

DOE/EIA-0173(95)  
Distribution Category UC-950

# **Annual Report to Congress 1995**

**Energy Information Administration**  
U.S. Department of Energy  
Washington, DC 20585

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or reflecting any policy position of the Department of Energy or any other organization.

# PREFACE

---

From its earliest days, the Energy Information Administration (EIA) has been a service leader in the government information community. Since 1977, EIA has provided high-quality energy information to a vast customer base: Congress, representatives of the print and broadcast news media, businesses, Government officials, students, researchers, lawyers, and private citizens. Our information promotes sound policymaking, efficient markets, and public understanding. During times of political unrest, supply disruptions, weather emergencies, and price increases, customers look to EIA for information. When drafting legislation, conducting corporate research, or writing term papers, customers contact EIA. When writing news analysis, teaching classes, or making Government policy, customers call EIA.

The year 1995 was not business-as-usual. EIA worked hard in 1995 to ensure efficient operations, cost effectiveness, and alignment of its product slate and services with customer require-

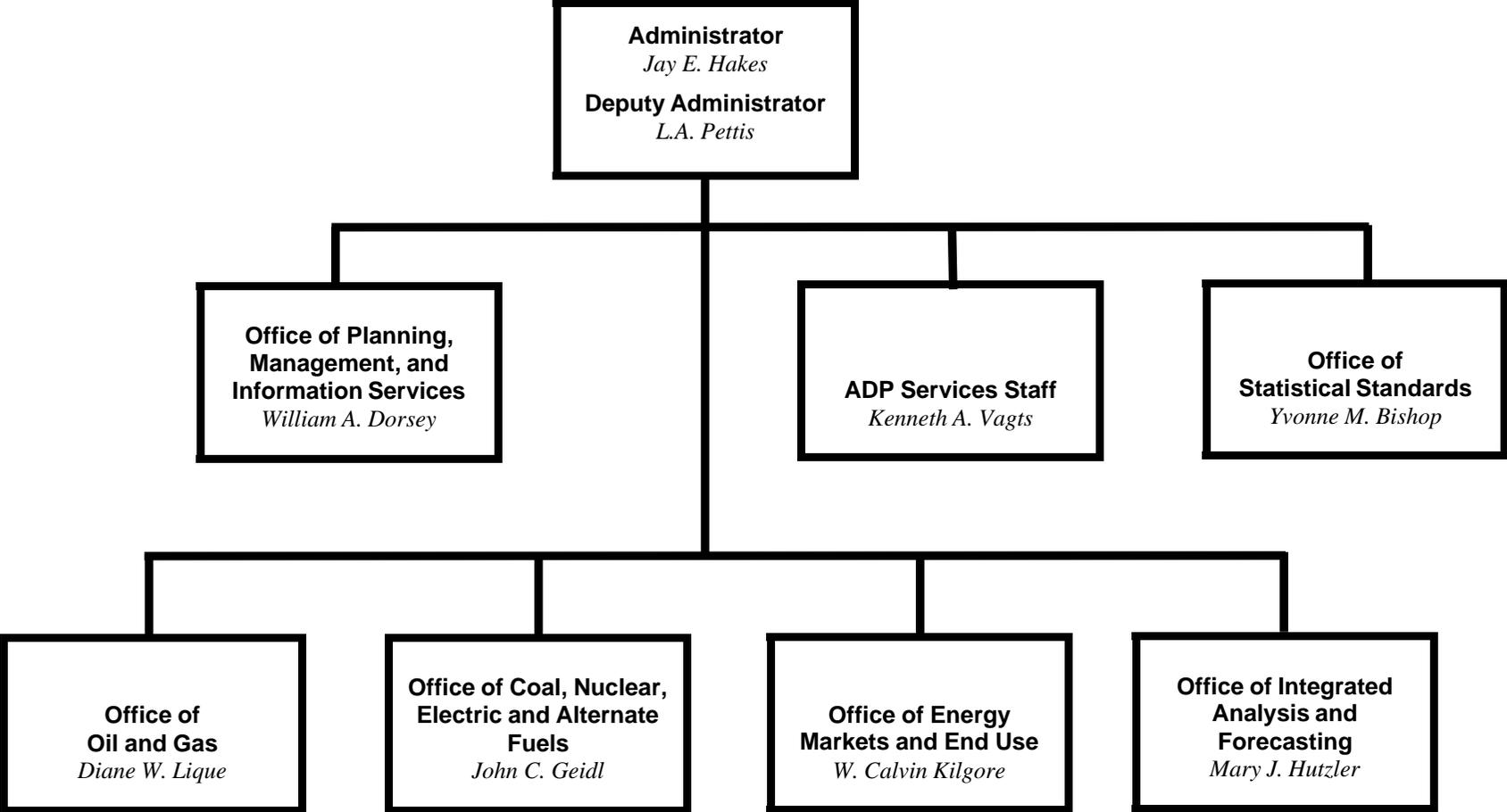
ments. Our Strategic Plan was developed, providing a roadmap for the remainder of the decade. While maintaining high-priority core programs and supporting new activities mandated by law, EIA moved to standardize core business systems through reengineering, to improve productivity through performance measurement and quality management, and to meet the needs of its customer base through the delivery of timely, innovative, customer-oriented products and services. For example, EIA's Internet site opened in July 1995 and added a new dimension to our information services. Virtually all EIA publications and a number of major databases are available instantaneously to a worldwide network of electronic customers. However, the opening of our Internet site was only one of the exciting and transforming changes in 1995. Our accomplishments and new activities are reviewed in this report. A summary of our reports is presented in Appendix A. Appendices B and C list our data collection forms and forecasting models, respectively. Appendix D lists the major laws affecting EIA in 1995.

# CONTENTS

---

	Page
<b>Introduction</b> .....	1
<b>Selected Program Highlights</b> .....	3
EIA, EPACT, and the RFG Program. ....	3
Information Support to Outside Organizations. ....	5
Respondent Burden Reduction. ....	5
EIA/DOE Partnership .....	6
Geographic Information Activities. ....	6
<b>Strategic Planning</b> .....	8
<b>Dissemination Initiatives</b> .....	10
Energy InfoDisc .....	10
EIA Internet Site .....	10
Listserve .....	11
Fax-on-Demand. ....	11
Weekly Diesel Fuel and Gasoline Price Hotline. ....	11
<b>Performance Measures</b> .....	12
<b>Customer Focus and Feedback</b> .....	13
<b>Business Reengineering</b> .....	14
<b>Appendices</b>	
A. Publications of the Energy Information Administration. ....	15
B. Data Collection Surveys of the Energy Information Administration .....	40
C. Analytic Models of the Energy Information Administration .....	57
D. Major Laws Affecting EIA, 1974-1995. ....	63

# ENERGY INFORMATION ADMINISTRATION



# INTRODUCTION

---

EIA is proud of its accomplishments during 1995. We developed a strategic plan, with goals and objectives to guide us and focus our activities. We used customer and employee feedback to develop these goals. We have performance measures to assess progress and identify areas for improvement. Finally, we became and remain fully committed to reengineering our business processes to achieve efficiencies.

EIA is 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 policy-making, efficient markets, and public understanding. EIA has a long history of serving a broad spectrum of customers and being responsive to their needs. EIA's motto is: On-line or off the shelf, EIA is the first place to go for the last word in energy information.

Established in 1977 as an independent statistical and analytical agency within the U.S. Department of Energy (DOE), EIA was charged by its enabling legislation with:

- Maintaining a comprehensive data and information program relevant to energy resources and reserves, energy production, energy demand, energy technologies, and related financial and statistical information relevant to the adequacy of energy resources to meet the Nation's demands in the near and longer term future.
- Developing and maintaining analytical tools and collection and processing systems; providing analyses that are accurate, timely, and objective; and providing information dissemination services.

EIA's customers expect energy information that is understandable, comprehensive, and relevant to their needs. Customer satisfaction surveys conducted over the past two years verified that these attributes were important to EIA's customers and that more than 90 percent of our customers are

satisfied or very satisfied with EIA's products and services. Customers did identify timeliness as a specific area for improvement. Translating this need into action items in the Strategic Plan, EIA moved ahead to compress the data collection and dissemination processes, to provide early release of approved data before publication, and to use many methods of electronic dissemination to satisfy the timeliness requirements of our customers.

When world events impact energy markets, the need for timely, accurate energy information is readily apparent. EIA provides information daily on all aspects of energy—even without an imminent crisis and banner headlines. In a rapidly changing world, one of the principal obstacles to the use of sound information is the limited time available; when decisions must be made quickly, there usually is not much time to search for information. This is one reason why personal computers, the Internet, and compact discs are transforming EIA's traditional information processes.

In the past year, EIA has made the kinds of revolutionary breakthroughs necessary to keep pace with the changing information needs of our customers. EIA took quantum leaps into new electronic information dissemination technologies, like the Internet and CD-ROM. The World Wide Web gives our customers the advantage of global reach and the capacity for frequent updates; CD-ROM has the advantages of speed and portability.

EIA opened an Internet site in July 1995 that contains about 3,000 separate files and offers access to most of our publications and several of our major databases. Internet users can search for information, view publications, download data and applications, and sign up to receive information via e-mail listserve. Since the site opened, the number of unique daily users has increased about 25 percent per month. The site currently averages about 20,000 unique users per month.

In the fall of 1995, EIA introduced a prototype of the Energy InfoDisc CD-ROM, which is being published quarterly to provide a rolling snapshot of nearly all

EIA data, analyses, and forecasting reports published over the previous 12-month period.

In 1995, EIA continued to be a leader in strategic planning, performance measures, and customer service. EIA volunteered as a pilot for the Government Performance and Results Act and has adopted performance measures to assess progress and determine areas for improvement. EIA completed a Strategic Plan that emphasized efficiency and cost effectiveness, customer service, and workforce development. EIA received the Energy Quality Commendation from the Department of Energy on the basis of its achievements and progress in quality management implementation during 1995.

EIA faces a future of great opportunity and also significant challenge. In a rapidly changing world, effective governmental organizations must anticipate and plan for the future. Nowhere is this more true than in the realm of information generation and dissemination. Technological advances are providing opportunities to improve EIA's work processes and the way EIA serves its customers. These advances also have raised customers' expectations. At the same time, EIA faces the challenge of meeting these expectations with declining resources, a fact which will require improvements in EIA's efficiency.

With the certainty of declining budgets and staff levels, EIA is positioned to move from business-as-usual to a reengineered organization that operates more effectively and efficiently, and best uses the talents of its highly qualified staff. In 1995, EIA chartered a Business Reengineering Team to rethink EIA's business practices. Resource constraints require EIA to prioritize services and products across the entire organization, to standardize technology across EIA where possible, to lead with fewer layers of management, and to be acutely aware of customers' needs. Process improvement teams reviewed a number of business processes and recommended improvements in areas including training and employee development, electronic products, personal computer hardware and software acquisition, and management information systems.

EIA's central goal continues to be assuring that the agency's data and analyses are of the highest quality, relevant to the customers' needs, and easily accessible. This report highlights EIA's efforts to be an organization that "works better and costs less." The following sections discuss selected program highlights, strategic planning, initiatives in information dissemination, performance measures, customer focus and feedback, and business reengineering.

# SELECTED PROGRAM HIGHLIGHTS

---

## EIA, EPACT, and the RFG Program

The Energy Policy Act of 1992 (EPACT) established a national goal of replacing 30 percent of the projected U.S. consumption of motor fuels with alternative and replacement fuels by 2010. The Clean Air Act Amendments of 1990 (CAAA90) and EPACT followed the 1988 Alternative Motor Fuels Act, which directed Federal agencies to administer programs that would encourage the development of alternative transportation fuels (ATF's) and the production of alternative-fueled vehicles (AFV's). These three laws, as well as local environmental concerns and the growing interest of fuel suppliers and fleet managers, have provided the motivation for research, development, production, and marketing of AFV's and ATF's. During 1995, EIA established several new data collection programs consistent with the requirements of these laws.

### **Section 503, EPACT**

EIA's *Alternatives to Traditional Transportation Fuels 1994* is the second in a series of annual reports designed to provide data and information on AFV's and alternative and replacement transportation fuels. It is prepared in accordance with Section 503 of EPACT, which directs EIA to estimate annually for the following calendar year 1) the number of each type of AFV likely to be in use in the United States; 2) the probable geographic distribution of the vehicles; 3) the amount and distribution of each type of replacement fuel; and 4) the greenhouse gas emissions likely to result from replacement fuel use over the entire fuel cycle. Section 503(b) of EPACT requires that suppliers of AFV's report annually to DOE on the number and type of AFV's "made available." Each supplier must report AFV's that were made available in the previous calendar year and those that the supplier plans to make available in the following calendar year.

### **Section 407, EPACT**

Section 407 of EPACT required information useful to those entering the markets related to AFV's and the associated infrastructure. As with any emerging market, the core information includes the makeup of the market in which new products would have to compete and the nature of the products that new technology might replace.

**Composition of the U.S. Vehicle Stock.** Section 407 required information about the total U.S. vehicle market. With existing data sources and the new data collection systems designed to comply with EPACT, EIA made an assessment of where and in what capacity vehicles were currently being operated within the United States.

**Alternative Fuel Provider Fleet Surveys.** In addition to the various data collection systems, EPACT implemented programs designed to encourage governments and private companies to purchase AFV's for their fleets.

In order to assess the current usage of AFV's within the alternative fuel provider fleets, EIA established three fleet-level surveys to collect data concerning fleets and fleet vehicles operated by alternative fuel providers. The Propane Provider Fleet Survey, the Natural Gas Supplier Fleet Survey, and the Electric Utility Fleet Survey collected information regarding the fleets and fleet vehicles operated by suppliers of propane, natural gas, and electricity, respectively. The surveys gathered data on features ranging from fleet size and composition to fleet operating characteristics, such as miles traveled and fuel consumed.

**Consumer Vehicle Preferences.** Section 407 of EPACT also called for data on consumer preferences relating to vehicle operation to assess consumer acceptance of AFV's. To comply, EIA obtained data from a national consumer vehicle preference survey that was designed and conducted by a practicum class in the Joint Program in Survey Methodology sponsored by the University of Maryland, the University of Michigan, and Westat, Inc. This survey collected data concerning consumer vehicle prefer-

ences and attitudes toward AFV's and the possible limitations commonly associated with them.

The results from all three of the projects described above are available in the 1996 report *Describing Current and Potential Markets for Alternative-Fuel Vehicles*.

### **Voluntary Reporting of Greenhouse Gases**

The Voluntary Reporting Program for greenhouse gases is part of an attempt by the U.S. Government to develop innovative, low-cost, and nonregulatory approaches to limit emissions of greenhouse gases. It is one element in an array of such programs introduced in recent years as part of the effort being made by the United States to comply with its national commitment to stabilize emissions of greenhouse gases under the Framework Convention on Climate Change.

The Voluntary Reporting Program, developed pursuant to Section 1605(b) of the Energy Policy Act of 1992, permits corporations, government agencies, households, and voluntary organizations to report to EIA on actions taken that have reduced or avoided emissions of greenhouse gases.

The first reporting year for the Voluntary Reporting Program was 1995. A total of 108 reports were received, encompassing some 645 individual emissions reduction projects, and 40 reports of "entity-level" greenhouse gas emissions, attributable to an entire organization. Emissions of greenhouse gases reported to the program account for about 23 percent of U.S. national carbon dioxide emissions. Reports received cover annual emissions from 1987 to 1994 and annual reductions claimed between 1991 and 1994.

Reporting in 1995 was dominated by electric utilities, which accounted for 96 of the 108 reporters. The 12 nonutilities that reported included 3 manufacturing firms, 2 aluminum companies, a coal company, an independent power producer, a landfill methane developer, 2 forestry groups, and 2 households.

The reports submitted to EIA are being compiled into a database, to be released to the public contemporaneously with the release of the summary report, in the form of a CD-ROM.

### **Reformulated Gasoline Program**

Effective January 1, 1995, reformulated gasoline (RFG) was required in designated areas by the Clean Air Act Amendments of 1990 to reduce ground-level ozone in the United States. EIA submitted to Congress a two-part analysis on the potential impact the RFG program would have on the petroleum market. Throughout 1995, EIA monitored the RFG supply/demand balance, providing information to government agencies as the situation warranted.

- EIA continued distributing the *RFG Watch*. This weekly newsletter on RFG production, import, and inventory levels and information concerning relevant industry and Federal RFG events is faxed to Federal and State energy officials, industry, and the media.
- EIA expanded its weekly telephone gasoline survey to include prices for RFG in ozone nonattainment areas and prices for all three grades of gasoline.
- EIA initiated a Departmentwide RFG Task Force to keep all parts of DOE apprised of the current status of program.
- EIA served as an active participant in an inter-agency Industry Task Force to monitor and assist in the implementation of the RFG Program.

Much of EIA's data was used to assess economic impacts and supply and demand projections resulting from the withdrawal of certain jurisdictions from the RFG program. EIA's data were especially of interest to the Environmental Protection Agency, which was involved in several disputes with industry organizations affected by RFG regulations.

- EIA supplied to DOE definitive data and analysis on the costs of reducing gasoline emissions. The results confirmed the 3-5 cent premium for oxygenated gasoline projected by EIA in its earlier studies.
- EIA provided to EPA product supplied and prime supplier sales volume data for RFG at the national and regional levels.
- EIA assembled historical data on the expected market share of RFG at the program startup,

compared with the actual volume percentages seen thus far in the program.

The April 20 edition of *MTBE/Oxygenates/NEW Fuels* credits DOE sales and demand data published in the *Petroleum Marketing Monthly*, *RFG Watch*, *Weekly Petroleum Status Report*, and *Petroleum Supply Monthly* as the “best” and “most complete and consistent” sources of information on which to base forecasts of 1995 RFG consumption.

## Information Support to Outside Organizations

In 1995, as in past years, EIA responded to more than 200,000 individual inquiries for energy information. In addition, EIA’s extensive databases, analyses, forecasts, modeling support, and staff expertise were a primary source of technical assistance at an institutional level to senior managers and information professionals in government, business, and academic organizations across the Nation and around the world. One of the most effective ways EIA delivers technical assistance is to participate in formal meetings and conferences as both speakers and participants. In 1995, representatives of several hundred domestic agencies and organizations requested data from EIA; many of these contacts and exchanges were initiated after conference participations.

Moreover, EIA met with or provided data to 30 countries and international organizations in 1995. EIA supplied information electronically; hosted international delegations at the Washington headquarters; participated in overseas technical assistance visits; participated in international exercises; and reviewed reports upon request.

Through its media services program, which featured over 37 press releases in 1995, EIA served as a major source of energy information for such news organizations as *Forbes*, *Business Week*, *New York Times*, *Los Angeles Times*, *Wall Street Journal*, *Washington Post*, Reuters-AP-Dow Jones News Service, and national radio and television broadcast networks. EIA also was a source for a broad spectrum of trade journals and newsletters, and such specialty publications as the *Statistical Abstract of the United States*, the *World Book Encyclopedia*, and the *World Almanac*.

## CAPI Data Collection Technique Inaugurated

The 1995 Commercial Buildings Energy Consumption Survey (CBECS) data were collected via computer-assisted personal interviewing (CAPI). Traditionally, CBECS data have been collected by personal interviewers who use a paper form and pencil while interviewing the owners, managers, or tenants of the sampled buildings. With CAPI, the interviewer enters all the information directly into a notebook computer. The computer software guides the interviewer through the data collection form, so that the interviewer does not need to remember what questions are relevant to the respondent and what questions to skip, resulting in a faster interview and, thus, less burden for the respondent.

CAPI also has the advantage of performing some routine edits and consistency checks as the data are entered, as opposed to the traditional method of resolving edit failures and data inconsistencies through callbacks to the respondents several days or weeks later. By use of CAPI, it is anticipated that the 1995 CBECS data will be available to EIA faster because the post-interview data entry and basic editing steps of the traditional method will be eliminated.

Other government agencies, such as the Bureau of the Census, the National Center for Health Statistics, the Bureau of Labor Statistics, and the National Agricultural Statistics Service, have already used CAPI successfully. EIA has benefitted by the “lessons learned” from these other agencies. Computer-assisted techniques are also part of the reengineering plan for the other EIA consumption surveys. EIA also serves as a member of the Interagency Group for the Computer Assisted Survey Information Collection.

Pretests of the new technique were conducted in June and then data collection for the 6,000 sampled buildings in the 1995 CBECS began in early September.

## Respondent Burden Reduction

EIA manages the energy information portion of DOE’s Information Collection Budget as required by the Paperwork Reduction Act of 1980. In fiscal year 1995, EIA’s respondent burden increased by 38,000-person hours over fiscal year 1994 as a result of the implementation of the data collection requirements for the greenhouse gases and alternative-fuel vehicle programs described above and assuming sponsorship of solar thermal collector and photovoltaic module/cell manufacturer surveys previously carried out elsewhere in DOE. However, EIA anticipates a decrease in respondent burden in fiscal year 1996, as compared to respondent burden in fiscal year 1995, with the lowering of burden hours on the coal, electric power, residential energy consumption, and petroleum marketing surveys. The reduction from the electric power survey, for example, results in part from an agreement with the North American Electric

Reliability Council (NERC) to coordinate efforts in the interest of timely and effective collection and analysis of data. One immediate impact of the agreement was the streamlining of the collection of data for Form EIA-860, "Annual Electric Generator Report," and Form EIA-411, "Coordinated Regional Bulk Power Supply Program," into one process. Electric utilities now have the option of filing data for Form EIA-860 either directly with EIA or through an agent (for example, their regional electric reliability council). Previously, NERC requested data for both the Form EIA-860 and Form EIA-411 from its regional councils. This joint collection has reduced respondent burden and processing costs. Under the agreement, NERC provides a complete Unified Generator Database (which conforms to the specifications of Form EIA-860) to EIA annually. NERC also provides copies of its Electricity Supply and Demand Database (a compilation of Form EIA-411 data).

## EIA/DOE Partnership

In 1995, EIA continued to actively support the Department in accordance with Strategic Goal 5: *EIA will be an objective partner in fulfilling the mission of the Department of Energy.* This support included:

- One EIA employee worked for the Secretary's Strategic Alignment Initiative from January through April 1995, half-time May through August, and is continuing as an advisor to the team.
- EIA's senior statistician coordinated the development of a guidance document on performance measures for use across the Department.
- One EIA employee was a member of the DOE Quality Council and continues to participate on the Energy Quality Awards Team.
- The EIA Administrator was a featured speaker and a Customer Focus Advocate and was a panelist at the Department's January 1995 Customer Focus Advocates Meeting. Also, the Administrator and EIA's senior statistician presented workshops during the Department's June 1995 Quality Summit II.

- An EIA Customer Focus Advocate participated in development of the Department's Customer Satisfaction Surveys, and several staff members have provided consulting services to other Departmental elements in designing their own customer surveys and survey instruments and obtaining Office of Management and Budget clearance.
- EIA Customer Focus Advocates also participated in DOE customer training events and conducted a train-the-trainer session for new Customer Focus Advocates.
- EIA facilitators provided services throughout the Department, and EIA staff conducted training for DOE employees in the Seven Habits of Highly Effective People.

## Geographic Information Activities

The EIA Administrator serves as the DOE representative on the Federal Geographic Data Committee (FGDC). In 1995, he also served as the chair of DOE's Geographic Information Council. The Council coordinates DOE's spatial data activities and ensures DOE's compliance with Executive Order 12906 ("Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure") and FGDC mandates; encourages cooperative geographic information system (GIS) programs at DOE facilities to avoid duplication and waste; and provides access to spatial information within DOE and to other agencies, State and local governments, and the public. In addition to these organizational responsibilities, EIA was active in 1995 in developing extensive GIS relational databases. One, the EIA Natural Gas Geographic Information System (EIAGIS-NG), is the first system of its type to include pipeline map data as well as geographically oriented site operations data. Another, the Underground Storage Geographic Information System (EIAGIS-SD), which was developed by EIA for DOE's Fossil Energy Office, is a tool to research underground natural gas storage (SD=storage deliverability) potential.

As of the end of 1995, the EIAGIS-NG beta test version had been used or was under consideration by such organizations as:

- AMOCO
- Lawrence Berkley Laboratory
- ORNL, PIRA Energy Group, Energy Strategies
- U.S. State Department
- Energy and Environmental Analysis, Inc.
- Alberta Energy Company, Inc.
- Morgantown Energy Technology Center.

In 1995, EIA placed its EIAGIS-NG on a CD-ROM to facilitate the installation of the system upon user personal computers. The CD-ROM contains the most current beta test version of the system. As they become available, updated databases,

maps, and programs will be provided on floppy disks, upon request, to supplement the CD-ROM.

