

June 2003

ELECTRICITY RESTRUCTURING

Action Needed to Address Emerging Gaps in Federal Information Collection





Highlights of [GAO-03-586](#), a report to Congressional Requesters

Why GAO Did This Study

The ongoing transition (or restructuring) of electricity markets from regulated monopolies to competitive markets is one of the largest single industrial reorganizations in the history of the world. While information is becoming more critical for understanding how well restructuring is working, there are troubling indications that some market participants deliberately misreported information to manipulate prices. GAO was asked to describe (1) the electricity information collected, used, and shared by key federal agencies in meeting their primary responsibilities and (2) the effect of restructuring on these federal agencies' collection, use, and sharing of this information.

What GAO Recommends

Effective oversight of evolving electricity markets requires the acquisition of and access to timely, reliable, and complete information, therefore, we recommend that the Chairman, FERC (1) demonstrate what information it needs, (2) describe the limitations resulting from not having this information, and (3) ask the Congress for sufficient authority to meet its information collection needs and responsibilities. FERC generally agreed with the conclusions, specifically that its authority to collect information has not kept pace with the changing electricity market, and added that it will have the results from its information assessment at the end of the year.

www.gao.gov/cgi-bin/getrpt?GAO-03-586.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Jim Wells at (202) 512-3841 or wellsj@gao.gov.

ELECTRICITY RESTRUCTURING

Action Needed to Address Emerging Gaps in Federal Information Collection

What GAO Found

Federal agencies collect, use, and share a wide variety of electricity-related information to carry out their respective missions. Federal agencies have three principal sources of information: (1) routine formal data collection instruments sent to industry participants to report on operations and other industry-related activities, (2) third parties such as energy news services that package federally collected information as well as collect original information some of which reflects current market conditions, and (3) individual companies under investigation. Agencies use the information that they collect to carry out their respective missions—ranging from Federal Energy Regulatory Commission's (FERC) monitoring of electricity markets to Energy Information Administration's dissemination of information about the electricity sector and Environmental Protection Agency's pollution monitoring. Agencies share electricity-related information through a variety of means, such as using the Internet to distribute published reports and access their databases, interagency meetings, and other means. In addition, most federally collected information is made publicly available, although it is sometimes subject to delayed release or released in aggregated form in order to protect business-sensitive information.

Restructuring has substantially changed the collection, use, and sharing of electricity information at some agencies and has exposed gaps in the federal government's collection of this information. Restructuring has affected FERC dramatically by changing how FERC performs its mission of assuring just and reasonable prices and by shifting its focus from periodic review of cost information to monitoring current market conditions. To monitor these conditions, FERC needs to access market information on wholesale transactions; however, no federal agency, including FERC, has access to complete and timely information on electricity markets and market participants, exposing gaps in key information. Such information gaps exist primarily because FERC is limited in its authority to collect information for full and effective market oversight and it lacks specific authority to collect current information which may lead to market participants challenging these collection activities. For example, FERC authority does not generally extend to non-jurisdictional entities such as the power marketing administrations, other non-utilities, and North American Electric Reliability Council. As long as these information gaps persist, FERC will be unable to oversee electricity markets in a comprehensive manner.

Restructuring's effects on the sharing of electricity information, coupled with recent national security concerns, have highlighted the sensitive nature of some information that federal agencies collect or need. Because of the importance of having timely, reliable, and complete information, we are recommending that FERC take action to resolve its information gaps. As part of this action, we are recommending that FERC present its findings to the Congress because information-related issues—raised by restructuring—may require Congressional action to ultimately resolve.

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Abbreviations

DOE	Department of Energy
EIA	Energy Information Administration
EPA	Environmental Protection Agency
EPACT	Energy Policy Act
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
ISO	independent system operator
NERC	North American Electric Reliability Council
OMB	Office of Management and Budget
OMOI	Office of Market Oversight and Investigation
PUHCA	Public Utility Holding Company Act
PURPA	Public Utility Regulatory Policies Act
RTO	regional transmission organization
RUS	Rural Utilities Service
SEC	Securities and Exchange Commission

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G A O

Accountability * Integrity * Reliability

United States General Accounting Office
Washington, DC 20548

June 30, 2003

The Honorable Peter DeFazio
The Honorable Jay Inslee
The Honorable Adam Smith
House of Representatives

Industry experts have described the ongoing transition (or restructuring) of electricity markets from regulated monopolies to competitive markets as one of the largest single industrial reorganizations in the history of the world. Proponents of restructuring expect it to lead to a range of benefits for consumers, including lower prices and a wider array of retail electricity services than had previously been available. However, opponents have raised concerns about restructuring in light of recent events, such as the extremely high electricity prices and market manipulation during the electricity crisis in California in 2000 and 2001.

In this changing and uncertain environment, accurate information on electricity trading and pricing is becoming more critical for not only evaluating the potential benefits and risks of restructuring, but also monitoring market performance and enforcing market rules. Information on the cost of electricity, for example, is critical in determining whether restructuring is achieving lower prices. Information on existing and new generating plants is critical in determining whether electricity supply will be sufficient to ensure reliable supplies. In addition, information is critical to monitor emissions and comply with air quality standards in the future. While information is becoming more critical for understanding how well restructuring is working, there are troubling indications that the quality of some information may be suspect. For example, we recently reported¹ that participants at a Federal Energy Regulatory Commission (FERC) conference raised concerns about the quality of price information due to the low volume of trading activity in some markets and to some market participants making inaccurate information available to the public.

¹ U.S. General Accounting Office, *Lessons Learned From Electricity Restructuring: Transition to Competitive Markets Underway, but Full Benefits Will Take Time and Effort to Achieve*, [GAO-03-271](#) (Washington, D.C.: Dec. 17, 2002).

In response to the growing importance of electricity information and concerns about its quality, you asked us to describe (1) the electricity information collected, used, and shared by key federal agencies in meeting their primary responsibilities and (2) the effect of restructuring on these federal agencies' collection, use, and sharing of this information. In addressing these objectives, we primarily examined the information activities of FERC and the Energy Information Administration (EIA) within the Department of Energy (DOE). We focused on FERC because it bears the main responsibility for monitoring electricity markets, is undergoing major organizational changes caused by restructuring, and has faced significant challenges in responding to restructuring, as we have described in previous reports.² We focused on EIA because it is the main U.S. statistical agency with responsibility for providing data and analysis covering the energy sector. In addition to FERC and EIA, we examined electricity-related activities at the Office of Fossil Energy within DOE, the Environmental Protection Agency (EPA), the Rural Utilities Service (RUS) at the U.S. Department of Agriculture, the Securities and Exchange Commission (SEC), the Department of Justice, the Federal Trade Commission, and the Commodity Futures Trading Commission. Due to limitations in the time frame for our review, we did not perform a detailed evaluation of these agencies' missions to determine whether information and data available to them was sufficient to meet their responsibilities.

Results in Brief

Federal agencies collect, use, and share a wide variety of electricity-related information to carry out their respective missions. Federal agencies have three principal sources of information: (1) routine formal data collection instruments sent to industry participants to report on operations and other industry-related activities, (2) third parties such as energy news services that package federally collected information as well as collect original information, some of which reflects current market conditions, and (3) individual companies under investigation. Agencies use the information that they collect to carry out their respective missions—ranging from FERC's monitoring of electricity markets to EIA's dissemination of information about the electricity sector and EPA's pollution monitoring. Agencies share electricity-related information

² U.S. General Accounting Office, *Energy Markets: Concerted Actions Needed by FERC to Confront Challenges That Impede Effective Oversight*, [GAO-02-656](#) (Washington, D.C.: June 14, 2002) and *Lessons Learned From Electricity Restructuring: Transition to Competitive Markets Underway, but Full Benefits Will Take Time and Effort to Achieve*, [GAO-03-271](#) (Washington, D.C.: Dec. 17, 2002).

through a variety of means, such as using the Internet to distribute published reports and access their databases, interagency meetings, and other means. For example, EIA serves as a repository of historical industry information and makes it accessible for other agencies to use through the Internet. In addition, most federally collected information is made publicly available, although it is sometimes subject to delayed release or released in aggregated form in order to protect business-sensitive information.

Restructuring has substantially changed the collection, use, and sharing of electricity information at some agencies and has exposed gaps in the federal government's collection of this information. Restructuring has most profoundly affected FERC by dramatically changing how FERC performs its mission of ensuring fair and reasonable prices and by shifting its focus from periodic reviews of cost information to monitoring current market conditions. In order to monitor current market conditions, FERC needs to access market information on wholesale transactions; however, no federal agency, including FERC, has access to complete and timely information on the operations of electricity markets and market participants, exposing gaps in key information. For example, complete and timely information on the operation of electric generating plants is not generally accessible to federal agencies, although this information is generally deemed important to evaluate reliability of the electricity system as well as to monitor the behavior of electricity generating companies. Such information gaps exist primarily because FERC is limited in its authority to collect information for full and effective market oversight and because it lacks specific authority to collect current information that may lead to market participants challenging these collection activities. As long as these information gaps persist, FERC will be unable to oversee electricity markets in a comprehensive manner.

Restructuring's effects on the sharing of electricity information, coupled with recent national security concerns, have highlighted the sensitive nature of some information that federal agencies collect or need. For example, electricity generating plant owners consider information regarding the operation of their plants to be commercially sensitive and thus are reluctant to provide such information without assurances that the information will remain confidential.

Because of the importance of having timely, reliable, and complete information, we are recommending that FERC take action to resolve its information gaps. As part of this action, we are recommending that FERC present its findings to the Congress because information-related issues—raised by restructuring—may require congressional action to

ultimately resolve. FERC generally agreed with the conclusions, specifically that its authority to collect information has not kept pace with the changing electricity market, and added that it will have the results from its information assessment at the end of 2003.

Background

The overall transition known as “restructuring” in the electricity industry reflects a shift from a monopolistic to a more competitive industry. The electric utility industry was considered one of the nation’s most regulated industries, with states regulating utilities’ retail or intrastate activities and the federal government regulating utilities wholesale or interstate transactions. In the past, electricity service providers enjoyed a natural monopoly, providing electricity generated by their plants, transmitted over their power lines, and distributed to their customers. Two key factors led that monopolistic structure to move toward a more competitive marketplace. First, new technologies reduced the cost and size of generating electricity effectively. Currently, there is a preference for small-scale production facilities that can be brought on-line more quickly and cheaply with fewer regulatory impediments. Second, federal changes were made in the industry’s regulation. Specifically, the enactment of the Public Utility Regulatory Policies Act (PURPA) of 1978 initiated the process for a transition or restructuring to a freer electric power market by requiring utilities to buy electricity produced by nonutility producers. Then in 1992, the Energy Policy Act (EPACT) was enacted and removed several regulatory barriers to entry into electricity generation and promoted further competition.

Restructuring is underway for wholesale markets, which involve the sale of electricity for resale. It is also underway for some retail sales to end users, which include residential, commercial, industrial, and other consumers. Federally regulated wholesale power markets already provide market-based prices. States, however, vary greatly in their response to restructuring: some states have introduced competition to the retail markets in their states, others have begun to restructure but then delayed or suspended these efforts, and others still have taken no steps to restructure their markets. As the industry adapts to restructuring, many utilities are facing greater competition from nonutilities and other new entities such as power marketers. The introduction of competition has considerably expanded the number and types of business arrangements involving generation and transmission of electricity. In addition, proposals for new regulatory structures to oversee the new industry are emerging.

FERC and EIA are the two leading entities for the collection, analysis, and evaluation of electric power information. FERC collects information to assure just and reasonable rates on the basis of costs. FERC also collects and obtains information from other federal and nonfederal sources to monitor and regulate competitive markets for wholesale electricity to similarly determine if these prices are just and reasonable. EIA is mandated to collect, assemble, evaluate, analyze, and disseminate energy data and energy information for the Congress, the federal government, the states, and the public.

The Federal Power Act (FPA) of 1935, PURPA, and EPACT drive FERC's information collection activities. FPA authorizes FERC to collect and record information to the extent it deems necessary and to prescribe rules and regulations concerning accounts, records, and memoranda. In general, FPA provides for federal oversight of interstate transmission and wholesale sales by public utilities. Forty-three years later, the Congress enacted PURPA in response to the unstable energy climate of the late 1970s. PURPA authorizes FERC to collect information on the basic cost and quality of fuels at electric generating plants. FERC uses such data to conduct fuel reviews and rate investigations and to track market changes and trends. In addition, PURPA requires public utilities to report on electric energy shortages and contingency plans to FERC and appropriate state agencies. In 1992, the Congress enacted EPACT. EPACT created a new category of power sellers called exempt wholesale generators that are not subject to regulation under the Public Utility Holding Company Act (PUHCA), which governs how utilities can be legally organized. These power sellers must apply to FERC for PUHCA exemption.

Legislation created EIA and defined its information collection activities. In 1974, the Congress enacted the Federal Energy Administration Act that created the Federal Energy Administration. The act mandated the Federal Energy Administration to collect, assemble, evaluate, and analyze energy information for the federal government, state governments, and the public and provided it with information collection enforcement authority for gathering information from energy producing and consuming firms. Two years later, the Energy Conservation and Production Act established the Office of Energy Information and Analysis, mandating it to operate a comprehensive National Energy Information System; possess expertise in energy analysis and forecasting; coordinate information activities with federal agencies; promptly provide upon request any energy information to any duly established committee of the Congress; and make periodic reports on the energy situation and trend to the Congress. In 1977, by

enacting the Department of Energy Organization Act, the Congress established EIA as the federal authority for energy information. This act gave EIA independence to collect energy data and report energy information, including all the provisions of its predecessor, and established an annual survey to gather and report detailed energy industry financial data. In 1992, EPACT required EIA to expand its data gathering and analysis in several areas, including energy consumption, alternative-fueled vehicles, greenhouse gas emissions, fossil fuel transportation rates and distribution patterns, electricity production from renewable energy sources, and foreign purchase and imports of uranium.

Federal agencies' information collection activities are subject to the Paperwork Reduction Act. The purpose of the Paperwork Reduction Act is to minimize the paperwork burden for all individuals and entities that must report information to the federal government. The Office of Management and Budget (OMB) oversees governmental initiatives to reduce the paperwork burden and improve the management of information resources. The Paperwork Reduction Act requires federal agencies to submit their data collection tools to OMB for review. OMB is also responsible for the implementation of the Government Paperwork Elimination Act, which requires federal agencies, by October 21, 2003, to allow individuals, or entities that interact with the agencies, the option of submitting information to agencies electronically, whenever practicable.

