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# Annual Report to Congress 1994

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

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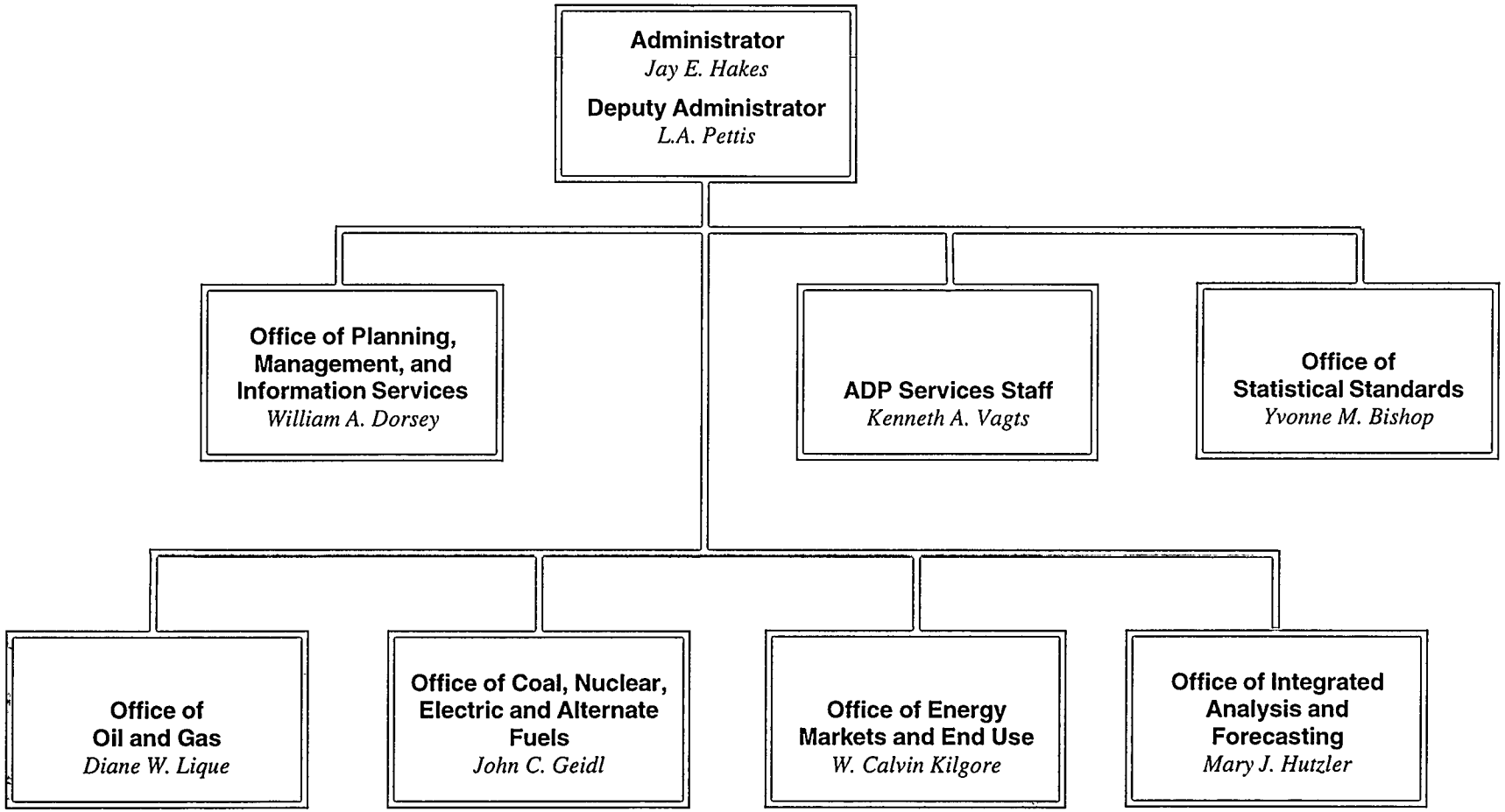
# Contents

# ENERGY INFORMATION ADMINISTRATION



# Introduction

The Energy Information Administration (EIA) was established in 1977 as the independent statistical and analytical agency within the Department of Energy (DOE) and 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.[1]

In 1993, the Secretary of Energy directed DOE to be at the forefront of strategic planning, performance-based budgeting, and customer service. These activities were called for in the National Performance Review, the Government Performance and Results Act of 1993, and the President's September 11, 1993, Executive Order, which led to the establishment of customer service standards and measurement of results against the standards. To meet the objectives of these mandates in the most effective manner, EIA established its strategic planning process in 1994. This process produced new statements of EIA's mission and goals in terms that embody principles of continuous quality improvement.

Mission:

> EIA is the 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.

Goals:

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

This report to Congress highlights EIA's progress in 1994 toward fulfilling its mission and realizing its goals.

[1]Public Law 95-91 (Department of Energy Organization Act), Section 205, 1977.

# Program Highlights, 1994

## Improvements in Survey and Product Activities

### Introduction

During 1994, EIA's main goal was to assure its data and analyses were of the highest quality, relevant to its customers' needs, and easily accessible. Efforts to ensure product relevance and quality consisted of conducting new or modified surveys, issuing new information products, revising existing products to include data and analyses desired by EIA's customers, and eliminating products that no longer meet customer needs. Efforts to improve access to energy information consisted of several electronic dissemination initiatives, including Internet services, the Energy Information Highway, and the Energy Emergency Notebook. These activities are discussed in detail in the first two sections of this report.

In addition to maintaining its traditional energy information base, EIA plays an important role in developing new information resources required by policymakers and legislators around the world. Examples include data on alternative fuels (see "EIA Responds to EPACT Sections 407 and 503," page 5) and greenhouse gas emissions.

### Responded to Congressional Requests on Greenhouse Gas Emissions, Reformulated Gasoline

In 1994, EIA responded to congressional requests for data and analyses on both greenhouse gas emissions and the implementation of the Reformulated Gasoline (RFG) Program. EIA's study on greenhouse gas emissions resulted in the March 1994 publication *Energy Use and Carbon Emissions: Some International Comparisons*. The purpose of this review was to identify differences in energy use patterns which must suggest opportunities both to economize on the use of fossil fuel energy and to reduce greenhouse gas emissions. Although it was initially written for Congress, the report was so well received that it was made available to a much wider audience.

Additionally, a two-part study on the RFG Program, requested by the Chairman of the House of Representatives Energy and Commerce Committee, was conducted. The first part of that study resulted in the two-volume report *The Energy Information Administration's Assessment of Reformulated Gasoline*. Effective January 1, 1995, reformulated gasoline was required in designated areas by the Clean Air Act Amendments of 1990 to reduce ground-level ozone in the United States. This report, submitted to Congress in September 1994, contained EIA's preliminary findings and analyses on the implementation of the reformulated gasoline program as it affects the petroleum market. It has been widely referred to in the press. A follow-up report, *The Energy Information Administration's Assessment of Reformulated Gasoline: An Update*, was released in December 1994.

At present, EIA continues to monitor the RFG supply/demand balance and provide information to government agencies as the situation warrants. In conjunction with the RFG assessment, EIA implemented the "RFG Watch," a fax sent to Federal and State energy officials, industry, and the media. EIA also expanded its weekly telephone gasoline survey to include prices for reformulated gasoline in ozone nonattainment areas and prices for all three grades of gasoline. Moreover, EIA initiated a Department-wide RFG Task Force to keep all parts of the Department apprised of the current status of the implementation of the RFG Program as required by the Clean Air Act Amendments of 1990. EIA remains an active participant in the EPA-DOE-EIA-Industry Task Force, which was established during 1994 to monitor and assist in the implementation of the RFG Program.

EIA continued its study of greenhouse gas emissions by preparing subsequent reports on sectoral energy use patterns in developing countries, such as the report *Energy Use and Carbon Emissions: Non-OECD Countries*. In conjunction with this publication, EIA established a routine procedure for tracking carbon emissions in the United States for the current and next projected year, based on the *Short-Term Energy Outlook*. EIA also published a series of articles on the economics of new motor fuel quality regulations, including oxygenated gasoline, low-sulfur diesel fuel, and reformulated gasoline. (See Appendix C, "Publications and Products of the Energy Information Administration.")

During 1994, EIA continued to examine the potential impact of alternative policies and technological choices on energy consumption and carbon emission patterns.

### Established Voluntary Emission Reduction Reporting Program

In addition to responding to special requests for data, EIA was given a major new data collection and reporting responsibility under Section 1605b of EPACT. EIA, which publishes an annual report estimating U.S. greenhouse gas emissions, was charged with developing guidelines for reporting actions that relate to the reduction of greenhouse gases and setting up a database reporting system.

This program is unique in that it is a voluntary reporting program. A prototype data collection form was developed through extensive coordination with potential respondents and is currently being circulated for evaluation.

Several briefings were held in October and November 1994 in connection with this effort. EIA staff met with the Office of Management and Budget (OMB) to initiate discussion of the reporting framework being developed to support the evaluation of voluntary activities designed to reduce greenhouse gas emissions. EIA briefed the Edison Electric Institute plenary session on the voluntary emission reduction reporting programs and the Center for Clean Air Policy; EIA also made a presentation to the Large Public Power Council, a group representing the largest public electric utilities in America.

Moreover, EIA initiated cooperation with the U.S. Environmental Protection Agency and DOE program managers to ensure that the voluntary reporting program is a useful tool in implementing the President's Climate Action Plan.

### Implemented PC-Version of the National Energy Modeling System

In 1994, EIA completed a project to provide a personal computer (PC) implementation of the National Energy Modeling System (NEMS) with a user interface for model execution, data modification, and reporting. A prototype of PC-NEMS, which was released in April 1994 to a selected group of reviewers, included 10 of the 12 NEMS modules used for the *Annual Energy Outlook 1994* (*AEO94*). PC-NEMS executes in the Microsoft Windows environment and allows the various demand, supply, and conversion modules of NEMS to execute individually. PC-NEMS was mailed upon request to over 40 internal and external customers, representing a variety of public and private organizations involved in energy modeling. The final *AEO94* version of PC-NEMS is planned for January 1995. This will be followed by the release of the *Annual Energy Outlook 1995* (*AEO95*) version of PC-NEMS in April 1995. EIA hosted two workshops to respond to external analysts' requests for input and discussion on scenario design in the NEMS and the representation of electricity industry restructuring within NEMS. EIA conducted customer surveys within DOE to determine the interest and priorities for a wide range of potential enhancements to NEMS and hosted the second annual NEMS conference to present the results of the *AEO94* and to formulate plans for future development of NEMS.

## EIA Responds to EPACT Sections 407 and 503

The Energy Policy Act of 1992 (EPACT) expanded EIA's mission to include significant new data-collection efforts concerning the use of nonpetroleum transportation fuels and the vehicles that use them. During 1994, EIA was involved in a number of critical efforts in response to Sections 407 and 503 of EPACT. Sections 407 and 503 are included within EPACT Titles III through VI, commonly known as the "alternative fuels" parts of the legislation, as they address the alternative-fuel vehicles (AFV), alternative transportation fuels (ATF), as well as replacement fuels. Replacement fuels cover a broader category of nonpetroleum fuels than alternative fuels, and include the ethanol and methyl tertiary butyl ether (MTBE) used in both the reformulated gasoline mandated by the Clean Air Act Amendments and other gasoline blends. During 1994, EIA provided several mandated reports, developed three new surveys, and modified existing EIA survey forms to collect data relevant to the requirements of Sections 407 and 503 of EPACT.

EIA's first and most important task in attempting to develop a data collection program was to consult with interested parties. Accordingly, EIA representatives solicited input from stakeholders to determine the types of AFV, ATF, and replacement fuel data that were available and the types of data that were needed. To obtain a wider range of stakeholder input more quickly than could be provided by individual meetings, on May 4, 1993, EIA published in the *Federal Register* a request for public comment on the data needs and issues involved with Sections 407 and 503 and also mailed the request to a wide group of potential stakeholders in the AFV industry.

In fulfilling the requirements of Section 503 of EPACT, EIA compiled information on AFV's in use and characteristics of, and greenhouse gas emissions from, replacement fuels over their entire life cycles and has made preliminary results available in the reports *Alternatives to Traditional Transportation Fuels: An Overview* and *Alternatives to Traditional Transportation Fuels 1993*. (A chart of the "Entire Fuel Cycle for Transportation Fuels" is on page 7.) A new data collection process was implemented specifically to collect supply-side data on AFV's and their characteristics: the "Alternative-Fuel Vehicle Suppliers' Annual Report" (Form EIA-886). Other systems are anticipated that will provide better information on AFV's in use and replacement and alternative transportation fuels consumed. *The Energy Information Administration's Assessment of Reformulated Gasoline* provides a firm basis for understanding the supplies and distribution of the two dominant replacement fuels, MTBE and ethanol used in reformulated gasoline.

To make projections about the most likely combination of AFV use, as required by Section 407 of EPACT, EIA used its National Energy Modeling System (NEMS). NEMS, which was designed as a tool for energy policy analysis, generates energy forecasts to the year 2010 under varying sets of assumptions, including high and low economic growth and high and low oil prices. The model forecasts light-duty AFV sales and stocks for fleets and personal usage by Census division. Scenarios of AFV projections are based on specific mandated purchases under EPACT, sales mandated under the California Low Emission Vehicle (LEV) Program, and a consumer vehicle choice model. Alternative-fuel freight truck and rail technologies are being incorporated into the model for future forecasts. Light-duty alternative-fuel vehicle forecast data are available in *The Supplement to the Annual Energy Outlook 1994*.

