressure Heat Exchangers** – Design and manufacture of high-temperature, high-pressure, and compact heat exchangers.
- **Exploratory Topic U: Sulfur Hexafluoride (SF_6)-Free Routes for Electrical Equipment** – Technologies aimed at reducing sulfur hexafluoride (SF6) emissions from the electric transmission and distribution sector.

The Seeding Critical Advances for Leading Energy technologies with Untapped Potential (SCALEUP) program builds on ARPA-E's primary research and development focus to support the scaling of high-risk and potentially disruptive new technologies across the full spectrum of energy applications. The goal of the program is to support ARPA-E-funded technologies, past and present, transition from proof-of-concept prototypes to commercially scalable and deployable versions of the technology and be well-positioned for investment from the private sector.

The ARPA-E Technology-to-Market program provides practical training and business information to equip awardees with a clear understanding of market needs to guide technical development. Technology-to-Market milestones include:

- Secure IP on inventions
- Learning about markets & applications
- Product definition, refinement, and validation
- Cost-performance model
- Competitive analysis
- Identify & engage with potential customers / partners
- Knowledge of regulatory issues
- Knowledge of production processes
- Identify scalability risks
- Identify / engage suppliers
- Map out next stage goals and resource needs
- Identify appropriate next stage funding sources
- Engage with next stage funding sources
- Identify / engage resources for tech to market work

In addition, ARPA-E hosts the annual Energy Innovation Summit, which brings together leaders from academia, government, and business to discuss the foremost energy issues, showcases the latest technology innovations, and cultivates relationships to help advance cutting-edge

technologies toward deployment. In 2019, the Summit hosted nearly 1,700 registered for the Summit, from 47 states and 16 countries, and featured nearly 300 transformational energy technologies and innovations. ARPA-E will host its twelfth Energy Innovation Summit in March 2022.

ARPA-E provides an annual report to Congress[70], summarizing ARPA-E's activities. The latest, available report is for FY2019.

15. U.S. Energy Information Administration (EIA)

The U.S. Energy Information Administration (EIA) collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment. EIA provides a wide range of information and data products covering energy production, stocks, demand, imports, exports, and prices and prepares analyses and special reports on topics of current interest:

Table 9: EIA Reports and Analysis

Topic	Report/Analysis
Petroleum & Other Liquids	• This Week in Petroleum • Weekly Petroleum Status Report
Natural Gas	• Weekly Natural Gas Storage Report • Natural Gas Weekly Update
Electricity	• Electric Power Monthly • Electricity Data Browser
Consumption & Efficiency	• Residential Energy Consumption Survey (RECS) • Commercial Buildings Energy Consumption Survey (CBECS)
Coal	• Quarterly Coal Report • Coal Data Browser
Renewable & Alternative Fuels	Alternative Fuel Vehicle Browser
Nuclear & Uranium	Daily Status of Nuclear Outages
Total Energy	• Monthly Energy Review • Annual Energy Review
Analysis & Projects	• Short-Term Energy Outlook • Annual Energy Outlook • International Energy Outlook

[70] Annual Reports | arpa-e.energy.gov

Topic	Report/Analysis
Markets & Finance	• Market Prices and Uncertainty Report • Energy & Financial Markets: What Drives Crude Oil Prices?
Environment	• U.S. Energy-Related Carbon Dioxide Emissions • Energy-Related Carbon Dioxide Emissions at the State Level, through 2018
Energy Disruptions	Energy Disruptions
U.S. States	State Energy Data System (SEDS)
Maps	• U.S. Energy Atlas • U.S. Energy Mapping System • Gulf of Mexico
International	International Energy Statistics
Regional Dashboards & Data	• New England Dashboard • Southern California Daily Energy Report • Energy Disruptions

The Office of Energy Analysis analyzes energy supply, demand, and prices including the impact of financial markets on energy markets; prepares reports on current and future energy use; analyzes the impact of energy policies; and develops advanced techniques for conducting energy information analyses. This office also oversees the planning and execution of EIA's analysis and forecasting programs to ensure that EIA models, analyses, and projections meet the highest standards of relevance, reliability, and timeliness.

In addition, EIA is committed to enhancing the value of its free and open data by making it available through an Application Programming Interface (API) and open data tools to better serve our customers. The data in the API is also available in bulk file, in Excel via the add-in, in Google Sheets via an add-on, and via widgets that embed interactive data visualizations of EIA data on any website. By making EIA data available in machine-readable formats, the creativity in the private, the non-profit, and the public sectors can be harnessed to find new ways to innovate and create value-added services powered by public data.

Currently, EIA's API contains the following main data sets:

- Hourly electricity operating data, including actual and forecast demand, net generation, and the power flowing between electric systems
- 408,000 electricity series organized into 29,000 categories
- 30,000 State Energy Data System series organized into 600 categories
- 115,052 petroleum series and associated categories
- 34,790 U.S. crude imports series and associated categories
- 11,989 natural gas series and associated categories
- 132,331 coal series and associated categories

- 3,872 Short-Term Energy Outlook series and associated categories
- 368,466 Annual Energy Outlook series and associated categories
- 92,836 International energy series

The EIA API is offered as a free public service, although registration is required.

The EIA Administrator, as head of a principal statistical agency and DOE's Statistical Official, is DOE/EIA's principal representative on Interagency Council on Statistical Policy (ICSP), which is dedicated to dedicated to improving the quality of Federal statistics.

16. Office of Environmental Management (EM)

The DOE uses corporate performance measures to assess whether it is meeting its cleanup mission. The Office of Environmental Management (EM) assigns specific measures to each site that are tailored to the unique nature and scope of each area's contamination and cleanup work. Progress against these measures at a specific site is a confirmable indication of progress towards EM's cleanup goals and priorities Completion of all of the corporate performance measures result in completion of that site.[71]

EM, Congress, and the public routinely monitor and evaluate cleanup progress using corporate performance measures throughout the year. These quantitative indicators focus on the effectiveness of risk-reducing actions that lead to completion of site cleanup. Each cleanup process must be consistent with each site's individual baseline and milestones. The corporate measures (i.e., those relating to the entire DOE-EM complex) are tracked in the context of the total measure (life-cycle) necessary to complete cleanup of each site, as well as the EM program as a whole. EM annual performance results can be found in the Department of Energy Annual Performance Reports.

EM manages cleanup contracts at the following sites:[72]

- Brookhaven National Laboratory (https://www.bnl.gov/world/)
- Energy Technology Engineering Center (https://www.etec.energy.gov/)
- Hanford Office of River Protection (https://hanford.gov/page.cfm/orp)
- Hanford Richland Operations Office (https://www.hanford.gov/page.cfm/RL)
- Idaho Operations Office (https://www.energy.gov/ne/nuclear-facility-operations/idaho-operations-office)
- Lawrence Livermore National Laboratory (https://www.llnl.gov/llnl_search/site/cleanup)

[71] Office of Environmental Management, Budget and performance: https://www.energy.gov/em/services/program-management/budget-performance#:~:text=The%20Office%20of%20Environmental%20Management%2C%20Congress%20and%20the,actions%20that%20lead%20to%20completion%20of%20site%20cleanup.
[72] Cleanup Sites: https://www.energy.gov/em/mission/cleanup-sites

- Los Alamos Field Office (https://www.energy.gov/em-la/environmental-management-los-alamos-field-office)
- Moab UMTRA Project (https://www.gjem.energy.gov/)
- Nevada National Security Site (https://www.nnss.gov/pages/about.html)
- Oak Ridge (https://www.emcbc.doe.gov/seb/orrcc/)
- Paducah (https://www.energy.gov/pppo/paducah-site)
- Portsmouth (https://www.energy.gov/pppo/portsmouth-site0
- Sandia National Laboratory (https://www.sandia.gov/)
- Savannah River Site (https://www.srs.gov/general/srs-home.html)
- Separations Process Research Unit (SPRU) (https://www.spru.energy.gov/)
- West Valley Demonstration Project (https://www.wv.doe.gov/)

EM manages cleanup at the following two sites through M&O Contracts:

- Savannah River Site (EM Operated in conjunction with NNSA)
- Waste Isolation Pilot Plant (WIPP)

EM also manages a national laboratory through an M&O Contract:

- Savannah River National Laboratory

Additionally, EM provides funding (including award fee for defined performance goals) for the Los Alamos National Laboratory (managed by NNSA).

The Savannah River National Laboratory (SRNL) is the DOE Office of Environmental Management (EM) national laboratory, and its resources are used to assist in the cleanup of the Cold War legacy waste for which EM is accountable. SRNL works collaboratively with other DOE laboratories to deploy technologies critical to environmental remediation and risk reduction; nuclear materials processing and disposition; nuclear detection, characterization, and assessments; and gas processing, storage, and transfer systems.[73]

The Savannah River National Laboratory Policy Office (as known as the EM Laboratory Policy Office (EM LPO))[74] sponsors and coordinates the involvement of national laboratories in support of the EM mission activities, in accordance with the EM National Laboratory Governance

[73] Memorandum, Office of Environmental Management, October 25, 2016, Subject: Savannah River National Laboratory, "EM's National Laboratory": https://www.energy.gov/sites/prod/files/2018/12/f58/EM-National-Laboratory-Governance-Framework.pdf

[74] EM National Laboratory Network: https://www.energy.gov/em/program-scope/em-national-laboratory-network#:~:text=The%20Savannah%20River%20National%20Laboratory%20Policy%20Office%20(as,charter%20for%20the%20EM%20National%20Laboratory%20Network%20(EMNLN).

Framework[75] for the Savannah River National Laboratory (SRNL), which includes the charter for the EM National Laboratory Network (EMNLN).[76] The EM LPO leads oversight and management of SRNL in partnership with the National Nuclear Security Agency (NNSA) Office of Policy with support from the EM and NNSA Savannah River Site/Field Offices. [77]

The table below provides the evaluation approach for the award fee portion of the cleanup contracts. This is the same for all contracts and is out of the FAR.

Table 10: EM Award Fee Adjectival Ratings (based on FAR 16.401)[78]

Award Fee Adjectival Rating	Award-Fee Pool Available To Be Earned	Description
Excellent	91-100%	Contractor has exceeded almost all the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Very Good	76-90%	Contractor has exceeded many of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Good	51-75%	Contractor has exceeded some of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Satisfactory	No Greater than 50%	Contractor has met overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.
Unsatisfactory	0%	Contractor has failed to meet overall cost, schedule, and technical performance requirements of the contract in the aggregate as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.

[75] EM National Laboratory Governance Framework: https://www.energy.gov/sites/prod/files/2018/12/f58/EM-National-Laboratory-Governance-Framework.pdf
[76] EM National Laboratory Network Charter: https://www.energy.gov/sites/prod/files/2018/12/f58/EMNLN-Charter.pdf
[77] EM National Laboratory Governance Framework, page 3: https://www.energy.gov/sites/prod/files/2018/12/f58/EM-National-Laboratory-Governance-Framework.pdf
[78] Award Fee Adjectival Rating: https://www.acquisition.gov/far/16.401

17. Office of the Inspector General (OIG)

The Office of the Inspector General (OIG) strengthens the integrity, economy and efficiency of the Department's programs and operations by deterring and detecting fraud, waste, abuse, and mismanagement. OIG audit and inspection reports can be found here: https://www.energy.gov/ig/calendar-year-reports.

18. Departmental Administration

19.1 Office of Congressional and Intergovernmental Affairs (CI)

The Office of Congressional and Intergovernmental Affairs (CI) is dedicated to its mission of providing guidance on legislative and policy issues, informing constituencies on energy matters, and serving as a liaison between the Department, Congress, State, local, and Tribal governments, as well as other Federal agencies and stakeholder groups.

19.1.1 Congressional Affairs

Serving as a central point of contact for interactions on congressional matters, the congressional affairs team offers expertise in coordinating and directing the legislative programs of the Department, as well as the significant relationships between Departmental officials and Members of Congress. Providing counsel, advice, and support to the Secretary of Energy and senior Departmental managers on all congressional initiatives, Congressional Affairs experts also manage the Senate confirmation process for the Department's Presidential appointments, coordinate the appearances of Departmental witnesses at Congressional hearings, and ensure the efficient and timely notification of Departmental activities to congressional stakeholders.

19.1.2 Intergovernmental and External Affairs

The Office of Intergovernmental and External Affairs (IGEA) serves as the Departmental interface for state, tribal and local governments to ensure easy and timely access to relevant programs, technological assistance, funding opportunities and other DOE resources. The IGEA team seeks to proactively engage with elected leaders, their staff, related associations, and relevant stakeholders to ensure that their views are considered as part of the Department's decision-making process. These experts also provide oversight of the Department's Indian Policy implementation, and monitor state, local and tribal energy trends and legislative developments which could impact the Department's activities with stakeholders.

19.2 Office of the Chief Financial Officer (OCFO)

The Office of the Chief Financial Officer (OCFO) is responsible for management and financial integrity of DOE programs, activities, and resources through development, implementation, and governance of Department and government-wide policies and systems for budget administration, including development and execution; finance and accounting; internal controls;

financial policy; corporate business systems; strategic planning; performance measurement; and, interface with the Office of Management and Budget (OMB), Government Accountability Office (GAO), DOE Inspector General (IG), and Congress.

Within the OCFO:

- **Chief Risk Officer (CRO)**: Provides Departmental support to assess risk and propose mitigation strategies through integration of risk concepts into strategic planning, and risk identification and mitigation activities. The CRO works with DOE's Programs, Field Offices and National Laboratories under the general supervision of the CFO.
- **Evaluation Officer:** Responsible for providing leadership over the agency's evidence-building activities, including its evaluation activities, learning agenda, and capacity assessment.
- **Program Management Improvement Officer (PMIO):** Ensures effective implementation of DOE's program management policies and develop strategies to enhance the role of program management and managers within the Department. The PMIO also participates on the Program Management Policy Council (PMPC) and shares DOE best practices and lessons learned for the benefit of the broader community of Federal program and project managers and staff.
- **Performance Improvement Officer (PIO):** Collates and assesses data to assist in recommending improvements for Department-wide programs, issues, and initiatives, and proposes systems and tools to track progress towards agency and Administration goals.

19.2.1 Finance & Accounting

The Office of Finance and Accounting (CF-10) is responsible for accounting, fiscal integrity, and financial management services in support the Department's mission. Functions include:

- Maintains leadership in financial management by continuously innovating and improving services provided to the Department.
- Prepares the Department's consolidated financial statements, Agency Financial Report, and other managerial reports.
- Conducts accounting operations including specialized financial management areas such as payroll, loans, environmental liabilities, pension and post-retirement benefits accounting, and investment activities for the Department.
- Leads the Department's internal controls, fraud risk management, and payment integrity programs.
- Delivers timely and reliable financial management reporting and analysis.

19.2.2 Financial Policy and Audit Resolution

The Office of Financial Policy and Audit Resolution (CF-20) establishes and maintains financial, accounting, and budgetary policies that support the execution of the Department's mission. Functions include:

- Establishes and maintains Department-wide policies and guidance for finance and accounting, budget, corporate business systems, and financial management at DOE sites and facilities.
- Leads coordination of Departmental policy changes with internal and external policy organizations.
- Leads DOE's resolution of audit findings and reporting on status of implementing audit recommendations.
- Coordinates audits of DOE's programs between the Department and the Inspector General (IG) and Government Accountability Office (GAO).
- Provides policy guidance and support to Departmental offices on audit resolution, coordination, and follow-up.

19.2.3 Budget Formulation & Execution

The Office of Budget (CF-30) plans, formulates, analyzes, executes, evaluates, and defends the Department of Energy's (DOE) Budget. Functions include:

- Serves as the Departmental negotiator with the Office of Management and Budget (OMB) on the DOE Budget.
- Leads decision management and overall coordination for DOE's Budget to include:
    - Overall planning and implementation for budget formulation, analysis, execution, and evaluation;
    - Supports development and management of the Department's Agency Performance Report, Strategic Plan, and associated evaluation of progress of goals;
    - Specialized analysis and prioritization of Departmental resources for the Future-Years Energy Program (FYEP) and other strategic analysis of budget resources;
    - External engagement with Congressional Committees on Appropriations for matters related to the DOE Budget; and
    - Coordination with Office of Corporate Business Systems (CF-40) on budget-related financial management IT.

19.2.4 Corporate Business Systems

The Office of Corporate Business Systems (CF-40) is responsible for stewardship of DOE's financial management, procurement, and human capital systems, as well as other application solutions necessary to execute the Department's mission. Functions include:

- Plans and manages design, integration, implementation, and cyber security of the Department's corporate business systems.
- Operates and maintains corporate financial systems utilizing efficient, cost-effective, and appropriate technology to allow for delivery and dissemination of relevant information.
- Maintains compatibility among corporate business systems to facilitate electronic exchange of data with internal and external stakeholders. Interfaces with Headquarters Programs, Field Offices, and Management and Operating Contractors.

- Provides qualified Information Technology project management support.
- Develops and maintains systems documentation and training materials.
- Defines website standards for the CF organizations and manages CF web technical infrastructure to ensure compliance with laws, regulations, and recommended practices.
- Serves as CF liaison with the Chief Information Officer (CIO) for corporate DOE business system and CF Information Technology services.
- Oversees completion of internal and external CF Information Technology reporting.
- Serves as CF lead on internal and external Information Technology committees and working groups.

19.3 Office of Economic Impact and Diversity (ED)

The Office of Economic Impact and Diversity (ED) develops and executes Department-wide policies to implement applicable legislation and Executive Orders that strengthen diversity and inclusion goals affecting equal employment opportunities, small and disadvantaged businesses, minority educational institutions, and historically under-represented communities.