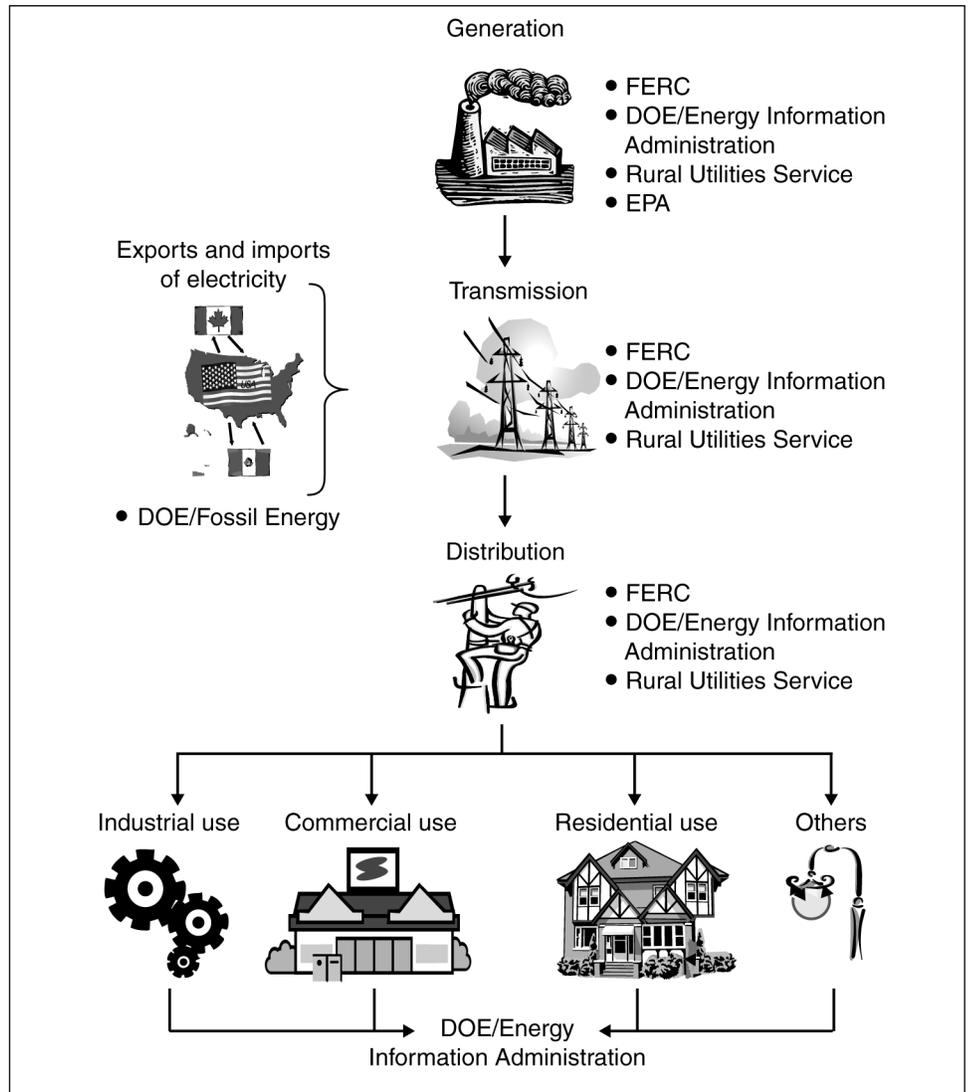
The North American Electric Reliability Council (NERC) is one of the most important nonfederal entities that collect data from the electricity industry. NERC, formed as a result of a devastating outage in the northeast during November 1965, was established to promote the reliability of the interconnected electric power system. NERC membership is voluntary, consists of representatives from utilities across North America, and provides a forum for the electric utility industry to develop policies, standards, and guidelines designed to ensure reliability. One of its key functions is to collect information from its members, among other things, on power plant operations and outages. NERC reports information in an aggregated format to protect information its members consider sensitive.

Agencies Collect, Use, and Share Electricity-Related Information to Meet Missions

Federal agencies collect three types of electricity-related information for widely varying purposes in accordance with their different missions. Some agencies such as FERC, EIA, RUS, SEC, and EPA collect information on an ongoing, regular basis, using forms or form-like surveys. However, there is a time differential between the reporting period, when the information is collected and when an agency reports the information. As a result, the information usually does not reflect current market conditions. Restructuring has led to a greater need for a second type of information, focusing on current activities, for purposes of monitoring by FERC in particular. Third-party sources, such as Bloomberg's Professional Services, provide current and historical information on regional electricity and gas markets, including spot and future prices, market commentary, plant outage information, and energy news. Investigations create a need for a third type of information, when an agency such as the Department of Justice gathers information mainly in conjunction with specific company criminal investigations. To meet their missions, agencies collect a wide variety of electricity-related information. FERC and EIA are the primary gatherers of such information while other agencies, such as the Federal Trade Commission, have gathered information only for occasional reports.

As shown in figure 1, FERC, DOE's EIA and Office of Fossil Energy, RUS, and EPA specifically collect information related to generation, transmission, and/or distribution functions of electric power. FERC, EIA, and RUS collect information related to all three of these functions. In addition, EIA collects end-user information such as residential, commercial, and industrial usage. Additionally, DOE's Office of Fossil Energy is the only office that collects information related to electricity imports and exports. Finally, EPA collects emissions information related to the generation of power. The following graphic depicts federal agency information collections within these functions.

Figure 1: Major Federal Collectors of Electricity Information



Source: GAO.

FERC Collects Form-Based and Current Information to Oversee Electricity Markets

FERC, an independent regulatory agency, was established in 1977 as a successor to the Federal Power Commission. In addition to regulating and overseeing the interstate transmission and interstate wholesale sales of natural gas and electricity, FERC regulates the interstate transmission of oil by pipeline; licenses and inspects private, municipal, and state hydroelectric projects; and approves site choices as well as decisions to abandon interstate pipelines and related facilities no longer in use. In responding to this mission, FERC stated that it chooses regulatory approaches that foster competitive markets whenever possible, assures access to reliable service at a reasonable price, and gives full and fair consideration to environmental and community impacts in assessing the public interest of energy projects. Among its other duties, it reviews the rates set by the four federal power marketing administrations.³ FERC does not have legislative authority over electricity generation siting, construction of transmission lines, intrastate transmission, or retail sales, all of which fall under state or local jurisdiction. FERC also has no direct authority over system reliability—that is, ensuring that consumers can obtain electricity from the system, when, and in the amount, they want. Furthermore, FERC’s jurisdiction extends primarily to investor-owned utilities. FERC generally does not have jurisdiction over federally owned utilities, publicly owned utilities, or most cooperatively owned utilities. In 2000, FERC created the Office of Markets, Tariffs, and Rates, which was until recently responsible for regulating and overseeing competitive energy markets. In 2002, FERC created the Office of Market Oversight and Investigation (OMOI), which is still under development, to actively monitor developing competitive electricity markets.

FERC collects information from the electricity industry, among other energy industries. According to a 2002 FERC memorandum regarding current information collections, FERC has 19 information collection activities that apply specifically to the electricity industry. This information generally focuses on activities related to generation and fuel, transmission, energy sales and purchases, consumption and distribution, and financial information. In addition, it has three other information collection activities that relate to all three energy industries (electric, natural gas, and oil pipeline). These collection activities generally focus on information needed to conduct financial and compliance audits, preservation of records, and complaint procedures.

³ The Bonneville Power Administration, the Western Area Power Administration, the Southwestern Power Administration, and the Southeastern Power Administration.

Various legislative authorities authorize FERC's information collection activities and compliance is mandatory.

The Office of Markets, Tariffs, and Rates uses the information from these collection activities to provide historical context and assist it in regulating and overseeing the terms and conditions for energy transactions regulated under the traditional cost-of-service basis, and more recently, approval of electricity company mergers. Additionally, other offices, such as the Office of Administrative Litigation, which is responsible for litigating or resolving cases set for hearings, use the information as the basis for hearings. Traditionally, FERC primarily relied on standardized forms to routinely collect information, authorized by the statute and/or regulation, from entities within the electric sector. In the past, most of the information for these forms was submitted on paper, but FERC is currently moving toward electronic submissions for all of its information collection activities. FERC also has established reporting requirements where entities must make specific information available to it; however, these requirements are reported using a mix of standardized forms or formats. As with the forms, reporting requirements are submitted on paper and/or electronically. (See app. I for a summary of FERC's forms.)

OMOI uses FERC's traditional information collection activities, mentioned above, to provide historical context to assist in understanding company activities and during investigations of specific companies. However, in light of evolving electricity markets, OMOI also subscribes to both commercial and proprietary information services to access information related to current market activities. Such services provide electricity market information such as prices on the spot market and futures contracts, plant outage information, and historical trend analysis. OMOI uses this information to oversee electricity markets and ensure market participants are not manipulating these markets. (See app. II for FERC's third-party sources of current market information.)

DOE Organizations Use Forms to Gather a Variety of Electricity Information for Analyses, Forecasts, Dissemination, and Other Purposes

Two organizations within DOE are primarily responsible for collecting electricity-related information. These organizations, EIA and the Office of Fossil Energy (Fossil Energy), rely on forms to collect an enormous amount of information at regular intervals. EIA collects this information for a wide variety of statistical analyses and may assume responsibility for gathering the lesser amount of information for which Fossil Energy has been responsible.

EIA is the principal source of comprehensive energy information for the Congress, the federal government, the states, and the public. According to EIA's strategic plan, its mission is to provide high quality, policy-independent energy information to meet the requirements of government, industry, and the public in a manner that promotes sound policymaking, efficient markets, and public understanding. The plan further states that EIA's sole purpose is to provide reliable and unbiased energy information. To meet its goal of providing high-quality energy information, the plan states that EIA will provide comprehensive information (data, analyses, and forecasts) for all energy types (including electricity), stages (production, conversion, distribution, supply, consumption, and price) and impacts (technical, economic, and environmental).

EIA currently uses about 75 different forms to collect information on all aspects of energy, but only 9 of these forms focus on electricity. (See app. I for a summary of these forms.) All EIA forms are mandatory, with the exception of one part of one specific form as noted in the appendix. Information is collected annually or monthly. For its monthly surveys, EIA collects information from a sample of electricity entities, while the full universe is surveyed annually. In commenting specifically on its electric power information collection program, EIA notes that its information can be categorized into four broad information classes: physical systems, operational statistics, financial statistics, and organizational information. Physical system information provides the technical specifications for the generators, boilers, pollution control equipment, and transmission lines that make up the industry. Operational statistics provide the monthly and annual details of how the physical plant is operated to satisfy customer demand. Financial statistics consist of balance sheets, income statements, and supporting account information to determine the cost of producing electricity and providing related service. Organizational information describes the basic characteristics of the entities that comprise the electric power industry, including ownership and control, affiliations, and identification and geographical information.

EIA and its customers use the information it collects for a variety of purposes. These include monitoring of market trends in supply, demand, and prices; analytical activities such as short- and long-term forecasting; and inputs to special studies, such as responses to congressional inquiries. EIA is also responsible for making sure its data are available to the public in easily accessible and user-friendly formats.

Among its other responsibilities, Fossil Energy is responsible for the federal international electricity program, which consists of two elements: (1) granting presidential permits for the construction and operation of electric transmission lines that cross the U.S international border and (2) authorizing exports of electric energy to foreign countries. Fossil Energy collects information on electric power imports and exports from both presidential permit and authorized export holders. The mandatory information is used in an annual report that summarizes the electricity trade between the United States and Mexico or Canada during each calendar year. A Fossil Energy official told us that EIA will eventually take over the responsibility of collecting information on imports and exports of electricity.

EPA Uses a Form-Like Survey to Collect Information on Emissions for Monitoring Air Quality

EPA's mission requires it to collect electricity-related information for regulatory purposes. In this regard, one of EPA's most important initiatives is its Acid Rain Program implemented in 1995. The program specifies that all existing utility units serving generators with an output capacity of greater than 25 megawatts and all new utility units must report their emissions. The emissions that must be reported include sulfur dioxide, nitrogen oxide, and carbon dioxide. While not an emission, the unit heat input (the caloric value of the fuel burned) must also be reported. The program's overall goal is to achieve significant environmental and public health benefits through reductions in emissions of sulfur dioxide and nitrogen oxide, the primary causes of acid rain. In most cases, utility units use a continuous emission monitoring system. Units report hourly emissions information to EPA on a quarterly basis. The information for the three types of emissions and the unit heat input is then recorded in the Emissions Tracking System, which serves as a repository of information on the utility industry. At the end of each calendar year, EPA uses this information to compare the tons of actual emissions reported with each company's authorized emissions. If a company exceeds its limits, then it will be penalized in accordance with the rules of the program. The tracking system is EPA's primary, electricity-related database used for regulatory purposes. It represents a significant commitment of personnel with about 40 full-time-equivalent staff currently assigned to its maintenance and use.

In addition to the three emissions included in the Emissions Tracking System, EPA has focused particular attention on mercury emitted by

coal-fired electric utilities. An EPA report in February 1998⁴ identified mercury emissions from coal-fired plants as the toxic air pollutant of greatest concern for public health from these sources. This report and collected data were used to call for additional monitoring of mercury emissions so that a regulatory control strategy could be developed. Then, in November 1998, the agency announced its decision to require coal-fired electricity generating plants to collect and report such information for 1 year. The agency collected detailed information on mercury during 1999. It obtained information on (1) every coal-fired boiler in the United States, (2) mercury in samples of coal used by boilers, and (3) actual mercury emissions from the stacks of a randomly selected group of coal-fired boilers. The information, which was used to estimate 1999 nationwide and plant-by-plant mercury emissions from coal-fired boilers, confirmed that coal-fired plants are the largest source of human-caused mercury emission in the United States—about 43 tons of mercury each year. Further, in December 2000, the agency announced its decision to propose regulations to control mercury emissions from coal- and oil-fired plants by December 2003.