EIA is currently developing extensive relational databases for a geographical information system on petroleum product pipelines. This database will provide information on petroleum demand and stocks at the local level, along with air quality in States determined by the Clean Air Act Amendments to have noncompliance areas. The system will facilitate the identification of critical supply situations, the response to emergencies, and the assessment of additional clean fuel requirements.

# STRATEGIC PLANNING

In a rapidly changing world, effective governmental organizations must anticipate and plan for the future. Nowhere is this more true than in the realm of information generation and dissemination.

The challenge of an information agency is to anticipate and be ready to meet changing customer needs. In today's environment, there is another challenge, one of declining resources. To be a leader in the information revolution means to have a vision, goals, and objectives that will prepare EIA to meet the challenges. In 1995, EIA set goals and priorities that would maximize results, efficiency, and cost effectiveness as we moved toward our vision of the future.

The foundation of many EIA accomplishments in 1995 is the Strategic Plan, which identified issues and objectives and helped the organization focus on the most important activities. EIA's strategic planning effort integrated issues examined from various vantage points throughout the organization into a systematic process that is guiding the organization toward achieving our quality and customer satisfaction goals.

Historically, EIA has developed and implemented annual and multiyear operating plans to identify program priorities. EIA's current strategic planning approach (Figure 1) and results (Figure 2) go far beyond those early operating plans to include our vision, mission, goals, and specific objectives to meet those goals.

EIA's 1995 Strategic Plan is customer-driven. Three of its five strategic goals reference customers specifically—assuring that our data are of the highest quality and relevant to customer needs; providing customers fast and easy access to public energy information; and making resource and program decisions based on customer input.

In addition, many of the initiatives in the 1995 plan address issues identified and developed by EIA employees in cross-functional teams, committees,

**Figure 1. EIA's Strategic Planning Model**



and task forces. Other inputs to the planning process include performance measures, the employee assessment results, and business reengineering recommendations.

Action plans were developed for the following seven strategic issues identified in 1995:

- Employee development
- Leadership development
- Customer requirements
- Electronic dissemination
- Standardized electronic tools
- Management information systems
- Reengineering.

This plan was not a document developed and then put on a shelf. EIA distributed the plan to all employees and continually used it as a basis for decisions and actions throughout 1995. Much of the activity during the past year focused on working toward these goals. The Strategic Plan recently was updated to reflect new initiatives and completed efforts, but the mission and goals remained unchanged.

**Figure 2. 1995-1996 Strategic Planning Results**

**Motto**

On-line and off-the-shelf, EIA is the first place to go for the last word in energy information.

**Mission**

The Energy Information Administration is 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.

**Vision**

- EIA is a unified team committed to excellence and customer satisfaction.
- EIA leaders recognize employees' potential and together create a work place where teamwork and innovation are encouraged, supported, and realized.
- Everyone in EIA develops their technical and analytical capabilities to keep them abreast of new technologies and changes. This enables our employees to reach their full potential and enables us to rely more on our in-house capabilities.
- EIA expands its customer base and becomes nationally and internationally recognized as the premier source of energy information.
- EIA reengineers and standardizes core business systems.
- EIA improves productivity and supports the delivery of customer-oriented products and services. The EIA Strategic Plan is a road map for EIA decisions and is used as the basis for alignment of human and financial resources.
- EIA works in partnership with the National Treasury Employees Union to accomplish our mission and reach our vision.

**Goals**

- We will work together to achieve the full potential of a diverse workforce through teamwork and employee development.

- EIA will assure its data and analyses are of the highest quality and relevant to the needs of its customers.
- EIA will provide its customers fast and easy access to public energy information.
- We will make resource and program decisions based on customer input and conduct our business in an efficient and cost-effective manner.
- EIA will be an objective partner in fulfilling the mission of the Department of Energy.

**Core Values**

- EIA is committed to excellence.
- We are customer oriented.
- We seek to provide timely, relevant, and accurate products and services
- We strive for quality and cost effectiveness.
- We pursue our customers' trust through open processes, clear communication, and responsiveness to their input.
- We value technical expertise and adaptability.
- EIA is committed to maintaining a fulfilling and productive work environment.
- We encourage respect for ourselves.
- We maintain high standards of ethical behavior.
- We seek to empower and inspire each other.
- We foster an atmosphere of trust, cooperation, and teamwork through open communications.
- We encourage resourcefulness, creativity, innovation, and risk-taking.
- We recognize and reward exceptional performance by teams and individuals.
- We value the contributions of a diverse workforce.
- We encourage professional development and participation in the relevant professional communities.
- Leadership and accountability are the essential ingredients for EIA's long-term success.

## DISSEMINATION INITIATIVES

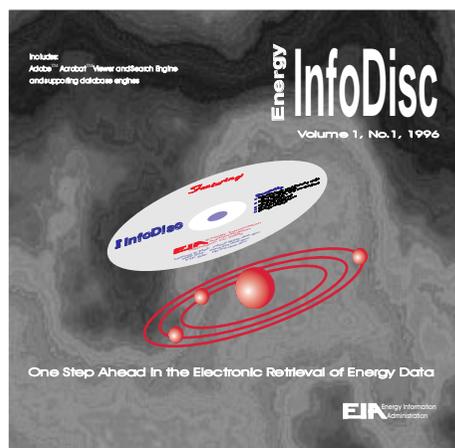
The most dynamic and innovative change in EIA during 1995 was our high-speed move to electronic dissemination of our energy data and products. EIA enjoyed a dramatic expansion of its customer base as the new electronic media provided much more flexible and timely access to our information.

Rapid technological change in the electronic collection and dissemination of information was identified both by internal staff reviews and by customer surveys as an area where EIA needed to design and introduce new products to meet customer requirements in the future. EIA allocated significant time in 1995 to expanding its presence in the electronic world.

### Energy InfoDisc

In 1995, EIA developed its Energy InfoDisc, a CD-ROM providing instant access to EIA's energy databases, publications, directories, and software applications (Figure 3). Currently, the InfoDisc is issued quarterly, with monthly availability expected by late 1996. The InfoDisc allows customers to view and search more than 180 data, analysis, and forecasting reports published by EIA over the previous 12 months. Customers also can access EIA's extensive energy databases and specialized applications to generate their own in-

Figure 3. New CD-ROM Available

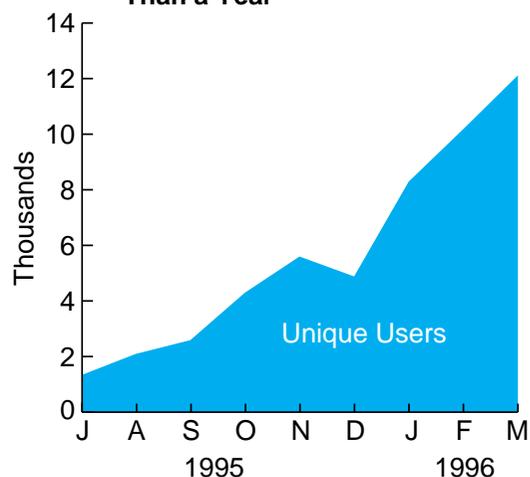


dividualized energy databases or forecasts, using monthly and annual time-series data covering most aspects of energy supply and demand.

### EIA Internet Site

EIA started its Internet site in July 1995. At the World Wide Web site, FTP (File Transfer Protocol) and Gopher access are provided, permitting Internet users to view publications and data, download data and applications, and search for information (Figure 4). Virtually all information on the InfoDisc is available on EIA's Home Page. More than 700 links to other energy-related sites also are included.

Figure 4. Web Use Skyrockets in Less Than a Year



EIA's Internet site contains information on energy consumption, production, and prices; statistical, economic, and other analyses related to the energy sector; short-term and midterm (20 years) forecasts of energy supply, demand, and prices; and other factors relating to the energy sector. Published information is available in nearly 200 EIA publication files that are maintained on the site in portable document format (.pdf). These can be downloaded and viewed by use of the Adobe Acrobat reader. The publication files include data, forecast, and analysis publications, as well as various EIA directories.

There are also fuel-specific databases that can be downloaded for use in spreadsheet and database programs. Voluminous data on supply, disposition, and price of the major energy fuel/sources are presented in database format. Modeling applications that can be used to replicate the short-term and midterm forecasting EIA produces for the *Short-Term Energy Outlook* and the *Annual Energy Outlook* are also available for downloading.

Additional components of the site are:

- The most recent EIA press releases
- A section of most frequently asked general and most frequently asked technical questions
- A sign-up form for the EIA e-mail list subscriber service
- The EIA Government Information Locator Service (GILS) records
- An energy events calendar
- An interactive query facility permitting users to generate customized output from EIA's data stores
- Hypertext links to other useful energy information sites.

Future plans for the Internet site include the development of database applications that allow users to specify exactly what data they are looking for and to instruct the servers on how to generate the requested data. This will save users the time and money required to download software, set up local computers, and perform aggregations.

## Listserve

Conceived in late 1995, EIA's Internet electronic mail (e-mail) subscription service (commonly called a listserve) disperses electronic documents—weekly, monthly, quarterly, and occasionally—to an e-mail subscriber list. Documents include press releases, market reports, fuel watches, price data, and publication summaries. Currently, the press release service exceeds 500 subscribers, and the total subscriber base is approximately 2,000.

## Fax-on-Demand

During 1995, EIA installed the fax-on-demand system in test mode. Complementing EIA's current fax broadcast service, which automatically faxes data to customers each month, the fax-on-demand system allows customers to choose from a menu of short documents, such as fuel watches, feature articles, and press releases, and receive the documents they select by immediate return fax. A fully operational system is slated to be on-line in the summer of 1996.

## Weekly Diesel Fuel and Gasoline Price Hotline

EIA now operates a 24-hour telephone hotline for the public to call and access weekly on-highway diesel fuel and gasoline prices. Previously, the Interstate Commerce Commission (ICC) had maintained a diesel fuel hotline number, accessed by approximately 600 callers per week, which disseminated EIA survey data; however, the ICC discontinued the service in November. Since then, EIA has expanded the service to include gasoline price data.

# PERFORMANCE MEASURES

*If you don't measure results, you can't tell success from failure.*

*If you can't see success, you can't reward it—and if you can't reward success, you are probably rewarding failure.*

*If you can't recognize failure, you can't correct it.*

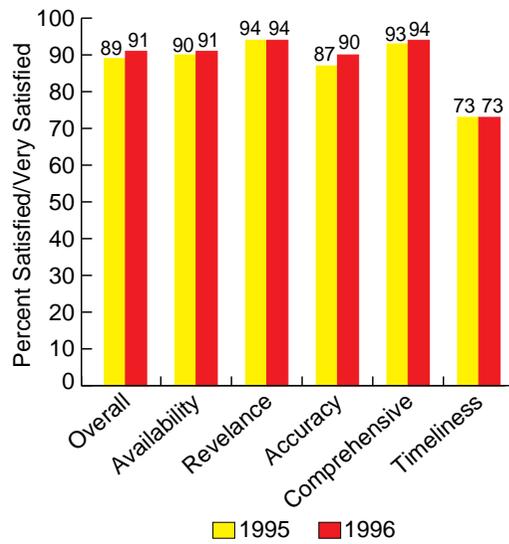
—David Osborne and Ted Gaebler,  
authors of *Reinventing Government*.

During 1995, EIA worked to collect information on the established performance measures. EIA has been participating as a pilot under the Government Performance and Results Act and submitted a report on the measures to the Office of Management and Budget in the spring of 1996. EIA is changing our focus from inputs (how big our budget is) to outputs (what we are actually achieving). We are concentrating on results, service quality, and customer satisfaction.

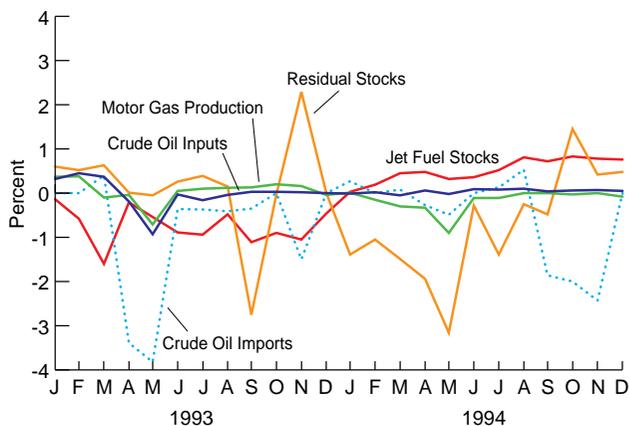
EIA now has two years of information on customer satisfaction from our agencywide telephone survey. Customers were asked about aspects of EIA's customer service and information products. Overall, most customers are satisfied or very satisfied with everything except the timeliness (Figure 5).

Because the results of EIA's customer satisfaction surveys indicated that customers were least happy with the timeliness of our data, EIA focused on timeliness measures in 1995. Timeliness is defined as the number of days from the close of the reference period (for example, December 1995) to the released-for-printing date. Data were collected and graphed separately for monthly, quarterly, annual, and triennial surveys. Data were also collected on revision error, the percent change between the first data value published and the last published value (Figure 6). EIA is measuring our timeliness and accuracy to document improvements, identifying areas for improvement, and ensuring that any changes in timeliness do not have an adverse impact on the accuracy of the data.

**Figure 5. Timeliness is Targeted for Improvement**



**Figure 6. EIA Tracks Revision Error**



## CUSTOMER FOCUS AND FEEDBACK

EIA's Strategic Plan emphasized customer focus and feedback as major drivers in determining and improving our products and services. In 1995, EIA initiated many efforts to talk to customers, conduct surveys, and incorporate feedback in action plans.

EIA has a long history of serving and getting feedback from a broad spectrum of customers through its National Energy Information Center; meetings, conferences, and seminars; electronic communications on the Internet; *Federal Register* notices; formal customer surveys; and contacts with individual customers. EIA's emphasis, as it progresses on its quality journey and grows in its awareness of customer service, is to systematize, formalize, and quantify the process of identifying its customers and asking them about their needs and expectations. Obtaining this information allows us to identify areas where EIA can improve its products and services.

In 1995 and early 1996, EIA conducted two formal agencywide customer satisfaction surveys. One of the five strategic goals is to "assure that our data and analyses are of the highest quality and relevant to the needs of our customers." Asking customers what they think is the only way to determine how well we are meeting that goal. Overall, our ratings from customers are very high, especially for customer service (Figure 7).

During 1995, EIA also conducted several product-specific customer surveys. Feedback resulted in modified publication formats, increased efforts to achieve timeliness, and provision of greater electronic access (Figure 8). Within limited resources, our goal is to determine customer needs and expectations and focus our efforts to best meet those needs. Surveying activities are ongoing, with the next survey planned to explore the satisfaction of our "electronic customers."

Figure 7. High Ratings for EIA Customer Service

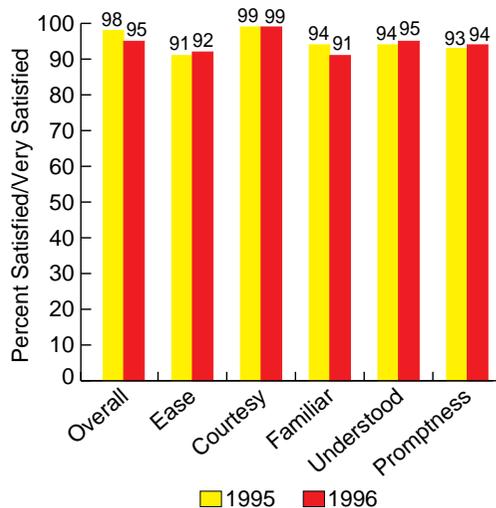
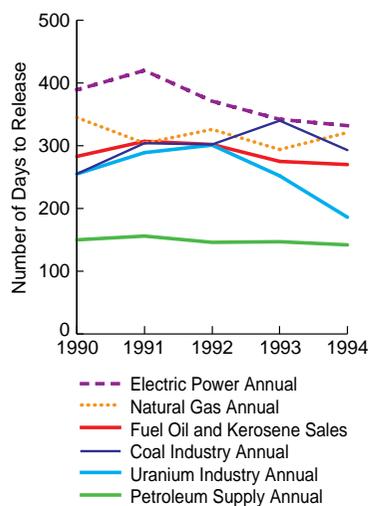


Figure 8. Timeliness of Annual Data Publications



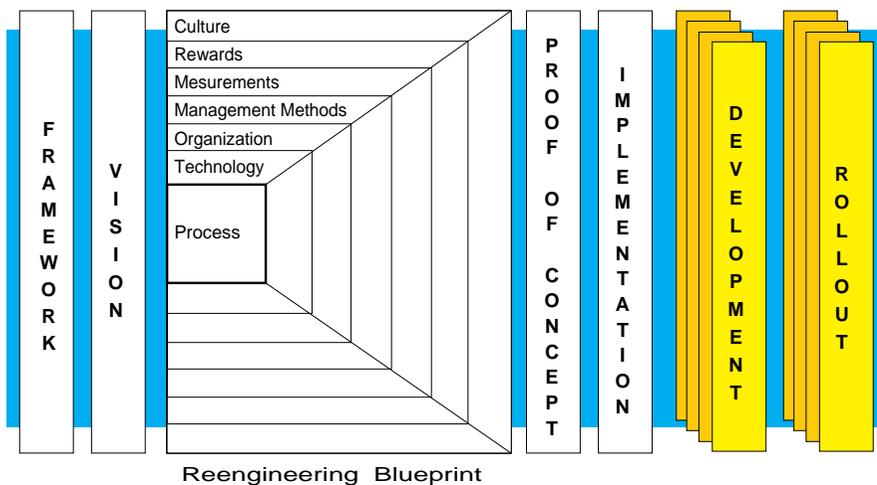
# BUSINESS REENGINEERING

EIA's 1995 Strategic Plan stated that "EIA recognizes that it must change the way it currently operates in order to provide efficiencies and improvements to meet cost reductions currently anticipated in 1997 and beyond. By 1998, it is EIA's intent to reengineer and standardize all EIA's core business processes...."

In 1995, a team was chartered to develop and recommend a plan for reengineering EIA's core business practices of survey operations, data integration, and dissemination, as well as the technical, resource management, and standards development processes that support the core business processes.

Following the blueprint in Figure 9, a total of 13 two- or three-day workshops was conducted by the Business Reengineering Team. In these workshops, recommendations were developed concerning data operations, customer interaction, product dissemination and information technology, as well as the organizational and management context in which EIA operates. The recommendations of the team were presented to senior EIA management in early 1996; implementation actions will be scheduled over the next several years.

**Figure 9. EIA's Business Reengineering Methodology**



## APPENDIX A

# PUBLICATIONS OF THE ENERGY INFORMATION ADMINISTRATION

During 1995, EIA published 289 issues of 89 individual titles, from weekly, monthly, quarterly, and annual periodicals to one-time reports, including statistical and data reports, directories, and studies containing data analyses and projections. Statistical and data reports provide historical information on production, consumption, prices, and resource availability of conventional and alternate energy sources; directories serve as guides to finding energy information or to making subject-specialist contacts; analyses look in-depth at specific economic and technical energy subjects or make projections of future energy demand and supply.

This Appendix contains:

- Synopses of key periodicals and one-time reports released during 1995
- Charts of all titles released, organized by energy source
- An annotated listing of all 1995 titles, arranged alphabetically by title. Each entry includes: the full title, report number, reference date where applicable, and information on availability and ordering.
- An alphabetical listing of all EIA feature, highlight, preview, data news, and snapshot articles released in 1995.

EIA's Internet site services offer nearly all EIA publications. Users can view and download selected pages or entire reports, search for information, download EIA data and analysis applications, and find out about new EIA information products and services. The publications marked "CD" are available on the Energy InfoDisc CD-ROM. The publications marked "Web" are available on EIA's World Wide Web/Internet site: <http://www.eia.doe.gov>. Those marked "FTP" are downloadable files via the File Transfer Protocol server at

<ftp://ftp.eia.doe.gov>. The FTP server also contains earlier monthly documents than those listed and documents not on the CD. The publications marked "EPUB" are available on EIA's electronic bulletin board. Please see the inside front cover of this *Annual Report to Congress* for instructions on how to obtain all EIA products and services. More information on EIA's electronic products is available in the quarterly publication *EIA Directory of Electronic Products*.

Generally, single complimentary copies of EIA publications are available to staff members of Federal libraries, EIA survey respondents, public and academic libraries, Congress or congressional committees, press, State or local governments, Department of Energy (DOE) employees or DOE contractors, and the Executive Branch. Selected publications are available to the general public free of charge, such as all Service Reports, the *Annual Report to Congress*, *EIA Publications Directory*, *EIA New Releases*, *Directory of Energy Data Collection Forms*, *Energy Information Directory*, *EIA Directory of Electronic Products*, and "Information Sheets," as well as feature articles extracted from various periodicals.

If Government Printing Office (GPO) ordering information is listed, you may order the item from GPO. Prices of EIA publications sold by GPO and diskettes sold by the Office of Scientific and Technical Information are subject to change without notice.

For further information and for answers to questions on energy statistics, please contact EIA's National Energy Information Center.

National Energy Information Center, EI-231  
Energy Information Administration  
Forrestal Building, Room 1F-048  
Washington, DC 20585  
(202) 586-8800  
TTY for people who are deaf  
or hard of hearing: (202) 586-1181  
9 a.m. to 5 p.m., eastern time, M-F

## SIGNIFICANT ONE-TIME REPORTS, 1995

The first two sections of Appendix A present synopses of EIA's one-time Analysis, Technical, and Service Reports published in 1995. EIA Analysis Reports and Technical Reports result from analysts' examinations of current and projected U.S. economic, regulatory, technical, technological, and marketing subjects and their impact on energy supply and demand. EIA Service Reports are also analyses, but they are prepared, as the name implies, as a service, upon specific request from other Executive Branch agencies or Congress. Service Reports are often based on assumptions provided by the requester. During 1995, EIA produced 12 Analytical Reports, 2 Technical Reports, and 3 Service Reports.

### Analysis and Technical Reports

#### *Buildings and Energy in the 1980's*

EIA collects data on energy consumption, expenditures, and other energy-related topics in the major energy-consuming sectors of the U.S. economy. The residential and commercial sectors are two major sectors that many analysts like to consider together, because energy use is related primarily to the building shell and the stock of energy-consuming goods within the shell in these sectors. EIA conducts separate surveys for the two sectors, the Residential Energy Consumption Survey (RECS) and the Commercial Buildings Energy Consumption Survey (CBECS). Prior to the first CBECS, there was a very poor understanding of the complexities of energy use in commercial buildings or the amount of energy consumed in the commercial sector. This report summarizes and synthesizes energy data that were collected by these two surveys during the 1980's, when major changes in energy policy were implemented following the energy crisis decade of the 1970's.

The six RECS and four CBECS databases from the 10 consumption surveys over the 1979-to-1990 time frame contain a wealth of energy end use information on residential and commercial buildings. This is the first report to present a unified vision of energy use in residential and commercial buildings. It presents energy data that are consistent between the two sectors and across the dec-

ade of the 1980's. This report differs from previous consumption reports in that all consumption statistics are reported in terms of primary electricity consumption and site energy for all other energy sources.

DOE/EIA-0555(95)/1  
GPO Stock No. 061-003-00914-0  
Domestic: \$6.50 Foreign: \$8.13  
CD/Web

#### *Country Analysis Briefs: 1994*

*Country Analysis Briefs: 1994* is a compilation of country profiles prepared by EIA, which maintains Country Analysis Briefs (CAB's) for specific countries or geographical areas that are important to world energy markets. As a general rule, CAB's are prepared for all members of the Organization of Petroleum Exporting Countries (OPEC), major non-OPEC oil producers (e.g., the North Sea, Russia), major energy transit areas (e.g., the Ukraine), and other areas of current interest to energy analysts and policymakers. As of January 1995, EIA maintained over 40 CAB's, updated on an annual schedule and subject to revision as events warrant.

All CAB's contain a profile section, a map showing the country's location, and a narrative section. The profile section includes outlines of the country's

economy, energy sector, and environment. The narrative provides further information about these topics. Some CAB's also include a detailed map displaying locations of major oil and gas fields, pipelines, ports, etc. These maps were created as a result of special individual requests and so are not typically a standard feature of the CAB's. They are presented here, wherever available, as supplemental information.

DOE/EIA-0595  
GPO Stock No. 061-003-00906-9  
Domestic: \$6.50 Foreign: \$8.13  
CD/Web

### ***Decommissioning of U.S. Uranium Production Facilities***

The retrenchment of the uranium industry has resulted in the closing of a number of uranium production facilities in the United States. Although the environmental and financial implications of decommissioning uranium production facilities have attracted widespread interest, few data have been compiled on the subject and even fewer have been published.