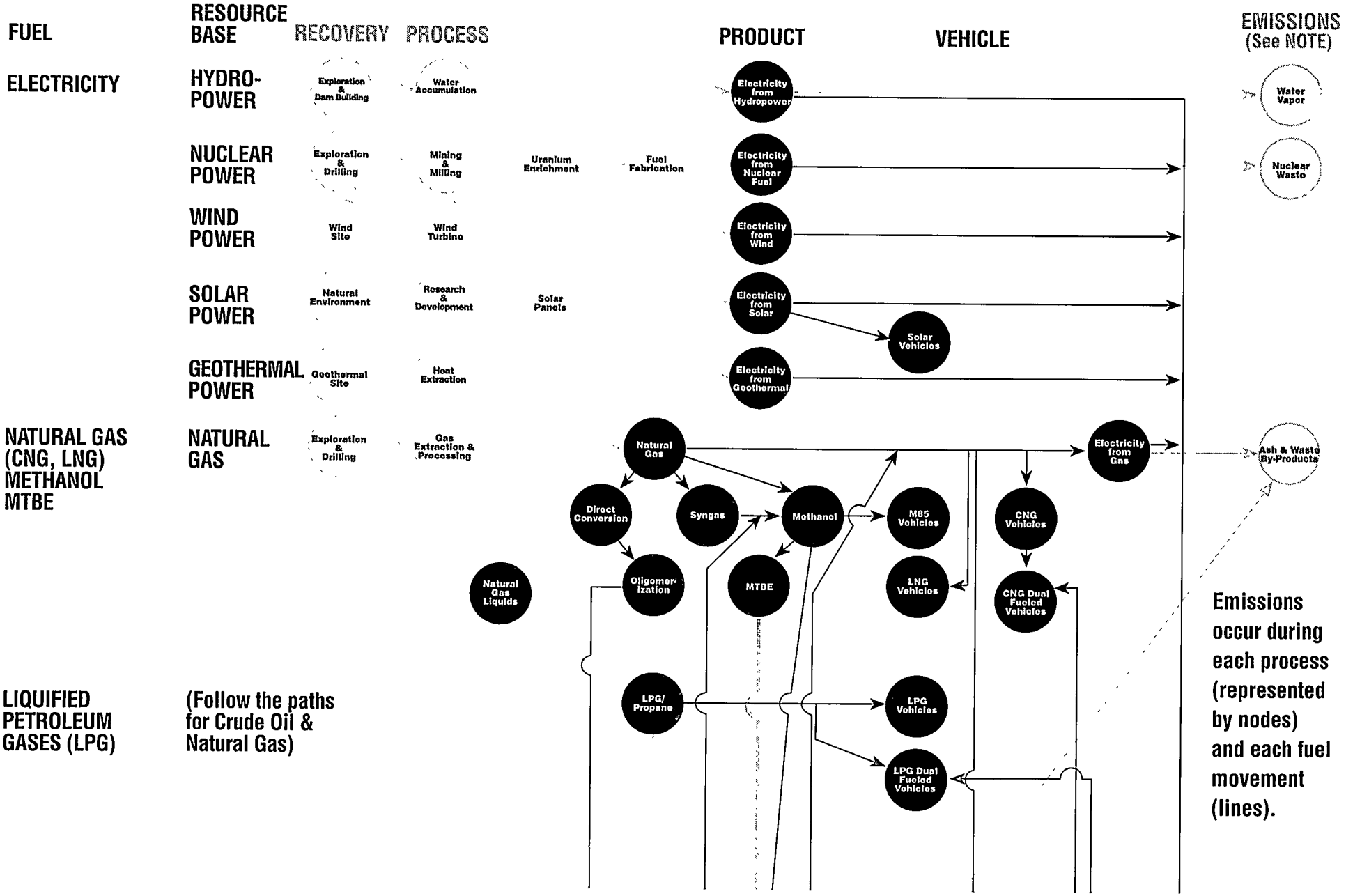
Section 407 of EPACT also directed EIA to collect data which would be useful to marketers of alternative-fuel vehicles. EIA is fulfilling these requirements primarily through motor vehicle fleet surveys. The "Clean City" fleet surveys were designed to provide basic descriptive information about the private and municipal government fleet market. A "Clean City" fleet survey of the Atlanta nonattainment area was conducted during 1994. Planning is completed for a Denver area survey for the summer of 1995.

EPACT requires the Secretary of Energy to issue regulations applying to companies that provide alternative fuels and that set minimum AFV targets for purchases of light-duty fleet vehicles. EIA therefore developed and implemented surveys of fleet vehicles for three of the major groups of alternative fuel providers: electric utilities, natural gas suppliers, and propane suppliers.

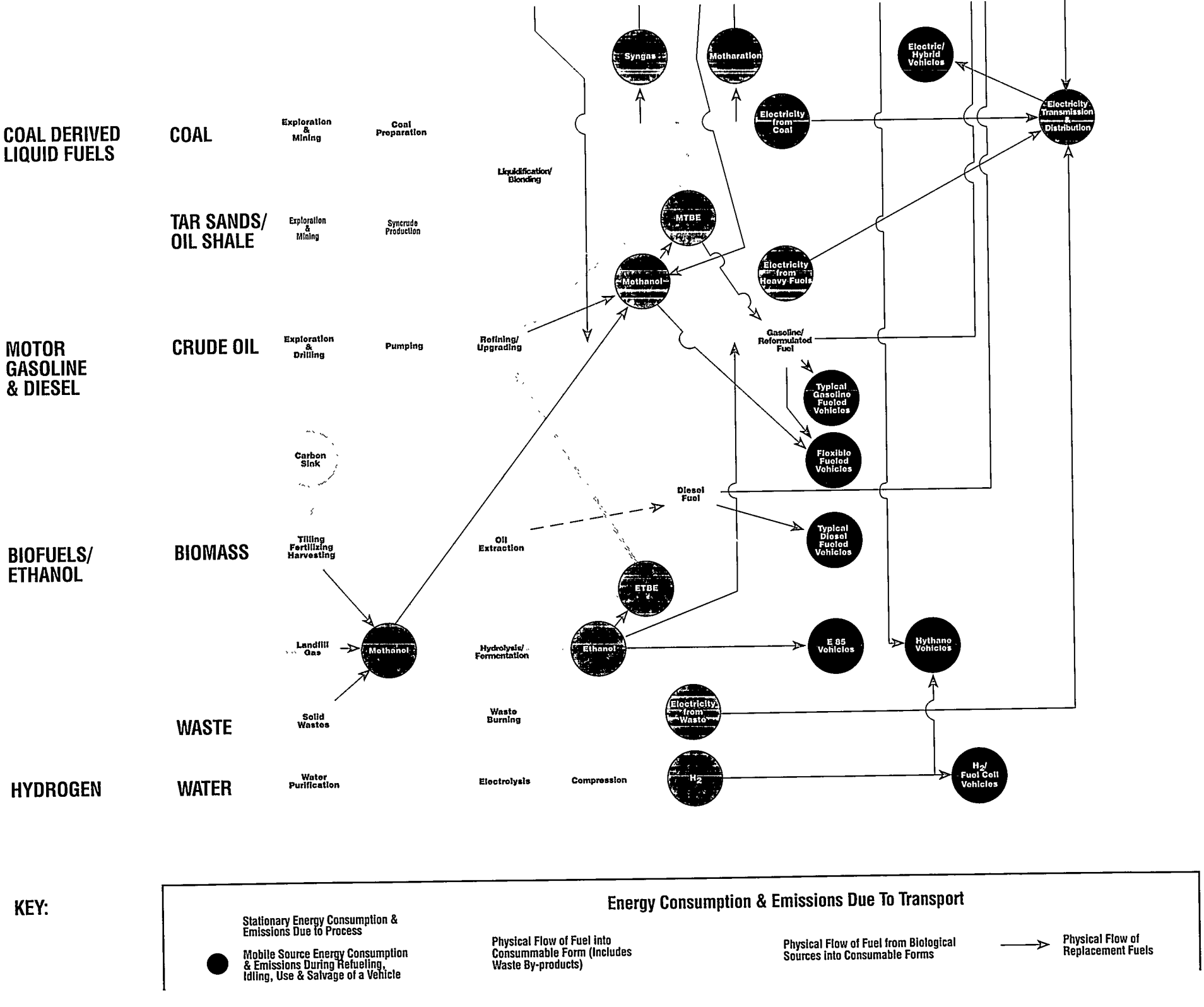
To collect data on natural gas and electric fleets, EIA supplemented its existing "Annual Report of Natural and Supplemental Gas Supply and Disposition" (Form EIA-176) and "Annual Electric Utility Report" (Form EIA-861) and sent these supplements to the entire population of natural gas and electricity providers. To collect data on propane fleets, EIA created two new survey forms: a short form, which was sent to a sample of 100 of the more than 7,000 small propane fuel provider companies, and a more detailed questionnaire, which was sent to the 35 largest propane providers, who account for about two-thirds of total propane sales. Preliminary data from EIA's fleet surveys are available in selected issues of EIA's *Monthly Energy Review.*

# ENTIRE FUEL CYCLE FOR TRANSPORTATION FUELS

## Physical Flow Diagram — Mobile Source Emissions




Emissions occur during each process (represented by nodes) and each fuel movement (lines).


COAL DERIVED LIQUID FUELS
COAL
Exploration & Mining
Coal Preparation
TAR SANDS/ OIL SHALE
Exploration & Mining
Syncrude Production
MOTOR GASOLINE & DIESEL
CRUDE OIL
Exploration & Drilling
Pumping
BIOFUELS/ ETHANOL
BIOMASS
Tilling Fertilizing Harvesting
WASTE
Solid Wastes
HYDROGEN
WATER
Water Purification
Electrolysis
Compression
Liquidification/ Blending
Refining/ Upgrading
Carbon Sink
Oil Extraction
Landfill Gas
Hydrolysis/ Fermentation
Waste Burning
Syngas
Metharation
Electric/ Hybrid Vehicles
Electricity from Coal
Electricity Transmission & Distribution
MTBE
Methanol
Electricity from Heavy Fuels
Gasoline/ Reformulated Fuel
Typical Gasoline Fueled Vehicles
Flexible Fueled Vehicles
Diesel Fuel
Typical Diesel Fueled Vehicles
ETBE
Ethanol
E 85 Vehicles
Hythane Vehicles
Methanol
Electricity from Waste
$H_2$
$H_2$/ Fuel Cell Vehicles
KEY:
Energy Consumption & Emissions Due To Transport
Stationary Energy Consumption & Emissions Due to Process
Mobile Source Energy Consumption & Emissions During Refueling, Idling, Use & Salvage of a Vehicle
Physical Flow of Fuel into Consummable Form (Includes Waste By-products)
Physical Flow of Fuel from Biological Sources into Consumable Forms
Physical Flow of Replacement Fuels

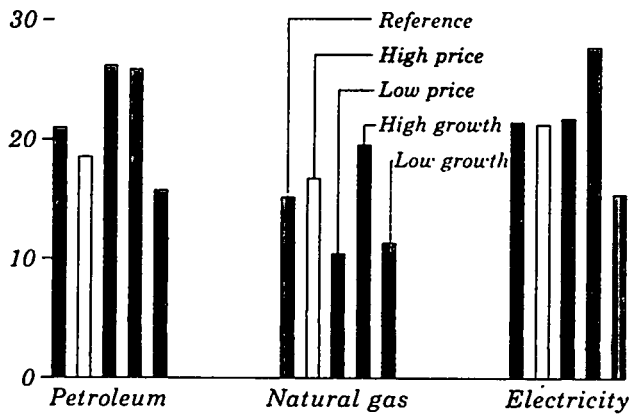

**NOTE:** Emissions and waste by-products occur with venting/flaring during resource recovery, direct and indirect production processes, transport of products and refueling of vehicles, as well as during the combustion phase of the entire fuel cycle. Emissions include all gases which collect in the atmosphere and act to prevent heat which emanates from the earth's surface from leaving the lower atmosphere: $H_2O$, $CO_2$, CO, $CH_4$, $N_2O$, $NO_X$, $SO_2$, chlorofluorocarbons, volatile organic carbons, radioactive particles, particulate matter, soot and aerosols. Waste by-products include water/brines from natural resources and processes, drilling muds, tailings, leachates, toxic and hazardous waste streams, heavy metals, ash, slag and objects which have reached the end of their useable lives.

Based on Energy Information Administration, *Alternatives to Traditional Transportation Fuels: An Overview*, DOE/EIA-0585/0 (Washington, DC, June 1994).

### Accelerated Oil and Gas Reserves Survey

In response to requests for earlier proved reserves estimates, the annual Oil and Gas Reserves survey was accelerated. An important 1994 initiative in achieving this acceleration was a campaign to encourage respondents to file their data in machine-readable form via the Reserves Information Gathering System (RIGS), rather than on paper. Survey forms submitted via RIGS are processed much faster because of on-line editing and correction features, automatic respondent prompting, and reduced follow-up calls. In 1994, 270 respondents submitted their oil and gas reserves data via RIGS; this was an increase of 55 percent over the 176 respondents who reported during the prior year. The results of the survey were released in August instead of September, and much wider coverage was provided in the press and in technical publications (Figure 1).

**Figure 1. Increase in Energy Consumption from 1993 to 2010 by Fuel (percent)**




**Source:** Reprinted from Energy Information Administration, *Annual Energy Outlook 1995*, DOE/EIA-0383(95)(Washington, DC, December 1994), p. 11.

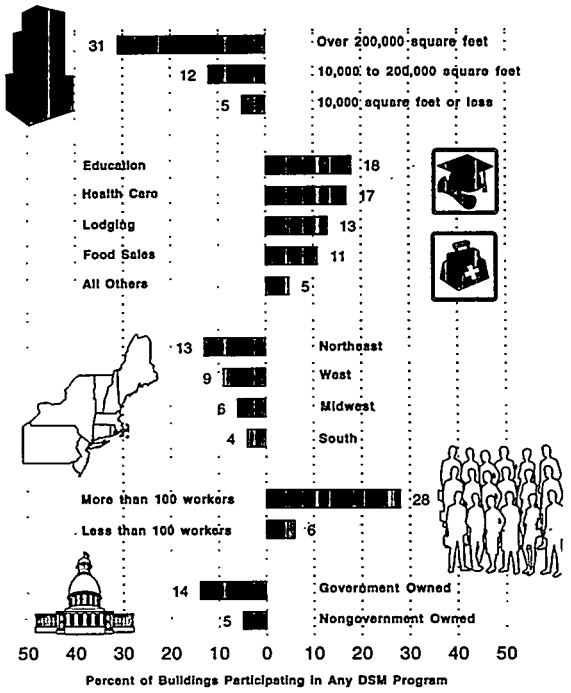
Other 1994 highlights:

- EIA improved the timeliness of two of its weekly reports, the *Weekly Coal Production* and the *Weekly Petroleum Status Report.* By means of electronic dissemination, EIA was able to fax data from the *Weekly Coal Production* report directly to its customers who indicated that they would prefer to receive it in that manner. This revised procedure allows customers to receive the report each Friday, when it is ready, rather than on Monday or Tuesday of the following week through the mail. Similarly, EIA moved up the availability of the electronic version of the *Weekly Petroleum Status Report* by a full day, providing industry, the media, and the financial community with more timely information on petroleum supplies. In response to customer requests, EIA also made weekly data on propane supply available a day sooner.

- By collecting data electronically, EIA was able to publish the *Commercial Buildings Characteristics 1992 (CBECS)* two months sooner than its predecessor, *Commercial Buildings Characteristics 1989* (Figure 2). *CBECS* tables were released to the public about one month before publication of the report and were placed on EIA's bulletin board, the Electronic Publishing System (EPUB).

- In response to the need for timely on-highway diesel fuel price data, EIA designed and implemented a telephone price survey (EIA-888) that provides U.S. and Petroleum Allocation for Defense (PAD) District-level prices. The prices are available on the day they are collected. To avoid duplication of effort, a Memorandum of Understanding was developed involving the Interstate Commerce Commission (ICC) and EIA. EIA's survey replaced an ICC survey, but the ICC provides the EIA price on its telephone hotline.