EPA has also developed the Emissions and Generation Resource Integrated Database, the first complete database of emissions and resource mix for virtually every power plant and company that generates electricity in the United States. The Emissions and Generation Resource Integrated Database does not collect original information but assembles information already collected by EPA's Emissions Tracking System, EPA's 1999 mercury study, FERC, and several EIA forms.⁵ Taking advantage of previously confidential information on nonutility generators, the Emissions and Generation Resource Integrated Database reports its information for all U.S. power plants, including nonutility plants. The information, which encompasses more than 4,600 power plants and nearly 2,000 generating companies, is used to provide plant-specific analyses of emissions. It can also be aggregated at various levels, for example, individual states and larger regions, to provide more comprehensive analyses of issues relating to air quality.

⁴ EPA, *Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units—Final Report to Congress*, EPA-453/R-98-004, February 1998.

⁵ EIA Survey Forms 767, 860, 861, and 906 are included in appendix I.

RUS Uses Forms to Collect Information Relating to Its Loans

RUS officials told us that RUS has a different responsibility from other agencies that also collect information on electricity. RUS is a lending agency whereas EIA is a statistical agency and FERC and EPA are regulatory agencies. For this reason, according to these officials, there are distinct differences in the nature of the information collected. Because RUS is a lending agency, it seeks information primarily to determine the financial status of the entities wanting loans. As part of this effort, officials are interested in obtaining information on the sale and purchase of electricity and especially in determining whether their borrowers are buying and selling power from each other.

RUS officials told us that it provided about \$4 billion in loans during 2002 and has a total of about \$34 billion in outstanding funds plus new loans. Potential borrowers have to meet RUS's criteria as serving rural consumers and also criteria for financial viability. In reviewing new loan requests for generating plants, these officials use their database to identify the need for and viability of each new plant. They analyze the ability of the prospective borrower to function in competitive markets. They told us that 45 percent or more of the electricity sold by rural electricity cooperatives comes from outside sources and that, almost without exception, they depend on transmission from outsiders. Some loans to nonprofit cooperatives are for facilities that may become part of a transmission system operated by an independent system operator (ISO) or a regional transmission organization (RTO).⁶

RUS uses two main forms to collect the relevant information. Both forms state their purpose as being to review an applicant's financial situation. These forms collect information about the financial condition, assets, and operations of rural cooperatives.

⁶ An ISO is an entity encouraged by FERC to manage the transmission system as the electric industry in the United States restructures. An ISO is to control the power system or grid without special interest, and is to own no generation, transmission, or load. FERC Order 888, which was issued in 1996, encouraged utilities to form ISOs to which they could transfer operating control (but not ownership) of their transmission facilities. FERC Order 2000, issued in 1999, encouraged transmission utilities to join the larger RTOs that would cover the entire nation and supplant ISOs.

SEC Uses Forms to Collect Information on Companies to Protect Investors

The SEC was established under the Securities Exchange Act of 1934 as an independent, nonpartisan, quasi-judicial regulatory agency charged with administering federal securities laws. SEC's mission is to protect investors in securities markets that operate fairly and to ensure that investors have access to all material information concerning publicly traded securities. SEC also regulates firms engaged in the purchase or sale of securities, people who provide investment advice, and investment companies. To promote the disclosure of important information, enforce securities laws, and protect investors, SEC requires companies under its jurisdiction to file transactional, periodic, and annual reports using standardized data collection forms.

SEC was charged with administering PUHCA, which defines a holding company as any company that directly or indirectly owns, controls, or holds with power to vote, 10 percent or more of the outstanding voting securities of a public-utility company. Intrastate holdings and holdings meeting certain corporate standards may be exempted from the requirements of the act. Under the act, SEC regulates public utility holding companies. As of October 31, 2002, there were 18 electricity-and-gas and 7 electricity-only, registered holding companies. SEC collects information from exempted and registered public utility holding companies through its general filing requirements and a set of forms designed with the sole purpose of enforcing the act. The registered holding companies engaged, through subsidiaries, in the electric utility business are subject to more rigorous reviews for transactions that might affect their financial and corporate structure. The collection of information from such holding companies registered under PUHCA ensures that SEC has comprehensive information on holding companies conducting substantial activities in more than one state.

Other Agencies Have No Ongoing, Regular Collection of Electricity-Related Information

Other agencies, including the Department of Justice, the Federal Trade Commission, and the Commodity Futures Trading Commission, do not collect information on an ongoing, regular basis. Both the Department of Justice and the Federal Trade Commission have responsibilities to enforce antitrust laws, among others. According to an official in the Department of Justice's Antitrust Division, the Division gathers electricity-related information for an informal investigation that may evolve into a case or a formal investigation associated with a specific case. The impetus for these investigations may come from the trade press and other news sources reviewed by the Department of Justice, a complaining party (a customer or competitor, for example), a request by FERC, or congressional inquiries. Referring to the informal type of investigation, the official said that

reviews of the trade press or other news sources sometimes suggest a potential problem. If a trend emerges, additional general information is gathered on the issue. This may lead to a finding that there is no further ground for concern or to the opening of a formal investigation. The official added that companies are obligated to file information about transactions related to mergers or acquisitions subject to premerger notification requirements. If further information is needed to assess the effects of the transaction on competition, the Department of Justice can make a second request for more detailed information.

The Federal Trade Commission is also responsible for enforcing a variety of federal antitrust and consumer protection laws and seeks to ensure that the nation's markets function competitively. According to testimony provided by one of the Federal Trade Commission Commissioners, the application of federal antitrust laws can help in this transition to competition by making sure that mergers do not aggravate market power problems or shield incumbent companies from new competition. A Federal Trade Commission assistant general counsel stated, however, that the Federal Trade Commission's current involvement with electricity markets is minimal and that it has no ongoing information collection or standardized forms to obtain information on electricity markets. He also noted that the agency's activity was largely confined to two reports and some comments on other federal and state agencies' proposed rulemakings. The first report focused on features of competition in electricity markets that would benefit consumers, and the second updated the first with a greater focus on retail competition.⁷ In preparing the second report, the Federal Trade Commission issued a notice seeking comments and looked at 10 representative states for which information was obtained from state Web sites and state regulatory commission personnel. The second report identified "trouble spots" in developing competitive markets and recommended steps for states to take in addressing problems. It also identified the barriers for entry into these markets by new suppliers and the conditions conducive for new suppliers to enter into these markets, but it did not conclude that such conditions by themselves would cause new suppliers to not enter the market. With its reports completed, the Federal Trade Commission has discontinued its information collection on electricity markets. In addition, the Federal

⁷ Federal Trade Commission, "Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform" (Washington, D.C.: July 2000) and "Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition" (Washington, D.C.: Sept. 2001).

Trade Commission's role in reviewing mergers, including those involving the electricity industry, has declined. The assistant general counsel commented that the Federal Trade Commission shares with the Department of Justice and FERC the responsibility for reviewing information relating to mergers. According to the official, the Federal Trade Commission's role in reviewing such information, however, has decreased because the rate of mergers has diminished recently.

The Commodity Futures Trading Commission, an independent agency created by the Congress in 1974, regulates commodity futures and option markets in the United States. The agency protects market participants against manipulation, abusive trade practices, and fraud. Initially, agency officials stated that the agency had essentially no role in collecting information on electricity at present. An agency official said that, for a period starting in 1996 and ending in 2000, the agency received information on trading in electricity futures conducted through the New York Mercantile Exchange, but this trading was discontinued because its participants found that electricity futures failed to provide an adequate "hedge" or protection against intermittent price volatility. However, according to an agency official, the New York Mercantile Exchange has since introduced several new electricity contracts, and the Commodity Futures Trading Commission will obtain information on these contracts. Such information will include, for example, contract details on prices, trading volume (purchases and sales), and descriptions of large trades.

Agencies Share Some of the Information They Collect

Restructuring, which has led to increasingly complex market activities with greater need for oversight, has highlighted the need for sharing information. Agencies are increasingly using the Internet and a mix of other methods to enhance their ability to share information with other agencies and the public.

In the past, agencies provided paper copies of published reports through their public reference rooms and upon request. However, since the advent of the Internet, most federal agencies are using it to allow access to publicly available documents. For example, EIA regularly publishes reports providing electricity-related statistics and now uses its Web site to allow easy access to current and past reports. FERC also makes publicly available information accessible through its Web site using its Federal Energy Regulatory Records and Information System, which contains over 20 years of documents submitted to and issued by FERC. Despite the increased use of the Internet, agencies also maintain public reference rooms where paper copies of documents are made available.

Although federal agencies make extensive amounts of information available on their Internet Web pages, they share information using a combination of other methods such as meetings, investigations, conferences, and workshops. Specifically, a FERC official stated that FERC currently holds quarterly meetings with the Federal Trade Commission and the Department of Justice to discuss overlapping issues, specifically focusing on antitrust and market manipulation practices. The official added that FERC has met with EIA to coordinate and share information on information collection issues. Another FERC official stated that FERC does not have formal protocols to interact with other agencies such as SEC, the Commodity Futures Trading Commission, and the Federal Bureau of Investigations; however, FERC also interacts with these agencies on an ad hoc basis to assist them with their information needs and use “shared access letters” to request information from other agencies’ files. For example, FERC staff coordinated closely with the Department of Justice, SEC, the Commodity Futures Trading Commission, and the Department of Labor during their investigation of Enron. Recently, FERC cosponsored a technical conference with the Commodity Futures Trading Commission to discuss energy market credit issues and potential solutions to problems and their implementation. Some agencies, such as Justice and the Federal Trade Commission, use formal approaches such as interagency agreements and established protocols to coordinate their work and share information.

Restructuring Has Exposed Gaps in Agencies’ Electricity Information and Has Affected How This Information Is Shared

Of the eight federal agencies included in our review, we found that restructuring has significantly affected FERC while other agencies were affected to a lesser extent. To respond to competitive markets, FERC has made important changes, for example, creating a new office to actively monitor markets to ensure they are competitive. These changes have affected its organizational structure and information collection activities. However, FERC is limited in the information it is allowed to collect, primarily because of limitations in its authority. To diminish gaps in its information, FERC relies on information from third-party sources, some of which is suspect. Although less affected than FERC by restructuring, EIA has also made some changes to its information collection activities. For example, it has increased the number of entities it reports on and the amount of information collected and changed how it uses this information. Restructuring has affected other agencies’ collection of electricity information to a more limited extent but has raised other issues that affect how they share information.

FERC's Changing Information Needs Have Affected Its Collection and Use of Electricity Information, but Gaps Remain

Over the past year, FERC has changed the way it performs market oversight from one that reacts to electricity market events to one that monitors markets on a day-to-day basis. This change has caused FERC to reassess the information it needs to monitor these markets. During 2002, FERC created a new office to actively monitor competitive electricity markets and undertook efforts to identify sources of market information and better understand its own information needs. Nonetheless, we found that FERC has gaps in the information it is allowed to collect, primarily because of limitations in authority. Consequently, FERC has increased its reliance on information from third-party sources in order to supplement the information it collects. However, this third-party information also has gaps, and we question the reliability of some of this information, as have others. Additionally, FERC plans to have RTOs and ISOs assist it by monitoring and routinely collecting information on electricity markets, but the formation of these organizations remains in question.

FERC Is Reorganizing and Assessing Its Information Needs

In response to the evolving electricity markets, FERC realized that it needed to reorganize and created OMOI in fiscal year 2002 to monitor increasingly competitive electricity markets. OMOI's mission is to guide the evolution and operation of energy markets to ensure effective regulation and consumer protection through understanding markets and their regulation, timely identification and remediation of market problems, and compliance with FERC rules and regulations.

To carry out its monitoring mission, OMOI uses its Market Monitoring Center that was patterned after market operation centers or rooms of ISOs and major energy trading companies. The Market Monitoring Center relies on computers and various software packages to make large amounts of information on electricity available in a usable format. The center uses both commercial and proprietary information services to access current market activities. Electricity market information provided by these services includes prices on the spot market and futures contracts, plant outage, and historical information for trend analysis. FERC also subscribes to another new service provider that offers current information on the status and output of some generating units. OMOI also uses the historical information from the traditional FERC data collection activities to assist in its work. For example, during investigations, FERC's forms for routine information collection provide historical baseline information that may be critical in determining possible market manipulations and/or unjustified prices. Appendix II contains information on the commercial and proprietary information services FERC uses and descriptions of the types of information provided.

In fiscal year 2002, FERC completed studies to take stock of the agency's current and future market information needs. As a part of this effort, FERC formed teams that were to identify information that FERC currently collects and additional information that it might need. The study on current information needs identified 19 active information collection and reporting requirements for the electric energy sector and three that relate to all three energy sectors (electric, natural gas, and oil pipeline). The study on future information needs identified a core body of information FERC must know to adequately understand how it might exercise its oversight authority and information needs to accommodate a range of regulatory approaches. The core body of information includes eight categories and the specific data elements, descriptions, and potential sources of this information. The categories are demand for electric power, supply, operations and congestion management, market participants, transmission transactional information, market design and rules, and traditional regulatory functions. FERC's intention was to make the information catalogues a "wish list" of every conceivable type of information FERC might ever want or need.

According to OMOI, it is using the information from these two studies as a baseline to assess FERC's overall market information needs. OMOI hired an energy industry analyst to continue with the information assessment project. The project's mission statement focuses on information needs both in the near term and long term. The near-term objective is to ensure FERC has the information most necessary to perform its duties in restructured energy markets.

FERC Has Information Gaps Primarily because of Limitations in Authority

FERC's current information collection activities do not provide sufficient information to fully monitor electricity markets. First, the historical information FERC collects has deteriorated in quality, in part, because of declines in power plant information reporting. Specifically, FERC has found that some of the data fields that companies are required to fill out are left blank in some cases. To improve data quality, FERC officials stated that FERC recently improved its error checking capability for one of its recently developed electronic reports. In addition, some companies have aggregated sales transactions data on the forms in a way that makes it impossible to determine specific prices and quantities sold. Further, FERC's coverage of power plant operational information has diminished because some plants formerly owned by utilities are now owned by nonutilities that are not required to report to FERC. Prior to restructuring, FERC specifically used the information reported on power plant fuel costs and quality as a factor to determine electricity rates. Under restructuring,

FERC uses power plant information to understand power production and available capacity in specific markets, and to understand what is normal or anomalous. According to FERC, power outages could be used as strategies to reduce supply and thereby raise market prices. In June 2002,⁸ we reported that California power supplier behavior described in other studies we reviewed was consistent with the exercise of market power, because the prices charged did not reflect the marginal costs of generating additional megawatt-hours of electricity. Rather, the behavior reflected an ability to charge higher prices by waiting to commit the generation to a time when buyers were willing to pay more.

