# FEDERAL ENERGY REGULATORY COMMISSION




## FY 2021 CONGRESSIONAL JUSTIFICATION

**FY 2021 PERFORMANCE BUDGET REQUEST**

**FY 2020 ANNUAL PERFORMANCE PLAN**

**FY 2019 ANNUAL PERFORMANCE REPORT**

Chairman Neil Chatterjee

February 10, 2020

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# INTRODUCTION

## ABOUT THE FEDERAL ENERGY REGULATORY COMMISSION

### OVERVIEW

The Federal Energy Regulatory Commission (FERC or the Commission) is an independent agency that regulates the transmission and wholesale sale of electricity and natural gas in interstate commerce, as well as the transportation of oil by pipelines in interstate commerce. FERC also reviews proposals to build interstate natural gas pipelines, natural gas storage projects, and liquefied natural gas (LNG) terminals, and FERC licenses non-federal hydropower projects. Congress assigned these responsibilities to FERC in various laws enacted over nearly 100 years, such as the Federal Power Act, Public Utility Regulatory Policies Act, Natural Gas Act, Natural Gas Policy Act, and Interstate Commerce Act. More recently, as part of the Energy Policy Act of 2005, Congress gave FERC additional responsibilities to protect the reliability and cybersecurity of the bulk-power system through the establishment and enforcement of mandatory reliability standards, as well as additional authority to enforce FERC regulatory requirements through the imposition of civil penalties and other means.

While the Commission has many statutory responsibilities, there are areas outside its responsibilities which fall to other federal agencies or state public utility commissions. Some examples are outlined below.

| What FERC Does | What FERC Does Not Do |
|---|---|
| Regulate the transmission and wholesale sales of electricity in interstate commerce | Regulate retail electricity and natural gas sales to consumers |
| Review certain mergers and acquisitions and corporate transactions by electricity companies | Approve physical construction of electric generation facilities |
| Regulate the transmission and sale of natural gas for resale in interstate commerce | Regulate many activities of state and municipal power systems, federal power marketing agencies and most rural electric cooperatives |
| Regulate the transportation of oil by pipeline in interstate commerce | Regulate nuclear power plants |
| Approve the siting and abandonment of interstate natural gas pipelines and storage facilities | Issue State Water Quality Certificates |
| Review the siting application for electric transmission projects under limited circumstances | Oversee the construction of oil pipelines |
| Ensure the safe operation and reliability of proposed and operating LNG terminals | Abandonment of service as related to oil facilities |
| License and inspect private, municipal, and state hydroelectric projects | Mergers and acquisitions as related to natural gas and oil companies |
| Protect the reliability of the high voltage interstate transmission system through mandatory reliability standards | Responsibility for pipeline safety or for pipeline transportation on or across the Outer Continental Shelf |
| Monitor and investigate energy markets | Regulate of local distribution pipelines of natural gas |
| Enforce FERC regulatory requirements through imposition of civil penalties and other means | Development and operation of natural gas vehicles |
| Oversee environmental matters related to natural gas and hydroelectric projects and other matters | Reliability problems related to failures of local distribution facilities |
| Administer accounting and financial reporting regulations and conduct of regulated companies | Tree trimmings near local distribution power lines in residential neighborhoods |

## THE ORGANIZATION

FERC is composed of up to five commissioners who are appointed by the President of the United States with the advice and consent of the Senate. Commissioners serve staggered five-year terms and have an equal vote on the orders through which FERC acts. The President appoints one of the commissioners to be the chairman of FERC, the administrative head of the agency. FERC is a bipartisan body; no more than three commissioners may be of the same political party. To carry out its authorities, the Commission has approximately 1,465 staff that are organized into 12 offices. Commission staff are located primarily in the Washington, DC region, with several field offices across the country.

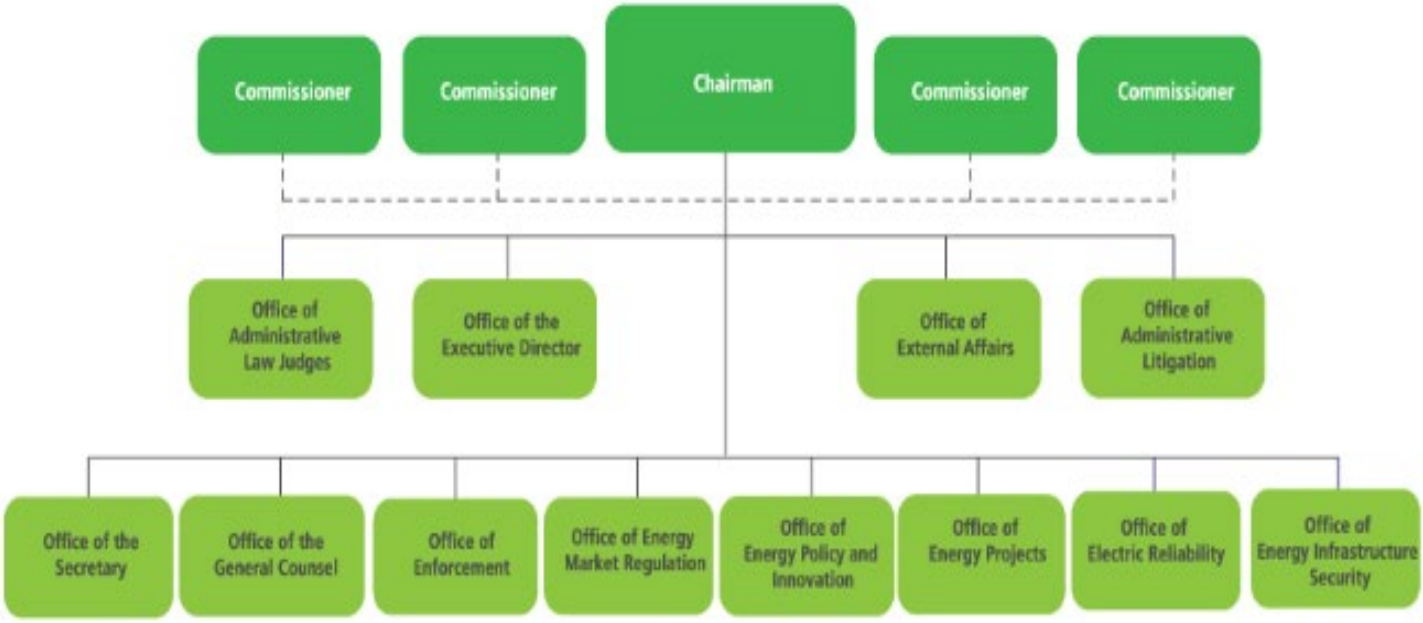
**Commissioner**
Vacant

**Commissioner**
Richard Glick

**Chairman**
Neil Chatterjee

**Commissioner**
Bernard L. McNamee

**Commissioner**
Vacant



## FY 2018 – 2022 STRATEGIC PLAN

### MISSION: ECONOMICALLY EFFICIENT, SAFE, RELIABLE, AND SECURE ENERGY FOR CONSUMERS

*Assist consumers in obtaining economically efficient, safe, reliable, and secure energy services at a reasonable cost through appropriate regulatory and market means, and collaborative efforts.*

### GOAL 1: ENSURE JUST AND REASONABLE RATES, TERMS, AND CONDITIONS

***Objective 1.1:*** *Establish Commission rules and policies that will result in just, reasonable, and not unduly discriminatory or preferential rates, terms, and conditions of jurisdictional service.*

***Objective 1.2:*** *Increase compliance with FERC rules; detect and deter market manipulation.*

### GOAL 2: PROMOTE SAFE, RELIABLE, AND SECURE INFRASTRUCTURE

***Objective 2.1:*** *Facilitate benefits to the nation through the review of natural gas and hydropower infrastructure proposals.*

***Objective 2.2:*** *Minimize risks to the public associated with FERC-jurisdictional energy infrastructure.*

### GOAL 3: MISSION SUPPORT THROUGH ORGANIZATIONAL EXCELLENCE

***Objective 3.1:*** *Manage resources effectively through an engaged workforce.*

***Objective 3.2:*** *Facilitate public trust and understanding of Commission activities by promoting transparency, open communication, and a high standard of ethics.*

*To read the full Strategic Plan, visit: https://www.ferc.gov/about/strat-docs/strat-plan.asp*

# THE COMMISSION'S FUNDING

## PROPOSED APPROPRIATION LANGUAGE

For necessary expenses of the Federal Energy Regulatory Commission to carry out the provisions of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including services as authorized by 5 U.S.C. 3109, the hire of passenger motor vehicles, and official reception and representation expenses not to exceed $3,000, $404,350,000, to remain available until expended: Provided, That notwithstanding any other provision of law, not to exceed $404,350,000 of revenues from fees and annual charges, and other services and collections in fiscal year 2021 shall be retained and used for necessary expenses in this account, and shall remain available until expended: Provided further, That the sum herein appropriated from the general fund shall be reduced as revenues are received during the fiscal year 2021 so as to result in a final fiscal year 2021 appropriation from the general fund estimated not more than $0.

## FULL COST RECOVERY

The Federal Energy Regulatory Commission recovers the full cost of its operations through annual charges and filing fees assessed on the industries it regulates as authorized by the Federal Power Act (FPA) and the Omnibus Budget Reconciliation Act of 1986. The Commission deposits this revenue into the Treasury as a direct offset to its appropriation, resulting in a net appropriation of zero.

| | FY 2019 Actual | FY 2020 Request | FY 2021 Request |
|---|---|---|---|
| **Appropriation** | $369,900,000 | $382,000,000 | $404,350,000 |
| **Offsetting Collections** | ($369,900,000) | ($382,000,000) | ($404,350,000) |
| **Net Appropriation** | $ - | $ - | $ - |

*Note: Numbers may not add up due to rounding*

## FY 2021 REQUEST SUMMARY

The Federal Energy Regulatory Commission requests an appropriation of $404,350,000 and 1,465 full-time equivalents (FTEs) to execute its mission in fiscal year (FY) 2021. This funding request is an increase of $22,350,000, or about 5.9 percent, above the FY 2020 Congressional Budget Request. The Commission's full funding requirement to meet base operating requirements is $395,276,500 and funding required for continuation of the headquarters building modernization effort is $9,073,500.

The Commission allocates 67% of its budget to directly cover personnel compensation costs of its employees on an annual basis. The Commission's request reflects an increase of $18.5 million or 7.3 percent above the FY 2020 Congressional Request level to provide the necessary resources to support cumulative increases in salaries and benefits. The 2021 budget estimate for personnel compensation accounts for the cumulative effect of the January 2019 pay raise. In addition, the 2021 budget estimate accounts for a 3.1% pay raise in January 2020 and a 1.0% pay raise in January 2021. Furthermore, the Commission's request for personnel compensation provides for a 1.0% increase in awards spending and a benefit cost increase due to the change in FERS agency contribution rates beginning October 2019.

The request also provides continued funding for program contracts associated with statutorily required workload associated with hydropower and natural gas infrastructure, including environmental reviews, public outreach, stakeholder engagement, construction oversight, and expert witness contractor assistance in the Commission's enforcement program. The 2021 budget includes increased funding to advance the Commission's Part 12 Inspection program and reviews of operational LNG facilities.

Additionally, the Commission's request includes $61.9 million in FY 2021 to support information technology (IT) investments. This is an increase of $13.8 million, or 28.7%, over the FY 2020 request level. This increase provides an additional $2.6 million related to IT investments for mission delivery; $1.4 million for IT investments for mission support systems; and $9.8 million to support IT infrastructure, security and management. The Commission's overall IT infrastructure must meet the demands and keep pace with the continual changes in the technology landscape; proactively monitor and mitigate emerging cybersecurity threats; and adhere to federal requirements. The Commission has made tremendous strides in modernizing its IT infrastructure and legacy dependent applications to better meet its mission mandated by Congress. However, many of the Commission's systems and applications are still relying on outdated legacy technologies and aging physical infrastructure that often are no longer supported by vendors, leaving the requisite skill sets and expertise to operate and maintain the legacy systems costly and difficult to find. Furthermore, the highly-customized nature of these outdated systems and applications makes any necessary enhancements expensive, cumbersome, slow to implement, and resource-intensive, resulting in a high total cost of ownership. Continued use of outdated IT systems and applications also significantly increases cybersecurity and timely mission delivery risks. The modernization successes from the last several years have resulted in a dramatic technology shift that has empowered the Commission by employing modern technology solutions to transform outdated legacy-based applications into more resilient, secure, and highly available cloud-based applications.

The Commission will continue its multi-year effort to update and modernize the Commission's infrastructure and core mission and support systems in FY 2021. By continuing to modernize and/or migrate outdated technology based systems and applications to cloud-based environments, the Commission will enhance access to real-time data for decision making, reduce operating and maintenance (O&M) costs, reduce time and resources required to make application changes and enhancements, and provide the ability to scale to meet increased demand loads such as public filing surges. Additionally, the number of security vulnerabilities that currently exist in these systems will be largely eliminated as they are moved to modern cloud-based technology platforms. By modernizing the Commission's IT portfolio using cloud platforms, the overall security posture, resiliency and availability of the FERC application portfolio will be improved. The use of cloud platforms increases the unfettered access to the Commission's applications. Further, the responsibility of on-going vulnerability remediation and patching will be transitioned to Federal Risk and Authorization Management Program (FedRAMP)-certified cloud platform vendors, which reduces the resources required to perform these tasks per application. This shifts the burden of having to invest in the technology and workforce to meet critical and dynamic security requirements and provides a best-in-class environment for the Commission and its stakeholders.

This budget request includes continued funding for a multi-year headquarters building modernization project. The Commission requests to fund $9.1 million in FY 2021 to cover construction costs for FERC headquarters. The Commission is required to execute this modernization project pursuant to current GSA and OMB space use policy. Congress approved a Prospectus for the ten-year lease option on the 888 First Street Building (FERC Headquarters). As part of the terms of the Prospectus, the Commission is required to consolidate within the FERC Headquarters building to reduce its overall space utilization by 12 percent, which will include relocating employees currently located at 1100 First Street back to FERC Headquarters. The new lease term commenced on September 30, 2015.

# FUNDING TABLES

## RESOURCES BY STRATEGIC GOALS AND OBJECTIVES

| Strategic Goal and Objectives (Dollars in thousands) | | FY 2019 Actual | FY 2020 Request | FY 2021 Request | Percent Change FY 2020 to FY 2021 |
|---|---|---|---|---|---|
| **Goal 1** | **Funding** | **$ 169,087** | **$ 178,547** | **$ 182,261** | **2.1%** |
| | **FTE** | **659** | **685** | **663** | **-3.3%** |
| **Objective 1.1** | | 129,685 | 138,191 | 141,058 | 2.1% |
| | | 510 | 532 | 531 | -0.2% |
| **Objective 1.2** | | 39,402 | 40,356 | 41,203 | 2.1% |
| | | 149 | 154 | 132 | -14.0% |
| **Goal 2** | **Funding** | **$ 128,603** | **$ 133,844** | **$ 142,757** | **6.7%** |
| | **FTE** | **474** | **492** | **501** | **1.9%** |
| **Objective 2.1** | | 68,513 | 70,636 | 76,274 | 8.0% |
| | | 246 | 256 | 262 | 2.2% |
| **Objective 2.2** | | 60,090 | 63,208 | 66,483 | 5.2% |
| | | 228 | 236 | 239 | 1.5% |
| **Goal 3** | **Funding** | **$ 74,197** | **$ 74,109** | **$ 79,332** | **7.0%** |
| | **FTE** | **301** | **288** | **301** | **4.7%** |
| **Objective 3.1** | | 57,701 | 56,073 | 60,787 | 8.4% |
| | | 234 | 219 | 230 | 5.3% |
| **Objective 3.2** | | 16,496 | 18,036 | 18,545 | 2.8% |
| | | 67 | 69 | 71 | 2.6% |
| **TOTAL** | **Funding** | **$ 371,887** | **$ 386,500** | **$ 404,350** | **4.6%** |
| | **FTE** | **1,434** | **1,465** | **1,465** | **0.0%** |
| **Application of PY Budget Authority** | | **(1,987)** | **(4,500)** | **-** | |
| **TOTAL** | **Funding** | **$ 369,900** | **$ 382,000** | **$ 404,350** | **5.9%** |
| | **FTE** | **1,434** | **1,465** | **1,465** | **0.0%** |

*Note: Numbers may not add up due to rounding*

## RESOURCES BY REGULATED INDUSTRY

| Regulated Industry (Dollars in thousands) | | FY 2019 Actual | FY 2020 Request | FY 2021 Request | Percent Change FY 2020 to FY 2021 |
|---|---|---|---|---|---|
| Electric | Funding | $ 209,594 | $ 219,168 | $ 226,922 | 3.5% |
| | FTEs | 813 | 832 | 823 | -1.1% |
| Hydro | Funding | 80,577 | 84,565 | 88,828 | 5.0% |
| | FTEs | 311 | 322 | 327 | 1.7% |
| Natural Gas | Funding | 72,162 | 71,786 | 78,437 | 9.3% |
| | FTEs | 272 | 269 | 277 | 3.0% |
| Oil | Funding | 9,554 | 10,982 | 10,163 | -7.5% |
| | FTEs | 38 | 42 | 38 | -10.9% |
| **Subtotal** | | **$ 371,887** | **$ 386,500** | **$ 404,350** | **4.6%** |
| **Application of PY Budget Authority** | | **(1,987)** | **(4,500)** | **-** | |
| **Total** | **Funding** | **$ 369,900** | **$ 382,000** | **$ 404,350** | **5.9%** |
| | **FTEs** | **1,434** | **1,465** | **1,465** | **0.0%** |

*Note: Numbers may not add up due to rounding*

## COMPARISON OF FYs 2020 AND 2021 BY MAJOR CATEGORY

| Major Category | FY 2020 Request | FY 2021 Request | Difference | Percent Change FY 2020 to FY 2021 |
|---|---|---|---|---|
| FTEs | 1,465 | 1,465 | - | 0.0% |
| Salaries & Benefits | 253,437,400 | 271,890,200 | 18,452,800 | 7.3% |
| Rent | 32,050,300 | 30,335,900 | (1,714,400) | -5.3% |
| Environmental and Program Contracts | 7,546,200 | 9,659,300 | 2,113,100 | 28.0% |
| Information Technology | 48,111,100 | 61,891,100 | 13,780,000 | 28.6% |
| Administrative (including Travel and Training) | 22,455,000 | 21,500,000 | (955,000) | -4.3% |
| Building Modernization | 22,900,000 | 9,073,500 | (13,826,500) | -60.4% |
| **Subtotals** | **$ 386,500,000** | **$ 404,350,000** | **$ 17,850,000** | **4.6%** |
| Application of Prior Year (PY) Budget Authority | (4,500,000) | - | 4,500,000 | -100.0% |
| **Totals** | **$ 382,000,000** | **$ 404,350,000** | **$ 22,350,000** | **5.9%** |

*Note: Numbers may not add up due to rounding*

## OBJECT CLASS SUMMARY

| Object Class (Dollars in thosands) | | FY 2019 Actual | FY 2020 Request | FY 2021 Request |
|---|---|---|---|---|
| 11.9 | Personnel Compensation | $ 186,732 | $ 190,927 | $ 203,875 |
| 12.1 | Benefits | 59,838 | 62,510 | 68,015 |
| 13.0 | Benefits for Former Personnel | 9 | - | - |
| | Sub Total, Personnel Compensation & Benefits | $ 246,579 | $ 253,437 | $ 271,890 |
| 21.0 | Travel and Transportation of Persons | 3,303 | 3,545 | 3,697 |
| 22.0 | Transportation of Things | 1 | 1 | 2 |
| 23.1 | Rental Payments to GSA | 32,533 | 32,050 | 30,336 |
| 23.2 | Rental Payments to Others | 942 | 867 | 920 |
| 23.3 | Communications, Utilities & Misc. Charges | 2,038 | 2,191 | 4,150 |
| 24.0 | Printing and Reproduction | 1,992 | 2,235 | 1,631 |
| 25.1 | Advisory and Assistance | 15,490 | 9,837 | 15,452 |
| 25.2 | Non-Federal | 12,117 | 13,788 | 14,006 |
| 25.3 | Federal | 1,517 | 1,861 | 1,818 |
| 25.4 | Operation & Maintenance of Facilities | 1,959 | 2,013 | 2,014 |
| 25.7 | Operation & Maintenance of Equipment | 35,043 | 33,833 | 37,070 |
| 26.0 | Supplies and Materials | 4,394 | 4,567 | 5,157 |
| 31.0 | Equipment | 13,673 | 10,047 | 10,651 |
| 32.0 | Leasehold Improvements | 27 | 16,155 | 5,558 |
| 41.0 | Grants, Subsidies & Contributions | 33 | 49 | - |
| 42.0 | Insurance Claims and Indemnities | 244 | 25 | - |
| | TOTAL, OBLIGATIONS | $ 371,887 | $ 386,500 | $ 404,350 |
| | Application of PY Budget Authority | (1,987) | (4,500) | - |
| | GROSS BUDGET AUTHORITY | 369,900 | 382,000 | 404,350 |
| | Offsetting Receipts | (369,900) | (382,000) | (404,350) |
| | NET BUDGET AUTHORITY | $ - | $ - | $ - |

*Note: Numbers may not add up due to rounding*

# GOAL 1: ENSURE JUST AND REASONABLE RATES, TERMS, AND CONDITIONS

## ENSURE THAT RATES, TERMS, AND CONDITIONS OF JURISDICTIONAL ENERGY SERVICES ARE JUST, REASONABLE, AND NOT UNDULY DISCRIMINATORY OR PREFERENTIAL.

The nation's security and economic prosperity depend on maintaining economically efficient, safe, reliable, and secure energy services at a reasonable cost for consumers. FERC's jurisdiction includes the wholesale sales and transmission of electricity and natural gas in interstate commerce, as well as the transportation of oil by pipeline in interstate commerce. FERC's regulation ensures just and reasonable rates, terms, and conditions for those jurisdictional services.

In carrying out its regulatory role, FERC uses a range of ratemaking activities as well as market oversight and enforcement. FERC's orders, rules, and policies use both market- and cost-based ratemaking means to regulate energy service providers' rates and practices. Through these efforts, FERC ensures that consumers have reasonable access to the services they need and that service providers are appropriately compensated.

Fraud, market manipulation, and other violations pose a significant threat to the markets overseen by the Commission, and the financial harm imposed by such actions ultimately borne by consumers. The Commission's enforcement activities include both promoting compliance and detecting and deterring market manipulation. Promoting compliance and inhibiting market misconduct strengthen markets and increase market confidence.

| Strategic Goal and Objectives (Dollars in thousands) | | FY 2019 Actual | FY 2020 Request | FY 2021 Request | Percent Change FY 2020 to FY 2021 |
|---|---|---|---|---|---|
| **Objective 1.1** | **FTE** | 510 | 532 | 531 | **-0.2%** |
| | **Funding** | $ 129,685 | $ 138,191 | $ 141,058 | **2.1%** |
| **Program** | | 90,483 | 94,585 | 95,149 | 0.6% |
| **Support** | | 39,202 | 43,606 | 45,909 | 5.3% |
| **Objective 1.2** | **FTE** | 149 | 154 | 132 | **-14.0%** |
| | **Funding** | $ 39,402 | $ 40,356 | $ 41,203 | **2.1%** |
| **Program** | | 27,956 | 27,746 | 29,763 | 7.3% |
| **Support** | | 11,447 | 12,610 | 11,440 | -9.3% |
| **Goal 1 Subtotal** | **FTE** | **659** | **685** | **663** | **-3.3%** |
| | **Funding** | **$ 169,087** | **$ 178,547** | **$ 182,261** | **2.1%** |
| **Application of PY Budget Authority** | | **(903)** | **(2,079)** | **-** | |
| **Goal 1 Total** | **Funding** | **$ 168,184** | **$ 176,468** | **$ 182,261** | **3.3%** |

*Note: Numbers may not add up due to rounding*

# OBJECTIVE 1.1: ESTABLISH COMMISSION RULES AND POLICIES THAT WILL RESULT IN JUST, REASONABLE, AND NOT UNDULY DISCRIMINATORY OR PREFERENTIAL RATES, TERMS, AND CONDITIONS OF JURISDICTIONAL SERVICE.

Electricity, natural gas, and oil are vital resources that fuel economic activity and help to meet the nation's energy needs. Through the Federal Power Act, the Public Utility Regulatory Policies Act of 1978, the Natural Gas Act, the Natural Gas Policy Act, and the Interstate Commerce Act, among other laws, Congress gave FERC authority to regulate the transmission and wholesale sale of electricity and natural gas in interstate commerce, and to regulate the transportation of oil by pipeline in interstate commerce. The Commission's responsibility in exercising this authority is to ensure that rates, terms, and conditions for wholesale sales and transmission of electric energy and natural gas in interstate commerce, as well as for transportation of oil by pipeline in interstate commerce, are just and reasonable and not unduly discriminatory or preferential.

FERC carries out these responsibilities by issuing orders and establishing rules and policies that continually balance two important interests: protecting consumers against excessive rates and providing an opportunity for regulated entities to recover their costs and earn a reasonable return on their investments. FERC leverages competitive market forces to promote efficiency for consumers where appropriate. When competitive market conditions do not exist or competitive forces are inadequate to ensure just and reasonable rates, FERC relies on cost-based rate-setting mechanisms.

In exercising its authority, FERC ensures that interested stakeholders have the opportunity to provide their views and that the Commission's ultimate decisions are adequately supported by the public record. If additional information is needed to make a decision, the Commission has a number of procedural options to supplement the record, including data requests, deficiency letters, technical conferences/workshops, or additional briefings. If there are issues of material fact that cannot be resolved based on the record before the Commission, the Commission may set a matter for hearing and/or settlement judge procedures. Stakeholder engagement and transparency help FERC establish rules and policies that result in just, reasonable, and not unduly discriminatory or preferential rates, terms, and conditions of service.

## STRATEGIC CHALLENGES

In its FY 2018–2022 Strategic Plan, the Commission committed to addressing challenges and opportunities that are likely to have a significant impact on the achievement of Objective 1.1. The status of this Strategic Challenge and the Commission's responsive actions are included below.

### **STRATEGIC CHALLENGE:** CHANGES IN ENERGY SUPPLY AND DEMAND

**Overview.** Changes in both energy supply and demand are having an impact on the fuel mix of resources participating in wholesale electric markets, the dynamics of competitive markets, incentives for investment in

infrastructure, and the security and resilience of the bulk-power system. These changes create new challenges and increase the complexity of maintaining just, reasonable, and not unduly discriminatory or preferential rates, terms, and conditions of jurisdictional service.

**FY 2019 Results.** In FY 2019, the Commission took several notable actions to address this challenge from multiple perspectives. For example, the Commission continued to focus on promoting market competitiveness by removing barriers to market participation by technologies that can bring economic benefits to consumers, as well as enhancing bulk-power system reliability, security, and resilience. In FY 2019, the Commission issued Order No. 841-A, an order on rehearing and clarification generally affirming its determinations in Order No. 841, which amended Commission regulations to remove barriers to the participation of electric storage resources in the competitive wholesale electric markets operated by regional transmission organizations (RTOs) and independent system operators (ISOs).

In addition, the Commission issued a Notice of Proposed Rulemaking (NOPR) proposing to revise its regulations implementing the Public Utility Regulatory Policies Act of 1978 (PURPA), in light of changes in the electric markets since enactment of that law, as well as changes in energy supply and demand.

The Commission also continued to examine how changes in energy supply and demand, including the increasing use of natural gas to generate electricity, may present issues related to reliability and resilience. Among other efforts, the Commission held a March 28, 2019 joint conference with the U.S. Department of Energy (DOE) to discuss the potential need for security investments in energy infrastructure that go beyond measures already required by mandatory reliability standards, where applicable, and whether additional incentives for making such investments are needed.

**FYs 2020 and 2021 Planned Results.** The Commission issued in October, November, and December 2019 all six initial orders on the Order No. 841 RTO/ISO compliance filings, and in response to those orders anticipates the receipt of further filings in compliance with Order No. 841. As discussed further in the Objective 1.1 Performance Measure, Commission action on those filings will put in place market rules for each RTO/ISO that remove barriers to the participation of electric storage resources in wholesale electric markets.

In FY 2020, the Commission also will continue to explore the participation of aggregated distributed energy resources in the competitive wholesale electric markets operated by RTOs/ISOs.

In FY 2020, the Commission will continue to explore whether revisions to its regulations implementing PURPA are warranted, including by reviewing comments submitted in response to the NOPR. This exploration will examine the need for change to the Commission's PURPA regulations due to the impact of evolving competitive opportunities.

The Commission's efforts will directly impact participation in the power industry, including new participants seeking entry into wholesale electric markets. As regulated entities comply with orders, the Commission expects to see changes in electric market access by different technologies, changes in the incentives for market

participants to provide key services and products, changes in infrastructure investment, and reduced regulatory burdens.

**Monitoring Risk Factors**. A number of risk factors could impact the strategic response over the next two years. Technology is changing rapidly, potentially presenting new ways in which services needed in competitive wholesale electric markets could be provided. Economic changes also could affect the extent to which development at scale of a new technology is seen as a viable enterprise. FERC expects that these factors will continue to be relevant over the next two years and will continue to take them into account while implementing its responsive actions.

## CORE FUNCTIONS

In addition to being responsive to this strategic issue, FERC carries out its responsibilities in this objective through two core functions. Each core function is driven by discrete sets of inputs, operations, and outputs to deliver impact.

### CORE FUNCTION 1.1.1: EVALUATE EXISTING COMMISSION RULES AND POLICIES IN LIGHT OF EMERGING ISSUES AND CHANGING CIRCUMSTANCES TO DETERMINE WHETHER MODIFICATION OF SUCH RULES AND POLICIES IS NECESSARY OR NEW RULES OR POLICIES NEED TO BE DEVELOPED.

To adapt to emerging issues and changing circumstances in the electric, natural gas, and oil industries, FERC evaluates existing rules and policies to assess whether they continue to ensure just, reasonable, and not unduly discriminatory or preferential rates, terms, and conditions of service. This evaluation allows FERC to develop or modify its existing rules and policies to improve economic efficiency and operations in the markets. This evaluation also enables FERC to ensure adequate compensation for resources responding to system needs, to remove barriers to resources accessing wholesale markets and the grid, and to ensure that consumers have reasonable access to the services they need.

FERC accomplishes its ongoing review of existing rules and policies in a number of ways. Based on its knowledge and experience with the industries that it regulates, FERC may gather information through technical conferences or other means of outreach with stakeholders. FERC also keeps informed of national and international events and trends, and draws on its knowledge and experience with its jurisdictional industries to detect important recurring or emerging issues. FERC gathers data and uses it to perform economic, engineering, and technical analyses of the energy markets to inform policy recommendations. In addition, FERC researches energy market design issues and evaluates the outcomes of recent policy changes on market participant behavior and market operations.

Where necessary, the Commission will pursue changes to its regulations through rulemaking proceedings. In some instances, the Commission on its own initiative will institute a rulemaking to address new concerns or trends in the industry. In other instances, the regulated community or other stakeholders will petition the Commission for changes to its regulations. FERC engages in a transparent rulemaking process to pursue changes to its regulations. A process of notice and comment maintains transparency and ensures stakeholder

input. Through staff reports and white papers, technical conferences and workshops, and presentations and speeches, FERC also provides guidance to the regulated community and other stakeholders.

By remaining aware and responsive, FERC can adjust existing policies and develop new policies to ensure that consumers have reasonable access to needed services and that service providers are appropriately compensated in a rapidly changing marketplace.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Wholesale sales
- Transmission and transportation
- Corporate activities and mergers

## WHOLESALE SALES

FERC regulates markets for the wholesale sales of electric energy, capacity, and ancillary services to ensure that rates are just and reasonable. Specific areas of impact within wholesale sales include:

- Electric market-based rates and cost-based rates
- Energy markets, capacity markets, and ancillary services
- Emerging technologies

### *ELECTRIC MARKET-BASED RATES AND COST-BASED RATES*

**Overview.** The Commission uses both market- and cost-based ratemaking means to regulate wholesale electricity rates. Where appropriate, FERC leverages competitive market forces by granting sellers market-based rate authorization. In other cases, the Commission relies on cost-based rate-setting authority by allowing sellers to charge rates that recover their costs and earn a fair return.

**FY 2019 Results.** With regard to electric market-based rates, the Commission addressed two significant rulemakings in FY 2019. In December 2018, the Commission issued a NOPR proposing to revise its regulations regarding the horizontal market power analysis that market-based rate sellers in certain RTO/ISO markets and submarkets therein must provide. The Commission stated its belief that the proposed exemptions to providing this analysis will reduce the burden on market-based rate sellers while preserving appropriate Commission oversight of its market-based rate program. The Commission carefully reviewed the comments filed in response to this NOPR and issued a final rule in July 2019 adopting the NOPR proposal.

Also in July 2019, the Commission issued a final rule based on its 2016 NOPR as to Data Collection for Analytics and Surveillance and Market-Based Rate Purposes. In the final rule, the Commission revised its regulations in order to collect certain information currently filed in the electric market-based rate program in a consolidated and streamlined manner through a relational database. The relational database construct modernizes the

Commission's data collection processes, eliminates duplications, and renders information collected through its market-based rate program usable and accessible for the Commission.

**FYs 2020 and 2021 Planned Results.** The Commission will evaluate changes to the market-based rate program as a result of these final rules, including evaluating the efficiency of how public utilities make their market-based rate filings, and determine if further action is warranted. The Commission will also address requests for rehearing of the two July 2019 final rules.