Key ED initiatives include:

- Equity in Energy – designed to expand the inclusion and participation of individuals in underserved communities, such as minorities, women, veterans, and formerly incarcerated persons, in all the programs of the Department of Energy and in the private energy sector. The Department's 200-Day Equity Assessment completed in 2021 pursuant to EO 13985[79] revealed a range of barriers underserved communities face when accessing DOE's procurement, funding, R&D, and deployment processes and activities.
- Promoting Energy Justice – implementing Justice40 Initiative – a plan to deliver 40% of the overall benefits of climate investments to disadvantaged communities and inform equitable research, development, and deployment within the DOE. With the beta launch of the Energy Justice Dashboard (BETA), DOE is working to better understand how the Department's funding and investments are distributed to overburdened and underserved communities that have been left behind and unheard for too long. The Energy Justice Dashboard (BETA) is a pilot data visualization tool that displays DOE-specific investments in communities across the country experiencing disproportionately high and adverse economic, human health, climate-related, environmental, and other cumulative impacts. The Dashboard displays DOE cost data — grants, cooperative agreements, and contracts — from more than twenty-five DOE program offices, for the fiscal years 2019 to present.

[79] Executive Order (EO) 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government

In September 2022, DOE built on the work established in the Equity Action Plan (April 2022) by releasing its first-ever Diversity, Equity, Inclusion, and Accessibility (DEIA) Strategic Plan, which outlines actions to strengthen the Department's efforts to recruit, hire, develop, promote, and retain our Nation's talent; remove inequitable barriers to career and advancement opportunities; and build and sustain an inclusive and accessible work environment. The DOE DEIA Strategic Plan was informed by cross-agency representatives on behalf of their component, program, or Employee Resource Group, as more than 400 DOE colleagues attended 10 employee engagement sessions in December 2021 to provide input on the Department's DEIA goals and actions. Specifically, the plan is to be used to implement Executive Order 14035, *Advancing Diversity, Equity, Inclusion, and Accountability Within the Federal Government*, which directs all Federal agencies to provide a roadmap to ensuring the Federal workforce reflects the full diversity of the American people and ensure that public servants at all levels have an equal opportunity to succeed and lead.

19.4 Office of International Affairs (IA)

The Office of International Affairs coordinates Department efforts to ensure a unified voice in DOE's international energy policy. IA works closely with other Federal departments and agencies, and the private sector, to align DOE's international energy objectives with national energy policies and activities. IA also coordinates and manages DOE cooperation with counterparts from other nations and international organizations.

Among other areas, IA experts maintain extensive knowledge of the following issues:

Table 11: IA Areas and Issues

Area	Issues
International Energy Policy	• Regional and country-specific energy policies and practices, technology developments, and market conditions in Africa, the Americas, Asia, Europe, Eurasia, and the Middle East • Bilateral and multilateral energy treaties and obligations • International cooperation in science and technology • Regional and country-specific opportunities and barriers to energy markets and services • Trade and investment trends in the global energy economy • International energy partnerships, commitments, and agreements • Clean energy policy, technology, and legislation
Technology Development and Deployment	• Research, development, and deployment (RD&D) strategies • Technology research portfolios and budgets • Energy end-use technologies and standards, including efficiency in buildings, transportation, and industry • Energy supply technologies and standards, including fossil fuels, nuclear power, and renewable energy • Technical and non-technical barriers to technology commercialization and deployment

IA initiatives include:

- International Energy Commitments (IEC)
- Clean Energy Ministerial
- U.S.-Africa Cooperation
- U.S.-Saudi Arabia Energy Cooperation
- U.S.-UAE Energy Cooperation
- Natural Gas and LNG Options
- Energy and Climate Partnership of the Americas
- International Energy Agency
- North American Energy Cooperation
- U.S.-China Energy Collaboration
- U.S.-Israel
- U.S.-India Energy Cooperation
- U.S.-EU Energy Council
- G-7 Energy Ministers Meeting
- U.S.-Kazakhstan Energy Partnership
- U.S.-Ukraine Energy Cooperation
- The Partnership for Transatlantic Energy Cooperation

19.5 Artificial Intelligence & Technology Office (AITO)

The Artificial Intelligence & Technology Office (AITO) mission is to accelerate AI/machine learning (ML)-enabled capabilities through strategic portfolio alignment, scaling department-wide use cases that advance the agency's core missions, and advocating for program offices. In addition, AITO provides advice on AI/ML strategies and expanding public, private and international partnerships, policy, and innovations – all in support of National AI leadership and innovation. One of its two primary mission areas includes conducting strategic portfolio analysis and alignment of AI/ML investments[80], ensuring alignment with national security priorities, and facilitate department-wide trustworthy AI by conducting ongoing advisory and advocacy services to the program offices.

In FY21 and FY22, AITO will conduct a comprehensive assessment of the AI/ML landscape (current, target, and future state) to optimize strategic portfolio alignment[81]. In addition, the strategy will formulate prioritized implementations and support answering common questions, including:

- ***Mission:*** *How can we better apply AI investments to address the Department's missions and policies (e.g., equity, energy justice, climate resilience, and cyber)?*

[80] AITO Program Plan 11-10-2021.pdf (energy.gov), page 3

[81] AITO Program Plan 11-10-2021.pdf (energy.gov), page 4

- ***Investments:*** *How do we optimize DOE AI investments for impact?*
- ***Cybersecurity:*** *How can we support the development and deployment of AI as a force multiplier for DOE cyber strategy?*
- ***Complex Problem Solving:*** *Are we strategically planning to use AI to mitigate risks and solve complex challenges – mainly where there are no data sets (e.g., explosives, cyber, and nuclear)?*
- ***Emerging AI:*** *What are next-generation AI practices, and where are gaps in current investments versus mission needs?*
- ***Leadership:*** *How do we better partner across communities to apply holistic synergies and international AI leadership?*

19.6 Office of the Chief Information Officer (OCIO)

The Office of the Chief Information Officer (OCIO) leads the Department's IT reform initiatives. In an increasingly complex and hostile cyber landscape, the OCIO is fully committed to stewarding DOE information assets by:

- Leveraging existing information technology and expertise to maximize mission accomplishment and reduce costs
- Identifying and fostering new and emerging information technology to maximize mission accomplishment and reduce costs
- Providing Departmental IT governance, policy, and oversight processes to ensure secure, efficient, and cost-effective use of IT resources
- Ensuring acceptable risk-based cybersecurity by enhancing enterprise situational awareness, developing near real-time risk management, and combating advanced persistent threats

More specifically, the OCIO is responsible for the management of:

- Federal Information Technology Acquisition Reform Act (FITARA) program[82], including providing implementation and self-assessment guidance;
- DOE IT Governance (i.e., Cyber Council);
- Enterprise IT Project Management Office (ePMO);
- DOE Section 508 Program;
- DOE IT Budget and Capital Planning and Investment Control (CPIC);
- IT Policy;
- Data Governance, including roles and responsibilities of the Chief Data Officer (i.e., data management, privacy and confidentiality, and data access, and required to participate in the federal government-wide Chief Data Officers council);
- Paperwork Reduction Act; and,
- Government-wide IT initiatives.

[82] U.S. Department of Energy Federal Information Technology Acquisition Reform Act (FITARA) Common Baseline Implementation Plan and Self-Assessment | Department of Energy

In addition, the OCIO also establishes the Department's Information Resource Management (IRM) Strategy[83], which places emphasis on IT performance reviews in the annual DOE Performance, Evaluations, and Measurement Plan (PEMP) process, providing greater oversight by formally including the DOE CIO and CIOs from across the enterprise in the review process. The OCIO also sets expectations via the Department's Cyber Security Strategy[84]pertaining to the evaluation of/establishing metrics for DOE's Cybersecurity Posture.

19.7 Office of Management (MA)

The Office of Management (MA) is the Department of Energy's central management organization providing leadership in such mission critical areas as project and acquisition management. In addition, MA manages the Department's Headquarters complex and provides administrative support to employees in the Washington, DC area. This includes:

Table 12: MA Functions and Activities

Function	Activities
Aviation Management	The Mission of Aviation Management is to provide the Department of Energy, including the National Nuclear Security Administration (NNSA), with aviation policies, guidance, and program management oversight that ensure the delivery of effective, efficient, and safe aviation services required to support accomplishment of all the DOE mission. In accordance with the methods as described in OMB Circular A-76, Performance of Commercial Activities, agencies must also establish the cost effectiveness of all their aircraft operations every five years. (41 CFR 102-33.200). The Comprehensive Aviation Program Study IV (CAPS IV) was DOE's fourth report that fulfills the requirements. The next CAPS report will commence in FY2023. • CAPS I, published in 1999, determined the extent of aviation activities needed to support DOE missions and validated the appropriateness of the type of aviation operations used to support those missions. • CAPS II, published in 2001, determined whether the aviation assets used at each field element were the appropriate compliment of aircraft and if those assets were the most cost-effective aircraft to meet the field element's mission requirements. • CAPS III was different from its predecessors as it was a comprehensive data analysis of the costs, missions, and flight hours

[83] FY 2018-2022 Information Resource Management (IRM) Strategy | Department of Energy

[84] DOE Cybersecurity Strategy 2018-2020 | Department of Energy

Function	Activities
	from the data DOE/NNSA aviation programs submitted into the Federal Aviation Interactive Reporting System (FAIRS). The data analysis covered FY2000 through FY2012. CAPS III also included the results of the implementation of the recommendations from CAPS II. • CAPS IV, like CAPS III, is a comprehensive data analysis of the costs, missions, and flight hours from the data in FAIRS for fiscal years 2013-2017.
Executive Secretariat	The Executive Secretariat is organized into the following main areas: 1. **Document Management.** The Executive Secretariat receives, controls, and tracks correspondence and other written and electronic documents, including classified material. These documents are either addressed to the Secretary, Deputy Secretary, Under Secretaries, or members of the Office of the Secretary staff, or they are sent to the Department from the White House, the Congress, and Tribal leaders. In addition, The Executive Secretariat sets standards for document preparation through its Correspondence Guide. Information and guidance on the standards for document preparation, document handling and concurrence (or Collaborative Action Process [CAP]), are available to Departmental personnel under the Executive Secretariat on the Department's Powerpedia. Using the draft DOE directives online review, comment, and approval system (RevCom), the Executive Secretariat manages and supports the collaborative development, review, approval, and dissemination of new and revised Departmental Directives. 2. **Executive Commitments and Information Management.** The Executive Secretariat is the focal point for the dissemination of information, particularly electronic information, throughout the Department. It provides information including executive messages, correspondence and executive commitments reports, and information about important events or development opportunities for Department and contractor staff. 3. **Advisory Committee Management**. The Executive Secretariat provides management support on the creation, direction, and termination of advisory committees, in accordance with the Federal Advisory Committee Act and implementing regulations. This function includes identifying issues that require attention of Department officials and Office of the Secretary staff. The Deputy Director of the Office of the Executive Secretariat serves as the Advisory Committee Management Officer for the Department. 4. **Executive Records Management.** The Executive Secretariat serves as the central Department records repository for all official

Function	Activities
	documents and departmental actions and decisions, including classified material, for the Secretary, Deputy Secretary, and Under Secretaries. 5. **Conference Approval Management.** The Executive Secretariat coordinates the DOE Conference Approval process for conferences exceeding $100k in DOE costs which require Under Secretarial or Deputy Secretary approval. 6. **Official History and Archives.** The Executive Secretariat prepares the official history of the Department and guides departmental staff on the collection and preservation of historical records of the Department and its predecessor agencies and serves as the Department's institutional memory. The Chief Historian serves as the Department's Federal Preservation Officer. 7. **Ad Hoc Support to the Office of the Secretary.** The Executive Secretariat regularly responds to special requests from the Office of the Secretary. Requests include preparation of briefing papers and talking points and coordinating particular Department-wide activities. The Secretariat coordinates information security as well as information technology for the Office of the Secretary.
Sustainability Performance	As a part of the Office of Asset Management, the Sustainability Performance Division (SPD), formerly known as the Sustainability Performance Office (SPO), provides support to the Department of Energy by guiding programs to achieve and maintain sustainability goals in accordance with statutory and executive order requirements. This is accomplished through data collection, analysis, reporting, outreach, and frequent communications with programs to share knowledge and best practices, furthering our mission across the Department. SPD tracks performance for the Department, and reports progress towards sustainability goals to the Office of Management and Budget (OMB), White House Council for Environmental Quality (CEQ), and Congress through the Sustainability Report and Implementation Plan (SRIP) and other related reports: • U.S. Department of Energy Sustainability Reporting | Department of Energy • Sustainability Dashboard: Home (doe.gov) • 2020 DOE Sustainability Report and Implementation Plan • Office of the Federal Chief Sustainability Officer | Federal Agency Progress Data and Scorecards • DOE Vulnerability Assessment and Resilience Planning (VARP) Guidance 2021x.docx (live.com) • Department of Energy FY 2020 OMB Scorecard (sustainability.gov)

Function	Activities
	○ DOE's Historic OMB Scorecards | Department of Energy
Energy Reduction at HQ	Office of Administration Environmental Management System (EMS) sets policy managing Department of Energy HQ facilities. This includes: • Minimizing and preventing pollution from entering the environment. • Achieving and maintaining compliance with all applicable environmental laws, regulations, and administrative policies. • Continually improving the EMS by conducting annual system reviews and implementing modifications based on those reviews.
Real Estate	Real Estate is part of the Office of Asset Management within the Office of Management (MA). Under the guidance of the Senior Real Property Officer, the Office of Asset Management is responsible for the Department of Energy's real estate functions. Real estate functions encompass several key activities over the life cycle of real property assets including the planning, acquisition, management, and disposition, and providing technical support to all the Programs of the Department, all of which are reflected in: • DOE Asset Management Plan | Department of Energy • Excess Property Available for Economic Redevelopment | Department of Energy Per 41 CFR Part 102-84, Annual Real Property Inventories, and DOE Order 430.1C Real Property Asset Management, the Department annual submits data – from DOE's Facilities Information Management System (FIMS) and Condition Assessment Information System (CAIS) – to comprise the Federal Real Property Profile.
Facilities and Infrastructure	The Facilities and Infrastructure (F&I) Team is part of the Office of Asset Management within the Office of Management (MA). Under the direction of the Senior Real Property Officer, and with the support from real property holding program offices, this team develops and maintains policies and procedures for real property asset management and provides corporate implementation oversight.
Federal Advisory Committee Management	The Federal Advisory Committee Management Program assures the Department of Energy's overall compliance with the Federal Advisory Committee Act (FACA). The program is located in the Office of the Executive Secretariat. **Active Committees** • Advanced Scientific Computing Advisory Committee (ASCAC) • Appliance Standard and Rulemaking Federal Advisory Committee (ASRAC)

Function	Activities
	• Basic Energy Sciences Advisory Committee (BESAC) • Biological and Environmental Research Advisory Committee (BERAC) • Biomass Research and Development Technical Advisory Committee • Defense Programs Federal Advisory Committee (DPAC) • DOE/NSF Nuclear Science Advisory Committee (NSAC) • Electricity Advisory Committee (EAC) • Environmental Management Advisory Board (EMAB) • Environmental Management Site-Specific Advisory Boards (EM SSAB) • Fusion Energy Sciences Advisory Committee (FESAC) • High Energy Physics Advisory Panel (HEPAP) • Hydrogen and Fuel Cell Technical Advisory Committee (HTAC) • Methane Hydrate Advisory Committee (MHAC) • National Coal Council (NCC) • National Petroleum Council (NPC) • Nuclear Energy Advisory Committee (NEAC) • President's Council of Advisors on Science and Technology (PCAST) • Secretary of Energy Advisory Board (SEAB) • State Energy Advisory Board (STEAB) **Inactive Committees** • Technical Advisory Committee on Verification of Fissile Materials and Nuclear Warheads • Technical Panel on Magnetic Fusion • Hydrogen Technical Panel
Freedom of Information Act (FOIA)	Annual FOIA reports can be found here: FOIA Annual Reports | Department of Energy
Personal Property	Personal Property Policy is part of the Office of Asset Management within the Office of Management (MA), and includes: • Advising and providing staff assistance to headquarters and field organizations that perform personal property management functions • Establishing performance-based personal property management objectives, measures, expectations

Function	Activities

	• Evaluating federal and contractor personal property management systems, functions, operations, procedures, and self-assessment programs
	• Collecting and consolidating critical data (excess personal property, precious metals recovery, exchange/sales actions, property furnished to non-Federal recipients, and supply activities) to assist leadership decision making
	• Preparing agency reports providing an analysis of data for trends, anomalies to detect and correct problems which may have enterprise-wide impact
	• Serving as:
	  ○ Career manager for establishing and administering the personal property management career development program
	  ○ DOE National Utilization Officer responsible for promoting acquisition and utilization of excess personal property

Acquisition and Financial Assistance	The Office of Acquisition Management (OAM) is responsible for all contracting, financial assistance and related activities to fulfill the Department's multitude of missions through its business relationships. Key policy and guidance include: • Balanced Scorecard performance measures, targets, and program description • Benefit Value Study Desk Manual • Cost Study Manual • PERT Review for Contractors' Purchasing Systems
Certifications and Professional Development	Acquisition ANSWERS - Dept of Energy - MAX Federal Community, which provides additional information on: **PROFESSIONAL DEVELOPMENT** • Acquisition Career Management Program (ACMP) **FIELD ASSISTANCE AND OVERSIGHT** • Procurement Management Review • Collaboration area **STRATEGIC PROGRAMS** • Category Management • FAIR Act • Purchase Card

Function	Activities
	• PERT • Service Contract Inventory **REPORTING** • Generating reports to assist in management and performance tracking **SINGLE AUDIT** • Single Audit and For-Profit Audit of Grants and Other Financial Assistance Awards **COMMUNITIES OF PRACTICE COLLABORATION AREAS** • Strategic Partnership Projects Community of Practice • Catalog of Federal Domestic Assistance Community of Practice • Procurement Systems Working Group • Federal PRISM User Group • DOE Acquisition Council • M&O Subcontract Reporting Capability **KNOWLEDGE SHARING** • Data Quality - Lessons Learned/Best Practices

19.8 Office of Project Management

The Office of Project Management (PM) is was established as a new DOE element on July 12, 2015 to be the Department of Energy's Enterprise Project Management Organization (EPMO), providing leadership and assistance in developing and implementing DOE-wide policies, procedures, programs, and management systems pertaining to project management, and independently monitors, assesses, and reports on project execution performance. The office validates project performance baselines–scope, cost, and schedule–of the Department's largest construction and environmental clean-up projects prior to budget request to Congress—an active project portfolio totaling over $30 billion. The office also serves as Executive Secretariat for the Department's Energy Systems Acquisition Advisory Board (ESAAB) and the Project Management Risk Committee (PMRC). In these capacities, the Director is accountable to the Deputy Secretary.