Second, according to FERC and as we previously reported,⁹ FERC generally has no jurisdiction over power sales by federally owned entities, publicly owned utilities, and most cooperatively owned utilities. These nonjurisdictional utilities own 27 percent of the U.S. electric transmission system and are also smaller than investor-owned utilities; however, they serve large areas of the country and provide service in conjunction with about 25 percent of the nation's demand for electricity. FERC officials note that they have little data and information on these areas of the country. However, according to FERC officials, information about the operations of these nonjurisdictional entities is important to understand these entities' impact on generation and transmission activities in a given market. For example, the Tennessee Valley Authority operates a large power system and serves many nonjurisdictional entities covering a large geographical area across the southeastern United States located between several FERC jurisdictional entities. According to FERC, the lack of detailed information about the operations of the Tennessee Valley Authority system limits its ability to assess the performance of the markets surrounding this network. Similarly, FERC officials noted that they also need information on electricity imports from neighboring countries, particularly Canada, because they participate in and affect prices of electricity in U.S. markets.

Third, according to FERC officials, they have limited up-to-the-minute market information needed to monitor electricity markets. FERC does not collect price information, for example, on up-to-the-minute electricity

⁸ U.S. General Accounting Office, *Restructured Electricity Markets: California Market Design Enabled Exercise of Market Power*, [GAO-02-828](#) (Washington, D.C.: June 21, 2002).

⁹ [GAO-02-656](#) and [GAO-03-271](#).

prices, fuel costs, and spot and futures contract prices. In June 2002,¹⁰ we reported that the Market Monitoring Center did not include detailed information about energy prices on “exempt” commercial markets, including the Intercontinental Exchange, a “multilateral” electronic trader, which invites and matches buy and sell orders for other customers. According to FERC, it now has access to Intercontinental Exchange but no longer has access to other Internet-based trading systems such as UBS Warburg and Dynegydirect, both of which were “bilateral”¹¹ electronic traders because they have ceased operations. Such systems have and continue to provide an important market for both physical energy (electricity and gas products) as well as energy derivatives¹² to be bought and sold. In commenting on a draft of this report, FERC stated that because its authority is ambiguous relative to the trade of electricity-based derivatives, its ability to collect information on this part of the market is limited. Additionally, FERC officials said that they have limited operational information, such as power plant outages and availability of capacity on transmission lines. Price and transaction information, as well as operational information, is important in order for FERC to be able to detect changes in the market, determine the legitimacy of market outcomes, and if needed, take corrective action.

Finally, FERC officials told us that FERC cannot access other nonfederal information it needs to assess reliability of the power grid and monitor overall electricity market performance. Specifically, NERC collects current electricity market information such as operations of power plants, flows on key transmission lines, transmission between two parties, and system frequency (that is, a measure of how well the system is balancing electricity demand and supply and other reliability information). FERC officials pointed out that because market performance and electricity system reliability are mutually dependent, such reliability information would help them to determine whether market participants are behaving in an anticompetitive manner. While NERC officials agreed that this information might be valuable to FERC in determining whether power plant outages are justifiable, they stated that NERC is prohibited from

¹⁰ [GAO-02-656](#).

¹¹ Bilateral energy trades involve two parties (for example, a generator and a supplier) entering into a contract to deliver electricity at an agreed time in the future.

¹² Derivatives are financial products—for example, options, futures, and other contracts—the value of which are derived from underlying instruments, such as company stocks, electricity and natural gas commodities, or other financial instruments.

disseminating such information without obtaining the companies' permission—which companies are reluctant to grant due to the business-sensitive nature of the information. Further, NERC officials told us that their database is deteriorating in quality because companies are increasingly concerned about sharing detailed information, for fear that competitors may gain an undue advantage. In particular, many new market entrants to the electricity generating industry have not joined NERC or provided NERC with information about their plant operations. In commenting on a draft of this report, FERC stated that language in proposed legislation creating FERC jurisdiction over a designated electric reliability organization should assist in addressing issues related to access to NERC information.

As we previously reported,¹³ FERC lacks authority to gather all the information it needs from all segments of wholesale electricity markets primarily because it derives much of its legislative authority from mandates that were enacted over 75 years ago—when the industry was structured as regulated monopolies and rates were based on the cost of service. Further, we reported,¹⁴ FERC lacks regulatory authority over all entities in wholesale electricity markets and is therefore unable to gather all of the information it needs to understand markets across the nation. Specifically, section 309 of the Federal Power Act provides FERC with the authority to prescribe the forms of all reports to be filed with it and the information to be reported.¹⁵ This authority does not generally extend to nonjurisdictional entities such as the power marketing administrations, other nonutilities, and NERC. For example, FERC has identified problems in getting data on individual power plant operations that it needs in order to evaluate the functioning of the transmission system. Information on nonjurisdictional entities is important because they also participate in the same electricity markets as jurisdictional entities and directly influence market activities, including prices. Senior FERC officials told us that, in general, FERC's authority to collect information from nonjurisdictional market participants is predicated on developing a specific legal argument that the information supports a specific investigation, rather than for more general monitoring of market performance. Furthermore, regarding

¹³ [GAO-02-656](#).

¹⁴ [GAO-02-656](#) and [GAO-03-271](#).

¹⁵ §16 U.S.C. 825h. FERC also has authority in sections 311 (§16 U.S.C. 825j) and 304 (§16 U.S.C. 825c) of the Federal Power Act and section 133 (§16 U.S.C. 2643) of PURPA.

entities within FERC's jurisdiction, FERC does not have specific authority to collect up-to-the-minute detailed information on market activities. While long-standing general authority may enable FERC to collect the information it needs, the lack of specific authority for obtaining this information may lead to challenges from market participants. In this same vein, FERC officials added that FERC also faces challenges related to the Paperwork Reduction Act in terms of the long lead time and the level of effort necessary to obtain OMB's approval for additional information collections.

Additionally, FERC's legislative framework does not allow it to levy a meaningful range of penalties against companies that choose to intentionally underreport or misreport required information. Although the Federal Power Act allows FERC to levy criminal fines and civil penalties against market participants, they are insufficient to discourage underreporting or misreporting information. Thus, FERC's traditional legislative authority may no longer be in sync with today's developing competitive electricity markets. In competitive energy markets, adequate and reliable information is important to FERC's ability to fulfill its regulatory mandate and ensure the market participants are not engaging in anticompetitive behavior. In commenting on a draft of this report, FERC stated that market transparency provisions in proposed legislation prohibits the filing of false information and increases FERC's criminal penalty authority for noncompliance.

FERC Increasingly Relies on Third-Party Information, but Gaps Remain and Some Information Is Suspect

FERC increasingly relies on third-party information to help offset its limited authority to collect all of the information it needs to monitor electricity markets. OMOI subscribes to several energy-related services to increase its access to current markets and make key decisions related to market performance. (See app. II for a complete listing and description of information that third parties provide to FERC to assist its monitoring of electricity markets.) While these third-party sources fill some of FERC's information gaps, they do not have full or complete coverage of the information FERC needs but lacks. For example, while Genscape measures power plant operations for some power plants, it does not have full coverage of the electricity system. Moreover, OMOI does not have access to a third-party source for price or quantity information on most bilateral transactions of wholesale electricity. In addition, FERC and others have raised concerns about the quality of the published price information these third parties provide. Specifically, FERC reported that published prices are subject to manipulation and cannot be independently validated. FERC surveyed reporting firms for both natural

gas and electricity and found that these firms lacked formal verification or corroboration and sufficient internal controls to ensure information reported to them was reliable. FERC also found that these entities relied instead on traders or bid/ask prices reported by traders and other market participants. As a result, FERC reported that this lack of verification allowed an opportunity for entities to deliberately misreport information in order to manipulate prices and/or volumes in electricity.

In at least one recent instance, FERC used such third-party information as a basis of a key decision regarding California's electricity market—the information, however, later turned out to be inaccurate. Specifically, in 2002, FERC instructed an administrative law judge, who was considering a request for refunds related to the western electricity crisis, to use a methodology that relied on third-party data for natural gas prices. The methodology, developed by FERC staff, was intended to set a proxy for market prices that would have been produced had the western market been competitive. The methodology estimated the cost of producing electricity for key generators based on operating cost, including fuel. Using this methodology, the judge ordered refunds of about \$1.8 billion to the state of California. Subsequent to the order, FERC found, in August 2002, that the natural gas prices underlying the methodology had been subject to erroneous reporting and manipulation. In March 2003, FERC presented an alternative methodology for determining refunds, which is expected to substantially increase the previous award.

In commenting on a draft of this report, FERC stated that it is working on options—based on staff recommendations and through a docket proceeding—to improve third-party data. FERC added that market transparency provisions in proposed legislation allow for establishing an electronic system that provides information about prices in electricity markets, in addition to the prohibition for filing false information and increased criminal penalty authority noted in the previous section.

FERC Plans to Use RTO/ISO Information, but RTO Formation Remains Incomplete

In addition to the third-party information, FERC plans to rely extensively on RTOs and ISOs to assist in its monitoring efforts. FERC plans to use the market monitors, created as part of ISOs, to perform up-to-the-minute market monitoring activities and routinely collect information on their electricity markets. FERC officials stated that the market monitors have a better ability to understand and observe market changes, can react more quickly to changing market conditions, and can take stronger corrective action than FERC. In addition, as part of the rules sanctioning these entities, FERC officials said they expect to have access to all the data

collected by the market monitors, which FERC views as considerable. According to FERC, it currently obtains timely information from some existing RTO and ISO monitors to help support its market oversight processes. However, FERC officials said that, relative to the Paperwork Reduction Act, they are not sure whether the market monitors will be able to collect information on FERC's behalf that FERC itself has not been authorized to collect. In commenting on a draft of this report, FERC stated that it is mindful of the potential burden imposed by additional information collections. FERC added that it has been inventive in developing ways to monitor markets, particularly restructured markets with RTOs and ISOs, using data generated as an integral part of market operations.

Further, as we previously reported, several of the market monitors rely on different methods to evaluate market power, there is a lack of uniformity in what information is collected, how it is analyzed, and what is reported, making potential cross-market comparisons difficult at this time. More importantly, FERC's effort to expand the number and/or market coverage of RTOs as well as standardize electricity market rules has met with resistance from the Congress, state commissions, and others. At present, according to FERC, two organizations have been approved as RTOs while five others have been conditionally approved. Overall, even if these additional RTOs are fully approved, FERC's coverage will not extend to markets outside of its jurisdiction. Thus, FERC's reliance on RTOs to help it diminish data gaps, particularly in the next several years, will likely provide only limited help. In commenting on a draft of this report, FERC believes that market transparency provisions in proposed legislation will address issues related to jurisdictional entities that do not participate in RTOs.

Restructuring Has Affected Other Agencies to a Lesser Extent

Among the other agencies, EIA has been the most affected by restructuring while the remaining agencies have been affected only slightly. At EIA, restructuring has led to changes in the number of entities from which EIA collects data, the volume of data collected on electricity markets, and the way in which EIA uses the data to complete its mission of examining the energy sector. EIA officials recognized that restructuring could affect them and examined the potential implications in two reports.¹⁶

According to a senior EIA official, the first, and most important effect of restructuring on EIA was its revision of its forms to require the same information from utilities and nonutilities. Historically, nonutilities were exempt from many of EIA's reporting requirements. Adding these new entities has expanded EIA's database by about 2,000 new sources of information and has nearly doubled its database. The second effect of restructuring on EIA is the increase in the volume of information that it collects and provides because restructuring has significantly expanded the role of wholesale markets in providing electricity. For example, EIA now posts electricity prices for several of the largest markets on its Web site and reports more detailed information about the aggregate activities of these markets in its publications. The third effect of restructuring on EIA is to significantly alter the way that EIA examines energy sectors and electricity in particular. In order to meet one of its missions of examining and forecasting energy consumption and use, EIA has had to revise its energy models to accommodate restructuring because of changes in the way that electricity is supplied and distributed. For example, in March 2003, EIA reported that it reviewed and revised how it collects, estimates, and reports fuel use for facilities producing electricity. According to EIA, the review addressed inconsistent reporting of fuels for electric power by combined heat and power plants and changes in the electric power marketplace that have been inconsistently represented in various EIA survey forms and publications. EIA regards these efforts as complex and substantial and expects them to continue as the electricity sector evolves.

¹⁶ EIA's two reports were (1) "Effects of Electric Power Industry Restructuring on EIA Data Collection," March 1997 and (2) "Electric Power Restructuring—A Focus Group Summary: Implications for Data Collection, Analysis, and Reporting on the Electric Power Industry by the Energy Information Administration." No date was given for the second report, which was based on a series of eight focus groups between July and October 1997.

EIA also encountered problems such as maintaining the quality of information. The Director of EIA's Electric Power Division said that the Department of Energy's Secretary has made the quality of information one of the department's top priorities. However, maintaining this quality at EIA is a challenge because there has been a substantial increase in the number of sources of information (especially the nonutilities) resulting from restructuring while EIA has also experienced substantial budget cuts. The Director estimated that there has been a 50 percent increase in the overall volume of data. In addition, the Director said that, while omission of information by companies responding to EIA's data collection efforts is not a common problem, in the past, some companies failed to answer a question about the delivered fuel price on EIA's Form 423. The Director added that the companies' decision not to disclose information about fuel prices could have been attributed to the sensitive nature of this particular item.

Restructuring has had little direct effect on SEC's overall information collection activities. As such, according to SEC officials, the SEC continues to carry out its oversight of securities laws and its administration of PUHCA. However, the Congress is considering repealing or modifying PUHCA because the emergence of nonutilities reflects the fact that utilities are no longer the sole source of electricity energy. FERC and SEC officials acknowledge that since nonutilities are not covered by PUHCA, registered holding companies may engage in nonutility activities that are not regulated by the act. SEC has stated that it supports the repeal of PUHCA as long as repeal is accomplished in a way that gives FERC and state regulators sufficient authority to protect utility consumers.¹⁷ FERC has stated that PUHCA, as it currently exists, may actually impede competitive markets and appropriate competitive market structures.