EIA's *Decommissioning of U.S. Uranium Production Facilities* represents the most comprehensive study on this topic. It is the culmination of two years of research of publicly available documents in Federal and State files, combined with information supplied directly to EIA by the uranium-producing companies.

The decommissioning process and associated costs are analyzed for 25 conventional (open pit or underground mining) and 17 nonconventional (*in situ* leaching) uranium production facilities located in Colorado, Nebraska, New Mexico, South Dakota, Texas, Utah, and Washington. Overall surety requirement for decommissioning and site remediation amounts to over \$300 million.

*Decommissioning* examines both the trends common to all sites and the unique characteristics of each site. For example, tailings reclamation costs represented the largest sector of decommissioning costs at all mills but one. The tailings reclamation costs were below average at that site, but groundwater restoration costs were triple the average cost. The report notes that groundwater costs are unpredictable, but a picture is worth a thousand words. By retaining data that "do not

fit the pattern," the report seeks to present an accurate and complete picture of the decommissioning process.

DOE/EIA-0592  
GPO Stock No. 061-003-00899-2  
Domestic: \$5.50 Foreign: \$6.88  
CD/Web

### ***Electricity Generation and Environmental Externalities: Case Studies***

Electricity constitutes a critical input in sustaining the Nation's economic growth and development and the well-being of its inhabitants. However, there are byproducts of electricity production that have an undesirable effect on the environment. Most of these are emissions introduced by the combustion of fossil fuels, which account for nearly 70 percent of the total electricity generated in the United States.

The environmental impacts, or damages, caused by these emissions are labeled environmental "externalities." Included in the generic term "externality" are benefits or costs resulting as an unintended byproduct of an economic activity that accrue to someone other than the parties involved in the activity.

This report provides an overview of the economic foundation of the externalities, the Federal and State regulatory approaches, and case studies of the impacts of the externality policies adopted by three States.

DOE/EIA-0598  
GPO Stock No. 061-003-00930-1  
Domestic: \$6.00 Foreign: \$7.50  
CD/Web

### ***Emissions of Greenhouse Gases in the United States, 1987-1994***

Title XVI, Section 1605(a) of the Energy Policy Act of 1992 mandated that EIA "shall develop, based on data available to, and obtained by, the Energy Information Administration, an inventory of the national aggregate emissions of each greenhouse gas for each calendar year of the baseline period of 1984 through 1990."

This is the third annual EIA report on U.S. emissions of greenhouse gases. It presents estimates of U.S. anthropogenic (human-caused) emissions of carbon

DOE/EIA-0555(95)/2  
GPO Stock No. 061-003-00935-2  
Domestic: \$6.50 Foreign: \$8.13  
CD/Web

***Energy Policy Act Transportation Rate Study: Interim Report on Coal Transportation***

This is the second report on coal distribution and transportation rates presented to the U.S. Congress by the Secretary of Energy. Due in October 1995, the report is mandated by Title XIII, Section 1340, "Establishment of Data Base and Study of Transportation Rates," of the Energy Policy Act of 1992. The first report, *Energy Policy Act Transportation Rate Study: Availability of Data and Studies*, was submitted to Congress in October 1993. The current report presents an interim analysis of coal transportation rates and distribution patterns and uses the database developed pursuant to the congressional mandate. A final report is due to Congress in October 2000.

The primary purpose of this report is to examine changes in domestic coal distribution and railroad coal transportation rates since enactment of the Clean Air Act Amendments of 1990 (CAA90). From 1988 through 1993, the demand for low-sulfur coal increased as the 1995 deadline for compliance with Phase I of the CAA90 approached. The shift toward low-sulfur coal came sooner than had been generally expected because many electric utilities switched early from high-sulfur coal to "compliance" (very low-sulfur) coal. They did so to accumulate emissions allowances that could be used to meet the stricter Phase II requirements. Thus, the demand for compliance coal increased the most.

DOE/EIA-0597  
GPO Stock No. 061-003-00933-6  
Domestic: \$10.00 Foreign: \$12.50  
CD/Web

***Energy Policy Act Transportation Rate Study: Interim Report on Natural Gas Flows and Rates***

This is the second in a series mandated by Title XIII, Section 1340, "Establishment of Data Base and Study of Transportation Rates," of the Energy Policy Act of 1992. The first report submitted to Congress in October 1993, *Energy Policy Act Transportation Rate Study: Availability of Data and Studies*, summarizes data and studies that could be used to address the

dioxide, methane, nitrous oxide, and several other greenhouse gases for the period 1987 to 1993. Estimates of 1994 carbon dioxide and halocarbon emissions are also provided, although complete 1994 estimates for other gases are not yet available.

DOE/EIA-0573(87-94)  
GPO Stock No. 061-003-00926-3  
Domestic: \$9.00 Foreign: \$11.25  
CD/Web

***Energy Consumption Series—Measuring Energy Efficiency in the United States' Economy: A Beginning***

This report was undertaken as a first step towards defining and measuring energy efficiency. Energy efficiency is a vital component of the Nation's energy strategy. One of the Department of Energy's missions is to promote energy efficiency to help the Nation manage its energy resources. The ability to define and measure energy efficiency is essential to this objective.

In this report, the focus is on the measurement of energy intensity. Available data are used to remove from the energy-intensity indicator such influencing factors as weather, capacity, and inventory changes that are commonly viewed as not related to changes in energy efficiency.

impact of legislative and regulatory actions on natural gas transportation rates and flow patterns. The current report presents an interim analysis of natural gas transportation rates and distribution patterns for the period 1988 through 1994. A third and final report addressing the transportation rates and flows through 1997 is due to Congress in October 2000.

DOE/EIA-0602  
GPO Stock No. 061-003-00939-5  
Domestic: \$11.00 Foreign: \$13.75

### ***Longwall Mining***

As part of EIA's program to provide information on coal, this report describes longwall mining and compares it with other underground mining methods. Using data from EIA and private sector surveys, the report describes major changes in the geologic, technological, and operating characteristics of longwall mining over the past decade. Most important, the report shows how these changes led to dramatic improvements in longwall mining productivity.

Longwall mining is one of the two basic methods of underground coal mining. The other is room-and-pillar mining, historically the traditional method used in the United States. In room-and-pillar mining, "rooms" are excavated, and pillars of coal are left in place between the rooms to

support the mine roof. In contrast, longwall mining involves essentially complete extraction of the coal contained in a large rectangular block or "panel" of coal, and the roof in the mined-out area is allowed to collapse.

DOE/EIA-TR-0588  
GPO Stock No. 061-003-00903-4  
Domestic: \$5.00 Foreign: \$6.25  
CD/Web

### ***Oil and Gas Development in the United States in the Early 1990's: An Expanded Role for Independent Producers***

Smaller companies have gained a larger role in developing the oil and gas resources of the United States following the 1986 oil price collapse. EIA reports that exploration and development expenditures by nonmajor oil and gas producers accounted for nearly half of all such expenditures in the United States in 1993. Nonmajor companies made about one-third of such expenditures in the late 1980's. The EIA report *Oil and Gas Development in the United States in the Early 1990's: An Expanded Role for Independent Producers* analyzes the United States' increasing dependence on smaller oil and gas producers. The nonmajors' share of oil and gas production increased from 39 percent of total U.S. production in the late 1980's to 45 percent in 1993.

Among other significant findings in *Oil and Gas Development* are the following:

- Offshore gas led upswing in nonmajors' production after 1986.
- Share of onshore oil production increased for nonmajors.

DOE/EIA-0600  
GPO Stock No. 061-003-00929-8  
Domestic: \$2.75 Foreign: \$3.44  
CD/Web

### ***Performance Issues for a Changing Electric Power Industry***

Section 205(a)(2) of the Department of Energy Organization Act of 1977 (Public Law 95-91) requires the Administrator of EIA to carry out a central, comprehensive, and unified energy data information program that will collect, evaluate, assemble, ana-

lyze, and disseminate data and information relevant to energy resources, reserves, production, demand, technology, and related economic and statistical information. To assist in meeting these responsibilities in the area of electric power, EIA has prepared this report, *Performance Issues for a Changing Electric Power Industry*. The purpose of this report is to provide an overview of some of the factors affecting reliability within the electric bulk power system. Historical and projected data related to reliability issues are discussed on a national and regional basis. Current research on economic considerations associated with reliability levels is also reviewed.

DOE/EIA-0586  
GPO Stock No. 061-003-00896-8  
Domestic: \$4.25 Foreign: \$5.31  
CD/Web

***Profile of Motor-Vehicle Fleets in Atlanta 1994: Assessing the Market for Alternative-Fuel Vehicles***

EIA was directed by Section 407 of the Energy Policy Act of 1992 to establish a new data collection program that would be useful to persons seeking to manufacture, convert, sell, own, or operate alternative-fuel vehicles.

A consultation process with interested parties and review of existing data confirmed that the most useful information would be basic descriptions of fleets. Private and public fleet owners were expected to be the first purchasers of alternative-fuel vehicles, because the logistics of refueling may be easier for vehicles in fleets. As a whole, few data were available regarding fleet vehicles and their characteristics. The survey discussed in this report was a first attempt to collect private and municipal fleet data, and it focuses on a major metropolitan area designated as a Department of Energy Clean City.

*Profile* reports the results of the EIA survey of motor-vehicle fleets, both private and municipal, in Atlanta. These data should be useful to those whose goal is to assist or participate in the early development of alternative-fuel vehicle markets. The data also should be useful to persons implementing motor-vehicle-related clean air programs or analyzing transportation energy use. Persons in the petroleum industry will find useful infor-

mation regarding conventional fuels and the fuel-purchasing behavior of fleets.

DOE/EIA-0601  
GPO Stock No. 061-003-00938-7  
Domestic: \$2.75 Foreign: \$3.44  
CD/Web

***State Energy Severance Taxes, 1985-1993***

This report analyzes changes in aggregate and State-level energy severance taxes for 1985 through 1993. Data are presented for crude oil, natural gas, and coal. The report highlights trends in severance tax receipts relative to energy prices and production by using severance tax data published by the Bureau of the Census of the U.S. Department of Commerce and production data published by EIA.

In the United States, State governments often tax a portion of the value of natural resources extracted, or "severed." The States generally levy energy severance taxes in the form of a percent of the value of the resources removed or sold (an ad valorem tax), but sometimes they tax the volume of the resource removed (a dollar-per-unit tax). In addition to severance taxes, royalty payments, income taxes, and property taxes related to energy production also contribute to State receipts from energy production.

State governments frequently regard severance taxes as a revenue source with a minimal burden to the State's own residents, especially if the taxed re-

tribution of storage to the overall efficiency of the production and transmission segments of the industry is well known. However, traditional ideas about storage management have changed and new uses for storage have developed as the result of both market pressures and regulatory changes. This report analyzes these important changes in the industry.

DOE/EIA-0591  
GPO Stock No. 061-003-00902-6  
Domestic: \$6.00 Foreign: \$7.50  
CD/Web

## Service Reports

### ***An Analysis of Nuclear Plant Operating Costs: A 1995 Update***

The primary purpose of this report is to provide an updated analysis of nuclear power plant operating costs. This is the third report on this subject published by EIA since 1988. This work was done at the request of the U.S. Nuclear Regulatory Commission, and it uses data and methodologies deemed by EIA to be appropriate.

The report describes the results of an analysis of nuclear power plant nonfuel operating costs. Non-fuel operating costs are composed of routine operating and maintenance (O&M) costs and capital expenditures incurred after a plant begins operating. Approximately 67 percent of the reported O&M

sources are produced by out-of-State companies or are exported to customers in other States. Although severance taxes can be an attractive source of revenue, they can inhibit development of a State's energy resources by increasing the cost of energy production. If the added cost of a State's severance tax cannot be passed along, the profitability of energy production deteriorates, making energy investment less attractive. An energy-producing State must balance the revenue effects and incentive effects of its severance taxes.

Despite the importance of severance taxes as a source of State funds and the effect of energy severance taxes on the cost of energy, published time series of effective tax rates (taxes relative to production) after 1987 have not been available. This report presents such a series on a consistent basis and provides a continuation of the series of State energy severance taxes presented in the earlier EIA report *Energy Severance Taxes, 1972-1987*.

DOE/EIA-TR/0599  
GPO Stock No. 061-003-00935-7  
Domestic: \$2.00 Foreign: \$2.50  
CD/Web

### ***The Value of Underground Storage in Today's Natural Gas Industry***

*The Value of Underground Storage in Today's Natural Gas Industry* was prepared by EIA to provide the latest information on storage activities. The con-

costs are labor-related, and the remaining 33 percent are for expenditures for maintenance and supplies. According to a recently published study, approximately 47 percent of the staff at a nuclear power plant are involved with the plant's maintenance; plant operators make up about 16 percent; and the remaining 37 percent perform security, administrative, and managerial activities.

SR/OIAF/95-01

GPO Stock No. 061-003-00907-7

Domestic: \$5.50 Foreign: \$6.88

CD/Web

### ***Federal Buildings Supplemental Survey 1993***

EIA conducts two types of surveys: (1) supply surveys and (2) consumption surveys.

Supply surveys gather information from energy suppliers and marketers on the quantities and prices of specific energy sources produced or supplied to the market. The results of these surveys are published in fuel-specific EIA publications.

Consumption surveys gather information directly from energy end users on the types of energy they consume, along with information on the energy-related characteristics of commercial buildings, households, vehicles, and manufacturing establishments. The results of these surveys are published in energy consumption reports, such as this report, and in special analytical reports.

Respondents to the Federal Buildings Supplemental Survey (FBSS) 1993 were interviewed to collect information about the buildings—such as the principal building activity, structural characteristics, building use, energy sources, energy-us-

ing equipment, and conservation features and programs—as well as to collect billing data on energy consumption and expenditures. These billing data were collected from 881 Federal building managers because they were expected to have immediate access to their consumption and expenditure account data.

SR/EMEU/95-02

Free from NEIC

CD/Web

### ***Spent Nuclear Fuel Discharges from U.S. Reactors 1993***

This report provides current statistical data on fuel assemblies irradiated at commercial nuclear reactors operating in the United States. This year's report provides data on the current inventories and storage capabilities at these reactors. The report was prepared by EIA under a Memorandum of Understanding with the Office of Civilian Radioactive Waste Management (OCRWM).

Data used in the report are collected on Form RW-859, "Nuclear Fuel Data" survey, and provide a comprehensive statistical characterization of the industry's activities for the survey year. Included is information about industry plans and commitments for the future. Detailed statistics on these data are presented in four chapters that highlight 1993 spent fuel discharges, storage capacities and inventories, canister and nonfuel component data, and assembly characteristics.

SR/CNEAF/95-01

Free from NEIC

CD/Web

## PERIODICALS OF SPECIAL INTEREST

Following are synopses of EIA periodicals featured in press releases during 1995.

### **Alternative-Fueled Vehicles and Alternative Transportation Fuels**

Concerns about the environmental effects of fossil fuel use and the Nation's dependence on foreign oil are providing the impetus for increasing use of alternative-fueled vehicles (AFV's) and alternatives to traditional transportation fuels. As a result, both the Energy Policy Act of 1992 (EPACT) and Presidential Executive Order 12844 mandated minimum AFV quotas for Federal government fleets beginning in 1994. EPACT mandates concerning State and local government vehicle fleets, as well as private fleets, are scheduled to take effect over the next few years.

Section 503(b) of EPACT directs EIA to survey suppliers of AFV's annually and estimate the number and type of AFV's made available in the previous year, as well as those that suppliers plan to make available in the following year. EIA reports annually on the number, type, and geographic distribution of AFV's and the amount of alternative and replacement fuels, in accordance with Section 503(a).

Preliminary results from EIA's first-ever survey of the AFV industry indicate that in 1994 over 22,000 AFV's were "made available," i.e., completed and ready for delivery to dealers or users. About one-third of the AFV's made available were liquefied petroleum gas vehicles, one-third natural gas vehicles, and the remaining third, alcohol and electric vehicles. The number of AFV's in use in the United States is expected to exceed 420,000 by end of 1996, according to EIA estimates. This represents an increase from 320,000 in 1994 and 250,000 in 1992. About two-thirds of the AFV's will be vehicles designed to operate on liquefied petroleum gas (propane), while 20 percent will be vehicles designed to use natural gas. The remaining AFV's will be alcohol-fueled or electric vehicles.

For more information on alternative fuels, see the EIA report *Alternatives to Traditional Transportation Fuels 1993*.

### **Coal Deliveries to Electric Utilities Hit Record Levels**

Electric utilities received a record 832 million short tons of coal in 1994, up 63 million short tons from 1993, according to the EIA report *Cost and Quality of Fuels for Electric Utility Plants-1994*. This report provides the most recent annual statistics available on the quantity, quality, and cost of fossil fuels used to produce electricity. The report discusses factors affecting supply, including the effects of extreme weather conditions and rail traffic congestion in the West on fuel deliveries. It includes information on imports and changes in origins and destinations of utility fuels.

Other report highlights:

- In 1994, electric utilities received coal at a rate of 2.3 million short tons per day, an amount equivalent to the coal hauling capacity of approximately 23,000 rail cars.
- Receipts of petroleum fell to 143 million barrels and comprised only 4 percent of the total Btu delivered to electric utilities.
- Gas receipts by utilities in California climbed to 595 billion cubic feet in 1994 in response to a substantial decrease in hydroelectric generation caused by below normal precipitation in the western United States.

### **EIA Details Changes in Household Energy Use**

Lifestyle changes are creating new patterns of appliance and overall energy usage in U.S. homes. In 1995, personal computers, microwave ovens, electric clothes dryers, window/ceiling fans, and two or more color television sets were found in more and more households.

*Housing Characteristics 1993* presents the results of the ninth survey of energy consumption in the residential sector conducted by EIA since 1978. The Residential Energy Consumption Survey provides a comprehensive look at the lifestyle patterns of American households, the physical features of their

housing units and the stocks of appliances as they all relate to the consumption of energy.

Data on 36 home appliances (in addition to main heating equipment) are now collected. Appliances surveyed for the first time include toaster ovens, heating aquariums, air cleaners, laser printers for home computers, facsimile machines, photocopiers, halogen lamps, compact fluorescent lamps, point-of-use water heaters, and heat pump water heaters.

### **EIA Updates Reference on U.S. Coal**

The continuing importance of coal to the United States was emphasized in the EIA report *Coal Data: A Reference*. This report summarizes basic information on the production and use of U.S. coal in terms understandable to a general audience.

The report points out that the U.S. coal industry has become the Nation's largest energy-producing industry, representing nearly one-third of U.S. energy production. The report also shows that coal accounts for almost one-fourth of U.S. energy consumption and is the only energy source for which exports are greater than imports.

The new edition of the report contains updated data as well as expanded reviews and additional information on coal quality, prices, unions, labor strikes, statistics on production and royalties from Federal and Indian coal leases, and hours worked and earnings for coal mine employment.

### **Energy Intensity Levels Off in Manufacturing Sector; Purchased Energy Intensity Increases 4 Percent**

In the manufacturing sector, energy intensity has leveled off since the dramatic decreases that were observed until the mid-1980's. The report *Changes in Energy Intensity in the Manufacturing Sector, 1985-1991* presents statistics about changes in energy consumption per constant dollar of value of shipments, commonly called energy intensity. The report is based on the 1991 Manufacturing Energy Consumption Survey, which is the third survey conducted on this topic. Earlier surveys gathered information on 1985 and 1988 energy consumption patterns.

Other report highlights:

- In 1991, the manufacturing sector consumed more energy per value of shipments than in either 1985 or 1988.
- Offsite-produced energy intensity increased by four percent from 1988 to 1991.

This report traditionally measures energy intensity based solely on purchased energy sources produced offsite and consumed onsite. This year, for the first time, this report also measures energy intensity by use of total inputs of energy for heat, power, and electricity generation, which includes byproduct fuels produced onsite.

### **Improved Technology Leads to Lower Energy Price Projections**

The *Annual Energy Outlook 1995 (AEO95)* contains forecasts to the year 2010 which are based on results of the National Energy Modeling System (NEMS). It updates last year's *Outlook*. A shift away from energy-intensive manufacturing toward the service industries and efficiencies attained through initiatives under the Climate Change Action Plan (CCAP) contribute to lower estimates of energy consumption than those in the *AEO94* forecast.

Across all primary fuels, the *AEO95* projects lower price levels for 2010 than those forecast in recent *Outlooks*. Higher projected crude oil production by the Organization of Petroleum Exporting Countries (OPEC) causes the 2010 world oil price forecast to drop to \$24 per barrel (1993 dollars), or to 16 percent lower (in real terms) than the 2010 world oil price forecast in the *AEO94*. Technological advances in exploration and drilling result in a lower forecast for the 2010 natural gas wellhead price. At \$3.39 per thousand cubic feet, the 2010 wellhead price forecast is about 5 percent below the *1994 Outlook* price forecast. The 2010 minemouth price of coal shows the most dramatic change from the prior fuel price forecasts, dropping to \$22.77 per ton, or 28 percent below the *1994 Outlook* forecast price.

Although lower prices often tend to boost consumption, the lower price forecasts in *AEO95* are not accompanied by higher demand relative to the *AEO94* forecasts. Total primary energy consumption grows to 104 quadrillion Btu by 2010, compared with the *1994 Outlook* forecast of 105 quadrillion Btu (including renewable fuels) as a result of the dampening

effects of CCAP, changes in the mix of output the economy is expected to produce, and equipment efficiency improvements.

The *AEO95* addresses five different sets of assumptions and their effects on energy supply, demand, imports, and prices out to 2010. It examines a Reference Case and compares this baseline with two pairs of forecasts based on alternate assumptions: High and Low Economic Growth and High and Low World Oil Prices. This year's *Outlook* also examines several side cases involving changes in technological penetration rates and productivity improvements within individual NEMS modules.

### **Major Energy Companies' Strategies After Arab Oil Embargo Shift from Growth to Consolidation**

EIA's analysis of financial developments among major energy companies for the 20 years following the Arab Oil Embargo shows a shift in strategies from growth and diversification to consolidation, cost-cutting, and retrenchment. In a special edition of the annual report *Performance Profiles of Major Energy Producers 1993*, EIA examines through its Financial Reporting System long-term financial and operating developments following the Arab Oil Embargo of 1973-1974 and provides an annual review of major energy companies' financial performance.

*Performance Profiles* is the 17th annual report of EIA's Financial Reporting System. The report examines financial and operating developments in energy markets, with particular reference to the 25 major energy-producing companies required to report annually to the Financial Reporting System. Information is reported and reviewed by lines of business, including oil and gas production, petroleum refining and marketing, other energy operations, and nonenergy business.

### **Natural Gas Production Increases Despite Falling Wellhead Prices**

Changes in natural gas wellhead production and prices provides strong evidence that a combination of improved efficiency and technology has fundamentally altered the gas supply process. The EIA publication *Natural Gas 1995: Issues and Trends* reports natural gas production rose 15 per-

cent from 1985 through 1994, while the average wellhead price declined 45 percent (in constant dollars) during the same period.

Other key findings of the report include:

- The seasonal fluctuations of natural gas production and wellhead prices have been significantly reduced during the past 3 years despite highly seasonal consumption patterns. Reduced seasonality has resulted in improved utilization of production facilities.
- Natural gas imports have increased, even as domestic production rose during the last 8 years.
- Since 1985, lower costs of producing and transporting natural gas have benefitted consumers. By 1994, the average price paid by residential consumers in real terms was 22 percent below the 1985 price.

### **Natural Gas Use for Electricity Generation on the Rise at U.S. Electric Utilities**

EIA's report *Electric Power Annual 1994, Volume I* contains information on generating capability, electricity generation, fossil fuel statistics, and retail sales of electricity. Initiated in 1995, the two-volume approach enables EIA to release data earlier than in the past. *Volume II* of the report, released in November 1995, provided additional summary 1994 data, including electric utility financial and environmental statistics, demand-side management, and retail sales. It also provided information on electric power transactions and nonutility power producers.

EIA estimates that gas-fired generation at nonutility power producers was approximately 200 billion kilowatthours in 1994, more than 50 percent of total electricity generation at these facilities. Consequently, for the combination of electric utilities and nonutility power producers—that is, on an industry-wide basis—gas fueled approximately 15 percent of the Nation's total generation of electricity.

Reliance on natural gas will continue to increase over the next 10 years, according to electric utility reports of planned additions to generating capability. Nearly 70 percent of the planned capability additions reported to EIA at the end of 1994 were gas-fired.