**Figure 2. Types of Buildings Most Likely to Participate in Demand-side Management, 1992**

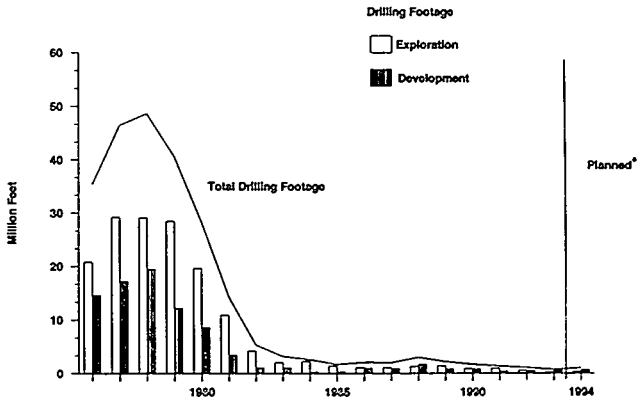



**Source:** Reprinted from Energy Information Administration, *Commercial Buildings Characteristics 1992*, DOE/EIA-0246(92)(Washington, DC, April 1994), p. 13.

- EIA initiated a training program for respondents to the EIA-821, "Annual Fuel Oil and Kerosene Sales Report" survey. During 1994, training was given in five cities and was attended by major refining companies and small dealers. The training program has received very high marks from industry and has resulted in earlier publication of the data due to better response rates and fewer errors.

- In 1994, as a result of customer requests for earlier releases of solar and uranium data, EIA published the *Solar Collector Manufacturing Activity 1993* and *Uranium Industry Annual 1993* reports three and two months earlier, respectively, than they were published the previous year (Figure 3).

**Figure 3. U.S. Uranium Exploration and Development Drilling Footage, 1976-1994**



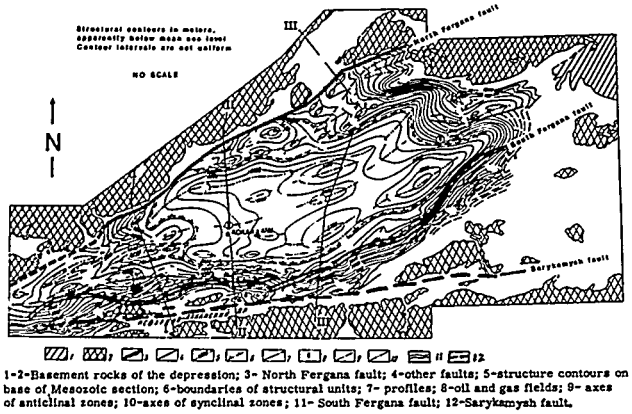

**Source:** Reprinted from Energy Information Administration, *Uranium Industry Annual 1993*, DOE/EIA-0478(93)(Washington, DC, September 1994), p. 5.

- When the Republic of Uzbekistan (formerly of the Soviet Union) announced its first international offering of oil and gas license blocks, EIA accelerated a project to assess the area and prepared a 14-page Advance Summary of the Fergana basin results, along with computer diskettes containing all of the reservoir-level data files, more than five weeks ahead of the bid closing in 1994 (Figure 4).

- After reviewing its unmet data requirements and receiving customer input from the Solar Energy Industry Association (SEIA), EIA began a cooperative project with SEIA to collect data from solar system installers. These data will allow EIA to improve its renewable energy production and consumption estimates and modeling system.

- In 1994, EIA published the Energy INFOcard, a pocket-sized, laminated card that was designed to be a quick-reference source for EIA's most recent annual domestic data on petroleum, natural gas, coal, electricity, nuclear energy, renewable energy, total energy, and efficiency of use.

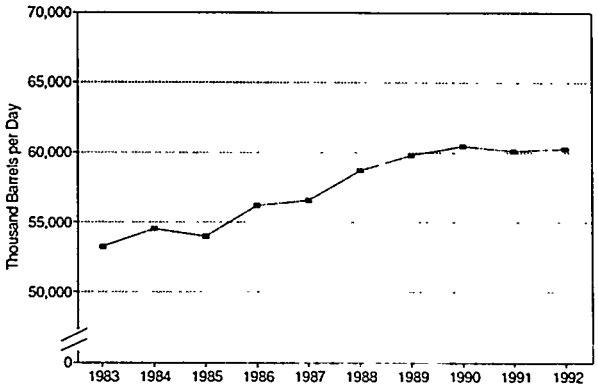
**Figure 4. Structure Map, with Subsurface Contours at Base of Mesozoic Section, Fergana Basin**




1-2-Basement rocks of the depression; 3- North Fergana fault; 4-other faults; 5-structure contours on base of Mesozoic section; 6-boundaries of structural units; 7- profiles; 8-oil and gas fields; 9- axes of anticlinal zones; 10-axes of synclinal zones; 11- South Fergana fault; 12-Sarykamysh fault.

**Source:** Reprinted from Energy Information Administration, *Oil and Gas Resources of the Fergana Basin*, DOE/EIA-TR/0575 (Washington, DC, December 1994), p. 42.

**Figure 5. World Crude Oil Production, 1983-1992**




**Source:** Reprinted from Energy Information Administration, *International Energy Annual 1992*, DOE/EIA-0219(92)(Washington, DC, January 1994), p. 7.

Widely disseminated to decisionmakers and the general public, the card, which will be updated every 6 months, also contains annual international data on production, emissions, generation, and resources. The data are compiled primarily from two EIA publications, the *Annual Energy Review* and the *International Energy Annual* (Figure 5).

### EIA's Publication Review Process--Continuous Improvement

EIA's publications review process, functioning continuously since the agency was activated in 1977, is the principal mechanism by which the agency has fashioned its stable core of statistical and forecasting publications, all of which are widely used by its customers. Each year, resource and customer commitments to publications are analyzed as part of the annual budgeting and resource allocation cycle. Moreover, each analytical report must be defended agency-wide in a scoping paper before any resources are expended to commence its preparation. Finally, each publication undergoes a rigorous peer review before final approval and release.

This process has had impressive results. The programs that EIA inherited from its predecessor agencies produced nearly 100 periodicals, comprising more than 600 issues each year. By 1994, EIA had reduced the periodical count to 60, comprising less than 300 issues. Ten of these periodicals were eliminated in the last 4 years alone, most recently *Coal Distribution* and *Domestic Uranium Mining and Milling Viability Assessment.*

Recent reviews have identified 5 more periodicals (4 annual, 1 quarterly) as candidates for elimination in 1995, and 2 other annuals are slated to be merged with existing periodicals. In addition, 4 periodicals will be published at less frequent intervals.

## Electronic Dissemination Initiatives

### Internet Services

EIA introduced the "EIA Home Page" in 1994. A component of DOE's Home Page system, this World Wide Web application permits Internet users to browse hyperlinked EIA reports, analyses, articles, press releases, and other features, complete with

graphics and in full color. In 1995, the EIA Home Page will point to EIA's Gopher and File Transfer Protocol (FTP) servers, making more than 400 data files and executable applications available for users to browse or download. Among the executable applications, the Short-Term Energy Model, discussed on this page, was the first to be Home-Page-accessible in 1994. Ultimately, all of EIA's published information will be available on or through the EIA Home Page.

Also in 1994, EIA initiated a project to use the Internet services of the FedWorld System, operated by the National Technical Information Service. Coal and electricity database files and descriptions of their contents have been created from EIA survey files and uploaded to the FedWorld node on Internet. Users can obtain this information free of charge by using the normal telecommunications modes familiar to Internet users.

### EIA's Energy Information Highway

EIA's "Energy Information Highway" is conceived as a way of giving users full access to the information capability contained in EIA's data and forecasting products. Rather than disseminating dry publications and forecasts, the highway concept seeks to present the products as "live" or intelligent documents. The highway will include not only what EIA chooses to publish, given the limitation of paper and imagination, but also additional views about the data and forecasts under the users' control. In 1995, EIA's Energy Information Highway will be available to the public via Internet on the EIA Home Page.

Each document EIA publishes and each database EIA maintains can be converted to an application, with an icon that represents what the product will provide to the user. Simply put, an icon represents a program that runs in the Microsoft (MS) Windows environment (currently the dominant user interface on IBM-compatible desktop computers). The program can be based on any number of new Windows-compatible design tools. These programs generate sophisticated user interfaces that can provide a link between a user's questions and EIA's data in the form of a database or a simulation program. These design tools provide very clever means of presenting EIA's information products in ways that make them more interesting and more accessible. Most important, each set of development tools provides its own run-time license for dissemination of the resulting product to the users. To run these applications, it is recommended that users have an IBM-compatible PC with Microsoft Windows 3.1 and an 80486 processor with a speed rating of 50 megahertz and 8 megabytes of random access memory.

Some of the icons being prototyped within EIA illustrate a wide range of possibilities, as shown by these examples:

- The World Energy icon provides the user with a wide range view of EIA's international oil, coal, electricity, and natural gas data in the form of an energy balance for each country. Perhaps as important, it offers a vehicle for collecting and exchanging balanced international data between users and EIA. The application is typical of a number of database applications under development that will include EIA's *Monthly Energy Review* and the State Energy Data System.

- The Short-Term Energy Model icon provides the user with a detailed view of EIA's published short-term forecasts, but it also allows the user to make significant changes in the assumptions and generate alternative forecasts. (A diskette version of the Short-Term Energy Model was released to the public with the fourth quarter 1994 *Short-Term Energy Outlook* (*STEO*). The Short-Term Energy Model is updated each quarter when *STEO* is released.)

- The Country Analysis Briefs icon provides the user with up-to-date analyses of the economic, political, and energy situation for more than 35 countries. It is a hypertext application that provides instant access and key word search capability to the documents.

- Other icons provide a variety of databases on the coal, nuclear, and electric utility industries.

### CNEAF Database

EIA also produced the CNEAF Database Access Directory (DAD), a user-friendly interface (front-end) which simplifies access to coal, nuclear, electric and alternate fuels (CNEAF) survey data files, analytical tools, and mapping capabilities. The DAD contains database files (DBF) for all the CNEAF data systems, with information on file descriptions, frequency of update, and contacts for further information. The system will permit simple downloading of the information, on-line access, and browsing of the data and geographical analysis and mapping of the information. This system is currently available within EIA via the Energy Information Highway, and the public-use features will be available through the EIA Home Page in 1995.

### Energy Emergency Notebook

EIA also established an Energy Emergency Notebook, a PC-based electronic notebook designed to provide a centralized resource base to assist EIA staff members in quickly analyzing and responding to energy disruptions caused by emergency situations. The Notebook contains a statistical baseline of up-to-date coal, nuclear, and electric information obtained from direct surveys of the industry. A Geographic Information System (GIS) capability is incorporated into the Notebook to enhance the analytical capability by visually displaying spatial relationships. Also included are various items of useful information, such as lists of contacts in State Governments, electric utility contacts, descriptions of past emergency actions, and emergency policies and procedures.

## Outreach Activities

In an effort to serve its customers and to achieve its goal of being an objective partner in fulfilling the mission of the DOE, EIA participated in a number of outreach programs. Additionally, EIA formed several interagency cooperatives to address a wide-range of issues. During 1994, EIA actively participated in a variety of energy workshops, seminars, and conferences here and abroad.

### PEDRO

On October 12, 1994, EIA and the Bureau of the Census (Bureau), which sought to develop a Computerized Self-Administered Questionnaire (CSAQ) system, entered into an interagency agreement that will allow the Bureau to use EIA's PC Electronic Data Reporting Option (PEDRO) as a model.

PEDRO is an electronic data collection product that facilitates the fast, accurate, and efficient transmission of data from the respondent's remote site to the EIA computer facility. PEDRO provides a respondent using a personal computer (PC) for data entry with an image of a printed survey form. Users can enter information through the keyboard or by importing data from another computer system. PEDRO performs numerous quality checks to compare the data entered with established ranges. PEDRO automatically transmits the information via modem to EIA's computer facility. Security of the transmission is protected by passwords and all data are encrypted. Accuracy is ensured by several levels of error detection.

With minimal cost, PEDRO was enhanced by EIA to satisfy the Bureau's functional requirements. In addition, the "PEDRO Programmer's Toolkit" developed by EIA will be used by the Bureau's CSAQ developers. The toolkit will aid developers in creating and/or modifying any or all necessary "static" survey-specific screens.

### EIA's Role in DOE's Mission of Nuclear Weapons Site Cleanup

For the past year, perhaps DOE's greatest challenge has been to help eliminate threats of environmental problems created by the agency's historical mission of nuclear weapons production. EIA actively

supported DOE's effort in assessing remediation costs for by-product material attributable to the sale of uranium and thorium to the U.S. Government in support of Title X of the EPACT.

Specifically, EIA provided data and forecasts of nuclear generation, fees, spent fuel, and spent fuel burnup to the Office of Civilian Radioactive Waste Management for its work in planning for the Nation's low-level nuclear spent fuel storage repository. EIA also provided data and forecasts of nuclear capacity, generation, mill tailings, and spent fuel to the Oak Ridge National Laboratory for the DOE's Integrated Database.

In a related development, EIA transmitted the *Uranium Purchases Report 1993* to Congress, as required by Section 1015 of EPACT. The report, which was the second annual submission by EIA, indicated that owners and operators of U.S. civilian nuclear-powered electric generating units took delivery of 31.2 million pounds of uranium concentrate ($U_3O_8$) equivalent under purchase contracts during 1993. Approximately 12 percent, or 3.9 million pounds, of this uranium was of U.S. origin. Canada, with 14 million pounds; the Newly Independent States (the former Soviet Union), with 6.2 million pounds; China, with 2.9 million pounds; and Australia, with 1.8 million pounds, accounted for most of the non-U.S. origin uranium. In 1993, two new enrichment service contracts were signed by U.S. utilities. These utilities also purchased and received 8.8 million separative work units from nine firms during the year. The United States Enrichment Corporation performed 91 percent of this enrichment activity for U.S. utilities.

### EIA Coordinated DOE's Geographic Information Systems

During the year, EIA assumed the responsibility of coordinating the Geographic Information Systems (GIS) at DOE. These state-of-the-art computer mapping systems will be used to analyze and communicate complex spatial data. DOE uses spatial data in programs involving environmental, oil and gas transport, emergency preparedness, and military applications. The Administrator of EIA is the DOE representative to the Federal Geographic Data Committee, which is an interagency organization that is developing standards and creating a national clearinghouse for geographic data. In coordinating GIS, EIA will enhance the efficiency of all Departmental programs that use spatial data and, most importantly, improve communication with the public.