PM provides a monthly assessment of DOE's portfolio of capital assets projects, which is summarized in the monthly Project Dashboard report. This report assesses all active projects

with an established performance baseline, including scope, cost, and schedule. Based on current performance:

- GREEN projects are expected to meet their performance baseline
- YELLOW projects are at-risk of breaching their performance baselines
- RED projects are expected to breach their performance baselines

Other analysis/reports include:

- Root Cause Analysis Report (RCA) 2008: identifies the key elements necessary to make the meaningful changes required to consistently deliver projects within cost and schedule performance parameters.
- Corrective Action Plan (CAP) 2008: Ensures that the root causes identified in the Root Cause Analysis report (above) are addressed with meaningful and lasting solutions to improve contract and project management performance.
- RCA/CAP Closure Report of 2011: Presents a status of the Department's initiatives to address the most significant issues and their corresponding root causes and officially closes out most of the issues and root causes.

19.9 Office of the Chief Human Capital Officer (OCHCO)

The Office of the Chief Human Capital Officer (OCHCO) is responsible for strategically aligning the agency's workforce to its missions through effective management of human capital policies and programs. The Chief Human Capital Officer advises and assists the Secretary and Deputy Secretary of Energy, and other agency officials, in recruiting, developing, training, and managing a highly skilled, productive, and diverse workforce in accordance with merit system principles and all applicable statutory requirements.

The Strategic Human Capital Plan (SHCP) sets forth the framework for managing the Department of Energy's (DOE) human capital system. This Plan aligns with DOE Strategic Plan and the cross-agency priority goals (APGs) of the President's Management Agenda.

OCHCO functions, all of which support implementation of the SHCP, include:

- Advancing and supporting DOE's mission accomplishment by creating OCHCO management in the areas of recruitment, hiring and staffing, motivation and employee engagement, succession planning, learning and development, and retention; and provides the full range of operational human resources and management advisory services to DOE staff.
- Providing leadership and direction in dealings with the Office of Personnel Management (OPM), Government Accountability Office (GAO), the Merit Systems Protection Board (MSPB), Federal Labor Relations Authority (FLRA) and other Federal/non-Federal organizations relative to human capital programs and policies.

- Provides corporate oversight of the HR Shared Service Centers and subordinate offices ensuring consultative advice and solutions are offered to management officials and employees in all operational aspects of human capital management.

19.9.1 Office of Human Capital Assessments and Compliance (HC-1.2)

The Office of Human Capital Assessments and Compliance (HC-1.2) serves as the human capital compliance arm for the Department. It is responsible for managing and administering DOE's Human Capital Management Assessment Program (HCMAP). The Office provides a system for monitoring and analyzing agency performance on all aspects of human capital management policies, programs, and activities. Ensures that all human capital activities function in support of DOE's mission accomplishment and that those activities and results are effective, efficient, and in compliance with merit system principles and associated human capital laws and regulations.

HC-1.2's functions include:

- Conduct human capital assessment reviews of all servicing HR offices/Shared Service Centers across the Department to assess levels of effectiveness and efficiency and adherence to legal and regulatory requirements.
- Develop quantitative and qualitative measures to assess HR programs effectiveness, efficiency, and compliance.
- Conduct fact-finding inquiries and draft responses to third party offices regarding human capital complaints.
- Provide comprehensive analysis and metrics to determine overall efficiency and effectiveness of human capital programs and to identify trends.
- Conduct human capital program management evaluations to provide proactive support to servicing HR offices or DOE Elements, and develop improvement plans for HR offices that have HR authorities suspended and coordinate with other operational offices to assist in implementation.

19.9.2 Office of Employee and Labor Relations, Policy, and Oversight (HC-1.3)

The Office of Employee and Labor Relations, Policy, and Oversight (HC-1.3) provides Employee and Labor Relations services and counsel to management officials. These responsibilities include policy development and interpretation of employee and labor relations matters. HC-1.3 is staffed with specialists providing employee and labor relations products and advisory services including contract administration, leading negotiations, and addressing the dispute resolution needs of both HQ and assigned field sites.

HC-1.3 functions include:

- Providing guidance, consultation, advice and assistance to managers, supervisors, and employees on grievances, appeals, adverse actions, employee discipline, and other employee relations matters.

- Providing labor relations direction and counsel to management officials, including interpretation of content and intent of local bargaining agreement(s), relevant case law, and applicable precedent.
- Representing management in third-party labor relations disputes including unfair labor practice and representation hearings before the Federal Labor Relations Authority and in impasse proceedings before the Federal Services Impasses Panel.
- Formulating, interpreting, and executing agency-wide policy, plans and procedures related to employee relations and labor relations program areas.

19.9.3 HR Shared Service Centers

OCHCO's Shared Service Centers provide a full range of HR services:

Table 13: HR Shared Service Centers

HR Service Center	Functions
Oak Ridge HR Shared Service Center	• Implement and monitor staffing transactions for the programs and offices served by the SSC to recruit, examine and place selectees for vacant positions. Responsibilities include (but are not limited to) preparing and posting USAJobs vacancy announcements, evaluating applicants and issuing selection certificate(s) to hiring officials, and preparing and processing pre-employment paperwork to assist selectees in the onboarding process. • Suitability adjudication – Make determinations based on eight basic factors and seven additional considerations, in accordance with 5 CFR Part 731 and the OPM Federal Investigative Service Suitability Processing Handbook • Manage the classification program, processes, and procedures for new and existing positions in the programs and offices served by the SSC to determine their appropriate pay system, occupational grouping, grade, title, and bargaining unit status. • Administer the benefits and work-life programs for the current and former employees, annuitants, survivors, and eligible family members of the offices served by the SSC. Responsibilities include (but are not limited to) providing servicing and consultation related to life, health, dental, vision, and long-term care insurances, Flexible Spending Accounts, Thrift Savings Plan, retirement planning and calculations, Employee Assistance Program, drug testing program, and workers' compensation. • HR processing and information management responsibilities for the programs and offices served by the SSC and the Office of Corporate Executive Management's customers (i.e., executives). Responsibilities include (but are not limited to) processing personnel actions, entering and maintaining employee data to DOE's Corporate Human Resources Information System (CHRIS) and other personnel systems, establishing and maintaining employees' electronic Official Personnel Folder (eOPF). • Provide strategic human capital guidance and HR solutions implementation support to all levels of management. Assess and anticipate HR related needs and formulate partnerships across the HR function to deliver value added

HR Service Center	Functions
	services to management and employees that reflect the business objectives of the organization • Provide the full spectrum of Employee Relations/Labor Relations services to management and employees.
Bonneville Power Administration HR Service Center	• Implement and monitor staffing transactions for the programs and offices served by the BPA SC to recruit, examine and place selectees for vacant positions. Responsibilities include (but are not limited to) preparing and posting USAJOBS vacancy announcements, evaluating applicants and issuing selection certificate(s) to hiring officials, and preparing and processing pre-employment paperwork to assist selectees in the onboarding process. • Manage the classification program, processes, and procedures for new and existing positions in the programs and offices served by the BPA SC to determine their appropriate pay system, occupational grouping, grade, title, and bargaining unit status. • Administer the benefits and work-life programs for the current and former employees, annuitants, survivors, and eligible family members of the offices served by the BPA SC. Responsibilities include (but are not limited to) providing servicing and consultation related to life, health, dental, vision, and long-term care insurances, Flexible Spending Accounts, Thrift Savings Plan, retirement planning and calculations, Employee Assistance Program, drug testing program, and workers' compensation. • HR processing and information management responsibilities for the programs and offices served by the BPA SC. Responsibilities include (but are not limited to) processing personnel actions, entering and maintaining employee data to DOE's Corporate Human Resources Information System (CHRIS) and other personnel systems, establishing and maintaining employees' electronic Official Personnel Folder (eOPF) in accordance with OPM regulations, and supporting personnel data requests from DOE and OPM.
Power Marketing Administration HR Service Center	• Implement and monitor staffing transactions for the programs and offices served by the PMA SSC to recruit, examine and place selectees for vacant positions. Responsibilities include (but are not limited to) preparing and posting USAJobs vacancy announcements, evaluating applicants and issuing selection certificate(s) to hiring officials, and preparing and processing pre-employment paperwork to assist selectees in the onboarding process. • Manage the classification program, processes, and procedures for new and existing positions in the programs and offices served by the PMA SSC to determine their appropriate pay system, occupational grouping, grade, title, and bargaining unit status. • Administer the benefits and work-life programs for the current and former employees, annuitants, survivors, and eligible family members of the offices served by the PMA SSC. Responsibilities include (but are not limited to) providing servicing and consultation related to life, health,

HR Service Center	Functions
	dental, vision, and long-term care insurances, Flexible Spending Accounts, Thrift Savings Plan, retirement planning and calculations, Employee Assistance Program, drug testing program, and workers' compensation. • HR processing and information management responsibilities for the programs and offices served by the PMA SSC. Responsibilities include (but are not limited to) processing personnel actions, entering and maintaining employee data to DOE's Corporate Human Resources Information System (CHRIS) and other personnel systems, establishing and maintaining employees' electronic Official Personnel Folder (eOPF) in accordance with OPM regulations, and supporting personnel data requests from DOE and OPM.

19.9.4 Office of Corporate Services (HC-10)

The Office of Corporate Services (HC-10) supports the program objectives and missions of all Departmental components by:

(1) Developing Department-level human capital management (HCM) policies and associated technical training, advice, and guidance on human capital policies;
(2) Developing HCM legislative proposals;
(3) Providing operational support and consultative advice on the acquisition, deployment, and maintenance of technology to support the strategic management of human capital in accomplishing Departmental goals and program objectives;
(4) Supporting implementation of the Department's human capital initiatives through the integration of human capital strategy and budget across the human resources line of business functions; and,
(5) Offering innovative business solutions to complex Departmental HCM challenges. Human capital management strategies, policy, programs, and plans are developed and assessed for overall effectiveness and compliance with merit system principles, civil service laws and regulations, and Departmental HCM directives.

HC-10 is the primary representative body for the Department when coordinating on HCM policy compliance with the OPM, OMB, GAO, and other Federal and non-Federal customers and organizations in connection with Departmental human resources and human capital management areas of responsibility.

HC-10 functions include:

- Manage the development of HCM-related policies and strategies for agency-wide implementation and provide advice and guidance across the Department on these policies; seek out, influence, and translate legislative and regulatory direction into Departmental strategies, policies, and programs to address DOE human capital needs.

- Provide executive oversight of the acquisition, deployment, and maintenance of technology to support the strategic management of human capital. Manages HRIT systems and provides technology solutions for the Department's HR operations.
- Provide oversight and guidance on the integration of human capital strategy and budget to ensure effective and efficient financial management of resources within the OCHCO and associated HR business lines. Oversee the procurement process for obtaining and implementing contract support within the OCHCO and the HR Shared Service Centers.
- Manage the administrative support functions for the OCHCO to include space, equipment, personnel security, transit subsidy, internal HC policy and front office executive support.
- Develop business intelligence, demographic and trends analyses in support of corporate workforce and succession planning and in response to requests from within DOE and from external oversight agencies.
- Develop, analyze, and communicate human capital metrics to determine the efficiency and effectiveness of human capital strategies and solutions.

19.9.5 Office of Talent Management (HC-20)

The Office of Talent Management (HC-20) is dedicated to recruiting, engaging, developing, retaining and advancing a diverse workforce of right-fit talent for the Department. As a steward and facilitator of the talent strategy, OTM provides employees and supervisors with a wide range of resources, including talent sourcing, professional development, leadership training and educational opportunities to cultivate individual and organizational excellence.

HC-20 functions include:

- Managing workforce development programs and evaluate their effectiveness to ensure that they improve performance and transfer knowledge and skills to DOE employees.
- Providing guidance and resources to define, assess, and close critical workforce competency skill gaps.
- Establishing and managing a centralized recruitment and outreach program in support of the goals and mission of DOE.
- Leading and directing the promotion of DOE as an employer of choice through targeted branding and communication
- Establishing, supporting, and monitoring strategic approaches to achieving and sustaining continuous improvement in DOE workforce engagement and organizational effectiveness.

19.9.6 Office of Corporate Executive Management (HC-40)

The Office of Corporate Executive Management (HC-40) manages the human capital programs related to the employment lifecycle for the Department's Senior Executive Service (SES), Senior Professional (Senior-Level and Scientific and Professional), Excepted Service (EJ, EK, ER, ET and EWQ) and political appointees.

HC-40 functions include:

- Developing, formulating, and administering policies and strategies for agency-wide implementation and providing advice and guidance across the Department on these policies.
- Assessing and improving customer service and human capital programs providing innovative and strategic solutions enabling the recruitment, development and retention of a premier executive workforce prepared to lead the Department and ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges.
- Providing strategic and operational centralized HR services, including (but not limited to) staffing, recruitment, employee relations, compensation, benefits, position classification and allocation, executive development, talent management and performance management.
- Managing the Department's allocations and coordinating the biennial allocation process.
- Providing support for Presidential, Non-Career SES and Schedule C appointees.
- Coordinating and managing the Executive Resources Board processes.

19.10 Office of Small and Disadvantaged Business Utilization (OSDBU)

The Office of Small and Disadvantaged Business Utilization (OSDBU) maximizes contract opportunities for small businesses while advancing the Agency's missions. OSDBU's History dates back to when Public Law 95-507 (October 1978) amended the original Small Business Investment Act of 1958 (SBAct). Public Law 95-507 established the requirement for every Federal Agency to have an Office of Small and Disadvantaged Business Utilization (OSDBU) to make Federal procurements more readily accessible to all small businesses.

To execute and support its mission, the OSDBU has developed three Strategic Objectives:

- **Objective 1:** Making it easier for small businesses to do business with the DOE.
- **Objective 2:** Maximizing small business opportunities by cultivating more productive relationships with internal DOE stakeholders.
- **Objective 3:** Maximizing small business awards and improving socio-economic category performance.

The Strategic Objectives are achieved through use of the following **Enabling Activities**:

- OSDBU Staff and Cadre of Small Business Program Managers (SBPMs);
- Education and Resources;
- OSDBU Compliance Requirements; and
- Inreach/Outreach.

Every year, the Small Business Administration (SBA) works with each agency to set their prime and subcontracting goals and their grades are based on the agreed upon goals. Each federal

agency has a different small business contracting goal, negotiated annually in consultation with the SBA. The SBA ensures that all the goals meet the 23 percent target for the federal government as well as the socio-economic goals established by statute. The latest SBA Scorecard can be found here: DOE FY 2020 Small Business Procurement Scorecard.

SBDU Annual Reports provide a comprehensive review of DOE performance in engaging small businesses. These reports contain a broad overview of small business prime contracts, first-tier Management and Operating (M&O) Subcontracts, and other subcontracts to small business.

19.11 Office of General Counsel (GC)

The Office of General Counsel (GC) is charged by the Secretary of Energy with the authority to determine the Department's authoritative position on any question of law. GC provides legal advice, counsel, and support to the Secretary, the Deputy Secretary, and program offices throughout DOE to further the Department's mission of advancing the national, economic, and energy security of the United States through scientific and technological innovation and the environmental cleanup of the national nuclear weapons complex.

GC services include:

Table 14: GC Services/Analysis

GC Element	Service (i.e., Analysis)
Administration (GC-20)	The Deputy General Counsel for Administration directs, manages, supervises and coordinates the activities and functions assigned to the following offices: • Assistant General Counsel for Ethics and Personnel Law • Associate General Counsel for Fiscal and Information Law
Litigation, Regulation & Enforcement (GC-30)	The Deputy General Counsel for Litigation, Regulation and Enforcement directs, manages, supervises and coordinates the activities and functions assigned to the following Assistant General Counsels responsible for: • Litigation • Enforcement • Legislation, Regulation, and Energy Efficiency
Environment & Compliance (GC-50)	The Deputy General Counsel for Environment and Compliance directs, manages, supervises and coordinates the activities and functions assigned to the following Assistant General Counsels responsible for: • Environment • International and National Security Programs

GC Element	Service (i.e., Analysis)
	• NEPA Policy and Compliance
Transactions, Technology, & Contractor Human Resources (GC-60)	The Deputy General Counsel for Transactions, Technology, & Contractor Human Resources directs, manages, supervises and coordinates the activities and functions assigned to the following Assistant General Counsels responsible for: • Procurement and Financial Assistance • Technology Transfer and Intellectual Property • Contractor Human Resources
Energy Policy (GC-70)	The Deputy General Counsel for Energy Policy directs, manages, supervises and coordinates the activities and functions assigned to the following Assistant General Counsels responsible for: • Civilian Nuclear Programs • Standard Contract Management • Electricity and Fossil Energy
Office of the Chief Counsel for Loans Programs	The mission of the Loan Programs Office is to accelerate the domestic commercial deployment of innovative and advanced clean energy technologies at a scale sufficient to contribute meaningfully to the achievement of our national clean energy objectives—including job creation; reducing dependency on foreign oil; improving our environmental legacy; and enhancing American competitiveness in the global economy of the 21st century.
Office of the Chief Counsel for ARPA-E	The Advanced Projects Research Agency-Energy (ARPA-E) was established in 2007 to fund the development and deployment of transformational energy technologies in the United States.
Field Counsel Offices	The Department of Energy employs a complement of lawyers who work in each of the Department's Operations Offices and Field Offices under the leadership of a Chief Counsel.