## **Nuclear Power Continues Worldwide Growth Despite Decline in U.S. Nuclear Capacity**

EIA's *World Nuclear Outlook 1995* presents the current status and projections through 2015 of nuclear capacity, generation, and fuel cycle requirements for all countries in the world using nuclear power to generate electricity for commercial use. It also contains information and forecasts of developments in the uranium market.

In 1994, 30 countries used nuclear power to produce almost one-fourth of their combined electricity generation. On a worldwide basis, development of new nuclear plants is active, with 98 units either planned or under construction, with most of the growth in nuclear power occurring in the Far East.

In *World Nuclear Outlook 1995*, EIA projects that, over the next 20 years, Japan will increase its generating base by 35 percent from its current 39 GW of nuclear capacity. Meanwhile, nuclear capacity in the United States, currently at 99 GW, is projected to decline by 23 percent or more.

Nuclear power is expected to play a larger role in some countries of the Far East, where there is a need for electricity to accommodate rapid economic growth. Public acceptance, waste disposal issues, and operating costs are some of the factors likely to impede expansion of nuclear power in the longer term.

## **OPEC Supply of World Oil Projected to Rise to 52 Percent by 2010; Electricity Use to Drive Growth in World Energy Demand**

EIA's *International Energy Outlook 1995* projects that, barring any major political event that would affect world oil markets, oil prices will remain stable for the next few years and then rise gradually, remaining below \$25 per barrel (in 1993 U.S. dollars) through the end of the projection period. World oil demand is expected to grow to 88.7 million barrels per day by 2010.

Electricity is expected to remain the fastest growing form of end-use energy worldwide through 2010. In fact, electricity is expected to account for about 42 percent of the increase in total worldwide

energy consumption for the 1990-to-2010 time period.

For the first time, the *Outlook* contains an extensive chapter on electric power, including a regional look at possible implications of the deregulation of this industry. The *Outlook* projects much of the electricity demand growth to occur in the non-Organization for Economic Cooperation and Development countries experiencing rapid economic expansion, including China, South Korea, Indonesia, and Taiwan.

## **Renewable Energy Assessments**

EIA's *Renewable Energy Annual 1995* is the first in an expected series of annual EIA reports providing a comprehensive assessment of renewable energy. In so doing, this report further documents and explains renewable energy information provided earlier in EIA's *Annual Energy Review 1994*. It covers the following energy sources: biomass, geothermal, wind, and solar. While hydropower is a renewable energy resource, it is also regarded as a "conventional" energy source because it has furnished a significant amount of electricity for more than a century. Hydropower is a mature industry with little growth or change expected, and EIA provides substantial information on hydropower in its electricity publications. Therefore, the *Renewable Energy Annual* discusses hydropower as it contributes to total renewable energy consumption but does not address hydropower as an individual energy source.

This report includes a feature article, "Environmental Externalities in Electric Power Markets: Acid Rain, Urban Ozone, and Climate Change," that was previously published in EIA's November 1995 *Monthly Energy Review*. The biomass sections of this report include updated information similar to that published in EIA's *Estimates of U.S. Biomass Energy Consumption 1992*. The solar sections include updated information from material previously published in *Solar Collector Manufacturing Activity 1993*. EIA has discontinued publishing the latter two reports.

## **Short-Term Energy Outlook Projections**

EIA's *Short-Term Energy Outlook, Quarterly Projections* provides quarterly short-term energy supply, demand, and price projections for publication in February, May, August, and November.

As a complement to the *Outlook*, EIA publishes once a year the *Short-Term Energy Outlook Annual Supplement*. The purpose of the *Supplement* is to review the accuracy of the forecasts published in the *Outlook*, make comparisons with other independent energy forecasts, and examine current energy topics that affect the forecasts. The *Supplement* includes base or “mid” case energy projections for 1995 and 1996; methodology used by the Short-Term Integrating Forecasting System (STIFS), which aids in projecting oxygenate productions, imports, inventories, and demand for motor gasoline; and theoretical and empirical results from a study of nontransportation energy demand by sector, using a linear logit formulation to determine cost shares for various fuels.

### **U.S. Natural Gas Reserves Up; First Gain in Four Years**

In the EIA report *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1994*, published in October 1995, EIA noted that U.S. proved reserves of natural gas grew 1 percent in 1994. This was the first gain in 4 years and only the second since 1981. Meanwhile, proved oil reserves declined 2 percent, the smallest decline in 4 years.

Oil and gas discoveries in the Federal offshore—several in deep water—played a major role. Despite lower oil and gas prices, and a lower overall rate of well completions, the number of successful oil and gas exploratory well completions increased.

# Periodical Reports of the Energy Information Administration

Released for printing January 1 through December 31, 1995

	Petroleum	Petroleum and Natural Gas	Natural Gas	Electricity	Coal	Nuclear Energy	Solar and Renewable Energy	Multisource Energy	Energy Consumption	Metadata
<b>Weekly</b>	Weekly Petroleum Status Report	Winter Fuels Report (seasonal weekly)			Weekly Coal Production					
<b>Monthly/ Bimonthly</b>	International Petroleum Statistics Report  Petroleum Marketing Monthly  Petroleum Supply Monthly		Natural Gas Monthly	Electric Power Monthly				Monthly Energy Review		EIA New Releases (Bimonthly)
<b>Quarterly</b>					Quarterly Coal Report			Short-Term Energy Outlook: Quarterly Projections		EIA Directory of Electronic Products  U.S. Energy Industry Financial Developments
<b>Annual/Other</b>	Emissions of Greenhouse Gases in the United States 1987-1994  Fuel Oil and Kerosene Sales 1994  Petroleum Marketing Annual 1994  Petroleum Supply Annual 1994, Vol. 1	Oil and Gas Field Code Master List 1995	Natural Gas Annual 1994, Vol. 1  Natural Gas Annual 1993 Supplement: Company Profiles  Natural Gas 1995: Issues and Trends	Cost and Quality of Fuels for Electric Utility Plants 1994  Electric Power Annual 1994, Vol. 1  Electric Power Annual 1994, Vol. 2  Electric Sales and Revenue 1993, 1994	Coal Data: A Reference  Coal Industry Annual 1994	Uranium Industry Annual 1994  Uranium Purchases Report 1994  World Nuclear Outlook 1995	Renewable Energy Annual 1995	Alternatives to Traditional Transportation Fuels 1993  Annual Energy Outlook 1995  Annual Energy Review 1994  Energy Information Sheets		Annual Report to Congress 1994  Directory of Energy Information Administration Models 1995

# Periodical Reports of the Energy Information Administration

Released for printing January 1 through December 31, 1995

Annual/Other	Petroleum	Petroleum and Natural Gas	Natural Gas	Electricity	Coal	Nuclear Energy	Solar and Renewable Energy	Multisource Energy	Energy Consumption	Metadata
	<p>Petroleum Supply Annual 1994, Vol. 2</p>	<p>U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1994 Annual Report</p>		<p>Financial Statistics of Major U.S. Investor-Owned Electric Utilities 1993</p> <p>Financial Statistics of Major U.S. Investor-Owned Electric Utilities 1994</p> <p>Financial Statistics of Major U.S. Publicly Owned Electric Utilities 1993, 1994</p> <p>Inventory of Power Plants in the United States 1994</p> <p>U.S. Electric Utility Demand-Side Management 1993</p> <p>U.S. Electric Utility Demand-Side Management 1994</p>				<p>International Energy Annual 1993</p> <p>International Energy Outlook 1995</p> <p>Performance Profiles of Major Energy Producers 1993</p> <p>Profiles of Foreign Direct Investment in U.S. Energy 1993</p> <p>Short-Term Energy Outlook Annual Supplement 1995</p> <p>State Energy Data Report 1993, Consumption Estimates</p> <p>State Energy Price and Expenditure Report 1993</p> <p>Supplement to the Annual Energy Outlook 1995</p>	<p>Changes in Energy Intensity in the Manufacturing Sector 1985-1991</p> <p>Commercial Buildings Energy Consumption and Expenditures 1992</p> <p>Household Energy Consumption and Expenditures 1993</p> <p>Housing Characteristics 1993</p>	<p>EIA Publications Directory 1994</p> <p>Energy Education Resources: Kindergarten through 12th Grade</p> <p>Energy Information Directory 1995</p>

# One-Time Reports of the Energy Information Administration

	<b>Petroleum and Natural Gas</b>	<b>Natural Gas</b>	<b>Electricity</b>	<b>Coal</b>	<b>Renewable and Alternate Fuels</b>	<b>Nuclear Energy</b>	<b>Energy Markets and End Uses</b>
<b>Data Reports</b> + <b>Analysis Reports</b> + <b>Documentation Reports</b> + <b>Technical Reports</b> + <b>Service Reports</b>	<p>Documentation of the Oil and Gas Supply Module</p> <p>Documentation of the Oil and Gas Supply Module Appendix: Model Developer's Report</p> <p>Documentation of the Petroleum Market Model Appendix: Model Developer's Report</p> <p>EIA Model Documentation: Petroleum Market Model of the National Energy Modeling System</p> <p>Oil and Gas Development in the United States in the Early 1990's: An Expanded Role for Independent Producers</p>	<p>Energy Policy Act Transportation Study: Interim Report on Natural Gas Flows and Rates</p> <p>Model Documentation: Natural Gas Transmission and Distribution Model of the National Energy Modeling System</p> <p>Natural Gas Transmission and Distribution Model of the National Energy Modeling System</p> <p>Volume II: Model Developer's Report</p> <p>The Value of Underground Storage in Today's Natural Gas Industry</p>	<p>Documentation of the Electricity Market Module Appendix: Model Developer's Report</p> <p>Electricity Generation and Environmental Externalities: Case Studies</p> <p>Model Documentation: Electricity Market Module Modifications to the Electricity Capacity Planning Submodule</p> <p>Performance Issues for a Changing Electric Power Industry</p>	<p>Energy Policy Act Transportation Rate Study: Interim Report on Coal Transportation</p> <p>Longwall Mining</p> <p>Model Documentation: Coal Market Module of the National Energy Modeling System</p>	<p>Model Documentation: Renewable Fuels Module of the National Energy Modeling System</p> <p>Profile of Motor-Vehicle Fleets in Atlanta, 1994: Assessing the Market for Alternative-Fuel Vehicles</p>	<p>An Analysis of Nuclear Plant Operating Costs: A 1995 Update</p> <p>Decommissioning of U.S. Uranium Production Facilities</p> <p>Spent Nuclear Fuel Discharges from U.S. Reactors 1993</p>	<p>Buildings and Energy in the 1980's</p> <p>Country Analysis Briefs: 1994</p> <p>Energy Consumption Series—Measuring Energy Efficiency in the United States' Economy: A Beginning</p> <p>Federal Buildings Supplemental Survey 1993</p> <p>Model Developer's Appendix to the Model Documentation Report: NEMS Macroeconomic Activity Module</p> <p>Model Documentation: Commercial Sector Demand Module of the National Energy Modeling System</p> <p>Model Documentation: Residential Sector Demand Module of the National Energy Modeling System</p> <p>NEMS Integrating Module Documentation Report</p> <p>State Energy Severance Taxes 1985-1993</p>

# EIA PUBLICATIONS RELEASED FOR PRINTING JANUARY 1 THROUGH DECEMBER 31, 1995

## Weekly/Monthly Publications

### *Electric Power Monthly*

DOE/EIA-0226

GPO Subscription: 761-002-00000-7

Domestic: \$87.00 Foreign: \$108.75

#### **Single Issue:**

Domestic: \$14.00 Foreign: \$17.50

CD/Web/EPUB

### *International Petroleum Statistics Report (Monthly)*

DOE/EIA-0520

GPO Subscription: 761-018-00000-1

Domestic: \$47.00 Foreign: \$58.75

#### **Single Issue:**

Domestic: \$4.25 Foreign: \$5.31

CD/Web

### *Monthly Energy Review*

DOE/EIA-0035

GPO Subscription: 761-007-00000-9

Domestic: \$77.00 Foreign: \$96.25

#### **Single Issue:**

Domestic: \$10.00 Foreign: \$12.50

CD/Web/EPUB

### *Natural Gas Monthly*

DOE/EIA-0130

GPO Subscription: 761-008-00000-5

Domestic: \$85.00 Foreign: \$106.25

#### **Single Issue:**

Domestic: \$10.00 Foreign: \$12.50

CD/Web/EPUB

### *Petroleum Marketing Monthly*

DOE/EIA-0380

GPO Subscription: 761-010-00000-0

Domestic: \$87.00 Foreign: \$108.75

#### **Single Issue:**

Domestic: \$12.00 Foreign: \$15.00

CD/Web/EPUB (data for most recent 3 months)

### *Petroleum Supply Monthly*

DOE/EIA-0109

GPO Subscription: 761-011-00000-6

Domestic: \$78.00 Foreign: \$97.50

#### **Single Issue:**

Domestic: \$11.00 Foreign: \$13.75

CD/Web/EPUB

### *Weekly Coal Production*

DOE/EIA-0218

Discontinued in printed form

Available via broadcast fax from NEIC.

### *Weekly Petroleum Status Report*

DOE/EIA-0208

GPO Subscription: 761-015-00000-1

Domestic: \$65.00 Foreign: \$81.25

#### **Single Issue:**

Domestic: \$3.50 Foreign: \$4.38

CD/Web/EPUB

### *Winter Fuels Report (Weekly, October-April)*

DOE/EIA-0538

Free from NEIC

CD/Web/EPUB

## Bimonthly

### *EIA New Releases*

DOE/EIA-0204

Free from NEIC

CD/Web/FTP/EPUB

**Note:** Prices of EIA products sold by the U.S. Government Printing Office or the Office of Scientific and Technical Information are subject to change without prior notice.

## Quarterly

### *EIA Directory of Electronic Products*

DOE/EIA-0569

Free from NEIC

CD/Web/FTP/EPUB

### *Quarterly Coal Report*

DOE/EIA-0121

GPO Subscription: 761-012-00000-2

Domestic: \$24.00 Foreign: \$30.00

#### **Single Issue:**

Domestic: \$9.00 Foreign: \$11.25

EPUB

### *Short-Term Energy Outlook: Quarterly Projections*

DOE/EIA-0202

GPO Subscription: 761-013-00000-9

Domestic: \$17.00 Foreign: \$21.25

#### **Single Issue:**

Domestic: \$4.50 Foreign: \$5.63

CD/Web/FTP/EPUB

### *U.S. Energy Industry Financial Developments*

DOE/EIA-0543

GPO Subscription: 761-022-00000-3

Domestic: \$9.00 Foreign: \$11.25

#### **Single Issue:**

Domestic: \$2.25 Foreign: \$2.81

CD/Web/FTP

## Annual

### *Alternatives to Traditional Transportation Fuels 1993*

DOE/EIA-0585(93)

January 1995

GPO Stock No. 061-003-00891-7

Domestic: \$7.00 Foreign: \$8.75

CD/Web/FTP

### *Annual Energy Outlook 1995*

DOE/EIA-0383(95)

January 1995

GPO Stock No. 061-003-00889-5

Domestic: \$15.00 Foreign: \$18.75

CD/Web/FTP/EPUB

### *Annual Energy Review 1994*

DOE/EIA-0384(94)

July 1995

GPO Stock No. 061-003-00919-1

Domestic: \$25.00 Foreign: \$31.25

CD/Web

### *Annual Report to Congress 1994*

DOE/EIA-0173(94)

April 1995

Free from NEIC

CD/Web/FTP

### *Coal Industry Annual 1994*

DOE/EIA-0584(94)

October 1995

GPO Stock No. 061-003-00936-1

Domestic: \$17.00 Foreign: \$21.25

FTP

### *Cost and Quality of Fuels for Electric Utility Plants 1994*

DOE/EIA-0191(94)

July 1995

GPO Stock No. 061-003-00921-2

Domestic: \$12.00 Foreign: \$15.00

CD/Web

### *Directory of Energy Information Administration Models 1995*

DOE/EIA-0293(95)

July 1995

Free from NEIC

CD/Web/FTP

### *EIA Publications Directory 1994*

DOE/EIA-0149(94)

July 1995

Free from NEIC

CD/Web/FTP/EPUB

### *Electric Power Annual 1994, Volume 1*

DOE/EIA-0348(94)/1

July 1995

GPO Stock No. 061-003-00920-4

Domestic: \$5.00 Foreign: \$6.25

CD/Web/FTP/EPUB

### *Electric Power Annual 1994, Volume 2*

DOE/EIA-0348(94)/2

December 1995

GPO Stock No. 061-003-00940-9

Domestic: \$11.00 Foreign: \$13.75

CD/Web/FTP

### *Electric Sales and Revenue 1993*

DOE/EIA-0540(93)

January 1995

GPO Stock No. 061-003-00895-0  
Domestic: \$15.00 Foreign: \$18.75  
FTP

*Electric Sales and Revenue 1994*

DOE/EIA-0540(94)

November 1995

GPO Stock No. 061-003-00942-5

Domestic: \$15.00 Foreign: \$18.75

CD/Web/FTP

*Emissions of Greenhouse Gases in the United States  
1987-1994*

DOE/EIA-0573(87-94)

October 1995

GPO Stock No. 061-003-00926-3

Domestic: \$9.00 Foreign: \$11.25

CD/Web/FTP

*Energy Education Resources: Kindergarten through  
12th Grade*

DOE/EIA-0546(94)

February 1995

Free from NEIC

CD/Web/FTP/EPUB

*Energy Information Directory 1995*

DOE/EIA-0205(95)

October 1995

Free from NEIC

CD/Web/EPUB

*Energy Information Sheets*

DOE/EIA-0578(93)

July 1995

Free from NEIC

CD/Web/FTP/EPUB

*Financial Statistics of Major U.S. Investor-Owned  
Electric Utilities 1993*

DOE/EIA-0437(93)/1

January 1995

GPO Stock No. 061-003-00885-2

Domestic: \$39.00 Foreign: \$48.75

*Financial Statistics of Major U.S. Investor-Owned  
Electric Utilities 1994*

DOE/EIA-0437(94)/1

December 1995

GPO Stock No. 061-003-00945-0

Domestic: \$39.00 Foreign: \$48.75

CD/Web/FTP

*Financial Statistics of Major U.S. Publicly Owned  
Electric Utilities 1993*

DOE/EIA-0437(93)/2

January 1995

GPO Stock No. 061-003-00898-4

Domestic: \$34.00 Foreign: \$42.50

*Financial Statistics of Major U.S. Publicly Owned  
Electric Utilities 1994*

DOE/EIA-0437(94)/2

December 1995

GPO Stock No. 061-003-00946-8

Domestic: \$35.00 Foreign: \$43.75

*Fuel Oil and Kerosene Sales 1994*

DOE/EIA-0535(94)

September 1995

GPO Stock No. 061-003-00928-0

Domestic: \$4.25 Foreign: \$5.31

CD/Web

*International Energy Annual 1993*

DOE/EIA-0219(93)

May 1995

GPO Stock No. 061-003-00908-5

Domestic: \$15.00 Foreign: \$18.75

CD/Web/FTP

*International Energy Outlook 1995*

DOE/EIA-0484(95)

June 1995

GPO Stock No. 061-003-00911-5

Domestic: \$7.00 Foreign: \$8.75

CD/Web/FTP

*Inventory of Power Plants in the United States 1994*

DOE/EIA-0095(94)

October 1995

GPO Stock No. 061-003-00934-4

Domestic: \$25.00 Foreign: \$31.25

CD/Web/FTP

*Natural Gas Annual 1994, Volume 1*

DOE/EIA-0131(94)/1

November 1995

GPO Stock No. 061-003-00943-3

Domestic: \$16.00 Foreign: \$20.00

CD/Web/FTP

*Natural Gas Annual 1994, Volume 2*

December 1995

(Available only in electronic format.)

CD/Web/FTP

*Natural Gas Annual 1993 Supplement: Company Profiles*

DOE/EIA-0131(93)/5  
February 1995  
GPO Stock No. 061-003-00897-6  
Domestic: \$13.00 Foreign: \$16.25  
CD/Web

*Natural Gas 1995: Issues and Trends*

DOE/EIA-0560(95)  
November 1995  
GPO Stock No. 061-003-00937-9  
Domestic: \$6.50 Foreign: \$8.13  
CD/Web/FTP

*Oil and Gas Field Code Master List 1995*

DOE/EIA-0370(95)  
December 1995  
GPO Stock No. 061-00944-1  
Domestic: \$21.00 Foreign: \$26.25  
CD/Web/FTP

*Performance Profiles of Major Energy Producers 1993*

DOE/EIA-0206(93)  
January 1995  
GPO Stock No. 061-003-00894-1  
Domestic: \$13.00 Foreign: \$16.25  
CD/Web/FTP/EPUB (tables)

*Petroleum Marketing Annual 1994*

DOE/EIA-0487(94)  
September 1995  
GPO Stock No. 061-003-00923-9  
Domestic: \$32.00 Foreign: \$40.00  
CD/Web/FTP

*Petroleum Supply Annual 1994, Volume 1*

DOE/EIA-0340(94)/1  
May 1995  
GPO Stock No. 061-003-00910-7  
Domestic: \$14.00 Foreign: \$17.50

*Petroleum Supply Annual 1994, Volume 2*

DOE/EIA-0340(94)/2  
June 1995  
GPO Stock No. 061-003-00913-1  
Domestic: \$39.00 Foreign: \$48.75

*Profiles of Foreign Direct Investment in U.S. Energy 1993*

DOE/EIA-0466(93)  
May 1995  
GPO Stock No. 061-003-00909-3

Domestic: \$3.25 Foreign: \$4.06  
CD/Web/FTP

*Renewable Energy Annual 1995*

DOE/EIA-0603(95)  
December 1995  
GPO Stock No. 061-003-00950-6  
Domestic: \$13.00 Foreign: \$16.25  
CD/Web/FTP

*Short-Term Energy Outlook Annual Supplement 1995*

DOE/EIA-0202(95)  
August 1995  
GPO Stock No. 061-003-00915-8  
Domestic: \$6.00 Foreign: \$7.50  
CD/Web/EPUB

*State Energy Data Report 1993, Consumption Estimates*

DOE/EIA-0214(93)  
July 1995  
GPO Stock No. 061-003-00917-4  
Domestic: \$33.00 Foreign: \$41.25  
CD/Web/FTP

*State Energy Price and Expenditure Report 1993*

DOE/EIA-0376(93)  
December 1995  
GPO Stock No. 061-003-00948-4  
Domestic: \$18.00 Foreign: \$22.50  
CD/Web/FTP

*Supplement to the Annual Energy Outlook 1995*

DOE/EIA-0554(95)  
February 1995  
GPO Stock No. 061-003-00900-0  
Domestic: \$19.00 Foreign: \$23.75  
CD/Web

*Uranium Industry Annual 1994*

DOE/EIA-0478(94)  
July 1995  
GPO Stock No. 061-003-00916-6  
Domestic: \$11.00 Foreign: \$13.75  
CD/Web

*Uranium Purchases Report 1994*

DOE/EIA-0570(94)  
July 1995  
GPO Stock No. 061-003-00918-2  
Domestic: \$1.50 Foreign: \$1.88  
CD/Web

*U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1994 Annual Report*  
DOE/EIA-0216(94)  
October 1995  
GPO Stock No. 061-003-00931-0  
Domestic: \$11.00 Foreign: \$13.75  
CD/Web/FTP

*U.S. Electric Utility Demand-Side Management 1993*  
DOE/EIA-0589(93)  
August 1995  
GPO Stock No. 061-003-00922-1  
Domestic: \$9.00 Foreign: \$11.25

*U.S. Electric Utility Demand-Side Management 1994*  
DOE/EIA-0589(94)  
December 1995  
GPO Stock No. 061-003-00949-2  
Domestic: \$6.50 Foreign: \$8.13

*World Nuclear Outlook 1995*  
DOE/EIA-0436(95)  
October 1995  
GPO Stock No. 061-003-00927-1  
Domestic: \$11.00 Foreign: \$13.75  
CD/Web/FTP

## **Biennial, Triennial, and Other**

*Changes in Energy Intensity in the Manufacturing Sector 1985-1991*  
DOE/EIA-0552(85-91)  
October 1995  
GPO Stock No. 061-003-00925-5  
Domestic: \$9.00 Foreign: \$11.25  
CD/Web/FTP

*Coal Data: A Reference*  
DOE/EIA-0064(93)  
February 1995  
GPO Stock No. 061-003-00901-8  
Domestic: \$9.00 Foreign: \$11.25  
CD/Web

*Commercial Buildings Energy Consumption and Expenditures 1992*  
DOE/EIA-0318(92)  
April 1995  
GPO Stock No. 061-003-00904-2  
Domestic: \$31.00 Foreign: \$38.75  
CD/Web/FTP