¹⁷ Issac C. Hunt, Jr., Former Commissioner, SEC, *Testimony Concerning: S. 1766 and Repeal of the Public Utility Holding Company Act of 1935*, before the Senate Committee on Energy and Natural Resources, 107th Congress, February 6, 2002.

Recent events such as the collapse of Enron Corporation have accelerated reforms affecting SEC that aim at improving the quality and reliability of financial information. SEC plays a vital role in ensuring that meaningful and intelligible information is disclosed to investors. Such disclosures are particularly important as corporate structures of new and old electricity market participants continue to change. The Sarbanes-Oxley Act of 2002 has established the legal framework to address some of the concerns related to corporate disclosure, accountability, and transparency.

Restructuring has not had significant effects on the collection of electricity information by the other agencies included in our review. Some agencies, such as the Federal Trade Commission and the Commodities Futures Trading Commission, may become more involved in collecting electricity information as competitive markets develop. For example, the number of electricity entity mergers has slowed down, but should these mergers increase, Justice may need to increase its information collections for merger investigations accordingly. In addition, a Commodities Futures Trading Commission official initially told us that electricity futures trading had been discontinued because the market participants found that electricity futures failed to provide an adequate hedge against intermittent price volatility. However, since our initial discussion, the New York Mercantile Exchange has introduced several new electricity contracts, and the Commodities Futures Trading Commission has reinstated its practice of collecting information on these trades.

Despite the more limited impacts of electricity restructuring on many of these agencies to date, some jurisdictional issues have been raised about their respective roles in helping to oversee electricity markets more generally. Events such as the collapse of Enron Corporation bring to light the importance of clarifying jurisdiction across the federal government as restructuring progresses. As noted in a recent Senate Governmental Affairs report and memorandum,¹⁸ and other congressional hearings, both FERC and SEC have been questioned about their lack of diligence in following through on Enron's activities—even though they had indications of improper conduct. The report commented that effective coordination between agencies prevents companies from exploiting

¹⁸ Report of the Staff to the Senate Committee on Governmental Affairs, *Financial Oversight of Enron: The SEC and Private-Sector Watchdogs*, October 8, 2002, and a Majority Staff Memorandum to the Committee on Governmental Affairs, *Subject: Committee Staff Investigation of the Federal Regulatory Commission's Oversight of Enron Corp.*, November 12, 2002.

the lack of oversight in areas where neither agency may have taken full responsibility—as Enron did with FERC and SEC in the case of its investments in wind farms. Officials at both FERC and SEC told us that they had performed their jobs and had no reason to check with the other agency about Enron’s actions. However, Enron took advantage of jurisdictional gaps between the two agencies that enabled it to earn tens of millions of dollars above what it would have otherwise earned from its wind farms.

FERC and the Commodity Futures Trading Commission provide a second example of problems resulting from jurisdictional uncertainties. The Senate memorandum (noted previously) on FERC pointed out that FERC did not initially determine whether it had jurisdiction over on-line trading platforms such as Enron Online, although it was FERC’s expectation that these electronic trading platforms would become a dominant way to trade both electricity and gas. Furthermore, this memorandum concluded that both FERC and the Commodity Futures Trading Commission had some regulatory responsibility for on-line trading. Until Enron’s collapse, however, the two agencies did not participate in meaningful discussions to identify and coordinate their respective roles. Effective coordination would have helped to clarify the jurisdictional boundaries between FERC and the Commodity Futures Trading Commission regarding energy trading activities and products, including on-line trading, and to define the two agencies’ respective monitoring responsibilities in these developing markets. Both agencies have recently taken steps to improve their coordination. Because these jurisdictional issues remain unresolved, however, it is unclear whether these problems are limited to a few examples or are potentially more widespread.

Changes in Industry Caused by Restructuring and National Security Concerns Have Affected How Information Is Shared

Restructuring has made the issue of confidentiality concerning electricity information more prominent. On the one hand, the need to access key information now is greater in evaluating the benefits and risks of restructuring. On the other hand, the sensitivity of this information, according to the companies asked to provide it, is also greater because of fears that other companies could use it to seek competitive advantages. This dilemma has led to controversy about the electricity information that is to be made publicly available and shared with other federal agencies. Both EIA and FERC have procedures regarding restrictions on access to information and have modified these procedures, as appropriate. For example, EIA faced considerable protest for its proposal to restrict access to the information that it collects but updated its procedures to resolve some of the concerns raised. By contrast, public disclosure laws and

confidentiality pledges to protect information also affect information sharing and collection of other key information at both federal and nonfederal levels. For example, NERC's information collected from the electricity industry remains unavailable to FERC and other federal agencies because of its sensitivity. In addition, the quality of the information being submitted to NERC has declined as companies have become increasingly concerned about providing it. In addition to the confidentiality issues, the events of September 11, 2001, have heightened national security concerns about protecting the nation's energy.

EIA Has Taken Steps to Resolve Confidentiality Issues

In 2001, EIA faced a major controversy over confidentiality of electricity information, which it was able to resolve. The controversy pitted certain companies that feared potential competitive harm from the release of sensitive information, against agency and public interest in maintaining access to electricity data. Federal agencies and a private sector group provided extensive comments on EIA's proposal to broaden the information it considered confidential. EPA, for example, objected to EIA's proposed confidential treatment of fuel consumption, fuel quality, fuel type, thermal output, and retail sales. EPA officials noted that EPA makes extensive use of these data elements in monitoring emissions. In general, it maintained that EIA's proposal went far beyond what was reasonably necessary to protect competitors from the release of sensitive data. The American Public Power Association, which represents the nation's 2,000 nonprofit, publicly owned electric utilities, described itself as "deeply troubled" by EIA's proposal. It stated that EIA had provided no evidence that the public availability of specific data items would harm the filing companies and no evidence on how EIA balanced the public's need for information against any potential harm to these companies. By contrast, the Edison Electric Institute, which represents shareholder-owned electric companies, cited potential harm to companies, for example, information in the hands of a competitor that could allow the competitor unfairly to undercut another company's bid strategy.

In response to these disagreements over confidentiality, EIA issued a policy statement that made two general changes to its procedures. First, it reported that some data elements that were not considered confidential in the past would now be treated as confidential. Second, it reported that some data collected from unregulated companies that were formerly treated as confidential would now be made publicly available. Discussing the eventual resolution of the controversy, the Director of EIA's Electric Power Division told us that EIA adopted two strategies to achieve this balance. These strategies involve (1) requiring essentially the same information from all companies, including utilities and nonutilities,

and (2) identifying appropriate time frames for retaining and releasing sensitive data. The details of the data remaining confidential are presented in appendix III.

FERC and Other Nonfederal Sources of Information Face Challenges that Affect Both Information Collection and Sharing

FERC recognizes the need of utilities to compete in the electric market and understands their desire to keep confidential some of the information it collects through its forms. However, FERC's policy requires respondents who request confidentiality to show that potential harm outweighs the need for public access to the information. According to FERC, the courts have, through a considerable body of case law, clearly stated that the company bears the obligation, in this case the electric utility, to prove release of information would cause harm. FERC officials told us that Freedom of Information Act requirements raise concerns among utilities about FERC's ability to protect commercially sensitive information. The act requires FERC to disclose information to the public unless specific exemption categories are met, which FERC officials told us, is often difficult to do. According to FERC officials, while FERC may be willing to share exempted information with state regulatory bodies, states have similar public disclosure laws that do not always guarantee their ability to protect this information. FERC officials added that RTOs will also face similar challenges in sharing commercially sensitive information. While RTOs could benefit by sharing information about entrants from other markets who are interested in entering their own markets, protecting the confidentiality of this information will be an issue. In commenting on a draft of this report, FERC stated that proposed legislative language provides a clear confidentiality standard, exempting "from disclosure information FERC determines would, if disclosed, be detrimental to the operation of an effective market or jeopardize system security." Finally, FERC also faces challenges creating ways to obtain and share information from Canada and Mexico, since they also affect U.S. electricity markets.

NERC is hesitant to share information with FERC that its members feel would cause them competitive harm if released in the public domain. According to a NERC official, companies are increasingly reluctant to provide commercially sensitive information, causing a decline in information quality. Therefore, NERC has pledged not to divulge information on a company-specific basis and will release it only in aggregate form in hopes of getting the information it needs. NERC collects current electric market information such as flows on key transmission lines, transmission between two parties, and system frequency (an indicator of how well the system is balanced) that FERC is interested in obtaining from NERC, but, according to both

National Security Concerns Affect Information Sharing

FERC and NERC officials, confidentiality pledges inhibit this sharing this information.

Since September 11, 2001, the federal government has taken steps to protect the nation's critical infrastructures, including the energy infrastructure. FERC has taken steps to remove information it considers to be critical to protecting the nation's power grid from the public domain. Specifically, it has removed information such as oversized maps that detail the specifications of existing and proposed energy facilities that were once publicly available from its Internet site, public reference rooms, and databases. For example, FERC removed the information it collects from the Form 715, Annual Transmission Planning and Evaluation Report, from the public domain. Additionally, EIA removed power plant latitude and longitude information from the public domain. While steps have been taken to better protect information, federal officials at both FERC and EPA raised concerns about the increasing difficulty of accessing information on power plant locations and related data.

Conclusions

Given FERC's predominant role in overseeing evolving electricity markets, FERC needs information on a regular basis regarding reliability, supply and demand, transmission, purchase and sale of electricity commodities, and market participants—much of the needed information has not previously been collected. Consequently, FERC is currently missing some of these key pieces of information or is relying on third parties such as energy news services for related information to assist in meeting its market monitoring and oversight responsibilities. Without access to this key information, FERC will not be able to fully understand the performance of specific electricity markets across the country. In addition, FERC will be less prepared to identify potential market manipulation that may affect competitive markets. FERC's existing authority is not adequate to collect all the information it needs, resulting in these gaps of key information. Moreover, legislation does not allow FERC to levy meaningful criminal fines and civil penalties against market participants to ensure that companies report accurate and reliable information, further diminishing its ability to identify potential market manipulation. For these reasons, the Congress may need to make decisions regarding the scope of information collection at FERC and other agencies.

Recommendations for Executive Action

Given that effective oversight of evolving electricity markets requires the acquisition of and access to timely, reliable, and complete information, we recommend that the Chairman, FERC (1) demonstrate what information FERC needs, (2) describe the limitations resulting from not having this information, and (3) ask the Congress for sufficient authority to meet its information collection needs and responsibilities. Additionally, we recommend that FERC consider the cost and potential reporting burden associated with additional information collection, since market participants will incur additional costs and burden hours, and where possible, explore creative ways to obtain information.

Agency Comments

We provided a draft of this report to FERC and DOE for their review and comment. In its written comments, FERC generally agreed with the report's conclusions, specifically that its authority to collect information has not kept pace with the changing electricity market and that its ability to penalize noncompliance is severely limited. Regarding our recommendation that FERC take action to resolve its information gaps, FERC commented that it is in the process of conducting an internal information assessment and the results will be provided at the end of 2003. This assessment should provide a first step toward implementing our recommendations. However, in a related point, FERC also noted that whatever information gaps exist with electricity supply, much greater deficiencies exist on the demand side of the market, which is largely beyond its jurisdiction but also important to understanding the entire market.

FERC also noted that it must be mindful of the potential burden imposed by additional information collections, and it has been inventive in developing ways to monitor markets, particularly those operating under its restructuring rules. FERC also provided several small corrections to the draft report language and added other clarifications that we incorporated into the draft where appropriate. The complete text of FERC's comments is included in appendix IV.

In its written comments, DOE agreed that the report generally characterizes the current state of electricity data collection and dissemination at EIA accurately and that it provides a balanced set of recommendations on improving the timeliness of data dissemination in the electricity industry's restructured environment. DOE also commented about our characterization of EIA's mission and how EIA's information is used, as well as provided further clarification on the coverage of EIA and RUS information collections and EIA's resolution of data quality issues on

its Form 423. We incorporated EIA's suggested information in these areas along with previously provided technical corrections into the draft where appropriate. The complete text of DOE's written comments is included in appendix V.

Objectives, Scope, and Methodology

To determine what electricity information is collected, used, and shared by key federal agencies in meeting their primary responsibilities, we first identified federal agencies using specific forms and form-like surveys for collecting electricity information. These agencies included FERC, EIA and Fossil Energy within DOE, RUS, SEC, and EPA. We obtained these forms and form-like surveys and analyzed their contents, as summarized in appendix I. We also identified third-party sources of information used by federal agencies. These included the 13 companies identified in appendix II. We analyzed this third-party information through a review of Web-based materials and interviewed officials at Genscape, Edison Electric Institute, and NERC. We also identified federal agencies that collect, or have collected, electricity information for investigations and interviewed officials at these agencies that included the Department of Justice, the Federal Trade Commission, and the Commodity Futures Trading Commission. For all federal agencies included in our review, we obtained information on their missions by examining mission statements on their Web sites. To understand how federal agencies use and share electricity information, we interviewed federal officials at the federal agencies mentioned above.

To determine the effect of restructuring on federal agencies' collection, use, and sharing of this information, we focused primarily on FERC because it bears the main responsibility for monitoring electricity markets, is undergoing major organizational changes caused by restructuring, and has shown serious deficiencies in responding to restructuring. Within FERC, we met with officials from OMOI and from its Office of Markets, Tariffs, and Rates. To understand the gaps in FERC's electricity information resulting from restructuring, we interviewed officials at FERC and NERC, reviewed information from third-party sources, and identified federal authority contributing to these gaps. Although restructuring has affected other federal agencies to a lesser extent, we identified the relevant effects, if any, in these other agencies by interviewing officials and reviewing pertinent documents. Among these other agencies, EIA has been the most affected by restructuring. We examined specific impacts at EIA that included increases in the number of entities from which EIA collects data and the volume of information collected. We also examined jurisdictional issues posed about FERC and SEC, and FERC and the

Commodity Futures Trading Commission. To understand how restructuring has affected the way in which federal agencies share this information, we examined concerns about confidentiality, particularly as they related to EIA's development of its current confidentiality policy and FERC's lack of access to NERC information because of NERC's concerns about the potential sensitivity of the information. In addressing the second objective, we also relied on a broad range of our previously issued reports on electricity restructuring and FERC's oversight of electricity rates.