In addition to this effort, EIA acquired wide format color graphics capabilities for use in the presentation of geologic, engineering, economic, and statistical data in both standard and geographically referenced forms, in accord with mounting customer desire for access to such information displays on a rapid response basis. The technical ability to utilize this new EIA capability has been confirmed with all of EIA's offices and with DOE's Office of the Deputy Secretary, Office of Fossil Energy, and Office of Public and Consumer Affairs.

### Other Interagency Cooperative Actions Taken

Some specific cooperative actions taken by EIA during 1994 include the following:

- At the request of DOE's Deputy Secretary and Assistant Secretary for Fossil Energy, EIA conducted a quick assessment of natural gas supplies through 1996. The study concluded that natural gas supplies and system deliverability would be adequate under normal demand and price expectations, and under a severe winter weather scenario in the first quarter of 1996.

- At the request of the Secretary of Energy, EIA provided extensive data and analysis support to two studies conducted by the National Petroleum Council. One study, *The Oil Pollution Act of 1990: Issues and Solutions*, assessed the impacts of a Minerals Management Service proposal on the financial responsibility requirements of the Act. The other study, *Marginal Wells*, assessed domestic oil and gas marginal well production and the access to potential reserves that those wells provide.

- Provided technical staff support to DOE's Office of Emergency Planning during its examination of energy supply problems which occurred in the Pennsylvania-New Jersey-Maryland interconnection and the Virginia Power areas during the period of severe cold weather in January 1994. The purpose of the examination was to identify ways in which industry, State and local governments, and Federal agencies might improve emergency preparedness and response measures for a cold weather emergency.

- Provided significant support to DOE's efforts to monitor and respond to problems that resulted from last winter's extremely cold weather, when natural gas, propane, and heating oil were in short supply. EIA provided timely and accurate data and analyses to Federal and State officials, industry, and the public. Similar support was rendered when the Colonial Pipeline broke as a result of the October 1994 flooding in Houston, Texas.

- Cooperated closely with the Environmental Protection Agency (EPA) Policy Office during the spring and summer of 1994 in the development of estimates of U.S. emissions of greenhouse gases. Provided EPA with detailed energy data, carbon dioxide emissions coefficients for fossil fuels, and extensive technical assistance in the interpretation of EIA data.

- Provided modeling and analytical support to DOE on several studies: the Domestic Natural Gas and Oil Initiative, a study on West Coast oil exports, and a study on the valuation of crude oil from the Naval Petroleum Reserve for the Office of Fossil Energy.

- Initiated, planned, and coordinated two workshops with DOE's Office of Emergency Management and the National Association of State Energy Officials (NASEO). The workshops were held in conjunction with the regional energy emergency exercises. The 1994 Western Regional Energy Emergency Exercise was held in Las Vegas, Nevada, on June 29, and the 1994 Eastern Regional Energy Emergency Training Seminar was held in Baltimore, Maryland, on September 14. Both workshops had attendance of approximately 120 people from industry and Federal, State, and local governments. An overview of EIA was presented, along with demonstrations of various EIA data systems. Workshops such as these had never before been conducted. The workshops provided participants an opportunity to learn more about EIA products and services.

- Planned and conducted, in collaboration with NASEO, the State Heating Oil and Propane (SHOPP) Conference in Waterville Valley, New Hampshire, on August 15-16. The purpose of the conference was to provide SHOPP participants with heating fuel trends and assessments for the upcoming winter season. Discussions were held with State Energy Office personnel on how to improve customer access to EIA information, including electronic options.

- Planned, coordinated, and conducted the 1994 Winter Fuels Conference, held near Washington on November 4. The conference was co-sponsored by NASEO and the Office of Emergency Management. This one-day event featured presentations by high level officials on the outlooks and assessments for winter heating fuels and reformulated gasoline. Approximately 100 officials from Federal and State Governments, the energy industry, trade associations, private research organizations, and trade press attended the conference.

### Additional Cooperative Agreements Developed

During 1994, EIA conducted an interagency Wood Energy Data Conference to determine the data being collected on wood, as well as user requirements for wood energy data. As a result, EIA is spearheading an interagency effort to standardize the collection of wood energy data, minimize respondent burden, and provide more wood energy data to its customers.

Additionally, EIA continued its ongoing relationship with the Commodity Futures Trading Commission (CFTC). The CFTC staff meets weekly to discuss surveillance of commodity futures markets. A representative from EIA attends whenever an oil and gas market issue is on the agenda. EIA and the CFTC frequently exchange data and other information, an exchange which has benefitted both agencies during times of natural disasters, war, or other events that disrupt the markets.

Also in 1994, EIA redesigned the United States' data submission to the International Energy Agency (IEA), the statistical agency for the Organization for Economic Cooperation and Development (OECD). Each month, under a treaty obligation, EIA prepares a report of average prices and volumes of imported crude oil from selected crude streams and submits it to the IEA.

EIA continued working in partnership with the International Atomic Energy Agency (IAEA) on a multi-faceted program on environmental emissions. EIA provided data on the emissions and costs of different energy sources to be used for electricity generation for the Comparative Assessment of Different Energy Sources for Electricity Generation (DECADES) project. Moreover, EIA initiated a coordinated research program involving case studies of the impacts on utility supply decisions of State Public Utility Commission policies and methods of dealing with the environmental externalities.

EIA attended the Uranium Group Meetings sponsored by the Nuclear Energy Agency of the OECD in anticipation of preparation of the RED Book and the BROWN Book. Since the mid-1960's, with the cooperation of their member countries, the OECD Nuclear Energy Agency and the IAEA have published biennial reports on world uranium resources, production, and demand in what is commonly known as the RED Book.

Similarly, a questionnaire on electricity generation, nuclear power, and fuel cycle data is distributed annually to OECD-member countries. In the 1994 questionnaire, countries were asked to provide historical data for 1992, 1993, and most likely projections up to the year 2010. The replies to the questionnaire or the results of the discussions between national correspondents and the Secretariat are presented in a report referred to as the BROWN Book.

### Speeches, Press Releases, and Press Conferences

During 1994, EIA staff delivered more than 40 speeches and presentations here and abroad to various national and international organizations. The most frequent topic covered was energy modeling; others included nuclear and uranium issues; reformulated gasoline and the Clean Air Act Amendments of 1990; coal, electric, and natural gas issues; and EIA's products and services.

Sometimes, EIA's findings from its principal data and analysis publications were issued as press releases, 30 of which were issued during 1994. Additionally, the EIA Administrator held two press conferences in 1994, one where he announced the release of the *Annual Energy Outlook 1994* and another where he discussed the findings of the 4th quarter *Short-Term Energy Outlook* and the availability of the Short-Term Energy Model to the public.

## Total Quality Management Program

During 1994, EIA embarked on an integrated program of total quality management (TQM). Highlights of the program include the formation of a Quality Council and a variety of process improvement teams; an internal culture climate survey; the establishment of a customer focus program, which includes both training and customer

surveys; and the development of performance measurement activities. (See "Performance Measurement-EIA Becomes Pilot Project, page 20.)

### EIA Quality Council Created

Early in 1994, EIA created its Quality Council, which consists of self-nominating EIA staff, as well as the Administrator, the Deputy Administrator, and all Office Directors. It was envisioned from the beginning that the Council would work to improve programs and processes affecting services to its customers, both internal and external; EIA's business practices; and the quality of worklife in EIA. For example, the first process improvement team chartered by the Quality Council developed a streamlined process for reviewing drafts of reports requiring the Administrator's signature. Other topics considered in 1994 were as diverse as parental-care leave, job significance, and worldwide electronic access to EIA information.

### First-Time Ever Culture Climate Survey Taken

Perhaps one of the most significant actions taken by the EIA Quality Council during the year was to field a Culture Climate Survey, the first survey of its kind given to EIA employees. EIA's responses were then compared to those of 14 technical agencies, with a total of 5,400 respondents. In August, when the results were in, EIA's strengths and challenges, or "opportunities for improvement," were clearly identified. The survey showed that EIA employees were generally satisfied with their agency, but it also identified challenges to improve the work environment. In response to this, the Quality Council established the Committee on Job Significance and Work Procedures to address communication, job significance, and rewards and recognition. This Committee, which presently is looking at both short- and long-term solutions, includes the Administrator and representatives from each EIA Office. Other Quality Council committees are looking at other issues raised in the survey.

### Quality Training

In order to meet the needs of a changing work environment, EIA offered various types of quality training to its employees. An intensive leadership workshop based on timeless principles of personal, interpersonal, and managerial effectiveness was provided to over 200 employees. A pilot training course on conducting effective meetings was provided to help employees reduce the amount of time spent in meetings and to make meetings as productive as possible. Most Offices within EIA trained their staffs in the principles of quality management during 1994. For employees participating on process improvement teams, additional training on such subjects as teambuilding and facilitation was provided.

### Customer Focus

EIA's strong commitment to customer service was highlighted in 1994. During the year, EIA participated in DOE's Customer Focus Advocates program to increase awareness and understanding of the dynamics of customer relationships. The two main departmental responsibilities of the advocates are to help design a customer service plan and to train all employees in basic customer service. EIA appointed 7 Customer Focus Advocates, each of whom then received 80 hours of training in how to achieve extraordinary customer service.

From this training, the Customer Focus Advocates developed a training module tailored to EIA's service needs and provided 2 hours of training to more than 300 EIA employees, especially those who deal principally with external customers.

In a related activity, EIA, in June 1994, conducted a pretest of a customer satisfaction survey for the telephone information service provided by its National Energy Information Center (NEIC). This survey instrument, which was developed on the basis of results from a pilot survey conducted in April in NEIC, was then fielded in July following its approval by the Office of Management and Budget (OMB).

Questions on customer service included one on overall satisfaction and separate questions on the following service attributes: ease in contacting EIA, courtesy of the staff, their familiarity with the information, their understanding of the customer's needs, their promptness, and their interest or enthusiasm. A caller was asked to rate these attributes from 1 to 5, with 1 meaning he was very dissatisfied and 5 meaning he was very satisfied.

**Table 1. Customer Satisfaction Attributes**

| Customer Satisfaction Attributes | Average Rating |
|---|---|
| Overall | 4.81 |
| Ease of contacting | 4.73 |
| Courtesy | 4.88 |
| Familiarity with info. | 4.63 |
| Understood needs | 4.81 |
| Promptness | 4.75 |
| Interest or enthusiasm | 4.61 |

**Source:** Energy Information Administration, Office of Planning, Management, and Information Services.

Callers were also asked specific questions which covered the quality of EIA's information products and their interest in electronic availability of EIA information. Customer responses will be used to make decisions about programmatic emphasis, resource allocation, marketing, and service standards.

The questions for the actual survey were the same as those from the pretest, and, interestingly, yielded similar results. Pretest respondents rated overall customer satisfaction 4.67. When the actual survey was conducted in July, callers rated overall satisfaction 4.81 and rated courtesy 4.88 (Table 1). When asked about the ease of contacting NEIC, callers rated this attribute 4.73. A number of people commented that "it was great to call and get a person."

Callers were then asked to indicate which service attributes were the most important and the second most important, respectively (Table 2). Familiarity with the information was the clear leader in this part of the survey.

Another set of questions concerned customer familiarity and use of EIA electronic information. Most callers were not aware of EIA's electronic dissemination capabilities, but expressed interest in knowing more about what was available electronically and how they could access the information. Only five people actually had accessed EIA data electronically and rated overall satisfaction with EIA's electronic dissemination 3.6.

**Table 2. Customer Service Attributes (percent of customers)**

| Customer Service Attributes | Most Important | Second Most Important |
|---|---|---|
| Ease of contacting | 20.1 | 11.5 |
| Courtesy | 7.7 | 15.4 |
| Familiarity with info. | 42.3 | 26.9 |
| Understood needs | 11.5 | 11.5 |
| Promptness | 11.5 | 26.9 |
| Interest or enthusiasm | 0 | 3.9 |

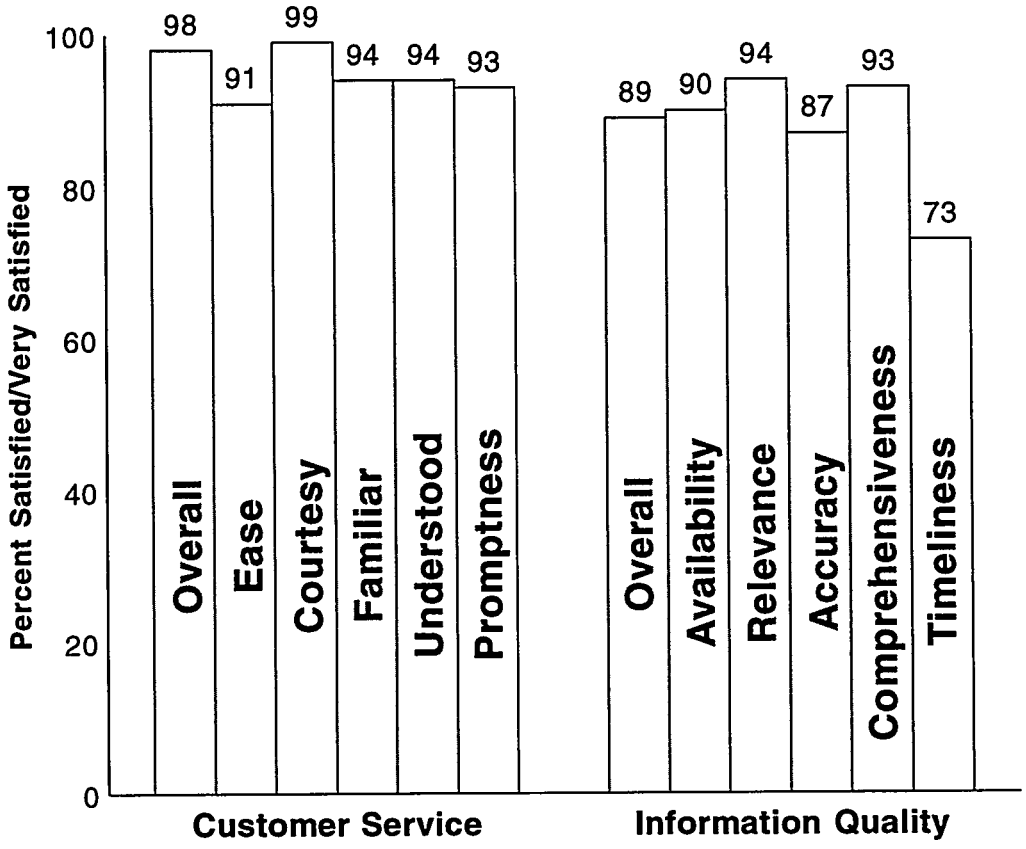
**Source:** Energy Information Administration, Office of Planning, Management, and Information Services.

Based on the information and lessons learned from the NEIC customer surveys, EIA then conducted its first agency-wide telephone survey on customer satisfaction. From January 24 through January 26, 1995, EIA staff surveyed 286 customers. Of those surveyed, 94 percent said they were either satisfied or very satisfied with EIA's overall customer service; and 86 percent said they were either satisfied or very satisfied with EIA's information products (Figure 6).