### *ENERGY MARKETS, CAPACITY MARKETS, AND ANCILLARY SERVICES*

**Overview.** The Commission impacts the efficiency, transparency, access, and market signals in these markets through a diverse range of regulatory activities.

**FY 2019 Energy Market Results.** In FY 2019, the Commission issued initial orders on all six compliance filings submitted by RTOs/ISOs pursuant to Order No. 844, the Commission's final rule on uplift cost allocation and transparency in RTO/ISO regions. The final rule was issued to address the Commission's concern that existing reporting practices were insufficiently transparent and therefore resulted in unjust and unreasonable rates. The final rule requires RTOs/ISOs to submit monthly reports detailing their uplift payments and operator-initiated commitments.

In FY 2019, the Commission also initiated proceedings to investigate the fast-start pricing practices of three RTOs/ISOs: (1) PJM Interconnection, LLC (PJM); (2) Southwest Power Pool, Inc. (SPP); and (3) New York Independent System Operator, Inc. (NYISO). The Commission took this action to ensure more efficient pricing by allowing prices to reflect the marginal cost of serving load and allowing fast-start resources to recover a portion of their costs through the market rather than through out-of-market uplift payments. The Commission directed the three RTOs/ISOs to file briefs that provide information on their pricing practices in order for the Commission to decide whether they must adjust their market rules. After reviewing the initial briefs, the Commission found each RTO's/ISO's fast-start pricing practices unjust and unreasonable and issued orders directing market rule changes.

**FYs 2020 and 2021 Energy Market Planned Results.** In FYs 2020 and 2021, each RTO/ISO will generate new reports on transparency as required by Order No. 844, which the Commission will review, taking action where necessary. In FY 2020, the Commission will continue its fast-start pricing review, including evaluating compliance filings.

**FY 2019 Capacity Markets Results.** In some regions of the United States, the RTO/ISO operates a centralized capacity market that is the region's primary means for ensuring that adequate resources are available to meet peak electric needs at just and reasonable rates. In FY 2019, the Commission took significant steps with respect to issues in several of those capacity markets.

Recognizing that New England faces unique fuel security challenges, the Commission previously directed Independent System Operator New England, Inc. (ISO-NE) to submit tariff revisions that would allow a cost-of-service agreement for fuel security and to develop permanent market-based tariff improvements to address

regional fuel security in the long term. Building on that action, in FY 2019, the Commission took further steps to address ISO-NE fuel security, including accepting ISO-NE's short-term solution proposal, addressing cost-of-service compensation for the continued operation of certain natural gas-fired generating units in the New England capacity market, and holding a technical conference on ISO-NE's developing plan for a long-term solution to regional fuel security issues.

In addition, the Commission in FY 2019 continued its examination of how to ensure that the rules governing the PJM capacity market sufficiently address inappropriate price suppression.

**FYs 2020 and 2021 Capacity Markets Planned Results.** In FYs 2020 and 2021, the Commission anticipates continuing its activities to support regional fuel security for ISO-NE. Specifically, the Commission expects to issue further orders on cost-of-service compensation for the continued operation of certain natural gas-fired generating units in the New England capacity market, as well as ISO-NE's long-term fuel security solution in FY 2020. With respect to PJM's centralized capacity market, the Commission, on December 19, 2019, directed PJM to take specified steps to address the market impact of state-subsidized electric generation resources. The Commission anticipates acting in FY 2020 on PJM's compliance filing(s) made in response to the December 2019 order.

### *EMERGING TECHNOLOGIES*

**Overview.** Where emerging technologies are capable of providing services needed in the competitive wholesale electric markets, the Commission seeks to remove barriers to such technologies' participation in those markets as a means of promoting greater competition and, in turn, just and reasonable rates. This core function thus relates closely to the Strategic Challenge presented above for Objective 1.1.

**FY 2019 Results**. The Commission's action in FY 2019 with respect to removing barriers to participation of electric storage resources in competitive wholesale electric markets are discussed above under the Strategic Challenge for Objective 1.1.

**FYs 2020 and 2021 Planned Results.** As mentioned above in the Strategic Challenge for Objective 1.1 (and as discussed further in the Objective 1.1 Performance Measure), the Commission issued in October, November, and December 2019 all six initial orders on Order No. 841 compliance filings, and in response to those orders anticipates the receipt of further filings in compliance with Order No. 841 RTO/ISO. In FY 2020, the Commission also will continue to explore participation of aggregated distributed energy resources in the competitive wholesale electric markets operated by RTOs/ISOs.

## TRANSMISSION AND TRANSPORTATION

FERC regulates the transmission and transportation of electricity and natural gas in interstate commerce, as well as the transportation of oil by pipelines in interstate commerce. Specific areas of impact within transmission and transportation include:

- Electric transmission rates

- Gas transportation/storage rates
- Oil transportation rates

### *ELECTRIC TRANSMISSION RATES*

**Overview.** The Commission's statutory authority covers rates for the transmission of electricity in interstate commerce, as well as planning processes for electric transmission facilities and interconnection to the electric grid. Through these activities, the Commission provides financial signals for needed investment in electric transmission facilities and ensures that electric transmission rates are just and reasonable.

**FY 2019 Results.** The return on equity (ROE) available to a prospective developer of electric transmission facilities is one important consideration in investment decisions. Recognizing the importance of ROE for electric transmission facilities, the Commission in FY 2019 issued two Notices of Inquiry (NOI) related to that issue: (1) an NOI seeking comments on potential modifications to Commission policies concerning the determination of the base ROE to be used in designing jurisdictional rates charged by public utilities; and (2) an NOI seeking comments on the scope and implementation of the Commission's electric transmission incentives regulations and policy. Comments on this pair of NOIs were filed during the summer of 2019. The Commission is reviewing comments received.

The Commission also took several actions in FY 2019 in response to the Tax Cuts and Jobs Act of 2017. In early FY 2019, the Commission issued a NOPR proposing to revise public utility transmission stated/formula rates to account for changes caused by the Tax Cuts and Jobs Act of 2017 and future federal income tax changes. The Commission reviewed the comments received. In FY 2019, the Commission also issued a policy statement describing its policy on public utility and natural gas pipelines and oil pipelines regarding treatment of accumulated deferred income taxes for accounting and ratemaking purposes.

Following up on prior year activities, in FY 2019, the Commission issued 43 orders related to show cause proceedings regarding the practice of 48 public utilities that had a 35% federal corporate income tax rate fixed in their transmission rates. The utilities submitted responses to a show cause order directing them to propose revisions to their transmission rates or show cause explaining why they should not be required to do so. These proceedings are now substantially complete. The five open proceedings are related to other ongoing proceedings for these public utilities and will be considered as part of the evaluation of those ongoing proceedings.

In FY 2019, the Commission issued Order No. 845-A and Order No. 845-B, which amended the *pro forma* Large Generator Interconnection Procedures and Agreement. The Commission directed each public utility transmission provider with an Open Access Transmission Tariff to submit a compliance filing in May 2019. The Commission received approximately 45 compliance filings.

**FYS 2020 AND 2021 Planned Results.** In November 2019, the Commission issued a final rule to revise public utility transmission formula rates to account for changes caused by the Tax Cuts and Jobs Act of 2017 and future federal income tax changes. In FY 2020, the Commission plans to take further steps to provide

certainty with respect to ROE for electric transmission facilities. In November 2019, the Commission issued an order establishing a new base ROE as applied to transmission owners in the Midcontinent Independent Transmission System Operator, Inc. (MISO) region. The Commission anticipates acting in FY 2020 on requests for rehearing of the November 2019 order. The Commission will continue to address the base ROE in that and other pending proceedings. The Commission also plans to take further action with respect to its NOI on electric transmission incentives policy.

The Commission has issued several initial orders on Order No. 845 compliance filings and expects to issue further orders on compliance in FY 2020.

### *GAS TRANSPORTATION/STORAGE RATES*

**Overview.** The Commission facilitates the interstate transportation of natural gas by ensuring that the rates with respect to natural gas transportation and storage are just and reasonable.

**FY 2019 Results.** Interstate natural gas pipelines are required to file an informational cost and revenue study (FERC Form No. 501-G) and adopted procedures to allow pipelines to voluntarily reduce their rates in light of the Tax Cuts and Jobs Act of 2017. In FY 2019, the Commission issued orders on the majority of the 106 FERC Form No. 501-G filings.

**FYs 2020 and 2021 Planned Results.** In FY 2020, the Commission will continue to process the remaining FERC Form No. 501-G proceedings. In addition, the Commission will continue its annual review of the justness and reasonableness of interstate natural gas pipeline rates by analyzing cost and revenue information included in the pipelines' FERC Form No. 2 annual reports. In FY 2020, the Commission will continue to consider base ROE issues for natural gas pipelines as a result of feedback from the NOI.

### *OIL TRANSPORTATION RATES*

**Overview.** The Commission oversees rates for transportation of oil by pipeline to ensure that the rates allow pipeline companies to recover costs and are just and reasonable. The Commission established an indexing rate methodology designed to enable oil pipelines to recover costs by allowing pipelines to raise rates at the same pace as they are predicted to experience cost increases. The current index methodology extends through June 30, 2021.

**FY 2019 Results.** Every year, the Commission calculates an annual index for oil pipelines to change their ceiling levels and adjust their rates accordingly. The calculation reflects the annual changes in the Producer Price Index for Finished Goods (PPI-FG), published by the Bureau of Labor Statistics. In FY 2019, the Commission posted the calculation of this year's index (1.043108), which is the percent change of the 2017 and 2018 PPI-FG plus an adder of 1.23, as adopted in the last five-year index review (issued in December 2015). The Commission received approximately 320 annual index filings from oil pipeline companies by May 31, 2019.

The Commission also clarified that an initial committed rate must meet the requirements for initial rates for a new service under 18 C.F.R. § 342.2(a), file a cost-of-service rate, or 18 C.F.R. § 342.2(b), file a sworn affidavit. This issue has arisen in a series of petitions for declaratory orders and tariff filings. Finally, the Commission continued to review the income tax allowance policy with respect to various partnership forms.

**FYs 2020 and 2021 Planned Results.** The Commission will continue to evaluate these issues in FY 2020. The Commission will also be preparing for the next five-year oil index review, slated to begin in the second quarter of 2020. Further, in FY 2020, the Commission will continue to consider base ROE issues for oil pipelines as a result of feedback from the NOI.

### CORPORATE ACTIVITIES AND MERGERS

**Overview.** FERC oversees securities issuances, interlocking directors, and mergers and acquisitions within the electric markets to ensure that their potential effect on competition, market power, and rates is consistent with the public interest.

**FY 2019 Results.** The Commission has undertaken several activities in FY 2019 related to clarifying corporate activity merger requirements and ensuring that they align with current market needs. In FY 2019, the Commission issued Order No. 855 regarding new legislation changing section 203(a)(1)(B) of the FPA concerning acquisitions of jurisdictional facilities valued at $10 million or less. The final rule will reduce the regulatory burden for filers on lower-value transactions consistent with Congressional intent. The Commission also issued Order No. 856, and an order on rehearing (Order No. 856-A), revising parts 45 and 46 of its regulations related to interlocking officers and directors to clarify and update the requirements for both applicants and holders. Among other things, the rulemaking provides clarity to regulated entities and stakeholders regarding the Commission's policies on late-filed applications and informational reports.

**FYs 2020 and 2021 Planned Results.** The number of filings related to mergers and acquisitions depends on multiple external factors outside of the Commission's control. In this respect, the Commission does not plan for a particular number of merger and acquisition filings. The Commission's planning for FYs 2020 and 2021 is in regard to maintaining sufficient capacity to process the filings received based on prior year levels. The Commission must report to Congress the effects of Order No. 855 during FY 2020.

### CORE FUNCTION 1.1.2: ANALYZE AND ACT UPON FILINGS IN A FAIR, CLEAR, AND TIMELY MANNER. WHERE FILINGS DO NOT PROVIDE THE COMMISSION WITH SUFFICIENT INFORMATION TO ACT UPON THEIR MERITS, FACILITATE SETTLEMENTS OF DISPUTES OR, IN THE ABSENCE OF SETTLEMENT, DEVELOP AN ADEQUATE RECORD FOR COMMISSION ACTION.

To maintain just, reasonable, and not unduly discriminatory or preferential rates, terms, and conditions of service, FERC analyzes and takes appropriate action on applications to change existing or implement new rates, terms, and conditions of service. Jurisdictional entities have tariffs on file with the Commission that state what rates they can charge for jurisdictional services, as well as establish the terms and conditions of service.

FERC may also conduct an independent review of tariff provisions and rates (i.e., a review not initiated by a jurisdictional entity's filing) either pursuant to a stakeholder complaint or on its own motion.

FERC advisory staff develops recommendations to the Commission regarding potential actions to enable the Commission to issue a fair, clear, and timely order accepting, modifying, suspending, setting for hearing, or rejecting the rates, terms, and conditions of service.

Some issues are not easily resolved. If additional information is needed to make a decision, the Commission has a number of procedural options to supplement the record, including data requests, deficiency letters, technical conferences/workshops, or additional briefing. If there are issues of material fact in dispute based on the record before the Commission, the Commission may elect to set a matter for hearing and/or settlement judge procedures.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Analyze and act on filings
- Outreach and analysis
- Hearing and settlement procedures

## ANALYZE AND ACT ON FILINGS

**Overview.** Each year, the Commission receives thousands of filings regarding the rates, terms, and conditions for jurisdictional services. These filings come from a variety of sources including jurisdictional public utilities, natural gas pipelines, and oil pipelines requesting changes to their rates or tariff provisions, third-party complaints and requests for Commission action, and the Commission acting on its own motion. Commission staff uses qualitative and quantitative analysis, as appropriate, to inform the Commission's decision making on both an *ex ante* and *ex post* basis.

**FY 2019 Results.** The table below shows the actual number of rate filings made pursuant to Federal Power Act section 205, Natural Gas Act section 4, and Interstate Commerce Act section 6 for FYs 2015–2019.

| | FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2020 Estimate | FY 2021 Estimate |
|---|---|---|---|---|---|---|---|
| Electric | 6,045 | 5,446 | 4,939 | 4,525 | 5,397 | 5,000 | 5,000 |
| Gas | 1,613 | 1,609 | 1,303 | 1,451 | 1,933 | 1,500 | 1,500 |
| Oil | 727 | 778 | 750 | 862 | 875 | 800 | 800 |

Included in the table above, the Commission processed approximately 2,550 filings requesting electric market-based rate authority, which is typical in a given year, and the Commission reviewed approximately 2,650 proposals for electric cost-based rates.

The Commission also processes complaints, market-based rate applications, waiver requests, and rulemaking requests related to the natural gas pipeline and oil pipeline transportation industries. In addition, the Commission receives approximately 20 oil-related petitions for declaratory order per fiscal year. These petitions address rate structures for significant and new capacity pipeline projects.

**FYs 2020 and 2021 Planned Results.** The table above also shows the estimated number of filings for FYs 2020 and 2021. The Commission does not have control over the number of filings from industry or third parties. Moreover, the number of yearly filings is a function of multiple factors that make it difficult to predict how many filings the Commission will receive in future years. Accordingly, rather than anticipating a specific number of filings in any given year, the Commission plans to maintain sufficient resources in FYs 2020 and 2021 to process a similar number of filings as in prior years. The Commission will continue to dedicate a significant amount of resources to the analysis of rate and tariff filings, made pursuant to Federal Power Act section 205, Natural Gas Act section 4, and Interstate Commerce Act section 6, consistent with its statutory authority.

## OUTREACH AND ANALYSIS

**Overview.** The Commission and its staff undertakes a variety of outreach and technical analyses on issues that do not necessarily present themselves in docketed proceedings. This is particularly true for emerging issues and trends in the industries that the Commission regulates.

**FY 2019 Results.** In light of recommendations in the Government Accountability Office's 2017 report on capacity market performance, in FY 2019 Commission staff had informal contact with stakeholders to discuss proposed revisions to improve the quality of data that the Commission collects and to enhance the Common Metrics Report by including capacity market metrics. Commission staff issued a new Notice of Information Collection Request, which proposed revisions to the current metrics, and included new metrics related to capacity markets. The Commission will evaluate any comments received before finalizing any changes to the Common Metrics Report.

Also, in November 2018, Commission staff issued the 2018 Assessment of Demand Response and Advanced Metering. This is Commission staff's thirteenth annual report on demand response and advanced metering in response to a Congressional directive in the Energy Policy Act of 2005 (EPAct 2005).

In July 2019, Commission staff hosted a software conference, bringing together experts from diverse backgrounds and experiences—including electric system operators, software developers, and representatives from government, research centers, and academia—for the purposes of stimulating discussion, sharing

information, and identifying fruitful avenues for research concerning the technical aspects of improved software for increasing efficiency and resilience of the bulk-power system.

The Commission has continued its international outreach work in FY 2019. Commission staff met regularly with international regulators to share information on energy topics that are of common interest. In FY 2019, for example, staff held at least three video conferences with European regulators to discuss market design improvements.

In FY 2019, Commission staff has also continued to monitor smart grid developments as they relate to the Energy Independence and Security Act of 2007 and the Commission's 2009 Smart Grid Policy Statement.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will continue to monitor and evaluate these and new issues. Specifically, Commission staff expects to take further action with respect to the Common Metrics in late FY 2020 or early FY 2021. Commission staff issued an Assessment of Demand Response and Advanced Metering in December 2019 and plans to issue another annual report in FY 2021. Commission staff also expects to hold industry software conferences in both FYs 2020 and 2021.

## HEARING AND SETTLEMENT PROCEDURES

Although the Commission is able to analyze and act on the majority of filings, there are cases where there are disputed issues of material fact that the Commission determines should be set for hearing or settlement procedures. In these instances, Commission trial staff helps develop the factual and legal record for administrative law judge action and Commission review. The administrative law judges maintain due process and impartiality and act independent of the Commission.

### *SETTLEMENT*

**Overview.** The Commission recognizes the value of resolving issues through consensual means and encourages settlements where possible. Settling cases dramatically limits the time, expense, and resources that the Commission and outside parties would otherwise devote to litigating these cases. It further avoids the time and expense associated with appealing a Commission decision to the courts. Finally, settlement of a proceeding provides business certainty, which facilitates investment in needed energy infrastructure. The Commission's staff— including administrative law judges (serving as settlement judges), trial staff, and dispute resolution staff—all play important roles in resolving matters without full litigation. Settlement negotiations frequently take months, often involve numerous highly technical factual issues and complex legal questions, and require a delicate balancing of many different interests of filing parties and parties representing a variety of stakeholders, including state commissions, residential energy consumers, industrial and small commercial energy users, energy marketers, and power generators. All settlements require Commission review and approval.

After a settlement judge is appointed, trial staff and parties conduct informal information exchanges to secure the information needed to develop fact-based settlement positions. The settlement judge facilitates or acts as

a mediator to help the parties reach a consensual resolution. If, in the settlement judge procedures, the negotiations reach an impasse, settlement negotiations may continue, but the Commission's chief administrative law judge terminates those procedures and appoints a presiding administrative law judge to conduct a hearing and issue an initial decision.

**FY 2019 Results.** In FY 2019, settlement judge procedures resulted in settlement judges convening 413 settlement conferences and certifying 97 full or partial settlements to the Commission for final review and approval. Outside of the settlement conferences, Commission trial staff applied analysis of financial and other company data and negotiated extensively with regulated entities and intervenors to reach settlement agreements. Those settlements represented 91.5% of the resolved cases that were set for hearing and/or settlement procedures. With participation ranging from 2 to 250 or more parties, negotiations took an average of six to nine months to complete and involved primarily rates and market rules applications.

In addition, many matters are resolved through the efforts of dispute resolution staff serving as mediators or facilitators. During FY 2019, the dispute resolution staff (inclusive of the Landowner Helpline) successfully resolved 188 disputes.

**FYs 2020 and 2021 Planned Results.** While the Commission determines the cases that are set for hearing and settlement, these decisions are functions of the filings, requests, and issues put before it. In this respect, the Commission does not plan for a particular number of cases to be set for hearing and settlement. Similarly, although the Commission may encourage settlements, it is up to the parties to reach an agreement. Accordingly, in FYs 2020 and 2021, the Commission will monitor its workload to ensure sufficient resources are available.

***HEARINGS***

**Overview.** In instances where a settlement cannot be achieved, the case proceeds to hearing. The presiding judge convenes prehearing conferences, resolves discovery disputes, issues subpoenas, and issues orders. During the hearings, which can be lengthy, judges admit evidence, rule on motions and objections, and ensure the compilation of a record upon which judges can issue an initial decision. The judge ensures due process is afforded to all case participants. The Commission's trial staff and the parties conduct comprehensive discovery and file several rounds of expert testimony and exhibits addressing the matters that are the subject of the hearing. The trial staff and parties introduce evidence, conduct direct and cross-examination of witnesses, and undertake oral argument on issues that arise. Following the hearing, trial staff and the parties file briefs addressing the factual, legal, and policy issues presented by the proceeding. Thereafter, the presiding judge issues an initial decision and certifies the record to the Commission, which consists of all official exhibits, transcripts, evidence, and orders entered in the proceeding. If a participant contests the initial decision, trial staff and parties may file further briefs with the Commission, after which the Commission issues its final decision in the case. The Commission can affirm the initial decision in part or in full or reject the initial decision.

**FY 2019 Results.** In FY 2019, presiding judges convened six hearings and issued six initial decisions. The records in those cases consisted of a total of approximately 1,900 exhibits and 9,478 pages of hearing transcripts. Also during FY 2019, Commission trial staff filed 48 pieces of testimony and 41 pre- and post-hearing briefs, including 16 supporting affidavits.

**FYs 2020 and 2021 Planned Results.** While the Commission determines the cases that are set for hearing and settlement, these decisions are a function of the filings, requests, and issues put before it. In this respect, the Commission does not plan for a particular number of cases to be set for hearing and settlement. Similarly, although the Commission may encourage settlements, it is up to the parties to reach an agreement. Accordingly, in FYs 2020 and 2021 the Commission will monitor its workload to ensure sufficient resources are available.

## PERFORMANCE MEASURES

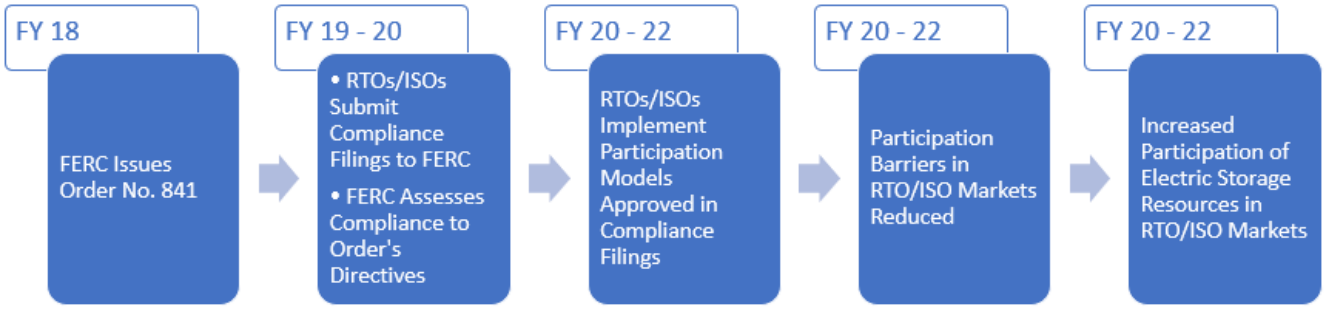
Commission staff will use the following measure to assess performance in Objective 1.1. The result of this measure will be used in combination with other data and supplemental information to establish a more complete picture of performance on this objective.

### PERFORMANCE MEASURE: THE DEGREE TO WHICH ELECTRIC STORAGE RESOURCES ARE PARTICIPATING ANNUALLY IN ORGANIZED WHOLESALE ELECTRICITY MARKETS OPERATED BY RTOS AND ISOS AFTER THE ISSUANCE AND IMPLEMENTATION OF ORDER NO. 841

**Overview.** Order No. 841 is designed to remove barriers to the participation of electric storage resources in organized wholesale electric markets. The entrance of these resources into organized wholesale electric markets will help to promote competitiveness and enhance bulk-power system resilience. An increase in both the number of electric storage resources in wholesale electric markets and the total capacity of those resources is taken as a proxy for increased market participation, which, in turn, the Commission expects to be associated with increased competition in wholesale electric markets.

Because Order No. 841 does not direct participation, the total number and capacity of storage resources participating in wholesale electric markets is only an indirect measure of the order's outcome. The Commission anticipates that increases in both numbers will provide insight into the Order No. 841's impact. However, it should also be noted that the participation of electric storage resources is dependent on numerous other factors not measured here, such as economic conditions, technological advances, and generator interconnection queues for access to the transmission system.

The following graphic illustrates the chain of influence for Order No. 841 and general timeframe for each stage, noting that the compliance process is ongoing and specific requirements and timeframes are found in related Commission orders.




## Targets and Actual Results Tables.[1]

**Percentage of RTO/ISO compliance filings acted on by the Commission**

| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2020 Target | FY 2021 Target |
|---|---|---|---|---|---|---|
| Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable | 75% | Not Applicable |

**FY 2019 Target: Not Applicable**

**Number of electric storage resources participating in RTO/ISO electric markets**

| RTO/ISO | FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2020 Target[2] | FY 2021 Target |
|---|---|---|---|---|---|---|---|
| CAISO | 10 | 14 | 24 | 30 | 43 | 50 | 63 |
| ISO-NE | 1 | 1 | 6 | 10 | 20 | 33 | 35 |
| MISO | 1 | 3 | 4 | 5 | 10 | 11 | 14 |
| NYISO | 1 | 1 | 2 | 3 | 6 | 8 | 11 |
| PJM | 11 | 21 | 25 | 26 | 29 | 29 | 29 |
| SPP | 1 | 1 | 2 | 2 | 5 | 5 | 5 |

**FY 2019 Target: Not Applicable**

[1] Data were previously reported on a calendar year basis. These results have been restated on a fiscal year basis in keeping with the Commission's budget and reporting cycle. This did not impact the interpretation or use of the measure.
[2] The Commission revised the methodology used to develop its targets. The new method is tied to specific units and includes the amount of energy storage currently installed in each RTO/ISO and adds EIA's inventory of future, planned energy storage assets expected to come online only in or before the target year. The revised methodology does not impact comparability to the reported prior year results.

| Number of electric storage resources participating in RTO/ISO electric markets | | | | | | | |
|---|---|---|---|---|---|---|---|
| RTO/ISO | FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2020 Target | FY 2021 Target |
| CAISO | 14 | 18 | 130 | 181 | 210 | 222 | 895 |
| ISO-NE | 2 | 2 | 23 | 27 | 51 | 93 | 123 |
| MISO | 1 | 22 | 22 | 23 | 40 | 45 | 54 |
| NYISO | 20 | 20 | 21 | 26 | 53 | 75 | 391 |
| PJM | 121 | 247 | 261 | 262 | 322 | 322 | 322 |
| SPP | 1 | 1 | 2 | 2 | 15 | 15 | 15 |
| FY 2019 Target: Not Applicable | | | | | | | |

This performance measure has two parts: (1) in the interim period, the Commission will measure its ability to act on 75% of the six RTO/ISO compliance filings by the end of FY 2020; (2) beginning in FY 2020, as many of the RTOs/ISOs start to implement their respective participation models, the Commission will measure the degree of participation of electric storage resources in at least three of the six RTOs/ISOs on an annual basis.

An interim period measurement is necessary because the participation models developed by the RTOs/ISOs in response to Order No.841 must be accepted by the Commission, and an effective date approved by the Commission, before they can be implemented. This interim period measurement will provide supplemental information to aid the interpretation of the outcome measure and maintain the Commission's accountability to the RTOs/ISOs.

To assess the degree of participation, the second part of the performance measure reports both the total number and total capacity (MW) of electric storage resources participating in at least three of the six RTO/ISO markets. Order No. 841 defined an electric storage resource as "a resource capable of receiving electric energy from the grid and storing it for later injection of electric energy back to the grid." The Commission uses data collected by the U.S. Energy Information Administration's (EIA) 860M (Monthly Electric Generator) survey.

For the purposes of these calculations, Commission staff has defined generators within the EIA 860M dataset with the following prime movers as an electric storage resource: 1) battery; 2) compressed air; 3) solar; and 4) flywheel. This assessment does not include pumped hydroelectric resources, as no new pumped hydro has come online in the past five years. Further, the Commission includes only energy storage resources that are operational in the balancing authorities of the six RTOs/ISOs in the FY 2019 actual calculations. For the FYs 2020 and 2021 targets, staff includes energy storage resources in both the operational and planned categories that are located within the balancing authorities of the six RTO/ISOs.

**FY 2019 Results.** During FY 2019, the Commission evaluated the RTOs'/ISOs' Order No. 841 compliance filings submitted on December 3, 2018. On April 1, 2019, Commission staff issued data requests with targeted questions to each RTO/ISO to obtain additional information to evaluate their filings. All six RTOs/ISOs responded to the data requests and stakeholders submitted comments in response to the RTOs'/ISOs' responses.

**FYs 2020 and 2021 Planned Results.** The Commission issued all six initial compliance orders for Order No. 841 by December 2019: PJM and SPP in October; MISO, California Independent System Operator Corp. (CAISO), and ISO-NE in November; and NYISO in December 2019. This exceeded the Commission's initial target of 75% by the end of FY 2020. During FYs 2020 and 2021, staff will continue to work with the RTOs/ISOs to assess further compliance as directed in the initial Order No. 841 compliance orders. This will ensure that RTO/ISO participation models for electric storage resources reach full compliance with Order No. 841 and are able to facilitate the participation of electric storage resources in wholesale electric markets

**Monitoring Risk Factors**. A number of significant risks factors exist, that could cause actual electric storage capacity to be lower than the established targets. For example, while the Commission has acted on all six of the RTO/ISO initial compliance filings, it ordered each of the RTOs/ISOs to submit further compliance filings that it will then need to evaluate. RTO/ISO implementation of Commission-approved tariff revisions in some regions will also be delayed due to software upgrades or system changes. In addition, electric storage growth is dependent on a wide variety of factors, such as economic growth, electric demand levels, and intermittent resource growth. Likewise, future electric storage growth can be impacted by slowing rates of technical improvement, supply chain risks, and state electric storage procurement mandates. While most of these risks are outside of the Commission's control, they will continue to be monitored to understand and interpret the measure's results.

## OBJECTIVE 1.2: INCREASE COMPLIANCE WITH FERC RULES; DETECT AND DETER MARKET MANIPULATION.

The Federal Power Act and the Natural Gas Act, along with other statutory authorities, give FERC oversight and enforcement responsibilities that focus on increasing compliance of regulated entities and detecting and deterring market manipulation. The Energy Policy Act of 2005 in particular increased both the Commission's responsibilities and its penalty authority.

Within the compliance focus of this objective, FERC gathers information about and analyzes market fundamentals, behavior, and trends in order to take proactive steps to reduce the probability that violations of applicable laws, the Commission's regulations, or market rules will occur. FERC also promotes internal compliance programs and employs a robust audit program to identify problems and provide recommendations to improve compliance. FERC also makes market and audit data transparent to the public and market participants so that market efficiency is promoted and anomalies and areas of concern may be identified and reported.

To detect and deter fraud and market manipulation, FERC uses market surveillance and other sources to identify indications of misbehavior. FERC then conducts investigations and, when appropriate, exercises the Commission's civil penalty authority to discourage violations. Increasing compliance helps safeguard a fair market for providers and consumers. A strong and prudent enforcement program deters market manipulation and increases confidence in the regulated markets. These complementary approaches strengthen energy

markets and, ultimately, support economically efficient, safe, reliable, and secure energy services at a reasonable cost for consumers.

## STRATEGIC CHALLENGES

In its FY 2018–2022 Strategic Plan, the Commission committed to addressing challenges and opportunities that are likely to have a significant impact on the achievement of Objective 1.2. The status of this Strategic Challenge and the Commission's responsive actions are included below.

### **STRATEGIC CHALLENGE:** NON-TRADITIONAL MARKET PARTICIPANTS

**Overview.** The Commission recognizes that jurisdictional energy markets are continuing to evolve, including the increasing participation of non-traditional market participants, which offers opportunity to engage with traditional and new stakeholders to bolster compliance. Compared to traditional market participants like public utilities and natural gas companies, non-traditional market participants encompass a wider range of entities, including financial traders that possess different strategies and incentives for participating in jurisdictional energy markets. As such, these non-traditional participants may be less familiar with the Commission's requirements and, therefore, may face many different types of compliance challenges.

**FY 2019 Results.** In FY 2019, the Commission continued to conduct outreach through industry conferences and other venues to educate non-traditional market participants about compliance with FERC requirements and enforcement processes. FERC participated in more conferences, workshops, and one-on-one discussions that included non-traditional market participants. FERC has also looked for ways to provide more transparency into its non-public surveillance and investigative activities by providing additional detail in its annual report on enforcement on matters that close with no public action.

Although it is early in the implementation process, staff has already observed that interest in FERC staff participation in industry conferences and workshops that cater to non-traditional market participants has increased, providing greater opportunity for outreach to these market participants. In addition, non-traditional market participants have expressed appreciation for the information and feedback they have received as part of the surveillance inquiry process. This suggests that the situational assessment item remains both an issue and an opportunity.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021 the Commission will continue to conduct outreach through industry conferences and other venues to educate non-traditional market participants about compliance with FERC requirements and enforcement processes. In addition, FERC will look for opportunities to increase transparency into non-public matters that may help improve compliance.