19.12 Office of Policy (OP)

The Office of Policy (OP) provides expertise related to domestic energy and climate policy issues, including technology policy; deployment and infrastructure policy; state, local, and tribal policy; and energy jobs.

19.12.1 Technology Policy

The Office of Technology Policy leads U.S. Department of Energy (DOE) efforts to identify technology innovations and strategies that will help achieve national energy and climate priorities. It provides overall DOE strategic direction and centralized coordination of science,

energy, and technology research, development, and deployment—to advance dependable, affordable, and environmentally responsible production, delivery, and use of energy.

The Office of Technology Policy supports DOE policies, activities, and strategies, consistent with the national energy plan. These efforts aim to advance domestic collaboration on innovation, science, and technology research and demonstration to accelerate energy technology development to transform the energy sector in the long term.

Focus areas include:

- **Energy Innovation** – To meet national goals, the Office of Technology Policy is working to identify innovation opportunities that will address climate change and facilitate the nation's transition to a cleaner, domestic, and more secure energy future.
- **Energy Earthshots Initiative** – Through the Energy Earthshots Initiative, DOE will accelerate breakthroughs of more abundant, affordable, and reliable clean energy solutions within the decade. Using an all-hands-on-deck approach, DOE will leverage diverse expertise and talent at American universities, businesses, and national laboratories to accelerate research and development and tackle the toughest remaining barriers to quickly deploy emerging clean energy technologies at scale.
- **National Climate Strategy** – Addressing the climate crisis requires immediate and sustained investment to eliminate net global greenhouse gas emissions by mid-century. Investing in the clean technologies, infrastructure, workforce, and systems of the future creates an unprecedented opportunity to improve quality of life and create vibrant, sustainable, resilient, and equitable economies.
    - FACT SHEET: President Biden Renews U.S. Leadership on World Stage at U.N. Climate Conference (COP26)
    - The Long-Term Strategy of the United States: Pathways to 2050 Net-Zero Greenhouse Gas Emissions

19.12.2 Deployment and Infrastructure Policy

The Office of Deployment and Infrastructure Policy serves as the focal point within the U.S. Department of Energy for the policy design and analysis of supply chains, domestic manufacturing, and other key topics. It supports the development of long-term strategies and integrated policies and programs to accelerate and scale clean energy deployment, including both energy supply and energy efficiency.

Focus areas include:

- **Supply Chains** – In response to the Supply Chain Executive Order, DOE is working to better understand the clean energy manufacturing supply chain. The analysis focuses on supply chain issues and opportunities with significant potential to enhance U.S.

competitiveness and generate high quality jobs to help meet national security, energy, and climate objectives.
    - 100-Day Report on High-Capacity Electric Vehicle Batteries
    - DOE Announces Actions to Bolster Domestic Supply Chain of Advanced Batteries
- **Clean Energy Reliability** – Climate change and cyber threats are increasingly putting the reliability and resilience of our power system at risk. Investing in clean energy solutions will tackle climate change, grow our economy, and deliver affordable, reliable, and secure electricity to all Americans.

19.12.3 State, Local, and Tribal Policy

The Office of State, Local, and Tribal Policy guides the development and implementation of coordinated, comprehensive strategies to assist states, territories, local authorities, and tribes in analyzing, assessing, and implementing energy policies, programs, and related activities.

It also helps ensure that national energy policies, programs, and related activities are informed by the policies, programs, regulations, and practices of state, local, and tribal governments.

Focus areas include:

- **Communities LEAP** – The DOE Communities LEAP (Local Energy Action Program) Pilot seeks to help communities access the economic and environmental benefits of clean energy and clean energy manufacturing. Under this pilot initiative, DOE will provide supportive services valued at up to a total of $16 million to support 24-36 communities to develop their own community-driven clean energy transition approach. This opportunity is specifically open to low-income, energy-burdened communities that are experiencing either direct environmental justice impacts, or direct economic impacts from a shift away from historical reliance on fossil fuels.
- **Place-based Strategy** – Place-based approaches aim to strengthen communities (usually defined at a scale where measurable economic outcomes can be achieved—from a neighborhood up through a multi-county region), rather than provide direct assistance to individuals, companies, or technologies. DOE is focusing on place-based approaches through a variety of cross-agency initiatives, such as Justice40. DOE's place-based approaches target specific energy- or technology-related challenges and opportunities of each community, with the goal of supporting each region's transition to a more prosperous, sustainable, resilient, and inclusive future.
- **Cross-DOE Collaboration** – The Office of Policy coordinates with DOE programs and staff offices to lead strategic thinking, working to achieve U.S. energy goals. The Office of Policy also provides policy analysis support to DOE program and staff offices for Departmental mission objectives.

19.12.4 Energy Jobs

The Office of Energy Jobs focuses on supporting the creation of jobs in the energy sector, particularly jobs that guarantee high standards and the right to collective bargaining. Energy Jobs works collaboratively across the U.S. Department of Energy (DOE) and with other federal agencies and regulatory bodies to ensure the successful transition to a zero-emissions economy while creating meaningful job opportunities for all Americans.

A pivotal component of the successful transition of the American energy sector is ensuring that both job creation and job impacts are taken into consideration in DOE funding, initiatives, and priorities. The Office of Energy Jobs leads efforts to align energy workforce building and training programs and publish the annual U.S. Energy and Employment Report.

Focus areas include:

- **U.S. Energy and Employment Report** – The U.S. Energy and Employment Report (USEER) provides a comprehensive overview of the energy labor market. The USEER offers unique insights into the individuals who meet the nation's energy needs, identifies important trends and skillsets for the 21st century energy workforce, and provides data on employment trends in five major energy sectors — Electric Power Generation; Transmission, Distribution, and Storage; Fuels; Energy Efficiency; and Motor Vehicles.
- **DOE Labor Working Group** – The DOE Labor Working Group is a forum for DOE and labor unions to engage on key energy topics.

19.13 Office of Public Affairs (PA)

The DOE Office of Public Affairs (PA) is responsible for counsel and support for:

- Articulating and disseminating enterprise-level messages for use by DOE leadership and stakeholders;
- Identifying opportunities to develop new content and share existing content about DOE's portfolio;
- Helping media outlets understand and report DOE-sponsored research;
- Identifying DOE's key stakeholders, and keeping them informed of DOE work; and,
- Monitoring media, legislative, and stakeholder communications to advise senior agency officials about emerging news and public affairs issues and concerns.

19.14 Office of Technology Transitions (OTT)

The Office of Technology Transitions (OTT) was established in 2015 to oversee and advance the mission of technology transfer by expanding the public impact of the department's research and development (R&D) portfolio to advance the economic, energy and national security interests of the nation. OTT develops the Department's policy and vision for expanding the commercial impact of its research investments, and it streamlines information and access to DOE's national labs and sites to foster partnerships to move innovations from the labs into the marketplace.

"Technology transitions" is a dynamic process, with numerous and varying handoffs between scientists, innovators, and entrepreneurs, that begins with an idea that ultimately becomes a technology commercialized by the private sector. Every technology follows its own unique path and requires a variety of exchanges and partnerships to advance it along the developmental spectrum. OTT provides support in each step of this process.

OTT conducts data management and analysis, evidence-based impact evaluations, and stakeholder engagement. The office also oversees two major DOE initiatives, the Technology Commercialization Fund (TCF) and the Lab Partnering Service. Additionally, OTT implements public laws passed by Congress. The office derives much of its mission, responsibilities, and oversight authority from the Bayh-Dole Act of 1980, Stevenson-Wydler Technology Innovation Act of 1980, and Energy Policy Act of 2005. These legislations require OTT to develop two reports to Congress annually— the "Technology Transitions Execution Plan" and the "Report on Technology Transfer and Related Technology Partnering Activities at the National Laboratories and Other Facilities."

The Chief Commercialization Officer serves as Director of the Office of Technology Transitions, whose responsibilities include oversight of the TCF, Technology Transfer Working Group, and the coordination of technology transfer activities and best practices across the DOE complex.

In addition, OTT provides and fosters the following resources:

Table 15: OTT Resources and Analysis

Resource	Description
Lab Partnering Service	Lab Partnering Service (LPS) offers unprecedented access to the world's most advanced scientific facilities and researchers across the Department's National Lab complex. LPS provides investors—and other parties looking to advance energy innovation—a single online platform to connect with leading DOE National Laboratory technical experts to quickly answer innovation questions, as well as discover opportunities for building partnerships. Visitors can easily search hundreds of technologies, patents, experts, facilities, and success stories tailored to their individual needs, including: • Facility descriptions • Technical summaries • Visual Patent Search
Solutions Exchange	Solutions Exchange connects industry challenges with DOE-powered innovations. Businesses share their technical or scientific challenges and partnership interests with OTT and receive a menu of approaches to tackle these hurdles in collaboration with our National Labs. With the OTT team directly facilitating solutions development with the Labs, business are able to quickly access resources and identify the best opportunities to move forward.

Resource	Description
InnovationXLab	Innovation*X*Lab summits facilitate a two-way exchange of information and ideas between industry, universities, manufacturers, investors, and end-use customers with innovators and experts from across the National Labs and broader DOE R&D complex. Innovation*X*Lab summits: • Catalyze public-private partnerships and commercial hand-offs utilizing DOE's extensive assets: technology, intellectual property, facilities, and world-leading scientists and researchers. • Engage the private sector to ensure DOE understands industry's technical needs, risk appetite, and investment criteria, thereby incorporating "market pull" into DOE's portfolio planning. • Inform DOE R&D planning to increase commercialization possibilities. Innovation*X*Lab Summits are not dense technical workshops, but enable connections and commercialization opportunities at the decision-maker level. They highlight promising technologies from across all 17 DOE National Labs.
Spotlights	OTT periodically releases reports highlighting the Department of Energy's work in emerging technology areas, including energy storage, grid optimization, and artificial intelligence. In addition, OTT compiles success stories from selected DOE-derived research projects that have resulted in commercial outcomes, celebrating the successful public-private relationships that seek to drive U.S. innovation and ensure the nation's continued competitiveness and security.
Market Analysis	The Market Analysis team at the OTT produces research in market analysis, including trend forecasts, supply chain, and technology maturation, to support OTT's mission of accelerating advanced energy technologies from across the Department of Energy and National Lab complex. The goal is to provide research to better integrate understanding and analysis of market pull factors into the R&D process of novel technologies throughout the development and commercialization processes. The Market Analysis team leads the Market Analysis Community of Practice (MACOP) at the Department, which is made up from representatives from all 17 National Labs and meets monthly to share best practices in market analysis and hear from expert speakers with deep knowledge of various aspects of the commercialization process. OTT also compiles market analysis reports, technology roadmaps, and other analyses of technology-market fit and pathways to commercialization from across the Department of Energy, which OTT have compiled to highlight the most useful ones.

Resource	Description
STEM Tools	To better connect students and universities with the necessary resources they need to engage with the Department, OTT has compiled an array of materials to help discover the best and most beneficial path forward. • OTT University Resources Toolkit 2020-2021 • DOE Laboratory Partnership Opportunities for Colleges and Universities

20. Other Defense Activities

20.1 Office of Environment, Health, Safety, and Security (AU)

The Office of Environment, Health, Safety, and Security (AU) is the DOE's central organization responsible for health, safety, environment, and security; providing corporate-level leadership and strategic vision to coordinate and integrate these vital programs. AU is responsible for policy development and technical assistance; safety analysis; and corporate safety and security programs. The Associate Under Secretary for Environment, Health, Safety and Security advises DOE Senior Leadership on all matters related to environment, health, safety, and security across the complex. On May 5, 2014, the Office of the Associate Under Secretary for Environment, Health, Safety and Security (AU) was established within the Office of the Under Secretary for Management and Performance to strengthen the effectiveness and efficiency of primary mission-support organizations of the Department and institute enterprise-wide solutions to common challenges across the complex.

The Department synthesizes operational information to support continuous environment, health, safety, and security improvements. DOE's corporate safety reporting and analysis programs and activities are established to manage several viable safety indicators applicable to most DOE contractor operations that provide Departmental leadership, line management, and stakeholders with timely information to gauge the success of Departmental safety program implementation. DOE operational and occurrence data are collected through various reporting mechanisms and provided through internet-based tools, one of which is databases:

- Comprehensive Epidemiologic Data Resource (CEDR) System: CEDR is a DOE public-use repository of data from occupational and environmental health studies of workers at DOE facilities and nearby community residents.
- Computerized Accident/Incident Reporting System (CAIRS): This system collects and analyzes DOE and DOE-contractor reports of injuries, illnesses, and other accidents that occur during DOE operations.
- DOE OPEXShare Lessons Learned database: The DOE OPEXShare is the central, web-based collection point for corporate operating experience lessons learned and best practices from across the DOE complex. DOE OPEXShare is a collaborative platform that is available to government and private users. By sharing lessons learned and best

practices from work operations and project management, DOE OPEXShare subscribers could prevent adverse events and improve processes and performance. DOE OPEXShare replaces the DOE Corporate Lessons Learned database.

- Fire Protection: Data collection and a commitment has been made to the Defense Nuclear Facilities Safety Board to collect information and make it available utilizing a standard systematic approach. This approach is accomplished via a web-based system which will allow reporting organizations to enter or edit information. Use of the web interface requires registration. DOE O-231.1B, Environment, Safety, And Health Reporting, requires the submission of an Annual Fire Protection Summary.
- Occurrence Reporting and Processing System (ORPS): This system provides timely notification to the DOE complex of events that could adversely affect public or DOE worker health and safety, the environment, national security, DOE's safeguards and security interests, functioning of DOE facilities, or the Department's reputation.
- Radiation Exposure Monitoring System (REMS): The REMS database tracks occupational radiation exposures for all monitored DOE employees, contractors, subcontractors, and members of the public. A password is not needed to access this database.
- Radiological Source Registry and Tracking (RSRT): The RSRT is a DOE database that is maintained by the Office of Environment, Health, Safety and Security (EHSS), Office of Information Management (AU-72). The annual 10 CFR 835 Appendix E inventory data, and the transaction and verification information for Category 1 and 2 radioactive sealed sources will be reported to the RSRT Manager. Additional guidance for reporting transactions for Category 1 and 2 sources to the DOE RSRT is provided in the December 16, 2010 Chief Health, Safety and Security Officer memorandum, Reporting for Radiological Sealed Sources Transactions. The RSTS Manager is responsible for reporting the transaction to the NRC NSTS.
- Safety Basis Information System (SBIS): The SBIS database contains safety information from DOE nuclear facilities. The SBIS website provides access to the following items: 1) the Public Access Safety Basis Report; 2) the SBIS database (restricted password protected access for DOE and DOE contractors only); and 3) the SBIS account request page.
- Suspect/Counterfeit and Defective Items: The Department of Energy is committed to ensuring that items and components installed in safety-related or mission-critical applications meet their intended function and operability requirements. Therefore, EHSS has established a process for identifying Suspect/Counterfeit (S/CI) or Defective Items (DI) that are deemed safety-significant and broadly applicable to DOE facilities and for ensuring that action is taken.

20.2 Office of Enterprise Assessments (EA)

The Department of Energy's (DOE) Office of Enterprise Assessments (EA) performs independent assessments for DOE senior leadership that report on whether national security material and information assets are appropriately protected and whether Departmental operations provide for the safety of its employees and the public. In addition, EA implements the Department's congressionally-authorized contractor enforcement programs for security and safety on behalf of the Secretary of Energy and operates the DOE National Training Center (NTC).

Because EA reports directly to the Office of the Secretary, it is organizationally independent of the DOE entities that develop and implement security and safety policies and programs; therefore, EA can provide a "check and balance" function by objectively:

1. Observing and reporting on the performance of DOE federal and contractor organizations' implementation of security and safety policies and programs,
2. Applying enforcement actions to contractor organizations for poor performance in adhering to legally enforceable security and safety requirements, and
3. Developing and delivering security and safety training programs that reflect best practices and lessons learned from EA independent assessments to enhance workforce performance.

The Office of Environment, Safety and Health Assessments conducts independent evaluations that provide objective information and constructive feedback on programs for and performance in protecting workers, the public and the environment from the nuclear and industrial hazards associated with DOE's past and present operations, with a particular focus on nuclear facility construction projects and high hazard nuclear operations.

The Office of Safeguards and Security Assessments conducts independent evaluations of the effectiveness of safeguards and security policies and programs throughout the Department, including those for protecting special nuclear material and classified and sensitive information, and makes extensive use of large- and small-scale performance testing to realistically evaluate site safeguards and security defense capabilities.