Although EIA celebrates the fact that customers rated EIA's services very highly, the customer satisfaction surveys conducted in NEIC and EIA-wide identified some areas for improvement. For example, 70

percent of the respondents were satisfied with the timeliness of EIA's data, but 30 percent were either neutral or not satisfied. This is an area EIA has targeted for improvement in the future. This telephone survey proved to be a valuable first step in assessing the needs of EIA's customers. In most areas, callers rated EIA's efforts highly; in others, like electronic dissemination, ongoing initiatives aim to meet customer requirements for expanded services.

**Figure 6. Results from the EIA Customer Survey**



## Performance Measurements—EIA Becomes Pilot Project

### Background

During 1994, EIA was selected as a pilot project in the Office of Management and Budget's (OMB) implementation of the Government Performance and Results Act of 1993.

The legislation, which was signed into law by President Clinton in August 1993, will help:

- Improve public confidence in Federal Agency performance by holding agencies accountable for achieving program results.
- Improve Federal program effectiveness and public accountability by promoting a focus on results, service quality, and customer satisfaction.

The legislation directs OMB to initiate this program of performance budgeting with a series of pilot projects which will set program goals, measure program performance against those goals, and report on progress. EIA was designated as a pilot by the Director of OMB in July 1994. EIA is one of 71 individual pilots governmentwide from among 27 different Departments and Agencies.

Pilots are required to prepare annual performance plans and program performance reports. The performance plans outline goals which define the level of performance to be achieved by the Agency; provide goals that are objective, quantifiable, and measurable; and use performance indicators to measure or assess the relevant outputs, outcomes, and/or service levels for each program goal. Pilots are then required to issue public reports on program performance for the previous fiscal year, addressing how well the program performed relative to each of the performance indicators.

The ultimate goal of this act is to increase the use of performance information to better manage programs and to allocate resources wisely. The Federal Government is moving toward more performance-based budgeting, and the pilot information will lead the way in this effort. After several years of experience, each pilot is required to submit a report to OMB assessing the costs, benefits, and usefulness of these performance plans and reports. OMB will identify operational difficulties and recommend appropriate changes and will then report to the President and the Congress on the advisability of including a performance budget as part of the annual budget process.

### Activity in 1994

#### *Performance Plan*

EIA submitted its first Annual Performance Plan, titled "Vision 2000: Improving EIA Products and Services," to OMB in March 1994. The Plan included performance goals and objectives, and ways to measure EIA's performance toward those goals. For this first phase of the pilot, EIA took two of the goals from its draft Strategic Plan and rephrased them into the following goals and associated measures:

Goal #1. Assure that EIA data and analyses are relevant to the needs of customers.

Measures:

- Products and/or services modified as a result of customer feedback
- Products and/or services added or dropped as a result of customer feedback
- Level (percentage) of customer expressions of satisfaction in EIA products or services
- Number and significance of concrete customer proposals to improve EIA products or services.

Goal #2. Provide customers fast and easy access to energy information.

Measures:

- Citations of EIA information in general media
- Number of new or simplified information presentations in EIA products
- Number of Internet accessions of EIA information
- Number of bulletin board (dial-up) accessions of EIA information
- Number of accessions of EIA information through electronic resellers
- Number of data releases made closer in time to the period covered by the data without significant degradation in quality.

In 1994, EIA started to collect information to support the performance measures for the pilot project.

- EIA used a paper information collection process to record customer suggestions for changes to its products and services. The process was new, somewhat cumbersome, and not evenly implemented. EIA is now refining this process, possibly automating some parts, working to increase understanding of and participation in the effort.
- Citations in the general media consisted of counts of EIA's mention in a limited number of major publications, such as the *Washington Post*, the *New York Times*, and the *Wall Street Journal.*
- Accessions to electronic data in 1994 were measured by counting individual sessions on EIA's electronic publishing system and downloads of EIA files from the Department of Commerce's Economic Bulletin Board and the Government Printing Office's Federal Bulletin Board.
- EIA's customer satisfaction surveys were cleared through OMB and were implemented in a systematic manner. EIA used random sampling and planned nonresponse followup to ensure the most valid results possible.

### *Program Performance Report*

EIA's first report on program performance as a pilot project is due to OMB in March 1995. This report will cover the 6-month period from April 1, 1994, to September 30, 1994, but full-year data can be used where available. Information for 1994 will be used as a baseline from which to measure improvement in the future. This report will begin to show how well EIA's programs are doing and how successful EIA is in meeting its objectives.

### Continued Work on Performance Measures

In the fall of 1994, EIA began a systematic approach to develop performance measures. The first step was to gain a better understanding of EIA's organizational system by conducting an input/output analysis (figure below). The second step was to identify measures which would demonstrate progress toward goals established in the strategic plan. And the third step will be to implement procedures for collecting the data needed for these measures.

**Input/Output Analysis for EIA**

| Upstream Systems (Suppliers) | Inputs | Transformation Process | Outputs | Customers | Outcomes |
|---|---|---|---|---|---|
| Contractor companies<br>Training vendors<br>DOE, OMB, other Federal agencies<br>Congress | Resources (FTE, $, contractor staff, etc.<br>Training<br>$ from other govt agencies | **Resource management** (planning and budgeting, personnel, procurement, contracting, training, ADPSS.) | Plans, budget, staff hired, payroll, contractors hired and paid.<br>Staff trained<br>Reports to Department | DOE, OMB, Congress<br>Contracting companies | Customers satisfied<br>Defensible budgets and plans, we obtain and retain qualified staff and contractor help. |
| Respondents<br>States<br>External data suppliers (FERC, industry)<br>Firms in industry, trade associations<br>Academics and other forecasters<br>ASA Energy committee<br>Professional organizations | Survey responses<br>Information, external data<br>Industry expertise<br>Advice<br>Congressional mandate<br>Data needs | **Survey operations** (data entry, edit, nonresponse follow-up, publication, documentation, frames maintenence.)<br>**Energy Analysis** (Selection and execution of analytical techniques, identificaton and use of data, communication of results --examples: data interpretation, industry/market descriptions, etc.) | Data bases<br>Input to IEA, BLS, Census, BEA<br>Survey forms and instructions<br>OMB Clearance packages<br>Information<br>Feature articles and journal articles<br>Publications and technical reports<br>Forecasts<br>Technical memoranda | IEA, BLS, Census, BEA<br>Respondents<br>Firms in industry, trade associations<br>FEMA other Federal government<br>Regulators (govt) | EIA data needed and used by other government<br>Access to international data<br>Other government collections avoided<br>Other govt collections validated or invalidated<br>Appropriate emergency actions taken |
| General public<br>Academia<br>Media<br>Energy data vendors | Requests for information | **Forecasting** (NEMS and STIFS, through publication, including model developers report and documentation.)<br>**Integrating and meta data publications** (MER, AER, SEDS, directories, etc.)<br>**Dissemination** (reports to IEA, info to other agencies, calls to NEIC, calls to program offices, subscriptions, electronic dissemination.) | Professional consultant services<br>Subscriptions<br>Electronic products<br>Models on diskette<br>Oral presentations<br>Conferences<br>Answers to questions<br>New products or services<br>Documentation | Media<br>International markets<br>Public<br>Energy analysts<br>Professional organizations<br>Academia<br>Users of products<br>Marketers<br>Redistributors (media, libraries)<br>Direct distributors (GPO, NTIS) | Citations in Media<br>Visibility, credibility<br>Increased use of EIA products<br>Public informed, educated<br>Informed market decisions/efficient markets<br>Informed investment decisions<br>Informed policy making<br>Energy efficiency<br>Resellers make profit |

# EIA Special Reports on Current Issues, 1994

EIA Analytical 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. They are special, usually one-time, reports. 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 requestor. During 1994, EIA produced seven Analytical Reports and four Service Reports.

## Analytical Reports


*Alternatives to Traditional Transportation Fuels: An Overview*

Section 503 of the Energy Policy Act of 1992 (EPACT) requires the Energy Information Administration (EIA) to report on specific aspects of the alternative transportation fuels industry. EIA must report annually on: (1) the number and type of alternative-fueled vehicles in existence the previous year and expected to be in use the following year, (2) the geographic distribution of these vehicles, (3) the amounts and types of replacement fuels consumed, and (4) the greenhouse gas emissions likely to result from replacement fuel use.

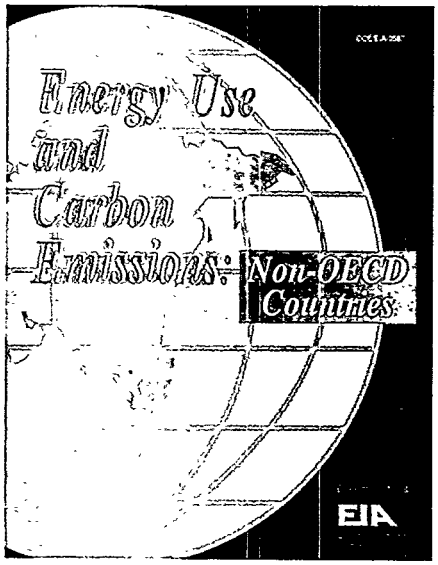
This alternatives report precedes the first such report required by EPACT. It has two purposes: (1) to provide background information on alternative transportation fuels and replacement fuels, and (2) to furnish preliminary estimates of the use of these fuels and of alternative-fueled vehicles. The report is based primarily on information from secondary sources. It does not fully cover some topics required by Section 503 because reliable information is lacking.

*Electric Utility Phase I Acid Rain Compliance Strategies for the Clean Air Act Amendments of 1990*

The Clean Air Act Amendments of 1990 (CAAA90)--Public Law 101-549--are the latest revisions to the Clean Air Act. Among the numerous provisions of the CAAA90 is Title IV, which requires the U.S. Environmental Protection Agency (EPA) to establish the Acid Rain Program to reduce the adverse effects of acidic deposition (acid rain). Acid rain is formed largely from emissions of sulfur dioxide ($SO_2$) and nitrogen oxides ($NO_x$), which are emitted primarily by fossil-fueled electric power plants, other industrial sources, and transportation sources. The $SO_2$ reduction provisions of CAAA90 are noteworthy and controversial, because they represent the first large-scale attempt to set overall emissions levels using

marketable licenses (allowances) to control emissions, as opposed to regulations that specify what actions must be undertaken by those affected (command and control). An allowance permits the emission of one ton of $SO_2$. The use of allowances leaves electric utilities with several options for compliance strategies and, thus, introduces flexibility into compliance plans. Many utilities, because they have several compliance options, have alternative plans that can be used to comply with Phase I, depending on the circumstances.

The Acid Rain Program is divided into two time periods; Phase I, from 1995 through 1999, and Phase II, starting in 2000. Phase I mostly affects power plants that are the largest sources of $SO_2$ and $NO_x$. Phase II affects virtually all electric power producers, including utilities and nonutilities. This report is a study of the effects of compliance with Phase I regulations on the costs and operations of electric utilities, but does not address any Phase II impacts.




*Energy Use and Carbon Emissions: Non-OECD Countries*

This report examines international energy use patterns, trends, and energy-related carbon emissions since 1970. The main focus of this study is on the countries outside the Organization for Economic Cooperation and Development (OECD) and on commercial (oil, gas, coal, electricity) energy.

In recent years, there has been a growing level of concern that anthropogenic (i.e., caused by human activities) emissions of carbon dioxide and other "greenhouse gases" are contributing to global warming. (Greenhouse gases also include: methane; nitrous oxide; chlorofluorocarbons and related compounds; nonmethane volatile organic compounds; and water vapor.) As a result of this concern, interest has risen regarding possible cost-effective options to help reduce greenhouse gas emissions. Interest has focused primarily on limiting the burning of fossil fuels, which release carbon (mainly in the form of carbon dioxide) into the atmosphere. One of the most frequently mentioned options in this regard has been reducing the amount of energy needed to produce a given unit of economic output. This option is seen by many as offering the potential for stabilizing (or even reducing) carbon emissions without sacrificing economic growth.

A similar consequence could be achieved by substituting low carbon fuels (such as natural gas) for high carbon fuels (coal, for example), or noncarbon-emitting fuels (such as hydroelectric, nuclear, or solar) for fossil fuels.

This study is organized as follows: 1) the non-OECD is placed in a world context; 2) comparison is made between non-OECD regions; 3) aggregate and sectorial energy and carbon emissions data are broken out for individual countries within the major non-OECD regions.

*End-Use Taxes: Current EIA Practices*

The major finding of this review is that there are inconsistencies in the Energy Information Administration (EIA) published end-use price data with respect to Federal, State, and local government sales and excise taxes. Some publications include end-use taxes and others do not, thereby causing price data to vary from report to report.

EIA has undertaken several actions to enhance the reporting of end-use energy prices. Some of the actions will take time, such as clarifying reporting data elements on the data collection forms. The actions are as follows:

- The explanation of end-use tax adjustments to prices in the *State Energy Price and Expenditure Report* and their limitations will be amplified.

- All EIA fuel publications will state more clearly whether the published prices exclude or include Federal, State, and local government sales and excise taxes.

- The revenue, prices, and end-use taxes reporting requirements will be clarified, as needed, in the appropriate data collection forms.


*Financial Impacts of Nonutility Power Purchases on Investor-Owned Electric Utilities*

The Public Utility Regulatory Policies Act of 1978 (PURPA) spurred the sale of nonutility power to the U.S. electric utilities. PURPA required the electric utilities to interconnect with and purchase power from any qualifying facility. As a result, nonutility generation increased at an average annual rate of about 17 percent between 1985 and 1992, to 296.0 billion kilowatthours. The investor-owned utilities purchased 164.2 billion kilowatthours of the total nonutility generation in 1992, representing almost 6 percent of total domestic end-use electricity sales.

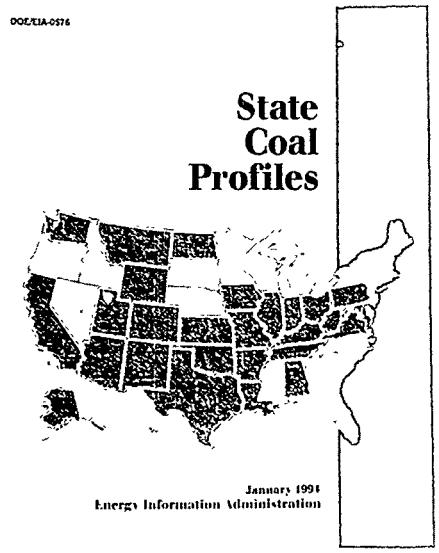
Two different approaches are used in this report to evaluate the financial issues associated with power purchases. First, two composite and comparable data sets--one comprising investor-owned utilities with significant power purchases from nonutility generators and the other without such purchases--are created by abstracting data from FERC Form 1 for the 1986-1992 period. Various financial ratios, derived by using composite financial data for the two groups, are compared to determine if there are performance differences between them. The intent is to assess whether there is an emerging trend in key financial and performance ratios that show differences between the two groups that can be

attributed, in part, to purchased power contracts and, in particular, to nonutility generators.