Based on these actions, the Commission expects to see a number of compliance related impacts, particularly with regard to the non-traditional market participants. Specifically, the Commission expects that the time non-traditional participants take to establish their compliance programs will decrease and that the quality of those programs will increase. The Commission also expects to see compliance programs in smaller operations.

Beyond the compliance programs, the Commission expects non-traditional, as well as traditional, market participants to provide better and more prepared responses to inquiries and investigations. Further, the Commission expects to see an increase in self-reporting of violations. Ultimately, of course, the Commission expects that there will be a decrease in violations that occur due to an entity's lack of familiarity with Commission requirements.

**Monitoring Risk Factors**. A number of risk factors could impact the strategic response over the next two years, including the size of non-traditional market participants, their familiarity with Commission rules and regulations, and their unique compliance challenges.

In FY 2019, the Commission's actions were impacted by the fact that non-traditional participants, which are often smaller than traditional market participants and subject to fewer FERC requirements, can enter and exit the market more quickly than traditional market participants. This makes it difficult for FERC to maintain a clear picture of the full population of new participants and their activities. New participants are also more diverse and may have different compliance challenges. Therefore, the public information provided by FERC related to its enforcement program and compliance issues relevant for some non-traditional market participants may not be relevant for others. The diversity thus precludes the use of a single message or outreach mechanism and makes it more difficult to reach everyone. FERC expects that these factors will continue to be relevant over the next two years and will continue to take them into account while implementing its responsive actions.

## CORE FUNCTIONS

In addition to being responsive to this strategic issue, FERC carries out its responsibilities in this objective through two core functions. Each core function is driven by discrete sets of inputs, operations, and outputs to deliver impact.

### CORE FUNCTION 1.2.1: INCREASE COMPLIANCE BY IDENTIFYING ANOMALIES AND POTENTIAL RULE IMPROVEMENTS, AND THROUGH STAKEHOLDER EDUCATION AND OUTREACH.

In the complex and rapidly evolving energy marketplace, ongoing observation and analysis are necessary to ensure that market rules are effective and practicable for those who must follow them. Education and outreach related to market rules and compliance obligations are important as new participants join the markets and existing participants adapt to changing requirements.

FERC staff routinely monitors and analyzes the energy markets to identify and evaluate significant market events and trends, inefficient market rules, and other unusual market behavior. The Commission staff also processes accounting filings and provides analysis and guidance on accounting matters in other filings submitted by regulated entities. Results of staff analyses may inform market rule changes or other Commission actions. This information may also be used to educate and inform the public on Commission oversight or market fundamentals.

FERC staff also works to increase compliance by conducting audits of jurisdictional entities. A risk-based approach to plan and prioritize audits helps FERC examine areas of regulatory importance and make the most efficient use of its resources. These audits assess compliance with carefully crafted rules and regulations and provide insight into the factors affecting compliance. In addition, audit staff provides informal feedback to the audited entities during the audit engagements, and formal findings are issued in public reports that facilitate compliance across jurisdictional entities.

Collectively, these activities help to understand the factors affecting compliance and facilitate compliance through information sharing, feedback, and practical recommendations. FERC further leverages this information and understanding to educate the market participants on rules, requirements, and processes.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Monitoring and analysis of natural gas and electric markets
- Compliance, operational, financial, and other audits
- Analysis of accounting/financial filings from regulated entities

## MONITORING AND ANALYSIS OF NATURAL GAS AND ELECTRIC MARKETS

**OVERVIEW.** Commission staff examines electric and natural gas data from a variety of sources to review market fundamentals, identify emerging trends, and periodically report on the structure, operation, and interaction of natural gas and electric markets.

The Commission requires that companies participating in markets under its jurisdiction submit Electric Quarterly Reports (EQRs) regarding jurisdictional sales, financial statements, and operational data. On an ongoing basis, Commission staff synthesizes and analyzes a large variety and quantity of data from these filings, along with other sources, to perform *ex post* analysis of market-based rate authorizations to ensure that jurisdictional rates remain just and reasonable and not unduly discriminatory and preferential. Commission staff also implements tools and algorithmic indicators to review market activities and analyze results to examine anomalous market outcomes to determine, among other things, whether there are indications of an exercise of market power (i.e., activities inconsistent with expectations of a competitive market) or possible fraud or manipulation.

**FY 2019 Results.** In FY 2019, the Commission focused on increasing its capability by improving its systems and processes for both collecting and analyzing market data to conduct market monitoring and detect undue market power.

In regard to collecting data, the Commission continued its efforts, which began in FY 2015, to replace the electronic filing format used for certain forms submitted by regulated entities to provide industry and market data to the Commission and public. The initiative should improve the consistency and usability of submitted data, as well as improve ease of filing, reduce compliance issues, and decrease the costs of preparing the

necessary data for submission. During FY 2019, the Commission issued a final rule announcing that it is adopting eXtensible Business Reporting Language (XBRL) as the standard for filing ten Commission forms.[3]

In addition, the Commission began an initiative to improve the processing of EQR filings. Each quarter, FERC staff conducts manual checks of the EQR filings to ensure that they have been completed properly and that data is complete and usable. To help reduce the time spent on manual checks, FERC staff is developing new screens to automatically flag incomplete and improperly filed reports and identify entities that have failed to submit their EQR filings. The automated screens will also enable FERC staff to more quickly alert organizations to issues with their filings. By reducing the time spent on checking the accuracy of data submissions, staff will be able to spend more time on using the data and conducting *ex post* analyses of market power.

In regard to analyzing market data, FERC staff is continuing to develop new screening methodologies for its *ex post* reviews. The new methodologies will increase staff's speed and efficiency in conducting its reviews and enable more refined analyses of EQR data in support of market-based rate filings. Additionally, Commission staff created an automated market monitoring dashboard to increase the efficiency of reviewing market outcomes, as well as populating public reports, such as the Annual State of the Market Report and Seasonal Assessments.

Notwithstanding the enhancement efforts, the Commission completed quarterly and annual compliance checks on the industry's compliance with the Commission's financial forms and EQR filing requirements and conducted *ex post* analyses and inquiries. In FY 2019, the Commission received EQR submittals from approximately 2,500 entities each quarter and conducted *ex post* analyses at a level that was comparable to recent years. These in-depth, data-intensive analyses combine multiple types and sources of information to determine whether FERC's authorization of market-based rate authority resulted in any increases in the use of market power or other adverse effects. By looking at shifts in market power over time and across different geographic areas and proposed purchases, these inquiries also seek to anticipate future risks.

Commission staff also produced annual reports including the State of the Markets Report, assessing significant events of the previous year, and the Winter and Summer Energy Market and Reliability Assessments.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will continue to enhance its compliance efforts related to the Commission's filing requirements with improved technology, such as the transition to the new XBRL filing format. The Commission anticipates a similar number of EQR quarterly filings and *ex post* inquiries in both FYs 2020 and 2021. In FY 2020, the Commission plans to organize and host staff-led technical conferences designed to discuss a draft XBRL taxonomy and other related documents, technical concerns, and any issues related to the transition, including implementation schedule. Upon conclusion of the technical conferences, the Commission will issue a final order adopting the final standard, protocols, an implementation guide, and schedule. The Commission anticipates that the shift to the new XBRL filing format

[3] *Revisions to the Filing Process for Commission Forms,* Order No. 859, 167 FERC ¶ 61,241 (2019).

for FERC forms will be completed in FY 2021. The Commission expects the required forms to provide more meaningful, useful data and for the filing process to be faster as a result of these changes.

In addition, the Commission expects the new EQR screens to result in an increase in the proportion of staff time spent on analysis and a decrease in the time it takes FERC to alert organizations about issues with their filings by the end of FY 2021.

The Commission expects that the increases in analytical capacity related its *ex post* analysis will begin to show an impact in FY 2021. The impact will not necessarily be a higher number of instances of market power detected, because this number depends on external factors, but the impact should be evident through increased efficiency and more refined analysis of its *ex post* reviews.

In FY 2020, the Commission expects to release an updated version of its *Energy Primer: A Handbook of Energy Market Basics*, previously updated in November 2015.

In FYs 2020 and 2021, staff will continue to produce its annual reports and assessments to observe long-term market trends and provide meaningful insights to the public on the Commission's oversight and enforcement efforts.

## COMPLIANCE, OPERATIONAL, FINANCIAL, AND OTHER AUDITS

**Overview.** The Commission conducts audits of jurisdictional entities—including public utilities, natural gas pipelines, and oil pipelines—to assess compliance with the Commission's authorizing statutes, orders, rules, and regulations. Each year, the Commission develops an audit plan that specifies the entities to be audited and particular areas of focus. The audit plan balances the Commission's intention to comprehensively cover potential areas of noncompliance with a risk-based approach that prioritizes key areas of regulatory importance. In addition to assessing compliance, the audits help the Commission identify and analyze factors affecting noncompliance. Every audit also generally includes a review of the internal compliance program of the entity under audit. To help regulated entities maintain compliance, FERC auditors provide informal feedback and recommendations during the audit engagements and issue a publicly available audit report that provides formal recommendations. The Commission places an emphasis on timely implementation of recommended corrective actions within six months of an audit's completion.

**FY 2019 Results.** Audits conducted and completed are a function of available staffing, the size of the entities under audit, the scope of the audit, the complexity of the audit topics, and the number of findings. Many of these variables can be adjusted to impact the number of audit completions. The cooperation and responsiveness of the entities under audit also impact the number of audit completions in a given year. In FY 2019, the major topic areas for audits included competitive energy markets, transmission formula rates, market-based rates, reliability, affiliated transactions, open access transmission tariffs and interconnections, natural gas pipeline tariffs, oil pipeline tariffs and FERC Form No. 6 reporting, and the impact of the Tax Cuts and Jobs Act of 2017.

Comprehensive audits may take up to a year or more, and, in FY 2019, the Commission completed 11 of the 15 audits that were open at the beginning of FY 2019. The completed audits of public utilities, natural gas pipelines, and oil pipelines resulted in 286 recommendations for corrective actions. The FY 2019 audit recommendations focused on the accuracy and transparency of financial reporting, improvements to internal processes and procedures, and efficiency of operations. As a result of these audits, $11.8 million has been refunded to transmission customers, with additional refunds expected in FY 2020. In addition, these audits will prevent over $140 million in costs from being inappropriately included in future rate filings. In FY 2019, the Commission achieved a 97% success rate of audit recommendations implemented within six months. Additionally, the Commission opened 15 new comprehensive audits during FY 2019.

This level of work represented a typical year for the Commission, with no external impediments to Commission work. The audit reports are available to the public to provide all jurisdictional entities transparency into the audit process and areas of noncompliance.

**FYs 2020 and 2021 Planned Results.** The major topic areas of the Commission audits anticipated for FYs 2020 and 2021 include competitive energy markets, transmission formula rates, market-based rates, reliability, affiliated transactions, open access transmission tariffs and interconnections, natural gas pipeline tariffs, oil pipeline tariffs and FERC Form No. 6 reporting, impact of the Tax Cuts and Jobs Act of 2017, and other accounting and financial reporting matters. Due to the comprehensive nature of Commission-led audits and the complexity of planned audits, the overall number of audits planned generally remains within a consistent range.

In FY 2020, the Commission expects to conclude a significant number of the audits that were open as of September 30, 2019. In addition, the Commission expects to commence in FY 2020 approximately 15 audits—the same number as FY 2019.

The Commission expects the number of audits in FY 2021 to stay within the consistent range. The Commission is also planning to implement a new audit management software in FY 2020, which should increase audit efficiency.

Finally, the Commission will continue to work with entities to facilitate the prompt and effective understanding and implementation of audit recommendations. As such, the Commission expects to see a high success rate of implemented corrective actions continue into FYs 2020 and 2021.

## ANALYSIS OF ACCOUNTING/FINANCIAL FILINGS FROM REGULATED ENTITIES

**Overview.** The Commission's accounting program is an instrumental component in ensuring that rates established for jurisdictional companies are just and reasonable and not unduly discriminatory or preferential. The Commission processes accounting filings and analyzes accounting matters in other filings submitted by regulated entities to ensure compliance with Commission accounting and related financial reporting

regulations and to bolster the accuracy, transparency, and usefulness of accounting information for the Commission, regulated entities, and interested parties in the development and oversight of rates.

**FY 2019 Results.** In FY 2019, the Commission processed 433 accounting filings and responded to 74 accounting inquiries. The Commission also issued accounting guidance on issues such as leases and the treatment of accumulated deferred income taxes, in light of the Tax Cuts and Jobs Act of 2017. This represents a decrease from FY 2018's 435 accounting filings and 103 inquiry responses. The number of filings reviewed for accounting matters is largely dependent on the number of accounting filings and rate applications submitted to the Commission by jurisdictional entities. In FY 2019, 95% of accounting filings were completed within 60 days.

Commission staff also met with industry groups and was actively engaged in providing analysis of emerging accounting issues including changes to U.S. Generally Accepted Accounting Principles related to accounting for cloud computing, leases, and employee pensions and the accounting impacts of the Tax Cuts and Jobs Act of 2017. The Commission's input on accounting issues helps to minimize the reporting burden for industry while supporting rigorous reporting that minimizes the potential for intentional or inadvertent inaccuracies.

This level of work represented a typical year for the Commission, with no external impediments to Commission work.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission expects to complete a similar number of accounting responses and inquiry responses (including those related to the Tax Cuts and Jobs Act of 2017), requests to recover stranded costs related to premature retirements of fossil fuel generators, and increasing applications for transmission rate incentives. This number, however, depends on both internal factors, primarily staff capacity, and external factors, such as the number of external accounting matters in which the Commission is brought to provide support. The Commission expects FYs 2020 and 2021 also to be typical years, with no external impediments to Commission work.

## CORE FUNCTION 1.2.2: DETECT AND DETER MARKET MANIPULATION BY IDENTIFYING AND CONDUCTING INVESTIGATIONS OF POTENTIAL VIOLATIONS.

Even the most carefully crafted policies are ineffective if they are not followed. Surveillance and enforcement promote a fair market for both service providers and end users. In its role as an enforcement body, FERC conducts surveillance and investigations with the aim of detecting and deterring violations, including market manipulation by regulated entities.

FERC staff monitors energy markets on a daily basis using sophisticated surveillance screens and tools developed by staff that algorithmically screen data from the physical and financial energy markets. When staff analyses identify potential violations by market participants, staff refers them for investigation. In addition to monitoring and internal referrals, FERC may be notified of potential violations of the statutes, regulations, rules, orders, and tariffs administered by the Commission through a variety of external sources, including self-

reports, tips, calls to the Enforcement Hotline, and referrals from state agencies, organized markets, or their market monitoring units.

In response to receiving information related to an alleged violation, FERC staff evaluates whether to open and then, if opened, conduct non-public investigations of these possible violations. If staff opens an investigation, after conducting fact-finding, FERC staff determines whether the evidence indicates a violation. If no violation is identified or if the violation is not deemed to be sufficiently serious, the investigation is terminated. If a violation of sufficient seriousness is indicated, enforcement staff reports their factual findings and legal conclusions to the Commission and, upon authorization from the Commission, attempts to resolve the investigation through settlement. If a settlement is not reached, FERC staff may recommend that the Commission pursue further enforcement proceedings and participates in enforcement proceedings before an administrative law judge or district court. Investigations that reach this stage typically produce an administrative record that reflects the investigative findings and legal conclusions.

FERC's enforcement efforts are intended to lead to a fair resolution of each investigation, whether the result is closing that investigation, a settlement, or an enforcement proceeding that results in the payment of a civil penalty, disgorgement of unjust profits, compliance monitoring, and/or other remedies available to the Commission. Results of enforcement proceedings and settlements are publicly and transparently published to provide regulated communities with knowledge of the Commission's actions. FERC's actions to detect and deter market manipulation by market participants ensure that policies and regulations continue to promote a fair marketplace.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Surveillance of natural gas and electric markets
- Investigations
- Enforcement proceedings

## SURVEILLANCE OF NATURAL GAS AND ELECTRIC MARKETS

**Overview.** FERC conducts comprehensive surveillance and analysis of the natural gas and electric markets to identify potential market manipulation and other violations. FERC's surveillance screening methods use market data collected from a variety of public and non-public sources to identify indications of potential misbehavior. Follow-up analyses are used to determine whether to recommend the matter be investigated.

**FY 2019 Results.** In FY 2019, the Commission's automated natural gas screens, which cover the majority of physical and financial natural gas trading hubs in the United States, produced approximately 7,629 basic screen trips. These trips were then further refined through integration of behavior, incentives, and persistence into 1,286 surveillance alerts that ranged in severity from low to high concern. Staff review of these alerts resulted in 20 inquiries. The inquiries involve more in-depth review of the specific trading behavior that could indicate

potential manipulation or anticompetitive behavior. Based on the inquiries, one was referred for investigation, which represents a typical level of referrals. For the electricity markets, staff ran and reviewed 83 electric surveillance screens monthly, hourly and intra-hour sub-screens, and reports for over 37,000 hub and pricing nodes within the six ISO/RTOs. Staff review of these alerts in FY 2019 resulted in 23 inquiries, of which five were referred for investigation. This represents a typical level of referrals.

In addition to the Commission's ongoing surveillance activities, another focus of the Commission's surveillance program was developing new tools and increasing the usability of data. The Commission has several ongoing initiatives related to these improvements, which are expected to continue in FYs 2020 and 2021. In FY 2019, Commission staff continued its initiative to develop, refine, and implement improved surveillance tools and algorithmic screens to perform continuous surveillance and analysis of market participant behavior, economic incentives, operations, and price formation, both in the natural gas and electricity markets. The Commission also began using software with improved visualization functionality to allow for more rapid interpretation of data.

In FY 2019, the Commission began testing a cloud-based platform for its analytical activities, a change which is expected to provide increased storage space and allow more rapid access to technology updates. In FY 2019, the Commission also continued its initiative to integrate the different public and non-public market data that it utilizes in an effort to (1) increase usability and accessibility of the data for Commission staff; (2) enhance the insights that can be gathered from the data; and (3) increase the efficiency of the Commission's surveillance functions so that it can more quickly detect and prevent misconduct.

This level of work represented a typical year for the Commission, with no external impediments to Commission work.

**FYs 2020 and 2021 Planned Results.** In FY 2020, the Commission expects to continue its transition to cloud-based computing for data analytics and to complete the transition in FY 2021. Once the transition is complete, the Commission expects the new system to improve its data management capabilities by allowing more storage space and faster iteration of tools and technology updates.

The number of alerts received is partially dependent on external market factors and may vary due to market or weather events. Higher numbers of alerts should not typically lead to higher numbers of inquiries because the Commission eliminates false alarms through analysis. However, events that create additional alarms can slightly decrease capacity due to the time needed to check statistics and review reports. In FYs 2020 and 2021, the Commission does not anticipate any changes to the volume of work based on known factors and will be prepared and able to respond effectively to alerts and inquiries.

The Commission often reaches out to market participants as part of its surveillance inquiries to discuss trading activities and to obtain additional non-public data. This frequent interaction between Commission staff and market participants has been positive and productive, often eliminating the need for an investigation. This reduces burden on the industry and the Commission. As these interactions continue and more market

participants participate in surveillance inquires, the process should improve further in FY 2021, allowing inquiries to be resolved even more efficiently.

## INVESTIGATIONS

**Overview.** While most market participants act in good faith and observe the relevant rules and regulations, some participants engage in manipulative behavior or violate Commission orders, rules, and/or tariff requirements. When potential violations are identified through surveillance activities, hotline tips, or market monitor or Commission referrals, the Commission conducts comprehensive investigations to determine whether a violation has occurred and whether, based on the facts presented, it is appropriate for the Commission to exercise its civil penalty authority.

FERC conducts investigations using various fact-finding methods (including comprehensive data collection and investigative interviews) and data analyses to make a determination of what happened and whether a violation has occurred. If a violation of sufficient seriousness is indicated, enforcement staff report their factual findings and legal conclusions to the Commission and, upon authorization from the Commission, attempt to resolve the investigation through settlement. The Commission provides guidance to the regulated community where possible, including in the Annual Report on Enforcement, the publication of settlements and adjudicative orders, and through regular interactions with regulated entities.

**FY 2019 Results.** In FY 2019, FERC had the following four investigation and enforcement priorities: (1) fraud and market manipulation; (2) anticompetitive conduct; (3) serious violations of Reliability Standards; and (4) conduct that threatens the transparency of regulated markets.

In FY 2019, FERC focused on strategies intended to help reduce the instances of enforcement activities, including encouraging regulated entities to implement effective compliance programs and providing guidance to them through regular interactions, outreach, and the publication of reports of investigations.

FERC also encouraged self-reports of violations and promoted the use of the Enforcement Hotline, both of which allow a greater chance of informal resolution and/or resolution without sanctions.

The Commission received 153 Enforcement Hotline inquiries in FY 2019, down slightly from FY 2018's 171 inquiries. Nearly all inquiries resulted in prompt, informal resolution. The Commission received 149 self-reports in FY 2019 and closed the vast majority without enforcement action.

In FY 2019, Commission staff opened 12 new investigations and brought 14 investigations to closure, which was lower than the number of investigations opened and closed, respectively, in FY 2018. Of the closed investigations, 12 closed with no action because the evidence did not support finding a violation or because staff found a violation but did not believe sanctions were warranted. Another two investigations were closed following Commission orders relevant to the investigation. These 14 closings were in addition to two matters that were resolved through settlement. These two settlements included $7.4 million in civil penalties and $7 million in disgorgement.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, FERC expects its investigational priorities to remain the same. Investigation and enforcement priorities may change if there is a regulatory change or a major violation of existing rules and regulations that reveals new topics of concern.

The Commission expects Enforcement Hotline inquiries and self-reports to remain steady. The Commission may receive more referrals in FYs 2020 and 2021 from market monitors than in previous years, as coordination continues to improve, resulting in a pattern of increased and higher-quality referrals that may lead to more investigations being opened.

## ENFORCEMENT PROCEEDINGS

**Overview.** If a settlement is not reached, FERC staff may recommend that the Commission issue an Order to Show Cause (OSC) directing the subject to explain why it did not commit a violation and why penalties and disgorgement are not warranted. After considering the factual record and legal arguments submitted during the OSC process, if the Commission concludes that the subject committed a violation that warrants penalties and disgorgement, the Commission will issue either an Order Assessing Civil Penalties (in most matters arising under the FPA) or set the matter for hearing before an Administrative Law Judge (in some matters arising under the FPA and matters arising under the Natural Gas Act of 1938 [NGA]), if there are material issues of fact to resolve before the Commission issues a final order. If the Commission issues an Order Assessing Civil Penalties pursuant to the FPA and the company or individual fails to pay the penalty in a timely fashion, the Commission seeks to enforce that assessment in federal court. These actions, and the Commission's imposition of civil penalties or other sanctions where circumstances warrant, act as a deterrent to fraud, market manipulation and other violations.

**FY 2019 Results.** During FY 2019, the Commission issued one OSC. Specifically, on July 10, 2019, the Commission issued an OSC directing Vitol Inc. and one of its traders to show cause why they should not be found to have violated the Commission's Anti-Manipulation rule.[4] In addition, in FY 2019, the Commission terminated one matter in which an OSC had been issued, basing its decision on the parties' responses and enforcement litigation staff's recommendation not to further pursue the matter.[5]

The Commission is limited in its ability to report on ongoing enforcement proceedings because much of the information cannot be made public unless and until an OSC is issued. The Commission is currently able to report that it currently has three open enforcement proceedings pending before federal courts:

- Richard Silkman and Competitive Energy Services, LLC, for fraud in participation in an RTO's demand response program, in which the court has been considering procedural motions and has scheduled for trial in April 2020

[4] See Vitol Inc. and Frederico Corteggiano, 168 FERC ¶ 61,013 (2019).
[5] See Footprint Power LLC et al., 166 FERC ¶ 61,150 (2019).

- Houlian Chen, Powhatan Energy Fund, LLC, HEEP Fund, LLC, and CU Fund, Inc. for fraud in the collection of marginal loss surplus allocation payments in PJM energy markets (issued in FY 2015), which has been stayed pending resolution of an interlocutory appeal to the United States Court of Appeals for the Fourth Circuit on issues relating to statute of limitations
- Coaltrain Energy L.P., Peter Jones, Shawn Sheehan, Robert Jones, Jack Wells, and Jeff Miller for engaging in fraud in the collection of marginal loss surplus payments in PJM energy markets (issued in FY 2016), in which the parties are engaged in discovery

This level of work represented a typical year for the Commission, with no external impediments to Commission work.

**FYs 2020 and 2021 Planned Results.** On October 20, 2019, the Commission issued an Order Assessing Penalties against Vitol Inc. and that trader finding they had violated the Commission's Anti-Manipulation rule. In addition, the three court proceedings, described above, are expected to continue into FYs 2020 and 2021. Two pending Natural Gas Act enforcement matters also are pending before the Commission and may be resolved in FYs 2020 or 2021:

- An Order to Show Cause issued by FERC in FY 2016, which proposed civil penalties totaling $216 million and disgorgement of $9.18 million against Total Gas & Power North America, Inc., S.A. Total Gas & Power, Ltd., Aaron Hall, and Therese Tran f/k/a Nguyen
- July 11, 2016, affirmance of an Initial Decision from an Administrative Law Judge against BP of America, Inc. The decision alleges market manipulation involving natural gas trading and orders BP to pay $20.16 million in civil penalties and disgorgement in the amount of $207,169

The level of activity in FY 2020 is expected to be about the same as in FY 2019. In FY 2021, the level of activity is expected to increase as the matters pending before the federal court move toward and possibly reach trial.

## PERFORMANCE MEASURES

Commission staff will use the following measure to assess performance in Objective 1.2. The result of this measure will be used in combination with other data and supplemental information to establish a more complete picture of performance on this objective.

### **PERFORMANCE MEASURE:** PERCENT OF AUDIT RECOMMENDATIONS IMPLEMENTED WITHIN SIX MONTHS OF ISSUANCE

**Overview.** This measure tracks the timeliness of the industry's implementation of audit recommendations directed by the Commission. FERC's recommendations include corrective actions that improve compliance and enforce FERC's regulations of the interstate transmission of electricity, natural gas, and oil. Timely implementation of audit recommendations helps to maximize their impact. The sooner recommendations are implemented, the sooner the jurisdictional entity and impacted stakeholders will experience the benefits.

Timely implementation of recommendations also helps to demonstrate industry's commitment to compliance and fair, competitive markets.

### Targets and Actual Results Table

| Percentage of audit recommendations implemented within six months of issuance | | | | | | | |
|---|---|---|---|---|---|---|---|
| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
| 96% | 98% | 98% | 98% | 97% | 95% | 95% | 95% |
| FY 2019 Target: Met | | | | | | | |

For each area of non-compliance identified during the audit, FERC provides a recommendation to rectify the deficiency. FERC has established a six-month timeframe for the regulated entity to implement a recommendation. FERC considers a recommendation as implemented if the corrective actions have been completed or, in the case of complex recommendations where the changes require more than six months to achieve, the entity has taken action and is continuously working to implement the recommendation.

**FY 2019 Results.** FERC achieved its target in FY 2019 through continued emphasis of timely implementation. FERC audit staff regularly encourage jurisdictional entities to focus on timely implementation of recommendations. This is accomplished through regular communication with jurisdictional entities and stressing the importance of prompt compliance. FERC also stresses timely compliance through its outreach to the industry and its annual Report on Enforcement.

**FYs 2020 and 2021 Planned Results.** For FYs 2020 and 2021, the Commission will continue to emphasize timely implementation of recommendations. This will be accomplished through regular outreach and direct communication with jurisdictional entities. Through the Commission's outreach activities, staff will continue to stress the value and expectation of a strong compliance culture and the timely completion of audit recommendations.

**Monitoring Risk Factors.** Risk factors that could impact the timely implementation of audit recommendations by jurisdictional entities include industry changes, economic factors, and regulatory changes imposed by other regulatory agencies. FERC will continue to monitor these changes and remain vigilant to ensure the future achievement of the targets above.

# GOAL 2: PROMOTE SAFE, RELIABLE, AND SECURE INFRASTRUCTURE

## PROMOTE THE DEVELOPMENT OF SAFE, RELIABLE, AND SECURE INFRASTRUCTURE THAT SERVES THE PUBLIC INTEREST.

Infrastructure for which FERC approval is required includes non-federal hydropower facilities, interstate natural gas pipelines and gas storage projects, and LNG facilities. Hydropower facilities provide reliable, flexible, renewable, domestic energy that supports the electric grid. In addition to power generation, hydropower projects can provide other public benefits such as environmental protection and enhancement and recreational opportunities. The development of shale gas resources has led to unprecedented growth in domestic gas production. This, in turn, has led to an increase in natural gas infrastructure—pipelines, storage, and LNG facilities—to enable that growing natural gas supply to reach market areas.

In the FPA and the NGA, Congress charged the Commission with ensuring that these types of energy infrastructure are in the public interest and provide energy for consumers at a reasonable cost. Congress also charged the Commission with overseeing the development and review of, as well as compliance with, mandatory reliability standards for the bulk-power system to increase the reliability of that infrastructure. In addition to these efforts, the Commission helps to secure energy infrastructure from cyber and physical attacks through a collaborative approach that encourages voluntary architecture assessments of energy infrastructure and the promotion of best practices to mitigate existing and emerging vulnerabilities. Accordingly, the Commission's goal of promoting the development of safe, reliable, and secure infrastructure serves the public interest.

| Strategic Goal and Objectives (Dollars in thousands) | | FY 2019 Actual | FY 2020 Request | FY 2021 Request | Percent Change FY 2020 to FY 2021 |
|---|---|---|---|---|---|
| **Objective 2.1** | **FTE** | 246 | 256 | 262 | **2.2%** |
| | **Funding** | $ 68,513 | $ 70,636 | $ 76,274 | **8.0%** |
| **Program** | | 49,565 | 49,602 | 53,595 | 8.0% |
| **Support** | | 18,948 | 21,034 | 22,680 | 7.8% |
| **Objective 2.2** | **FTE** | 228 | 236 | 239 | **1.5%** |
| | **Funding** | $ 60,090 | $ 63,208 | $ 66,482 | **5.2%** |
| **Program** | | 42,570 | 43,891 | 45,811 | 4.4% |
| **Support** | | 17,520 | 19,317 | 20,671 | 7.0% |
| **Goal 2 Subtotal** | **FTE** | **474** | **492** | **501** | **1.9%** |
| | **Funding** | **$ 128,603** | **$ 133,844** | **$ 142,756** | **6.7%** |
| **Application of PY Budget Authority** | | **(687)** | **(1,558)** | **-** | |
| **Goal 2 Total** | **Funding** | **$ 127,916** | **$ 132,286** | **$ 142,756** | **7.9%** |

*Note: Numbers may not add up due to rounding*

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# OBJECTIVE 2.1: FACILITATE BENEFITS TO THE NATION THROUGH THE REVIEW OF NATURAL GAS AND HYDROPOWER INFRASTRUCTURE PROPOSALS.

To carry out its goal to ensure that necessary energy infrastructure is developed that is reliable, secure, and operationally safe, the Commission reviews proposals for natural gas and hydropower infrastructure. Under Part I of the Federal Power Act, the Commission's responsibilities include authorizing the construction of hydropower projects and overseeing their operation and safety. Under sections 3 and 7 of the Natural Gas Act, the Commission regulates the construction and modification of LNG terminals on shore and in state waters and of natural gas pipelines and related facilities, including underground storage facilities.

FERC's review of proposed projects balances a range of factors including market need; statutory, regulatory, and policy requirements; and environmental impacts. FERC also coordinates with other agencies to consider issues related to environmental statutes such as the National Environmental Policy Act, Endangered Species Act, National Historic Preservation Act, Coastal Zone Management Act, and Clean Water Act. The Commission's review processes are designed to result in well-reasoned, legally sound decisions based on a wide range of input from staff technical experts, other regulatory agencies, and the public.

FERC's orders authorizing energy infrastructure projects include terms and conditions designed to address impacts resulting from a project on the environmental resources in project areas. Among other things, these terms and conditions address water and air quality, land use and recreation, erosion control, cultural resources, and wildlife and endangered species. In addition, for orders involving LNG there are many engineering conditions related to plant design and operation and for hydropower projects, there are numerous conditions addressing safety and security concerns.

As specified by the authorization, licensees and certificate holders must implement specific environmental and operational measures, generally after filing detailed plans, proposals, and reports regarding this implementation. FERC ensures compliance with the terms and conditions of the order through extensive environmental review and inspection programs of jurisdictional facilities during construction and then operation. These programs evaluate and assess implementation and compliance with the environmental and public use requirements of authorizations. At regularly scheduled intervals, Commission staff familiar with the project and FERC rules and regulations conduct on-site inspections to confirm that licensees and certificate holders are abiding by terms and conditions specified in the authorizations.

By helping to ensure that facilities are built and operated in compliance with the stipulated terms and conditions, FERC's review and inspection programs support the operation of safe, reliable, and secure energy infrastructure.

## STRATEGIC CHALLENGES

In its FY 2018–2022 Strategic Plan, the Commission committed to addressing challenges and opportunities that are likely to have a significant impact on the achievement of Objective 2.1. The status of this Strategic Challenge and the Commission's responsive actions are included below.