The Office of Cyber Assessments conducts independent evaluations of the effectiveness of classified and unclassified cybersecurity policies and programs throughout the Department that include performing detailed network penetration testing to detect vulnerabilities and risks that could be exploited by sophisticated adversaries or malicious insiders. The Office also analyzes cybersecurity trends and studies complex-wide issues to provide feedback on essential information assurance practices to DOE Headquarters and sites.

20.3 Office of Legacy Management (LM)

The Office of Legacy Management (LM) was established to fulfill the Department's post-closure responsibilities and to ensure the protection of human health and the environment.[85] LM's responsibilities include long-term stewardship of 100 sites across the United States and Puerto Rico. This includes a variety of programs related to the country's nuclear defense and energy legacy, ranging from oversight of the administration and management of legacy contractor benefits to assessing the condition of 2,500 defense-related uranium mines on federal public land.[86]

LM publishes a quarterly Program Update to provide a status of activities. The Program Update documents and communicates the progress LM continues to make implementing the objectives and strategies for each of the six goals in the LM Strategic Plan.[87]

The LM quarterly Program Updates[88] highlight the key initiatives throughout the entire organization including the specific contributions and accomplishments of individuals responsible for LM's continued success. LM advances in each of the six goals are represented.

In addition, LM oversees the Department's Environmental Justice (EJ) program, as the agency continues to be committed to EJ. DOE's EJ goals and objectives can be found in its latest EJ Implementation Plan: 2019 Environmental Justice Second Five-Year Implementation Plan (energy.gov).

20.3.1 Office of Hearings and Appeals (OHA)

The Office of Hearings and Appeals (OHA) is the central adjudicative forum for the Department of Energy. The Secretary of Energy has delegated to the OHA Director the authority to act in many different areas. The OHA Director's decision typically serves as final agency action.

During it's over 30-year history, OHA has had broad-ranging subject matter jurisdiction. Originally, OHA's primary function was to consider exceptions and other petitions related to the economic oil regulations, as well as Freedom of Information Act (FOIA) and Privacy Act appeals, whistleblower matters, exceptions and special redress, and dispute resolutions. From that point onward, OHA's jurisdiction has evolved to meet the needs of DOE's programs.

Over the years, OHA has heard appeals from a variety of DOE determinations, including those related to the Department's Alternative Fuel Transportation Program, physician panel reviews of DOE worker occupational illness claims, payment-equal-to-taxes claims under the Nuclear Waste Policy Act of 1982, civil penalties imposed for violations of DOE's worker safety and

[85] Office of Legacy Management Mission: https://www.energy.gov/lm/mission
[86] Office of Legacy Management, Programs: https://www.energy.gov/lm/programs
[87] Office of Legacy Management, LM Program Update, October-December, 2020: https://www.energy.gov/sites/prod/files/2020/12/f82/2020_Q4_ONLINE_0.pdf
[88] Office of Legacy Management Program Updates: https://www.energy.gov/lm/listings/program-updates

health rule, and the equity interests in production from Elk Hills Oil Field, formerly Naval Petroleum Reserve No. 1.

The procedures that OHA uses vary, depending on the type of case involved. OHA procedures are flexible and easily adaptable to new situations, allowing OHA to minimize "start-up" times and to produce high-quality work in new areas.

20.4 Office of Intelligence and Counterintelligence (IN)

The U.S. Department of Energy's Office of Intelligence and Counterintelligence (IN) is responsible for all intelligence and counterintelligence activities throughout the DOE complex, including nearly thirty intelligence and counterintelligence offices nationwide.

IN protects vital national security information and technologies, representing intellectual property of incalculable value. IN's contribution to national security is the ability to leverage the Department's unmatched scientific and technological expertise in support of policymakers as well as national security missions in defense, homeland security, cyber security, intelligence, and energy security.

IN is a member of the U.S. Intelligence Community.

Appendix A. Evaluation, Statistics, Evaluation, Research, and Analysis Sources

Overall

- SECTION 260—Performance and Strategic Reviews, OMB Circular No. A-11 (2020) Page 7 of Section 260: https://www.whitehouse.gov/wp-content/uploads/2018/06/s260.pdf
- SECTION 270—Program and Project Management, OMB Circular No. A-11 (2020) Page 2 of Section 270: https://www.whitehouse.gov/wp-content/uploads/2018/06/s270.pdf
- DOE G 120.1-5, Guidelines for Performance Measurement: https://www.directives.doe.gov/directives-documents/100-series/0120.1-eguide-5
- DOE/NNSA Site Facility Management Contracts: https://www.energy.gov/sites/prod/files/2019/11/f68/DOE%20NNSA%20Site%20Facility%20Management%20Contracts%20-%20Nov%202019_0.pdf
- Methodology for reporting: GAO-19-5 Management and Operating Contracts, p. 18: https://www.gao.gov/assets/700/697103.pdf
- Energy Policy Act of 2005 (Public Law 109-58), 42 USC 15801, Section 2: https://www.congress.gov/109/plaws/publ58/PLAW-109publ58.pdf
- Department of Energy Acquisition Regulations, Part 970 – DOE Management and Operating Contracts: https://www.acquisition.gov/dears/part-970—doe-management-and-operating-contracts#P1270_216900
- DOE O 413.3B Chg 6 (MinChg), Program and Project Management for the Acquisition of Capital Assets: https://www.directives.doe.gov/directives-documents/400-series/0413.3-border-b-chg6-minchg
- DOE O 130.1A, Budget Planning, Formulation, Execution and Departmental Performance Management: https://www.directives.doe.gov/directives-documents/100-series/0130.1a-BOrder
- Infrastructure Investment and Jobs Act (IIJA): https://www.energy.gov/bil/bipartisan-infrastructure-law-programs
- Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act of 2022: https://www.energy.gov/articles/statement-secretary-granholm-congressional-passage-chips-and-science-act
- Inflation Reduction Act (IRA): https://www.energy.gov/lpo/inflation-reduction-act-2022

Office of the Under Secretary for Infrastructure (S3)

- Office of the Under Secretary for Infrastructure (S3): https://www.energy.gov/articles/office-under-secretrary-infrastructure
- Bipartisan Infrastructure Law: https://www.energy.gov/bil/bipartisan-infrastructure-law-homepage

Office of Manufacturing and Energy Supply Chains

- Office of Manufacturing and Energy Supply Chains: https://www.energy.gov/mesc/office-manufacturing-and-energy-supply-chains

- Advanced Energy Manufacturing and Recycling Grant Program: https://www.energy.gov/bil/advanced-energy-manufacturing-and-recycling-grants
- Battery and Critical Mineral Recycling - Retailers as Collection Points, and State and Local Programs: https://www.energy.gov/bil/battery-and-critical-mineral-recycling
- Battery Manufacturing and Recycling Grants: https://www.energy.gov/bil/battery-manufacturing-and-recycling-grants
- Battery Material Processing Grants: https://www.energy.gov/bil/battery-materials-processing-grants
- Energy Efficient Transformer Rebates: https://www.energy.gov/bil/energy-efficient-transformer-rebates
- Extended Product System Rebates: https://www.energy.gov/bil/extended-product-system-rebates
- Implementation Grants for Industrial Research and Assessment Centers: https://www.energy.gov/industrial-research-and-assessment-center-implementation-grants
- Industrial Assessment Centers: https://www.energy.gov/bil/industrial-research-and-assessment-centers
- Rare Earth Elements Demonstration Facility: https://www.energy.gov/bil/rare-earth-elements-demonstration-facility
- State Manufacturing Leadership: https://www.energy.gov/bil/manufacturing-leadership-sec-40534

Office of Manufacturing and Energy Supply Chains

- Office of Clean Energy Demonstrations (OCED): https://www.energy.gov/office-clean-energy-demonstrations
- Advanced Reactor Demonstration Program: https://www.energy.gov/bil/advanced-reactor-demonstration-program
- Carbon Capture Large-Scale Pilot Projects: https://www.energy.gov/bil/carbon-capture-large-scale-pilot-programs
- Carbon Capture Demonstration Projects Program: https://www.energy.gov/bil/carbon-capture-demonstration-projects-program
- Clean Energy Demonstration Program on Current and Former Mine Land: https://www.energy.gov/bil/clean-energy-demonstration-program-current-and-former-mine-land
- Energy Improvement in Rural and Remote Areas: https://www.energy.gov/bil/energy-improvement-rural-or-remote-areas
- Energy Storage Demonstration and Pilot Grants: https://www.energy.gov/bil/energy-storage-demonstration-and-pilot-grant-program
- Industrial Emissions Demonstration Projects: https://www.energy.gov/bil/industrial-emission-demonstration-projects
- Long Duration Demonstration Initiative and Joint Program: https://www.energy.gov/oced/long-duration-energy-storage-demonstration-initiative-and-joint-program

- Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency: https://www.energy.gov/bil/program-upgrading-our-electric-grid-and-ensuring-reliability-and-resiliency
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Appendix B. DOE Learning Agenda

The mission of the Energy Department is to ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.89 By law, the Department of Energy (DOE) is responsible for formulating and implementing a coordinated national energy policy to address energy production and use; advancing the energy and nuclear security of the United States; conducting scientific research and technological innovation in support of that mission; conducting basic research in the physical sciences; and advancing national nuclear waste management, including environmental cleanup.

The Department of Energy (DOE) recognizes the importance of evidence and evaluation to understand and improve the efficiency and effectiveness of its programs and operations in pursuit of the Department's mission. To support evaluation planning, the DOE has established an Annual Evaluation Plan (AEP) in alignment with the *Foundations for Evidence-Based Policymaking Act.*[90] The AEP identifies the research and evaluation questions the Agency plans to complete through the next fiscal year.

Program evaluations are conducted through consultations with DOE program leadership, review, and development by internal program evaluators. The evaluations are designed to meet DOE priorities, answer research questions in the Enterprise Learning Agenda, and build a suite of evidence to inform decision-making. Evaluations highlighted in this AEP reflect the most significant planned evaluations for FY 2024 in alignment with the DOE's mission as reflected in the Agency's *FY 2022-2026 Strategic Plan*, expected usefulness to support program improvement, and greatest impact on small businesses and other Agency stakeholders.

The energy, science, nuclear security, nuclear waste management, and cybersecurity goals in this evaluation plan are aligned with the DOE mission and goals from the strategic plan.

Energy – DOE is the lead agency for developing plans and programs to implement a coordinated national energy policy through analysis and cooperation with Federal, state, and local governments. DOE leads the Nation in cutting-edge research and development of an extensive range of technologies in support of an energy dominance strategy. DOE identifies, funds, and promotes technological advances to increase energy affordability, performance, and efficiency. DOE also leads national efforts to further research and develop technologies to modernize the electric grid and improve its reliability and resilience; enhance the security, reliability, and resilience of energy infrastructure; improve domestic fossil energy production and use; and expedite recovery from energy supply disruptions.

Science – DOE is the largest Federal sponsor of basic research in the physical sciences. DOE's world-leading research in the physical, chemical, biological, and computational sciences advances fundamental scientific discoveries and technological solutions that support American

[89] https://www.energy.gov/mission
[90] www.congress.gov/bill/115th-congress/house-bill/4174

pre-eminence in science and innovation. DOE also leads the national effort to maintain its global primacy in high-performance computing.

Nuclear Security – DOE enhances the security and safety of the Nation through its national security endeavors: maintaining a safe, secure, and effective nuclear weapons stockpile that will deter any adversary and guarantee the defense of the Nation and its allies; managing the research, development, and production activities and associated infrastructure needed to meet national nuclear security requirements; accelerating and expanding efforts to reduce the global threat posed by nuclear weapons, nuclear proliferation, and unsecured or excess nuclear and radiological materials; providing advance capabilities to respond to nuclear or radiological incidents and accidents worldwide; and providing safe and effective nuclear propulsion for the U.S. Navy.

Nuclear Waste Management – DOE leads the effort to address the Federal Government's nuclear waste management responsibility; continue the largest cleanup effort in the world to remediate the environmental legacy of six decades of nuclear weapons development; and produce and sponsor nuclear energy research.

Cybersecurity – DOE supports the Government's effort to assist energy infrastructure owners with cybersecurity and to ensure cyber/physical attacks do not have a catastrophic impact on the energy sector. DOE also ensures the cybersecurity and resilience of the DOE enterprise infrastructure.

DOE Enterprise Management and Oversight – As DOE carries out its mission through execution of its strategic goals, it will develop, manage, and support a talented and engaged workforce, provide a modern, secure physical and information technology infrastructure, and strengthen effective and cost-efficient management initiatives.

Achieving these goals requires sustained commitment to performance-based management. Program evaluations are tailored to the specific mission set and include a broad range of evaluation types. To ensure actionable results, the DOE's evaluations follow the principles of ethics, independence, rigor, relevance, and transparency reflected in OMB Circular A-11, Section 290[91] and OMB Memoranda M-19-23[92], M-20-12[93], and M-21-27[94].

[91] s290.pdf (whitehouse.gov)

[92] MEMORANDUM FOR HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES M-19-23 (whitehouse.gov)

[93] www.whitehouse.gov/wp-content/uploads/2020/03/M-20-12.pdf

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1. Optimize Carry-Over Balances for DOE Program and Support Functions

Lead DOE Program/Support Office: Office of the Chief Financial Officer (OCFO)

Description: Most DOE programs and functions obligate appropriated budget authority in the current fiscal year and "carry-over" unused funds to the next fiscal year due to a variety of factors. There are circumstances that justify carrying over unused funds including maintaining reserves to manage risk and phased execution of long-term capital projects. At present, there is no Department-wide analysis to provide best practices to manage carry-over balances.

An evaluation will be conducted to determine appropriate tools and methods for managing carry-over balances, and whether certain best practices should be adopted on an agency-wide basis for program and functional activities.

Enterprise Learning Agenda (ELA). This evaluation supports the DOE's understanding of the following ELA question:

- What factors most influence the Department's ability to obligate appropriated budget authority in the current fiscal year and "carry-over" unused funds to the next fiscal year?

Evaluation Questions. The DOE seeks the answer the following evaluation questions and their sub-components in this study:

- How does the government review process serve as a tool to help agencies meet their goals obligated appropriated budget authority in the current fiscal year?
- How does the government review process serve as a tool to help agencies "carry-over" unused funds to the next fiscal year as appropriate?
- What are the appropriate tools and methods for managing carry-over balances?
- What best practices should be adopted on an agency-wide basis for program and functional activities?
    - What aspects of these tools and methods lead to improved outcomes?
    - What aspects of these processes could be made more effective or efficient?

Activities: The OCFO will conduct an evaluation that reviews appropriations and carry-over balances for select DOE program and function offices for the past 5 fiscal years. The study will:

- analyze appropriations and carry-over balances to determine if trends and outliers exist
- determine the nature of work conducted by program or support office and consider how this should affect carry over balances
- interview program managers for insight into how they manage carry-over balances
- review carry-over data for non-DOE programs and determine whether relevant comparisons to DOE can be made
- determine if best practices can be recommended to DOE programs and support functions for managing carry-over balances
- determine if corrective action for managing any DOE carry-over balances is advisable

Timeline: OCFO anticipates this study will take 6-9 months. Instituting recommendations produced by the study will take an additional 12-24 months.

Data: Data gathered for this evaluation may include:

- 5-years of appropriations and carry-over balances for select DOE programs & functions
- appropriations and carry-over balances of non-DOE programs
- interviews of DOE program and function managers
- interviews of non-DOE program and function managers

Evidence Use and Dissemination: DOE program staff would receive recommendations on activities that lead to greater goal achievement, as well as activities that could be adapted to improve the effectiveness and efficiency of surveillance reviews. Results will be presented to DOE program managers and senior leadership, published on the DOE website, and shared in the DOE's Evidence and Evaluation Community of Practice.

Progress and Accomplishments: While a formal study has not yet been conducted to analyze and provide recommendations for optimization, CF-32 generates (and provides to programs) status updates pertaining to Time Limited Funds (TLF) and to remind programs of funding that will "expire" (unobligated) and "cancel" (uncosted) before the end of the fiscal year. This information is also accessible from the QTR Budget Execution Review dashboard, *Daily Time Limited*, as users can track "Unobligated" and "Daily Unobligated" as well as "IIJA funding only" or "Base funding". In addition, CF-32 sends monthly reports to appropriations staff and OMB on balances (i.e., Base Financial Reports). Reports are available via DOE's iPortal: Perf & Financial Reports (doe.gov)

2. Statistical Methodology Improvement Plan (SMIP)

Lead DOE Program/Support Office: U.S. Energy Information Administration (EIA)

Description: As one of the 13 principal federal statistical agencies, EIA collects, analyzes, and disseminates large amounts of data to inform citizens, businesses, and lawmakers about energy production, transformation, and consumption. To perform this service, EIA adheres to both established professional statistical practices and complies with the Office of Management and Budget (OMB) statistical standards and oversight. EIA must receive approval from OMB every three years to conduct a particular survey. To receive this approval, EIA must show that it is actively monitoring, evaluating, and meeting data quality standards. To meet these requirements, EIA has developed a Statistical Methodology Improvement Plan (SMIP) that evaluates and improves the data quality of EIA surveys and products.

Impact: The SMIP's explicit goal is to improve EIA's statistical methodologies and data quality. To this end, the SMIP provides a structured five-year program that covers the processes to evaluate and improve surveys and products, an in-depth list of statistical methodologies with which to improve surveys and products, and the statistical roles and training that will improve current staff statistical capabilities and further the use of newer data science techniques.

Enterprise Learning Agenda. This evaluation supports the DOE's understanding of the following ELA question:

- What factors most influence the Department's ability to improve EIA's statistical methodologies and data quality?