The second approach analyzes the same problem from the perspective of equity markets. The underlying assumption is that if power purchases from nonutility generators add to the riskiness of a utility and raise its cost of capital, then this phenomenon should be observable in the equity market as well. A general econometric framework in which to examine relevant determinants of the utility cost of capital is defined to perform the analysis.

*Oil and Gas Resources of the Fergana Basin (Uzbekistan, Tadzhiskistan, and Kyrgyzstan)*

This report was prepared in cooperation with the U.S. Geological Survey as part of EIA's Foreign Energy Supply Assessment Program (FESAP). While past FESAP analyses cover most of the major oil and gas provinces of the world, this one for the Fergana basin is an EIA first for republics of the former Soviet Union. This was a trial study of data availability and methodology, resulting in a reservoir-level assessment of ultimate recovery for both oil and gas. Ultimate recovery, as used in this report, is the sum of cumulative production and remaining Proved plus Probable reserves as of the end of 1987. Reasonable results were obtained when aggregating reservoir-level values to the basin level, and in determining general but important distributions of across-basin reservoir and fluid parameters. Plans are underway for other assessments of basins in the former Soviet Union; however, these assessments will probably be based on field-level detail.




*State Coal Profiles*

The purpose of *State Coal Profiles* is to provide basic information about the deposits, production, and use of coal in each of the 27 States with coal production in 1992. Although considerable information on coal has been published on a national level, there is a lack of a uniform overview for the individual States. This report is intended to help fill that gap and also to serve as a framework for more detailed studies. While focusing on coal output, *State Coal Profiles* shows that the coal-producing States are major users of coal, together accounting for about three-fourths of total U.S. coal consumption in 1992.

Each coal-producing State is profiled with a description of its coal deposits and a discussion of the development of its coal industry. Estimates of coal reserves in 1992 are categorized by mining method and sulfur content. Trends, patterns, and other information concerning production, number of mines, miners, productivity, mine price of coal, disposition, and consumption of coal are detailed in statistical tables for selected years from 1980 through 1992. In addition, coal's contribution to the State's estimated total energy consumption is given for 1991, the latest year for which data are available. A U.S. summary of all data is provided for comparing individual States with the Nation as a whole. Sources of information are given at the end of the tables.

## Service Reports

*The Energy Information Administration's Assessment of Reformulated Gasoline, Volumes 1 and 2*--contains EIA's findings and analyses on reformulated gasoline as it affects the petroleum market. (Published: October 1994. Requested by the House of Representatives Committee on Energy and Commerce.)

*The Energy Information Administration's Assessment of Reformulated Gasoline: An Update*--concludes the two-part study of the reformulated gasoline program and updates EIA's previous findings and analyses using preliminary data. (Published: December 1994. Requested by the House of Representatives Committee on Energy and Commerce.)

*Reducing Home Heating and Cooling Costs*--provides a neutral, unbiased analysis of the cost, safety, and health and environmental effects of the three major heating fuels; heating oil, natural gas, and electricity. This report discusses ways to weatherize the home, compares the features of the three major heating and cooling fuels, and comments on the types of heating and cooling systems on the market. The report also includes a worksheet and supporting tables that will help in the selection of a heating and/or cooling system. (Published: July 1994. Requested by the House of Representatives Committee on Energy and Commerce.)

*Spent Nuclear Fuel Discharges from U.S. Reactors 1992*--provides current statistical data on every fuel assembly irradiated in commercial nuclear reactors operating in the United States. It also provides data on the current inventories and storage capacities of these reactors.

It uses data from the mandatory "Nuclear Fuel Data" survey, Form RW-859 for 1992 and historical data collected by the Energy Information Administration (EIA) on previous Form RW-859 surveys. (Published: May 1994. Requested by the U.S. Department of Energy's Office of Civilian Radioactive Waste Management.)

Appendix A

# Data Collection Surveys of the Energy Information Administration

Appendix A

# Data Collection Surveys of the Energy Information Administration

This Appendix describes 77 energy data-gathering surveys operated by the Energy Information Administration (EIA) in 1994. These forms are listed sequentially by form number, its current title, any previous form number(s) and title(s), its collection frequency, a brief description of the collection, and the report number and titles of publications which ensue from the collected data (including several publications issued by the Department of Energy elements outside of EIA).

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 in the introduction to Appendix C. Additional information about EIA's forms is available in the *Directory of Energy Data Collection Forms* (DOE/EIA-0249).

**Form CE-63A/B, Annual Solar Thermal Collector Manufacturers Survey and Annual Photovoltaic Module/Cell Manufacturers Survey**
**Previous Forms:** EIA-63, Annual Solar Thermal Collector and Photovoltaic Module Manufacturing Survey
**Collection Frequency:** Annually
**Description:** Forms CE-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.
**Resulting Publications:**
DOE/EIA-0174, *Solar Collector Manufacturing Activity*
DOE/EIA-0384, *Annual Energy Review*

**Form EIA-1, Weekly Coal Monitoring Report-General Industries and Blast Furnaces (Standby Form)**
**Previous Forms:** None
**Collection Frequency:** Weekly
**Description:** 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, the industry, and the 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.
**Resulting Publications:** Data not published

**Form EIA-3, Quarterly Coal Consumption Report-Manufacturing Plants**
**Previous Forms:** BOM-6-1400-M-1, Monthly Fuel Consumption Report - Manufacturing Plants
**Collection Frequency:** Quarterly
**Description:** 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.
**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**
**Previous Forms:** None
**Collection Frequency:** Annually
**Description:** 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 used in calculating more accurately the energy consumed in the industrial sector (for coal consumers) as published in the Btu tables of the *Monthly Energy Review*. Respondents are manufacturing plants that consume in excess of 1,000 short tons of coal during the year.
**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)**
**Previous Forms:** None
**Collection Frequency:** Weekly
**Description:** 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, the industry, and the Government of aggregated coal consumption and inventories. Respondents are producers of coke.
**Resulting Publications:** Data not published

**Form EIA-5, Coke Plant Report-Quarterly**
**Previous Forms:** BOM-6-1365-M, Coke and Coal Chemical Materials
**Collection Frequency:** Quarterly
**Description:** Form EIA-5 is designed to provide data used for 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.
**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**
**Previous Forms:** None
**Collection Frequency:** Annually
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0035, *Monthly Energy Review*
DOE/EIA-0118, *Coal Industry Annual*

**Form EIA-6, Coal Distribution Report**
**Previous Forms:** BOM-6-1419-Q, Distribution of Bituminous Coal and Lignite Shipments
**Collection Frequency:** Quarterly

**Description:** Form EIA-6 is designed to provide coal distribution data for publications, analyses, and statistical reports. Data include 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.
**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**
**Previous Forms:** BOM-6-1401-A, Bituminous Coal and Lignite Production and Mine Operation
**Collection Frequency:** Annually
**Description:** 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 include 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.
**Resulting Publications:**
DOE/EIA-0118, *Coal Industry Annual*
DOE/EIA-0121, *Quarterly Coal Report*
DOE/EIA-0292, *An Assessment of the Quality of Selected EIA Data Series: Coal And Electric Power Data from 1977 to 1982*
DOE/EIA-0035, *Monthly Energy Review*
DOE/EIA-0218, *Weekly Coal Production*
DOE/EIA-0383, *Annual Energy Outlook*
DOE/EIA-0384, *Annual Energy Review*

**Form EIA-14, Refiners' Monthly Cost Report**
**Previous Forms:** FEA-P110-M-1, Refiners' Monthly Cost Allocation Report
**Collection Frequency:** Monthly
**Description:** 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.
**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-0384, *Annual Energy Review*
DOE/EIA-0487, *Petroleum Marketing Annual*

**Form EIA-20, Weekly Telephone Survey of Coal Burning Utilities (Standby Form)**
**Previous Forms:** None
**Collection Frequency:** Weekly
**Description:** 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, the industry, and the Government of aggregate coal data. Respondents are coal-consuming electric utilities.
**Resulting Publications:** Data not published

**Form EIA-23, Annual Survey of Domestic Oil and Gas Reserves**
**Previous Forms:** FPC-40, Annual Report of Proved Domestic Reserves
**Collection Frequency:** Annually
**Description:** 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.

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

**Form EIA-23P, Oil and Gas Well Operator List Update Report**
**Previous Forms:** None
**Collection Frequency:** Annually
**Description:** 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. Removal from the list of inactive firms and knowledge of the production level of active operators are necessary to maintain an accurate frame and reduce sampling errors of future Form EIA-23 surveys.
**Resulting Publications:** Data not published

**Form EIA-28, Financial Reporting System**
**Previous Forms:** None
**Collection Frequency:** Annually
**Description:** Form EIA-28 is the basis for a financial reporting system mandated in Section 205(h)(2) of the DOE Organization Act. Data gathered are 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.
**Resulting Publications:**
DOE/EIA-0206, *Performance Profiles of Major Energy Producers*
DOE/EIA-0384, *Annual Energy Review*

**Form EIA-64A, Annual Report of the Origin of Natural Gas Liquids Production**
**Previous Forms:** None
**Collection Frequency:** Annually
**Description:** 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 are plant and respondent identification, origin of natural gas received and natural gas plant liquids produced, and gas shrinkage resulting from natural gas plant liquids extracted. Respondents are natural gas processing plant operators.
**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**
**Previous Forms:** BOM-6-1340-A, Supply and Distribution of Natural Gas-Distributors
**Collection Frequency:** Annually
**Description:** 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 include 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.
**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*

**Form EIA-182, Domestic Crude Oil First Purchase Report**
**Previous Forms:** ERA-182, Domestic Crude Oil First Purchaser's Report
**Collection Frequency:** Monthly
**Description:** Form EIA-182 is designed to provide data on the first marketed price of domestic crude oil streams after production. 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.
**Resulting Publications:**
DOE/EIA-0035, *Monthly Energy Review*
DOE/EIA-0109, *Petroleum Supply Monthly*
DOE/EIA-0380, *Petroleum Marketing Monthly*
DOE/EIA-0384, *Annual Energy Review*
DOE/EIA-0487, *Petroleum Marketing Annual*

**Form EIA-191, Underground Gas Storage Report**
**Previous Forms:** FEA-G318-M-0, Underground Gas Storage Report
**Collection Frequency:** Monthly
**Description:** 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 are respondent identification, co-owner name (if any), working and base gas in reservoirs, injections, withdrawals, and location and capacity of reservoirs.
**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)**
**Previous Forms:** None
**Collection Frequency:** Weekly
**Description:** 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.
**Resulting Publications:** Data not published

**Form EIA-254, Semiannual Report on Status of Reactor Construction**
**Previous Forms:** ERDA-HQ-254, Quarterly Progress Report on Status of Reactor Construction
**Collection Frequency:** Semiannually, Annually
**Description:** 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.
**Resulting Publications:** Data not published

**Form EIA-412, Annual Report of Public Electric Utilities**
**Previous Forms:** ERA-412, Annual Report for Municipal Electric Utilities with Annual Revenues of $250,000 or more; FPC Form 1M, Annual Report for Electric Utilities with Annual Revenues of $250,000 or more
**Collection Frequency:** Annually
**Description:** 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 megawatthours 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 include balance sheets, income statements, expense data, electric sales and purchases, generating plant data by type of plants, and transmission line data.
**Resulting Publications:**
DOE/EIA-0348, *Electric Power Annual*
DOE/EIA-0376, *State Energy Price and Expenditure Report*
DOE/EIA-0437(92)/2, *Financial Statistics of Major Publicly Owned Electric Utilities*
DOE/EIA-0455, *Electric Plant Cost and Power Production Expenses*
DOE/EIA-0531, *Electric Trade in the United States*

**Form EIA-457A/H, Residential Energy Consumption Survey**
**Previous Forms:** EIA-84, National Energy Consumption Interim Survey; EIA-410A, Survey of Residential Fuel Consumption--Fuel Oil Households; EIA-410B, Survey of Residential Fuel Consumption--Rental Agents; EIA-410C, Survey of Residential Fuel Consumption--Utilities
**Collection Frequency:** Triennially
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0314(90), *Housing Characteristics*
DOE/EIA-0321/1(90), *Household Energy Consumption and Expenditures, Part I: National Data*
DOE/EIA-0321/2(90), *Household Energy Consumption and Expenditures 1990 Supplement: Regional Data*
DOE/EIA-0384, *Annual Energy Review*
DOE/EIA-0482, *Residential Energy Consumption Survey: Trends in Consumption and Expenditures 1978 - 1984*
DOE/EIA-0555(93)/2, *User Needs Study for the 1993 Residential Energy Consumption Survey*

**Form EIA-627, Annual Quantity and Value of Natural Gas Report**
**Previous Forms:** None
**Collection Frequency:** Annually
**Description:** 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.
**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**
**Previous Forms:** FPC-4, Monthly Power Plant Report
**Collection Frequency:** Monthly
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0035, *Monthly Energy Review*
DOE/EIA-0118, *Coal Industry Annual*
DOE/EIA-0121, *Quarterly Coal Report*
DOE/EIA-0214, *State Energy Data Report*
DOE/EIA-0131, *Natural Gas Annual*
DOE/EIA-0202, *Short-Term Energy Outlook*
DOE/EIA-0226, *Electric Power Monthly*
DOE/EIA-0384, *Annual Energy Review*
DOE/EIA-0348, *Electric Power Annual*
DOE/EIA-0383, *Annual Energy Outlook*
DOE/EIA-0531, *Electric Trade in the United States*
DOE/EIA-0538, *Winter Fuels Report*
DOE/EIA-0455, *Electric Plant Cost and Power Production Expenses*

**Form EIA-767, Steam-Electric Plant Operation and Design Report**
**Previous Forms:** FPC-67, Steam-Electric Plant Air and Water Quality Control Data
**Collection Frequency:** Annually
**Description:** 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 used to calculate 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.
**Resulting Publications:**
DOE/EIA-0118, *Coal Industry Annual*
DOE/EIA-0348, *Electric Power Annual*

**Form EIA-782A, Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report**
**Previous Forms:** EIA-460, Petroleum Industry Monthly Report for Product Prices
**Collection Frequency:** Monthly
**Description:** 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.
**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**
**Previous Forms:** EIA-460, Petroleum Industry Monthly Report for Product Prices
**Collection Frequency:** Monthly
**Description:** 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.
**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**
**Previous Forms:** EIA-25, Prime Supplier's Monthly Report
**Collection Frequency:** Monthly
**Description:** Form EIA-782C is designed to provide monthly information on prime supplier sales of selected petroleum products into the local markets of ultimate consumption. A firm that produces, imports, or transports product across State boundaries and local marketing areas and sells the product 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.
**Resulting Publications:**
DOE/EIA-0202, *Short-Term Energy Outlook*
DOE/EIA-0214, *State Energy Data Report*
DOE/EIA-0380, *Petroleum Marketing Monthly*
DOE/EIA-0466, *Profiles of Foreign Direct Investment in U.S. Energy*
DOE/EIA-0487, *Petroleum Marketing Annual*