### STRATEGIC CHALLENGE: PERMITTING CHALLENGES

**Overview.** It is increasingly difficult for the Commission to complete its permitting process for needed energy infrastructure on a schedule that is timely and predictable, due to a variety of factors, many of which are outside the Commission's control. The Commission, however, strives to complete the permitting process in an efficient manner and continues to seek new ways to improve the process.

**FY 2019 Results.** The Commission continued to take actions in FY 2019 to seek and implement ways to make the Commission's permitting process more efficient. The Commission continued its efforts under Title 41 of the Fixing America's Surface Transportation Act (FAST-41) by working with project sponsors and agencies to update and maintain the permitting dashboard and the Coordinated Project Plans which describe the consultation process and responsibilities of each agency in the process. In addition, the Commission continued efforts in response to the One Federal Decision (OFD) Memorandum of Understanding (MOU), pursuant to Executive Order 13807 *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects*. Under the MOU, agencies agreed to work towards an average project permit decision of two years or less. In FY 2019, FERC conducted interagency outreach under the MOU. The Commission held workshops in Washington, DC for agency headquarters' staff and in Colorado with the U.S. Forest Service to explain the Commission's OFD Implementation Plan.

To provide the public more detailed information on its website, in FY 2019 the Commission undertook steps to make the site more user friendly and provide more readily accessible information. To do so, the Commission unveiled a Landowner Topics web page on FERC.gov in September 2019. This new web page provides landowners around proposed projects with more direct and efficient access to information pertinent to their participation in the review process.

Additionally, the Commission issued Order No. 858, as required by the America's Water Infrastructure Act of 2018. The rulemaking established an expedited process for issuing and amending licenses for qualifying facilities at existing non-powered dams. The process seeks to ensure a final decision by the Commission on an application for a license is taken no later than two years after receipt of a complete license application.

Finally, as both the number of LNG projects (proposed, in construction, and in operation) and the complexity of each project have grown, the need has developed for additional staff and more focused oversight in this program area. To this end, the Commission created a new Division of LNG Facility Review and Inspection, comprising 20 LNG existing staff currently located in the Division of Gas Environment and Engineering who will continue to be located at headquarters and ultimately eight new staff who will be located in a newly created regional office in the Houston, TX metropolitan area. This location is situated in an area of LNG expertise

providing a potential staffing pool for the regional office. Staff at this location will be fully integrated with the headquarters staff and will perform the same tasks. In addition, this location, proximate to many of the existing projects under FERC's jurisdiction, will facilitate the efficient implementation of required compliance inspections during the construction and operational phases of a jurisdictional facility's life cycle.

**FYs 2020 and 2021 Planned Results.** The Commission will continue to notify sponsors of potential projects which meet the FAST-41 criteria of their eligibility as a covered project once an application is filed. However, the Commission has no ability to forecast which project sponsors will seek to become a FAST-41 covered project. Eligibility for a project under the OFD MOU is determined by whether the environmental review will require the development of an environmental impact statement. Given the number of projects currently in the pre-filing review phase, Commission staff expects the number of OFD projects to increase, and staff will continue to adhere to the permitting accountability system described in Executive Order 13807 by ensuring the dashboard is maintained, OFD milestones are properly coordinated with the appropriate agencies, and Commission staff accounts for its time, travel costs, and the direct contract costs of processing the applications. With respect to OFD outreach efforts, the Commission expects the number of outreach meetings to increase in FYs 2020 and 2021 as OFD continues to be implemented. The locations of the meetings will depend on agency requests and specific projects that qualify under OFD. In FY 2020, the Commission will further expand upon the Landowner Topics web page through updated and/or new information documents to provide clearer information on FERC's role and responsibilities with respect to infrastructure permitting, as well as how FERC's review process works.

The Commission will work to secure and renovate the necessary office space in Houston, TX. FERC expects to open this location by the fourth quarter of FY 2020. In FYs 2020 and 2021, the Commission will focus on recruiting the necessary staff for the regional office.

**Monitoring Risk Factors**. A number of risk factors could impact the strategic response over the next two years. The ongoing effectiveness of the OFD and FAST-41 efforts can only be as effective as the participant's willingness to engage in enhanced interactions and coordination. A change in the priorities of these partners could affect the timelines associated with the Commission's ability to act on infrastructure proposals. In addition, as the number of appeals of Commission decisions continues to increase, the Commission will continue to monitor and assess how best to respond to any direction and decisions that are the outcome of judicial review.

## CORE FUNCTIONS

In addition to being responsive to this strategic issue, FERC carries out its responsibilities in this objective through two core functions. Each core function is driven by discrete sets of inputs, operations, and outputs to deliver impact.

## CORE FUNCTION 2.1.1: CONDUCT THOROUGH AND TIMELY TECHNICAL REVIEW OF APPLICATIONS TO CONSTRUCT, OPERATE, OR MODIFY NATURAL GAS AND HYDROPOWER INFRASTRUCTURE.

FERC must respond to energy infrastructure applications with timely and well-reasoned decisions.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Natural gas pipeline, storage, and LNG projects
- Hydropower projects

### NATURAL GAS PIPELINE, STORAGE, AND LNG PROJECTS

The Commission's work in this area involves a pre-filing process, an application process, and outreach efforts. These processes and their past and planned results are described in more detail in the following sections.

#### *PRE-FILING PROCESS*

**Overview.** The Commission established a pre-filing process that engages Commission staff and stakeholders prior to an applicant filing a formal application with the Commission. The goal of the pre-filing process is to reduce delays caused by incomplete filings and expedite the Commission's authorization process. A six-month pre-filing period is mandatory for LNG projects; pre-filing is optional for gas pipeline and storage projects.

**FY 2019 Results.** In FY 2019, Commission staff initiated the pre-filing process for six natural gas pipeline projects and continued its work on five pre-filing reviews pending from prior years. Commission staff also initiated the pre-filing process for three LNG projects and continued work on five pre-filing reviews pending from prior years. In FY 2019, seven projects completed the pre-filing process and filed formal applications with the Commission. Historically, the Commission receives an average of four pre-filing requests for LNG projects and 12 pre-filing requests for gas pipeline projects each fiscal year. Thus, the number of pre-filing reviews initiated in FY 2019 is similar for LNG projects from previous years and below average for gas pipeline projects.

**FYs 2020 and 2021 Planned Results.** The Commission estimates that between 5 to 10 natural gas pipeline projects will be in the pre-filing stage each year in FYs 2020 and 2021. In addition, the Commission expects three to five LNG projects will initiate the pre-filing review process each year in FYs 2020 and 2021. The number of pre-filing reviews expected in FYs 2020 and 2021 is similar to historical averages for LNG projects and below average for gas pipeline projects. Importantly, the Commission does not have control over the number of pre-filing reviews submitted by the industry or the overall timeline of the pre-filing review process. A company's decision regarding the construction and modification of a facility is influenced by multiple, complex external factors outside of the Commission's control.

#### *APPLICATION REVIEW*

**Overview.** Once an application is filed, the Commission conducts an environmental review, consistent with the National Environmental Policy Act (NEPA). Concurrently, the Commission also conducts an engineering

analysis of proposed pipeline, storage, and LNG facilities. Further, staff's review of the application serves to determine whether the proponent has demonstrated a need for the project, as defined by the Commission's regulations and policies, establishes initial recourse rates, and ensures that projects' proposed tariff and accounting treatment are consistent with Commission policies and regulations. Together, these activities provide for an efficient, timely, and well-supported determination by the Commission.

**FY 2019 Results.** In FY 2019 the Commission received 141 applications and project notifications for natural gas pipeline, storage, and LNG proposals and continued its work on 76 proceedings pending from prior years. Commission staff completed the environmental and engineering review of 146 natural gas pipeline, storage, and LNG proposals in FY 2019. This level of work represented a typical year for the Commission.

Also, in FY 2019, the Commission completed processing 10 applications and project notifications, resulting in the approval of nine LNG projects, 704 miles of new pipelines, and 55,765 horsepower of mainline compression.

**FYs 2020 and 2021 Planned Results.** The Commission estimates 120 applications and project notifications for natural gas pipeline, storage, and LNG proposals in FYs 2020 and in 2021. This would be a similar number of filings received as in FY 2019.

### *OUTREACH EFFORTS*

**Overview.** The Commission staff conducts outreach meetings with natural gas companies, stakeholder groups, and other permitting agencies to provide guidance and insight on the Commission's environmental review process and compliance-related matters. Commission staff also conducts natural gas environmental training seminars, which provide an opportunity for open dialogue between Commission staff and stakeholders. These seminars are typically attended by state, local, and federal agency officials, natural gas company representatives, construction contractors, and consulting firm staff. These seminars provide information on the filing requirements for environmental reports, reporting requirements for blanket certificate projects, new regulations, an overview of the Commission's baseline construction and mitigation measures, and more. These seminars are instrumental in developing the understanding of successful adherence to the Commission-issued certificates and authorizations and help applicants to prepare more robust applications that can be reviewed more expeditiously. Commission staff also extends its outreach efforts to Indian tribes to enhance their participation in the Commission's environmental review process for natural gas projects.

**FY 2019 Results.** In FY 2019 Commission staff conducted three environmental training seminars, attended by approximately 150 stakeholders per session, and participated in three outreach sessions to discuss the Commission's certificate and environmental review processes with natural gas companies and federal permitting agencies. Overall, the Commission's FY 2019 training and outreach sessions had full attendance rates with participants actively engaging in open discussions.

The Commission staff also developed additional guidance and online training resources during FY 2019. An educational website titled *E-Learning: FERC Environmental Review and Compliance for Natural Gas Facilities*[6] was produced to provide online access to the training materials typically covered during the seminars. Staff also issued draft Guidance for Horizontal Directional Drill Monitoring Inadvertent Return Responses and Contingency Plans to help industry professional improve the quality and consistency of their plans and increase the efficiency and effectiveness of the Commission's environmental reviews.

In FY 2019 Commission staff wrote 195 tribal letters, seeking input for 13 proceedings, to various Indian tribes and Native American organizations/Alaska Corporations. Commission staff held or attended eight meetings with various Indian tribes and Native American organizations regarding natural gas proceedings. Additionally, staff participated in interagency tribal outreach training efforts.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission plans to conduct three natural gas environmental training seminars per year and add webinars for natural gas companies and other permitting agencies to learn about the environmental review process. It is expected that the seminars and webinars will continue to provide value to potential applicants as they prepare project proposals. Staff also plans to conduct a similar amount of tribal outreach efforts in FYs 2020 and 2021, as compared to FY 2019.The Commission also plans to issue final Guidance for Horizontal Directional Drill Monitoring Inadvertent Return Responses and Contingency Plans in FY 2020.

## HYDROPOWER PROJECTS

The Commission's work in this area involves a pre-filing process, an application process, and outreach efforts. These processes and their past and planned results are described in more detail in the following sections.

### *PRE-FILING PROCESS*

**Overview.** The pre-filing process typically begins three years before an applicant submits a license or a small hydropower exemption application. Under the Integrated Licensing Process (ILP), the Commission's default process, Commission staff works with stakeholders throughout the pre-filing process to identify issues and study needs. Commission staff analyzes applicant study proposals and stakeholder study recommendations, and issues study plan determinations. A license applicant may request permission to use either the Traditional Licensing Process (TLP) or the Alternative Licensing Process (ALP), instead of the default ILP. Under both the TLP and ALP, the prospective license applicant leads the pre-filing process and works with stakeholders to identify issues and study needs. Unlike the ILP, Commission staff is generally not involved in the TLP and only minimally involved in the ALP primarily during the first six months. Over the last 5–10 years, about one-third of pre-filing processes for license applications have been the ILP and two-thirds have been the TLP. The ALP is rarely used. To prepare a small hydropower exemption application, the only pre-filing process available to the prospective applicant is the TLP, and the applicant is not required to file a notice of intent.

[6] https://www.ferc.gov/industries/gas/e-learning.asp

**FY 2019 Results.** During FY 2019, Commission staff received 61 notices of intent/pre-application documents to initiate the pre-filing licensing process. Of the 61 notices of intent/pre-application documents that were filed, 28 were for the Commission's ILP and the remaining 33 were for the TLP. In addition to commencing 28 ILP pre-filing processes, Commission staff continued its work on 27 ILP pre-filing processes that commenced in prior years. In the course of these ILP proceedings, the Commission staff conducted 10 scoping meetings and issued 12 study plan determinations. Twenty-three pre-filings were concluded in FY 2019 as a result of the filing of a license application. Five of the 23 license applications filed were prepared using the ILP, 17 using the TLP, and 1 using the ALP.

The level of pre-filing work is in line with staff expectations. There are 54 licenses expiring in FY 2024 and, because a notice of intent must be filed no later than 5 years before a license expires, the Commission was able to accurately project the receipt of these filings. And the additional seven notices of intent were received, beyond the 54 related to the expiring licenses, for original licenses, which falls within the range of one to eight per year received over the past several years.

**FYs 2020 and 2021 Planned Results.** Based on prior year results and other known factors, the Commission anticipates that approximately 26 notices of intent/pre-application documents will be received (21 for relicensing processes and five for original licensing processes) in FY 2020. The Commission estimates that 10 of the 26 notices of intent/pre-application documents will be for ILP pre-filing processes, which will add to the 48 ILP pre-filing processes that will continue into FY 2020 from prior fiscal years. The Commission anticipates that approximately 15 new ILP pre-filing processes will commence in FY 2021, which will add to the 50 ILP pre-filing processes that will continue into FY 2021 from prior fiscal years. In the course of these processes, the Commission expects its staff to conduct approximately 23 scoping meetings and issue approximately 20 study plan determinations in FY 2020, and the same in FY 2021.

### *APPLICATION REVIEW*

**Overview.** Commission staff conducts a NEPA analysis on most hydropower project applications, with the exception of most conduit projects. The Commission is responsible for ensuring that the environmental document analyzes the project's effects on potentially affected resources—including geology and soils, aquatic resources (including water quality), terrestrial resources, threatened and endangered species, recreation, land use and aesthetic resources, and cultural resources—and examines alternatives and makes recommendations for protection, mitigation, and enhancement measures to be included in any license issued.

The Commission also processes preliminary permit applications and monitors compliance with issued permits. A permit guarantees the holder "first-to-file" status for a particular site in cases where multiple applications are received by the Commission for a hydropower license. Permits also allow the holder to study a particular site for four years with the potential for an up-to-four-year extension for a total of up to eight years. A permit does not authorize construction, nor is a permittee required to apply for or receive a license.

**FY 2019 Results.** In FY 2019, the Commission received 23 license applications, of which six were for original projects and 17 were for projects with expiring licenses. This workload was is in addition to its continuing work

on 82 applications pending from prior years. In FY 2019, the Commission acted on 17 license applications, representing a total capacity of 3,647 megawatts. During this same period, Commission staff issued 14 final environmental assessments on license applications, with an average processing time of nine months.

During FY 2019, the Commission received two small hydropower exemption applications and continued work on one small hydropower exemption filed in a prior year. In FY 2019, Commission staff acted on one small hydropower exemption application. During this period, Commission staff did not issue an environmental document for a small hydropower exemption application.

In FY 2019, Commission staff also completed 3,543 amendment-related filings. Commission staff issued 10 environmental assessments on amendment applications, with an average processing time of 11 months. In FY 2019, the Commission acted on nine license surrender applications, which terminated Commission jurisdiction for each of these nine projects, representing a total capacity of 31,783 kilowatts. In FY 2019, the Commission acted on 30 transfer of license or exemption applications. The Commission also received 54 preliminary permit applications during FY 2019, which added to 14 pending permit applications that were filed in prior years. The Commission acted on 35 permit applications during FY 2019, and one permit application was withdrawn by the permit applicant.

**FYs 2020 and 2021 Planned Results.** A relicense application must be filed by no later than two years prior to current license expiration. In FYs 2020 and 2021, the Commission expects to receive 27 and 34 relicense applications, respectively, for projects with expiring licenses in FYs 2022 and 2023, respectively. Based on the number of original license and small hydropower exemption applications filed in FY 2019, the Commission expects five original license and two small hydropower exemption applications to be filed in both FYs 2020 and 2021. In FYs 2020 and 2021, the Commission expects to complete a similar number of amendment-related filings as in FY 2019 and to issue five environmental assessments on proposed amendments each year and 30 final environmental assessments each year for license and small hydropower exemption applications. The increase in expected final environmental assessments in FYs 2020 and FY 2021 compared to FY 2019 is commensurate with the anticipated increase in relicense application filings.

### *OUTREACH EFFORTS*

**Overview.** Commission staff may hold workshops to assist licensees with specific issues, as well as conduct hydropower licensing training sessions to provide guidance on how to obtain a license or exemption or how to effectively participate in the licensing and exemption processes. The sessions are typically attended by prospective licensees, federal and state natural resource agency personnel, Indian tribes, and members of the public, and cover such specific topics as what licensing process to use, when to file comments and recommendations for license or exemption conditions, and how to officially intervene in a license or exemption proceeding.

**FY 2019 Results**. In FY 2019, staff participated in a shoreline management workshop in Tuolumne, CA that was attended by approximately 65 individuals, representing 25 hydropower licensees from across the country, to discuss shoreline management issues along project reservoirs, including shoreline erosion, aquatic

resources, public outreach programs, licensed project purposes, and shoreline monitoring, permitting, and enforcement practices. Also in FY 2019, staff participated in a recreation workshop in Tawas, MI that was attended by approximately 48 individuals, representing 18 hydropower licensees, to discuss recreation management issues, including recreation facility management and maintenance, recreation and public safety, partnerships for recreation development at licensed projects, and trail development and maintenance. During FY 2019, Commission staff conducted five licensing workshops, the purposes of which were to educate stakeholders new to licensing on the Commission's licensing processes. These workshops were well received, equipping participants with valuable information and a chance for open dialogue with Commission staff.

**FYs 2020 and 2021 Planned Results.** Based on the feedback from licensees at the shoreline management and recreational workshops, Commission staff anticipates providing more of these workshops in FYs 2020 and 2021. The Commission also expects to conduct additional meetings in FYs 2020 and 2021 with Indian tribes, federal and state agencies, and hydropower industry personnel to prepare for the increased relicensing workload, discuss requirements for abandoned mines for storage, and other hydropower-related topics.

## CORE FUNCTION 2.1.2: ENSURE NATURAL GAS AND HYDROPOWER INFRASTRUCTURE IS CONSTRUCTED AND OPERATED IN COMPLIANCE WITH ENVIRONMENTAL MITIGATION CONDITIONS IN FERC ORDERS.

The Commission conducts environmental inspections of licensed and exempted hydropower projects and authorized natural gas pipelines and LNG facilities to evaluate and assess compliance with environmental conditions of the Commission's Orders.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Natural gas pipeline, storage, and LNG project inspections/reviews
- Hydropower project inspections/reviews

### NATURAL GAS PIPELINE, STORAGE, AND LNG PROJECT INSPECTIONS/ REVIEWS

**Overview.** The Commission's on-site inspection program assesses implementation and compliance with environmental protection and mitigation measures in its authorizations for natural gas facilities. While major pipeline facilities are under construction, Commission staff conducts inspections at least once every 28 days to ensure adherence to the prescribed environmental measures. Inspections are conducted throughout the construction and restoration phase, until project sites are deemed successfully restored. LNG projects are inspected at least once every 12 weeks during construction and continue through facility commissioning to ensure compliance with the Commission's authorization. Staff requires corrective actions for deficiencies in environmental compliance identified during construction and restoration inspections. Similarly, landowner concerns received directly by staff or via the Commission's Landowner Helpline can be more efficiently and effectively resolved by on-site review during construction and restoration inspections. Annual reports are filed

by regulated companies for any pipeline construction activities conducted during the prior year, under automatic authorization provisions in the Commission's regulations.

**FY 2019 Results.** In FY 2019, 699 natural gas facility compliance inspections were completed at project sites. Staff also reviewed all annual reports filed by regulated companies to ensure compliance with the Commission's requirements for construction, mitigation, and successful restoration. In FY 2019, regulated companies filed 165 annual reports under 18 C.F.R. 157.207, 145 annual reports under 18 C.F.R. 2.55, and 78 annual reports under 18 C.F.R. 284.11, for a total of 388 annual reports which were reviewed by staff. The FY 2019 results are typical of average levels.

**FYs 2020 and 2021 Planned Results.** In FY 2020, the Commission expects natural gas facility inspections to decrease to 500 as several large-scale projects may complete construction in the first half of FY 2020. In FY 2021, the Commission expects the total number of pipeline, storage, and LNG facility construction inspections to be similar to FY 2020. In both FYs 2020 and 2021, the Commission expects LNG construction inspections to increase substantially above average, based on the number of LNG applications approved or in processing in FY 2019 and an increase in inspection frequencies due to commissioning activities. However, the overall number of natural gas facility compliance inspections would potentially decrease based on an expected lower than average number of pipeline and storage facility inspections. Commission staff expects to receive and review a similar number of annual reports filed under 18 C.F.R. 157.207, 18 C.F.R. 2.55, and 18 C.F.R. 284.11 in each of FYs 2020 and 2021.

## HYDROPOWER PROJECT INSPECTIONS/REVIEWS

**Overview.** The Commission conducts environmental inspections of licensed and exempted projects to evaluate and assess compliance with environmental and public use conditions of licenses. Environmental and public use requirements typically result from terms and conditions specified by the state and federal resource agencies during the licensing and exemption processes. Environmental inspectors look at the required environmental protection and enhancement measures at a project and work with licensees and exemptees to identify common problem areas and assist them with their responsibilities for maintaining compliance with license conditions.

The nature and frequency of environmental inspections at licensed or exempted projects depends on the type of environmental and public use impacts. Generally, those projects with significant environmental or public use requirements—such as high recreational use, fish passage facilities, and wildlife mitigation areas—are inspected on five-to-eight-year cycles. The vast majority of projects under the Commission's jurisdiction are inspected less frequently. With over 1,200 projects under the Commission's jurisdiction, the rate at which an environmental inspection occurs at any project over the course of a 40-50-year license term, is limited.

Commission staff also reviews licensees' and exemptees' compliance with requirements and terms and conditions specified in license or exemption orders and approved plans. Typical examples of instances of non-

compliance include minimum flow deviations, reservoir elevation deviations, water-quality deviations, and deviations of required fish passage facility operations.

**FY 2019 Results.** In FY 2019, the Commission inspected 50 hydropower projects to assess compliance with environmental conditions in the licenses. In addition, Commission staff completed 110 engineering amendments for construction and maintenance activities at Commission-licensed projects. Commission staff completed 318 investigations of deviations from project operations in FY 2019. In most cases, the licensees and exemptees were not found in violation of their requirements, and, in many cases, the cause for the deviation was attributed to weather. This represents a typical level of work.

Also in FY 2019, the Commission monitored commencement of construction of project works related to 27 hydroelectric projects. As staff expected, with the passage of the America's Water Infrastructure Act of 2018, the Commission saw a 50% increase in requests for extensions of time to commence construction of a project.

**FYs 2020 and 2021 Planned Results.** For FYs 2020 and 2021, it is projected that the Commission will conduct approximately 80 environmental inspections and 125 engineering reviews of construction and maintenance activities in each year. Similar to FY 2019, the Commission anticipates completing approximately 375 investigations regarding deviations in FYs 2020 and 2021.

The Commission will continue to monitor project commencement activities and expects the number of extensions to continue to increase through FYs 2020 and 2021.

## PERFORMANCE MEASURES

Commission staff will use the following measure to assess performance in Objective 2.1. The result of this measure will be used in combination with other data and supplemental information to establish a more complete picture of performance on this objective.

### PERFORMANCE MEASURE: PERCENT OF ORDERS ISSUED WITHIN ESTABLISHED TIMEFRAMES

**Overview.** To carry out its goal to ensure that necessary energy infrastructure is developed that is reliable, secure, and operationally safe, the Commission must review proposals for natural gas and hydropower infrastructure in a timely manner. The results for hydropower and natural gas orders are compiled separately due to the inherent differences in the two programs; however, the Commission's activities in both program areas provide for an efficient, timely, and well-supported determination by the Commission.

## Targets and Actual Results Table

| % of hydropower orders issued within 24 months | | | | | | | |
|---|---|---|---|---|---|---|---|
| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
| 94% | 89% | 96% | 90% | 100% | 90% | 90% | 90% |
| **FY 2019 Target: Met** | | | | | | | |

| % of natural gas orders issued within the appropriate timeline depending upon the category | | | | | | | |
|---|---|---|---|---|---|---|---|
| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
| 88% | 96% | 76% | 82% | 98% | 90% | 90% | 90% |
| **FY 2019 Target: Met** | | | | | | | |

**FY 2019 Results.** For hydropower orders, 100% (18 of 18 cases) were issued within the established timeframe, which demonstrates an improvement in performance relative to FY 2018. For natural gas orders, 98% (45 of 46 cases) were issued within established timeframes, which demonstrates a substantial increase in performance relative to FY 2018. Although there was an improvement in performance over FY 2018 for both the natural gas and hydropower programs, given the previous years' fluctuations the results do not show any noticeable long-term trend.

**FYs 2020 and 2021 Planned Results.** The Commission expects to continue coordinating with other agencies, assist applicants to effectively utilize the pre-filing process, and balance a range of factors—including market need; statutory, regulatory, and policy requirements; and environmental impacts—so that it can continue to issue orders in a timely manner in FYs 2020 and 2021.

**Monitoring Risk Factors**. In general, orders may be delayed as a result of projects involving facilities that are larger in scope and complexity, require extensive coordination with other federal permitting agencies, and/or require the resolution of complex environmental or engineering issues. Results will also continue to be impacted by the quality and completeness of filed applications. Finally, an unexpected surge in applications could cause a "backup" at other federal and state agencies that play a role in the Commission's process. In the hydropower program, statutory filing requirements (e.g., state water quality certifications and federal fish and wildlife agencies' biological opinions) may also cause delays in the issuance of orders.

## CROSS-AGENCY PRIORITY GOAL: MODERNIZING THE INFRASTRUCTURE PERMITTING PROCESS

**Overview.** The Commission has been named as an Agency Partner to achieve a Cross-Agency Priority (CAP) Goal. CAP Goals have been established to drive implementation of the President's Management Agenda and tackle critical government-wide challenges that cut across agencies.

Per the GPRA Modernization Act requirement to address CAP Goals in the agency strategic plan, the annual performance plan, and the annual performance report, please refer to www.Performance.gov for the agency's contributions to those goals and progress, where applicable. The Commission currently contributes to the Modernizing the Infrastructure Permitting Process CAP Goal.

As a lead agency responsible for the environmental review of non-federal hydropower, interstate natural gas facilities, and natural gas import/export projects, the Commission contributes to this CAP Goal by providing a more predictable and transparent review process, based on concurrent and synchronized evaluations with other agencies. In accordance with the CAP Goal, the Commission will seek to review proposals within an average of two years from complete application to decision.

**FY 2019 Results.** The Commission completed its implementation plan for OFD in July 2019. In FY 2019, two projects qualified under the provisions of OFD. Pursuant to the implementation plan, Commission staff completed the permitting dashboard in coordination with other cooperating agencies to track completion within two years of the complete application or Notice of Intent for both projects. In FY 2019 Commission staff conducted outreach to agencies and industry to explain the FAST-41 and OFD processes at the National Hydropower Association Conference in Washington, DC; at a Training Workshop for USDA Forest Service in Ft. Collins, CO; at the Interstate Natural Gas Association of America Meeting in Washington, DC; and at the Energy Infrastructure Council Meeting in Washington, DC. No projects have been completed to date.

**FYs 2020 and 2021 Planned Results.** In FY 2020 Commission staff plans to continue to conduct outreach with meetings including meetings with natural gas industry representatives and with the Fish and Wildlife Service. This outreach is aimed at continually improving coordination with other agencies to achieve the two-year goal. Based on a review of projects in pre-filing, the Commission staff expects to have four additional OFD projects in FYs 2020 and 2021.

**Monitoring Risk Factors**. One risk factor to meeting the two-year goal for completion of review of an application includes inadequate applicant responses to data requests. Commission staff works with the applicants to ensure an understanding of the data needs and conducts regular meetings with cooperating agencies to identify and resolve issues. Another risk factor is not receiving timely information from agencies to incorporate into the Commission's environmental document. Because the goal of OFD is to have lead agencies produce one environmental document to meet all of the agencies' objectives, late or missing information will impact the two-year goal.

# OBJECTIVE 2.2: MINIMIZE RISKS TO THE PUBLIC ASSOCIATED WITH FERC-JURISDICTIONAL ENERGY INFRASTRUCTURE.

In executing its duties under the Natural Gas Act and the Federal Power Act, FERC looks to ensure that energy infrastructure, once authorized, continues to operate safely and reliably. Failure of LNG or hydropower infrastructure due to structural issues, unsafe operations, natural disasters, cyber and physical attacks, or other hazards can result in loss of life as well as environmental and economic consequences. In addition, the Energy Policy Act of 2005 amended the Federal Power Act to give FERC authority with respect to reliability standards for the bulk-power system and through oversight of an Electric Reliability Organization (ERO). In fulfilling these responsibilities, it is critical that FERC minimize risks to the public associated with FERC-jurisdictional energy infrastructure.

FERC achieves this objective through a range of activities. FERC conducts timely safety reviews and inspections with rigorous requirements, thereby advancing the safety of non-federal hydropower projects and LNG facilities throughout their entire life cycle. FERC also oversees the development and review of mandatory reliability standards for the bulk-power system, as well as compliance with these standards. In addition, FERC collaborates with regulated entities and other federal and state governmental agencies to identify and seek solutions to cyber and physical threats to FERC-jurisdictional infrastructure, facilitating proactive efforts that prevent or mitigate loss or damage.

## STRATEGIC CHALLENGES

In its FY 2018–2022 Strategic Plan, the Commission committed to addressing challenges and opportunities that are likely to have a significant impact on the achievement of Objective 2.2. The status of these Strategic Challenges and the Commission's responsive actions are included below.

### **STRATEGIC CHALLENGE:** PUBLIC AND ENVIRONMENTAL SAFETY IMPACTS

**Overview.** The Commission has witnessed recent incidents at jurisdictional facilities that have highlighted the safety and environmental impacts that can be associated with hydropower and natural gas infrastructure. To address these, the Commission identified two areas for improvement: (1) the Commission's dam safety program; and (2) its natural gas pipeline compliance program.

**FY 2019 Results.** As a result of the Oroville Spillway emergency in FY 2017, the Commission convened an After-Action Panel Assessment to study the incident and provide recommendations for future program improvements. The Commission received the recommendations from the Panel in FY 2019. Included among the recommendations was that security inspections be separated from the duties of dam safety engineers, civil engineering staff should concentrate solely on dam structure integrity and performance and proper review of auxiliary/ancillary structures, and security aspects and other non-civil engineering issues should be handled by separate staff specializing in those areas. To address this, the Commission posted positions for physical and cybersecurity specialists and, as of the end of FY 2019, had hired additional staff to fill these roles.

Additionally in FY 2019, efforts continued to improve the Commission's natural gas pipeline compliance program to ensure that the regulated community is held to the high standards set forth in project-specific certificate conditions. The Commission issued draft guidance which incorporated public comments to provide best practices to minimize the number and impact of incidents associated with horizontal directional drilling.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021 the Commission will continue to address recommendations from the FERC After-Action Panel Assessment and plans to continue hiring for physical and cybersecurity specialists. In addition, the Commission expects to set up a Part 12 Panel Advisory Board, as recommended by the Panel, to address deficiencies in the Part 12 process. The Commission will also investigate ways, per the Panel's recommendations, to conduct additional team inspections of larger, more complex projects. To further its progress in the natural gas compliance program, the Commission expects, also in FY 2020, to issue final guidance for horizontal directional drilling and seek out industry trade association partners with whom to work. Together, these actions will continue to improve its Dam Safety and natural gas compliance programs.

**Monitoring Risk Factors**. In FY 2019, the Commission's actions were not impacted by any external factors. FERC has not identified any significant risk factors that could impact the implementation or impact of strategic response over the next two years. While staff does not expect any risk factors to impact planned activities in FYs 2020 and 2021, the Commission will continue to monitor this item and responsive activities to ensure it is fully addressed and potential risks are timely identified and managed.

## STRATEGIC CHALLENGE: NEW AND EVOLVING THREATS

**Overview.** FERC-jurisdictional infrastructure and facilities are at increased risk from new and evolving threats, including physical and cybersecurity threats, by sophisticated actors that often have access to significant resources.

**FY 2019 Results.** In FY 2019, the Commission approved the North American Electric Reliability Corporation's (NERC's) proposal to broaden the mandatory reporting of Cybersecurity Incidents as to ensure that the full scope of cyber related threats to the bulk-power system are reported and disseminated to appropriate authorities. This action closes a gap in the prior Critical Infrastructure Protection (CIP) Standards that required entities to report only when an incident was compromised or disrupted one or more reliability tasks. The Commission concluded that those prior standards may understate the true scope of threats by excluding from reporting incidents that could facilitate subsequent efforts to harm the reliable operation of the grid.

In FY 2019, the Commission continued to conduct CIP Reliability Standards audits of jurisdictional entities. These audits help the Commission evaluate jurisdictional entities' compliance with the CIP Reliability Standards. While some potential compliance infractions were discovered during the audits, most of the cybersecurity processes and procedures adopted by the jurisdictional entities met the mandatory requirements of the CIP Reliability Standards. In addition, the information gained during the audits provided the basis for the Commission to make recommendations to the entities regarding cybersecurity best practices.