Evaluation Questions. The DOE seeks the answer the following evaluation questions and their sub-components in this study:

- How does EIA's statistical methodologies serve to help EIA meet its goals to collect, analyze, and disseminate large amounts of data?
- How do EIA processes ensure its ability to actively monitor, evaluate, and meet data quality standards?
- How well does the SMIP support improvement EIA's statistical methodologies and data quality?
- What best practices should be adopted from the SMIP on an agency-wide basis for program and functional activities?
    - What aspects of these tools and methods lead to improved outcomes?
    - What aspects of these processes could be made more effective or efficient?

Data and Evaluation Method: The following describes the three SMIP plan processes for evaluating data products.

- **Evaluation Process.** A process that evaluates the statistical methodologies used to conduct, process, and publish a data product. This process outlines possible methodological improvements or alternative approaches for surveys and products. The process also provides data validation and quality monitoring.

- **Targeted Methodology Improvement Process.** A process that implements improvements that are most readily identifiable and achievable for the statistical methodologies used to conduct, process, and publish a data product.

- **Full Methodology Improvement Process.** A process that completely reviews and updates, as necessary, all statistical methodologies currently used to conduct, process, and publish a data product.

Evidence Use and Dissemination: The initial term of the SMIP, used to implement and achieve the SMIP's goal of improving EIA's statistical methodologies and data quality, is for five years, after which time EIA will review and update it as needed to respond to lessons learned in its implementation. DOE program staff would receive recommendations on activities that lead to greater goal achievement, as well as activities that could be adapted to improve the effectiveness and efficiency of surveillance reviews. Results will be presented to DOE program managers and senior leadership, published on the DOE website, and shared in the DOE's Evidence and Evaluation Community of Practice.

Progress and Accomplishments: Since development of DOE Learning Agenda, EIA continues to implement the SMIP, including:

- Evaluation of data quality of square footage values in Residential Energy Consumption Survey (RECS) (coordinated with the release the 2020 RECS data)
- Review of disclosure protection methods for monthly Form EIA-63C, *Densified Biomass Fuel Report*
- Review of sampling methodology for monthly Form EIA-914, *Monthly Crude Oil and Lease Condensate*, and *Natural Gas Production Report*
- Review of weekly Form EIA-888, *On-Highway Diesel Fuel Price Survey*

EIA also outlined additional SMIP projects that will start over the next year based on available personnel and resources. In addition, EIA has designated an EIA Chief Statistician to serve as central subject matter expert on statistical methods and research. EIA is considering updating the SMIP in FY 2023 to coordinate SMIP projects and agency statistical research efforts.

3. DOE Category Management

Lead DOE Program/Support Office: Office of Acquisition Management (OAM) and NNSA Acquisition and Project Management (NA-APM)

Description: The Office of Acquisition Management (OAM) coordinates with NNSA's Office of Acquisition and Project Management (NA-APM) to manage procurement systems and provide procurement policy & oversight for DOE Procurement Offices (POs). With respect to procurement transactions the POs enter into, approve, administer, modify, closeout, terminate, and execute other actions as necessary.

The Office and Management and Budget (OMB) has mandated that agencies utilize Category Management (CM) to buy common goods and services. To accomplish this, OAM will issue policy, establish annual goals, and lead a CM Working Group (CMWG) to identify opportunities resulting from analyzing spend data found in the Federal Procurement Data System, Strategic Integrated Procurement Enterprise System, purchase card database, Management and Operating Subcontract Reporting Capability, General Service Administration's Data to Decisions, and PO forecasts.

Enterprise Learning Agenda. This evaluation supports the DOE's understanding of the following ELA question:

- What factors most influence the Department and NNSA's ability to manage procurement systems and provide procurement policy & oversight for DOE Procurement Offices (POs)?

Evaluation Questions. The DOE seeks the answer the following evaluation questions and their sub-components in this study:

- How does the Office of Acquisition Management (OAM) coordinate with NNSA's Office of Acquisition and Project Management (NA-APM) to manage procurement systems and provide procurement policy & oversight?
- How does OAM coordinate with NA-APM to manage processes with respect to procurement transactions the POs enter into, approve, administer, modify, closeout,

terminate, and execute other actions as necessary?

- How does OAM issue policy, establish annual goals, and lead a CM Working Group (CMWG) to identify opportunities resulting from analyzing spend data?
- How does OAM work with NA-APM to collect, analyze, and disseminate large amounts of spend data?
- How do OAM and NA-APM processes ensure the ability to actively monitor, evaluate, and meet data quality standards?
- What best practices should be adopted from OAM and NA-APM on an agency-wide basis for program and functional activities?
    - What aspects of these tools and methods lead to improved outcomes?
    - What aspects of these processes could be made more effective or efficient?

Impact: The potential effects of CM are:

- Eliminating redundancies, increasing efficiency, and delivering more value and savings from DOE's acquisition program
- More effectively managed contract spending through a balance of Government-wide, agency-wide, and local contracts
- Continued achievement of small business goals and other socioeconomic requirements

Data & Evaluation Methods:

Step 1 – Each PO establishes an annual CM plan for the designated Fiscal Year(s).
Step 2 – POs identify a procurement strategy for each requirement in their plan.
Step 3 – POs establish their FY goals and submit to OAM.
Step 4 – OAM collects all plans, establishes Department plan with goals, and submits to OFPP.
Step 5 – POs work with the CMWG to identify opportunities to consolidate requirements across the department and/or across programs/offices.
Step 6 – Heads of Contracting Activity (HCA)/Procurement Directors provide status reports as needed to OAM. OAM tracks status and briefs OFPP as required.

Evidence Use and Dissemination. DOE program staff would receive recommendations on activities that lead to greater goal achievement, as well as activities that could be adapted to improve the effectiveness and efficiency of surveillance reviews. Results will be presented to DOE program managers and senior leadership, published on the DOE website, and shared in the DOE's Evidence and Evaluation Community of Practice.

- The CMWG leads DOE's CM implementation. Each HCA assigns dedicated staff to participate in the CMWG.
- The DOE Acquisition Council governs the CMWG.

Progress and Accomplishments:

The following are Category Management accomplishments over the last 2 years:

- Achieved 136% ($29.6B) of Spend Under Management goal in FY21

- Achieved 82% ($178.9M) of Best-In-Class goal in FY21
- Continued quarterly DOE CM training; trained 222 Contracting Officers and Contract Specialist in FY21. (for more, go to: Executive Summary Dashboard | D2D (gsa.gov))
- DOE Acquisition Guide Ch. 8.3, Category Management, revised March 2022 to incorporate revised guidance from OMB (all awards to small disadvantaged businesses receive Tier 2 SUM credit)
- Developing revision of DOE Acquisition Guide Ch. 8.3 to clarify order of preference with small business considerations and waiver processing
- Expanded DOE Preferred Solutions list to nine contracts
- Continued to review CM during each site Procurement Management Review; five in FY21
- Maintained cadence of monthly Category Management Working group meetings

4. Optimize DOE Corporate Business Systems & Services for Cloud-Based Delivery

Lead DOE Program/Support Office: Office of the Chief Financial Officer (OCFO)

Description: The Office of Chief Financial Officer manages over 30 IT systems and other tools that provide corporate business solutions to the Department of Energy (DOE). These systems support enterprise-level financial transactions, accounting, audit, budget, internal controls, business intelligence, procurement, human resources, travel, employee training and performance evaluations, and many other functions. Some of these systems are approaching end-of-life; others have support contracts that are either expiring or require exercising options to continue.

The Office and Management and Budget has mandated that agency-managed IT systems must be converted to cloud-based solutions by FY 2021. To meet this goal, OCFO will conduct an evaluation to determine the optimal mix of which DOE corporate business systems should be migrated to the cloud "as-is", which should be upgraded during migration, and which systems can be consolidated and/or retired.

Enterprise Learning Agenda. This evaluation supports the DOE's understanding of the following ELA question:

- What factors most influence the Department's ability support conversion of OCFO-managed IT systems to cloud-based solutions by FY 2021?

Evaluation Questions. The DOE seeks the answer the following evaluation questions and their sub-components in this study:

- How does the Office of the Chief Financial Officer (OCFO) coordinate to determine the optimal mix of which DOE corporate business systems should be migrated to the cloud:
  - "As-is",
  - Which should be upgraded during migration, and
  - Which systems can be consolidated and/or retired?
- How do OCFO processes ensure the ability to actively manage, monitor, evaluate, and meet IT support standards for both cloud applications and corporate business

systems?
- How does OCFO the OCFO IT strategy ensure effective software and hardware solutions for corporate business services to current DOE capabilities?
- What best practices should be adopted from OCFO on an agency-wide basis for IT cloud migration program and functional activities?

Activities: The OCFO will engage a leading private sector provider of Federal IT services to conduct a comprehensive study of DOE's corporate business system portfolio and to recommend an optimal strategy for cloud-based migration of its systems. The study will compare current leading software and hardware solutions for corporate business services to current DOE capabilities. The study will further examine the structure and terms of existing DOE IT contracts and determine an optimal mix of strategy to continue as-is, renew, or enter into new contracts.

Timeline: OCFO anticipates 6-9 months will be required to issue a contract for the study, conduct strategic analysis, and to issue recommendations. Implementation of the study's recommendations is anticipated to occur in stages over the next 1-2 years as OCFO migrates some systems to the cloud, acquires new cloud-based solutions, and retires and/or consolidates other systems.

Data: Data gathered for this evaluation may include:
- reviewing DOE's current and anticipated corporate business process requirements
- comparing current DOE IT system capabilities to meet business process requirements vs. other available IT system solutions
- predicting total cost for migrating existing DOE systems to the cloud and associated operations & maintenance effort vs. acquiring new solutions
- reviewing DOE's existing contract terms with IT service providers to determine whether to upgrade DOE systems, consolidate and/or retire systems, or maintain current systems in a cloud-based environment

Evidence Use and Dissemination. DOE program staff would receive recommendations on activities that lead to greater goal achievement, as well as activities that could be adapted to improve the effectiveness and efficiency of surveillance reviews. Results will be presented to DOE program managers and senior leadership, published on the DOE website, and shared in the DOE's Evidence and Evaluation Community of Practice.

Progress and Accomplishments: CF-40 is leading *Cloud Infrastructure Optimization and Enhancement* project, which is expected to ensure efficient systems performance and reduce costs and strengthen reporting of DOE's financial picture in strategic alignment for FY22. Cloud Optimization project will be included in Technology Roadmap (under development, and will be a "living" document) to assist with responding to and managing ever-changing IT landscape, cyber security threats, customer demands, and congressional and regulatory mandates. The roadmap will be updated on a regular basis, and will be comprised of five (5) product lines:

- Cybersecurity & Audit,
- Technology,

- Financial Management,
- Digital Workplace, and
- Human Resource.

These product lines represent all business systems and will include software assets and initiatives identified through FY25. CF-40 leadership is currently meeting with customers to understand which IT solutions they will need in the upcoming three (3) years. These solutions could meet regulatory requirements, correct weaknesses in audit findings, and/or improve business process efficiencies and effectiveness through automation. Upon completion of strategic discussions with customers, CF-40 will update roadmap as appropriate given resource constraints, competing priorities, and business system alignment.

Appendix C. DOE Capacity Assessment of Statistics, Evaluation, Research, and Analysis

CAPACITY ASSESSMENT SUMMARY: In assessing the coverage, quality, methods, effectiveness, and independence of the of the Department of Energy's (DOE) statistics, evaluation, research, and analysis personnel, agency infrastructure (i.e., DOE elements, and sub-elements), and current and planned evidence building activities, the DOE Evaluation Officer has determined the current personnel, agency infrastructure, and activities dedicated to statistics, evaluation, research, and analysis are commensurate with the DOE mission and programs – and in alignment with the Department's Strategic Goals for FY2022-26.

The need for resources, agency infrastructure, and evidence building activities will be continuously monitored via DOE Strategic Human Capital Planning, as well as feedback received from the Office of Management and Budget (OMB) for future budget cycles and oversight of management initiatives (e.g., Strategic Planning). As DOE continues to fulfill its core missions as well as the recently formed S3 organization, DOE is actively staffing its Clean Energy Corps, which is comprised of the staff from more than a dozen offices across DOE — current staff and new hires — to research, develop, demonstrate, and deploy solutions to clean energy challenges.

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
[97]AEO	(refer to OP)	(refer to OP)	1	1. Engagements involving the Arctic. 2. Innovative solutions 3. Existing energy projects	• Goal 5, *Promote Equity and Energy Justice*
AITO	2,500	2,608	1	1. AITO strategy is focused on answering common questions, including: • ***Mission:*** *How can we better apply AI investments to address the Department's missions and policies (e.g., equity, energy justice, climate resilience, and cyber)?* • ***Investments:*** *How do we optimize DOE AI investments for impact?* • ***Cybersecurity:*** *How can we support the development and deployment of AI as a force multiplier for DOE cyber strategy?* • ***Complex Problem Solving:*** *Are we strategically planning to use AI to mitigate risks and solve complex challenges – mainly where there are no data sets (e.g., explosives, cyber, and nuclear)?*	• Goal 3, *Advance Science Discovery and National Laboratory Innovation* • Goal 7, *Operational Excellence*

[95] FY 2023 Budget in Brief (energy.gov)

[96] FY 2023 Budget in Brief (energy.gov)

[97] FY 2023 Budget in Brief (energy.gov), page 99: "Office of Policy (OP): Funding supports performance of priority analyses and policy work across the Department's activities, focused on technology; infrastructure; state, local, and tribal activities; energy jobs, and supports the Arctic Energy Office."

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
				• ***Emerging AI:*** *What are next-generation AI practices, and where are gaps in current investments versus mission needs?* • ***Leadership:*** *How do we better partner across communities to apply holistic synergies and international AI leadership?* **REFERNCE:** AITO Program Plan 11-10-2021.pdf (energy.gov)	
ARPA-E	427,000	700,150	53	ARPA-E Exploratory Topics are developed through the FOAs, and include: 1. Exploratory Topic A: Extremely Durable Concretes and Cementitious Materials 2. Exploratory Topic B: Downhole Tools to Enable Enhanced Geothermal Systems 3. Exploratory Topic C: Leveraging Innovations Supporting Nuclear Energy 4. Exploratory Topic D: Diagnostic Resource Teams to Support the Validation of Potentially Transformative Fusion-Energy Concepts 5. Exploratory Topic F: High Value Methane Pyrolysis 6. Exploratory Topics G & T: Supporting Entrepreneurial Energy Discoveries 7. Exploratory Topic H: Establishing Validation Sites for Field-Level Emissions	Goal 3, *Advance Science Discovery and National Laboratory Innovation*

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
				Quantification of Agricultural Bioenergy Feedstock Production 8. Exploratory Topic I: Electricity System Models for Carbon Capture Resources 9. Exploratory Topic J: Biotechnologies to Ensure a Robust Supply of Critical Materials for Clean Energy 10. Exploratory Topic K: Recycle Underutilized Solids to Energy 11. Exploratory Topic L: Insulating Nanofluids and Solids to Upgrade our Large Aging Transformer Equipment 12. Exploratory Topic M: Mining Incinerated Disposal Ash Streams 13. Exploratory Topic N: Waste into X 14. Exploratory Topic O: Direct Removal of Carbon Dioxide from Oceanwater 15. Exploratory Topic P: Direct Removal of Carbon Dioxide from Ambient Air 16. Exploratory Topic Q: Connecting Aviation By Lighter Electric Systems 17. Exploratory Topic R: Lowering CO_2: Models to Optimize Train Infrastructure, Vehicles, and Energy Storage 18. Exploratory Topic S: Topology Optimization and Additive Manufacturing for Performance Enhancement of High	

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
				Temperature and High Pressure Heat Exchangers 19. Exploratory Topic U: Sulfur Hexafluoride (SF_6)-Free Routes for Electrical Equipment	
AU	206,320	215,539	32	1. Comprehensive Epidemiologic Data Resource (CEDR) System 2. Computerized Accident/Incident Reporting System (CAIRS) 3. DOE OPEXShare Lessons Learned database 4. Fire Protection 5. Occurrence Reporting and Processing System (ORPS) 6. Radiation Exposure Monitoring System (REMS) 7. Radiological Source Registry and Tracking (RSRT) 8. Safety Basis Information System (SBIS) 9. Suspect/Counterfeit and Defective Items	• Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability* • Goal 7, *Operational Excellence*
BPA	[98]self-financed and receives no direct annual	[99]self-financed and receives no direct annual	321	1. Bonneville Power Administration (BPA) has created a Strategic Plan centered on what BPA intends to do in the near term to deliver on their public responsibilities. This	Goal 2, *Strengthen the Nation's Energy Security, Resiliency,*

[98] FY 2023 Budget in Brief (energy.gov)

[99] FY 2023 Budget in Brief (energy.gov)

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
	appropriations from Congress	appropriations from Congress		strategic plan with wide input from the region. This strategic plan is updated with a Strategic Progress Update. 2. BPA also conducts an Integrated Program Review (IPR), which plays a significant role in BPA's overall financial planning process. It provides the public an opportunity to review and comment on BPA's spending levels for its capital and expense programs before establishing them in rate cases. **BACKGROUND:** BPA incorporates program plans in 4 areas: • Power • Transmission • Energy Efficiency • Environment, Fish & Wildlife The development of future data requires the forecast of revenues, expenses and investment as detailed in DOE Order RA 6120-2.	*Affordability, and Reliability*
CESER	364,506	444,322	15	1. CESER Electromagnetic Pulse (EMP) Activities 2. Cybersecurity for Energy Delivery Systems Research and Development 3. Cybersecurity Testing for Resilient Industrial Control Systems 4. Cybersecurity for the Operational Technology Environment (CyOTE) 5. Department of Energy CyberForce Program	Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability*