**Form EIA-800, Weekly Refinery Report**
**Previous Forms:** EIA-161, Refinery Report
**Collection Frequency:** Weekly
**Description:** 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.
**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-0383, *Annual Energy Outlook*
DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-801, Weekly Bulk Terminal Report**
**Previous Forms:** EIA-162, Bulk Terminal Report
**Collection Frequency:** Weekly
**Description:** 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 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 sulphur content, residual fuel oil.
**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-0383, *Annual Energy Outlook*
DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-802, Weekly Product Pipeline Report**
**Previous Forms:** EIA-163, Product Pipeline Stocks Report
**Collection Frequency:** Weekly
**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 basis. 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.
**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-0383, *Annual Energy Outlook*
DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-803, Weekly Crude Oil Stocks Report**
**Previous Forms:** EIA-164, Crude Oil Stocks Report **Collection Frequency:** Weekly
**Description:** 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 is 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.
**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-0383, *Annual Energy Outlook*

**Form EIA-804, Weekly Imports Report**
**Previous Forms:** EIA-165, Imports Report
**Collection Frequency:** Weekly
**Description:** 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 sulphur content, residual fuel oil, liquefied petroleum gases, and other petroleum products. In addition, imports of crude oil by country of origin are collected.
**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-0383, *Annual Energy Outlook*
DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-807, Propane Telephone Survey**
**Previous Forms:** None
**Collection Frequency:** Weekly, Monthly
**Description:** The 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.
**Resulting Publications:**
DOE/EIA-0208, *Weekly Petroleum Status Report*
DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-810, Monthly Refinery Report**
**Previous Forms:** EIA-87, Refinery Report; EIA-87A, Motor Gasoline Producers Report
**Collection Frequency:** Monthly

**Description:** 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.

**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**

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

**Collection Frequency:** Monthly

**Description:** 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.

**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**

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

**Collection Frequency:** Monthly

**Description:** 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.

**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**

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

**Collection Frequency:** Monthly

**Description:** 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.

**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**
**Previous Forms:** ERA-60, Monthly Imports Report; FEA-P126-M-0, Domestic Crude Oil Entitlements Program Importers Monthly Report
**Collection Frequency:** Monthly
**Description:** 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.
**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**
**Previous Forms:** EIA-64, Natural Gas Liquids Operations Report
**Collection Frequency:** Monthly
**Description:** 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).
**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**
**Previous Forms:** EIA-170, Tanker and Barge Shipments of Crude Oil and Petroleum Products Between PAD Districts
**Collection Frequency:** Monthly
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0109, *Petroleum Supply Monthly*
DOE/EIA-0340, *Petroleum Supply Annual*

**Form EIA-818, International Energy Agency Imports/Stocks-at-Sea Report**
**Previous Forms:** EIA-142, International Energy Agency Imports/Stocks-at-Sea Report
**Collection Frequency:** Monthly
**Description:** Form EIA-818 is designed to provide data from selected major importers of crude oil, natural gas liquids, and petroleum products. These data aid in determining projected oil imports. During petroleum supply emergencies, the data are used to help determine

the re-allocation of petroleum among the International Energy Agency member nations. Specific data are imports of petroleum into the United States, oil in transit, and stocks at sea. Respondents are companies that import crude oil or petroleum into the United States, Puerto Rico, the Virgin Islands, and other U.S. possessions. Also, selected companies having petroleum in transit or stocks-at-sea outside the United States are required to report.
**Resulting Publications:** Data not published

**Form EIA-819A, Annual Oxygenate Capacity Report**
**Previous Forms:** None
**Collection Frequency:** Annually
**Description:** 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 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.
**Resulting Publications:**
DOE/EIA-0340, *Petroleum Supply Annual*

**Form EIA-819M, Monthly Oxygenate Telephone Report**
**Previous Forms:** EIA-819, Monthly Oxygenate Telephone Survey
**Collection Frequency:** Monthly
**Description:** 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 nonrefinery facilities that store or blend oxygenates; and importers of oxygenates.
**Resulting Publications:**
DOE/EIA-0109, *Petroleum Supply Monthly*
DOE/EIA-0208, *Weekly Petroleum Status Report*

**Form EIA-820, Annual Refinery Report**
**Previous Forms:** BOM-6-1334-A, Capacity of Petroleum Refineries
**Collection Frequency:** Annually
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0340, *Petroleum Supply Annual*
DOE/EIA-0384, *Annual Energy Review*

**Form EIA-821, Annual Fuel Oil and Kerosene Sales Report**
**Previous Forms:** EIA-172, Sales Report of Fuel Oil and Kerosene
**Collection Frequency:** Annually
**Description:** 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 will be collected for reference year 1994. Thereafter, sales of propane and motor gasoline will be collected every three years.

**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**

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

**Collection Frequency:** Triennially

**Description:** 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.

**Resulting Publications:** Data not published

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

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

**Collection Frequency:** Monthly

**Description:** 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 kilowatthour sold (the ratio of revenue to sales) at the national, Census division, and State level, based on these reported data, are published by the 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.

**Resulting Publications:**
DOE/EIA-0035, *Monthly Energy Review*
DOE/EIA-0226, *Electric Power Monthly*
DOE/EIA-0384, *Annual Energy Review*

**Form EIA-846A/D, Manufacturing Energy Consumption Survey**

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

**Collection Frequency:** Triennially

**Description:** Forms EIA-846A through D 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.

**Resulting Publications:**
DOE/EIA-0384, *Annual Energy Review*
DOE/EIA-0512(88), *Manufacturing Energy Consumption Survey: Consumption of Energy 1988*

DOE/EIA-0515(88), *Manufacturing Fuel Switching Capability 1988*
DOE/EIA-0552, *Changes in Energy Intensity in the Manufacturing Sector 1980-1988*
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*

**Form EIA-851, Domestic Uranium Mining Production Report**
**Previous Forms:** None
**Collection Frequency:** Monthly
**Description:** 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.
**Resulting Publications:** Data not published

**Form EIA-856, Monthly Foreign Crude Oil Acquisition Report**
**Previous Forms:** EP-51, Monthly Foreign Crude Oil Transaction Report
**Collection Frequency:** Monthly
**Description:** Form EIA-856 is designed to provide data on costs of foreign crude oil acquired for importation into the United States, its territories and 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 cost, number of days credit, and name of vendor. 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.
**Resulting Publications:**
DOE/EIA-0035, *Monthly Energy Review*
DOE/EIA-0202, *Short-Term Energy Outlook*
DOE/EIA-0380, *Petroleum Marketing Monthly*
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**
**Previous Forms:** None
**Collection Frequency:** Monthly
**Description:** 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 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.
**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)**
**Previous Forms:** None
**Collection Frequency:** Weekly
**Description:** 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 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.
**Resulting Publications:** Data not published

**Form EIA-858, Uranium Industry Annual Survey Previous Forms:** EIA-491A, Survey of United States Uranium Marketing Activity (January; Collection); NE-491A, Survey of Uranium Marketing Activities
**Collection Frequency:** Annually
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0570, *Uranium Purchases Report*
DOE/EIA-0478, *Uranium Industry Annual*

**Form EIA-860, Annual Electric Generator Report Previous Forms:** EIA-119A, Annual Projection of System Changes
**Collection Frequency:** Annually
**Description:** 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 database. 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.
**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, *Electric Power Annual*
DOE/EIA-0384, *Annual Energy Review*
DOE/EIA-0455, *Electric Plant Cost and Power Production Expenses*
DOE/EIA-0383, *Annual Energy Outlook*
DOE/EIA-0437(92)/1, *Financial Statistics of Major Investor-Owned Electric Utilities*
DOE/EIA-0437(92)/2, *Financial Statistics of Major Publicly Owned Electric Utilities*

**Form EIA-861, Annual Electric Utility Report Previous Forms:** FPC-12, Power System Statement
**Collection Frequency:** Annually
**Description:** 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 the EIA's electric utility frame database. This database 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.
**Resulting Publications:**
DOE/EIA-0214, *State Energy Data Report*
DOE/EIA-0226, *Electric Power Monthly*
DOE/EIA-0348, *Electric Power Annual*
DOE/EIA-0384, *Annual Energy Review*
DOE/EIA-0437(92)/1, *Financial Statistics of Major Investor-Owned Electric Utilities*
DOE/EIA-0437(92)/2, *Financial Statistics of Major 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**
**Previous Forms:** EIA-764A, Petroleum Product Sales Identification Survey
**Collection Frequency:** Triennially
**Description:** Form EIA-863 is designed to provide comprehensive frame file of No. 2 distillate and residual fuel oil dealers and motor gasoline resellers. In addition, propane volume data will be collected on the 1994 EIA-863 survey form. Information is collected on size, type, and geographic location of these firms. The 21,000 firms surveyed, 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.
**Resulting Publications:** Data not published

**Form EIA-867, Annual Nonutility Power Producer Report**
**Previous Forms:** None
**Collection Frequency:** Annually
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0348, *Electric Power Annual*
DOE/EIA-0384, *Annual Energy Review*

**Form EIA-868, Quarterly Coal Imports by Electric Utilities into the United States**
**Previous Forms:** None
**Collection Frequency:** Quarterly
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0121, *Quarterly Coal Report*
DOE/EIA-0191, *Cost and Quality of Fuels for Electric Utility Plants*

**Form EIA-871A (FS), Commercial Buildings Energy Consumption Survey-Building Questionnaire, Federal Supplement**
**Previous Forms:** None
**Collection Frequency:** Nonrecurring
**Description:** EIA-871A (FS) collects data on energy consumption in Federal buildings and the characteristics of these buildings. The survey fulfills planning, analyses and decision-making 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.
**Resulting Publications:** Data not published

**Form EIA-871A/F, Commercial Buildings Energy Consumption Survey**
**Previous Forms:** EIA-788A, Nonresidential Buildings Energy Consumption Survey-Original Building; Form
**Collection Frequency:** Triennially
**Description:** 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 published in statistical and analytical reports. Physical characteristics information for commercial buildings is collected by personal interviews with building owners and managers 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.

**Resulting Publications:**
DOE/EIA-0246(92), *Commercial Buildings Characteristics 1992*
DOE/EIA-0318(89), *Commercial Buildings Energy Consumption and Expenditures 1989*
DOE/EIA-0382, *Natural Gas: Use and Expenditures*
DOE/EIA-0383, *Annual Energy Outlook*
DOE/EIA-0441, *Energy Conservation Indicators Annual Report*
DOE/EIA-0555(93)/1, *Assessment of Energy Use in Multibuilding Facilities*
DOE/EIA-0555(94)/2, *Energy End-Use Intensities in Commercial Buildings*

**Form EIA-876A/E, Residential Transportation Energy Consumption Survey**
**Previous Forms:** EIA-141, National Survey of Fuel Purchases for Vehicles - Purchase Log, Odometer Reading Cards, and Supplementary Questionnaire
**Collection Frequency:** Triennially
**Description:** 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 for the 1988 survey.
**Resulting Publications:**
DOE/EIA-0384, *Annual Energy Review*
DOE/EIA-0464(85), *Residential Transportation Energy Consumption Survey: Consumption Patterns of Household Vehicles 1985*
DOE/EIA-0464(91), *Household Vehicles Energy Consumption, 1991*

**Form EIA-877, Winter Heating Fuels Telephone Survey**
**Previous Forms:** None
**Collection Frequency:** Other
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0538, *Winter Fuels Report*

**Form EIA-878, Motor Gasoline Price Survey**
**Previous Forms:** None
**Collection Frequency:** Other
**Description:** The EIA-878 collects information on the retail price of unleaded regular motor gasoline. Data are used by EIA to monitor and analyze price impacts of new legislative requirements. Respondents are companies that own retail motor gasoline stations.
**Resulting Publications:** Data not published

**Form EIA-882T, Generic Clearance for Questionnaire Testing, Evaluation, and Research**
**Previous Forms:** None
**Collection Frequency:** On occasion
**Description:** 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.
**Resulting Publications:** Data not published

**Form EIA-885, Propane Provider Fleet Survey**
**Previous Forms:** None
**Collection Frequency:** Triennially
**Description:** 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.
**Resulting Publications:** Data not published

**Form EIA-887, DOE Customer Surveys**
**Previous Forms:** None
**Collection Frequency:** On occasion
**Description:** EIA-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).
**Resulting Publications:** Data not published

**Form EIA-888, On-Highway Diesel Fuel Price Survey**
**Previous Forms:** None
**Collection Frequency:** Other
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0208, *Weekly Petroleum Status Report*

**Form EIA-890, Clean City Vehicle Fleet Survey**
**Previous Forms:** None
**Collection Frequency:** Nonrecurring
**Description:** EIA-890 will be used to collect data on private and local government fleets of motor vehicles in 5 metropolitan areas. Data will be used to meet the objectives of the Energy Policy Act. Respondents will consist of a sample of all fleets in the five metropolitan areas (Atlanta was surveyed in 1994 and Denver will be surveyed in 1995.)
**Resulting Publications:** Data not published

**Form FERC-1, Annual Report of Major Electric Utilities, Licensees, and Others**
**Previous Forms:** FPC-1, Annual Report for Electric Utilities, Licensees, and Others (Class A and Class B)
**Collection Frequency:** Annually
**Description:** 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).
**Resulting Publications:**
DOE/EIA-0214, *State Energy Data Report*
DOE/EIA-0348, *Electric Power Annual*
DOE/EIA-0376, *State Energy Price and Expenditure Report*
DOE/EIA-0437(92)/1, *Financial Statistics of Major Investor-Owned Electric Utilities*
DOE/EIA-0455, *Electric Plant Cost and Power Production Expenses*

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

**Form FERC-2, Annual Report of Major Natural Gas Companies**
**Previous Forms:** FPC-2, Annual Report of Natural Gas Companies (Class A and Class B)
**Collection Frequency:** N/A
**Description:** 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 include 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.
**Resulting Publications:** Data not published

**Form FERC-11, Natural Gas Pipeline Company Monthly Statement**
**Previous Forms:** FPC-11, Natural Gas Pipeline Company Monthly Statement
**Collection Frequency:** Monthly
**Description:** 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.
**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**
**Previous Forms:** FPC-423, Monthly Report of Cost and Quality of Fuels for Electric Plants
**Collection Frequency:** Monthly
**Description:** FERC 423 is designed to provide data for the Department of Energy, Federal Energy Regulatory Commission, the 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.
**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, *Electric Power Annual*
DOE/EIA-0376, *State Energy Price and Expenditure Report*
DOE/EIA-0384, *Annual Energy Review*

**Form FPC-14, Annual Report for Importers and Exporters of Natural Gas**
**Previous Forms:** None
**Collection Frequency:** Annually
**Description:** 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.
**Resulting Publications:**
DOE/EIA-0035, *Monthly Energy Review*
DOE/EIA-0130, *Natural Gas Monthly*
DOE/EIA-0202, *Short-Term Energy Outlook*
DOE/EIA-0383, *Annual 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**
**Previous Forms:** None
**Collection Frequency:** Quarterly
**Description:** 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.
**Resulting Publications:** Data not published

**Form RW-859, Nuclear Fuel Data**
**Previous Forms:** None
**Collection Frequency:** Annually
**Description:** 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 from all other owners of commercial spent nuclear fuel.
**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 B

# Analytic Models of the Energy Information Administration

Appendix B

# Analytic Models of the Energy Information Administration

This Appendix contains abstracts for 37 computer models operated by the Energy Information Administration (EIA) in 1994. There are two proprietary models associated with the National Energy Modeling System (NEMS) and 12 NEMS modules. These models were used for the first time for EIA's *Annual Energy Outlook 1994*.