These recommendations were shared with the industry in the annual Lessons Learned staff reports that the Commission issued in FY 2019.

In addition, the Commission conducted voluntary and collaborative cyber and physical security assessments at electric, natural gas, LNG, and hydropower facilities to assist in identifying vulnerabilities and threats, as well as mitigation strategies to combat both. These assessments take a holistic view of the entities' IT and operational technology (OT) systems and provide valuable techniques and strategies that can be implemented quickly to protect IT/OT systems as needed.

In FY 2019 the Commission strengthened its internal expertise related to the cyber and physical security of jurisdictional facilities through the hiring of additional qualified staff.

**FYs 2020 and 2021 Planned Results.** The Commission recognizes that cyber attacks and physical attacks on critical infrastructure systems have the potential to create significant and widespread effects. To address these threats, in FY 2020 and FY 2021 the Commission will:

- Continue to monitor and participate in the CIP Reliability Standards development process. For example, the Commission is evaluating NERC's proposal to augment the currently effective CIP Reliability Standards to mitigate cybersecurity risks associated with communications between bulk electric system Control Centers
- Continue to evaluate the implementation of CIP Reliability Standards at jurisdictional bulk-power system facilities and to identify areas where Reliability Standards can be strengthened or best practices applied
- Continue to audit jurisdictional entities to help those entities improve their responses to threats and their overall security posture
- Continue to assist owners and operators of jurisdictional facilities in recognizing vulnerabilities and threats to their facilities and provide guidance about how to improve security and reduce risk to themselves and the public
- Continue to strengthen internal expertise related to cyber and physical security through hiring of qualified staff and apply this expertise to voluntary and collaborative cyber and physical security assessments
- Continue to work with other federal agencies to improve information sharing and awareness of interdependencies and the need to address critical infrastructure issues using a holistic approach as opposed to acting in isolation

Based on these actions, the Commission expects to see a continued improvement of jurisdictional entities' overall security posture in responding to new and evolving threats.

**Monitoring Risk Factors**. A number of risk factors could impact the strategic response over the next two years. In particular, information technology continues to advance at a fast pace, requiring jurisdictional entities to respond quickly and potentially opening energy infrastructure to additional cyber risk. Other factors include,

the ability of entities to fully implement Commission regulations and voluntary best practices, the pace at which cyber threats evolve and proliferate, and challenges associated with hiring qualified individuals to secure utilities' information and operational technology systems.

### STRATEGIC CHALLENGE: NEW CHALLENGES TO BULK-POWER SYSTEM PERFORMANCE

**Overview.** Multiple internal and external factors—including the development, application and increased penetration of new technologies, such as electric storage; the deployment of distributed energy resources; increased dependence on computing and telecommunications; and threats from extreme weather and natural disasters—are creating new challenges and opportunities to maintain and improve reliability, security, and resilience. All these trends are occurring in an environment of greater customer needs, expectations, and capabilities.

**FY 2019 Results.** In FY 2019, Commission staff has engaged with the ERO in alerting the industry regarding the potential adverse characteristics of inverter-based resource performance during bulk-power system faults that could present potential risks to the reliability of the system, which included the ERO's issuance of a guideline. Regarding extreme weather and natural disasters, Commission staff completed an inquiry into the January 2018 Midwest cold weather, identifying a range of coordination and improvement opportunities. This included recommending the development of a cold-weather preparedness standard for generators.

**FYs 2020 and 2021 Planned Results.** In FY 2020 and FY 2021, the Commission will continue its own analysis and assessments and will continue to work with the ERO and industry. For example, with respect to threats from extreme weather and natural disasters, Commission staff will continue to monitor entities' preparedness and performance during events.

**Monitoring Risk Factors.** A number of risk factors could impact the strategic response over the next two years, including the time required to develop and implement reliability standards compared to the pace of technology development and the emergence of other challenges as well as the voluntary nature of implementing best practices. FERC expects that these factors will continue to be relevant over the next two years and will continue to take them into account while implementing its responsive actions.

## CORE FUNCTIONS

In addition to being responsive to these strategic issues, FERC carries out its responsibilities in this objective through three core functions. Each core function is driven by discrete sets of inputs, operations, and outputs to deliver impact.

### CORE FUNCTION 2.2.1: CONDUCT COMPREHENSIVE AND TIMELY INSPECTIONS OF HYDROPOWER AND LNG FACILITIES TO ENSURE COMPLIANCE WITH THE NATURAL GAS ACT, THE FEDERAL POWER ACT, AND COMMISSION ORDERS.

To fulfill its responsibility for ensuring the safety of an LNG facility or a non-federal hydropower project, FERC relies on physical inspections. Before hydropower and LNG facilities are constructed, FERC staff reviews the

design, plans, and specifications in both the Commission order and the documents and reports filed by authorization holders. During facility construction and operation, FERC engineers conduct regularly scheduled and comprehensive inspections. The inspections verify that dams and LNG facilities meet stipulated design criteria that ensure safe and reliable operation. The resulting inspection reports and deficiency reports also include necessary remedial modifications and/or required maintenance.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- LNG facility inspections
- Hydropower inspections

## LNG FACILITY INSPECTIONS

**Overview.** To assess whether a facility may have a public safety impact, Commission staff conducts a comprehensive environmental and engineering review process that includes working very closely with other federal agencies such as the U.S. Coast Guard and the Department of Transportation which establish and enforce the LNG safety and security standards. If a facility is authorized, the Commission is responsible for conducting inspections during construction and subsequently, during facility operation, to ensure compliance with the requirements included in the Commission authorization. While facilities are under construction, Commission engineers conduct inspections at least once every 12 weeks. Once in operation, jurisdictional peak-shaving plants are inspected once every other year and LNG import or export terminals are inspected once each year.

**FY 2019 Results.** In FY 2019, 36 inspections were conducted at four terminal expansions, one new LNG terminal, and two peak-shaving facilities under construction. In addition, 14 operational inspections/technical reviews were conducted at six peak-shaving facilities and eight LNG terminals. The number of operations inspection/technical reviews were consistent with previous years. There was an increase in the number of construction inspections performed as a result of more frequent inspection during commissioning phases at facilities prior to placing them into service.

**FYs 2020 and 2021 Planned Results.** Between 60 and 75 construction and pre-operational inspections are anticipated for FY 2020 at between 12 and 19 LNG terminals and at between 3 to 4 peak-shaving facilities. This increase over FY 2019 is due to the approval of nine LNG projects in FY 2019. At the start of FY 2020, there were eight approved LNG export projects that had not commenced construction, eight LNG projects with pending applications, and five LNG export projects in pre-filing. The number of LNG facility construction and pre-operational inspections may increase further in FYs 2020 and 2021 depending on the outcome of the above noted pending LNG export terminal projects currently before the Commission or awaiting the commencement of construction.

The status of the approved and pending projects will have a direct impact on the level of operational inspection work to be performed in FY 2020 and FY 2021. The number of operational inspections is expected to be 19 in FY 2020 and 19 in FY 2021.

## HYDROPOWER INSPECTIONS

**Overview.** Commission engineers are highly trained and work closely with local and other federal officials at all stages of project development and operation. Before projects are constructed, the designs, plans, and specifications of the proposed facility are reviewed and approved. Through regularly scheduled and comprehensive inspections during construction and operation, Commission engineers verify that dams meet stipulated design criteria, identify necessary remedial modifications or required maintenance, and ensure compliance with requirements. This approach allows the Commission to ensure the safety of the public, as well as the continued operation of the facilities to meet the energy demands of the nation.

The Commission also requires comprehensive inspections and engineering evaluations of the high and significant hazard potential dams by independent consultants every five years. All independent consultant inspection reports are thoroughly reviewed and evaluated by the Commission to determine whether additional studies are required or if remedial measures are necessary.

In addition to conducting inspections, the Commission's dam safety program includes other components to minimize risk to the public. Dam safety engineering guidelines are published to provide guidance to licensee, or consultant, conducted inspections and analyses. The guidelines include the procedures and criteria for the engineering evaluation and analysis of hydropower projects. The Commission's surveillance and monitoring component provides methods to better identify and solve dam safety issues and improves coordination, abilities, and trust among all stakeholders. Another component of the dam safety program is the emergency action plans, which are required for all jurisdictional dams. Emergency action plans require the development, maintenance, and periodic testing of project-specific plans for emergency response, including ensuring coordination and cooperation among the dam owners, state, and local emergency management agencies, and the Commission.

Risk-informed decision making provides the capability to assess non-traditional failure modes, levelize risk across different loading conditions, focus inspections and surveillance on the specific potential failure modes and monitoring programs at projects, and guide remediation projects to provide an overall reduced level of risk to the public.

**FY 2019 Results.** In FY 2019, Commission staff conducted 2,026 inspections. Of these, 5% were construction inspections to ensure that new construction and remedial construction projects were being completed properly. Approximately 5% were special inspections meant to either assess a project after a flood event or to investigate an issue of concern noted by the licensee or exemptee. The remainder of the inspections were the dam safety inspections. Commission staff also reviewed approximately 145 independent consultant reports to make certain the structural integrity of the jurisdictional dams is maintained or improved as appropriate.

During FY 2019, the Commission provided further guidance on the expectations for the five-year independent audits of the Owner's Dam Safety Programs (ODSP). The quality of an ODSP is considered one of the best ways to ensure the safety of jurisdictional dams. The required audits help to ensure that the ODSPs for each of the licensees and exemptees who own high hazard projects are fully assessed and effective. The Commission also was heavily involved in the Level 2 Pilot Risk Analysis at Oroville Dam. The lessons learned from this effort will be very useful in further defining the Commission's risk informed decision making program going forward.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission expects to conduct approximately 2,000 inspections, similar to FY 2019 levels. The Commission also expects the number of independent consultant inspection report reviews to remain steady through FY 2021. At this time, the Commission does not expect to update any chapters of the Engineering Guidelines.

In FYs 2020 and 2021, the Commission will continue implementation of risk-informed decision making through completion of several pilot projects and continue to train Commission staff, dam owners, and consultants in risk assessment procedures, methodologies and tools. Refinement of the guidelines and procedures will continue to be carried out in an open, collaborative process with representatives of the hydropower industry, including Commission-regulated licensees. Additionally, Screening Level Risk Analysis is beginning to be internally used within the Commission's dam safety program to guide the use of resources where they can best be focused. These efforts will run parallel to the traditional dam safety inspections and together will ensure public safety.

### CORE FUNCTION 2.2.2: PROTECT AND IMPROVE THE RELIABLE AND SECURE OPERATION OF THE BULK-POWER SYSTEM BY IDENTIFYING RELIABILITY AND SECURITY RISKS; OVERSEEING THE DEVELOPMENT, IMPLEMENTATION AND ENFORCEMENT OF MANDATORY RELIABILITY STANDARDS; AND PROMOTING THE RESILIENCE, RELIABILITY AND SECURITY OF THE BULK-POWER SYSTEM.

FERC promotes the reliable operation of the bulk-power system through oversight of the ERO, which develops mandatory reliability standards in the United States and enforces compliance with those standards through audits, investigations, and penalties. FERC also gathers information through near-real-time monitoring of the grid and by engaging with stakeholders and experts to maintain awareness of trends that may affect bulk-power system reliability.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Review and approve proposed reliability standards
- Enforce independently and oversee the ERO's enforcement of reliability standards
- Assess the need for modified/new reliability standards
- Maintain Commission and stakeholder awareness of risks, trends, and emerging issues in reliability and security

## REVIEW AND APPROVE PROPOSED RELIABILITY STANDARDS

**Overview.** FERC reviews reliability standards applicable to the United States proposed by NERC, the ERO responsible for developing mandatory electric reliability standards for the planning and operation of the bulk-power system in North America. For proposed reliability standards, the Commission may issue an order to approve, reject, or direct modifications. For proposed reliability standards that involve complexities and/or controversy, FERC will typically go through an in-depth notice and comment rulemaking process before issuing a final rule addressing the standard. For non-controversial proposed reliability standards, the Commission may approve the proposal more expeditiously.

**FY 2019 Results.** In FY 2019, NERC filings concerned two major areas. The first concerned reliability standards related to operations and planning of the bulk-power system. In FY 2019, the Commission approved new and modified reliability standards addressing voltage and reactive control, operating personnel credentials and staffing, and geomagnetic disturbances. In FY 2019, NERC submitted a petition seeking approval of proposed Reliability Standard TPL-001-5 (Transmission System Planning Performance Requirements). The Commission issued a Notice of Proposed Rulemaking proposing to approve the petition, and in FY 2020, the Commission plans to issue a final rule.

The second area concerned CIP Reliability Standards, which includes both cyber and physical security. The Commission and NERC continually seek to identify and address gaps in the CIP Reliability Standards as they become apparent.

In FY 2019, NERC submitted three Petitions addressing cybersecurity. The first was a petition seeking approval of Proposed Reliability Standard CIP-008-6 (Cyber Security – Incident Reporting and Response Planning) that addressed Commission directives from Order No. 848. The second was a petition seeking approval for proposed Reliability Standards CIP-003-8 (Cyber Security – Security Management Controls) that addressed the Commission's directive from Order No. 843. Both were processed and approved by the Commission in FY 2019. Also in FY 2019, the Commission issued a Notice of Proposed Rulemaking proposing to approve the third petition by NERC, seeking approval of proposed Reliability Standard CIP-012-1 (Cyber Security – Communications between Control Centers). The Commission plans to issue a final rule in FY 2020.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, cybersecurity will remain a focus and the Commission anticipates assessing ERO-developed reliability standards or modifications to standards in the areas of virtualization, cloud computing, and supply chain risk management, for which NERC has active development efforts, among others. Resiliency, as it relates to reliability standards, will also be a focus of the Commission in FYs 2020 and 2021.

NERC is developing the revision of a reliability standard for fully integrating inverter-based resources, and in FYs 2020 and 2021 the Commission will be determining appropriate agency actions and approach in this area. This is an increasingly important area as renewable power sources, battery energy storage, certain high voltage transmission facilities, and many loads are inverter based.

In FY 2019, NERC submitted petitions seeking Commission approval to retire 77 reliability standard requirements. In FY 2020, the Commission will consider for approval, per NERC's proposed petition, which retirements are administrative in nature, duplicative to other standards, or provide no benefit to reliability. NERC is in the process of developing another list of proposed retirements in a second phase of the project and, the Commission will similarly consider for approval this proposal when received.

## ENFORCE INDEPENDENTLY AND OVERSEE THE ERO'S ENFORCEMENT OF RELIABILITY STANDARDS

**Overview.** FERC enforces and oversees the ERO's enforcement activities, which take the form of audits, investigations, and proposed penalties and remediation to determine whether they lead to compliance with reliability standards. For the most part, the Commission depends on NERC and its Regional Entities to enforce standards. While NERC is authorized to impose, after notice and opportunity for a hearing, penalties for violations of the Reliability Standards, the Commission must approve proposed penalties before they can take effect; if the Commission determines that further review is warranted, it may issue an order initiating review of a proposed penalty. The Commission may also enforce reliability standards independently of NERC by initiating an investigation or conducting its own audits but typically reserves use of this authority for more serious reliability matters.

**FY 2019 Results.** In FY 2019, the Commission carried out a series of three non-public, cybersecurity audits on large and small electric utilities. In these Commission-led audits, FERC staff assessed the registered entities compliance with the CIP Reliability Standards, identified other risks, and compiled general observations in a Lessons Learned report. Also in FY 2019, the Commission initiated three audits of compliance with the physical security reliability standard. The Commission observed 14 ERO-led audits, which included eight cybersecurity audits, five operations and planning audits, and one physical security audit.

**FYs 2020 and 2021 Planned Results.** In FY 2020, the Commission plans an increase in Commission-led audits of relatively recently adopted reliability standards. The Commission deems that it is important for staff to have a deeper understanding of how entities are complying with these standards.

In FYs 2020 and 2021, the Commission will conduct four audits each year of cybersecurity reliability standards and proposes to conduct audits in other key areas. Also in FYs 2020 and 2021, the Commission will oversee 12 ERO-led audits and continue to review and act upon NERC-proposed penalties.

## ASSESS THE NEED FOR MODIFIED/NEW RELIABILITY STANDARDS

**Overview.** FERC conducts inquiries, audits, and investigations of major blackouts and other grid-related events to identify lessons learned and determine whether adjustments to the standards are needed to help prevent future events. Additionally, FERC staff have worked jointly with NERC and the Regional Entities to look closely at how utilities implement reliability standards related to restoration and recovery and have issued three reports. These activities typically do not have enforcement elements but are conducted to determine whether changes are needed based on how entities are complying with reliability standards.

**FY 2019 Results.** In FY 2019, the Commission issued directives to NERC to develop new or modified reliability standards addressing cybersecurity incident reporting, supply chain risk management, and geomagnetic disturbances.

In FY 2019, the Commission conducted three audits of the physical security reliability standard. The standard establishes a performance objective without being prescriptive about how to accomplish that objective. Staff conducts compliance audits to determine whether and how entities are meeting those performance objectives and whether the standard requires additional specificity to ensure objectives are met.

In FY 2019, the Commission completed an inquiry into a bulk-power system event that occurred in January 2018, and which was initiated at the end of FY 2018. The inquiry found no instances of non-compliance with the reliability standards but included recommendations regarding improving preparedness for cold weather that may also have implications for new reliability standards.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, FERC will continue to assess the need for new or modified reliability standards based on the results of FY 2019 and previous audits. Additionally, FERC staff will work with NERC, the Regional Entities, and relevant utilities and grid operators to implement the recommendations from the inquiry completed in FY 2019.

## MAINTAIN COMMISSION AND STAKEHOLDER AWARENESS OF RISKS, TRENDS, AND EMERGING ISSUES IN RELIABILITY AND SECURITY

**Overview.** FERC gathers information through near-real-time monitoring of the grid, obtaining supplementary data on grid functionality through data services and coordination with facility owners and operators. FERC maintains an up-to-date knowledge on grid technologies and changes in the bulk-power system to assess potential risks to reliability and opportunities to improve reliability. In addition, FERC engages with stakeholders and experts, sometimes by hosting technical conferences, to better monitor the cybersecurity landscape and remain abreast of trends that may affect bulk-power system reliability. The Commission

operates a 24/7 emergency message notification system to maintain bulk-power system situational awareness during active events such as storms and wildfires. The Commission conducts outreach to industry and the public. FERC provides guidance to the industry on both technical and process issues and educates the public on how the bulk-power system operates and the Commission's role in overseeing reliability. All of these activities help to maintain a level of communication and coordination necessary to protect against and prepare for threats and issues in the bulk-power system.

**FY 2019 Results.** In FY 2019, FERC made improvements to its monitoring and analytic capabilities and matured its data analytic capabilities with respect to the grid performance data that is now being provided by NERC.

In FY 2019, following completion of the first three in a series of NERC-FERC-Regional Entity Joint Review of Restoration and Recovery Plans reports, Commission and ERO staff continued working on the fourth, Cyber Planning for Response and Recovery Study (CyPRES) Project, which was initiated to study response and recovery plans following actual cyber events.

During FY 2019, Commission staff performed outreach to support the Application Whitelisting Project and help Registered Entities understand how application whitelisting could improve cybersecurity and what risks could be mitigated by implementing whitelisting in their CIP-compliant environments. Through this outreach and audits, Commission staff found that application whitelisting increasingly has been adopted by Registered Entities. Entities who implemented application whitelisting expressed a need to discuss detailed implementation steps with early adopters of the technology. Commission staff will engage NERC's Critical Infrastructure Protection Committee to facilitate such information exchange among Registered Entities.

**FYs 2020 and 2021 Planned Results.** The CyPRES study of response and recovery plans following actual cyber events will conclude in FY 2020 with a report on the effectiveness and existence of continuous improvement processes for response and recovery plans. In addition, the report will identify best practices with regard to the types of plan improvements made from entities' analyses of actual cyber events and/or testing. Such information could reveal the need or opportunity for improvements to other entities' response and recovery plans and be a valuable component of a continuous improvement process.

During FYs 2020 and into 2021, Commission staff will participate in ERO and industry emerging technologies working groups and follow closely the research and development of the Department of Energy and the National Laboratories to remain informed of new technology and industry efforts as they relate to the reliability and security of the grid.

In FY 2020, Commission staff will work with NERC to develop additional studies to address relevant reliability risks, building on the series of NERC-FERC-Regional Entity Joint Review of Restoration and Recovery Plans reports.

Also in FY 2020, FERC is expected to issue an order with respect to reviewing NERC's five-year performance assessment of the ERO. The performance assessment will help to ensure that NERC and the Regional Entities are positioned to oversee reliable operation of the bulk-power system.

### CORE FUNCTION 2.2.3: PROTECT AGAINST CYBER AND PHYSICAL SECURITY THREATS TO FERC-JURISDICTIONAL ENERGY INFRASTRUCTURE AND IMPROVE THEIR RESILIENCE BY WORKING WITH REGULATED ENTITIES AND STAKEHOLDERS AND BY COORDINATING WITH OTHER GOVERNMENT AGENCIES TO IDENTIFY AND APPLY BEST PRACTICES SEPARATE FROM BASIC REGULATORY REQUIREMENTS.

Growing cyber and physical security threats, along with increasing automation and other developments, demand an agile and focused approach to energy infrastructure security. FERC staff employs deep familiarity with FERC-jurisdictional infrastructure, extensive experience in grid operations, and cybersecurity expertise to coordinate with and support other government agencies and regulated entities in addressing these threats.

FERC employs a four-part process to identify, inform, assess, and address cyber and physical security threats. FERC partners with federal and jurisdictional entities to identify and assess threats, activities, and capabilities of adversaries that may initiate a cyber or physical attack on FERC-jurisdictional infrastructure. To ensure that jurisdictional entities are informed about security threats and counter measures, FERC conducts briefings and helps infrastructure representatives obtain security clearances that give them access to classified threat information. FERC also reviews and provides input to ERO alerts, advisories, and bulletins to ensure they are useful and relevant to jurisdictional entities. Finally, FERC helps jurisdictional entities address cyber and physical threats by developing and compiling best practices, mitigation measures, as well as tools and techniques to enhance protection of facilities.

The Commission's contributions reduce the risk of cyber and physical security threats to vital energy infrastructure. The Commission's efforts in this area thus provide an important complement to FERC's related responsibilities for both regulatory requirements and enforcement.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Identifying and assessing jurisdictional infrastructure threats and vulnerabilities
- Collaborating with the security community to inform and address jurisdictional infrastructure security
- Working with jurisdictional infrastructure partners to inform and address jurisdictional infrastructure security

#### IDENTIFYING AND ASSESSING JURISDICTIONAL INFRASTRUCTURE THREATS AND VULNERABILITIES

**Overview.** FERC uses its analysis and assessment capabilities to identify and characterize infrastructure threats and vulnerabilities both across Commission jurisdictional infrastructure and within individual facilities. Commission staff conducts on-site assessments of the cyber and/or physical security posture of facilities.

These assessments give staff an opportunity to examine a range of topics such as electromagnetic hardening, business environment, risk management, cybersecurity awareness and training, incident response and recovery, data security, protective technologies, network architecture, and supply chain security. Staff ask questions and make observations, identify options for improvement, and encourage facility operators to implement best practice mitigation strategies, countermeasures, and tools. These assessments help FERC analyze and understand broader infrastructure issues and provide a basis for identifying common vulnerabilities and developing best practices to mitigate them.

**FY 2019 Results.** In FY 2019, Commission staff conducted eight on-site assessments. Since these assessments are voluntary, the facilities assessed are determined by the entity. In addition, FERC reviews the entity's audit plan of facilities that will be subject to a regulatory audit by NERC or the Commission to better guide the assessment schedule.

In previous years, the assessments have been performed at electric and natural gas facilities. In FY 2019 the assessments also included three hydropower facilities. The focus of the on-site assessments is on IT and OT networks and the cyber and physical security of those networks.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission plans to conduct in each year 10 assessments, including five electric, three natural gas, and two hydropower facilities. In both FYs 2020 and 2021, assessments will focus on cybersecurity—particularly vulnerability to Electromagnetic Pulse (EMP) and Intentional Electromagnetic Interference (IEMI); operational controls—particularly at interfaces between generation, transmission, and distribution; and physical security issues. Data from the assessments may also be used to help develop classified briefings for jurisdictional entities.

## COLLABORATING WITH SECURITY COMMUNITY TO INFORM AND ADDRESS JURISDICTIONAL INFRASTRUCTURE SECURITY

**Overview.** FERC builds and maintains collaborative relationships with the larger infrastructure security community to enhance the community's understanding of Commission jurisdictional infrastructure, and to help the community develop effective countermeasures, tools, and best practices that can be used by regulated facilities to address threats and vulnerabilities. The Commission actively coordinates with its federal partners—including the Department of Defense, the Department of Homeland Security (DHS), the Office of the Director of National Intelligence, the Transportation Security Administration (TSA), and DOE—to identify, analyze, and spread awareness about threats, activities, and capabilities of entities that may initiate a cyber or physical attack on jurisdictional energy infrastructure. This proactive collaboration allows the Commission to obtain critical threat information that can be provided to FERC regulated entities.

**FY 2019 Results.** In FY 2019, the Commission implemented three new key partnership initiatives. In the first initiative, the Commission worked with Federal Communications Commission (FCC) staff to coordinate restoration of electricity and communications during natural disasters. Another partnership initiative with the Nuclear Regulatory Commission involved staff collaborating on protection of nuclear generation plants related

to the use of EMP and IEMI as well as natural threats such as geomagnetic disturbances. In the third new partnership initiative, the Commission worked and partnered with the new Cybersecurity and Infrastructure Security Agency (CISA) to collaborate on cybersecurity best practices and mitigation measures for jurisdictional energy facilities. This included working with the National Risk Management Center to partner on assessments of hydroelectric and natural gas pipeline facilities.

**FYs 2020 and 2021 Planned Results.** In FY 2020 and FY 2021, the Commission will maintain its current contacts within the security community and will seek to develop new contacts as appropriate. The partnerships noted above will continue in FYs 2020 and 2021.

### WORKING WITH JURISDICTIONAL INFRASTRUCTURE PARTNERS TO INFORM AND ADDRESS JURISDICTIONAL INFRASTRUCTURE SECURITY

**Overview.** The Commission staff conducts outreach to facility owners and operators, as well as state commissions that also have jurisdictional oversight of energy infrastructure, to provide timely and useful information not only about current and emerging threats and potential attack vectors but also effective countermeasures. This outreach includes briefings and presentations in both classified and unclassified settings and in collaboration with other federal agencies to maintain awareness and disseminate and promote the use of best practices, mitigation measures, and tools and techniques to enhance protection of all jurisdictional infrastructure including electric, natural gas, hydro, and LNG facilities. The Commission also assists key leadership individuals from our jurisdictional infrastructure partners to obtain security clearances to provide them access to classified threat information.

**FY 2019 Results.** In FY 2019, the Commission facilitated and/or conducted 19 classified and unclassified briefings to federal and private sector stakeholders. The briefings focused on cyber and physical security topics such as insider threat, supply chain, and EMP. In addition to these briefings, a classified table-top exercise was conducted jointly with DOE for the CEOs of RTOs/ISOs in the United States. This exercise provided decision makers an opportunity to practice worst case scenarios regarding loss of generation and transmission which facilitated their understanding of the threats and mitigation measures required to reinforce the cyber and physical security of their facilities.

In addition to these activities, The Commission assisted three energy industry leaders to obtain security clearances through the private sector clearance program.

**FYs 2020 and 2021 Planned Results.** In FY 2020, the Commission will continue to facilitate a similar number of classified and unclassified briefings or presentations on current cyber and physical security threats facing jurisdictional energy infrastructure companies.

The Commission plans to conduct a similar number of briefings and presentations in FY 2021. Topics for this outreach will be determined at a later point in time to be as relevant, up to date, and useful as possible.

## PERFORMANCE MEASURES

Commission staff will use the following measure to assess performance in Objective 2.2. The result of this measure will be used in combination with other data and supplemental information to establish a more complete picture of performance on this objective.

### PERFORMANCE MEASURE: BULK-POWER SYSTEM RELIABILITY MEASURES

**Overview.** FERC will use three measures to track bulk-power system reliability. Together they will help to both assess and inform FERC's activities to ensure the reliability of the system.

1. The annual amount of lost load in a given year resulting from bulk-power system transmission-related events (unplanned disturbances), excluding weather related outages
2. The time in which each U.S. interconnection recovers from generator loss events
3. The change in frequency and elapsed time from the initial disturbance to the frequency minimum (Interconnection Frequency Response)

**Reliability Measure 1** is an outcome measure of FERC's efforts to promote reliability. The measure looks at individual events (excluding weather-related outages) that involve an unplanned loss of firm load that meets certain criteria.[7]

**Reliability Measure 2** is also an outcome measure that indicates the bulk-power system's ability to recover from disturbances as mandated by the reliability standards. Reliability Standard BAL-002-3 (Disturbance Control Standard - DCS)[8] requires that the Balancing Authority (BA) or Reserve Sharing Group balances resources and demand and returns the BA's or Reserve Sharing Group's Area Control Error (ACE) to defined values (subject to applicable limits) following a Reportable Balancing Contingency Event. The intent of this metric is to measure the ACE recovery time at the Interconnection level by comparing the performance of BAs in the interconnection.

**Reliability Measure 3** is another outcome measure that indicates an interconnection's ability to stabilize frequency immediately following the sudden loss of generation. The metric is defined as the changes in generation, divided by the change in frequency from the initial disturbance to the frequency minimum, expressed in megawatts per 0.1 Hertz (MW/0.1 Hz). Reliability Standard BAL-003-1.1 (Frequency Response and Frequency Bias Setting) requires sufficient Frequency Response from the BA to maintain Interconnection

[7] Loss of firm load for 15 minutes or more: a. 300 MW or more for entities with previous year's demand of 3,000 MW or more. b. 200 MW or more for all other entities. 2. BES Emergency requiring manual firm load shedding of 100 MW or more. 3. BES Emergency resulting in automatic firm load shedding of 100 MW or more (via automatic under voltage or under frequency load shedding schemes, or SPS/RAS). 4. Transmission loss event with an unexpected loss within an entities' area, contrary to design, of three or more BES Elements caused by a common disturbance (excluding successful automatic reclosing) resulting in a firm load loss of 50 MW or more.
[8] BAL-002-3 replaced BAL-002-2 on April 1, 2019.

Frequency within predefined bounds by arresting frequency deviations and supporting frequency until the frequency is restored to its scheduled value.

Together these three measures illustrate the state of bulk-power system reliability. The first measure is a high-level indication of the overall system health. The second measure looks at recovery time for a given disturbance that involved a loss of generation. The third measure looks at the interconnection frequency response to a disturbance caused by a loss of generation.

## Targets and Actual Results Tables

**Reliability Measure #1 - Annual amount of lost load due to unplanned disturbances[9]**

| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
|---|---|---|---|---|---|---|---|
| 0.30% | 0.25% | 0.11% | 0.30% | 0.346% | Below 0.5% | Below 0.5% | Below 0.5% |

**FY 2019 Target: Met**

The amount of load lost in each event occurring in a given fiscal year is totaled and reported as a percentage of the annual peak load. The lower the total amount of lost load, the more reliable and secure the operation of the bulk-power system.

**Reliability Measure #2 - The time in which each U.S. interconnection recovers from generator loss events (minutes).[10]**

| Interconnection | FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
|---|---|---|---|---|---|---|---|---|
| Eastern | 9.48 | 8.90 | 8.24 | 8.50 | 8.1 | Below 11 | Below 11 | Below 11 |
| Western | 6.5 | 8.7 | 8.5 | 9.5 | 9.4 | Below 11 | Below 11 | Below 11 |
| Texas | Not available | 7.5 | 8.0 | 9.0 | 7.7 | Below 11 | Below 11 | Below 11 |

**FY 2019 Target: Met**

This measure analyzes individual DCS events in which an interconnection experienced a significant (typically >500 megawatts) loss of generation. The measure averages the recovery time of every DCS event that occurred in a given fiscal year. Reliability Standards BAL-002-3 mandates a Contingency Event Recovery Period of 15 minutes for a reportable balancing contingency. The lower the average recovery time, the more reliable and secure the operation of the bulk-power system.

[9] Prior year results for FYs 2017 and 2018 were incorrectly reported in the FY 20 Congressional Justification. This did not impact the interpretation or use of the measure.
[10] Prior year results were incorrectly reported in the FY 20 Congressional Justification. This did not impact the interpretation or use of the measure.

| Reliability Measure #3 - Interconnection Frequency Response (MW/0.1 Hz)[11] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Interconnection | FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual[12] | FY 2019 Target | FY 2020 Target | FY 2021 Target |
| Eastern | -2363 | -2483 | -2243 | -2546 | -2397 | Below -1015 | Below -1015 | Below -1015 |
| Western | -1161 | -992 | -831 | -898 | -939 | Below -858 | Below -858 | Below -858 |
| Texas | -695 | -743 | -622 | -697 | -735 | Below -381 | Below -381 | Below -381 |
| FY 2019 Target: Met | | | | | | | | |

This measure analyzes individual events and looks at an Interconnection's ability to stabilize frequency immediately following a sudden loss of generation. For each event, the ratio of change (loss) in generation to the change in frequency is calculated from initial level to the minimum, which typically occurs within the first 5-7 seconds of an event. The lower the ratio, the quicker the system was able to respond.

The annual interconnection frequency response will be calculated as the average of interconnection frequency responses to qualifying events that occurred during the year. In addition, the metric measures the individual BA's frequency response against the BA's frequency response obligation, which is calculated as part of the metric.