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
				6. Clean Energy Cybersecurity Accelerator Program	
CF	53,590	62,283	52	1. Finance & Accounting • Prepares the Department's consolidated financial statements, Agency Financial Report, and other managerial reports. • Leads the Department's internal controls, fraud risk management, and payment integrity programs. • Delivers timely and reliable financial management reporting and analysis. 2. Financial Policy and Audit Resolution • Provides policy guidance and support to Departmental offices on audit resolution, coordination, and follow-up. 3. Budget Formulation & Execution • Overall planning and implementation for budget formulation, analysis, execution, and evaluation. • Supports development and management of the Department's Agency Performance Report, Strategic Plan, and associated evaluation of progress of goals. • Specialized analysis and prioritization of Departmental resources for the Future-Years Energy Program (FYEP)	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 5, *Promote Equity and Energy Justice* • Goal 7, *Operational Excellence*

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
				and other strategic analysis of budget resources. 4. Corporate Business Systems • Provides qualified Information Technology project management support. • Oversees completion of internal and external CF Information Technology reporting.	
CI	5,000	7,142	3	1. Serving as a central point of contact for interactions on congressional matters, the congressional affairs team offers expertise in coordinating and directing the legislative programs of the Department, as well as the significant relationships between Departmental officials and Members of Congress. 2. The Office of Intergovernmental and External Affairs (IGEA) serves as the Departmental interface for state, tribal and local governments to ensure easy and timely access to relevant programs, technological assistance, funding opportunities and other DOE resources.	Goal 5, *Promote Equity and Energy Justice*
EA	79,070	85,427	14	1. Appraisal Process Protocols provide an overview of the general process that applies to all of the functions and activities conducted under the Office of Enterprise Assessments (EA) Independent Oversight Program. The protocols describe the principal activities used to evaluate the	Goal 7, *Operational Excellence*

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
				effectiveness of DOE line management organizations in implementing DOE policy and requirements, and the overall philosophy, approach, scope, and methods to be used when conducting appraisals. The three EA offices that are principally responsible for implementing the Independent Oversight Program – the Office of Safeguards and Security Assessments; the Office of Cyber Assessments; and the Office of Environment, Safety and Health Assessments – have developed and implemented office-specific procedures and techniques for accomplishing their respective responsibilities that complement the overall processes described in this document. These documents are also available on EA's web pages.	
ED	10,169	34,140	6	1. Equity in Energy – designed to expand the inclusion and participation of individuals in underserved communities, such as minorities, women, veterans, and formerly incarcerated persons, in all the programs of the Department of Energy and in the private energy sector. The Department's 200-Day Equity Assessment completed in 2021 pursuant to EO 13985[100] revealed a range of barriers underserved communities face when accessing DOE's procurement,	• Goal 5, *Promote Equity and Energy Justice* • Goal 7, *Operational Excellence*

[100] Executive Order (EO) 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
				funding, R&D, and deployment processes and activities. 2. Promoting Energy Justice – implementing Justice40 Initiative – a plan to deliver 40% of the overall benefits of climate investments to disadvantaged communities and inform equitable research, development, and deployment within the DOE. With the beta launch of the Energy Justice Dashboard (BETA), DOE is working to better understand how the Department's funding and investments are distributed to overburdened and underserved communities that have been left behind and unheard for too long. The Energy Justice Dashboard (BETA) is a pilot data visualization tool that displays DOE-specific investments in communities across the country experiencing disproportionately high and adverse economic, human health, climate-related, environmental, and other cumulative impacts. The Dashboard displays DOE cost data — grants, cooperative agreements, and contracts — from more than twenty-five DOE program offices, for the fiscal years 2019 to present. 3. DOE recently issued its first-ever Diversity, Equity, Inclusion, and Accessibility (DEIA) Strategic Plan, which outlines actions to strengthen the Department's efforts to recruit, hire, develop, promote, and retain our Nation's talent; remove inequitable	

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
				barriers to career and advancement opportunities; and build and sustain an inclusive and accessible work environment.	
EE	2,861,760	4,018,885	143	1. Outcome Evaluations 2. Impact Evaluations 3. In-Progress Peer Reviews Most of EERE's new investments directly support deployments or demonstrations of technologies that show viable pathways for achieving EERE's five programmatic priorities: • Decarbonizing the electricity sector. • Decarbonizing transportation across all modes: air, sea, rail, and road. • Decarbonizing the industrial sector. • Reducing the carbon footprint of buildings. • Decarbonizing the agriculture sector, specifically focused on the nexus between energy and water. EERE consists of several offices that support EERE's mission: **Energy Efficiency** • Advanced Manufacturing • Buildings • Federal Energy Management • Weatherization and Intergovernmental	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 3, *Advance Science Discovery and National Laboratory Innovation* • Goal 5, *Promote Equity and Energy Justice*

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
				Renewable Power • Geothermal • Solar • Wind • Water **Sustainable Transportation** • Bioenergy • Hydrogen and Fuel Cells • Vehicles 4. The M&O Contractor for the National Renewable Energy Laboratory (NREL) is assessed against all elements of the SOW: Golden Reading Room: Other NREL Documents | Department of Energy **REFERENCE:** Downloads of EERE outcome evaluation reports can be found in the EERE Evaluation Library.	
EIA	126,800	144,480	259	1. Petroleum & Other Liquids a. This Week in Petroleum b. Weekly Petroleum Status Report 2. Natural Gas	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 5, *Promote Equity and Energy Justice*

DOE Element	[95]FY22 Annualized CR Final ($K)	[96]FY23 Request ($K)	# of Staff (Fed)	Applicable Evaluations, Studies, Research, and Analyses	FY22-26 Strategic Goal(s) (DRAFT)
				a. Weekly Natural Gas Storage Report b. Natural Gas Weekly Update 3. Electricity a. Electric Power Monthly b. Electricity Data Browser 4. Consumption & Efficiency a. Residential Energy Consumption Survey (RECS) b. Commercial Buildings Energy Consumption Survey (CBECS) 5. Coal a. Quarterly Coal Report b. Coal Data Browser 6. Renewable & Alternative Fuels a. Alternative Fuel Vehicle Browser 7. Nuclear & Uranium a. Daily Status of Nuclear Outages 8. Total Energy a. Monthly Energy Review	

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				b. Annual Energy Review 9. Analysis & Projects Short-Term Energy Outlook Annual Energy Outlook International Energy Outlook 10. Markets & Finance a. Market Prices and Uncertainty Report b. Energy & Financial Markets: What Drives Crude Oil Prices? 11. Environment a. U.S. Energy-Related Carbon Dioxide Emissions b. Energy-Related Carbon Dioxide Emissions at the State Level, through 2018 12. Energy Disruptions a. Energy Disruptions 13. U.S. States a. State Energy Data System (SEDS)	

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				14. Maps a. U.S. Energy Atlas b. U.S. Energy Mapping System c. Gulf of Mexico 15. International a. International Energy Statistics 16. Regional Dashboards & Data a. New England Dashboard b. Southern California Daily Energy Report c. Energy Disruptions **BACKGROUND:** The U.S. Energy Information Administration (EIA) is committed to enhancing the value of its free and open data by making it available through an Application Programming Interface (API) and open data tools to better serve our customers. The data in the API is also available in bulk file, in Excel via the add-in, in Google Sheets via an add-on, and via widgets that embed interactive data visualizations of EIA data on any website. By making EIA data available in machine-readable formats, the creativity in the private, the non-profit, and the public sectors can be harnessed to find new ways to innovate and create value-added services powered by public data.	

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				Currently, EIA's API contains the following main data sets: • Hourly electricity operating data, including actual and forecast demand, net generation, and the power flowing between electric systems • 408,000 electricity series organized into 29,000 categories • 30,000 State Energy Data System series organized into 600 categories • 115,052 petroleum series and associated categories • 34,790 U.S. crude imports series and associated categories • 11,989 natural gas series and associated categories • 132,331 coal series and associated categories • 3,872 Short-Term Energy Outlook series and associated categories • 368,466 Annual Energy Outlook series and associated categories • 92,836 International energy series The EIA API is offered as a free public service, although registration is required.	
EM	7,586,200	8,060,202	213	1. EM annual performance results can be found in the Department of Energy Annual	• Goal 2, *Strengthen the Nation's Energy Security, Resiliency,*

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				Performance Reports. EM manages cleanup contracts at the following sites: • Brookhaven National Laboratory (https://www.bnl.gov/world/) • Energy Technology Engineering Center (https://www.etec.energy.gov/) • Hanford Office of River Protection (https://hanford.gov/page.cfm/orp) • Hanford Richland Operations Office (https://www.hanford.gov/page.cfm/RL) • Idaho Operations Office (https://www.energy.gov/ne/nuclear-facility-operations/idaho-operations-office) • Lawrence Livermore National Laboratory (https://www.llnl.gov/llnl_search/site/cleanup) • Los Alamos Field Office (https://www.energy.gov/em-la/environmental-management-los-alamos-field-office) • Moab UMTRA Project (https://www.gjem.energy.gov/) • Nevada National Security Site (https://www.nnss.gov/pages/about.html) • Oak Ridge (https://www.emcbc.doe.gov/seb/orrcc/) • Paducah (https://www.energy.gov/pppo/paducah-site) • Portsmouth (https://www.energy.gov/pppo/portsmouth-site)	*Affordability, and Reliability* • Goal 3, *Advance Science Discovery and National Laboratory Innovation* • Goal 5, *Promote Equity and Energy Justice* • Goal 6, *Advance Clean-Up of Radioactive and Chemical Waste*

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				• Sandia National Laboratory (https://www.sandia.gov/) • Savannah River Site (https://www.srs.gov/general/srs-home.html) • Separations Process Research Unit (SPRU) (https://www.spru.energy.gov/) • West Valley Demonstration Project (https://www.wv.doe.gov/) 2. EM manages cleanup at the following two sites through M&O Contracts: • Savannah River Site (EM Operated in conjunction with NNSA) • Waste Isolation Pilot Plant (WIPP) 3. EM also manages a national laboratory through an M&O Contract: • Savannah River National Laboratory, which is the DOE Office of Environmental Management (EM) national laboratory, and its resources are used to assist in the cleanup of the Cold War legacy waste for which EM is accountable. **BACKGROUND:** The Savannah River National Laboratory Policy Office (as known as the EM Laboratory Policy Office (EM LPO) sponsors and coordinates the involvement of national laboratories in support of the EM mission activities, in accordance with the EM	

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				National Laboratory Governance Framework for the Savannah River National Laboratory (SRNL), which includes the charter for the EM National Laboratory Network (EMNLN). The EM LPO leads oversight and management of SRNL in partnership with the National Nuclear Security Agency (NNSA) Office of Policy with support from the EM and NNSA Savannah River Site/Field Offices.	
FECM	750,000	893,160	90	1. FE follows a Site-Specific approach to evaluate its M&O contractors that uses detailed performance criteria. FE's objective performance criteria are defined based on quantifiable metrics and performance targets48 performance goals are established in the overarching M&O contract for the Strategic Petroleum Reserve. The Available Award Fee shall be established considering the level of complexity, difficulty, cost effectiveness, and risk associated with specific objectives/incentives defined in the Performance Evaluation and Measurement Plan (PEMP). The Performance Evaluation and Measurement Plan(s) sets out the criteria upon which the Contractor will be evaluated relating to any technical, schedule, management, and/or cost objectives selected for evaluation. These criteria are generally objective, but may also include subjective criteria.	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability* • Goal 5, *Promote Equity and Energy Justice*

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				BACKGROUND: The Office of Fossil Energy and Carbon Management (FECM) manages the Strategic Petroleum Reserve Office (SPRO) M&O Contract. The Strategic Petroleum Reserve (SPR), the world's largest supply of emergency crude oil, consisting of salt caverns storing crude oil in Texas and Louisiana. This was established primarily to reduce the impact of disruptions in supplies of petroleum products and to carry out obligations of the United States under the international energy program.	
GC	35,000	43,722	6	1. The Deputy General Counsel for Administration directs, manages, supervises and coordinates the activities and functions assigned to the following offices: • Assistant General Counsel for Ethics and Personnel Law • Associate General Counsel for Fiscal and Information Law 2. The Deputy General Counsel for Litigation, Regulation and Enforcement directs, manages, supervises and coordinates the activities and functions assigned to the following Assistant General Counsels responsible for: • Litigation • Enforcement	• Goal 5, *Promote Equity and Energy Justice* • Goal 7, *Operational Excellence*

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				• Legislation, Regulation, and Energy Efficiency 3. The Deputy General Counsel for Environment and Compliance directs, manages, supervises and coordinates the activities and functions assigned to the following Assistant General Counsels responsible for: • Environment • International and National Security Programs • NEPA Policy and Compliance 4. The Deputy General Counsel for Transactions, Technology, & Contractor Human Resources directs, manages, supervises and coordinates the activities and functions assigned to the following Assistant General Counsels responsible for: • Procurement and Financial Assistance • Technology Transfer and Intellectual Property • Contractor Human Resources 5. The Deputy General Counsel for Energy Policy directs, manages, supervises and coordinates the activities and functions	

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				assigned to the following Assistant General Counsels responsible for: • Civilian Nuclear Programs • Standard Contract Management • Electricity and Fossil Energy 6. Office of the Chief Counsel for Loans Programs 7. Office of the Chief Counsel for Loans Programs 8. Office of the Chief Counsel for ARPA-E	
GDO	0	90,221	12	GDO's work within the Transmission Development, Power Generation Assistance, and Grid Modernization Deployment Divisions will leverage unique authorities to drive transmission investment, improve resource adequacy by maintaining and investing in critical generation facilities, improve transmission and distribution system resilience, and provide access to technical assistance and national laboratory expertise, modeling, and analytical capabilities.	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability*
HC	24,918	35,366	29	1. Human Capital Assessments and Compliance 2. Employee and Labor Relations, Policy, and	• Goal 5, *Promote Equity and Energy Justice* • Goal 7, *Operational*

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				Oversight 3. Office of Corporate Services (HC-10): https://www.energy.gov/hc/office-corporate-services-hc-10 4. Talent Management 5. Corporate Executive Management **REFERENCE:** DOE Strategic Human Capital Plan | Department of Energy	*Excellence*
HG	4,262	4,477	10	Over the years, OHA has heard appeals from a variety of DOE determinations, including those related: 1. Economic oil regulations 2. Freedom of Information Act (FOIA) and Privacy Act appeals 3. Whistleblower matters 4. Exceptions and special redress 5. Dispute resolutions 6. Department's Alternative Fuel Transportation Program 7. Physician panel reviews of DOE worker occupational illness claims 8. Payment-equal-to-taxes claims under the Nuclear Waste Policy Act of 1982 9. Civil penalties imposed for violations of DOE's worker safety and health rule 10. Equity interests in production from Elk Hills Oil Field, formerly Naval Petroleum Reserve No. 1.	Goal 7, *Operational Excellence*

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IA	26,825	62,141	17	1. International Energy Policy, including: • Regional and country-specific energy policies and practices, technology developments, and market conditions in Africa, the Americas, Asia, Europe, Eurasia, and the Middle East • Bilateral and multilateral energy treaties and obligations • International cooperation in science and technology • Regional and country-specific opportunities and barriers to energy markets and services • Trade and investment trends in the global energy economy • International energy partnerships, commitments, and agreements • Clean energy policy, technology, and legislation 2. Technology Development and Deployment, including: • Research, development, and deployment (RD&D) strategies • Technology research portfolios and budgets • Energy end-use technologies and standards, including efficiency in buildings, transportation, and industry • Energy supply technologies and standards, including fossil fuels, nuclear power, and renewable energy	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 3, *Advance Science Discovery and National Laboratory Innovation*

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				• Technical and non-technical barriers to technology commercialization and deployment	
IE	22,000	150,039	2	1. IE leverages public-private partnerships, inter- and intra-governmental coordination, and government-to-government partnerships to maximize the return on investments in the future of Native American communities, and annual Program Review meetings to provide an opportunity for tribes and Alaska Native villages to share their successes and best practices. **BACKGROUND:** The Office of Indian Energy Policy and Programs (IE) is authorized to fund and implement a variety of programmatic activities that assist American Indian Tribes and Alaska Native villages with energy development, capacity building, energy cost reduction, and electrification of Indian lands and homes. IE works with American Indian Tribes and Alaska Natives to maximize the value of their energy resources through: • Facilitation of energy development • Education and training • Technical assistance • Funding	Goal 5, *Promote Equity and Energy Justice*
IG	57,739	106,808	25	1. OIG audit and inspection reports can be found here: https://www.energy.gov/ig/calendar-year-reports	Goal 7, *Operational Excellence*

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IM	140,200	233,731	30	1. Responsible for the management of the Federal Information Technology Acquisition Reform Act (FITARA) program, DOE IT Governance (i.e., Cyber Council), the Enterprise IT Project Management Office (ePMO), DOE Section 508 Program, DOE IT Budget and Capital Planning and Investment Control (CPIC), IT Policy, Paperwork Reduction Act, and Government-wide IT initiatives. This direction includes enterprise-wide compliance with external laws, regulations, policies, and standards. • FY 2018-2022 Information Resource Management (IRM) Strategy | Department of Energy • U.S. Department of Energy Federal Information Technology Acquisition Reform Act (FITARA) Common Baseline Implementation Plan and Self-Assessment | Department of Energy • Instructions for Performing the FY 2023 Agency IT Portfolio Summary (AITPS) • Instructions for Performing the FY 2023 Agency IT Portfolio Details (AITPD) Submission	Goal 7, *Operational Excellence*
IN	N/A	N/A	26	IN protects vital national security information and technologies, representing intellectual property of incalculable value. IN's contribution to national security is the ability to leverage the Department's unmatched scientific and	Goal 4, *Ensure America's Nuclear Security by Harnessing Unparalleled Science*