*Household Energy Consumption and Expenditures 1993*  
DOE/EIA-0321(93)  
October 1995  
GPO Stock No. 061-003-00932-8  
Domestic: \$21.00 Foreign: \$26.25  
CD/Web/FTP

*Housing Characteristics 1993*  
DOE/EIA-0314(93)  
June 1995  
GPO Stock No. 061-003-00912-3  
Domestic: \$23.00 Foreign: \$28.75  
CD/Web/FTP

## **Documentation**

*Documentation of the Electricity Market Module (EMM) Appendix: Model Developer's Report*  
DOE/EIA-M068(95)APPX  
April 1995  
Free from NEIC  
CD/Web

*Documentation of the Oil and Gas Supply Module (OGSM)*  
DOE/EIA-M063(95)  
October 1995  
Free from NEIC  
CD/Web

*Documentation of the Oil and Gas Supply Module (OGSM) Appendix: Model Developer's Report*  
DOE/EIA-M063A(95)  
March 1995  
Free from NEIC  
CD/Web

*Documentation of the Petroleum Market Model (PMM) Appendix: Model Developer's Report*  
DOE/EIA-M059/A  
January 1995  
Free from NEIC  
CD/Web

*EIA Model Documentation: Petroleum Market Model of the National Energy Modeling System*  
DOE/EIA-M059(95)  
June 1995  
Free from NEIC  
CD/Web

*Model Developer's Appendix to the Model Documentation Report: NEMS Macroeconomic Activity Module*

DOE/EIA-M065A(95)

March 1995

Free from NEIC

CD/Web

*Model Documentation: Coal Market Module of the National Energy Modeling System*

DOE/EIA-M060(95)

April 1995

Free from NEIC

CD/Web

*Model Documentation: Electricity Market Module Modifications to the Electricity Capacity Planning Submodule*

DOE/EIA-M068-B/1

April 1995

Free from NEIC

CD/Web

*Model Documentation: Natural Gas Transmission and Distribution Model of the National Energy Modeling System*

DOE/EIA-M062/1(95)

February 1995

Free from NEIC

CD/Web

*Model Documentation: Renewable Fuels Module of the National Energy Modeling System*

DOE/EIA-M069(95)

June 1995

Free from NEIC

CD/Web

*Model Documentation Report: Commercial Sector Demand Module of the National Energy Modeling System*

DOE/EIA-M066(95)

February 1995

Free from NEIC

CD/Web

*Model Documentation Report: Residential Sector Demand Module of the National Energy Modeling System*

DOE/EIA-M067(95)

March 1995

Free from NEIC

CD/Web

*Natural Gas Transmission and Distribution Model (NGTDM) of the National Energy Modeling System Volume II: Model Developer's Report*

DOE/EIA-M062/2

January 1995

Free from NEIC

CD/Web

*NEMS Integrating Module Documentation Report*

DOE/EIA-M057(95)

May 1995

Free from NEIC

CD/Web

## Analysis and Technical Reports

*Buildings and Energy in the 1980's*

DOE/EIA-0555(95)/1

GPO Stock No. 061-003-00914-0

June 1995

Domestic: \$6.50 Foreign: \$8.13

CD/Web

*Country Analysis Briefs: 1994*

DOE/EIA-0595

GPO Stock No. 061-003-00906-9

May 1995

Domestic: \$6.50 Foreign: \$8.13

CD/Web

*Decommissioning of U.S. Uranium Production Facilities*

DOE/EIA-0592

GPO Stock No. 061-003-00899-2

February 1995

Domestic: \$5.50 Foreign: \$6.88

CD/Web

*Electricity Generation and Environmental Externalities: Case Studies*

DOE/EIA-0598

GPO Stock No. 061-003-00930-1

September 1995

Domestic: \$6.00 Foreign: \$7.50

CD/Web

*Emissions of Greenhouse Gases in the United States, 1987-1994*

DOE/EIA-0573(87-94)

GPO Stock No. 061-003-00926-3

October 1995

Domestic: \$9.00 Foreign: \$11.25

*Energy Consumption Series—Measuring Energy Efficiency in the United States' Economy: A Beginning*  
DOE/EIA-0555(95)/2

GPO Stock No. 061-003-00935-2

October 1995

Domestic: \$6.50 Foreign: \$8.13

CD/Web

*Energy Policy Act Transportation Rate Study: Interim Report on Coal Transportation*

DOE/EIA-0597

GPO Stock No. 061-003-00933-6

October 1995

Domestic: \$10.00 Foreign: \$12.50

CD/Web

*Energy Policy Act Transportation Study: Interim Report on Natural Gas Flows and Rates*

DOE/EIA-0602

GPO Stock No. 061-003-00939-5

October 1995

Domestic: \$11.00 Foreign: 13.75

*Longwall Mining*

DOE/EIA-TR0588

GPO Stock No. 061-003-00903-4

March 1995

Domestic: \$5.00 Foreign: \$6.25

CD/Web

*Oil and Gas Development in the United States in the Early 1990's: An Expanded Role for Independent Producers*

DOE/EIA-0600

GPO Stock No. 061-003-00929-0

October 1995

Domestic: \$2.75 Foreign: \$3.44

CD/Web

*Performance Issues for a Changing Electric Power Industry*

DOE/EIA-0586

GPO Stock No. 061-003-00896-8

January 1995

Domestic: \$4.25 Foreign: \$5.31

CD/Web

*Profile of Motor-Vehicle Fleets in Atlanta 1994: Assessing the Market for Alternative-Fuel Vehicles*

DOE/EIA-0601

GPO Stock No. 061-003-00938-7

November 1995

Domestic: \$2.75 Foreign: \$3.44

CD/Web

*State Energy Severance Taxes 1985-1993*

DOE/EIA-0599

GPO Stock No. 061-003-00924-7

September 1995

Domestic: \$2.00 Foreign: \$2.50

CD/Web

*The Value of Underground Storage in Today's Natural Gas Industry*

DOE/EIA-0591

GPO Stock No. 061-003-00902-6

March 1995

Domestic: \$6.00 Foreign: \$7.50

CD/Web

## Service Reports

*An Analysis of Nuclear Plant Operating Costs: A 1995 Update*

SR/OIAF/95-01

GPO Stock No. 061-003-00907-7

April 1995

Domestic: \$5.50 Foreign: \$6.88

CD/Web

*Federal Buildings Supplemental Survey 1993*

SR/EMEU/95-02

November 1995

Free from NEIC

CD/Web

*Spent Nuclear Fuel Discharges from U.S. Reactors 1993*

SR/CNEAF/95-01

February 1995

Free from NEIC

CD/Web

## Special Features

There are five categories of features published by EIA.

- “Articles” cover a wide range of energy-related subjects in depth.
- “Highlights” summarize the most important information presented in the EIA report.

- “Energy Previews” provide brief overviews of EIA preliminary energy data on a given topic.
- “EIA Data News” items present information on recent changes in the scope, design, methodology, and findings of EIA’s energy surveys and databases.
- “Energy Snapshots” use graphics to set off key data from EIA survey reports.

Listed below chronologically are the 30 features published in 1995.

Highlights: “Manufacturing Consumption of Energy 1991”  
(*Monthly Energy Review*, January 1995)

Feature Article: “U.S. Wind Energy Potential: The Effect of the Proximity of Wind Resources to Transmission Lines”  
(*Monthly Energy Review*, February 1995)

Feature Article: “The Comparability of Resource and Reserve Data for Crude Oil, Natural Gas, Coal, and Uranium”  
(*Natural Gas Monthly* and *Petroleum Supply Monthly*, March 1995)

EIA Data News: “The Response Analysis Survey: Evaluating Manufacturing Energy Consumption Survey Methodology”  
(*Monthly Energy Review*, March 1995)

Feature Article: “Comparisons of Independent Statistics on Petroleum Supply”  
(*Petroleum Supply Monthly*, April 1995)

Highlights: “Commercial Buildings Energy Consumption and Expenditures 1992”  
(*Monthly Energy Review*, April 1995)

Energy Preview: “Electric Utility Fleet Survey 1993, Preliminary Estimates”  
(*Monthly Energy Review*, April 1995)

Feature Article: “Summer 1995 Gasoline Assessment”  
(*Petroleum Marketing Monthly* and *Petroleum Supply Monthly*, May 1995)

Feature Article: “Summer Outlook for Motor Gasoline”  
(*Short-Term Energy Outlook, Quarterly Projections*, Second Quarter, May 1995)

Feature Article: “The Comparability of Resource and Reserve Data for Crude Oil, Natural Gas, Coal, and Uranium” (*Quarterly Coal Report* October-December 1994, Fourth Quarter, May 1995)

Feature Article: “What Drives Motor Gasoline Prices?”  
*Petroleum Marketing Monthly*, June 1995)

Feature Article: “Comparison of Uranium Mill Tailings Reclamation in the United States”  
(*Uranium Industry Annual 1994*, July 1995)

Feature Article: “The Status of U.S. Electric Utility Demand-Side Management and Evaluation and Verification of Demand-Side Management Programs”  
(*U.S. Electric Utility Demand-Side Management 1993*, August 1995)

Feature Article: “Revisions to Monthly Natural Gas Data”  
(*Natural Gas Monthly*, July 1995)

Feature Article: “Nonutility Electric Generation: Industrial Power Production”  
(*Electric Power Monthly*, July 1995)

Feature Article: “Steam Generator Degradation and its Impact on Continued Operation of Pressurized Water Reactors in the United States”  
(*Electric Power Monthly*, August 1995)

Feature Article: “U.S. Natural Gas Imports and Exports-1994” (*Natural Gas Monthly*, August 1995)

Feature Article: “Measuring Dependence on Imported Oil”  
(*Monthly Energy Review*, August 1995)

Feature Article: “Accuracy of Petroleum Supply Data” (*Petroleum Supply Monthly*, September 1995)

Energy Snapshots: “Housing Characteristics 1993”  
(*Monthly Energy Review*, September 1995)

Highlights: "State Energy Data Report 1993, Consumption Estimates"  
(*Monthly Energy Review*, October 1995)

Feature Articles: "Distillate Fuel Oil Assessment for Winter 1995-1996" and "Propane Assessment for Winter 1995-1996" (*Winter Fuels Report*, Issue 95/96-04, *Petroleum Marketing Monthly*, November 1995, and *Petroleum Supply Monthly*, October 1995)

Feature Article: "U.S. Refining Capacity Utilization"  
(*Petroleum Supply Monthly*, October 1995)

Special Communication: "Results of the Monthly Energy Review Feature Readership Survey"  
(*Monthly Energy Review*, November 1995)

Highlights: "Annual Energy Review 1994"  
(*Monthly Energy Review*, November 1995)

Feature Article: "Environmental Externalities in Electric Power Markets: Acid Rain, Urban Ozone, and Climate Change" (*Monthly Energy Review*, December 1995 and *Renewable Energy Annual 1995*, November 1995)

Feature Article: "Relicensing and Environmental Issues Affecting Hydropower" (*Electric Power Monthly*, November 1995)

Feature Article: "Renewable Resource Electricity in the Changing Regulatory Environment" (*Renewable Energy Annual 1995*, December 1995)

Energy Preview: "Alternative Fuel Providers Fleet Surveys (Preliminary Data)"  
(*Monthly Energy Review*, December 1995)

## APPENDIX B

# DATA COLLECTION SURVEYS OF THE ENERGY INFORMATION ADMINISTRATION

This Appendix describes 79 energy data-gathering surveys operated by the Energy Information Administration (EIA) in 1995. These forms are listed sequentially by form number, current title, any previous form number(s) and title(s), and collection frequency. A brief description of the collection is given, and the report number and titles of publications which are derived from the collected data (including several publications issued by the Department of Energy elements outside of EIA) are also given.

Information on the surveys and the availability of the publications and single, blank copies of forms may be obtained from the National Energy Information Center, whose address and telephone number are listed on page 15. Additional information about EIA's forms is available in the *Directory of Energy Data Collection Forms* (DOE/EIA-0249).

### **Form DOE-887, DOE Customer Surveys**

DOE-887 is used to contact users and beneficiaries of DOE products or other services to determine how DOE can better improve its services to meet their needs. Information is needed to make DOE products more effective, efficient, and responsive and at a lesser cost. Respondents will be users and beneficiaries of DOE products and services (Federal, State, and local government representatives, industry, trade associations, consultants, libraries, and individuals).

**Previous Forms:** None

**Collection Frequency:** On occasion

**Resulting Publications:** Data not published

### **Form EIA-1, Weekly Coal Monitoring Report—General Industries and Blast Furnaces (Standby Form)**

Standby Form EIA-1 is used to track coal and coke stocks, receipts, and consumption in the manufacturing sector during coal supply disruptions. In conjunction with data on Forms EIA-4 and EIA-20, EIA-1 data are used for supply forecasts and to inform the public, industry, and Government of aggregated coal consumption and inventories.

Respondents are a selected sample of manufacturing plants that consume coal for all uses other than coke production.

**Previous Forms:** None

**Collection Frequency:** Weekly

**Resulting Publications:** Data not published

### **Form EIA-3, Quarterly Coal Consumption Report—Manufacturing Plants**

Form EIA-3 is used to collect data related to coal consumption by rank at U.S. manufacturing plants. Information on coal consumption, stocks, and receipts (quantity and cost) is collected to provide Congress with basic statistics concerning coal consumption, stocks, prices, and quality (coal rank), as required by the Federal Energy Administration Act of 1974 (Public Law 93-275). The data are also used for coal demand analyses and in short-term modeling efforts that produce forecasts of energy (coal) demand and prices. Respondents are all manufacturing companies that consume in excess of 1,000 short tons of anthracite, bituminous, subbituminous coal or lignite for uses other than coke production during the year, defined by the current reporting quarter and the previous three reporting quarters.

**Previous Forms:** BOM-6-1400-M-1, Monthly Fuel Consumption Report - Manufacturing Plants

**Collection Frequency:** Quarterly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0118, *Coal Industry Annual*

DOE/EIA-0121, *Quarterly Coal Report*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0376, *State Energy Price and Expenditure Report*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

### **Form EIA-3A, Annual Coal Quality Report—Manufacturing Plants**

EIA-3A collects information on the origin (State or country) and quality of coal receipts for manufacturing plants. Data are published in the *Coal Industry Annual* and are used in calculating more accurately the energy consumed in the industrial sector (for coal

consumers) as published in the Btu tables of the EIA's *Monthly Energy Review*. Respondents are manufacturing plants that consume in excess of 1,000 short tons of coal during the year.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0118, *Coal Industry Annual*

#### **Form EIA-4, Weekly Coal Monitoring Report—Coke Plants (Standby Form)**

Standby Form EIA-4 is used to track coal stocks, receipts and consumption, and coke stocks during a coal supply disruption. In conjunction with Forms EIA-1 and EIA-20 data, EIA-4 data are used for supply forecasts and to inform the public, industry, and Government of aggregated coal consumption and inventories. Respondents are producers of coke.

**Previous Forms:** None

**Collection Frequency:** Weekly

**Resulting Publications:** Data not published

#### **Form EIA-5, Coke Plant Report—Quarterly**

Form EIA-5 is designed to provide data for use in statistical reports, publications, and analyses. Data collected include production, transfers, consumption, sales, and stocks of coal, coke, and breeze. Respondents include all companies operating coke plants.

**Previous Forms:** BOM-6-1365-M, Coke and Coal Chemical Materials

**Collection Frequency:** Quarterly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0118, *Coal Industry Annual*

DOE/EIA-0121, *Quarterly Coal Report*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0376, *State Energy Price and Expenditure Report*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

#### **Form EIA-5A, Annual Coal Quality Report - Coke Plants**

Form EIA-5A collects coal quality data related to coal consumption at U.S. coke plants to provide Congress with basic statistics concerning the quality of coal consumed in the steel industry as required by the Federal Energy Administration Act of 1974 (FEAA) (P.L. 93-275), as amended. These data are used for coal demand forecasts of energy

(coal) demand and prices requested by Congress.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0118, *Coal Industry Annual*

#### **Form EIA-6, Coal Distribution Report**

Form EIA-6 is designed to provide coal distribution data for publications, analyses, and statistical reports. Data collected cover the origin of coal produced and purchased, distribution by mode of transportation and consumer category, sales to other coal distributors, and end-of-quarter stocks. Respondents are all companies that owned or purchased and distributed in excess of 50,000 short tons of coal during the report year, defined by the current reporting quarter and the three previous reporting quarters.

**Previous Forms:** BOM-6-1419-Q, Distribution of Bituminous Coal and Lignite Shipments

**Collection Frequency:** Quarterly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0118, *Coal Industry Annual*

DOE/EIA-0121, *Quarterly Coal Report*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0218, *Weekly Coal Production*

DOE/EIA-0292, *An Assessment of the Quality of Selected EIA Data Series: Coal and Electric Power Data from 1977 to 1982*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

#### **Form EIA-7A, Coal Production Report**

Form EIA-7A is designed to provide information on current and prospective coal production, capacity, prices, reserves, and labor productivity. It is also used to investigate the performance of, and competition in, the coal industry. Data collected cover company identification, types of mining operations, recoverable reserves, production quantity and value, productive capacity, employment, and projected production. Respondents are all U.S. coal mining operations that produce 10,000 short tons or more during the report year.

**Previous Forms:** BOM-6-1401-A, Bituminous Coal and Lignite Production and Mine Operation

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0118, *Coal Industry Annual*

DOE/EIA-0121, *Quarterly Coal Report*  
DOE/EIA-0218, *Weekly Coal Production*  
DOE/EIA-0292, *An Assessment of the Quality of Selected EIA Data Series: Coal and Electric Power Data from 1977 to 1982*  
DOE/EIA-0383, *Annual Energy Outlook*  
DOE/EIA-0384, *Annual Energy Review*

#### **Form EIA-14, Refiners' Monthly Cost Report**

Form EIA-14 is used to provide data on the cost of crude oil purchased by refiners. These data are used for publications and statistical reports.

**Previous Forms:** FEA-P110-M-1, Refiners' Monthly Cost Allocation Report

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*  
DOE/EIA-0202, *Short-Term Energy Outlook*  
DOE/EIA-0208, *Weekly Petroleum Status Report*  
DOE/EIA-0376, *State Energy Price and Expenditure Report*  
DOE/EIA-0380, *Petroleum Marketing Monthly*  
DOE/EIA-0383, *Annual Energy Outlook*  
DOE/EIA-0384, *Annual Energy Review*  
DOE/EIA-0487, *Petroleum Marketing Annual*

#### **Form EIA-20, Weekly Telephone Survey of Coal Burning Utilities (Standby Form)**

Standby Form EIA-20 is designed to track coal stocks, receipts, and consumption at electric utilities during coal supply disruptions. In conjunction with Forms EIA-1 and EIA-4 data, EIA-20 data are used to inform the public, industry, and Government of aggregate coal data. Respondents are coal-consuming electric utilities.

**Previous Forms:** None

**Collection Frequency:** Weekly

**Resulting Publications:** Data not published

#### **Form EIA-23, Annual Survey of Domestic Oil and Gas Reserves**

Form EIA-23 is designed to provide national and regional data on the reserves of crude oil, natural gas, and natural gas liquids. These data are used to develop national and regional estimates of proved reserves of domestic crude oil, natural gas, and natural gas liquids, and to facilitate national energy policy decisions. Data are provided on proved reserves and production of crude oil, natural gas (associated-dissolved and nonassociated), and lease condensate by State and geographic subdivision. Respondents are well operators who produce annually at least 400,000 barrels of crude oil or 2 billion cubic feet of gas. A sample of

smaller operators is required to submit brief summary reports.

**Previous Forms:** FPC-40, Annual Report of Proved Domestic Reserves

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0131, *Natural Gas Annual*  
DOE/EIA-0216, *United States Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*  
DOE/EIA-0383, *Annual Energy Outlook*  
DOE/EIA-0384, *Annual Energy Review*  
DOE/EIA-0534, *U.S. Oil and Gas Reserves by Year of Field Discovery*  
DOE/EIA-0542, *Natural Gas Productive Capacity for the Lower 48 States*  
DOE/EIA-0567, *Largest U.S. Oil and Gas Fields*  
DOE/EIA-0557, *Geologic Distributions of U.S. Oil and Gas*

#### **Form EIA-23P, Oil and Gas Well Operator List Update Report**

Form EIA-23P is used to determine the status, active or inactive, and approximate level of production for domestic oil and gas well operators currently listed by EIA as respondents to Form EIA-23. These data are then used to update the Form EIA-23 list of well operators. The removal from this list of inactive firms and knowledge of the production level of active operators are necessary to maintain an accurate frame and to reduce sampling errors of future Form EIA-23 surveys.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:** Data not published

#### **Form EIA-28, Financial Reporting System**

Form EIA-28 is the basis for a financial reporting system mandated in Section 205(h)(2) of the DOE Organization Act. Data gathered cover revenues, profits, funds flow, costs, and investments by line of energy business (separately for foreign and domestic operations). The energy business lines are petroleum, coal, other energy (including uranium), and nonenergy. Petroleum is further broken down into production, refining, marketing, international marine, and domestic pipelines. Respondents each account for at least 1 percent of domestic production or reserves of oil, gas, coal, or uranium, or 1 percent of domestic oil production, refining capacity, or petroleum product sales.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0206, *Performance Profiles of Major Energy*

### *Producers*

DOE/EIA-0384, *Annual Energy Review*

### **Forms EIA-63A/B, Annual Solar Thermal Collector Manufacturers Survey and Annual Photovoltaic Module/Cell Manufacturers Survey**

Forms EIA-63A/B are designed to gather for publication data on shipments of solar thermal collectors and photovoltaic modules. Data are collected by end use and market sector. Collector types include low-temperature, medium-temperature air, medium-temperature liquid, thermosiphon, flat plate, concentrator, integral collector storage, and evacuated tube and concentrators. Respondents are manufacturers, importers, and exporters of solar thermal collectors and photovoltaic modules.

**Previous Forms:** CE-63A/B, Annual Solar Thermal Collector Manufacturers Survey and Annual Photovoltaic Module/Cell Manufacturers Survey  
**Collection Frequency:** Annually

#### **Resulting Publications:**

DOE/EIA-0174, *Solar Collector Manufacturing Activity*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0603(95), *Renewable Energy Annual 1995*

### **Form EIA-64A, Annual Report of the Origin of Natural Gas Liquids Production**

Form EIA-64A is designed to provide data that are used to estimate natural gas plant liquids production and reserves by State and region. Data collected cover plant and respondent identification, origin of natural gas received, natural gas plant liquids produced, and gas shrinkage resulting from natural gas plant liquids extraction. Respondents are natural gas processing plant operators.

**Previous Forms:** None

**Collection Frequency:** Annually

#### **Resulting Publications:**

DOE/EIA-0131, *Natural Gas Annual*

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0216, *United States Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0542, *Natural Gas Productive Capacity for the Lower 48 States*

### **Form EIA-176, Annual Report of Natural and Supplemental Gas Supply and Disposition**

Form EIA-176 is designed to provide data on the consumption of natural gas by major end-use category, demand, and prices by State for various

analyses and publications. Data collected cover the origin of natural gas supplies and the disposition of natural gas on a State basis. Respondents include natural and synthetic gas producers, processors, distributors, storage operators, and pipeline operators.  
**Previous Forms:** BOM-6-1340-A, Supply and Distribution of Natural Gas-Distributors

**Collection Frequency:** Annually

#### **Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0131, *Natural Gas Annual*

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0376, *State Energy Price and Expenditure Report*

### **Form EIA-182, Domestic Crude Oil First Purchase Report**

Form EIA-182 is designed to provide data on the first marketed price of domestic crude oil streams after production (i.e., wellhead price). Federal agencies and market analysts incorporate the data in diverse time-series, models, and cost indices. State-level data are sought for estimating current and proposed tax revenues and crude oil production volumes. Corporate planners and industry consultants use the data to forecast market response. Data are supplied by all firms that acquire domestic crude oil through a first purchase and assume ownership at or near the lease (location) on which crude oil was produced.

**Previous Forms:** ERA-182, Domestic Crude Oil First Purchaser's Report

**Collection Frequency:** Monthly

#### **Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0109, *Petroleum Supply Monthly*

DOE/EIA-0340, *Petroleum Supply Annual*

DOE/EIA-0380, *Petroleum Marketing Monthly*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0487, *Petroleum Marketing Annual*

### **Form EIA-191, Underground Gas Storage Report**

Data from operators of all underground natural gas storage fields are combined at the State level to help EIA assess the supplies of natural gas in storage fields in regions of the United States and to identify the location of the supplies. Specific data collected cover respondent identification, working and base gas in reservoirs, injections, withdrawals, and location, type, and capacity of reservoirs.