**FY 2019 Results.** During FY 2019, the Commission actively participated in overseeing the development and implementation of reliability standards designed to improve the frequency response of the bulk-power system. For example, staff is participating in a NERC project to modify the currently effective Reliability Standard BAL-003-1.1 to improve the frequency response from generating units on the bulk-power system. Reliability Standard BAL-003-1.1 establishes an Interconnected Frequency Response Obligation (IFRO) and allocates a portion of the total IFRO as Frequency Response Obligation to each of the BAs within the interconnection.

**FYs 2020 and 2021 Planned Results.** The Commission will work with NERC to identify and address any gaps in event reporting in Reliability Measure 1 and consider expanding it to include smaller events for a more complete picture of reliability. The Commission will also seek to improve Reliability Measure 2 by including the measure of frequency recovery time during frequency events in each interconnection to better assess reserve adequacy in each interconnection. Additionally, the Commission plans to explore available data sources to determine the actual energy produced by various types of resources over a reasonable time period (i.e., monthly or quarterly) to get a more accurate view of change in resources mix and their correlation with decay in Interconnection Frequency Response Measure (Reliability Measure 3) observed in the Western Interconnection.

[11] Prior year results were not available to include in the FY 20 Congressional Justification. They have now been included for reference.
[12] The ERO determines the Interconnection Frequency Response for each operating year using annual frequency analysis and submits to FERC as an informational filing.

**Monitoring Risk Factors**. The complexity of the bulk-power system is such that it is typical for major blackout events to be caused by a combination of several relatively small mistakes or problems occurring simultaneously. Thus, while the Commission-approved reliability standards are designed to prevent major blackouts, they are not a guarantee of success. Risks also come from ongoing changes to the resource mix; as resource characteristics change (e.g., increasing renewable resources and the retirement of coal and nuclear resources), grid adjustments may not change at the same pace and may lead to one or more of the Commission's reliability measures failing to the meet target during the transition period.

## PERFORMANCE MEASURE: THE NUMBER OF REPORTED CYBER EVENTS WITH POTENTIAL RELIABILITY IMPACTS (INCLUDING OUTAGES) IN A GIVEN YEAR RESULTING FROM CYBER EVENTS ON BULK-POWER SYSTEM ASSETS SUBJECT TO RELIABILITY STANDARDS[13]

**Overview.** In Order No. 848, the Commission directed NERC to develop and submit modifications to the Reliability Standards to require the reporting of Cybersecurity Incidents that compromise, or attempt to compromise, a responsible entity's electronic security perimeter or associated electronic access control or monitoring systems.

While this measure is not as robust as the information that will be received based on Order No. 848, it will show the types of cybersecurity incidents that are occurring. The Commission currently analyzes the cybersecurity reporting of DHS and other organizations to determine how the Critical Infrastructure Protection environment and the reliability of the bulk-power system may be impacted. Where there are gaps or shortcomings, the Commission can direct the improvement of the CIP Reliability Standards.

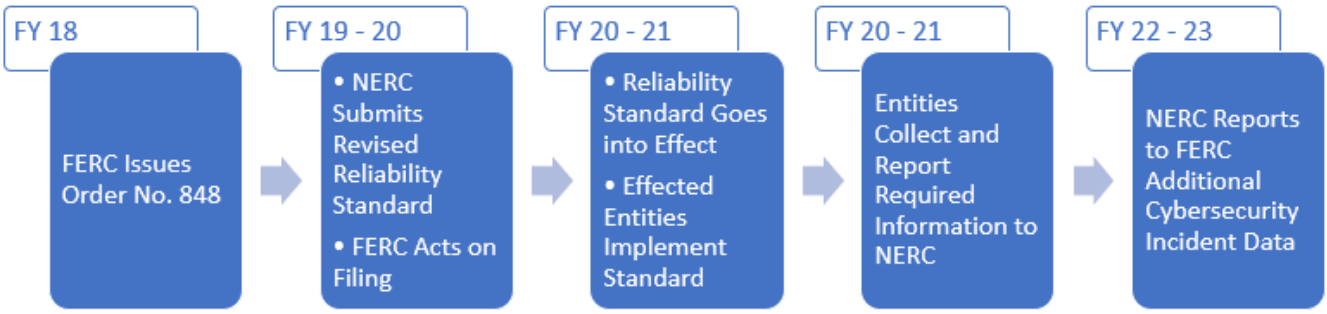
After the implementation of modifications to the Reliability Standards resulting from Order No. 848, this measure will be able to be modified to more accurately quantify and assess the degree to which cyber related events impact the reliability of the bulk-power system. The measure looks specifically at cybersecurity incidents on assets that are important to reliability. A cybersecurity incident includes any attempt, whether successful or unsuccessful, to breach an asset's ESP that registers in the asset's cyber logs, electronic files, or firewalls. A cybersecurity incident also includes non-malicious cyber events that were caused by human error and that either did or could have caused an outage or disturbance. The result reported for this measure is a count of the number of incidents that occurred during the fiscal year.

As part of this reporting, NERC must file an annual, public, and anonymized summary of the reports with the Commission. NERC submitted the revised reliability standard, and the Commission approved it during the second quarter of FY 2019. The new reporting requirements will become enforceable on January 1, 2020. FERC

[13] The measure label was revised to specify that this metric only measures the reported events that have potential reliability impacts.

expects to begin receiving data in FY 2022, after the requirements become mandatory. It is expected that information regarding cybersecurity incidents to support this measure will be available in FY 2022.

The following graphic[14] illustrates the chain of influence for Order No. 848 and general timeframe for each stage.




Although all events will be aggregated for the measure result, FERC will analyze and track different categories of events (e.g., human error, failed equipment/software, malicious activity) and use root cause analysis to gain a greater understanding of how and why these incidents occurred and how they did or could have impacted bulk-power system reliability.

The analyses of the information gathered will provide insight into any gaps and/or weaknesses that may exist in the CIP Reliability Standards allowing FERC, NERC, and industry to address these issues with a modification to a standard, a new proposed standard, or other approaches to minimize the occurrence and impact of cybersecurity events and protect the reliability of the grid.

### Targets and Actual Results Table

**The number of reported cyber events with potential reliability impacts (including outages) in a given year resulting from cyber events on bulk-power system assets subject to reliability standards.**

| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
|---|---|---|---|---|---|---|---|
| 2 | 4 | 1 | 4 | 4 | 6 | 8 | 10 |

**FY 2019 Target: Met**

This is an outcome measure that provides an indication of the performance of FERC's oversight activities and its efforts to inform and support the cybersecurity programs of regulated entities. FERC oversees the development of CIP Reliability Standards and other compliance tools designed to improve the security of jurisdictional energy assets. By working to minimize the occurrence and impact of cybersecurity events, FERC

[14] The graphic is illustrative to show the process and general timeline. Specific requirements and timeframes would be found in the related Commission orders.

helps to protect the reliability of the grid. All other things being equal, decreasing numbers of events provides an indication of higher performance.

Because direct reporting is not currently available, the figures in the table derive from detailed reports from DHS. They do not account for each reported cybersecurity incident at each electric sector entity. The data may include compromises in non-CIP environments or non-jurisdictional cyber assets. The Commission will continue to collect and analyze published alerts from DHS regarding cybersecurity alerts for the electric sector.

The targets for this measure are based on the historical information included in the table and an analysis of cyber event data from DHS. As the Cyber Security Incident Reporting requirements are being modified and implemented, it is highly likely that awareness and regulated reporting of cybersecurity incidents will increase. This will also improve the accuracy of the numbers as more entities are required to report their incidents to DHS. The target numbers for FYs 2020 and 2021 reflect this anticipated increase in reported incidents.

**FY 2019 Results.** During FY 2019, the Commission actively participated in overseeing the development and implementation of CIP Reliability Standards, auditing those standards, and engaging in other activities designed to improve the cybersecurity of jurisdictional energy assets and systems. The Commission also participated in outreach activities, including Regional Entity security and compliance workshops, speaking at industry electric power conferences, and meeting with company representatives and trade associations to educate, inform, and support the cybersecurity programs of regulated entities. All these activities help to minimize the occurrence and impact of cybersecurity events and protect the reliability of the grid.

**FYs 2020 and 2021 Planned Results.** In addition to its current activities, in FYs 2020 and 2021 the Commission will increase its focus on several areas of cybersecurity for the greatest reduction of risk. These areas include: (1) supply chain, insider threats, and third-party authorized access; (2) information sharing, audits, and assessments; (3) cloud/managed security service providers; (4) promoting enhanced voluntary security measures; and (5) internal network monitoring and detection. The Commission expects that the increased focus on these areas and the enhanced quality of security measures will better equip security professionals to identify potential attacks before they are able to impact the operation of the grid.

**Monitoring Risk Factors.** Electric power is a critical infrastructure that is a highly valued target for nation states and criminals. And while the electric power infrastructure continues to implement new communications and technologies, cybersecurity perpetrators are becoming more sophisticated and have access to resources to support increasingly complex cyber attacks on the grid.

### PERFORMANCE MEASURE: THE NUMBER OF ACTIVE PARTNERSHIPS FOR WHICH SECURITY RELATED ACTIVITY OCCURRED DURING THE FISCAL YEAR[15]

This measure directly assesses the effectiveness of FERC's efforts to reach out to other federal agencies and establish active partnerships to the benefit of regulated entities. Partnerships provide a mechanism for

[15] The measure label was revised to convey the focus of the measure and the Commission's related efforts.

information sharing and collaborative actions that enable infrastructure security to be addressed holistically, as opposed to action taken in isolation. Importantly, a holistic approach to infrastructure security provides the necessary framework for federal agencies to work together to address new and quickly evolving cyber and physical threats.

By maintaining active partnerships with federal agencies, FERC is able to coordinate with entities to identify and assess threats, activities, and capabilities of adversaries that may initiate a cyber or physical attack on FERC jurisdictional infrastructure. Active partnerships also enable FERC to work with other federal agencies and stakeholders to identify and assess key infrastructure facilities that present the greatest risk and develop a common understanding of infrastructure interdependencies. The Commission can use the extensive knowledge gained through partnerships and collaborative actions to make jurisdictional entities aware of these threats and appropriate counter measures.

### Targets and Actual Results Table

**The number of active partnerships for which security related activity (information sharing, outreach to industry, joint assessments, sharing of resources, etc.) occurred during the fiscal year.**

| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
|---|---|---|---|---|---|---|---|
| Not Applicable | Not Applicable | Not Applicable | 4 | 8 | 2 | 5 | 5 |

**FY 2019 Target: Met**

Maintaining the quality of FERC's partnerships is critical to effectiveness in this area; for this reason, maintaining a limited set of active partnerships reflects higher performance than a large number of inactive partnerships.

To help in the interpretation of the measure results, FERC will track the number and types of collaborative activities in which each partnership engages. FERC will also maintain an up-to-date list of potential partners, which will include the federal agencies that have expertise, information, resources, or authority relevant to the cyber and physical security of FERC regulated entities.

**FY 2019 Results.** In FY 2019, the number of partnerships significantly exceeded the target. This is because the Commission added four new partnership initiatives with the Nuclear Regulatory Commission, the FCC, the Federal Aviation Administration, and CISA while maintaining the current active partnerships from the previous fiscal years. The biggest risk factor that had a limited role in these results was the government shutdown. Due to some partner agencies such as DHS, TSA, and FCC being closed due to the shutdown, staff was unable to continue its work with them until the shutdown was over. Although this delayed work for several weeks, the partnership work was continued with no obvious adverse effects.

**FYs 2020 and 2021 Planned Results.** The Commission will continue to maintain its current active partnerships with the Departments of Defense, Homeland Security, and Energy, as well as the Office of the Director of National Intelligence by partnering with them for classified briefings, facilitating table-top exercises,

and assisting with technical analysis as requested. In addition to maintaining these partnerships, in FYs 2020 and 2021, the Commission will seek to create at least one additional partnership that is beneficial to its efforts involving the security of energy infrastructure.

To supplement the active partnerships, the Commission engages and maintains awareness in other ways. For example, the Commission maintains contacts with several federal agencies by participating in various working groups such as the Electromagnetic Pulse task force, the Federal Senior Leadership Council, and the EMP Interagency Working Group with the Office of Science and Technology Policy. This allows the Commission to maintain awareness of security activities and any changes in key personnel. The Commission will also monitor Executive Orders to identify any that involve infrastructure security or cyber security and reach out to relevant agency counterparts.

**Monitoring Risk Factors**. There are two primary external risk factors that could impact the Commission's activities and achievement of the established targets. The first factor is a change in key staff or leadership at other federal agencies, which could delay the establishment of a partnership and collaborative engagement. The second factor is a change in course by the Administration, which could impact other agencies' priorities. The Commission will continue to monitor these factors and act as appropriate to support a holistic approach to infrastructure security.

# GOAL 3: MISSION SUPPORT THROUGH ORGANIZATIONAL EXCELLENCE

## ACHIEVE ORGANIZATIONAL EXCELLENCE BY USING RESOURCES EFFECTIVELY, ADEQUATELY EQUIPPING FERC EMPLOYEES FOR SUCCESS, AND EXECUTING RESPONSIVE AND TRANSPARENT PROCESSES THAT STRENGTHEN PUBLIC TRUST.

The public interest is best served when the Commission operates in an efficient, responsive, and transparent manner. The Commission pursues this goal by maintaining processes and providing services in accordance with governing statutes, authoritative guidance, and prevailing best practices. The Commission's staff, while serving in different component offices, must work collaboratively and execute processes that work in concert with each other to produce the high-quality results expected by the American people. In accomplishing this goal, the Commission will use its resources efficiently, empower its employees, and earn the public trust. These essential outcomes are indicative of a model regulatory agency.

| Strategic Goal and Objectives (Dollars in thousands) | | FY 2019 Actual | FY 2020 Request | FY 2021 Request | Percent Change FY 2020 to FY 2021 |
|---|---|---|---|---|---|
| **Objective 3.1** | **FTE** | 234 | 219 | 230 | **5.3%** |
| | **Funding** | $ 57,701 | $ 56,073 | $ 60,787 | **8.4%** |
| **Program** | | 39,688 | 38,152 | 40,882 | 7.2% |
| **Support** | | 18,013 | 17,921 | 19,906 | 11.1% |
| **Objective 3.2** | **FTE** | 67 | 69 | 71 | **2.6%** |
| | **Funding** | $ 16,496 | $ 18,036 | $ 18,545 | **2.8%** |
| **Program** | | 11,346 | 12,375 | 12,418 | 0.3% |
| **Support** | | 5,149 | 5,661 | 6,127 | 8.2% |
| **Goal 3 Subtotal** | **FTE** | **301** | **288** | **301** | **4.7%** |
| | **Funding** | **$ 74,197** | **$ 74,109** | **$ 79,332** | **7.0%** |
| **Application of PY Budget Authority** | | **(396)** | **(863)** | **-** | |
| **Goal 3 Total** | **Funding** | **$ 73,800** | **$ 73,246** | **$ 79,332** | **8.3%** |

*Note: Numbers may not add up due to rounding*

# OBJECTIVE 3.1: MANAGE RESOURCES EFFECTIVELY THROUGH AN ENGAGED WORKFORCE.

FERC achieves this objective by employing processes and services that help Commission leadership prioritize resource allocations, make prudent investments that yield returns that directly benefit the agency's mission, and use Commission resources in an efficient manner. The Commission follows foundational principles of management, set forth in various laws and regulations, including but not limited to the Code of Federal Regulations Titles 5 and 18, Federal Acquisition Regulation, the Federal Managers' Financial Integrity Act of 1983, the GPRA Modernization Act of 2010, and other federal guidance, such as OMB Circular A-123, Management's Responsibility for Enterprise Risk Management and Internal Controls.

These processes further allow the agency to meet federal statutes that require FERC to offset its appropriation by recovering its operating costs from the entities it regulates and to do so in a manner that avoids unnecessarily increasing the cost of energy to consumers.

FERC also achieves this objective by providing services, tools, and resources that equip employees to drive success and accomplish the agency's mission. On an annual basis, the Commission allocates over two-thirds of its budget to directly cover the compensation costs of its employees. Given this significant investment, the Commission places extremely high value on its employees and is focused on ensuring that employees have a performance management system that clarifies expectations, removes barriers to performance and engagement, and provides useful feedback that supports employee effectiveness.

## STRATEGIC CHALLENGES

In its FY 2018–2022 Strategic Plan, the Commission committed to addressing challenges and opportunities that are likely to have a significant impact on the achievement of Objective 3.1. The status of these Strategic Challenges and the Commission's responsive actions are included below.

### **STRATEGIC CHALLENGE:** NEW CHALLENGES AND OPPORTUNITIES FOR MISSION-RELATED INFORMATION

**Overview.** Availability of mission-related information is increasing, which presents new challenges and opportunities for FERC to leverage analytics. This strategic challenge is guided by the President's Management Agenda CAP Goal *Leveraging Data as a Strategic Asset* and OMB's Memorandum M-19-23 *Foundations for Evidence-Based Policymaking Act of 2018*. A Federal Data Strategy, released by the CAP Goal Leaders in the spring of 2019, set forth principles, practices, and an action plan for agencies to deliver a more consistent approach to federal data stewardship, access, and use.

**FY 2019 Results.** In FY 2019, the Commission established a data governance organization and hired a Chief Data Officer and Business Data Analyst to further develop FERC's data governance program for leveraging data

as a strategic asset. FERC developed an initial framework and charter detailing the related mission, scope, and services required to guide the strategic management of its data assets.

**FYs 2020 and 2021 Planned Results.** In FY 2020, FERC will continue to build the data governance program. The data governance organization will provide a corporate data strategy and governance model, provide management support for related data projects, and orchestrate shared data services across the Commission, while simultaneously executing on various in-flight data maturity, management, and analytics projects.

In FY 2021, the Commission will continue to implement its multi-step initiative that includes: (1) conducting a comprehensive data assessment, identifying data currently available, and evaluating appropriate data usage; (2) implementing data standardization and validation protocols; and (3) developing effective analytic tools.

Based on these actions, the Commission expects to realize efficiency gains from streamlined data collection, analyses, and reporting, as well as improve staff expertise.

**Monitoring Risk Factors**. A number of risk factors could impact the strategic response over the next two years, including attracting and retaining a highly skilled and in-demand staff, the pace of technological change, and the pace of emerging data management technology and requirements, among other things. FERC expects that these factors will continue to be relevant over the next two years and will continue to take them into account while implementing its responsive actions.

## STRATEGIC CHALLENGE: MAINTAINING A SECURE AND RELIABLE IT INFRASTRUCTURE

**Overview.** FERC is challenged with maintaining a secure and reliable IT infrastructure to meet the needs of the Commission and provide innovative solutions to support employees.

**FY 2019 Results.** In FY 2019, FERC executed multiple initiatives to support modernization efforts for the enterprise IT infrastructure, core mission applications, and endpoint hardware. For example, the Commission began to upgrade its unified telecommunications platform and endpoint operating systems that provide the continued reliability and security of enterprise services while enhancing the employee experience. In respect to application improvements, the Commission's public facing mission application, Company Registration, was completed to allow for external entities to make tariff filings efficiently and accurately. In supporting the Commission's XBRL final rule, the Commission also awarded a contract to support the modernization of the financial information collection forms.

**FYs 2020 and 2021 Planned Results.** In FY 2020, the Commission will re-compete its single largest IT Support Services Contract, which provides operations, security, and engineering services to the enterprise IT environment and core mission and support applications. The Commission plans to conduct modernization efforts of its infrastructure and applications to ensure a resilient, robust, and secure IT environment.

Over FYs 2020 and 2021, the Commission will also continue modernization of its mission critical business applications. For example, upgrades and enhancements to eLibrary, Virtual Agenda, and FERC Online will provide high availability and better access and security to data, as well as promote a better virtual stakeholder

experience. In addition, the Commission will execute an Application Layer Modernization initiative that will result in an integrated application platform to increase self-service capabilities, improved maintainability, and gain operational efficiencies. The Commission also plans to deploy more work sets into cloud-based platforms, enhance security monitoring of cloud environments, and continue to refresh employee endpoint devices and core infrastructure components. Based on these investments, the Commission expects to gain operational efficiencies from a stable and secure environment and see better use of mission-related information and technology.

**Monitoring Risk Factors**. The primary risk factor that could impact the strategic response over the next two years is the potential transition of the single largest IT support services contract. Although this factor will continue to be relevant over the next two years, FERC has taken appropriate actions in advance of the contract re-compete and will monitor the process. In addition, the Commission also must meet new mandates issued by OMB or other governing bodies, which could impact the Commission's priorities and schedule of IT modernization efforts.

## STRATEGIC CHALLENGE: ATTRACTING AND RETAINING THE REQUIRED WORKFORCE[16]

**Overview.** The Commission's human capital strategic challenge has expanded beyond what was initially identified in the FY 2018–2022 Strategic Plan. In addition to the challenges of new and emerging knowledge/skill demands, the Commission also experiences challenges with remaining a competitive employer in the energy industry sector due to constraints with offering comparable compensation for mission critical positions. As a result, the Commission faces significant challenges attracting, recruiting and retaining the required workforce necessary to meet and support the mission. In addition to these challenges, the Commission must position itself to appropriately respond to increasing staffing vulnerabilities due to attrition and retirement, employee development pressures and a need for cross-functional collaboration. The Commission's continued issues acquiring staff will have a negative impact on program performance unless it finds viable recruiting and compensation strategies to acquire and retain skilled staff.

The Commission has made recruitment and hiring a strategic priority, working diligently to hire ahead of forecasted attrition. Its strategies will be executed as part its Human Capital Operating Plan (HCOP) which will allow the Commission to reach the best candidate pools across the country, be competitive with other employers, and comply with federal requirements aimed at hiring people with targeted disabilities and other designations.

**FY 2019 Results.** FERC supports its myriad responsibilities with professionals specializing in an array of engineering, science and technology disciplines as well as legal and economic professionals with deep understanding of energy law and market fundamentals. In FY 2019, the Commission completed the assessment of gaps and vulnerabilities existing within its current staffing pool in all mission critical occupations. The level of expertise required to support FERC's program responsibilities is highly technical.

[16] The scope of this Strategic Challenge has expanded beyond new and emerging knowledge/skill demands.

These mission critical occupations include mechanical, civil, and petroleum engineers, fire protection, archeologists, biologist, geologists, environmental protection specialists and recreational planners engaged in supporting programs under FERC-jurisdictional facilities and infrastructure review, as explained in testimony to the Senate Committee on Energy and Natural Resources' Subcommittee on Energy in September 2019.

Staff has initiated the process of planning employee development opportunities and developing targeted hiring initiatives for these specific mission critical occupations as determined to be the highest priority. In addressing this challenge, Commission staff have identified enterprise-wide solutions that can be deployed to address these gaps prospectively. In FY 2019, hiring and development efforts include maximizing the use of available Title 5 retention and recruitment incentives. However, even with the recruitment flexibilities, 18% of candidates that declined offers noted they did so to pursue private sector opportunities that provided greater compensation. As an additional response, the Commission also expanded its use of Federal Government-wide direct hire authorities to include Information Technology, Economists, Biological Scientists, Fishery Biologists, General Engineers, Engineers, Physical Scientists, and Acquisition occupations. While the direct hire authority expedited the hiring process, the Commission is still constrained by the inability to offer competitive compensation for these needed skill sets.

The Commission continues to invest in its competency-based training program. The competency-based efforts have helped to inform and prioritize training for mission critical competencies and served as a resource to help guide staff's career development efforts. In addition, FERC has implemented these competencies in its hiring criteria and to focus on key positions where long-time employees are close to retirement.

**FYs 2020 and 2021 Planned Results**. In FY 2020, the Commission anticipates addressing gaps and vulnerabilities with a comprehensive workforce analysis study, developing and implementing the HCOP. Additionally, the Commission will align future training offerings to appropriately address staff's needs, and further the advancement of SharePoint as a knowledge management tool. In FY 2020, the Commission also will complete the development of competency models for the legal, administrative, and engineering job families and conduct developmental needs assessments for staff members in these positions. In FY 2021, the Commission will transition from developing competency models to sustaining developmental needs assessment efforts and linking available employee development programs to addressing skill gaps. Future benefits include identifying and monitoring signs of increased cross-functional understanding as discussions of common knowledge/skill needs are assessed. The Commission will continue to aggressively use the hiring authorities available and monitor the impacts to workforce planning.

**Monitoring Risk Factors**. A number of risk factors could impact the strategic response over the next three years. For example, despite aggressive hiring efforts, the limited talent pool in the identified mission critical occupational series could negatively impact the Commission's efforts to hire highly-skilled staff ahead of double-digit attrition rates. Further, compensation constraints prevent the Commission being competitive in the job market which significantly impacts its ability to attract and retain the necessary skill sets. These issues are compounded by higher costs of living in the Washington, DC Headquarters location and in the San Francisco Regional Office.

FERC anticipates these factors will continue to increase and be relevant over the next several years. The Commission will continue to take them into account while implementing its responsive actions. However, it is a realistic concern that if the Commission is not able to mitigate these risks with existing tools, it may not be able to hire and retain sufficient staff, leaving the engineering ranks, for example, perpetually lacking.

## CORE FUNCTIONS

In addition to being responsive to these strategic issues, FERC carries out its responsibilities in this objective through two core functions. Each core function is driven by discrete sets of inputs, operations, and outputs to deliver impact.

### **CORE FUNCTION 3.1.1:** MAINTAIN PROCESSES AND PROVIDE COMPLIANT SERVICES THAT ENABLE FERC OFFICES TO MANAGE RESOURCES EFFECTIVELY AND EFFICIENTLY.

To support the mission, FERC plans resource needs, executes compliant and effective processes and services, and assesses results against established objectives. As the needs of the agency evolve, proper planning is critical to mission success. In the planning stages, FERC employs a collaborative management approach and establishes systems to identify organizational needs—identifying staffing and competency needs through human capital processes, information technology and infrastructure needs through capital planning and investment control processes, and financial needs through the budget formulation process. FERC then develops comprehensive plans to address those needs for achieving program results.

The Commission executes its resource plans to achieve effective and efficient operations, reliable financial reporting, and compliance with applicable laws and regulations through mission-support services.

To ensure the effectiveness of resource planning and execution, FERC measures and evaluates how well-established processes and services are meeting statutory requirements and addressing identified needs. FERC develops control programs and reporting requirements and implements data collection and analyses to inform decisions and actions to address program performance deficiencies.

This cycle also ensures the Commission is always cognizant of program performance against strategic and operational plans and has the information to produce financial statements that accurately represent the Commission's financial condition, as well as other federally mandated reports that maintain the Commission's accountability and provide stakeholders with program performance information.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Maximizing human capital to deliver mission
- Maturing data management and informed decision making capabilities
- Optimizing investments to support productivity gains and safeguard assets

## MAXIMIZING HUMAN CAPITAL TO DELIVER MISSION

Commission staff assesses competencies and skills needs within the Commission to inform effective recruitment and hiring strategies and to deploy targeted training opportunities.

### *WORKFORCE PLANNING*

**Overview.** Workforce planning is an essential internal service that helps Commission managers identify staffing, critical skills and competency needs. As part of this service, the Commission develops and validates competency models for all mission critical occupations. Workforce planning also includes the development of plans and strategies to meet the required resource levels needed to accomplish its mission. This relates closely to the third Strategic Challenge presented above for Objective 3.1.

**FY 2019 RESULTS.** In FY 2019, the Commission began efforts to develop a two-year HCOP for FYs 2021 – 2022. This plan will assess the Commission's current human capital needs and establishes a responsive short and long-term staffing and recruitment strategy to meet those and future needs. As discussed above in the third Strategic Challenge in Objective 3.1, FERC's continued issues in acquiring mission critical staff will pose a risk on program performance unless it finds additional recruiting and compensation strategies to acquire and retain skilled staff.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will continue to advance its staffing objectives as outlined in the HCOP, to recruit and retain a world class workforce to continue the execution of the Commission's mission. Workforce planning, and the associated hiring and recruitment efforts, will continue to be a strategic priority due to the significance and impact on future program performance.

### *RECRUITMENT*

**Overview.** The Commission's human capital support services identifies recruitment strategies to assist managers in acquiring a highly skilled and diverse workforce to execute Commission duties. The recruitment strategies will also be integrated with the HCOP, and will allow the Commission to reach the best candidate pools across the country, while also complying with federal requirements aimed at hiring people with targeted disabilities and other designations.

**FY 2019 Results.** In FY 2019, the Commission initiated a hiring strategy to maximize its authorized FTE level, finishing the year with a 97.9% execution rate and an average of 53-day time to hire. This strategy included the use of Government-wide direct hiring authorities for Science, Technology, Education, and Mathematics (STEM) positions and the use of an ideal candidate profile to pinpoint the exact skill sets needed in those positions. At this rate of execution, the Commission has used contractor-support to meet programmatic workload needs. However, this strategy is not feasible to sustain the long-term resource needs of mission-critical programs.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will continue to use direct hire authorities to reach a targeted 99.5% FTE execution rate. The Commission will also implement the use of shared services systems to help streamline its hiring process and further improve its time to hire. Recruitment

efforts will continue to be a strategic priority due to the significance and impact on future program performance.

### *COMPETENCIES AND SKILL MANAGEMENT*

**Overview.** Through internal processes, the Commission identifies necessary skill sets, then develops and validates plans to address any staff competency gaps. This includes designing and deploying competency-based training to equip staff with the skills to perform their jobs.

**FY 2019 Results.** In FY 2019, the Commission continued to develop its Competency-Based Training Program, finalizing occupational competency models—with the assistance of Commission subject matter experts—and deploying development needs assessments (DNA) to assess staff ability to acquire these competencies in its Economist and Energy Industry Analyst occupations.

**FYs 2020 and 2021 Planned Results.** In FY 2020, the Commission will deploy DNA for its attorney-advisor, trial attorney, administrative, and other miscellaneous positions. In FY 2021, the Commission will begin adapting its training and development opportunities to address competency skill gaps identified through the DNA process.

## MATURING DATA MANAGEMENT AND INFORMED DECISION-MAKING CAPABILITIES

Commission staff are maturing decision making capabilities through a variety of channels, including incorporating an Enterprise Risk Management (ERM) process into its program performance management framework and building capacity to access and use sensitive data.

### *ENTERPRISE RISK MANAGEMENT AND PROGRAM PERFORMANCE MANAGEMENT FRAMEWORK*

**Overview.** The Commission's program integrates strategic planning, program performance measurement, internal controls, and risk management into a comprehensive framework that informs decision making processes to support resource and operational planning.

**FY 2019 Results.** In FY 2019, the Commission performed a risk assessment process to identify strategic risks and developed appropriate risk responses. The process was integrated into existing management and decision-making processes to support resource planning.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will continue its efforts to develop and implement a formal ERM policy and establish a governance structure. Additionally, Commission staff will conduct strategic review meetings, including discussions about identified risks.

### *FEDERAL INTELLIGENCE COORDINATION OFFICE*

**Overview.** A developed Federal Intelligence Coordination Office (FICO) capability strengthens the Commission's ability to access and use both sensitive information and data from the intelligence community to monitor threats to energy infrastructure and to inform threat mitigation strategies. With this comes the need for additional measures to ensure access is granted only to appropriate staff.

**FY 2019 Results.** In FY 2019, the Commission identified an operational need and created a comprehensive business plan to implement a FICO, designate a Federal Senior Intelligence Coordinator, and construct and accredit a Sensitive Compartmentalized Information Facility (SCIF) in accordance with Presidential Policy Directives, Intelligence Community Directives, and guidance from the Department of Energy (Cognizant Security Agency). In addition, the Commission developed and implemented a continuous evaluation and continuous vetting program for employees with access to national security information (NSI) in compliance with Executive Order 13467. The program was piloted by revalidating all clearances within the Commission's Chief Security Office.

**FYs 2020 and 2021 Planned Results.** The FICO documents developed in FY 2019 will serve as the foundation of FERC's intelligence information services efforts in FYs 2020 and 2021. This includes accrediting the secure space as a SCIF, installing classified information systems, and developing priority intelligence requirements for consumption by the intelligence community to provide FERC-specific insight into finished intelligence products. Further, the continuous evaluation program will expand to incorporate a 100% annual revalidation of all NSI clearance holders and a 5% evaluation of background information for a randomly designated population of NSI clearance holders.

## OPTIMIZING INVESTMENTS TO SUPPORT PRODUCTIVITY GAINS AND SAFEGUARD ASSETS

The Commission continuously seeks to safeguard its physical and financial assets and to ensure they are being used as efficiently and effectively as possible to advance Commission objectives.

### *FINANCIAL STEWARDSHIP*

**Overview.** As public stewards, the Commission must employ sound financial stewardship. Further, as a full cost recovery agency that charges the industries it regulates, it is extremely important for the Commission to report financial information that is reliable, accurate, and free from material misstatements. Both industry and the American taxpayers must have confidence that the funding used to meet the Commission's mission is properly accounted for. To this end, the Commission manages budget planning and execution, including acquisition and capital planning and investment processes, as well as the accounts receivable and payables process.