We conducted our work from June 2002 to May 2003 in accordance with generally accepted government auditing standards.

As arranged with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 14 days after the date of this letter. At that time, we will send copies to appropriate congressional committees, the Chairman of the Federal Energy Regulatory Commission, the Secretary of the Department of Energy, the Administrator of the Environmental Protection Agency, the Secretary of the Department of Agriculture, the Chairman of the Securities and Exchange Commission, the Attorney General of the United States, the Chairman of the Federal Trade Commission, the Chairman of the Commodity Futures Trading Commission, the Director of the Office of Management and Budget, and other interested parties. We will make copies available to others on request. We will also make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-3841. Key contributors to this report are listed in appendix VI.

A handwritten signature in black ink that reads "Jim Wells". The signature is written in a cursive style with a large, sweeping initial "J".

Jim Wells
Director, Natural Resources
and Environment

Appendix I: Description of Data Collection Forms and Legislation Authorizing Collections for FERC and EIA

Form/reporting requirement by agency	Legislation authorizing collections	Purpose	Types of data
Federal Energy Regulatory Commission^a			
Form 1—Annual Report of Major Electric Utilities, Licenses, and Others	Federal Power Act (FPA) sections 304 and 309. These sections authorized the Federal Energy Regulatory Commission (FERC): <ul style="list-style-type: none"> • to collect and record data to the extent it deems necessary and • to prescribe rules and regulations concerning accounts, records, and memoranda. FERC may prescribe a system of accounts for jurisdictional companies and after notice and opportunity for hearing, may determine the accounts in which particular outlays and receipts will be entered, changed, or credited.	Used to monitor markets to ensure that rates are just and reasonable, and services are offered in a nondiscriminatory manner.	Generation, transmission, distribution, and sales of electric energy from major electric utilities and licensees subject to FERC jurisdiction.
Form 1-F—Annual Report for Non-major Public Utilities, Licensees, and Other Public Utilities, Licensees, and Others	Same as above	Same as above	Same as above

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Sources of data	Voluntary, mandatory, or as needed	Treatment of data	How often captured/collected	How often reported	Products issued (if applicable)/how used
Major public utilities.	Mandatory	Publicly available.	On or before April 30 of each year for the previous calendar year.	Annually	<ul style="list-style-type: none"> • Department of Energy's (DOE) Energy Information Administration publishes Form 1 data in aggregate form. • The Office of Chief Accountant uses the data in its audit program and for continuous review of the financial conditions of regulated companies. • The Office of Markets, Tariffs, and Rates uses the data in rate proceedings and supply programs. • The Office of Economic Policy and General Counsel use the data in their programs. • Data from schedules are used to compute annual charges assessed against public utilities. • State regulatory commissions use the data to help satisfy their reporting requirements for public utilities and licensees subject to state jurisdiction.
Nonmajor public utilities.	Same as above.	Same as above.	Same as above.	Same as above.	Same as above.

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Form/reporting requirement by agency	Legislation authorizing collections	Purpose	Types of data
Federal Energy Regulatory Commission^a			
Form 423—Monthly Report of Cost and Quality of Fuels for Electric Plants	FPA sections 205 and 206, as amended by section 208 of the Public Utility Regulatory Policies Act (PURPA) (Public Law 95-617). FERC is authorized to collect basic cost and quality of fuel data at electric generating plants.	Collects information on the cost and quality of fossil fuels delivered to electric generating plants.	Cost, price, and quality of fuels for generating plants.
Form 556—Application for Certification of Qualifying Facility (QF) or CoGen Status	FPA section 3 and sections 201 and 210 of PURPA. These statutes authorize FERC to encourage cogeneration and small power production and to prescribe such rules as necessary in order to carry out these statutory directives.	Filed by owners or operators of small power production or cogeneration facilities seeking status as qualifying facility eligible for benefits under PURPA, including exemption from certain corporate, accounting, reporting and rate regulation requirements; certain state laws; and where applicable regulation under FPA.	Information related to the facility's ownership and technical specifications.
Form 561—Interlocking Directorates	Title II, section 211 of PURPA, which amended part III, section 305, of FPA. Section 305 defines monitoring and regulatory operations concerning interlocking directorate positions held by public utility personnel and possible conflicts of interest.	Collects information from individual public utility directors and officers who hold interlocking directorates.	Information on public utilities' interlocking directorates for possible conflicts of interest.

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Sources of data	Voluntary, mandatory, or as needed	Treatment of data	How often captured/collected	How often reported	Products issued (if applicable)/how used
Public utilities who have electric generating plants (see EIA-423 for unregulated plants).	Mandatory	Publicly available.	No later than 45 days after the end of the report month.	Monthly	FERC uses the data to conduct authorized fuel reviews, rate investigations, and monitor changes and trends in the electric wholesale market. Other government agencies use the data to track the supply, disposition, and fuel prices on a regional and national basis and conduct environmental assessments. Others use the data to assess market competitiveness.
Owners or operators of small power production or cogeneration facilities.	As needed.	Publicly available.	Once during a 1-year time period.	As needed.	FERC uses the information to determine whether a facility meets the necessary requirements and is entitled to various PURPA benefits.
Approximately 1,600 directors and officers of public utilities or public utility holding companies engaged in the generation, transmission, and sale of electric power.	Mandatory	Publicly available.	On or before April 30th for each preceding year.	Annually	FERC collects this information to monitor public utilities' interlocking directorates for possible conflicts of interest.

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Form/reporting requirement by agency	Legislation authorizing collections	Purpose	Types of data
Federal Energy Regulatory Commission^a			
Form 566—Top 20 Purchasers List	FPA section 305, as amended, by section 211 of PURPA.	Filed by jurisdictional public utilities or public utility holding companies engaged in the generation, transmission, and sale of electric power to report 20 of the largest purchases of electric energy. Lists customers and their business addresses if they were 1 of the top 20 largest purchasers of electric energy, measured in kilowatt hours sold, for purposes other than resale, during any of 3 preceding calendar years.	Information on the 20 largest purchasers of electric energy.
Form 580—Interrogatory on Fuel and Energy Purchase Practices	FPA section 205 (f), as amended, by section 208 of PURPA. This section authorizes the interrogatory established in Form 580 to take place not less frequently than every 2 years.	Collects information from jurisdictional public utilities that own or operate power plants generating 50 megawatts or greater capacity.	Information on fuel cost and cost recovery practices under fuel adjustment clauses in cost-based rates.

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Sources of data	Voluntary, mandatory, or as needed	Treatment of data	How often captured/collected	How often reported	Products issued (if applicable)/how used
Approximately 175 public utilities and public utility holding companies.	Mandatory	Publicly available.	On March 1 of the year following the reporting.	Annually	Used to identify large purchasers of electric energy and possible conflicts of interest.
Approximately 120 public utilities.	Mandatory	Publicly available.	Filed biennially on June 1st for preceding calendar period.	Biennially	Used to review public utility's fuel purchase and cost recovery practices under fuel adjustment clauses in cost-based. Used to evaluate fuel costs in individual rate filings, to supplement periodic utility audits, and to monitor changes and trends in the electric wholesale market. Used by DOE's EIA to study various aspects of coal, oil, and gas transportation rates. Used by electric market participants and the public to assess the electric marketplace during the transition to a competitive marketplace.

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Form/reporting requirement by agency	Legislation authorizing collections	Purpose	Types of data
Federal Energy Regulatory Commission^a			
Form 714—Annual Electric Control and Planning Area	FPA sections 202, 207, 210, 211, 212, and 213, as amended, and sections 4, 304, 309, and 311 of the same act.	Collects information from any public utility or group of public utilities operating as a control area that has a peak load greater than 200 megawatts based on energy for load. The information collected allows FERC to analyze power system operations in the course of its regulatory functions. The purpose of these analyses is to estimate the effect of changes in power system operations that result from the installation of a new generating unit or plant, transmission facilities, and energy transfers between systems and/or new points of interconnections. The analyses also serve to correlate rates and changes; assess reliability and other operating attributes in regulatory proceedings; monitor market trends and behaviors; and determine the competitive impacts of proposed mergers, acquisitions, and dispositions.	Generating plants included in the reporting control area; control area monthly peak demand; control area net energy for load and peak demand sources by month; adjacent control area interconnections; control area scheduled and actual interchange; planning area demand and forecast summer and winter peak demand and annual net energy for load; and control area hourly system lambda data.

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A public utility operating as a control area or a group of electric utilities that operates as a control area.	Mandatory	Publicly available.	On or before June 1 of each year for the preceding calendar year.	Annually	Used to monitor control area planning hourly demand, forecast summer and winter peak demand, and annual net energy for load.

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Form/reporting requirement by agency	Legislation authorizing collections	Purpose	Types of data
Federal Energy Regulatory Commission^a			
Form 715—Annual Transmission Planning and Evaluation Report	FPA section 213 (b), as amended, by the Energy Policy Act (Public Law 102-486). Section 213 (b) requires FERC to collect annually from transmitting utilities sufficient information about their transmission systems to inform potential transmission customers, state regulatory authorities, and the public of available transmission capacity and constraints.	Provides information to potential transmission customers, FERC, state regulatory authorities, and the public of potential transmission capacity and known constraints.	Potential transmission capacity and known constraints.
Electric Quarterly Report	FPA section 205(c).	Provides contract and power sales data per Order 2001 issued on April 25, 2002. Public utilities are required to electronically file Electric Quarterly Reports summarizing the contractual terms and conditions in their agreements for all jurisdictional services (including market-based power sales, cost-based power sales, and transmission service) and transaction information for short-term and long-term market-based power sales and cost-based power sales during the most recent calendar quarter.	Lists all contracts in effect and all power sales made during the previous quarter.

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Approximately 117 respondents consisting of transmitting utilities or a designated agent, such as a regional transmission group, North American Electric Reliability Council (NERC) regional reliability council, formal power pool, or other group operating integrated (nonradial) transmission facilities at or above 100 kilovolts.	Mandatory	Data are now restricted and designated as critical energy infrastructure information.	On or before April 1 of each year for the preceding calendar year.	Annually	FERC uses the information to facilitate and resolve transmission disputes brought before it. State and federal regulatory agencies use the information as a part of their oversight functions. Potential transmission customers use the information to determine transmission availability to or from wholesale electric power purchasers and sellers.
All public utilities.	Mandatory	Publicly available.	For the period from January 1 through March 31, file by April 30; for the period from April 1 through June 30, file by July 31; for the period July 1 through September 30, file by October 31; and for the period October 1 through December 31, file by January 31.	Quarterly	Information is available to the public in a variety of formats. It is used as an electronic repository of all jurisdictional contracts, to fulfill the FPA requirements to have all rates on file, and to provide price data for market oversight purposes.

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Form/reporting requirement by agency	Legislation authorizing collections	Purpose	Types of data
Energy Information Administration^b			
EIA-411—Coordinated Bulk Power Supply Program Report	Federal Energy Administration Act (Public Law 93-275) and the DOE Organization Act (Public Law 95-91). These two laws require EIA to carry out a centralized, comprehensive, and unified energy information program. EIA is mandated to collect, evaluate, assemble, analyze, and disseminate information on energy resource reserves, production, demand, technology, and related economic and statistical information.	Collects information on regional electricity supply and demand projections for a 5-year advance period and provides information on the transmission system and supporting facilities. This information is used to assess the adequacy of energy resources to meet near and longer-term domestic demands.	The information reported includes (1) peak demand and energy for the preceding year and 5 future years, (2) existing and planned generating capacity and the same for demand, (3) scheduled capacity purchases and sales, (4) bulk electric transmission system maps, and (5) existing and proposed transmission lines.

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Sources of data	Voluntary, mandatory, or as needed	Treatment of data	How often captured/collected	How often reported	Products issued (if applicable)/how used
NERC-regulated electric power entities and other electricity suppliers.	Voluntary, except for Schedule C, which is identical to the Form EIA-860.	Publicly available, except for information on plant location (longitude and latitude) and tested heat rate.	Each NERC Regional Council should file by April 1 and after review, NERC should file the Form EIA-411 by June 30.	Annually	<p>Used to monitor the current status and trends of the electric power industry and to evaluate the future of the industry.</p> <p>Primary publication—<i>Electric Power Annual</i></p> <p>EIA is required to provide company-specific data to the Department of Justice, or to any other federal agency when requested for official use, which may include enforcement of federal law.</p> <p>The information may also be made available, upon request, to another component of DOE, to any committee of Congress, the General Accounting Office, or to congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.</p>

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Form/reporting requirement by agency	Legislation authorizing collections	Purpose	Types of data
Energy Information Administration^b			
EIA-412—Annual Electric Industry Financial Report	Same as above.	Collects information on accounting, plant statistics, and transmission data.	The information reported includes (1) identification, (2) electric balance sheet, (3) electric income statement, (4) electric plant, (5) taxes, tax equivalents, contributions, and services during year, (6) sales of electricity for resale, (7) electric operation and maintenance expenses, (8) purchased power and power exchanges, (9) electric generating plant statistics, (10) existing transmission lines, and (11) transmission lines added within last year.
EIA-417R—Electric Power Systems Emergency Report	Same as above.	Collects information for DOE to monitor electric utility system emergencies.	The information reported includes the type of emergency, cause of incident, and actions taken.
EIA-417—Electric Emergency Incident and Disturbance Report			

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Completed by approximately 500 municipally owned, federally owned, and state-owned regulated entities with approximately 1,000 additional unregulated entities filing a new schedule on "Electric Generating Plant Statistics," and 39 cooperative borrowers filing transmission data.	Mandatory	Publicly available, except for Schedule 9, lines 9 through 34, for unregulated entities.	Accounting data (Schedules 1 through 8) of the Form EIA-412 to EIA within 4 months following the end of the financial reporting year. All reports, including Schedules 9 through 11, for the given calendar year must be submitted by April 30.	Annually	Used to compile statistics on the financial status of the industry and to develop EIA forecasting models. Primary publications— <i>Electric Power Annual</i> , DOE/EIA-0348; <i>State Energy Price and Expenditure Report</i> , DOE/EIA-0376; and <i>Annual Energy Outlook</i> , DOE/EIA-0383. EIA is required to provide company-specific data to the Department of Justice, or to any other federal agency when requested for official use, which may include enforcement of federal law. The information may also be made available, upon request, to another component of DOE, to any committee of Congress, the General Accounting Office, or to congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.
Electric utilities.	Mandatory	Publicly available, except for the information reported on Schedule 1, lines 4,5,6,7, and 8.	As needed.	As needed.	DOE uses the information as the basis for determining appropriate federal action to relieve an electrical energy supply emergency. Primary publication— <i>Electric Power Monthly</i> , DOE/EIA-0226.