**Previous Forms:** FEA-G318-M-0, Underground Gas Storage Report

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0130, *Natural Gas Monthly*

DOE/EIA-0131, *Natural Gas Annual*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-191S, Weekly Underground Gas Storage Report (Standby Form)**

Form EIA-191S is designed to fill gaps in the natural gas data collections where monthly data are not sufficient for responses to natural disasters, severe weather, or other catastrophic events. The data would permit EIA to monitor the impact of regional disruptions on a weekly basis when the EIA Administrator determines that conditions or events warrant more frequent data. All companies that operate underground natural gas storage fields in specific geographic areas must provide the information requested.

**Previous Forms:** None

**Collection Frequency:** Weekly

**Resulting Publications:** Data not published

**Form EIA-254, Semiannual Report on Status of Reactor Construction**

Form EIA-254 is designed to provide data on nuclear units planned or under construction by electric utilities, including data on cost, date of first fuel loading, and date the unit is scheduled for commercial operation. Costs for land acquisition and equipment are also gathered. Respondents are all U.S. electric utilities that have ordered nuclear steam supply systems and have not yet completed nuclear facility construction.

**Previous Forms:** ERDA-HQ-254, Quarterly Progress Report on Status of Reactor Construction

**Collection Frequency:** Semiannually, Annually

**Resulting Publications:** Data not published

**Form EIA-412, Annual Report of Public Electric Utilities**

Form EIA-412 is designed to provide accounting, financial, and operating data from publicly owned electric utilities whose annual sales to ultimate consumers, or sales for resale, are 120,000 megawatt-hours or greater for each of the two previous years. These data are published and used in EIA studies and analyses of the electric power industry. Data collected cover balance sheets, income statements, expense data, electric

sales and purchases, generating plant data by type of plants, and transmission line data.

**Previous Forms:** EP-412, Annual Report for Municipal Electric Utilities with Annual Revenues of \$250,000 or More

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0348/2, *Electric Power Annual, Volume II*  
DOE/EIA-0376, *State Energy Price and Expenditure Report*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0437/2, *Financial Statistics of Major U.S. Publicly Owned Electric Utilities*

DOE/EIA-0531, *Electric Trade in the United States*

**Form EIA-457A/H, Residential Energy Consumption Survey**

Forms EIA-457A through G are used to collect comprehensive national and regional data on both the consumption of, and expenditures for, energy in the residential sector of the economy. Data are used for analyzing and forecasting residential energy consumption. Housing, appliance, and demographic characteristics data are collected via personal interviews with households, and consumption and expenditure billing data are collected from the energy suppliers. End-use intensities are produced for space heating, water heating, air conditioning, refrigerators, and appliances. Rental agents are contacted by telephone to check on fuels used in rented apartments. Surveys were conducted in 1978, 1979, 1980, 1981, 1982, 1984, 1987, 1990, and 1993. Form EIA-457H is used to collect detailed lighting usage information for a subsample.

**Previous Forms:** EIA-84, National Energy Consumption Interim Survey

**Collection Frequency:** Triennially

**Resulting Publications:**

DOE/EIA-0314(93), *Housing Characteristics 1993*

DOE/EIA-0321(93), *Household Energy Consumption and Expenditures 1993*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0555(93)/2, *User Needs Study for the 1993 Residential Energy Consumption Survey*

DOE/EIA-0555(95)/1, *Buildings and Energy in the 1980's*

DOE/EIA-0555(95)/2, *Measuring Energy Efficiency in the United States' Economy: A Beginning*

**Form EIA-627, Annual Quantity and Value of Natural Gas Report**

Form EIA-627 provides information on natural gas production, the value of natural gas, and the number

of producing gas wells. Monthly data are collected annually on an aggregate basis from State agencies already collecting these data.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0130, *Natural Gas Monthly*

DOE/EIA-0131, *Natural Gas Annual*

DOE/EIA-0384, *Annual Energy Review*

#### **Form EIA-759, Monthly Power Plant Report**

Form EIA-759 is designed to provide net generation, fuel consumption, and end-of-month fuel stocks for all electric generating plants. Specific data also include prime mover and fuel type. These data are used in EIA publications and forecasting models. Respondents are all U.S. electric utilities engaged in the production of electric power for public use.

**Previous Forms:** FPC-4, Monthly Power Plant Report

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0118, *Coal Industry Annual*

DOE/EIA-0121, *Quarterly Coal Report*

DOE/EIA-0131, *Natural Gas Annual*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0226, *Electric Power Monthly*

DOE/EIA-0348/1, *Electric Power Annual, Volume I*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0455, *Electric Plant Cost and Power Production Expenses*

DOE/EIA-0531, *Electric Trade in the United States*

DOE/EIA-0538, *Winter Fuels Report*

#### **Form EIA-767, Steam-Electric Plant Operation and Design Report**

Form EIA-767 is designed to provide information on air and water quality from steam-electric power plants with generating capacity of 100 megawatts or greater. A subset of these data are provided from steam-electric power plants with generating capacity between 10 and 100 megawatts. The data collection is jointly sponsored and shared by the Environmental Protection Agency, the Bureau of Economic Analysis (Department of Commerce), DOE's Office of Environmental Analysis, and DOE's Office of Fossil Energy. Data

are used by these agencies to evaluate fuel use in rate proceedings; to develop, assess, reform, and enforce regulations under the Clean Air Act, the Federal Water Pollution Act, and the Resource Conservation and Recovery Act of 1976; to assess the impact of pollution abatement and control expenditures on the GNP; and to assess the effect of environmental regulations on the generation of electric power. The Form EIA-767 was cited in the Clean Air Act Amendments of 1990 as the source of data establishing a baseline for use in calculating allowances of sulfur dioxide. Data are also used to perform analyses pursuant to the Interagency Acid Precipitation Task Force and are available on tape from the National Technical Information Service.

**Previous Forms:** FPC-67, Steam-Electric Plant Air and Water Quality Control Data

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0118, *Coal Industry Annual*

DOE/EIA-0348/2, *Electric Power Annual, Volume II*

DOE/EIA-0383, *Annual Energy Outlook*

#### **Form EIA-782A, Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report**

Form EIA-782A is designed to provide monthly information on sales prices and volumes of certain petroleum products from a universe of refiners and gas plant operators. This information is published at various aggregation levels and is used by EIA to perform analyses and make projections related to energy supplies, demand, and prices.

**Previous Forms:** EIA-460, Petroleum Industry Monthly Report for Product Prices

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0208, *Weekly Petroleum Status Report*

DOE/EIA-0376, *State Energy Price and Expenditure Report*

DOE/EIA-0380, *Petroleum Marketing Monthly*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0487, *Petroleum Marketing Annual*

#### **Form EIA-782B, Resellers'/Retailers' Monthly Petroleum Product Sales Report**

Form EIA-782B is designed to provide monthly State sales volumes and prices for motor gasoline, No. 2 distillate, and residual fuel oil from a sample of distillate fuel oil resellers and retailers, motor gasoline wholesalers, and residual fuel oil resellers and retailers. This information is published at various

aggregate levels and is used by EIA to perform analyses and make projections related to energy supplies, demand, and prices.

**Previous Forms:** EIA-460, Petroleum Industry Monthly Report for Product Prices

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0208, *Weekly Petroleum Status Report*

DOE/EIA-0376, *State Energy Price and Expenditure Report*

DOE/EIA-0380, *Petroleum Marketing Monthly*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0487, *Petroleum Marketing Annual*

### **Form EIA-782C, Monthly Report of Prime Supplier Sales of Petroleum Products Sold for Local Consumption**

Form EIA-782C provides monthly information on prime supplier sales of selected petroleum products into the local markets of ultimate consumption. A firm that produces, imports, or transports products across State boundaries and local marketing areas and sells the products to local distributors, local retailers, or end users must complete Form EIA-782C. Respondents include refiners, gas plant operators, importers, petroleum product resellers, and petroleum product retailers. This information is used by EIA to perform analyses and make projections related to energy supplies and demand.

**Previous Forms:** EIA-25, Prime Supplier's Monthly Report

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0380, *Petroleum Marketing Monthly*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0466, *Profiles of Foreign Direct Investment in U.S. Energy*

DOE/EIA-0487, *Petroleum Marketing Annual*

### **Form EIA-800, Weekly Refinery Report**

Form EIA-800 is designed to provide data on the operations of petroleum refineries and blending plants. Data are collected from a sample of operators of refineries and blending plants. Data include input and stocks of refinery feedstocks and net production and stocks of selected finished petroleum products.

**Previous Forms:** EIA-161, Refinery Report

**Collection Frequency:** Weekly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0109, *Petroleum Supply Monthly*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0208, *Weekly Petroleum Status Report*

DOE/EIA-0538, *Winter Fuels Report*

### **Form EIA-801, Weekly Bulk Terminal Report**

Form EIA-801 is designed to provide data on end-of-week stock levels of selected finished petroleum products that are held in custody by the responding operators. Data are collected from a sample of bulk terminal operators on a Petroleum Administration for Defense (PAD) District basis and sub-PAD District basis. Specific product stock data collected include reformulated, oxygenated, and other finished motor gasoline, motor gasoline blending components, naphtha- and kerosene-type jet fuels, distillate fuel oil by sulfur content, and residual fuel oil.

**Previous Forms:** EIA-162, Bulk Terminal Report

**Collection Frequency:** Weekly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0109, *Petroleum Supply Monthly*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0208, *Weekly Petroleum Status Report*

DOE/EIA-0538, *Winter Fuels Report*

### **Form EIA-802, Weekly Product Pipeline Report**

**Description:** Form EIA-802 is designed to provide data on end-of-week stock levels of selected petroleum products that are held in custody by the reporting pipeline companies. Data are collected from a sample of petroleum product pipeline companies on PAD and sub-PAD District bases. Data collected include stocks of finished leaded and unleaded motor gasoline, motor gasoline blending components, naphtha- and kerosene-type jet fuels, and distillate fuel oil by sulfur content.

**Previous Forms:** EIA-163, Product Pipeline Stocks Report

**Collection Frequency:** Weekly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0109, *Petroleum Supply Monthly*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0208, *Weekly Petroleum Status Report*

DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-803, Weekly Crude Oil Stocks Report**

Form EIA-803 is designed to provide data on end-of-week crude oil stocks. Reported data include crude oil stocks by PAD District and stocks of Alaskan crude oil in transit by water. Data are reported by a sample of companies that transport or store 1,000 barrels or more of crude oil. Data are reported on a custody basis. Respondents are gathering and trunk pipeline companies (interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and transporters of Alaskan crude oil by water.

**Previous Forms:** EIA-164, Crude Oil Stocks Report

**Collection Frequency:** Weekly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0109, *Petroleum Supply Monthly*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0208, *Weekly Petroleum Status Report*

**Form EIA-804, Weekly Imports Report**

Form EIA-804 is designed to provide data on imports of crude oil and selected petroleum products by PAD District or sub-PAD District. These data are provided by a sample of importers of record who import petroleum into the 50 States and the District of Columbia. Specific products addressed are crude oil; reformulated, oxygenated, and other finished motor gasoline; motor gasoline blending components; naphtha- and kerosene-type jet fuels; distillate fuel oil by sulfur content; residual fuel oil; liquefied petroleum gases; and other petroleum products. In addition, imports of crude oil by country of origin are collected.

**Previous Forms:** EIA-165, Imports Report

**Collection Frequency:** Weekly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0109, *Petroleum Supply Monthly*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0208, *Weekly Petroleum Status Report*

DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-807, Propane Telephone Survey**

EIA-807 survey is designed to provide data on production, stocks, and imports of propane. Data collected will be used to monitor the supply of propane and to report to Congress and others on propane supplies when requested. Respondents

are a sample of refineries, bulk terminals, petroleum product pipelines, petroleum product importers, and natural gas processing plants located in PAD Districts I, II, or III.

**Previous Forms:** None

**Collection Frequency:** Weekly, Monthly

**Resulting Publications:**

DOE/EIA-0208, *Weekly Petroleum Status Report*

DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-810, Monthly Refinery Report**

Form EIA-810 is designed to provide information regarding the balance between the supply (beginning stocks, receipts, and production) and disposition (input, shipments, fuel use and losses, and ending stocks) of crude oil and refined products. Data are provided by all operating and idle refineries and blending plants.

**Previous Forms:** EIA-87, Refinery Report; EIA-87A, Motor Gasoline Producers Report

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0109, *Petroleum Supply Monthly*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0208, *Weekly Petroleum Status Report*

DOE/EIA-0340, *Petroleum Supply Annual*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-811, Monthly Bulk Terminal Report**

Form EIA-811 is designed to provide data on end-of-month stock levels of reformulated, oxygenated, and other finished motor gasoline, motor gasoline blending components, finished aviation gasoline, special naphthas, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil by sulfur content, residual fuel oil by sulfur content, lubricants, asphalt and road oil, pentanes plus, liquefied petroleum and refinery gases, miscellaneous products, and oxygenates. Data are reported at the State level, including the District of Columbia, and for Puerto Rico and the Virgin Islands on a custody basis by bulk terminal operating companies.

**Previous Forms:** EIA-88, Bulk Terminal Stocks Report; EIA-175A, Bulk Terminal Stocks Of No. 4 And Residual Fuel Oils

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0109, *Petroleum Supply Monthly*

DOE/EIA-0202, *Short-Term Energy Outlook*  
DOE/EIA-0208, *Weekly Petroleum Status Report*  
DOE/EIA-0340, *Petroleum Supply Annual*  
DOE/EIA-0383, *Annual Energy Outlook*  
DOE/EIA-0384, *Annual Energy Review*  
DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-812, Monthly Product Pipeline Report**

Form EIA-812 is designed to provide data on end-of-month stock levels and movements of petroleum products transported by pipeline. Data are reported on a custody basis by all product pipeline companies. Data include stocks of products in pipelines and working tanks, as well as movements of products between PAD Districts.

**Previous Forms:** EIA-89, Pipeline Products Report

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*  
DOE/EIA-0109, *Petroleum Supply Monthly*  
DOE/EIA-0202, *Short-Term Energy Outlook*  
DOE/EIA-0208, *Weekly Petroleum Status Report*  
DOE/EIA-0340, *Petroleum Supply Annual*  
DOE/EIA-0383, *Annual Energy Outlook*  
DOE/EIA-0384, *Annual Energy Review*  
DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-813, Monthly Crude Oil Report**

Form EIA-813 is designed to provide data on end-of-month stocks of crude oil by PAD District, consumption of crude oil during the month by pipelines and on leases, stocks of Alaskan crude oil in transit by water, and movements of crude oil by pipeline between PAD Districts. Data are collected from all companies which carry or store 1,000 barrels or more of crude oil. Respondents are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators and storers of crude oil (except refineries), and companies transporting crude oil by water in the 50 States and the District of Columbia.

**Previous Forms:** EIA-90, Crude Oil Stocks Report

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*  
DOE/EIA-0109, *Petroleum Supply Monthly*  
DOE/EIA-0202, *Short-Term Energy Outlook*  
DOE/EIA-0208, *Weekly Petroleum Status Report*  
DOE/EIA-0340, *Petroleum Supply Annual*  
DOE/EIA-0383, *Annual Energy Outlook*  
DOE/EIA-0384, *Annual Energy Review*

**Form EIA-814, Monthly Imports Report**

Form EIA-814 is designed to provide data on imports of crude oil and petroleum products. Data are filed by each importer of record who imports petroleum into the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands and other U.S. possessions; and from Puerto Rico, the Virgin Islands, and U.S. possessions into the 50 States and the District of Columbia.

**Previous Forms:** ERA-60, Monthly Imports Report; FEA-P126-M-0, Domestic Crude Oil Entitlements Program Importers Monthly Report

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*  
DOE/EIA-0109, *Petroleum Supply Monthly*  
DOE/EIA-0202, *Short-Term Energy Outlook*  
DOE/EIA-0208, *Weekly Petroleum Status Report*  
DOE/EIA-0340, *Petroleum Supply Annual*  
DOE/EIA-0383, *Annual Energy Outlook*  
DOE/EIA-0384, *Annual Energy Review*  
DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-816, Monthly Natural Gas Liquids Report**

Form EIA-816 is designed to provide information regarding the balance between the supply (beginning stocks, receipts, and production) and disposition (input, shipments, fuel use and losses, and ending stocks) of natural gas liquids. The data are used to report aggregate statistics on, and conduct analyses of, the operation of U.S. natural gas processing plants and fractionators. Data are supplied by operators of facilities designed to extract liquid hydrocarbons from a natural gas stream (natural gas processing plants) or to separate a liquid hydrocarbon stream into its component products (fractionators).

**Previous Forms:** EIA-64, Natural Gas Liquids Operations Report

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*  
DOE/EIA-0109, *Petroleum Supply Monthly*  
DOE/EIA-0131, *Natural Gas Annual*  
DOE/EIA-0202, *Short-Term Energy Outlook*  
DOE/EIA-0208, *Weekly Petroleum Status Report*  
DOE/EIA-0340, *Petroleum Supply Annual*  
DOE/EIA-0383, *Annual Energy Outlook*  
DOE/EIA-0384, *Annual Energy Review*  
DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-817, Monthly Tanker and Barge Movement Report**

Form EIA-817 is designed to provide data on the shipments of crude oil and petroleum products between PAD Districts. The information is used in computing domestic demand for petroleum products by PAD Districts and to forecast short-term petroleum demand. Respondents are all companies that have custody of crude oil or petroleum products transported by tanker or barge between PAD Districts. Also, companies that have custody of crude oil or petroleum products originating from a PAD District and transported to the Panama Canal and companies which have custody of domestically originating crude oil or petroleum products transported from the Panama Canal to a PAD District must report.

**Previous Forms:** EIA-170, Tanker and Barge Shipments of Crude Oil and Petroleum Products Between PAD Districts

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0109, *Petroleum Supply Monthly*  
DOE/EIA-0340, *Petroleum Supply Annual*  
DOE/EIA-0383, *Annual Energy Outlook*

**Form EIA-819A, Annual Oxygenate Capacity Report**

Form EIA-819A is used to collect data on current and projected production capacities and annual production and end-of-year stocks of fuel ethanol for all facilities that produce or distill oxygenates. Data are collected for operating and idle production capacity as of the first day of the year, projected production capacity as of the first day of the following year, and previous year's production and stocks of fuel ethanol. Respondents are operators of all operating and idle facilities that produce or distill oxygenates and new plants under construction in the United States, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0340, *Petroleum Supply Annual*

**Form EIA-819M, Monthly Oxygenate Telephone Report**

Form EIA-819M is designed to obtain information on oxygenate production, imports, and end-of-month stocks. Data are reported by oxygenate type and PAD District. Respondents are a sample of: operators of facilities that produce oxygenates; operators of petroleum refineries; operators of

bulk terminals, bulk stations, blending plants, and other non-refinery facilities that store or blend oxygenates; and importers of oxygenates.

**Previous Forms:** EIA-819, Monthly Oxygenate Telephone Survey

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0109, *Petroleum Supply Monthly*  
DOE/EIA-0208, *Weekly Petroleum Status Report*  
DOE/EIA-0384, *Annual Energy Review*  
DOE/EIA-0340, *Petroleum Supply Annual*

**Form EIA-820, Annual Refinery Report**

Form EIA-820 is used to collect data on current and projected capacities of the facilities of all petroleum refineries and blending plants located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. Current year and projections for the next year are reported for operable atmospheric crude oil distillation capacity, downstream charge capacity, and production capacity. In addition, data include current year working and shell storage capacity of crude oil and petroleum products, prior year's data for fuels consumed at the refineries for all purposes, and refinery receipts of crude oil by method of transportation. Data are used to conduct analyses of the operation of U.S. petroleum refineries and blending plants. Respondents are operators of all operating and idle petroleum refineries (including new refineries under construction), blending plants, shutdown refineries with usable storage capacity, and refineries shut down during the previous year.

**Previous Forms:** BOM-6-1334-A, Capacity of Petroleum Refineries

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0214, *State Energy Data Report*  
DOE/EIA-0340, *Petroleum Supply Annual*  
DOE/EIA-0384, *Annual Energy Review*  
DOE/EIA-0383, *Annual Energy Outlook*

**Form EIA-821, Annual Fuel Oil and Kerosene Sales Report**

Form EIA-821 is designed to provide data on the annual sales of distillate and residual fuel oil and kerosene. The data, which are published by EIA, are used to determine current and projected fuel oil needs on national, regional, and State levels. The survey specifically covers sales of distillate and residual fuel oils and kerosene by end use and State of destination. Respondents are a scientifically selected sample of fuel oil dealers in the 50 States and the District of Columbia. Data on the sales of motor

gasoline and propane were collected for reference year 1994. Thereafter, sales of propane and motor gasoline have been collected every three years.

**Previous Forms:** EIA-172, Sales Report of Fuel Oil and Kerosene

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0535, *Fuel Oil and Kerosene Sales*

### **Form EIA-825, Petroleum Facility Operator Identification Survey**

Form EIA-825 is designed to obtain information on petroleum supply facilities for use in determining if the facilities should be included in EIA surveys EIA-810, EIA-811, EIA-812, EIA-813, EIA-816, and EIA-817. Information includes stocks, storage capacity, pipeline, tanker and barge transport operations, as well as blending, refining, and natural gas processing activities. Respondents are operators of bulk terminals, pipeline systems, tankers and barges, and petroleum or natural gas processing plants.

**Previous Forms:** EIA-747, Petroleum Facility Operator Identification Survey

**Collection Frequency:** Triennially

**Resulting Publications:** Data not published

### **Form EIA-826, Monthly Electric Utility Sales and Revenue Report with State Distributions**

Form EIA-826 is designed to collect data on electricity sales and associated revenue to ultimate consumers by class of service, at the State/electric utility level. Estimates of sales, associated revenue, and average revenue per kilowatt-hour sold (the ratio of revenue to sales) at the national, Census division, and State level, based on these reported data, are published by EIA. In addition, at the total company level, selected financial statistics are requested: depreciation and amortization of property, plant, and equipment; allowance for funds used during construction; net income; and gross additions to construction work in progress. These financial statistics are used by the U.S. Department of Commerce for compiling the Gross National Product statistics.

**Previous Forms:** FERC-5, Electric Utility Company Monthly Statement

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0226, *Electric Power Monthly*

DOE/EIA-0348/1, *Electric Power Annual, Volume I*

DOE/EIA-0376, *State Energy Price and Expenditure Report*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

### **Form EIA-846(A,B,C), Manufacturing Energy Consumption Survey**

Forms EIA-846A through C are used to collect information on energy consumption, energy usage patterns, and fuel-switching capabilities of the manufacturing sector of the U.S. economy. The information from this survey is used to publish aggregate statistics on the consumption of energy for fuel and nonfuel purposes; fuel-switching capabilities; and certain energy-related issues, such as energy prices, on-site electricity generation, and purchases of electricity from nonutilities. Since 1991, the survey has also collected information on end users of energy, participation in energy management programs, and penetration of new technology. Respondents are a sample of manufacturing establishments in Standard Industrial Classification categories 20 through 39.

**Previous Forms:** EIA-846(F), Manufacturing Energy Consumption Survey (Consumption and Related)

**Collection Frequency:** Triennially

**Resulting Publications:**

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0512(91), *Manufacturing Energy Consumption Survey: Consumption of Energy 1991*

DOE/EIA-0552, *Changes in Energy Intensity in the Manufacturing Sector 1985-1991*

DOE/EIA-0555(92)/2, *Development of the 1991 Manufacturing Energy Consumption Survey*

DOE/EIA-0555(92)/3, *Derived Annual Estimates of Manufacturing Energy Consumption 1974-1988*

DOE/EIA-0555(95)/2, *Measuring Energy Efficiency in the United States' Economy: A Beginning*

### **Form EIA-851, Domestic Uranium Mining Production Report**

Form EIA-851 is designed to provide data which are needed to monitor the viability of the domestic uranium mining and milling industry pursuant to the Nuclear Regulatory Commission Authorization Act of 1983. This collection replaced production reporting to the Grand Junction Area Office in Colorado. Data collected include beginning and end-of-month inventories, production, and processing of uranium. These data are not published but are analyzed and used as input to annual reports to Congress and the

President. Respondents are uranium concentrate producing firms.