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				technological expertise in support of policymakers as well as national security missions in defense, homeland security, cyber security, intelligence, and energy security. IN is a member of the U.S. Intelligence Community.	*and Technology Capabilities*
LM	163,059	196,146	15	1. The LM quarterly Program Updates highlight the key initiatives throughout the entire organization including the specific contributions and accomplishments of individuals responsible for LM's continued success. LM advances in each of the six goals are represented: • Goal 1 – Protect human health and the environment. • Goal 2 – Preserve, protect, and share records and information. • Goal 3 – Safeguard former contractor workers' retirement benefits. • Goal 4 – Sustainably manage and optimize the use of land and assets. • Goal 5 – Sustain management excellence. • Goal 6 – Engage the public, governments, and interested parties	• Goal 5, *Promote Equity and Energy Justice* • Goal 6, *Advance Clean-Up of Radioactive and Chemical Waste*
LP	36,000	179,866	7	1. Once LPO closes a loan or loan guarantee, projects are monitored and evaluated throughout project development, construction, commissioning, and operation until the loan has been repaid in full. LPO's	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 5, *Promote*

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				team of financial, technical, environmental, and legal professionals is dedicated to advancing an all-of-the-above energy strategy that avoids, reduces, or sequesters greenhouse gases. 2. After financial close or first funding, responsibility for managing a project transfers from the LPO Origination Division to the Portfolio Management Division (PMD). PMD provides ongoing monitoring and oversight to ensure that the construction and completion phase of a project is executed in accordance with the terms and conditions of the loan documents. PMD is also responsible for maintaining compliance with the loan documents terms and conditions after project completion. Some of PMD's responsibilities include, but are not limited to, monitoring borrower activities to ensure compliance with the loan documents; monitoring and analyzing project costs, schedule, and performance quality; and review borrowers requests for amendments, consents, or waivers to the loan documents.	*Equity and Energy Justice*
MA	54,358	86,317	64	1. Aviation Management 2. Executive Secretariat 3. Sustainability Performance 4. Energy Reduction at HQ 5. Real Estate 6. Facilities and Infrastructure	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 5, *Promote Equity and Energy Justice*

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				7. Federal Advisory Committee Management 8. Freedom of Information Act (FOIA) 9. Personal Property 10. Acquisition and Financial Assistance 11. Certifications and Professional Development	• Goal 7, *Operational Excellence*
MESC	$0	27,424	4	DOE Bipartisan Infrastructure Law Provisions led by the Office of Manufacturing and Energy Supply Chains include: • Advanced Energy Manufacturing and Recycling Grant Program • Battery and Critical Mineral Recycling - Retailers as Collection Points, and State and Local Programs • Battery Manufacturing and Recycling Grants • Battery Material Processing Grants • Energy Efficient Transformer Rebates • Extended Product System Rebates • Implementation Grants for Industrial Research and Assessment Centers • Industrial Assessment Centers • Rare Earth Elements Demonstration Facility	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability* • Goal 3, *Advance Science Discovery and National Laboratory Innovation* • Goal 4, *Ensure America's Nuclear Security by Harnessing Unparalleled Science and*

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				• State Manufacturing Leadership	*Technology Capabilities*
NE	1,507,600	1,675,060	42	1. NE manages the Idaho National Laboratory (INL) M&O Contract. 43 INL is the nation's leading center for nuclear energy research and development.	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability* • Goal 5, *Promote Equity and Energy Justice* • Goal 6, *Advance Clean-Up of Radioactive and Chemical Waste*
NNSA	19,732,200	21,410,400	442	1. Every fiscal year, the NNSA completes an assessment of their management and operating (M&O) partners' effectiveness in meeting the performance expectations as established by NNSA in NNSA NAP 540-3. This assessment is based on an evaluation of the annual Performance Evaluation and Measurement Plans (PEMPs) linked to each NNSA site. NNSA performance assessments are documented annually in a Performance Evaluation Report (PER), and	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 3, *Advance Science Discovery and National Laboratory Innovation*

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				award fee amounts are documented in a Fee Determination Memorandum. 2. In support of NNSA's major mission areas, the NNSA has established procedures to ensure that the planning, programming, budgeting, and evaluation (PPBE) activities of the NNSA comply with sound financial management principles, specifically to assess and determine whether progress has been made toward achieving identified performance measures at multiple levels within the NNSA. Major missions of the National Nuclear Security Administration include • Maintaining the Stockpile - NNSA ensures the United States maintains a safe, secure, and reliable nuclear stockpile through the application of unparalleled science, technology, engineering, and manufacturing. • Nonproliferation - NNSA works to prevent nuclear weapon proliferation and reduce the threat of nuclear and radiological terrorism around the world. The agency endeavors to prevent the development of nuclear weapons and the spread of materials or knowledge needed to create them. • Counter-terrorism and Counter-proliferation - NNSA plays a key role in preventing, countering, and responding to a terrorist or	• Goal 4, *Ensure America's Nuclear Security by Harnessing Unparalleled Science and Technology Capabilities* • Goal 5, *Promote Equity and Energy Justice* • Goal 7, *Operational Excellence*

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				other adversary with a nuclear or radiological device. • Powering the Nuclear Navy - NNSA provides militarily effective nuclear propulsion plants and ensures their safe, reliable, and long-lived operation. **BACKGROUND:** The NNSA is responsible for eight (8) Government Owned, Contractor Operated (GOCO) facilities and laboratories, including three (3) FFRDC national laboratories; all supported by M&O Contracts: • Kansas City National Security Complex (KCP) • Lawrence Livermore National Laboratory (LLNL)(FFRDC) • Los Alamos National Laboratory (LANL)(FFRDC)(also supported by the Office of Environmental Management) • Savannah River Site (SRS)(FFRDC)(Operated in conjunction with the Office of Environmental Management (EM)) • Naval Nuclear Laboratory • Nevada National Security Site (NNSS) • NNSA Production Office (NPO) Pantex Plant and Y-12 National Security Complex • Sandia National Laboratory (SNL)	
OCED	$0	214,052	20	Scope of OCED in the Bipartisan Infrastructure Law includes:	• Goal 1, *Drive U.S. Energy Innovation and Deployment on*

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				• Advanced Reactor Demonstration Program • Carbon Capture Large-Scale Pilot Projects • Carbon Capture Demonstration Projects Program • Clean Energy Demonstration Program on Current and Former Mine Land • Energy Improvement in Rural and Remote Areas • Energy Storage Demonstration and Pilot Grants • Industrial Emissions Demonstration Projects • Long Duration Demonstration Initiative and Joint Program • Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency • Regional Clean Hydrogen Hubs	*a Path to Net-Zero Emissions by 2050* • Goal 3, *Advance Science Discovery and National Laboratory Innovation* • Goal 5, *Promote Equity and Energy Justice*
OE	211,720	297,386	19	Most of OE's efforts today are being conducted through the Grid Modernization Initiative, as DOE is conducting multiple studies: • National Transmission Planning Study (NTP) to identify transmission that will provide broad-scale benefits to electric customers; inform regional and interregional transmission planning processes; and identify interregional and national strategies to accelerate	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability*

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				decarbonization while maintaining system reliability. • Formally known as the National Electric Transmission Congestion Study, the Transmission Needs Study will identify high-priority national transmission needs and provide information about capacity constraints and congestion on the nation's electric transmission grid. Where previous Congestion Studies were limited to consider only historic congestion, this study considers both historic and anticipated future transmission needs driven by the increase in renewables, and transportation and building electrification. • To inform the integration of offshore wind (OSW), DOE will conduct supportive analyses to identify transmission pathways and develop transmission strategies to integrate OSW, consistent with the Administration's goal of 30 gigawatts of OSW by 2030 and to set the stage for a more ambitious 2050 OSW deployment target. In November 2021, DOE launched the Atlantic Offshore Wind Transmission Study, a two-year study led by National Renewable Energy Laboratory (NREL) and Pacific Northwest National Laboratory	• Goal 5, *Promote Equity and Energy Justice*

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				(PNNL). Through robust engagement with diversified stakeholder groups, this work evaluates coordinated transmission solutions to enable OSW energy deployment along the U.S. Atlantic Coast, addressing gaps in existing analyses. OE program evaluations/peer reviews focus on: 1. Transformer Resilience and Advanced Components 2. Transmission Reliability 3. Advanced Grid Modeling 4. Energy Storage and Power Electronics 5. Advanced Cables and Conductors (including high temperature superconductivity) 6. High Temperature Superconductivity 7. Renewable and Distributed Systems Integration (RDSI) 8. Visualization and Controls **Reviews prior to 2015:** https://www.energy.gov/oe/reviews-archived	
OP	7,000	31,073	4	• Office of Technology Policy focus areas include: ○ Energy Innovation ○ Energy Earthshots Initiative ○ National Climate Strategy	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050*

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				• Office of Deployment and Infrastructure Policy focus areas include:
				  ○ Supply Chains
				  ○ Clean Energy Reliability
				• Office of State, Local, and Tribal Policy focus areas include:
				  ○ Communities LEAP
				  ○ Place-based Strategy
				  ○ Justice40
				  ○ Cross-DOE Collaboration
				• Office of Energy Jobs focus areas include:
				  ○ **U.S. Energy and Employment Report**
				  ○ **DOE Labor Working Group** – The DOE Labor Working Group is a forum for DOE and labor unions to engage on key energy topics.
					• Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability*
					• Goal 4, *Ensure America's Nuclear Security by Harnessing Unparalleled Science and Technology Capabilities*
					• Goal 5, *Promote Equity and Energy Justice*

OTT	17,639	21,558	10	1. OTT conducts data management and analysis, evidence-based impact evaluations, and stakeholder engagement. The office also oversees two major DOE initiatives, the Technology Commercialization Fund (TCF) and the Lab Partnering Service 2. OTT also compiles market analysis reports, technology roadmaps, and other analyses of technology-market fit and pathways to commercialization from across the Department of Energy, which OTT has compiled to highlight the most useful ones.	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability* • Goal 3, *Advance Science Discovery and National*

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					Laboratory Innovation • Goal 5, *Promote Equity and Energy Justice*
PA	4,000	5,936	2	1. Identify opportunities to develop new content and share existing content about DOE's portfolio. 2. Monitor media, legislative, and stakeholder communications to advise senior agency officials about emerging news and public affairs issues and concerns. https://www.energy.gov/newsroom	Goal 7, *Operational Excellence*
PM	13,000	13,550	9	1. The Office of Project Management (PM) provides a monthly assessment of DOE's portfolio of capital assets projects, which is summarized in the monthly Project Dashboard report. This report assesses all active projects with an established performance baseline, including scope, cost, and schedule. Based on current performance: • GREEN projects are expected to meet their performance baseline • YELLOW projects are at-risk of breaching their performance baselines • RED projects are expected to breach their performance baselines	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability* • Goal 3, *Advance Science Discovery and National Laboratory Innovation* • Goal 4, *Ensure America's Nuclear*

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				For reference: August 2022 Project Dashboard | Department of Energy 2. Root Cause Analysis Report (RCA) 2008 - The Root Cause Analysis report identifies the key elements necessary to make the meaningful changes required to consistently deliver projects within cost and schedule performance parameters. 3. Corrective Action Plan (CAP) 2008 - The Root Cause Analysis Corrective Action Plan ensures that the root causes identified in the Root Cause Analysis report (above) are addressed with meaningful and lasting solutions in order to improve contract and project management performance. 4. RCA/CAP Closure Report of 2011 - This RCA/CAP Closure Report presents a status of the Department's initiatives to address the most significant issues and their corresponding root causes and officially closes out most of the issues and root causes. 5. Overall Contract and Project Management Improvement Performance Metrics and Targets: • FY 2008 • FY 2009 • FY 2010 • FY 2011 • FY 2012	*Security by Harnessing Unparalleled Science and Technology Capabilities* • Goal 6, *Advance Clean-Up of Radioactive and Chemical Waste* • Goal 7, *Operational Excellence*

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				• FY 2013 • FY 2014 • FY 2015 • FY 2016 • FY 2017 • FY 2018 • FY 2019 • FY 2020	
SB	3,386	3,825	4	1. Every year, the Small Business Administration (SBA) works with each agency to set their prime and subcontracting goals and their grades are based on the agreed upon goals. Each federal agency has a different small business contracting goal, negotiated annually in consultation with the SBA. The SBA ensures that all the goals meet the 23 percent target for the federal government as well as the socio-economic goals established by statute. The latest SBA Scorecard can be found here: DOE FY 2020 Small Business Procurement Scorecard. 2. SBDU Annual Reports provide a comprehensive review of DOE performance in engaging small businesses. These reports contain a broad overview of small business prime	• Goal 5, *Promote Equity and Energy Justice* • Goal 7, *Operational Excellence*

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				contracts, first-tier Management and Operating (M&O) Subcontracts, and other subcontracts to small business	
SC	7,026,000	7,799,211	114	1. Technical, cost, schedule, and management peer reviews ("Lehman" reviews) of SC construction projects and large experimental equipment 2. Laboratory Appraisals of: • Ames Laboratory in Ames, Iowa (https://www.ameslab.gov/) • Argonne National Laboratory in Argonne, Illinois (https://www.anl.gov/) • Brookhaven National Laboratory in Upton, New York (https://www.bnl.gov/world/) • Fermi National Accelerator Laboratory in Batavia, Illinois (https://www.fnal.gov/) • Lawrence Berkeley National Laboratory in Berkeley, California (https://www.lbl.gov/) • Oak Ridge National Laboratory, in Oak Ridge, Tennessee (https://www.ornl.gov/) • Pacific Northwest National Laboratory in Richland, Washington (https://www.pnnl.gov/) • Princeton Plasma Physics Laboratory in Princeton, New Jersey (https://www.pppl.gov/)	• Goal 3, *Advance Science Discovery and National Laboratory Innovation* • Goal 5, *Promote Equity and Energy Justice*

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				• SLAC National Accelerator Laboratory in Stanford, California (https://www6.slac.stanford.edu/) • Thomas Jefferson National Accelerator Facility in Newport News, Virginia (https://www.jlab.org/) SC administers research through six major program offices, spanning a broad range of disciplines: • Advanced Scientific Computing Research, • Basic Energy Sciences, • Biological and Environmental Research, • Fusion Energy Sciences, • High Energy Physics, and, • Nuclear Physics	
SCEP	$0	726,897	1	Programs led by the Office of State and Community Energy Programs include: • Building, Training, and Assessment Centers • Career Skills Training • Energy Auditor Training Grant Program • Energy Efficiency Materials Pilot Program • Energy Efficiency Revolving Loan Fund Capitalization Grant Program • Energy Efficiency and Conservation Block Grant Program • Grants for Energy Efficiency Improvements and Renewable Improvements at Public School Facilities • State Energy Program • Weatherization Assistance Program	• Goal 1, *Drive U.S. Energy Innovation and Deployment on a Path to Net-Zero Emissions by 2050* • Goal 3, *Advance Science Discovery and National Laboratory Innovation* • Goal 5, *Promote Equity and Energy Justice*

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SEPA	0	0	4	1. The Southeastern Power Administration (SEPA) constantly evaluates and works to improve execution of their program. This includes evaluation of the workforce, facilities and operating systems management that support their functions. This includes awareness of overhead expenses associated with program execution and management of those expenses and their impact on power rates. Program reporting is via annual reports, which discusses program status and financial performance. **BACKGROUND:** The development of future data requires the forecast of revenues, expenses and investment as detailed in DOE Order RA 6120-2.	Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability*
SWPA	10,400	10,608	8	1. The SWPA announced its new Strategic Plan in October 2020. 71 This Strategic Plan, focused on their vision for SWPA both the short and long-term providing a pathway to future workforce development, operations, partnerships, and evolving services. This plan is coupled with an annual SWPA Performance Plan – including a Goal Overview. SWPA details performance in SWPA Annual Reports. **BACKGROUND:** The Southwestern Power Administration's (SWPA's) mission is to market and reliably deliver Federal hydroelectric power with preference to public	Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability*

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				bodies and cooperatives. As one of four Power Marketing Administrations in the United States, SWPA markets hydroelectric power in Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas from 24 U.S. Army Corps of Engineers multipurpose dams with a combined generating capacity of approximately 2,193 MW. The development of future data requires the forecast of revenues, expenses and investment as detailed in DOE Order RA 6120-2.	
WAPA	89,372	98,732	99	1. WAPA provides program status and reporting via annual reports. Status is based on objectives laid out in the WAPA Tactical Action Plan. WAPA has a created a website (called The Source), which offers a one-stop shop for financial and operational information. With the latest expansion below, WAPA partnered with customers to determine data elements and information that would be most helpful to understand cost drivers and expenditures. 2. Results are also released by quarter, providing performance data based on established goals. An example report is linked here. **BACKGROUND:** The Western Area Power Administration's (WAPA) mission to market and deliver clean, renewable, reliable, cost-	Goal 2, *Strengthen the Nation's Energy Security, Resiliency, Affordability, and Reliability*

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				based federal hydroelectric power and related services. The development of future data requires the forecast of revenues, expenses and investment as detailed in DOE Order RA 6120-2.	