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Energy Information Administration^b			
EIA-423—Monthly Cost and Quality of Fuels for Electric Plants Report	Same as above.	Collects information on cost and quality of fossil fuels delivered to U.S. electric plants.	Delivered price of fuel by fossil fuel type and contract, contract type and end date, quality of fuel (heat content, sulfur and ash content), and volume delivered.

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Unregulated electricity generating facility (fossil-fuel plants for regulated entities report on FERC-423).	Mandatory	Publicly available, except for fuel cost.	Filing to be completed within 45 days of the close of the business month.	Monthly/annually.	<p>With the exception of a handful of state agency reports, the FERC-423 and the EIA-423 are the only timely public sources of information of the price of fuel delivered to electric generating plants. Public agencies and private analysts seeking to understand the current and historical fuel components of power prices and generating plant operating costs use the data widely.</p> <p>Data from this form and the FERC 423 appear in the EIA publications—<i>Electric Power Monthly</i>, <i>Electric Power Annual</i>, <i>Monthly Energy Review</i>, and <i>Annual Energy Review</i>.</p> <p>EIA is required to provide company-specific data to the Department of Justice, or to any other federal agency when requested for official use, which may include enforcement of federal law.</p> <p>The information may also be made available, upon request, to another component of DOE, to any committee of Congress, the General Accounting Office, or to congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.</p>

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Energy Information Administration^b			
EIA-767—Steam-Electric Plant Operation and Design Report	Same as above.	Collects information on the design and operations of organic-fueled or combustible, renewable, steam-electric plants, regardless of ownership status, which have a total existing or planned generator rating of 10 megawatts and above (excluding nuclear power plants).	The information reported includes (1) identification, (2) plant configuration, (3) plant information (a) annual byproduct disposition and useful thermal output, (b) financial information, (4) boiler information (a) fuel consumption and quality, (b) air emission standards, (c) design parameters, (d) nitrogen oxide emission controls, (5) generator information, (6) cooling system information (a) annual operations, (b) design parameters, (7) flue gas particulate collector information, (8) flue gas desulfurization unit information (a) annual operations, (b) design parameters, and (9) stack and flue information—design parameters.

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Approximately 1,300 U.S. plants with a total existing or planned organic-fueled or combustible renewable steam-electric plants that have a generator nameplate rating of 10 megawatts or larger.	Mandatory	Publicly available, except for information relating to plant locations (longitude and latitude).	To be submitted no later than April 30 following the close of the reporting year.	Annually	<p>Data from this form appear in the EIA publications—<i>Electric Power Annual</i>, <i>Annual Energy Review</i>, and <i>Carbon Dioxide Emissions from the Generation of Electric Power in the United States</i>. EIA is required to provide company-specific data to the Department of Justice, or to any other federal agency when requested for official use, which may include enforcement of federal law.</p> <p>The information may also be made available, upon request, to another component of DOE, to any committee of Congress, the General Accounting Office, or to congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.</p>

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Form/reporting requirement by agency	Legislation authorizing collections	Purpose	Types of data
Energy Information Administration^b			
EIA-826—Monthly Electric Sales and Revenue with State Distributions Report	Same as above.	Collects information on the retail sales and revenue from approximately 400 utilities and other energy service providers that have sales to end-user customers.	Retail sales of electricity by end-user category, revenue, megawatt hours, and numbers of customers.
EIA-860—Annual Electric Generator Report ^c	Same as above.	Collects information on the status of existing and planned power plants in the United States, including those scheduled for initial commercial operation within 5 years of filing this report. Also tracks planned upgrades to existing power plants.	Generating unit name, ownership, operator, location, cogeneration status, and industry category if a cogenerator, prime mover type, nameplate and summer net generating capacity, initial commercial operating and retirement date, current unit status, tested heat rate, fuel sources, fuel delivery transportation mode, and FERC qualifying facility information for cogenerators.

**Appendix I: Description of Data Collection
Forms and Legislation Authorizing
Collections for FERC and EIA**

Sources of data	Voluntary, mandatory, or as needed	Treatment of data	How often captured/collected	How often reported	Products issued (if applicable)/how used
Regulated and unregulated companies that sell or deliver electric power to end users, including electric utilities, energy services providers, and distribution companies. Data collected on this form include retail sales, revenue, and number of customers for all end-use sectors (residential, commercial, industrial, and other, including public street and highway lighting).	Mandatory	Publicly available, excluding energy service provider's revenues, megawatt hours sold, and number of customers.	Filing should be completed by the 10th working day, following the close of the business month.	Monthly	<p>The EIA-826 is the only timely source of information on the price and volume of power sold to retail customers in the United States. Data from this form appear in the EIA publications—<i>Electric Power Monthly</i>, <i>Electric Power Annual</i>, <i>Monthly Energy Review</i>, and <i>Annual Energy Review</i>.</p> <p>EIA is required to provide company-specific data to the Department of Justice, or to any other federal agency when requested for official use, which may include enforcement of federal law.</p> <p>The information may also be made available, upon request, to another component of DOE, to any committee of Congress, the General Accounting Office, or to congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.</p>
Approximately 3,200 electric generating plants, which have or will have a nameplate rating or 1 megawatt (1,000 kilowatts) or more, and are operating or plan to be operating within 5 years of the year of this form. Also maintains a record of plant retirements.	Mandatory	Publicly available, except for latitude and longitude of plant location and tested heat rate.	On or before February 15 of the reporting calendar year.	Annually	<p>The EIA-860 is the primary source of information on the inventory of power plants in the United States. As such, it is widely used by public and private analysts interested in such topics as adequacy of power supplies and air pollution emissions. Data from this form appear in the EIA publications—<i>Electric Power Annual</i> and <i>Annual Energy Review</i>.</p> <p>EIA is required to provide company-specific data to the Department of Justice, or to any other federal agency when requested for official use, which may include enforcement of federal law.</p> <p>The information may also be made available, upon request, to another component of DOE, to any committee of Congress, the General Accounting Office, or to congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.</p>

**Appendix I: Description of Data Collection
Forms and Legislation Authorizing
Collections for FERC and EIA**

Form/reporting requirement by agency	Legislation authorizing collections	Purpose	Types of data
Energy Information Administration^b			
EIA-861—Annual Electric Power Industry Report	Same as above.	Collects annual data from the universe of U.S. utilities and nonutility power producers on retail power sales and energy distribution.	Collects information on system peak, net generation, energy balance, demand-side management, and the sales and distribution of electricity in the United States.

**Appendix I: Description of Data Collection
Forms and Legislation Authorizing
Collections for FERC and EIA**

Sources of data	Voluntary, mandatory, or as needed	Treatment of data	How often captured/collected	How often reported	Products issued (if applicable)/how used
<p>All electric utilities, including regulated and unregulated energy service providers, in the United States, its territories, and Puerto Rico. These include about 3,300 regulated and 1,500 unregulated owner entities.</p>	Mandatory	Publicly available.	By April 30, following the calendar year.	Annually	<p>The EIA-861 is the primary source of data for public and private analysts seeking information on electric power sales, revenues, and average prices. Data from this form appear in the EIA publications—<i>Electric Power Monthly</i>, <i>Monthly Energy Review</i>, <i>Electric Power Annual</i>, <i>Annual Energy Outlook</i>, <i>Annual Energy Review</i>, and <i>Financial Statistics for Major U.S. Publicly Owned Electric Utilities</i>. EIA is required to provide company-specific data to the Department of Justice, or to any other federal agency when requested for official use, which may include enforcement of federal law.</p> <p>The information may also be made available, upon request, to another component of DOE, to any committee of Congress, the General Accounting Office, or to congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.</p>

**Appendix I: Description of Data Collection
Forms and Legislation Authorizing
Collections for FERC and EIA**

Form/reporting requirement by agency	Legislation authorizing collections	Purpose	Types of data
Energy Information Administration^b			
EIA-906—Power Plant Report ^d	Same as above.	Collects information on electric power generation, useful thermal output, fuel consumption, the heat content of fuels, and stocks of fossil fuels from electric power plants in the United States.	Data on electric power generation, fuel consumption, useful thermal output, fuel heat contents, and stocks.

**Appendix I: Description of Data Collection
Forms and Legislation Authorizing
Collections for FERC and EIA**

Sources of data	Voluntary, mandatory, or as needed	Treatment of data	How often captured/ collected	How often reported	Products issued (if applicable)/how used
Electric power plants that meet the reporting requirements, regardless of ownership type. A monthly sample of 1,200 entities with the remainder reporting annually, out of a total universe of approximately 2,500 regulated and unregulated entities.	Mandatory	Publicly available, excluding information on stocks at end of reporting period.	For monthly respondents, submission is to be completed by the 10th working day, following the close of the month. For annual respondents, submission is to be completed by the last working day of January following the end of year.	Monthly/ annually.	<ul style="list-style-type: none"> The EIA-906 is the primary source of information on power plant generation, fuel consumption, and fuel stocks. Data are widely used by industry, state government agencies, trade associations, and federal agencies for energy analyses and policy-making decisions. Data from this form appear in the EIA publications—<i>Electric Power Monthly</i>, <i>Electric Power Annual</i>, <i>Monthly Energy Review</i>, <i>Annual Energy</i>, and <i>Renewable Energy Annual</i>. EIA is required to provide company-specific data to the Department of Justice, or to any other federal agency when requested for official use, which may include enforcement of federal law. The information may also be made available, upon request, to another component of DOE, to any committee of Congress, the General Accounting Office, or to congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.

Source: GAO analysis of FERC's and EIA's survey forms.

^aIf the information requested in FERC's forms is not reported, the criminal penalties are as follows:
 — 16 U.S.C. 825o(a) statutory violations up to a \$5,000 fine or imprisonment of not more than 2 years
 — 16 U.S.C. 825o(b) rules violations not to exceed \$500 per day during the time the offense occurs.

^bThe timely submission of these forms by those required to report is mandatory under section 13(b) of the Federal Energy Administration Act (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than \$2,750 per day for each civil violation or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements.

^cAccording to EIA's *Electric Power Annual 2001* report, beginning with data collected from the year 2000, the Forms EIA 860A and 860B are obsolete. The infrastructure data collected on those forms are now collected on the Form EIA-860 and the monthly and annual versions of the Form EIA-906.

^dEIA 906 superseded Forms EIA-900—Monthly Nonutility Power Plant Report—and EIA-759—Monthly Power Plant Report.

Appendix II: Third-Party Data Sources

Data Source	Description
FriedWire	FriedWire is an energy information provider, specializing in Web-based data collection and integration. Its Traffic Report is a real-time visual monitoring system covering electric power grid operations in North America. Its Powersurge is a real-time monitoring system for Northeastern and Canadian electric power markets. Its WestDesk provides similar information for western electric power markets. Its Analyst Edge is an on-line energy database created to support the needs of energy market analysts. Its Data Feed Service and Energy Data Warehouse provide updates of energy market information and historical information.
Genscape	Genscape provides current information related to generation and transmission of some fossil and nuclear power plants in the United States. Genscape guarantees accuracy of 90 percent or better based on its direct, physical monitoring of power plant outputs.
Electric Power Research Institute	Electric Power Research Institute has developed an on-line, Web-based display of power market transactions and includes information on schedules and congestion. The data are useful for transmission planning.
Bloomberg	Bloomberg's PowerLines is a trade press publication providing electricity news. Bloomberg's Professional Services provides current and historical data on regional electricity and gas markets, including spot and future prices, market commentary, plant outage information, and energy news.
NERC	NERC provides real-time information on transmission constraints in the northeast. Its Flow Impacts Study Tool provides information about the real-time flow and expected flow for the next 36 hours for specific transactions.
Open Access Technology International	Open Access Technology International provides information on electricity transmission useful for scheduling and meeting electricity deliveries.
EarthSat	EarthSat provides weather forecasts and historical weather data for selected cities.
Energy Argus	Energy Argus provides news concerning electricity and gas operations and prices.
InterContinental Exchange	InterContinental Exchange provides information on over-the-counter energy transactions.
PowerWorld Corporation	PowerWorld Corporation's Simulator is an interactive package designed to simulate high voltage power system operation. It gives an analyst a comprehensive look at issues surrounding electrical power flows in a transmission grid.
Resource Data International Data Resources via Platt's:	
(1) PowerDat	(1) Historical data related to electric industry.
(2) GasDat	(2) Historical data related to gas industry.
(3) NewGen	(3) Database consists of new proposed generation.
(4) PowerMap	(4) Tool to generate maps, including transmission lines, gas pipelines, and generation.
Platt's	Through publications such as <i>Megawatt Daily</i> and <i>Gas Daily</i> , Platt's provides daily energy news related to electric and gas issues.
Cambridge Energy Research Associates	Cambridge Energy Research Associates provides various services related to regional electric, gas, and transmission issues. These include, for example, its North American Electric Power Advisory Service, which focuses on the future of the power sector and the forces affecting the market, prices, and emerging trends and technology. Other services include its North American Natural Gas Advisory Service, its Electric Transmission Advisory Service, and its Western North America Energy Advisory Service.

Source: GAO analysis of information provided through third-party data sources' Web sites and FERC.

Appendix III: EIA Confidentiality Elements

Elements	Forms affected
Costs of fuel for unregulated plants	<ul style="list-style-type: none"> • EIA-423—costs of coal, natural gas, and petroleum at an unregulated power plant
Tested heat rates	<ul style="list-style-type: none"> • EIA-411—tested heat rate under full load • EIA-860—tested heat rate under full load
Fuel inventory—stocks	<ul style="list-style-type: none"> • EIA-906—end-of-month coal and petroleum stocks
Plant costs and expenses for unregulated plants	<ul style="list-style-type: none"> • EIA-412—generator plant cost and expenses for unregulated plants
Monthly electricity sales information reported for energy-only service	<ul style="list-style-type: none"> • EIA-826—monthly electric sales, revenue, and number of customers reported for energy-only service
Latitude and longitude	<ul style="list-style-type: none"> • EIA-411—latitude and longitude • EIA-767—latitude and longitude • EIA-860—latitude and longitude

Source: EIA.