**Previous Forms:** None

**Collection Frequency:** Monthly

**Resulting Publications:** Data not published

#### **Form EIA-856, Monthly Foreign Crude Oil Acquisition Report**

Form EIA-856 is designed to provide data on costs of foreign crude oil acquired for importation into the United States, its territories, and its possessions. These data are used as follows: to calculate price indices by the Bureau of Labor Statistics; in analyses of consumption, production, and prices of fuels worldwide; and in modeling and forecasting. Data collected include crude oil transactions, country crude code, crude type, gravity, date of loading/landing, port of destination, vessel, volume purchased, purchase price, other costs, landed costs, number of days credit, and names of vendors. Respondents include all firms reporting previously on Form ERA-51, Transfer Pricing Report, as of June 1982, and all other firms importing 500,000 barrels of foreign crude oil during the report month.

**Previous Forms:** EP-51, Monthly Foreign Crude Oil Transaction Report

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0380, *Petroleum Marketing Monthly*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0487, *Petroleum Marketing Annual*

#### **Form EIA-857, Monthly Report of Natural Gas Purchases and Deliveries to Consumers**

Form EIA-857 is designed to provide volume and cost or revenue data on natural gas delivered to residential, commercial, and industrial consumers. State and regional summaries of these data are published by EIA and are used by other branches of Government to make analyses and projections. Respondents are a sample of natural gas companies that deliver to consumers in the United States

**Previous Forms:** None

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0130, *Natural Gas Monthly*

#### **Form EIA-857S, Weekly Report of Natural Gas Supplies and Deliveries to Consumers (Standby Form)**

Form EIA-857S is designed to fill gaps in the natural gas data collections where monthly data are not sufficient for responses to natural disasters, severe weather, or other catastrophic events. All companies currently responding to the EIA-857 in specific geographic areas affected would report. The data would permit EIA to monitor the impact of regional disruptions on a weekly basis when the EIA Administrator determines that conditions or events warrant more frequent data.

**Previous Forms:** None

**Collection Frequency:** Weekly

**Resulting Publications:** Data not published

#### **Form EIA-858, Uranium Industry Annual Survey**

Form EIA-858 is a mandatory collection of data on exploration and development, reserves, ore and concentrate production, marketing, inventories, shipments for enrichment, requirements, and financial information compiled from companies in the uranium industry in the United States. These data are used to monitor the viability of the domestic uranium mining and milling industry pursuant to the Nuclear Regulatory Commission Authorization Act of 1983. In addition, the data are used extensively by the public and private sectors to analyze trends in the uranium industry and to assess the current status of the industry.

**Previous Forms:** EIA-491A, Survey of United States Uranium Marketing Activity (January; Collection); NE-491A, Survey of Uranium Marketing Activities

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0478, *Uranium Industry Annual*

DOE/EIA-0570, *Uranium Purchases Report*

#### **Form EIA-860, Annual Electric Generator Report**

Form EIA-860 is used to collect data on the status of electric generating plants and associated equipment in operation and those scheduled to be in operation in the United States within 10 years of filing of the report. These data are used to maintain and update the EIA's electric power plant frame data base. Data are collected on power plant sites and the design data of electric generators. Respondents include each electric utility that operates, or plans to operate, a power plant in the United States within 10 years of the report.

**Previous Forms:** EIA-119A, Annual Projection of System Changes

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*  
DOE/EIA-0095, *Inventory of Power Plants in the United States*  
DOE/EIA-0202, *Short-Term Energy Outlook*  
DOE/EIA-0226, *Electric Power Monthly*  
DOE/EIA-0348/1, *Electric Power Annual, Volume I*  
DOE/EIA-0383, *Annual Energy Outlook*  
DOE/EIA-0384, *Annual Energy Review*  
DOE/EIA-0455, *Electric Plant Cost and Power Production Expenses*

**Form EIA-861, Annual Electric Utility Report**

Form EIA-861 is a mandatory collection of data, filed annually by each electric utility in the United States, its territories, and Puerto Rico. The survey collects data on generation, wholesale purchases, and sales and revenue by class of consumer and State. These data are used to maintain and update EIA's electric utility frame database. This data base provides information to answer questions from the Executive Branch, Congress, other public agencies, and the general public. Respondents include each electric utility that is a corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities within the United States, its territories, or Puerto Rico for the generation, transmission, distribution, or sale of electric energy primarily for use by the public. Demand-side management data collected on the form are estimated by electric utilities on the basis of engineering data or statistical analysis.

**Previous Forms:** FPC-12, Power System Statement

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0214, *State Energy Data Report*  
DOE/EIA-0226, *Electric Power Monthly*  
DOE/EIA-0348/2, *Electric Power Annual, Volume II*  
DOE/EIA-0384, *Annual Energy Review*  
DOE/EIA-0437/1, *Financial Statistics of Major Investor-Owned Electric Utilities*  
DOE/EIA-0437/2, *Financial Statistics of Major U.S. Publicly Owned Electric Utilities*  
DOE/EIA-0531, *Electric Trade in the United States*  
DOE/EIA-0540, *Electric Sales and Revenue*

**Form EIA-863, Petroleum Product Sales Identification Survey**

EIA-863 is designed to provide a comprehensive

frame file of No. 2 distillate and residual fuel oil dealers, motor gasoline resellers, and propane resellers. Information is collected on size, type, and geographic location of these firms. The firms surveyed, along with their associated volumetric data and tracking information, serve as the sampling frame for Forms EIA-821 (Annual Fuel Oil and Kerosene Sales Report), EIA-782 (Monthly Petroleum Products Sales Report), EIA-877 (Winter Heating Fuels Telephone Survey), EIA-878, (Daily Motor Gasoline Price Survey), and other ad hoc surveys, such as the National Petroleum Council Surveys.

**Previous Forms:** EIA-764A, Petroleum Product Sales Identification Survey

**Collection Frequency:** Triennially

**Resulting Publications:** Data not published

**Form EIA-867, Annual Nonutility Power Producer Report**

EIA-867 collects data annually from nonutility power producers who own or plan on installing electric generation equipment with a total capacity of one megawatt or more at an existing or proposed site. Electricity generation, installed capacity, and energy consumption data are collected. These data will be used to augment existing electric utility data and for electric power forecasts and analyses.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0348/2, *Electric Power Annual, Volume II*  
DOE/EIA-0383, *Annual Energy Outlook*  
DOE/EIA-0384, *Annual Energy Review*

**Form EIA-868, Quarterly Coal Imports by Electric Utilities into the United States**

Form EIA-868 collects quantity, quality, and cost (transportation, mine price, delivered price) of coal imported by electric utility plants. This information is used to prepare quarterly and annual summaries on coal imports, including data and analysis on prices, sources of exports, transportation methods and costs, and displacement of U.S. coal by imports.

**Previous Forms:** None

**Collection Frequency:** Quarterly

**Resulting Publications:** Data not published

**Form EIA-871A (FS), Commercial Buildings Energy Consumption Survey—Building Questionnaire, Federal Supplement**

EIA-871A (FS) collects data on energy consumption in Federal buildings and the characteristics of these buildings. The survey fulfills planning, analyses, and decisionmaking needs of DOE, other Federal

agencies, State governments, and the private sector. Respondents are managers of Federally owned commercial buildings in Federal regions III, VI, and IX.

**Previous Forms:** None

**Collection Frequency:** Nonrecurring

**Resulting Publications:**

SR/EMEU/95-02, *Federal Buildings Supplemental Survey 1993*

**Form EIA-871A/F, Commercial Buildings Energy Consumption Survey**

Forms EIA-871A through F are used to collect information for the Commercial Buildings Energy Consumption Survey (CBECS). The survey provides comprehensive national and regional information on the consumption of, and expenditures for, energy in the commercial sector of the economy. Data are used in EIA models and are published in statistical and analytical reports. Physical characteristics information for commercial buildings is collected by personal interviews with building owners and managers by using Form EIA-871A. Billing and consumption data for the buildings are collected by mail from individual energy suppliers by using Forms EIA-871C through F (depending upon the energy source). Supplemental information on construction improvements, maintenance, and repairs is collected for the Bureau of the Census by using Form EIA-871G. This survey was renamed the CBECS in 1989. Previously it was conducted under the name of Nonresidential Buildings Energy Consumption Survey.

**Previous Forms:** EIA-788A, Nonresidential Buildings Energy Consumption Survey—Original Building Form

**Collection Frequency:** Triennially

**Resulting Publications:**

DOE/EIA-0246(92), *Commercial Buildings Characteristics 1992*

DOE/EIA-0318(92), *Commercial Buildings Energy Consumption and Expenditures 1992*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0555(92)/1, *Lighting in Commercial Buildings*

DOE/EIA-0555(92)/4, *User Needs Study for the 1992 Commercial Buildings Energy Consumption Survey*

DOE/EIA-0555(93)/1, *Assessment of Energy Use in Multibuilding Facilities*

DOE/EIA-0555(94)/2, *Energy End-Use Intensities in Commercial Buildings*

DOE/EIA-0555(95)/1, *Buildings and Energy in the 1980's*

DOE/EIA-0555(95)/2, *Measuring Energy Efficiency in the United States' Economy: A Beginning*

**Form EIA-876A/E, Residential Transportation Energy Consumption Survey**

Forms EIA-876A through E are designed to collect information on the number and types of vehicles per household and for each vehicle: annual mileage; Vehicle Identification Number (VIN); and vehicle characteristics, such as size of engine, transmission type, and fuel type used (including alternative fuels). Fuel consumption, expenditures, and fuel efficiency are estimated by using Environmental Protection Agency, Bureau of Labor Statistics, and Lundberg Survey, Inc., data. Data are collected in a telephone survey and are used in EIA publications. Note: Residential Transportation Energy Consumption Survey was dropped from the publication title beginning with the 1988 survey.

**Previous Forms:** EIA-141, National Survey of Fuel Purchases for Vehicles - Purchase Log, Odometer Reading Cards, and Supplementary Questionnaire

**Collection Frequency:** Triennially

**Resulting Publications:**

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0464(91), *Household Vehicles Energy Consumption, 1991*

DOE/EIA-0555(95)/2, *Measuring Energy Efficiency in the United States' Economy: A Beginning*

**Form EIA-877, Winter Heating Fuels Telephone Survey**

Form EIA-877 is used to collect data on residential prices of No. 2 heating oil and propane. These data are used to monitor No. 2 heating oil and propane during the heating season (Oct. 1 - March 31) and to report to the Congress and others. Respondents are selected retailers of heating oil and propane in PAD Districts I and II.

**Previous Forms:** None

**Collection Frequency:** Other

**Resulting Publications:**

DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-878, Motor Gasoline Price Survey**

The EIA-878 collects information on the retail price of conventional, oxygenated, reformulated, and oxygenated reformulated gasoline for all three grades of gasoline. Data are used by EIA to monitor trends in gasoline markets and to analyze price impacts of new legislative requirements. Respondents are companies that own retail motor gasoline stations.

**Previous Forms:** None

**Collection Frequency:** Weekly

**Resulting Publications:** Data not published

**Form EIA-882T, Generic Clearance for Questionnaire Testing, Evaluation, and Research**

EIA-882T will be used to conduct pretest/pilot surveys (personal visit or face-to-face interviews, telephone interviews, mail questionnaires), focus groups, and cognitive interviews. Results will be used to modify questionnaires to improve the quality of EIA's data. Respondents will vary depending on the tests being conducted.

**Previous Forms:** None

**Collection Frequency:** On occasion

**Resulting Publications:** Data not published

**Form EIA-885, Propane Provider Fleet Survey**

Form EIA-885 is used to collect data on the fleets and fleet vehicles belonging to propane suppliers. Data will be published along with data obtained from other alternative fuel provider data. Respondents are companies who conduct bulk deliveries (residential and commercial) of propane.

**Previous Forms:** None

**Collection Frequency:** Triennially

**Resulting Publications:**

DOE/EIA-0604, *Describing Current and Potential Markets for Alternative-Fuel Vehicles*

**Form EIA-886, Alternative-Fuel Vehicles Suppliers' Annual Report**

Form EIA-886 is an annual survey of the number of alternative-fuel vehicles (AFV's) made available on a calendar year basis. The data will be used to track the AFV supply situation for the Federal Government, State Governments, and fuel providers to acquire AFV's. Respondents are manufacturers, importers, and conversion companies of AFV vehicles.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0585(93), *Alternatives to Traditional Transportation Fuels 1993*

**Form EIA-888, On-Highway Diesel Fuel Price Survey**

The Form EIA-888 survey is designed to collect data on the National and Petroleum Administration for Defense (PAD) District level cash price of self-serve, motor vehicle diesel fuel. The data are used to monitor changes in motor vehicle diesel fuel prices and to report to the Congress and others when requested. Respondents are a scientifically selected sample of companies owning retail outlets which sell motor vehicle diesel fuel.

**Previous Forms:** None

**Collection Frequency:** Weekly

**Resulting Publications:**

DOE/EIA-0208, *Weekly Petroleum Status Report*

**Form EIA-890, Clean City Vehicle Fleet Survey**

EIA-890 will be used to collect data on private and local government fleets of motor vehicles in the Atlanta and Denver areas. Data will be used to draw a profile of fleets in two metropolitan areas to assess the potential for expanded use of alternative-fuel vehicles.

**Previous Forms:** None

**Collection Frequency:** Nonrecurring

**Resulting Publications:**

DOE/EIA-0601, *Profile of Motor-Vehicle Fleets in Atlanta 1994*

**Form EIA-895, Monthly Quantity of Natural Gas Report**

EIA-895 will collect monthly information from the appropriate State agencies which collect data concerning natural gas production. Data are needed to provide a continuation of baseline production data published in several of EIA's monthly and annual reports.

**Previous Forms:** None

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0130, *Natural Gas Monthly*

DOE/EIA-0131, *Natural Gas Annual*

DOE/EIA-0384, *Annual Energy Review*

DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-1605, Voluntary Reporting of Greenhouse Gases**

EIA-1605 is designed to collect voluntarily reported data on greenhouse gas emissions, achieved reduc-

tions of these emissions, and carbon fixation. Data will be used to establish a publicly available database. Respondents are participants in a domestic or foreign activity that either reduces greenhouse gas emissions or increases in sequestration.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:** Data not published

### **Form EIA-1605EZ, Voluntary Reporting of Greenhouse Gases**

The short form, EIA-1605EZ, is a two-page form for reporters who wish to provide only a limited report on particular projects.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:** Data not published

### **Form FERC-1, Annual Report of Major Electric Utilities, Licensees, and Others**

The Federal Energy Regulatory Commission (FERC) Form 1 is designed to gather financial data used for formal investigation of electric rates, rate levels, and financial audits. Specific data are collected on corporate information; balance sheet; income statement; retained earnings; taxes; depreciation, amortization, and depletion; electric operating revenues; electric maintenance expenses; and generating plant statistics. Survey respondents are electric utilities and licensees that had sales or transmission services that in each of the last three consecutive years exceeded any one or more of the following: (1) 1 million megawatthours of total annual sales; (2) 100 megawatthours of annual sales for resale; (3) 500 megawatthours of annual gross interchange out; or (4) 500 megawatthours of wheeling for others (deliveries plus losses).

**Previous Forms:** FPC-1, Annual Report for Electric Utilities, Licensees, and Others (Class A and Class B)

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0348/2, *Electric Power Annual, Volume II*

DOE/EIA-0376, *State Energy Price and Expenditure Report*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0437/1, *Financial Statistics of Major Investor-Owned Electric Utilities*

DOE/EIA-0531, *Electric Trade in the United States*

### **Form FERC-2, Annual Report of Major Natural Gas Companies**

Form FERC-2 data are used by the Federal Energy Regulatory Commission for gas pipeline review and rate-setting; by the EIA for statistical purposes and publications; by State regulatory commissions for reporting requirements; and by the Economic Regulatory Administration in programs related to the Natural Gas Act. Specific data collected cover depreciation, amortization and depletion; income statements and retained earnings; materials and supplies; salary and wage distribution; construction work in progress; operating revenues; and operation and maintenance expenses. Respondents are major natural gas companies, as defined in the Natural Gas Act, whose combined gas sold for resale and gas transported or stored for a fee exceeds 50 million Mcf (thousand cubic feet at 14.73 pounds per square inch absolute at 60 degrees Fahrenheit) in each of the three previous calendar years.

**Previous Forms:** FPC-2, Annual Report of Natural Gas Companies (Class A and Class B)

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0383, *Annual Energy Outlook*

### **Form FERC-11, Natural Gas Pipeline Company Monthly Statement**

Form FERC 11 is designed to collect data on revenues, expenses, and gas volume of jurisdictional respondents for regulatory purposes. Specific data include end-of-month sales of natural gas to customers, income, operation and maintenance expenses, rates, and gas supplies and production. Respondents are companies whose combined gas sales for resale and whose gas transported or stored for a fee are in excess of 50 million Mcf (thousand cubic feet). The data provide an indication of the current status of pipeline activities and are used to measure the financial status of the regulated pipelines as a group.

**Previous Forms:** FPC-11, Natural Gas Pipeline Company Monthly Statement

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0130, *Natural Gas Monthly*

### **Form FERC-423, Monthly Report of Cost and Quality of Fuels for Electric Plants**

FERC 423 is designed to provide data for the Department of Energy, Federal Energy Regulatory Commission, Environmental Protection Agency, General Accounting Office, the Department of Commerce, the Federal Reserve Board, the Council of Economic

Advisors, the Department of Labor, and Congress. These data are used in economic studies to determine the justification for increasing electric rates, environmental studies, fuel emergencies, and policy decisions. Specific data include respondent identification, type of purchase (contract, spot, firm, interruptible); expiration date of contract; fuel type; coal origin data, including type of mine; Bureau of Mines (BOM) district; and State and county of origin. Supplier (mine, broker, refinery, pipeline) data include quantity of fuel received, quality of fuel (as received, including Btu, sulfur, and ash content), and delivered cost of fuel. Respondents are electric generating plants with a steam-electric and combined cycle nameplate capacity of 50 megawatts or more.

**Previous Forms:** FPC-423, Monthly Report of Cost and Quality of Fuels for Electric Plants

**Collection Frequency:** Monthly

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0118, *Coal Industry Annual*

DOE/EIA-0121, *Quarterly Coal Report*

DOE/EIA-0130, *Natural Gas Monthly*

DOE/EIA-0131, *Natural Gas Annual*

DOE/EIA-0191, *Cost and Quality of Fuels for Electric Utility Plants*

DOE/EIA-0214, *State Energy Data Report*

DOE/EIA-0226, *Electric Power Monthly*

DOE/EIA-0348/1, *Electric Power Annual, Volume I*

DOE/EIA-0376, *State Energy Price and Expenditure Report*

DOE/EIA-0383, *Annual Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

#### **Form FPC-14, Annual Report for Importers and Exporters of Natural Gas**

Form FPC-14 is designed to provide data used to help monitor and regulate natural gas imports into, and exports from, the United States and for inclusion in EIA publications. Specific monthly data collected annually include transporter, U.S. point of entry, foreign buyer or seller, docket number, and volume and dollar amount of natural gas exports and imports. Respondents are natural gas companies importing or exporting natural gas under Section 3 of the Natural Gas Act.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:**

DOE/EIA-0035, *Monthly Energy Review*

DOE/EIA-0130, *Natural Gas Monthly*

DOE/EIA-0202, *Short-Term Energy Outlook*

DOE/EIA-0384, *Annual Energy Review*

#### **Form NWPA-830R-G, Standard Contract for Disposal of Spent Nuclear Fuel and/or High Level Radioactive Waste—Quarterly Report—Standard Remittance Advice—Annex A**

Form NWPA-830R-G is a standard Remittance Advice (RA) for payment of fees to the Department of Energy by electric utilities that own nuclear power reactors and other owners of spent nuclear fuel or high level radioactive waste. Data include identification, gross and net electricity generation, total energy adjustment factor calculation for nuclear electricity generated and sold, and fee calculation for electricity generated and sold.

**Previous Forms:** None

**Collection Frequency:** Quarterly

**Resulting Publications:** Data not published

#### **Form RW-859, Nuclear Fuel Data**

Form RW-859 is used by DOE to collect nuclear fuel data on every fuel assembly irradiated in commercial nuclear reactors operating in the United States, as well as current spent nuclear fuel inventories, discharges, and storage capacities of those reactors. These data are considered in the design and operation of the equipment facilities that will be used by DOE for the future acceptance, transportation, and disposal of all spent fuel. Respondents are commercial utilities that operate nuclear power plants and all other owners of commercial spent nuclear fuel.

**Previous Forms:** None

**Collection Frequency:** Annually

**Resulting Publications:**

SR/CNEAF/92-01, *Spent Nuclear Fuel Discharges from U.S. Reactors*

DOE/EIA-0436, *World Nuclear Capacity and Fuel Cycle Requirements*

## APPENDIX C

# ANALYTIC MODELS OF THE ENERGY INFORMATION ADMINISTRATION

This Appendix contains abstracts for 37 computer models operated by the Energy Information Administration (EIA) in 1995. There are three proprietary models associated with the National Energy Modeling System (NEMS) and 12 NEMS modules.

The abstracts are arranged in the alphabetical order of their acronyms and each listing contains the model's title, acronym, and a brief description of the model's uses and the types of information it produces. Additional information about EIA's models is available in the *Directory of Energy Information Administration Models* (DOE/EIA-0293).

### Models of the National Energy Modeling System

#### Coal Market Module (CMM)

**Abstract:** The Coal Market Module (CMM) represents the mining, transportation, and pricing of coal, subject to the end-use demand for coal differentiated by physical characteristics, such as heat, sulfur, and ash content. The CMM also determines U.S. coal exports as part of the worldwide market for coal trade. Coal supply is projected on a cost-minimizing basis constrained by existing contracts. The expansion of existing coal-mining capacity is related to the expected domestic and international demand for coal. Twenty-eight different coal types are modeled, each differentiated with respect to thermal grade, sulfur content, and underground or surface mining. The domestic production and distribution of coal is forecast in terms of 16 supply regions and 23 demand regions.

#### Commercial Sector Demand Module (CSDM)

**Abstract:** The NEMS Commercial Sector Demand Module is a simulation tool based upon economic and engineering relationships that model commercial sector energy demands at the 9 Census Division levels of detail for 11 distinct categories of commercial buildings. Commercial equipment selections are performed for the major fuels of

electricity, natural gas, and distillate fuel; for the major services of space heating, space cooling, water heating, ventilation, cooking, lighting, and refrigeration. The market segment level of detail is modeled by using a constrained life-cycle cost minimization algorithm that considers commercial sector consumer behavior and time preference premiums. The algorithm also models the minor fuels of residual oil, liquefied petroleum gas, steam coal, motor gasoline, and kerosene; the renewable fuel sources of wood and municipal solid waste; and the minor services of office equipment, refrigeration, and "other" in less detail than the major fuels and services.

#### DRI Model of the U.S. Economy (DRI)

**Abstract:** The DRI Model represents national economic production and income corresponding to the National Income and Product Accounts published by the Department of Commerce. These forecasts of national activity extend 25 years and serve as the basis for EIA macroeconomic forecasts. EIA alters the DRI forecasts so that the energy variables included in the macroeconomic model correspond to EIA energy price forecasts.

#### Electricity Market Module (EMM-NEMS)

**Abstract:** EMM-NEMS is used by the Energy Information Administration as an analytical system for projecting the future state of the electricity market. This model is a major component of the National Energy Modeling System (NEMS). This representation of the electricity market accounts for the economic factors of supply and demand, the economic competition of fuels, and Government policies and regulations that deviate from purely economic behavior. The EMM-NEMS consists of four submodules: Electricity Capacity Planning (ECP), Electricity Fuel Dispatch (EFD), Electricity Finance and Pricing (EFP), and Load and Demand-Side Management (LDSM).

#### Industrial Demand Module (IDM)

**Abstract:** The Industrial Demand Module is based upon economic and engineering relationships that model industrial sector energy consumption at the nine Census Division levels of detail. The seven

most energy-intensive industries are modeled at the detailed process step level and 25 other industries are modeled at a less detailed level. The IDM incorporates three components: buildings; process and assembly; and boiler, steam, and cogeneration. The model estimates consumption of 22 main fuels, 6 intermediate fuels, and 8 renewable fuels.

### **Integrating Modules of the National Energy Modeling System (INT)**

**Abstract:** NEMS represents a general equilibrium solution of the interactions between the U.S. energy markets and the economy. The model achieves a supply-and-demand balance in the end-use demand regions, defined as the nine Census Divisions, by solving for the prices of each energy type such that the quantities producers are willing to supply equal the quantities consumers wish to consume. The system reflects market economics, industry structure, and energy policies and regulations that influence market behavior.