**FY 2019 Results.** In FY 2019, the Commission received an unmodified financial statement audit opinion, which means the Commission's financial data is properly presented without any material misstatements. The Commission modernized its assessment system, which is used to issue annual charge bills to the regulated entities. The modernized system requires less manual validation, which will lead to improved process efficiencies and cost savings. The Commission also added new enhanced reporting tools to its acquisition system to improve operational efficiencies and reduce costs. The addition of dashboard reporting tools with automated workflow communication functions allowed staff to better track and analyze actions and make timely and cost-effective decisions.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will maintain strong financial stewardship practices, including a strong internal control environment to reduce the risk of fraud, waste, and abuse. By continuing these proven practices and remaining vigilant to any changes to the financial operations, the agency can expect to receive unmodified financial statement audit opinions in both FYs 2020 and 2021.

In FYs 2020 and 2021, the Commission aims to reduce further the resources required to support its annual charges assessment process by continuing to enhance the Commission's assessment systems. In addition, the Commission expects to implement a financial management technology solution that will automate and integrate a significant number of manual processes, increase transparency and reporting, and improve financial awareness of Commission staff. This will ultimately improve financial system user satisfaction and yield productivity gains.

The Commission will also implement advanced acquisition planning to build more effective strategies for acquiring goods and services in support of the Commission's mission. This will improve the budget planning and execution process and make the acquisition of goods and services more efficient to ensure these resources are available in a timely manner for efficient and effective Commission operations.

### *FACILITIES MANAGEMENT*

**Overview.** The Commission manages the headquarters located in Washington DC; five regional offices located in Duluth, GA, Chicago, IL, New York, NY, Portland, OR, San Francisco, CA; and four satellite offices located throughout the United States. These offices across the country facilitate staff's execution of the Commission's mission. In managing these facilities, the Commission's responsibilities include meeting federal mandates for space utilization as well as environmental considerations, such as Leadership in Energy and Environmental Design (LEED) certification.

**FY 2019 Results.** In FY 2019, after a series of delays caused by external factors, the Commission re-initiated the Building Modernization effort and revalidated housing and programming needs in preparation for construction anticipated to begin in March 2020. Accomplishment of the building modernization will consolidate building space to provide for future rent savings. It additionally modernizes its facilities to meet federal requirements and to securely access and store sensitive information.

**FYs 2020 and 2021 Planned Results.** In FY 2020, the Commission will initiate Phase 1 construction to modernize floors 1, 3 and 10 in the headquarters building and prepare internal swing space for use on the remaining 5 phases. In FY 2021, the Commission will continue the modernization efforts through FY 2023.

## CORE FUNCTION 3.1.2: PROVIDE TOOLS AND SERVICES THAT ENABLE FERC STAFF TO EFFECTIVELY PERFORM THEIR JOBS AND DRIVE COMMISSION SUCCESS.

The Commission achieves its mission when employees are equipped for success and empowered to take responsibility for achieving the Commission's mission, goals, and objectives. FERC enables staff to perform effectively and drive success by deploying tools, services, and resources that meet employee needs.

FERC's employee performance management system serves as a planning tool that communicates expectations and individual responsibilities and establishes accountability for expected results. Supervisors and staff also use the system to establish a line of sight between individual performance and the Commission's mission, goals, and objectives. Organizational assessments, such as the Federal Employee Viewpoint Survey (FEVS), allow employees to provide feedback about their level of engagement and satisfaction.

FERC also provides technology, employee development and training programs, an employee engagement program, health and wellness programs, and other employee services and resources to meet employees' performance needs and remove obstacles to engagement. Safety continues to be a top priority for the agency. The Commission is deploying resources to ensure staff feels safe and secure in executing their duties.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Maximizing human capital to deliver mission
- Maturing data management and informed decision-making capabilities
- Optimizing investments to support productivity gains and safeguard assets

## MAXIMIZING HUMAN CAPITAL TO DELIVER MISSION

The Commission works to meet employee professional needs and remove barriers to staff performance, helping to maintain a high-level of staff engagement and sustain staff capacity to perform their jobs. The Commission does this through the delivery of internal programs, services, and/or support, including employee engagement and development efforts, as well as diversity and inclusion support.

### *EMPLOYEE ENGAGEMENT*

**Overview.** The Commission provides employee engagement support that helps Commission staff maximize their contribution to the Commission's mission. The Commission analyzes and develops action plans on the results of the annual FEVS assessment to enhance employee engagement. The Commission also offers services, resources, and tools to management which will address employee performance needs and remove obstacles to engagement.

**FY 2019 Results.** In FY 2019, 86% of Commission employees participated in the FEVS assessment. The Commission maintained or improved its scores from the prior year in the three key survey indices established by the Office of Personnel Management (OPM). Specifically, 82% of employees who completed the survey, on average, rated questions on the Employee Engagement Index (EEI) as positive. The EEI measures employees' satisfaction with leadership, supervisors, and their intrinsic work experience as positive. Also, an average of 81% of employees rated questions on the Global Satisfaction Index (GSI) as positive. The GSI measures employees' overall satisfaction with their job, pay, and organization. The Commission improved its score from the prior year in the New Inclusion Quotient (IQ) Index by one percentage point from 75% to 76%. The New IQ Index measures employees' satisfaction with factors that lead to a diverse and inclusive workforce.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will continue to work towards improving its employee engagement goals. The strategies the Commission identified to meet the established targets will include, but are not limited to (1) providing enhanced analysis of the FEVS results to senior management and ensuring transparency of the results for all employees; (2) perform action planning in response to feedback provided on the FEVS; and (3) provide the necessary tools and training to supervisors to ensure they can effectively empower their employees.

### *EMPLOYEE DEVELOPMENT*

**Overview.** The Commission provides employee training and development support primarily through iLearn, a learning management system that authorizes, distributes, and administers trainings electronically. The iLearn system brings training courses to employee desktops throughout the nation, reducing the need for training-related travel, improving Commission resource efficiency, improving course adaptability, and giving employees easy access to Commission courses.

**FY 2019 Results.** In FY 2019, the Commission provided all required IT security, ethics, and information governance training via the iLearn system. The system was also used for training administration to track all training, as required by OPM.

**FYs 2020 and 2021 Planned Results.** In FY 2020, the Commission will expand iLearn to provide supervisory training to employees and will explore options to add technical training to the iLearn system. Continuing to build out iLearn further strengthens employee capacity to advance FERC objectives while maintaining Commission resource efficiency. In FY 2021, the Commission will link the competency-based training program to the iLearn system.

### *DIVERSITY AND INCLUSION SERVICES*

**Overview.** Employees are the Commission's greatest assets, making it critical to foster an environment where employees can thrive and accomplish the Commission's mission. The Commission provides services to support diversity and inclusion at FERC, including employee resource groups and hosting various diversity observances.

**FY 2019 Results.** In FY 2019 the Commission continued to support its existing employee resource groups and supported the creation of two new ERGs. All groups have been formed by employees across diverse demographics—race, national origin, gender, sexual orientation, military status—as well as shared interests. In 2019, the Commission also involved the ERGs in Commission recruitment strategies and monthly observances. The Commission has benefited from various speaker engagements discussing topics ranging from the industry to leadership. In addition, the Commission conducted its survey of the workforce to assess its progress toward meeting the EEOC's goal of increasing workforce representation of people with disabilities across the Commission.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will continue to support and engage with the ERGs. In FY 2020, the Commission will assess the results of the survey of the workforce to identify strategies to achieve EEOC's mandated recruitment and hiring goals, as well as to ensure people with

disabilities are provided with fair and equal opportunity. In FY 2021, the Commission will implement necessary recruitment strategies and review internal policies or programs to ensure fair and equal opportunity for all Commission employees.

## MATURING DATA MANAGEMENT AND INFORMED DECISION-MAKING CAPABILITIES

The Commission is maturing its data management and informed decision making by managers and staff regarding performance objectives, standards, approaches, and risks. It is doing so through the delivery of an integrated employee performance management program and a program to assess and improve employee experiences.

### *EMPLOYEE PERFORMANCE MANAGEMENT FRAMEWORK*

**Overview.** The employee performance management framework helps employees and managers collaboratively establish employee performance objectives and ensures that employees receive the feedback they need to improve and focus their performance.

**FY 2019 Results.** In FY 2019, the Commission deployed an interim step to automate its employee performance management system and to align employee performance metrics with the Commission's strategic goals and objectives.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will implement a shared services employee performance management solution through its personnel and payroll provider, the Interior Business Center, to automate and better track employee performance management efforts, with linkages to the Commission's Strategic Plan and employee position descriptions.

### *ASSESSMENT OF EMPLOYEE EXPERIENCES*

**Overview.** In addition to the FEVS, the Commission administers other surveys—including an entry survey and exit survey—to assess employee experiences within the Commission and find opportunities for improvement. The data obtained from these surveys is critical in the development of Commission retention and recruitment strategies to secure a world-class workforce.

**FY 2019 Results.** In FY 2019, the Commission began efforts to re-launch entry and exit surveys to assess employee experiences as they separate from the Commission. These surveys will capture employees' experiences as they navigated the recruitment process and entered on duty to the Commission and their overall employment experience with FERC.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will administer the surveys to collect and analyze employee survey data which will provide a baseline and determine how to best address the needs of its workforce. This data will help determine the underlying workplace climate changes in employee attitudes. If necessary, staff will refine the surveys to ensure the data collected will provide the necessary

information to develop long-term strategies to deploy programs to retain employees and develop innovative strategies to on-board them.

## OPTIMIZING INVESTMENTS TO SUPPORT PRODUCTIVITY GAINS AND SAFEGUARD ASSETS

The Commission makes informed investments to equip employees, support their productivity, and ensure their safety and security.

### *EMPLOYEE SAFETY AND SECURITY*

**Overview.** People are the Commission's greatest asset and the responsibility to protect staff is taken very seriously. The Commission continues to develop a mature and integrated protective operations program to ensure the security and safety of the Chairman, Commissioners, and Commission staff while they are conducting Commission activities throughout the United States. Additionally, the Commission has developed an Occupational Safety and Health Administration (OSHA)-Compliant Safety Program that identifies and addresses hazards facing FERC staff. The program also offers guidance to help employees ensure their own safety at work.

**FY 2019 Results.** In FY 2019, the Commission implemented and codified its protective operations program, which provides protective service operations for the Chairman and Commissioners, internal monitoring of threats, and liaison work with local authorities to oversee and protect public comment sessions held by the Commission in geographic areas affected by proposed energy infrastructure projects. In FY 2019, the Commission hired an FTE focused solely on the Occupational Safety and Health Program challenges facing the Commission. It further created a Job Safety Analysis Program, which spearheaded the Commission's efforts to identify and provide mitigation strategies for identified hazards facing Commission employees.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will continue to grow its protective operations efforts by formalizing a standalone insider threat program manager to maintain its fully operationally capable status from the National Insider Threat Task Force and enhance its knowledge and assessment of threats facing the agency through the creation of a protective intelligence function and the deputation of the remaining special agents. Through the Job Safety Analysis Program, the Commission will identify and finalize all program office job categories, develop mitigation strategies, and provide requisite personal protective equipment to employees facing job hazards. Additionally, the FERC's Occupational Safety and Health program will pursue International Organization for Standardization certification and inclusion in OSHA's Voluntary Protection Program.

### *KNOWLEDGE MANAGEMENT AND COLLABORATION TOOLS*

**Overview.** The Commission deploys knowledge management and collaboration tools that help employees work together more effectively. This includes work with specific IT tools and applications and exploring new software functionalities to strengthen work processes. These tools also provide for a flexible and supportive work environment for Commission employees.

**FY 2019 Results.** In FY 2019, the Commission continued to integrate collaboration tools and add capabilities. These enhancements increased productivity because of the integration of multiple applications, real-time document collaboration, automated workflows, efficiencies in information sharing, and improved presentation/visualization of data.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission expects to thoroughly refresh its desktop sharing, communications, video and telephony tools; continue to modernize related mission applications; and bolster Privacy and Rehabilitation Act Section 508 compliance programs for staff, on top of the continued expansion of FERC's internal and external facing collaboration tools.

## PERFORMANCE MEASURES

Commission staff will use the following measures to assess performance in Objective 3.1. The result of this measure will be used in combination with other data and supplemental information to establish a more complete picture of performance on this objective.

### PERFORMANCE MEASURE: OPERATIONAL EFFECTIVENESS MEASURES

**Overview.** FERC will use three measures to assess the operational effectiveness of the agency. The three measures represent key results for FERC's support functions. The measures are intended to enhance accountability, ownership, and engagement with and across the support functions.

1. The extent to which employees are engaged and equipped to perform their jobs to the best of their ability (People Measure)
2. The % of dollars appropriated that have been obligated (Dollars Measure)
3. The degree to which internal services meet employee and organizational needs (Quality Measure)

The People measure assesses the degree to which Commission employees are engaged. To gauge this, the Commission leverages the FEVS, administered annually by the Office of Personnel Management. OPM defines engagement as "an employee's sense of purpose that is evident in their display of dedication, persistence and effort in their work or overall attachment to their organization and its mission." FERC's support functions work to equip employees and enable employee engagement, which is critical to ensuring that employees contribute and perform at their optimal levels. Thus, the People measure is a key result for the support functions.

The Dollars measure captures how well FERC utilizes its resources. The Commission's support functions provide oversight, guidance, and efficient processes and procedures that help FERC develop appropriate resource requirements and utilize agency resources accordingly. The measure looks at whether the dollars appropriated by Congress were obligated in a timely manner in a given fiscal year. Thus, the Dollars measure is a key result for the support functions.

The Quality measure assesses the satisfaction of FERC employees and agency leaders with the services provided internally by the support functions. These services range from capital planning processes and IT support to benefits counseling and special emphasis programs. Collectively, these services meet employee

needs and equip them to perform effectively and achieve FERC's mission. To gauge this, the Commission leverages an internal survey. The Quality measure provides a high-level indication of how responsive the FERC support functions are to the needs of the offices and employees in developing and delivering internal services. Thus, the Quality measure is a key result for the support functions.

The People, Dollars, and Quality measures each capture a key result for the FERC support functions. Together they provide a comprehensive picture of performance and contribution of those functions in managing agency resources effectively through an engaged workforce.

### Targets and Actual Results Tables

**People Measure: The extent to which employees are engaged and equipped to perform their jobs to the best of their ability**[17]

| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
|---|---|---|---|---|---|---|---|
| 77% | 78% | 81% | 82% | 82% | 80% | 80% | 80% |

**FY 2019 Target: Met**

The measure is based on 19 questions from the FEVS, 15 questions of which OPM uses to define the Employee Engagement Index, plus four additional FERC-specific questions that are important to the Commission's specific employee engagement goals and overall success. The reported result is an average of the percent of favorable (i.e., positive) ratings across all respondents for each item. Higher percentages are an indication of greater employee satisfaction with those factors.

**FY 2019 Results.** The actions taken related to the People Measure in FY 2019 include analysis of the FEVS data at the office and division levels; obtaining more feedback from employees across the Commission regarding strengths and challenges, as identified by the FEVS; and offices implementing action items based on the collective feedback of their employees to improve employee engagement factors. Such efforts contributed to the Commission maintaining or improving its key measures from the prior year.

**FYs 2020 and 2021 Planned Results.** The Commission will continue to analyze employee feedback and continue to develop or improve identified actions necessary to increase employee engagement and overall job satisfaction. The Commission will continue to provide supervisors with consultation on their action planning to continue to sustain or improve the Commission's level of employee engagement.

**Monitoring Risk Factors.** An internal and external risk factor that could significantly impact the achievement of the People target is the Commission's mandated building modernization efforts. The modernization of the headquarters building has the potential to impact staff's perception of their work environment due to the level of effort, and the external risk of uncertainty in the schedule for later phases of the project as the timing of

[17] Prior year results were incorrectly reported in the FY 20 Congressional Justification. This did not impact the interpretation or use of the measure.

annual appropriation decisions are beyond the control of the Commission. The Commission will continuously monitor the potential of these risks and will factor in contingency within the project's schedule.

**Dollars Measure: The percent of dollars appropriated that have been obligated**[18]

| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
|---|---|---|---|---|---|---|---|
| 95% | 97% | 97% | 98% | 99% | 98% | 98% | 98% |

**FY 2019 Target: Met**

The measure is based on the Commission's obligation rate of appropriated dollars available in a given fiscal year. Excluded from the calculation are funding received for building modernization, obligations associated with building modernization, and prior year unobligated funding used to offset a future fiscal year budget request. The greater the percentage of appropriated dollars obligated, the more effective and efficient FERC is at using its financial resources to execute its mission. The targets are considered a minimum threshold for performance. Results below the targets will serve as an alert system that provides FERC an indication that issues may have arisen regarding execution of its financial resources.

**FY 2019 Results.** In FY 2019, the Commission implemented a budget execution plan that focused on routine program office engagement to confirm current year requirements in a timely fashion or shift resources to meet new evolving requirements. The Commission enhanced its acquisition processes and re-organized the organization structure of the acquisition to simplify and increase the timeliness of acquisitions. These actions helped ensure requirements were executed in a timely fashion to meet the needs of the Commission. The Commission also implemented an aggressive hiring strategy ensuring the Commission had the necessary resources and skill sets it needed to the meet its mission.

**FYs 2020 and 2021 Planned Results.** Moving forward, the Commission will continue to improve its acquisition and budget execution processes. The Commission will implement technologies designed to streamline financial management processes which will lead to improved budget execution. The Commission will also enhance its financial management reporting capabilities, providing Commission staff with timely and essential information necessary to make critical decisions regarding execution activities. The Commission will also continue to enhance its hiring strategies and processes ensuring program offices have the resources they need to successfully meet their goals and objectives.

**Monitoring Risk Factors**. An external factor that could impact the achievement of the established target is an unplanned and unfunded mandate requiring execution. An unplanned and/or unfunded mandate would

[18] Beginning in FY 2019, the Commission revised its methodology for calculating its obligation rate for this measure. The new method is a better, and more useful, indication of management's execution of its operating plan. Prior year results have been restated to allow for comparison of results over the reported time period.

require modifications to the current execution plan and delay execution of planned requirements, which could impact the overall obligational execution rate.

**Quality Measure: The degree to which internal services meet employee and organizational needs**

| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
|---|---|---|---|---|---|---|---|
| 64% | 68% | 78% | 82% | 79% | 80% | 80% | 80% |

**FY 2019 Target: Not Met**

The measure captures employee satisfaction ratings of 22 different internal support services. Each service receives a result of percent positive responses, which allows specific program managers to assess their program's responsiveness and take follow up actions, as needed. The consolidated measure is reported as an aggregated average. Higher percentages are an indication of greater satisfaction, overall, with the assessed support services.

**FY 2019 Results.** In FY 2019, the survey results indicated a majority of the support services had positive customer satisfaction scores. The results were impacted by additional risk factors for several IT support service areas. During FY 2019, the Commission began multiple IT systems modernization projects which were further impacted by higher than average IT staff turnover due to the shortage of qualified staff and the increased pace of technology development.

During FY 2019, service owners were provided with an interactive dashboard to help facilitate the evaluation of the information provided from staff and senior leaders within the Commission. The dashboard provided historical trends for each service attribute and their correlation to the survey results. Service owners developed and began implementing actions to increase customer satisfaction across the support services.

**FYs 2020 and 2021 Planned Results.** The Commission will continue to implement the identified actions to ensure mission critical initiatives and operational tasks are successfully executed with a focus on constant and consistent quality customer service. Continuing to deliver consistent and reliable customer service will support the achievement of the targeted levels of performance across all service areas. Staff will continue to capitalize on opportunities to maximize training efforts and successfully execute a training plan to maintain professional certifications which will address customer service requirements in creative and innovative ways. In addition, program managers will continue to solicit feedback through Customer Engagement Forums providing an open exchange of opinions to strengthen internal support and continue to build internal coalitions to facilitate and meet performance goals.

**Monitoring Risk Factors.** FERC expects that several external risk factors have the potential to significantly affect the achievement of the targeted performance levels, particularly the shortage of qualified staff and the pace of technology development. In addition, internal risk factors, which include unforeseen changes in the agency's priorities, could also potentially make it more difficult for FERC's support service areas to meet the

agency's needs. The Commission will continue to track, monitor and mitigate these and other risk factors and address them as needed.

# OBJECTIVE 3.2: FACILITATE PUBLIC TRUST AND UNDERSTANDING OF COMMISSION ACTIVITIES BY PROMOTING TRANSPARENCY, OPEN COMMUNICATION, AND A HIGH STANDARD OF ETHICS.

Public trust is the backbone of federal service. Numerous laws guide the Commission's efforts to maintain this public trust, including the Government in the Sunshine Act, Ethics in Government Act and financial disclosure laws and the Freedom of Information Act (FOIA). Maintaining this public trust and facilitating understanding of how the Commission carries out its responsibilities are important components of the Commission's commitment to organizational excellence.

The Commission achieves this objective by maintaining processes and public information services that promote transparency and open communication with respect to the conduct of the Commission's business. FERC's proactive communication, along with an online document repository and timely responses to inquiries, fosters awareness and understanding of the Commission's activities.

The Commission also advances this objective by maintaining internal processes and services that ensure adherence to statutes, regulations, and self-imposed standards. In addition, FERC provides training and guidance to promote an ethically informed workforce. These activities further encourage public confidence in the Commission's activities and ability to fulfill its responsibilities.

## STRATEGIC CHALLENGES

In its FY 2018–2022 Strategic Plan, the Commission committed to addressing challenges and opportunities that are likely to have a significant impact on the achievement of Objective 3.2. The status of this Strategic Challenge and the Commission's responsive actions are included below.

### **STRATEGIC CHALLENGE:** GREATER PUBLIC INTEREST IN REGULATORY ISSUES

**Overview.** Greater public interest in and concern about issues that are or may come before the Commission are creating the need for more dynamic engagement processes with the public.

**FY 2019 Results.** In FY 2019, the Commission took a number of actions to engage more effectively with the public. Throughout FY 2019, the Commission did extensive work to rebuild and redesign FERC.gov to make it more user friendly and improve transparency and accessibility of the large amount of complex information it contains. The Commission also produced multiple videos and podcasts, covering the Commission's agenda for FY 2019 and the launch of its Instagram page. The Commission successfully adapted its podcast and video efforts to improve their relevance and interest to stakeholders and enhance their integration with social media. The Commission focused its efforts to increase its engagement with the public through more regular

social media postings of events, issuances, and other agency actions that are of interest to the public. Additionally, the Commission launched a new external monthly newsletter which presents the Commission's actions that occurred over the past month. This will improve the Commission's outreach and educational efforts to the public and a variety of stakeholders.

Although it is early in the implementation process, staff has already discovered through user testing that planned changes to FERC.gov will be helpful to the public from accessibility and transparency standpoints. The agency has also observed increased engagement from those who follow the Commission on social media and who also have an interest in FERC's redesigned website.

**FYs 2020 and 2021 Planned Results.** The Commission expects the FERC.gov project to be completed no later than the 2nd quarter of FY 2020. The FERC.gov website will modernize and streamline the FERC branding and style guides, improve the Commission's compliance with the Americans with Disabilities Act and the Rehabilitation Act Section 508 guidelines, improve accessibility for all site users and stakeholders, and provide more information and clarify for engagement by landowners.

The Commission will also expand its podcast offerings to address specific matters of interest, such as the infrastructure project environmental review process. These efforts will help the Commission convey in understandable terms the complex work it does to interested members of the public. With these outreach efforts, the Commission aims to better educate, inform, and equip the public on how to more effectively engage with the Commission on various matters. The number of podcasts and videos will fluctuate depending on the number of actions/news items generated by the Commission. However, the Commission will strive to post with more regularity and frequency to ensure consistent and continuous engagement with its listeners. Finally, the Commission will communicate often and proactively with members of Congress on Commission issuances that are of interest to their constituents.

Based on these actions and the Commission's continuing efforts to be as transparent as possible, the Commission expects to see increased engagement with and attention from the public along with an improved understanding of FERC's processes and actions. It also anticipates these efforts will strengthen relationships with interested stakeholders, including the public and Members of Congress.

**Monitoring Risk Factors**. A number of risk factors could impact the strategic response over the next two years, including diverse stakeholder groups with varying access to technology and communication systems, tailoring messages to distinct stakeholder groups, and the fast pace of change in the energy sector, among other external factors. FERC expects that these factors will continue to be relevant over the next two years and will continue to take them into account while implementing its responsive actions.

## CORE FUNCTIONS

In addition to being responsive to this strategic issue, FERC carries out its responsibilities in this objective through two core functions. Each core function is driven by discrete sets of inputs, operations, and outputs to deliver impact.

### CORE FUNCTION 3.2.1: DEVELOP AND MAINTAIN INTERNAL PROCESSES AND SERVICES THAT PROMOTE HIGH STANDARDS OF ETHICS.

To ensure public trust in the exercise of FERC's regulatory authority, the Commission promotes and demonstrates a high standard of ethics. While ethics and integrity of Commission employees have always been top priorities, in the current media and political climate it is ever more important to maintain vigilance and commitment in this area.

The Commission develops and maintains processes and programs to ensure that the activities of its employees conform to statutes and regulations relating to the standards of conduct for employees of the executive branch. FERC demonstrates a high commitment to the standards of conduct by providing innovative annual ethics training to all Commission employees, by providing timely and thorough guidance in response to all inquiries and issues, and by ensuring the timely completion, submission, and review of required financial disclosure forms. This commitment creates a high level of public trust and confidence that enables FERC to carry out its mission effectively and efficiently.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Implement the Commission's ethics training
- Address ethics-related questions and issues
- Manage financial disclosures

## IMPLEMENT THE COMMISSION'S ETHICS TRAINING

**Overview.** The Commission's ethics program promotes the highest standards of ethical conduct. Commission ethics staff provides mandatory initial training to all new employees and annual ethics training to all Commission employees. Ethics staff receives regular training to stay abreast of the ethics requirements and any changes thereto. Ethics staff ensures training is compliant with regulatory requirements while also tailoring the content to respond to recent trends and developments. This helps ensure the training remains relevant and impactful.

**FY 2019 Results.** In FY 2019, the Commission's ethics staff provided annual ethics training to all Commission employees, which exceeds the Office of Government Ethics (OGE) requirements that annual training minimally be provided to all financial disclosure filers (typically, employees GS-14 and above are required to file financial disclosure forms).[19] In FY 2019, OGE completed a program inspection.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will provide ethics training to all staff that meets or exceeds OGE's requirements. The Commission will continue to tailor training to address emerging trends and developments.

## ADDRESS ETHICS-RELATED QUESTIONS AND ISSUES

**Overview.** The Commission ethics staff serves as a critical resource to Commission staff to ensure compliance with OGE regulations. The ethics staff responds to questions and identifies issues and performs a thorough review of relevant facts, applicable ethics laws or standards to promote a culture of trust and integrity.

**FY 2019 Results.** In FY 2019, ethics staff responded to approximately 1,300 ethics-related questions, typically addressing all in a timely manner. Questions generally cover outside activities, seeking employment, post-employment, financial disclosure review and prohibited financial holdings. Although the complexity of each question varies, they typically require substantive analysis of applicable ethics rules and regulations.

**FYs 2020 and 2021 Planned Results**. In FYs 2020 and 2021 the Commission expects to receive a similar number of questions and will continue to respond to all in a timely manner.

## MANAGE FINANCIAL DISCLOSURES

**Overview.** The Commission's ethics staff manages and reviews all confidential financial disclosure reports for employees who are typically GS-14 and above and all public financial disclosure reports for Senate confirmed Presidential appointees, Administrative Law Judges, the Senior Executive Service, and senior level employees. The disclosures are reviewed for completeness and to detect and resolve any conflicts of interest or other

[19] For more information on the General Schedule, see: https://www.opm.gov/policy-data-oversight/pay-leave/pay-systems/general-schedule/

concerns stemming from an employee's financial interests, covered outside activities, and their work at the Commission.

**FY 2019 Results.** In FY 2019, the Commission's ethics staff reviewed approximately 62 public and 728 confidential financial disclosures. This represented approximately 53% of Commission employees. The Commission currently uses OGE's Integrity system to manage the public financial disclosure reports.

**FYs 2020 and 2021 Planned Results**. In FYs 2020 and 2021 the Commission will continue to review all financial disclosures submitted by staff. The number of disclosures is expected to remain steady. In early FY 2020, ethics staff will roll out a pilot program for the electronic system to manage the confidential financial disclosures and expects it to be fully operational by the end of the year.

### CORE FUNCTION 3.2.2: MAINTAIN PROCESSES AND PUBLIC INFORMATION SERVICES IN ACCORDANCE WITH THE PRINCIPLES OF TRANSPARENCY AND OPEN COMMUNICATION.

The Commission demonstrates its commitment to transparency and open communication in many ways, including its eLibrary document repository, its website, and direct communications with Congress, the states, and the news media, as well as the creative use of social media to share information from the Commission with larger and more diverse audiences.

Commission decisions and the Commission rulemaking process are supported through open communication and are documented in eLibrary, FERC's online records repository. Moreover, the Commission announces its open meetings with notices that list matters that the Commission will discuss. FERC also issues a bi-weekly public notice to make the public aware of any off-the-record communications to Commission staff that could influence the Commission's decision-making process.

Commission transparency is also supported by timely responses to information requests and proactive communication with stakeholders. Commission staff frequently addresses questions from Congress and other government agencies, state agencies and regulators, the international community, and the media and the public at large. The Commission pursues proactive engagement with regulated entities and other interested stakeholders. This includes educating the public and stakeholders about the agency's mission, role, direction, and policy.

The past and planned results for this core function, described below, are organized by the areas of impact to most clearly articulate the work the Commission undertakes and the value it yields:

- Support transparency and efficiency regarding FERC rulemakings, notices, and issuance of orders
- Educate and inform public understanding about FERC
- Engage with Congress, state regulators, and international regulatory agencies
- Respond to FOIA and Critical Energy/Electric Infrastructure Information (CEII) requests

## SUPPORT TRANSPARENCY AND EFFICIENCY REGARDING COMMISSION RULEMAKINGS, NOTICES, AND ISSUANCE OF ORDERS

**Overview.** The Commission's public eLibrary, accessible on FERC.gov, provides extensive access to submissions made to and issuances posted by the Commission. The Commission publicly notices all filings, orders, and Off-the-Record (*ex parte*) Communication in a timely and accurate manner to keep the public up to date on Commission decisions and activities. This serves two purposes: it ensures the public is aware of and can respond to Commission issuances and maintains transparency around *ex parte* communications to strengthen Commission accountability and build public trust.

In addition, the Commission works to maintain and improve its filing procedures so that staff can quickly review and respond to incoming documents, promoting efficient information exchange within the agency and to external stakeholders.

**FY 2019 Results.** During FY 2019, the Commission received 78,414 filings from external constituents, approximately 6% more than FY 2018. All filings were processed and published in the eLibrary records repository. Approximately 85% of FY 2019 filings were received electronically—compared to an average of 75% over the last 10 years and 84.3% in FY 2018—reflecting the Commission's ongoing effort to reduce its reliance on paper filings.

The Commission issued 1,027 Commission voted orders and 6,543 delegated orders in FY 2019. Staff additionally published 5,860 public notices on eLibrary, 26 of which included *ex parte* public notices. These 26 public notices included approximately 395 prohibited/exempt communications. Commission staff assessed each of these instances to determine whether the communications were prohibited or exempt, then published the communications to eLibrary on a biweekly basis. Overall in FY 2019, Commission staff published 21,867 issuances to FERC's document repository, eLibrary.

Further supporting its transparency efforts, the Commission posted 100% of time-sensitive Commission actions to the FERC.gov website within one hour of the official actions being taken. Timely posting of announcements to the FERC website ensures that all related social media posts that follow can provide links for the public to FERC.gov for pertinent information, improving the transparency of FERC actions to the public.

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission does not foresee any anomalous conditions or events and therefore expects a workload that is in keeping with the trend over the last few years. The Commission plans to improve FERC's online applications systems—including its electronic filing system and eLibrary data repository—to improve the reliability and efficiency of its services.

## EDUCATE AND INFORM PUBLIC UNDERSTANDING ABOUT FERC

**Overview.** Commission staff leverages traditional and social media platforms to quickly communicate about Commission actions and educate stakeholders about Commission processes. To this end, Commission staff:

- Publishes press releases and publicizes Commission-issued Orders on FERC.gov, providing detailed background materials to help stakeholders understand their context and reasoning
- Publishes educational materials about FERC, its policies, and its procedures to FERC.gov, YouTube, and social media accounts. This includes developing videos and short podcasts that illustrate FERC's work and operations in an engaging and accessible manner.
- Responds to inquiries and requests for information from the public
- Manages Commission Facebook, Twitter, LinkedIn, Instagram, and Flickr accounts to quickly and broadly inform the public about Commission work

**FY 2019 Results.** In FY 2019, Commission staff responded to 7,526 inquiries from the general public, averaging almost 630 inquiries per month. Staff addressed all requests within three business days.

Regarding the Commission's social media presence, the number of followers across all accounts grew to nearly 40,000, increasing by more than 6,000 since FY 2018. Most of this growth appeared in Twitter; the FERC Twitter account grew by an average of 278 followers a month to 22,000 followers in FY 2019. Across all platforms, FERC's social media content has significantly expanded its page views and engagements by other social media users.

**FYs 2020 and 2021 Planned Results.** For FYs 2020 and 2021, the Commission expects to meet or exceed FY 2019's level of communication with members of the public. These goals, however, are dependent on many variables including overall issuances from the Commission and activity by the Commission in the public realm.