Note: Other elements collected in the electric power surveys are not treated as confidential.

Appendix IV: Comments from the Federal Energy Regulatory Commission

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

June 12, 2003

OFFICE OF THE CHAIRMAN

Mr. Jim Wells
Director, Natural Resources and Environment
United States General Accounting Office
Room 2T23
441 G Street, NW
Washington, DC 20548

Dear Mr. Wells:

Thank you for your letter of May 22, 2003, enclosing your draft report, *Electricity Restructuring: Action Needed to Address Emerging Gaps in Federal Information Collection*. I congratulate you on your effort and appreciate the opportunity to comment on this report.

In general, I agree with GAO's conclusions, namely that FERC's authority to collect information has not kept pace with the changing electricity market and that our ability to penalize non-compliance is severely limited.

Regarding the recommendations that FERC "(1) demonstrate what information FERC needs, (2) describe the limitations resulting from not having this information, and (3) ask the Congress for sufficient authority to meet its information collection needs and responsibilities" (p. 32), we are in the process of conducting an internal Information Assessment, which will provide results by the end of 2003.

The report's recommendations continue, "Additionally, we recommend that FERC consider the cost and potential reporting burden associated with additional information collection, since market participants will incur additional costs and burden hours, and where possible explore creative ways to obtain information" (p. 32). I agree that, within the context of identifying additional data collection needs, we must carefully measure the costs against the benefits derived from improved access to that information. FERC is mindful of the potential burden imposed by additional information collections, and we have been inventive in developing ways to monitor markets—particularly those operating under our restructuring rules—using data generated as an integral part of market operations.

There are three small factual errors in the draft report to which I would like to bring your attention:

1. “FERC has no jurisdiction over power sales by ... new market participants such as exempt wholesale generators” (p. 21). Most new market participants, including exempt wholesale generators, are subject to FERC jurisdiction, and must be authorized to sell power in jurisdictional markets as “public utilities.” They are also subject to many of our information collection requirements.
2. “FERC now has access to [the Intercontinental Exchange] but continues not to have access to other Internet-based trading systems such as UBS Warburg and Dynegydirect, both of which are ‘bilateral’ electronic traders” (p. 22). FERC did have access to UBS Warburg’s [ubswenergy.com](#) (formerly EnronOnline) and Dynegydirect, but both have ceased operations. UBS Warburg suspended [ubswenergy.com](#) on December 10, 2002, for the firm to move its trading operations to Connecticut; it has not begun operating again. Dynegydirect closed its online service as of June 19, 2002. With the collapse of Enron, the “bilateral” model for trading platforms, where the operator of the platform acts as counterparty to all trades, has largely been discredited.
3. “[T]rading in electricity futures conducted through the New York Mercantile Exchange...was discontinued because its participants found that electricity futures failed to provide an adequate ‘hedge’ or protection against intermittent price volatility” (p. 16). NYMEX has reinstated its futures contract for the Pennsylvania/New Jersey/Maryland hub.

There are a few other points to which I would like to add clarification. Specifically:

1. FERC’s rules for restructured electric markets (i.e., RTOs/ISOs), where instituted, create conditions where considerable information is available to perform the oversight function. While FERC is monitoring electric markets to the extent possible, enactment of the market transparency provisions in legislation currently before Congress (S.B. 14 and H.R. 6) would resolve many of the particularly problematic issues noted in the report relative to jurisdictional entities that do not participate in RTOs.
2. FERC’s rules for restructured electric markets, where instituted, create independent Market Monitoring Units (MMUs) that provide detailed market-specific oversight and support FERC’s own oversight processes through data analysis, distillation, and close coordination with FERC staff.

3. FERC's rules for restructured electric markets, where instituted, create an environment requiring public access to large quantities of specific market data involving pricing, load and congestion. With all that information available to the market, third parties must compete on the quality and reliability of the data services they perform rather than on development of the data itself. For example, because all parties have equal access to prices in NYISO's day-ahead market, third parties compete to re-package that data with the market disciplining the quality of their offerings.
4. The report notes, "FERC and others have raised concerns about the quality of the published price information" provided by third parties and notes our concerns about the lack of independent verifications and the potential for manipulation (p. 24). As a result of our investigation into manipulation of Western markets (Docket No. PA02-2), we received several recommendations from FERC Staff regarding actions we can take to improve the quality of price indices. We are currently considering our options through a docketed proceeding (Docket No. AD03-7) where we have received the active participation of the energy industry. Moreover, the market transparency rules in S.B. 14 and H.R. 6 provide for the FERC to issue rules establishing an electronic system that provides information about prices in electric markets and prohibits the filing of false information. The bill also adds to FERC's ability to penalize non-compliance.
5. The availability of energy derivatives (such as futures, swaps and options) affects the motivation of participants in competitive energy markets. Whatever FERC's access to information regarding physical trades is, ambiguity and limitations in our jurisdiction over electricity-based financial products retards our ability to oversee electric markets.
6. In the restructured electric market, FERC has weighed the interest and the ability of customers to perform oversight on their own against the benefits of protecting market innovation with confidentiality for commercially sensitive information. Language in S.B. 14 and H.R. 6 provides useful standards for us to apply regarding the confidentiality of market-critical data.
7. As the report's information summary shows, whatever the information gaps are associated with electricity supply, much greater deficiencies exist on the demand side of the market. While retail energy efficiency, demand response, and distributed generation are largely beyond the jurisdiction of the FERC, there is a clear national need to have high quality information about energy use and efficiency because they affect wholesale and retail energy market health and security.

I elaborate further on these seven points below.

FERC has used its existing authority to create market rules that provide readily accessible flows of information that enable effective market oversight. In Order 889, all public utilities that own, control or operate facilities used in the transmission of electric energy in interstate commerce were required to create or participate in an Open Access Same-Time Information System (OASIS) that provides existing and potential transmission customers the same access to transmission information. In Order 2000 and subsequent orders regarding RTOs, FERC defined a market environment that inherently entails broad dissemination of market information. Where participants in the electric industry have agreed to be subject to those rules in order to operate in a restructured, competitive electric market, significant information is readily available to perform oversight. Where FERC's market rules are not in place, that information is not available.

Legislation currently before Congress (S.B. 14 and H.R. 6) addresses the issues that limit our ability to require the availability of minimum levels of publicly available market information from jurisdictional entities not participating in an RTO. S.B. 14 in particular requires FERC to establish "an electronic information system to provide the Commission and the public with access to such information as necessary or appropriate to facilitate price transparency and participation in markets subject to the Commission's jurisdiction." FERC supports the enactment of the provisions.

A key component of our market rules is the creation of Market Monitoring Units (MMUs). MMUs were created to provide independent, ongoing, focused, real-time oversight of the open, functioning and competitive markets. The MMUs have real-time access to minute details of market operations. As such, they augment the oversight capabilities of FERC staff. In the course of ongoing market operations, FERC and MMUs are working together to ensure open fair competition. In the event of a market anomaly, FERC oversight staff and the affected MMU are in early and frequent contact. Where FERC's market rules are not in place, similar independent oversight is not possible and does not exist.

As indicated in the report, there is "a lack of uniformity in what information is collected, how it is analyzed, and what is reported, making potential cross market comparisons difficult at this time." FERC and the MMUs have been working since December 2002 to create standard market metrics that will allow comparison across RTOs. This effort is expected to provide a set of descriptive metrics this fall and additional normative metrics this winter.

FERC has used its existing authority to create market rules that, in practice, necessitate that certain minimum levels of information are disclosed publicly. Several third party vendors collect that information, distill and re-package it.

Because the data are accessible to all, competition raises the quality and reliability of the third-party services.

In the cases cited in the report such as published market indices for bilateral trades, it is market information developed outside FERC's market rules for which coverage and/or quality is suspect. This does not mean that FERC must collect the data ourselves, but rather, that where we set the parameters for information availability, data tends to be more reliable.

Looking at energy price indices in general (i.e., for both gas and electricity), FERC Staff's "Final Report on Price Manipulation in Western Markets: Fact-Finding Investigation of Potential Manipulation of Electric and Natural Gas Prices" (Docket No. PA02-2, March 2003) provides concrete recommendations setting minimum standards for price indices. As noted above, we have an ongoing proceeding on market price formation with many similar issues and many of the same parties (AD03-7), and we have held one technical conference with the active participation of industry and have scheduled another. Several innovative solutions have been proposed.

Specifically, S.B. 14 instructs the FERC to "issue rules establishing an electronic information system...[that provides] information about the availability and market price of wholesale electric energy and transmission services" (S.B. 14 at §1171) and prohibits parties "willfully and knowingly to report any information relating to the price of electricity sold at wholesale" S.B. 14 at § 1172). H.R. 6 contains comparable language. Additionally, FERC's ability to impose criminal fines would be increased significantly under the legislation. We are optimistic that this legislation in conjunction with our efforts on this issue will allow us to move toward greater integrity in energy pricing data.

Regarding the specific case of access to NERC data for monitoring purposes, language in S.B. 14 and H.R. 6 creating FERC jurisdiction over a designated Electric Reliability Organization should assist in addressing the issues regarding information access.

FERC's authority is, at best, ambiguous relative to the trade of electricity-based derivatives. Our ability to collect information in this part of the market is, therefore, limited. Market participants should not be deterred from entering into agreements that limit their price risk in the volatile electric market. FERC, nonetheless, needs to be able to identify whether particular hedges are being used to the benefit of customers and when they are a component of a plan to manipulate the market. As the report notes, FERC and the Commodity Futures Trading Commission "have recently taken steps to improve...coordination" (p. 29), but the lack of clear jurisdiction over the trade of energy derivatives, both on and off

6

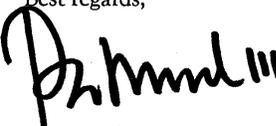
exchanges, limits our ability to collect information that allows us to oversee the whole market.

In considering data submitted to FERC, we must balance customers' interests against market efficacy in matters of confidentiality. Traditionally, FERC has given special consideration to the customers' side of the scale favoring broad disclosure of information. S.B. 14 provides a clear confidentiality standard, exempting "from disclosure information [FERC] determines would, if disclosed, be detrimental to the operation of an effective market or jeopardize system security." Similar language is in H.R. 6. FERC supports this standard as being consistent with competitive energy markets.

Beyond FERC's jurisdiction, I would like to note the imbalance in information availability between the supply and demand sides of the market. Looking at Appendix A in the report, one notices the dearth of national data collections concerning electricity demand. Particularly in the areas of energy efficiency, demand response, and distributed generation, policy makers must have access to richer and clearer information for better decision-making about competitive energy markets, energy adequacy, and national energy security. FERC cannot collect these data due to jurisdictional considerations, but the resulting information is critical to understanding the entire market.

We appreciated the opportunity to work with your staff in reviewing the information requirements in restructured electricity markets. Thank you again for the opportunity to comment on your report.

Best regards,



Pat Wood, III
Chairman

Appendix V: Comments from the Department of Energy



Department of Energy

Washington, DC 20585

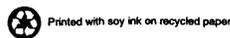
JUN 11 2003

Jim Wells
Director, Natural Resources and Environment
General Accounting Office
441 G Street NW
Washington, DC 20548

Dear Mr. Wells:

The Energy Information Administration (EIA) appreciates the opportunity to comment on the General Accounting Office (GAO) draft report "Electricity Restructuring: Action Needed to Address Emerging Gaps in Federal Information Collection," Report No. GAO-03-586. We agree that the report generally characterizes the current state of electricity data collection and dissemination at EIA accurately, and that it provides a balanced set of recommendations on improving the timeliness of data dissemination in the electricity industry's restructured environment. We have previously provided you with a set of informal comments, including those dealing with minor issues of fact about our surveys. This letter reiterates our major comments concerning the draft.

- The discussion of EIA's mission on page 10 differs from that in our Strategic Plan (see <http://www.eia.doe.gov/neic/aboutEIA/strategy.htm>). As stated there, our mission is to be "a leader in providing high quality, policy-independent energy information to meet the requirements of Government, industry, and the public in a manner that promotes sound policymaking, efficient markets, and public understanding." Although our analyses and forecasts often include an assessment of energy adequacy as well as other issues, we believe that our Strategic Plan provides the best and most accurate description of our mission.
- The discussion of EIA's use of its information on page 11 is somewhat narrow. Although we have in the past evaluated many of the issues discussed in the paragraph, a more general statement of EIA's use of the data is as follows: "EIA and its customers use the information it collects for a variety of purposes. These include monitoring of market trends in supply, demand, and prices; analytical activities such as short- and long-term forecasting; and inputs to special studies, such as responses to Congressional inquiries. EIA is also responsible for making sure its data are available to the public in easily accessible and user-friendly formats."
- The discussion of information "gaps" on page 20 should acknowledge that some gaps are being filled by other agencies. For example, the FERC Form 1 goes only to Investor Owned Utilities (IOUs). However, the Rural Utility Service collects



**Appendix V: Comments from the Department
of Energy**

some similar data for cooperatives, as does the EIA for public power producers and some other entities through the EIA-412 survey. The FERC 423 covers fuel cost and quality for IOUs; the EIA-423 covers other entities. These activities are worth noting in the report.

- The discussion of the quality of EIA's data on page 27 states that some companies have chosen not to submit information on delivered fuel prices on their EIA-423 submissions. Although this has been a problem, EIA has made a successful effort recently to greatly reduce the number of non-respondents. This is a mandatory form, and respondents are not free to choose which elements of the data they will or will not report. We suggest including mention of this successful effort in the report.

Overall, we believe this report makes a significant contribution to public understanding of the challenges that electricity restructuring has generated for data collection and dissemination. Again, thank you for the opportunity to comment.

Sincerely,



Guy F. Caruso
Administrator
Energy Information Administration

cc: H. Gruenspecht, EI-1
S. Sitzer, EI-50
R. Schnapp, EI-53
D. Pritchett, EI-20
D. Williams, ME-1.1

Appendix VI: GAO Contact and Staff Acknowledgments

GAO Contact

Dan Haas (202) 512-9828

Acknowledgments

In addition to the individual named above, Angelia Kelly, Dennis Carroll, Jose Martinez-Fabre, Jon Ludwigson, Jonathan McMurray, Frank Rusco, and Barbara Timmerman made key contributions to this report.

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