### **International Energy Module (IEM)**

**Abstract:** IEM is a recursive model of world petroleum supply and demand by region derived from EIA's Oil Market Simulation Model (OMS-PS) with enhanced detail on U.S. market conditions from the NEMS Petroleum Market Module (PMM). It determines PADD-level import supply schedules by refined product type and crude oil grade consistent with estimated world oil price. IEM outputs include forecasted world oil price, non-OPEC oil production and oil consumption by region, and OPEC oil production and capacity utilization.

### **Macroeconomic Activity Module (MAM)**

**Abstract:** MAM is comprised of three Submodules: National, Interindustry, and Regional. The National Submodule is a response surface approximation of the proprietary U.S. Quarterly Macroeconomic Model developed by Data Resources/McGraw-Hill, Inc. (DRI). The U.S. Quarterly Model is a 1,200 equation econometric specification that forecasts macroeconomic driver variables at the national level of detail. The Interindustry Submodule is a response surface approximation of the DRI Personal Computer Input-Output (PCIO) Model. The DRI PCIO model is a detailed input-output representation of interindustry linkages that works in tandem with the full DRI U.S. Quarterly Model. The Regional Submodule consists of a set of shares at the 9

Census Division levels of detail developed from simulations of DRI's U.S. Quarterly Macroeconomic Model, PCIO Model, and Regional Model. The regional shares included as the Regional Submodule of MAM are used to disaggregate the national results generated by the National and Interindustry Submodules of MAM to the 9 Census Division levels of detail.

### **Natural Gas Transmission and Distribution Model (NGTDM)**

**Abstract:** The Natural Gas Transmission and Distribution Module (NGTDM) represents the network of pipelines and storage facilities that link suppliers (including importers) and consumers of natural gas. In conjunction with other NEMS modules, the NGTDM determines the market clearing supply and end-use quantities and prices (including border prices) of natural gas. The network representation consists of 12 intra-U.S. and 9 border transshipment nodes.

### **Oil and Gas Supply Module (OGSM)**

**Abstract:** The Oil and Gas Supply Module (OGSM) projects the following aspects of the crude oil and natural gas industry:

- Production
- Reserves
- Drilling activity
- Natural gas imports and exports.

### **Petroleum Market Module (PMM)**

**Abstract:** The Petroleum Market Model is a simulation of the U.S. petroleum industry. It includes 12 domestic crude oil production regions; 5 refining centers with full processing representations, capacity expansion capability, gas plant liquid production; and 9 marketing regions. The heart of the model is a linear program optimization which ensures a rational economic simulation of decisions of petroleum sourcing, resource allocations, and the calculation of marginal price basis for the products. Eighteen refined products are manufactured, imported, and marketed. Seven of these products are specification blended, while the remaining 11 are recipe blended. Capacitated transportation systems are included to represent existing intra-U.S. crude oil and product shipments (LPG, clean, dirty) via pipeline, marine tanker, barge, and truck/rail tankers. The exports and imports of crude oil and refined products are also simulated. All imports are purchased in accordance with import supply curves. Domestic manufacture of methanol is represented as though the

processing plants were a part of the refinery complexes, whereas ethanol sources are treated as merchant. Transportation is allowed for ethanol shipments to the demand region terminals for splash blending.

#### **Renewable Fuels Module (RFM)**

**Abstract:** The RFM consists of several sub-modules which represent the various renewable energy forms. Since most renewable forms of energy (i.e., biomass, conventional hydroelectricity, wind, solar, geothermal) are used to generate electricity, the interaction with the EMM-NEMS and its various submodules is important for modeling grid-connected renewable-electric applications. In the current version of the RFM, only grid-connected applications are modeled endogenously; conventional hydroelectricity is not modeled. Dispersed (off grid) renewables are modeled by demand sector. Biomass can also be used to produce liquid fuels, such as ethyl alcohol (ethanol). The RFM interacts with the Petroleum Market Module (PMM), which determines refinery demand for ethanol as a gasoline blending component.

#### **Residential Sector Demand Module (RSDM)**

**Abstract:** The NEMS Residential Sector Demand Module is an integrated dynamic modeling system that projects residential energy demand by service, fuel, and Census Division. The modeling methodology is based on accounting principles and considers important issues related to consumer behavior. Housing and equipment stocks are tracked over the forecast period for seven major services. The major services considered are space heating, space cooling, water heating, cooking, clothes drying, refrigeration, and freezers. A logit function is used to estimate market shares of each equipment technology within each major service on the basis of either the installed capital and operating costs or the life-cycle cost. Lighting choices are modeled by assuming market shares for three specific lighting technologies in specific forecast years. Miscellaneous appliance consumption is calculated as a function of Unit Energy Consumption (UEC), a measure of energy intensity developed from the Residential Energy Consumption Survey (RECS) data base.

#### **Transportation Sector Module (TRAN)**

**Abstract:** TRAN incorporates an integrated modular design which is based upon economic, engineering, and demographic relationships that

model transportation sector energy consumption at the nine Census Division-level of detail. TRAN comprises the following components: Light Duty Vehicles, Light Duty Fleet Vehicles, Freight Transport (truck, rail, and marine), Aircraft, Miscellaneous Transport (military, mass transit, and recreational boats), and Transportation Emissions. The model provides sales estimates of 2 conventional and 14 light-duty alternative fuel vehicles, and consumption estimates of 12 fuels.

#### **“WORLD” Reference Model (WOR)**

**Abstract:** The “WORLD” model is a linear programming model which simulates the operation of the world regional petroleum industry on the basis of user-specified assumptions regarding the time horizon and scenario of interest. The “WORLD” model simulates regional effects. Insights at the level of individual countries or refinery type can be obtained but only where the model has been appropriately disaggregated.

### **Other EIA Models**

#### **Disruption Impact Simulator Model (DIS)**

**Abstract:** The Disruption Impact Simulator (DIS) is a Lotus 1-2-3 spreadsheet model that forecasts the world oil price and key economic effects of an oil supply disruption. Given a set of user-defined assumptions, such as inventory behavior and fuel switching potential, the DIS estimates the world oil price, losses in the Gross National Product (GNP), increases in the inflation rate, terms of trade losses, and national end use prices for gasoline and heating oil for four quarters. By using easy-to-understand interface screens, the user has more interaction with the DIS than with most other spreadsheet models. Senior Department of Energy officials have been impressed with the capability of the DIS. Not only can the DIS handle an oil disruption of any size, but the user can select from over 20 geographic areas to disrupt. The model also estimates whether the International Energy Program (IEP) would be activated by the International Energy Agency (IEA) and, if so, what the effect would be on several IEA countries, including the United States.

#### **Distillate Market Model (DMM)**

**Abstract:** The DMM performs a short-term (6-to-9 month) forecast of demand and price in the U.S. No. 2 fuel oil market. The model also calculates the end-of-month stock level. The model is used to analyze certain market behavior assumptions or market

shocks and to determine their effect on market price, demand, and stocks.

#### **International Nuclear Model—Personal Computer (PC-INM)**

**Abstract:** The Personal Computer International Nuclear Model (PC-INM) is a deterministic model used by EIA to project domestic and international nuclear energy requirements. The EIA uses the PCINM to project aggregate spent fuel discharges, fuel cycle requirements, on-line and year-end capacities, and electricity generation for domestic and foreign nuclear reactors on an annual basis by means of a simple accounting technique. PCINM can be used to produce projections for any country in the world for any specified time period. Currently eight different country groups are being projected through the year 2010. To produce the forecasts, EIA develops a set of operational assumptions for capacity factors, full power days, reactor size, and reload quantities. These assumptions are derived statistically from historical operating data and from utilities' projected fuel management schemes and are incorporated into fuel management plans. Estimates of nuclear fuel cycle trends are determined by surveying utilities, fuel vendors, and other industry experts.

#### **Levelized Nuclear Fuel Cycle Cost Model (LNFCC-PC)**

**Abstract:** LNFCC-PC computes an electric utility's levelized nuclear fuel cost. The code computes quantities of fuel-cycle services and levelized direct costs, which include the carrying charges accounting for the time value of money. All fuel-cycle services from natural uranium purchased through waste disposal are covered.

#### **Low-Income Household Energy Assistance Program (LIHEAP)**

**Abstract:** LIHEAP is a set of State-level regression equations used to project State residential energy prices for the current year with 3-year projections on the basis of national-level residential price projections produced for EIA's *Short-Term Energy Outlook*. LIHEAP produces 51 separate sets of projections of residential prices (50 for each State and 1 for the District of Columbia), including prices for electricity, natural gas, heating oil, liquefied petroleum gas (LPG-propane), kerosene, and coal. Less than 51 projections are available where historical information for a State is nonexistent or unavailable. The State price projections from LIHEAP are published annually in the EIA Service

Report *State Energy Price Projections for the Residential Sector*.

#### **Market Penetration Model for Ground Water Heat Pump Systems (MPGWHP-PC)**

**Abstract:** MPGWHP-PC for ground water heat pump systems was developed to project the potential of these systems to displace primary energy from the present up to the year 2030. The model provides projections in 5-year increments for 4 aggregated groups of the 10 DOE regions.

#### **Market Penetration Model for Residential Rooftop Photovoltaic Systems (MPRESPV-PC)**

**Abstract:** MPRESPV-PC for residential rooftop photovoltaic systems was developed to project the potential of these systems to displace primary energy from the present up to the year 2030. The model provides projections in 5-year increments for 4 aggregated groups of the 10 DOE regions.

#### **Market Penetration Model for Active and Passive Solar Technologies (MPSOLAR-PC)**

**Abstract:** MPSOLAR-PC for active and passive solar technologies was developed to project the potential of these systems to displace primary energy from the present up to the year 2030. The model provides projections in 5-year increments for five solar technologies: Residential and Commercial Active Solar Water Heating; Residential and Commercial Active Solar Combined Space and Water Heating Systems; Residential and Commercial Passive Solar Space Heating; Residential and Commercial Active Solar Space Cooling Systems; and Commercial Daylighting.

#### **Motor Gasoline Market Model (MGMM)**

**Abstract:** The MGMM performs a short-term (6-to-9 month) forecast of demand and price in the U.S. motor gasoline market. The model also calculates the end-of-month stock level. The model is used to analyze certain market behavior assumptions or market shocks and to determine their effect on market price, demand, and stocks.

#### **Oil Market Simulation Model (OMS-PC)**

**Abstract:** OMS-PC projects future world oil prices and world oil supplies and demands by region (the United States, Canada, Japan, and the Organization for Economic Cooperation and Development (OECD), Europe, the Organization of Petroleum Exporting Countries (OPEC), developing countries, and net Communist trade) on an annual basis through the year 2010. The OMS-PC model is used

as an adjunct to the World Energy Projection System (WEPS-PC).

#### **Petroleum Financial Analysis System (PETFAS-PC)**

**Abstract:** PETFAS-PC is designed to utilize *Annual Energy Outlook (AEO)* model results for oil and gas prices, domestic drilling levels, and drilling cost relationships. It also uses information from the AEO on oil and gas reserves and production to provide forecasts of investment and profits for the U.S. oil and gas production industry. Detailed income statement, capital account, balance sheet, and tax information are provided for two main industry categories—major energy companies' domestic oil and gas segments and domestic independent producers.

#### **Propane Market Model (PPMM)**

**Abstract:** The PPMM performs a short-term (6-to-9 month) forecast of demand and price in the residential U.S. propane market; the model also calculates the end-of-month stock level. The model can be used to calculate the demand and end-of-month stock level in several PAD districts. The model is used to analyze certain market behavior assumptions or market shocks and to determine their effect on market price, demand, and stocks.

#### **Refinery Yield Model Spreadsheet System (RYMSS-PC)**

**Abstract:** RYMSS-PC simulates the operations of a refinery or group of refineries within the United States, including the processing of crude oils and other raw materials, as well as the processing of these raw materials into finished petroleum products. Refinery product yields and net margins are generated which can be used in comparative and sensitivity analyses using RYMSS-PC.

#### **Resource Allocation and Mine Costing Model (RAMC)**

**Abstract:** RAMC produces the quantity-price relationships in coal supply for 30 coal types (further distinguished between surface and deep mines) and 32 producing regions on the basis of the 1991 EIA Demonstrated Reserve Base, engineering estimates of mining costs for various surface and underground mines, and region-specific and coal-type-specific cost elements.

#### **Revenue Requirements Modeling System (RRMS) Abstract:**

The RRMS is designed to esti-

mate the impacts of various regulatory and economic policy variables on the revenue requirements of individual electric utilities. The model assesses the impact of changes in construction work in progress (CWIP), in rate base policies, capital structures, costs of capital, and demand on total estimated revenue requirements.

#### **Short-Term Coal Analysis System (SCOAL)**

**Abstract:** SCOAL projects domestic coal production, imports, and exports six to eight quarters into the future on the basis of assumed trajectories of coal prices relative to prices of other fuels and coal demand by sector. All markets are defined at the national level except bituminous coal and lignite production, which are defined at the State level.

#### **Short-Term Integrated Forecasting System (STIFS)**

**Abstract:** STIFS is the system used to generate the forecasts of energy supply, demand, and prices that are published in the *Short-Term Energy Outlook*. The model is a monthly dynamic simultaneous domestic energy market simulation model consisting of 105 core estimated forecasting relationships, numerous identities, and various simulation roles covering demand and supply concepts for all major fuels (at the national level), including petroleum, natural gas, coal, electricity, and renewable fuels.

#### **Short-Term Nuclear Annual Power Production Simulation (SNAPPS)**

**Abstract:** SNAPPS forecasts the short-term monthly and annual electric power generation by U.S. commercial nuclear power plants. SNAPPS is a relatively simple, straightforward accounting model programmed in FORTRAN. The model consists of codes that provide accounting for each nuclear reactor's generation for the projection period.

#### **Uranium Market Model (UMM-PC)**

**Abstract:** UMM-PC projects prices, production, imports, inventory, capital expenditures, and employment in the uranium mining and milling industry. The model considers every major production center and utility on a worldwide basis (with centrally planned economies considered in a limited way).

#### **Wellhead Gas Productive Capacity Model (GASCAP)**

**Abstract:** GASCAP estimates the historical wellhead productive capacity of natural gas for the lower 48 States and projects the productive capacity for 3 years. The *Short-Term Energy Outlook (STEO)* output for low, base, and high cases is used to estimate the

number of active rigs and oil and gas well completions. The projected oil production figure is used to estimate the oil-well gas production (which is assumed to be producing at capacity) by using a constant gas-oil ratio. The gas demand is also taken from STEO. The difference between demand and oil-well gas production is assumed to be the gas-well gas demand and the production as long as capacity exceeds demand.

#### **World Energy Projection System (WEPS-PC)**

**Abstract:** WEPS-PC is an integrated set of personal computer-based spreadsheets containing data compilations, assumption specifications, descriptive analysis procedures, and projection models. The WEPS accounting framework incorporates projections from independently documented models and assumptions about the future energy intensity of economic activity (ratios of total energy consumption divided by gross domestic product (GDP) and about the rate of incremental energy requirements met by natural gas, coal, and renewable energy sources (hydroelectricity, geothermal, solar, wind, biomass, and other renewable sources). WEPS-PC provides projections of total world primary energy consumption, as well as projections of energy consumption by primary energy type (oil, natural gas, coal, nuclear, and hydroelectric and other renewable sources), and projections of net electricity consumption. Carbon emissions resulting from fossil fuel use are derived from the energy consumption projections. All projections are computed in 5-year intervals through 2010. For both historical series and projections series, WEPS-PC provides analytical computations of energy intensity and energy elasticity (the percentage change in energy consumption per percentage change in GDP).

#### **World Integrated Nuclear Evaluation System (WINES-PC)**

**Abstract:** WINES-PC is an aggregate demand-based partial equilibrium model used by EIA to project longterm domestic and international nuclear energy requirements. WINES-PC follows a top-down approach in which economic growth rates, delivered energy demand growth rates, and electricity demand are projected successively to ultimately forecast total nuclear generation and nuclear demand capacity. WINES-PC could potentially be used to produce forecasts for any country or region in the world. Presently, WINES-PC is being used to generate longterm forecasts for the United States and for all countries with commercial nuclear programs in the world, excluding countries located in centrally planned economic areas. Projections for the United States are developed for the period from 2010 through 2030 and for other countries for the period starting in 2000 or 2005 (depending on the country) through 2010. WINES-PC serves as a flexible tool with which to assist the U.S. Department of Energy (DOE) program offices and other Government agencies in their analyses of longterm nuclear energy demand and supply, and to support cooperative efforts between the United States and the Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development (OECD), the International Energy Agency (IEA), and the International Atomic Energy Agency (IAEA). WINES-PC is used to develop longterm projections of nuclear capacity and generation published annually by EIA in *World Nuclear Capacity and Fuel Cycle Requirements*. These projections are provided to the Office of Civilian Radioactive Waste Management (OCRWM) of DOE for use in estimating nuclear waste fund revenues, and to aid in planning the disposal of nuclear waste. In addition, the projections support other reports published annually by EIA, such as *Domestic Uranium Mining and Milling Industry: Viability Assessment* and *World Nuclear Fuel Cycle Requirements*.

**APPENDIX D**  
**MAJOR LAWS AFFECTING EIA, 1974-1995**

Year	Law	Impact on EIA
1974	Federal Energy Administration (FEA) Act P.L. 93-275, 15 USC 761	Created the FEA and mandated it to "collect, assemble, evaluate, Act and analyze energy information" and to provide energy information and projections to the Federal Government, State Governments, and the public. It also provided FEA with data collection enforcement authority for data gathered from energy producing and consuming firms.
1974	Energy Supply and Environmental Coordination Act P.L. 93-319, 15 USC 796	Provided additional authority for collecting energy information. The definition that was given "energy information" has been included in all subsequent energy information legislation.
1975	Energy Policy and Conservation Act P.L. 94-163, 42 USC 6274	Provided for exchange of information for the international energy program.
1976	Energy Conservation and Production Act P.L. 94-385, 15 USC 790	Established within the FEA the Office of Energy Information and Analysis (which later became the Energy Information Administration (EIA)). This office was to (1) operate a National Energy Information System, (2) possess expertise in energy analysis and forecasting, (3) be subject to performance audits by a Professional Audit Review Team, (4) coordinate energy information activities with other Federal agencies, (5) "promptly provide upon request any energy information. . .to any duly established committee of Congress," and (6) produce an annual report to Congress.
1977	Department of Energy (DOE) Organization Act P.L. 95-91, 42 USC 7135	Established EIA as the single Government authority for energy information. Gave EIA independence from the rest of the DOE with respect to data collection, and from the whole of Government with respect to the content of EIA reports. Incorporated all the mandate of the Office of Energy Information and Analysis. Established the Financial Reporting System, an annual survey that gathers and reports detailed energy industry financial data.
1978	Powerplant and Industrial Fuel Use Act P.L. 95-620, 42 USC 8301	Required a comprehensive annual summary on coal reserves.
1982	Energy Emergency Preparedness Act P.L. 97-229, 42 USC 6245	Required EIA to maintain State-level petroleum marketing data similar to that published in September 1981.
1983	Nuclear Regulatory Commission Authorization Act P.L. 97-415, 42 USC 2210	Required a one-time review by the President on the status of the domestic uranium mining and milling industry. Required an annual DOE report on the viability of this industry, using criteria for assessment given in this act. EIA gathers information for this report.
1985	Energy Policy and Conservation Act Amendments of 1985 P.L. 99-58, 42 USC 6201	Required EIA to conduct a comprehensive analysis of the U.S. coal import market and to issue quarterly reports on the status of coal imports.
1986	Omnibus Budget Reconciliation Act P.L. 99-509, 42 USC 7135	Required EIA to conduct a survey of energy consumption in the of 1986 manufacturing industries in the United States on a triennial basis and EIA's participation in a one-time DOE study of domestic crude oil production and petroleum refining capacity and the effects of imports thereon.
1987	Powerplant and Industrial Fuel Use Act of 1978 Amendment, P.L. 100-42, 42 USC 8312	Repealed section of Powerplant and Industrial Fuel Act P.L. 95-620 which required an annual summary on coal reserves.
1992	Energy Policy Act of 1992 P.L. 102-486, 42 USC 13201	Required EIA to expand energy consumption surveys; collect data and perform analyses of alternative fuels and alternatively fueled vehicles; compile an inventory of greenhouse gas emissions; establish database and prepare study on transportation rates and distribution patterns of coal, oil, and natural gas; collect data on renewable energy sources in electricity production; compile data on foreign purchases and imports of uranium; and support DOE in the study of industrial energy use targets.

# Key Contacts

**Please note:** Each Internet name is followed by @eia.doe.gov

## Petroleum Supply Division

- *Director:* Charles C. Heath, 586-6860, cheath
- *Chief, Industry Analysis:*  
Ronald W. O'Neill, 586-9884, roneill
- *Chief, Fuels Analysis:* Vacant
- *Chief, Integrated Systems:*  
Norman M. Dowe, 586-5199, ndowe
- *Chief, Statistical Analysis:*  
Vacant

## Petroleum Marketing Division

- *Director:* John S. Cook, 586-5214, jcook
- *Chief, Data Systems and Support:*  
Michael J. Griffey, 586-9601, mgriffey
- *Chief, Publications and Analysis:*  
Charles P. Shirkey, 586-6567, cshirkey

## Reserves and Natural Gas Division

- *Director:* Joan E. Heinkel, 586-6090, jheinkel
- *Chief, Data Operations:*  
Kendrick E. Brown, Jr., 586-6077, kbrown
- *Chief, Natural Gas Analysis:*  
Vacant
- *Chief, Reserves and Production:*  
Craig H. Cranston, 586-6083, ccransto

## Survey Management Division

- *Director:* Howard L. Walton, 426-1223, hwalton
- *Chief, Electric Operating and Financial Data:*  
Roger Sacquety, 426-1220, rsacquet
- *Chief, Coal Branch:*  
Noel C. Balthasar, 426-1226, nbathas
- *Chief, Electric Generating and Fuels Data:*  
Dean Fennel, 426-1226, dfennel
- *Chief, Renewable Energy:*  
Fred Mayes, Jr., 426-1220, fmayes

## Analysis and Systems Division

- *Director:* Robert M. Schnapp, 426-1211, rschnapp
- *Chief, Nuclear Fuel Cycle:*  
Zdenek D. Nikodem, 426-1229, znikodem
- *Chief, Coal and Electric Analysis:*  
Betsy K. O'Brien, 426-1217, bobrien
- *Chief, Systems Design and Support:*  
Bruce F. Quade, 426-1214, bquade

## Energy Markets and Contingency Information Division

- *Director:* Mark E. Rodekohr, 586-1130, mrodekoh
- *Chief, Short-Term Forecasting and Contingency:*  
Derriel B. Cato, 586-6574, dcato

- *Chief, Financial Analysis:*  
Mary E. Northup, 586-1445, mnorthup
- *Chief, International Statistics:*  
Louis D. DeMouy, 586-6557, ldemouy

## Energy End Use and Integrated Statistics Division

- *Director:* Lynda T. Carlson, 586-1112, lcarlson
- *Chief, Residential and Commercial:*  
Nancy L. Leach, 586-1122, nleach
- *Chief, Transportation and Industrial:*  
Dwight K. French, 586-1114, dfrench
- *Chief, Integrated Statistics:*  
Katherine E. Seiferlein, 586-5692, kseiferl

## Energy Demand and Integration Division

- *Director:* Arthur T. Andersen, 586-1441, aanderse
- *Chief, National Energy Modeling System:*  
Susan H. Shaw, 586-4838, sshaw
- *Chief, International, Economic and Integrated Forecasting:*  
Gerald E. Peabody, 586-1458, gpeabody
- *Chief, Energy Demand Analysis:*  
Barry N. Cohen, 586-5359, bcohen

## Energy Supply and Conversion Division

- *Director:* Scott B. Sitzer, 586-2308
- *Chief, Nuclear and Electricity Analysis:*  
Robert T. Eynon, 586-2315, reynon
- *Chief, Coal, Uranium and Renewable Fuels Analysis:* Edward J. Flynn, 586-2308, eflynn
- *Chief, Oil and Gas Analysis:*  
James M. Kendell, 586-2308, jkendell

## Information and Administrative Services Division

- *Director:* John H. Weiner, 586-6537, jweiner
- *Chief, National Energy Information Center:*  
Sandra R. Wilkins, 586-1173, swilkin
- *Chief, Publication Services:*  
Nancy A. Nicoletti, 586-1174, nnicole

## Planning and Financial Management Division

- *Director:* Bruce D. Dwyer, 586-6460, bdwyer

## Quality Assurance Division

- *Director:* Douglas R. Hale, 426-1074, dhale

## Standards and Services Division

- *Director:* John Gross, 426-1071, jgross

## Automated Data Processing Services Staff

- *Director:* Kenneth A. Vagts, 586-1981, kvagts