The Commission also will continue to publish educational materials and manage its social media platforms, continuing to adapt its outreach strategies to leverage new technologies, and respond to changing stakeholder needs. For example, the Commission will make regular postings on social media platforms and incorporate more photographs and video content. With these efforts, the Commission expects that its social media following and engagements with the public will increase in both FYs 2020 and 2021. The Commission also anticipates the size and breadth of followers will continue to grow and evolve with FERC's increased social media presence, use of new tools and technologies, and more frequent posting and diverse content.

## ENGAGE WITH CONGRESS, STATE REGULATORS, AND INTERNATIONAL REGULATORY AGENCIES

**Overview.** The Commission emphasizes open and effective communication with Congress, state regulators, and other officials. To this end, the Commission responds to congressional inquiries in a timely and transparent manner, notifies state regulators and other officials of pertinent Commission actions, and, when appropriate, briefs congressional staff or state officials on major Commission decisions. The Commission also testifies before Congress, as needed.

The Commission hosts visits from foreign countries; attends meetings with regulatory counterparts in Mexico, Canada, Europe and Asia; and, upon request, provides assistance to sister agencies such as the Departments of

State and Commerce. These activities facilitate information exchange and best practice sharing among regulators and contributes to the overall strength of international regulatory efforts.

**FY 2019 Results.** In FY 2019, the Commission received and responded to 171 congressional inquiries, compiling and providing all requested information in a timely manner. Commission staff additionally:

- Hosted a FERC 101 training for new congressional staff, engaging 110 participants, which reflects an ongoing trend of increasing attendance
- Held 19 in-depth briefings on important Commission initiatives for state officials
- On average, sent out 13 notifications of Commission actions per month to over 800 state contacts
- Actively participated in over 49 visits from foreign delegations
- Held digital video conferences with Argentina and India
- Finalized four Memoranda of Understanding with Singapore, India, Israel and Australia

**FYs 2020 and 2021 Planned Results.** In FYs 2020 and 2021, the Commission will proactively offer briefings to Congressional staffers on areas of interest and major rulemakings and orders and continue to respond to all Congressional inquiries promptly and openly.

In FY 2020 and 2021, staff expects to meet or exceed FY 2019 levels of communication with state officials and expand outreach to additional associations.

Commission staff also will continue to build relationships with international regulatory agencies, continue to attend meetings with regulatory counterparts in Mexico, Canada, Europe, and Asia and provide assistance to sister federal agencies upon request.

## RESPOND TO FOIA AND CEII REQUESTS

**Overview.** The public typically requests information from the Commission through the FOIA process and the CEII process. Commission staff aims to respond to 85% of FOIA requests within the statutory time frame of 20 business days (10 business days for expedited requests). Upon receipt of a FOIA request, Commission staff searches non-public files for responsive documents, and determines whether all or part of a document can be withheld under one or more of the nine FOIA exemptions.

Staff will respond to requests for CEII according to the timing required for responses under the FOIA. Upon receipt of a request for CEII, Commission staff will (1) notify the original owner of the information of the fact that the information has been requested, if applicable; (2) determine whether the information is CEII; (3) determine if it is a legitimate request and a valid need for the information; and (4) determine whether to release CEII subject to a non-disclosure agreement.

**FY 2019 Results.** In FY 2019, the Commission processed approximately 119 FOIA requests and 103 CEII requests, responding to all requests it received.

**FYs 2020 and 2021 Planned Results.** Commission staff will continue to process FOIA and CEII requests within the required timeframes. The Commission cannot predict the number of FOIA and CEII requests it will receive in future years. At this time, the Commission does not anticipate a significant change in the number of requests.

## PERFORMANCE MEASURES

Commission staff will use the following measures to assess performance in Objective 3.2. The result of this measure will be used in combination with other data and supplemental information to establish a more complete picture of performance on this objective.

### PERFORMANCE MEASURE: THE PERCENT OF COMMISSION FILINGS AND ISSUANCES THAT ARE DISSEMINATED TO THE PUBLIC WITHIN ESTABLISHED TIMEFRAMES

**Overview.** This measure serves as an indicator of FERC's effectiveness in providing timely access to documentation associated with a proceeding, an application, other FERC action, or filer request. As such, the measure reinforces FERC's commitment to transparency by making documents readily and quickly available to all interested parties. By providing timely access to documents, FERC builds public trust and reinforces its ethical stance.

The measure demonstrates FERC's commitment to open communications. Just as FERC mandates that applicants, intervenors, and other filing parties adhere to published timeframes, by this performance measure FERC shows that the Commission holds itself accountable to like standards.

The results will help FERC determine if software applications, business procedures, and staff/contractor capabilities adequately support the performance goal. Where a performance trend indicates less than optimal results, FERC will initiate a business analysis to identify points of weakness. Those points will be strengthened through training, application upgrades, or revision in operational procedures.

#### Targets and Actual Results Table

**The percent of Commission filings and issuances that are disseminated to the public within established timeframes.**

| FY 2015 Actual | FY 2016 Actual | FY 2017 Actual | FY 2018 Actual | FY 2019 Actual | FY 2019 Target | FY 2020 Target | FY 2021 Target |
|---|---|---|---|---|---|---|---|
| 87% | 93% | 94% | 99% | 98% | 98% | 98% | 98% |

**FY 2019 Target: Met**

The measure looks at individual filings, including both submissions (externally created) and issuances (internally created). All documents submitted as official filings intended for publication in the Commission's public data repository (eLibrary) are included with the exception of eTariff filings that are published within minutes and eForms that do not contribute to a proceeding. The measure looks at whether the time between

the first receipt of a filing and its appearance in eLibrary is within the established timeframe for that type of filing. Since the result is an indication of timeliness, the greater the percentage of filings that meet their timeframe the better.

Although the targets for this measure are considered minimum thresholds for performance, it is likely that the results are near a practical maximum since there will always be anomalous situations which prevent a 100% achievement. Having reached a maximum, future results may show steady or a minor decrease in performance. The measure will thus serve as an alert system that provides FERC an indication that issues may have arisen in the publication of filings.

**FY 2019 Results.** A review of FERC submissions and issuances metrics for FY 2019 continue to show a stable trend towards the public's use of agency applications such as eLibrary, eFiling, eTariff, and eForms while FERC itself relies on the electronic publication of FERC issuances. Feedback related to conducting business with FERC using these applications is generally positive but FERC Online applications are widely regarded as needing user interface updates and greater reliability for an increasingly web- and IT-savvy public.

**FYs 2020 and 2021 Planned Results.** To address these needed updates, FERC continues to invest in electronic solutions that will streamline FERC business processes and make searching for a filing or issuance an enjoyable and intuitive experience. As the FERC Online applications are improved and show greater utility to the public during FYs 2020 and 2021, it is FERC's goal to further reduce paper submissions delivered to FERC while maximizing the number of filings that can be electronically submitted. Investing in enhancing the FERC Online applications means a better, faster, easier, and less labor-intensive service to a public that is increasingly comfortable conducting business with FERC via the internet.

**Monitoring Risk Factors**. There are few risk factors that impact this performance measure. Staff turnover could affect targets because of the myriad business processes involved and learning curve associated with these processes. System outages could also negatively impact the timeliness of posting items on eLibrary. Finally, in limited circumstances, some filings are submitted in hard copy directly to one of the Commission's regional offices. These filings must be mailed to the headquarters before they can be posted in eLibrary, which adds time to the process. The Commission actively monitors these risks and is confident in its abilities to mitigate the impacts if any are realized.

# APPENDICES

# APPENDIX A: REGULATORY AUTHORITY HISTORY AND OVERVIEW

## OVERVIEW

The Commission has an important role in the development of a reliable energy infrastructure and the protection of wholesale customers from unjust and unreasonable rates and undue discrimination and preference. The Commission draws its authority from various statutes and laws that are described below.

## HYDROPOWER

In 1920, Congress passed the Federal Water Power Act, which gave the Federal Power Commission (FPC), the Commission's predecessor, its original authority to license and regulate non-federal hydropower projects. As Congress expanded the regulatory authority of the FPC, the Federal Water Power Act ultimately became Part I of the Federal Power Act (FPA). Part I of the FPA has been amended by subsequent statutes including the Electric Consumers Protection Act of 1986, the Energy Policy Act of 1992, the Hydro- power Regulatory Efficiency Act of 2013, and the America's Water Infrastructure Act of 2018. The Commission relies on these authorities to carry out its hydropower responsibilities, including: the issuance of preliminary permits; determinations regarding qualifying conduit facilities; the issuance of licenses for the construction and operation of new projects; the issuance of relicenses for existing projects; the investigation and assessment of headwater benefits; and the oversight of all ongoing project operations, including dam safety and security inspections, public safety, and environmental monitoring. While the Commission's responsibility under the FPA is to strike an appropriate balance among the many competing developmental and non-developmental (including environmental) interests, several other statutes affect hydropower regulation. These include, but are not limited to, NEPA, the Clean Water Act, the Coastal Zone Management Act, the Endangered Species Act, the Fish and Wildlife Coordination Act, and the National Historic Preservation Act.

## ELECTRIC

Since 1935, the Commission has regulated certain electric industry activities under Part II of the FPA. Under FPA sections 205 and 206, the Commission ensures that the rates, terms and conditions of sales for resale of electric energy and transmission in interstate commerce by public utilities are just and reasonable and not unduly discriminatory or preferential. Under FPA section 203, the Commission reviews mergers and acquisitions, and certain other corporate transactions involving public utilities and public utility holding companies. Under FPA section 204, the Commission reviews the issuance of securities or assumptions of liabilities by certain public utilities subject to its jurisdiction.

Section 215 of the FPA provides for the establishment of a federal regulatory system of mandatory and enforceable electric reliability standards for the Nation's bulk-power system. The standards, developed by a Commission-certified ERO and approved by the Commission, apply to all users, owners, and operators of the bulk-power system. The ERO operates within the 48 contiguous states and is under the direct oversight of the Commission. The Commission is ultimately responsible for the effective enforcement of the standards.

The Commission also has other electric regulatory responsibilities under portions of the Public Utility Regulatory Policies Act of 1978 and the Public Utility Holding Company Act of 2005 pertaining to qualifying facilities, exempt wholesale generators, and books and records access requirements. Under the Energy Independence and Security Act of 2007 (EISA), the Commission, along with the Department of Energy and National Institute of Standards and Technology (NIST), has a role to play in ensuring awareness, coordination, and integration of the federal government's diverse activities related to smart grid technologies and practices.

The Commission's regulations apply primarily to investor-owned utilities. In contrast, federal government-owned utilities (e.g., Tennessee Valley Authority, federal power marketing agencies), state and municipal utilities, and most cooperatively owned utilities are not subject to Commission regulation (with certain limited exceptions). Regulation of retail sales and local distribution of electricity are matters left to the states. In addition, the Commission does not authorize the construction of new generation facilities (other than non-federal hydroelectric facilities); such authorization is the responsibility of state and local governments.

## NATURAL GAS AND LIQUEFIED NATURAL GAS

The Commission's role in regulating the natural gas industry is largely defined by the Natural Gas Act of 1938 (NGA). Under section 3 of the NGA, the Commission reviews the siting, construction, and operation of facilities to import and export natural gas, including liquefied natural gas (LNG) terminals. As part of this responsibility, the Commission conducts cryogenic design and technical review of the proposed LNG facilities during the authorization process, and compliance inspections during construction. Once an LNG facility is constructed and operational, the Commission conducts safety, security, and environmental inspections for the life of the facility.

Under section 7 of the NGA, the Commission issues certificates of public convenience and necessity for the construction and operation of interstate natural gas pipelines and storage facilities. The Commission also conducts compliance inspections of natural gas pipelines and storage facilities during construction. Although the Commission does not have jurisdiction over the safety or security of natural gas pipelines or storage facilities once they are in service, it actively works with other agencies that do have these responsibilities, most notably the Pipeline and Hazardous Materials Safety Administration of the Department of Transportation.

As required by NEPA, the Commission prepares environmental documents for proposed natural gas and LNG facilities and acts in conformance with other environmental statutes as appropriate, including the Endangered Species Act, National Historic Preservation Act, Clean Water Act, Clean Air Act, and Coastal Zone Management Act.

Under sections 4 and 5 of the NGA, the Commission oversees the rates, terms and conditions of transportation and of certain sales for resale of natural gas in interstate commerce. The Commission is also responsible for determining fair and equitable rates for intrastate pipelines transporting or storing natural gas under section 311 of the Natural Gas Policy Act of 1978 (NGPA). The Commission's jurisdiction over sales for resale of natural gas is limited by the NGPA and the Natural Gas Wellhead Decontrol Act of 1989. Regulation of the production

and gathering of natural gas, as well as retail sales and local distribution of natural gas, are matters left to the states.

## OIL

The Interstate Commerce Act gives the Commission jurisdiction over the rates, terms and conditions of transportation services provided by interstate oil pipelines. Oil pipelines transport crude oil, natural gas liquids (ethane, propane and butane), refined petroleum products (gasoline, jet fuel and fuel oils), and liquefied petroleum gas. The Commission has no authority over the construction of new oil pipelines or over other aspects of the industry such as production, refining or wholesale or retail sales of oil.

In addition to ensuring oil pipelines comply with the Commission's regulations governing oil pipelines' tariffs subject to section 6 of the ICA, the Commission's responsibilities include the establishment of equal service conditions to provide shippers with equal access to pipeline capacity, and analyzing market-based, cost-of-service and anchor shipper contract rate applications to ensure just and reasonable rates for transporting petroleum and petroleum products by pipeline in interstate commerce.

## ENFORCEMENT

Through the Energy Policy Act of 2005 (EPAct 2005), Congress gave the Commission broad authority to prohibit manipulation in wholesale energy transactions. Congress also enhanced civil penalties for violations of the FPA, NGA, and NGPA. EPAct2005 made three major changes to the Commission's civil penalty authority.

- Congress expanded the Commission's FPA civil penalty authority to cover violations of any provision of Part II of the FPA, as well as of any rule or order issued thereunder.
- Congress extended the Commission's civil penalty authority to cover violations of the NGA or any rule, regulation, restriction, condition, or order made or imposed by the Commission under NGA authority.
- Congress established the maximum civil penalty the Commission may assess under the NGA, NGPA, or Part II of the FPA as $1,000,000 per violation for each day that it continues.
- In addition, Congress expanded the scope of the criminal provisions of the FPA, NGA, and NGPA by increasing the maximum fines and increasing the maximum imprisonment time that apply when the Commission refers the case to the Department of Justice for criminal prosecution.

# APPENDIX B: WORKLOAD TABLES

| | FY 2018 Actual | FY 2019 Actual | | | FY 2020 Estimate | | | FY 2021 Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Pipeline Certificates** | P | R | C | P | R | C | P | R | C | P |
| Construction Activity | 52 | 40 | 51 | 41 | - | - | - | - | - | - |
| Prior Notice & Abandonments | 12 | 55 | 57 | 10 | - | - | - | - | - | - |
| Section 7c & Section 3 Applications | - | - | - | - | 50 | 65 | 51 | 50 | 65 | 36 |
| Section 7b Applications | - | - | - | - | 13 | 13 | 2 | 13 | 13 | 2 |
| Section 7f Applications | - | - | - | - | 7 | 7 | 2 | 7 | 7 | 2 |
| Prior Notice Applications | - | - | - | - | 50 | 50 | 6 | 52 | 52 | 6 |
| Annual Reports | 0 | 389 | 389 | 0 | 400 | 400 | 0 | 400 | 400 | 0 |
| Environmental Analysis | 76 | 141 | 146 | 71 | 120 | 130 | 61 | 120 | 130 | 51 |
| Pipeline & LNG Inspections | 0 | 699 | 699 | 0 | 500 | 500 | 0 | 500 | 500 | 0 |
| LNG Operational Inspections | 0 | 14 | 14 | 0 | 19 | 19 | 0 | 19 | 19 | 0 |
| Pre-filing | - | - | - | - | 8 | 4 | 4 | 8 | 8 | 4 |
| Rehearings | 21 | 24 | 19 | 26 | 25 | 35 | 16 | 25 | 35 | 6 |
| Complaints | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| Declaratory Orders | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Remands | 1 | 7 | 3 | 5 | 1 | 3 | 3 | 1 | 3 | 1 |
| Dispute Resolution | 9 | 184 | 171 | 22 | 195 | 192 | 25 | 185 | 185 | 25 |

| | FY 2018 Actual | FY 2019 Actual | | | FY 2020 Estimate | | | FY 2021 Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Hydropower Licensing** | P | R | C | P | R | C | P | R | C | P |
| Original License Applications | 15 | 6 | 7 | 14 | 5 | 10 | 9 | 5 | 5 | 9 |
| Re-license Applications | 67 | 17 | 12 | 72 | 27 | 25 | 74 | 34 | 30 | 78 |
| 10MW Exemptions | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Preliminary Permit Applications | 14 | 54 | 36 | 32 | 30 | 25 | 37 | 30 | 25 | 42 |
| Environmental Analysis | - | - | - | - | 69 | 40 | 29 | 60 | 69 | 20 |
| Pre-filing | - | - | - | - | 58 | 10 | 48 | 9 | 9 | 48 |
| Rehearings | 18 | 122 | 123 | 17 | 20 | 25 | 12 | 20 | 25 | 7 |
| Declaratory Orders | 2 | 8 | 0 | 10 | 1 | 10 | 1 | 1 | 2 | 0 |
| Remands | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| Cases Set for Hearing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dispute Resolution | 1 | 1 | 0 | 2 | 1 | 2 | 1 | 1 | 2 | 0 |

| | FY 2018 Actual | FY 2019 Actual | | | FY 2020 Estimate | | | FY 2021 Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Project Compliance and Administration** | P | R | C | P | R | C | P | R | C | P |
| Amendment Applications to Licenses/Exemptions | 539 | 2,595 | 2,618 | 516 | 2,802 | 2,742 | 576 | 2,560 | 2,545 | 591 |
| Non Project Use of Land & Water Applications | - | - | - | - | 160 | 134 | 26 | 145 | 140 | 31 |
| Section 23 Jurisdictional Determinations | 1 | 4 | 2 | 3 | 5 | 5 | 3 | 7 | 6 | 4 |
| Section 24 Federal Lands Determinations | 4 | 31 | 30 | 5 | 55 | 48 | 12 | 60 | 67 | 5 |
| Headwater Benefits Assessments & Bills | 2 | 116 | 116 | 2 | 118 | 116 | 4 | 118 | 119 | 3 |
| Compliance | 162 | 666 | 657 | 171 | - | - | - | - | - | - |
| Environmental Compliance Inquiries | - | - | - | - | 35 | 34 | 1 | 39 | 39 | 1 |
| Licensee Reported Deviations | - | - | - | - | 646 | 525 | 121 | 553 | 554 | 120 |
| Allegations of Non-Compliance | - | - | - | - | 60 | 53 | 7 | 60 | 56 | 11 |
| Surrenders, Transfers | 40 | 43 | 43 | 40 | - | - | - | - | - | - |
| Surrender Applications | - | - | - | - | 37 | 27 | 10 | 25 | 20 | 15 |
| Transfer Applications | - | - | - | - | 29 | 29 | 0 | 32 | 29 | 3 |
| Conduit Exemptions & Qualifying Conduit Exemption Applications | 5 | 12 | 15 | 2 | 14 | 14 | 2 | 12 | 11 | 3 |
| Environmental Inspections | - | - | - | - | 216 | 216 | 0 | 244 | 239 | 5 |
| Environmental Analysis | - | - | - | - | 30 | 19 | 11 | 30 | 27 | 14 |
| Rehearings | 3 | 12 | 4 | 11 | 12 | 13 | 10 | 12 | 12 | 10 |
| Complaints | 0 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Dispute Resolution | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 1 | 1 | 0 |

Key: P – Pending. R – Received. C – Completed.

| | FY 2018 Actual | FY 2019 Actual | | | FY 2020 Estimate | | | FY 2021 Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Dam Safety and Inspections** | P | R | C | P | R | C | P | R | C | P |
| Operational Inspections | 1,443 | 1,488 | 1,552 | 1,379 | 1,450 | 1,400 | 1,429 | 1,450 | 1,400 | 1,479 |
| Prelicense Inspections | 7 | 3 | 1 | 9 | 8 | 10 | 7 | 8 | 10 | 5 |
| Construction Inspections | 122 | 122 | 129 | 115 | 125 | 130 | 110 | 125 | 130 | 105 |
| Exemption Inspections | 173 | 129 | 177 | 125 | - | - | - | - | - | - |
| Special Inspections | 128 | 140 | 150 | 118 | 135 | 140 | 113 | 135 | 140 | 108 |
| Evaluations | 5,480 | 8,336 | 8,355 | 5,461 | 9,500 | 9,800 | 5,161 | 9,500 | 9,800 | 4,861 |
| Part 12 Reviews | 337 | 153 | 146 | 344 | 202 | 210 | 336 | 200 | 200 | 336 |
| Dam Safety Reviews | 21 | 31 | 42 | 10 | - | - | - | - | - | - |
| Emergency Action Plan Tests | - | - | - | - | 65 | 65 | 66 | 65 | 65 | 66 |
| EAP Test – Functions | 90 | 54 | 78 | 66 | - | - | - | - | - | - |
| EAP Tests – Table Top | 37 | 25 | 37 | 25 | - | - | - | - | - | - |

| | FY 2018 Actual | FY 2019 Actual | | | FY 2020 Estimate | | | FY 2021 Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Rates and Tariffs** | P | R | C | P | R | C | P | R | C | P |
| Gas Certificates & Rate Evaluations | 73 | 55 | 60 | 68 | 60 | 60 | 68 | 60 | 60 | 68 |
| Market-Based Rates | 1,288 | 2,559 | 2,653 | 1,194 | 2,600 | 2,800 | 994 | 2,600 | 2,800 | 794 |
| Cogeneration/Small Power Producers (QF) | 988 | 2,996 | 2,457 | 1,527 | 1,375 | 1,375 | 1,527 | 1,375 | 1,375 | 1,527 |
| Dispute Resolution (Electric) | 3 | 19 | 17 | 5 | 20 | 20 | 5 | 25 | 25 | 5 |
| Rehearings (Electric) | 326 | 120 | 95 | 351 | 150 | 200 | 301 | 150 | 200 | 251 |
| Complaints (Electric) | 57 | 55 | 63 | 49 | 50 | 60 | 39 | 50 | 60 | 29 |
| Declaratory Orders (Electric) | 20 | 16 | 18 | 18 | 20 | 25 | 13 | 20 | 25 | 8 |
| Remands (Electric) | 5 | 0 | 2 | 3 | 1 | 2 | 2 | 1 | 2 | 1 |
| Negotiated Rates | 55 | 742 | 762 | 35 | 725 | 725 | 35 | 725 | 725 | 35 |
| Cost-Based Rates | 839 | 4,710 | 4,698 | 851 | 4,500 | 4,500 | 851 | 4,500 | 4,500 | 851 |
| Dispute Resolution (Gas) | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Rehearings (Gas) | 39 | 18 | 27 | 30 | 15 | 20 | 25 | 15 | 20 | 20 |
| Complaints (Gas) | 3 | 4 | 4 | 3 | 3 | 4 | 2 | 3 | 4 | 1 |
| Declaratory Orders (Gas) | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Remands (Gas) | 2 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 0 |
| RTO and ISO Filings | 49 | 177 | 199 | 27 | 250 | 250 | 27 | 250 | 250 | 27 |
| Dispute Resolution (Oil) | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Rehearings (Oil) | 35 | 8 | 8 | 35 | 10 | 15 | 30 | 10 | 15 | 25 |
| Complaints (Oil) | 3 | 22 | 17 | 8 | 15 | 10 | 13 | 15 | 10 | 18 |
| Declaratory Orders (Oil) | 8 | 14 | 14 | 8 | 15 | 15 | 8 | 15 | 15 | 8 |
| Remands (Oil) | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| | FY 2018 Actual | FY 2019 Actual | | | FY 2020 Estimate | | | FY 2021 Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Corporate Applications** | P | R | C | P | R | C | P | R | C | P |
| Interlocking Positions, Other Corporate Filings | 108 | 678 | 689 | 97 | 680 | 700 | 77 | 680 | 700 | 57 |
| Mergers, Acquisitions & Dispositions | 52 | 155 | 164 | 43 | 155 | 170 | 28 | 155 | 170 | 13 |

| | FY 2018 Actual | FY 2019 Actual | | | FY 2020 Estimate | | | FY 2021 Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Electric Grid Reliability** | P | R | C | P | R | C | P | R | C | P |
| Reliability Standards | 81 | 84 | 33 | 132 | 48 | 54 | 126 | 36 | 63 | 99 |
| Interpretations/Erratas of Reliability Standards | 5 | 0 | 0 | 5 | 1 | 1 | 5 | 1 | 1 | 5 |
| Reliability Filings by ERO/RE | 49 | 9 | 9 | 49 | 6 | 6 | 49 | 6 | 6 | 49 |
| Standards Compliance Audits | 5 | 22 | 20 | 7 | 21 | 21 | 7 | 21 | 21 | 7 |
| Notices of Penalty-Violations | 152 | 1,342 | 1,287 | 207 | 1,250 | 1,300 | 157 | 1,250 | 1,300 | 107 |

| | FY 2018 Actual | FY 2019 Actual | | | FY 2020 Estimate | | | FY 2021 Estimate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Legal Matters** | P | R | C | P | R | C | P | R | C | P |
| Cases Initiated and/or Set for Hearing | 102 | 121 | 137 | 86 | 100 | 100 | 86 | 100 | 100 | 86 |
| Settlement Judge Proceedings | 86 | 96 | 124 | 58 | 80 | 80 | 58 | 80 | 80 | 58 |
| Appellate Review | 90 | 100 | 115 | 75 | 110 | 115 | 70 | 110 | 115 | 65 |
| Audits | 15 | 15 | 11 | 19 | 15 | 17 | 17 | 15 | 15 | 17 |
| Accounting | 78 | 414 | 433 | 59 | 420 | 430 | 49 | 415 | 424 | 40 |

Key: P – Pending. R – Received. C – Completed.

## WORKLOAD TABLES UPDATES

The following changes were made to the FERC Workload Tables to better capture and describe the Commission's workload. These changes affect the FY 2020 projections and beyond, submitted in the FY 2021 Congressional Justification:

### PIPELINE CERTIFICATES

- Construction Activity was split into two distinct workload items: Section 7c & Section 3 Applications and Section 7f Applications
- Prior Notice & Abandonments were split into two distinct workload items: Prior Notice Applications & Section 7b Applications
- Compliance Filings & Reports were renamed Annual Reports, and calculated in the same manner
- Compliance & Safety Inspections were renamed Pipeline & LNG Inspections, and calculated in the same manner
- LNG Inspections were renamed LNG Operational Inspections, and calculated in the same manner
- Pre-filing was added as a new item to report

### HYDROPOWER LICENSING

- Original Licenses were renamed Original License Applications, and calculated in the same manner
- Relicenses were renamed Relicense Applications, and calculated in the same manner
- 5MW Exemptions were renamed 10MW Exemptions, and calculated in the same manner
- Preliminary Permits were renamed Preliminary Permit Applications, and calculated in the same manner
- Environmental Analysis was added as a workload item
- Pre-filing was added as a workload item

## PROJECT COMPLIANCE AND ADMINISTRATION

- Amendments were renamed Amendment Applications to License/Exemption, and calculated in the same manner
- Jurisdiction was renamed Section 23 Jurisdictional Determinations, and calculated in the same manner
- Federal Lands was renamed Section 24 Federal Lands Determinations, and calculated in the same manner
- Headwater Benefits was renamed Headwater Benefits Assessments & Bills, and calculated in the same manner
- Compliance was split into three distinct workload items: Environmental Compliance Inquiries, Licensee Reported Deviations, and Allegations of Non-Compliance
- Surrenders, Transfers were split into two distinct workload items: Surrender Applications and Transfer Applications
- Conduit Exemptions were renamed Conduit Exemptions & Qualifying Conduit Exemption Applications, and calculated in the same manner
- Environmental Inspections & Assistance split into two distinct workload items: Environmental Inspections and Environmental Analysis

## DAM SAFETY AND INSPECTIONS

- Exemption Inspections were rolled into the calculation for Operational Inspections
- Engineering Evaluation & Studies was renamed Evaluations, and calculated in the same manner
- Dam Safety Reviews are no longer tracked
- EAP Test - Functions and EAP Tests - Table Top were rolled into Emergency Action Plan Tests

# APPENDIX C: VERIFICATION AND VALIDATION OF PERFORMANCE INFORMATION

The Commission collects, uses and reports performance data on its activities to inform decision making, track progress and meet statutory reporting requirements. The Commission believes the capacity and skill to measure performance is critical to maintaining operational effectiveness. FERC developed a process to verify and validate performance measure data to support the development of this capability, establish internal controls over performance information, and ensure the completeness and reliability of FERC performance measure data.

FERC's FY 2019 Annual Performance Report and FY 2020 Annual Performance Plan have been combined with its FY 2021 Congressional Performance Budget Request, referred to as the Congressional Justification, to provide more complete and meaningful data on past performance and the Commission's efforts to improve performance in the coming fiscal years. The report is organized by the current strategic goals and objectives established in the FY 2018 – 2022 Strategic Plan.

FERC ensures that the performance data presented in this report meets the verification and validation criteria of being valid, complete, consistent, accurate, and timely based upon the following assessment steps:

1. The Commission applies logic modeling to develop performance measures through its strategic planning process.

2. FERC's program offices document procedure manuals to ensure confidence in the reported performance data. The procedure manuals define:

    - Purpose and interpretation of the measure
    - External factors that may impact the measure
    - Data collection and storage procedures
    - Data quality controls
    - Reporting requirements

3. Performance results are calculated and reported according to established procedures and approved by the office director.

4. Selected performance measures may undergo an independent Verification and Validation Assessment during the four-year performance reporting cycle. As needed, an Independent Review Team will prepare a report evaluating the selected performance measure based on the five verification and validation criteria.

# APPENDIX D: ACRONYMS AND ABBREVIATIONS

| Acronym | Description |
|---|---|
| **ACE** | Area Control Error |
| **ALP** | Alternative Licensing Process |
| **CAISO** | California Independent System Operator Corp. |
| **CAP** | Cross-Agency Priority |
| **CEII** | Critical Energy/Electric Infrastructure Information |
| **CIP** | Critical Infrastructure Protection |
| **CISA** | Cybersecurity and Infrastructure Security Agency |
| **CyPRES** | Cyber Planning for Response and Recovery Study |
| **DCS** | Disturbance Control Standard |
| **DNA** | Development Needs Assessment |
| **EEI** | Employee Engagement Index |
| **EIA** | U.S. Energy Information Administration |
| **EIM** | Energy Imbalance Market |
| **EISA** | Energy Independence and Security Act of 2007 |
| **EMP** | Electromagnetic Pulse |
| **EMS** | Energy Management System |
| **EPAct 2005** | Energy Policy Act of 2005 |
| **EQR** | Electric Quarterly Reports |
| **ERM** | Enterprise Risk Management |
| **ERO** | Electric Reliability Organization |
| **FAST-41** | Fixing America's Surface Transportation Act |
| **FedRAMP** | Federal Risk and Authorization Management Program |
| **FERC; the Commission** | Federal Energy Regulatory Commission |
| **FEVS** | Federal Employee Viewpoint Survey |
| **FOIA** | Freedom of Information Act |
| **FPA** | Federal Power Act |
| **FPC** | Federal Power Commission |
| **FTE** | Full-Time Equivalent |
| **FY** | Fiscal Year |
| **GPRA** | Government Performance and Results Act |
| **GSA** | General Services Administration |
| **GSI** | Global Satisfaction Index |
| **HCOP** | Human Capital Operating Plan |
| **ICA** | Interstate Commerce Act |
| **IEMI** | Intentional Electromagnetic Interference |
| **IFRO** | Interconnected Frequency Response Obligation |
| **ILP** | Integrated Licensing Process |
| **IQ** | Inclusion Quotient |
| **ISO** | Independent System Operator |
| **ISO-NE** | Independent System Operator New England, Inc. |
| **IT** | Information Technology |

| Acronym | Description |
|---|---|
| **LEED** | Leadership in Energy and Environmental Design |
| **LNG** | Liquefied Natural Gas |
| **MISO** | Midcontinent Independent Transmission System Operator, Inc. |
| **MOU** | Memorandum of Understanding |
| **NEPA** | National Environmental Policy Act |
| **NERC** | North American Electric Reliability Corporation |
| **NGA** | Natural Gas Act of 1938 |
| **NGPA** | Natural Gas Policy Act of 1978 |
| **NIST** | National Institute of Standards and Technology |
| **NOI** | Notice of Inquiry |
| **NOPR** | Notice of Proposed Rulemaking |
| **NSI** | National Security Information |
| **NYISO** | New York Independent System Operator, Inc. |
| **ODSP** | Owner's Dam Safety Programs |
| **OFD** | One Federal Decision |
| **OGE** | Office of Government Ethics |
| **OMB** | Office of Management and Budget |
| **OSC** | Order to Show Cause |
| **OSHA** | Occupational Safety and Health Administration |
| **OT** | Operational Technology |
| **PJM** | PJM Interconnection, LLC |
| **PPI-FG** | Producer Price Index for Finished Goods |
| **PURPA** | Public Utility Regulatory Policies Act of 1978 |
| **ROE** | Return on Equity |
| **RTO** | Regional Transmission Organization |
| **SCIF** | Sensitive Compartmentalized Information Facility |
| **SPP** | Southwest Power Pool |
| **STEM** | Science, Technology, Education, and Mathematics |
| **TLP** | Traditional Licensing Process |
| **XBRL** | eXtensible Business Reporting Language |