The abstracts are arranged in alphabetical order for NEMS, followed by the other models used by EIA. Each listing contains the model's title, acronym, and 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 Model Abstracts* (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 Commercial Sector Demand Module is a simulation tool based upon economic and engineering relationships that models commercial sector energy demands at the 9 Census Division level 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, and lighting. The market segment level of detail is modeled 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 of the U.S. Economy 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 Model (IDM)**
**Abstract:** The Industrial Demand Model is based upon economic and engineering relationships that model industrial sector energy consumption at the nine Census Division's level 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. 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.

**National Energy Modeling System Integrating Module (INT)**
**Abstract:** INT 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-PC) with enhanced detail on U.S. market conditions from the NEMS Petroleum Market Module (PMM). IEM determines PAD District-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 level 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 level of detail.

**Natural Gas Transmission and Distribution Module (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 is in terms 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 Module 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, and 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 export and import 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 Renewable Fuels Module (RFM) consists of several submodules which represent the various renewable energy forms. Since most renewable forms of energy (i.e., 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. However, many renewable fuels are especially well suited for "dispersed" applications or generation at the point of end use. In the current version of the RFM, only grid-connected applications are modeled endogenously; dispersed 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 submodule.

**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 based on 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) database.

**Transportation Sector Module (TRAN)**
**Abstract:** The Transportation Sector Module 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, AIR, and marine), Aircraft, Miscellaneous Transport (military, mass transit, and recreational boats), and Transportation Emissions. The model provides sales estimates of 2 conventional and 14 alternative fuel 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 based on user-specified assumptions regarding the time horizon and scenario of interest. The **WORLD** Reference 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

**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. Abstract

**International Nuclear Model - Personal Computer (INM-PC)**
**Abstract:** The International Nuclear Model - Personal Computer (INM-PC) is a deterministic model used by the Energy Information Administration (EIA) to project domestic and international nuclear energy requirements. The EIA uses the INM-PC 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, using a simple accounting technique. INM-PC can be used to produce projections for any country in the world for any specified time period. Currently eight (8) 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 three-year projections, based on national-level residential price projections produced for the Energy Information Administration's (EIA) *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 nine 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 is 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 also 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 Evaluation Modeling System (REMS)**
**Abstract:** REMS consists of two models. The regional Refinery Yield Model (RYM) produces a detailed representation of refinery processes and product production. The Oil Refining and Distribution Model (ORAD) simulates the industry's interregional producing, refining, and distribution network throughout the United States. RYM can run over 130 different foreign and domestic crude types, which are represented as linear combinations of 37 principal crudes, as defined by their assays. RYM refineries produce over 35 petroleum products using 21 detailed refinery process units. ORAD represents an aggregated bundle of domestic and foreign crudes available from the RYM, an aggregated bundle of petroleum products, and transportation modes and links for crude oil and petroleum products among regions.

**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 based on 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 estimate 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), 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, based on assumed trajectories of coal prices relative to prices of other fuels, electric generation, industry activity, and weather variables. 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.* It consists of six interconnected submodels: refined petroleum products demand; refined petroleum products supply; electricity supply and demand; natural gas supply and demand; coal demand; petroleum and other energy prices.

**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 2 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 is used to estimate the oil-well gas production (which is assumed to be producing at capacity) 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 microcomputer-based spreadsheets containing data compilations, assumption specifications, descriptive analysis procedures, and projection models. WEPS-PC provides projections of total world primary energy consumption disaggregated by 10 individual countries and 10 country groupings; projections of energy consumption by primary energy type and by economic sector for selected countries; projections of natural gas production; and projections concerning world oil supplies for use in the Oil Market Simulation Model (OMS). For both historical series and projection series, WEPS-PC provides analytical computations of percentages of energy consumption attributable to each primary energy source, total energy consumption per dollar of gross domestic product (GDP), and an energy/GDP index. WEPS-PC projections and analyses are published annually in the *International Energy Outlook (IEO)* and are used in various internal EIA studies.

**World Integrated Nuclear Evaluation System (WINES-PC)**
**Abstract:** The World Integrated Nuclear Evaluation System (WINES-PC) is an aggregate demand-based partial equilibrium model used by the Energy Information Administration (EIA) to project long-term 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 long-term forecasts for the United States and for all countries with commercial nuclear programs in the world, excluding countries located in centrally planned economic areas. Projection 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 long-term 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 long-term 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*.

Appendix C

# Publications and Products of the Energy Information Admininistration

Appendix C

# Publications and Products of the Energy Information Administration

During 1994, the Energy Information Administration published nearly 300 issues of 86 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 indepth at specific economic and technical energy subjects or make projections of future energy demand and supply.

This Appendix contains charts of EIA periodicals and one-time reports released for printing during 1994. The charts are organized by energy source family. It also provides an annotated listing of these publications, arranged alphabetically by title. Service Reports and reprints of feature articles (listed in the Appendix) are available upon request from EIA's National Energy Information Center. Publication entry includes: the full title, report number, reference date for annual and one-time reports released in 1994, and information on availability and ordering. Also included is an alphabetical listing of 1994 EIA products available on diskette, along with a brief synopsis and price of each. Synopses of all publications are available in the *EIA Publications Directory.*

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.

The National Technical Information Service (NTIS) also sells EIA publications in hard copy and microfiche form, and models and databases on diskette and magnetic tape. Call NTIS for an order number and price.

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Released for printing January 1 through December 31, 1994

| | Petroleum | Petroleum and Natural Gas | Natural Gas | Electricity | Coal | Nuclear Energy | Solar and Renewable Energy | Multisource Energy | Energy Consumption | Metadata |
|---|---|---|---|---|---|---|---|---|---|---|
| **Weekly/ Biweekly** | Weekly Petroleum Status Report | Winter Fuels Report *(seasonal weekly)* | | | Weekly Coal Production | | | | | |
| **Monthly/ Bimonthly** | International Petroleum Statistics Report<br><br>Petroleum Marketing Monthly<br><br>Petroleum Supply Monthly | | Natural Gas Monthly | Electric Power Monthly | | | | Monthly Energy Review | | EIA New Releases *(Bimonthly)* |
| **Quarterly** | | | | | Quarterly Coal Report | | | Short-Term Energy Outlook: Quarterly Projections | | EIA Directory of Electronic Products<br><br>U.S. Energy Industry Financial Developments |
| **Annual/Other** | Emissions of Greenhouse Gases in the United States 1987-1992<br><br>Fuel Oil and Kerosene Sales 1993<br><br>Petroleum Marketing Annual 1993<br><br>Petroleum Supply Annual 1993, Vol. 1 | | Natural Gas Annual 1993<br><br>Natural Gas Productive Capacity for the Lower 48 States (1980 through 1995) | Cost and Quality of Fuels for Electric Utility Plants 1993<br><br>Electric Power Annual 1993<br><br>Electric Power Annual 1992<br><br>Electric Sales and Revenue 1992 | Coal Industry Annual 1993 | Uranium Industry Annual 1993<br><br>Uranium Purchases Report 1993 | Solar Collector Manufacturing Activity 1993 | Annual Energy Outlook 1994<br><br>Annual Energy Review 1993<br><br>International Energy Annual 1992 | Commercial Buildings Characteristics 1992 *(Triennial)* | Annual Report to Congress 1993<br><br>Directory of Energy Data Collection Forms<br><br>Directory of Energy Information Administration Models 1994 |

# Periodical Reports of the Energy Information Administration

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|---|---|---|---|---|---|---|---|---|---|---|
| **Annual/Other** | Petroleum Supply Annual 1993, Vol. 2 | U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report | Natural Gas Productive Capacity for the Lower 48 States | Electric Trade in the United States 1992 *(Biennial)*<br><br>Financial Statistics of Selected Publicly Owned Electric Utilities 1992<br><br>Inventory of Power Plants in the United States 1993 | | | | International Energy Outlook 1994<br><br>Performance Profiles of Major Energy Producers 1992<br><br>Profiles of Foreign Direct Investment in U.S. Energy 1992<br><br>Short-Term Energy Outlook Annual Supplement 1994<br><br>State Energy Data Report 1992, Consumption Estimates<br><br>State Energy Price and Expenditure Report 1992<br><br>Supplement to the Annual Energy Outlook 1994 | Commercial Buildings Characteristics *(Triennial)*<br><br>Historical Monthly Energy Review (1973-1992)<br><br>Manufacturing Consumption of Energy 1991 *(Triennial)* | EIA Publications Directory 1993<br><br>Energy Education Resources: Kindergarten through 12th Grade<br><br>Energy Information Directory 1994 |

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### Annual

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*Annual Energy Review 1993*
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*Annual Report to Congress 1993*
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December 1994
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DOE/EIA-0542(95)
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*Petroleum Supply Annual 1993, Volume 1*
DOE/EIA-0340(93)/1
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DOE/EIA-0555(94)/1
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DOE/EIA-0580
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*National Energy Modeling System: An Overview*
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*State Coal Profiles*
DOE/EIA-0576
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GPO Stock No. 061-003-00844-5
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### Service Reports

*The Energy Information Administration's Assessment of Reformulated Gasoline, Volume 1*
SR/00G/94-02/1
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*The Energy Information Administration's Assessment of Reformulated Gasoline, Volume 2*
SR/00G/94-02/2
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SR/EMEU/94-01
July 1994
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"Commercial Buildings Energy Consumption Survey, Preliminary Estimates, 1992"
(*Monthly Energy Review*, January 1994)

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"Strategic Shipping Lanes"
(*Petroleum Supply Monthly*, January 1994)

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"Contracting for Natural Gas Supplies"
(*Natural Gas Monthly*, February 1994)

"Petroleum Products Trade Patterns"
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(*Short-Term Energy Outlook*, February 1994)

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(*Monthly Energy Review*, April 1994)

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(*Petroleum Supply Monthly*, April 1994)

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(*Natural Gas Monthly*, May 1994)

"Revisions to Monthly Natural Gas Data"
(*Natural Gas Monthly*, May 1994)

"Changes to the 1994 Petroleum Marketing Monthly"
(*Petroleum Marketing Monthly*, May 1994)

"Summer 1994 Motor Gasoline Outlook"
(*Petroleum Marketing Monthly*, May 1994)

"Summer Outlook for Motor Gasoline"
(*Short-Term Energy Outlook*, May 1994)

"Canisters and Nonfuel Components at Commercial Nuclear Reactors"
(*Spent Nuclear Fuel Discharges from U.S. Reactors 1992*, May 1994)

"Commercial Buildings Characteristics 1992"
(*Monthly Energy Review*, June 1994)

"The Second Oxygenated Gasoline Season"
(*Petroleum Marketing Monthly*, June 1994)

"U.S. Petroleum Developments: 1993"
(*Petroleum Supply Annual 1993, Volume 1*, June 1994)

"Demand, Supply, and Price Outlook for Reformulated Motor Gasoline"
(*Monthly Energy Review*, July 1994), (*Petroleum Marketing Monthly*, August 1994), (*Short-Term Energy Outlook*, August 1994)

"Commercial Nuclear Electric Power in the United States: Problems and Prospects"
(*Monthly Energy Review*, August 1994)

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(*Natural Gas Monthly*, August 1994)

"Carbon Dioxide Emission Factors for Coal"
(*Quarterly Coal Report*, August 1994)

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(*Uranium Industry Annual 1993*, September 1994)

"Change in Method for Estimating Fuel Economy for the Residential Transportation Energy Consumption Survey"
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"Accuracy of Petroleum Supply Data"
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"Distillate Fuel Oil Assessment for Winter 1994-95 System Flexibility Will Play Important Role"
(*Petroleum Supply Monthly*, October 1994)

"Propane Assessment for Winter 1994-1995"
(*Petroleum Supply Monthly*, October 1994)

"System Flexibility Will Play Important Role"
(*Petroleum Supply Monthly*, October 1994)

"The Impact of Flow Control and Tax Reform on Ownership and Growth in the U.S. Waste-to-Energy Industry"
(*Electric Power Monthly*, November 1994)

"Energy Preview: Housing Characteristics 1993, Selected Preliminary Estimates"
(*Monthly Energy Review*, November 1994)

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(*Monthly Energy Review*, November 1994)

"1994-1995 Winter Fuels Outlook"
(*Short-Term Energy Outlook*, November 1994)

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### Energy Information Administration Products Available on Diskette

Unless otherwise stated, the following products are available from both OSTI and NTIS:

**Annual Energy Outlook** Tables for the energy forecasts in each of the five cases in the *Annual Energy Outlook* are available to users via modem on EIA's Electronic Publication (EPUB) System. The tables available on EPUB present the selected years for the projections as displayed in the appendices of the *Annual Energy Outlook.* In addition, the tables presented in both the *Annual Energy Outlook* and the *Supplement to the Annual Energy Outlook* are available on diskettes in worksheet format, displaying the annual projections. These diskettes are available by contacting the Office of Integrated Analysis and Forecasting.

**Annual Energy Review** This data file presents a comprehensive annual summary of U.S. energy statistics. Values are shown for most data series from 1949 forward. Annual production, consumption, import, export, stock, and price data are shown for the primary energy sources: coal, electricity, natural gas, nuclear energy, and petroleum. Consumption and end-user price data are also presented by energy source for the principal consuming sectors. Data for energy consumption indicators, selected financial indicators, energy resources, renewable energy, and international energy (for selected countries) are also included. Most of the data from the *Annual Energy Review*, including Btu conversion factors, are presented. Most data are national aggregates. Selected State specific and regional data are also included. Frequency of update is annual. Time unit of data is yearly.

**Commercial Buildings Energy Consumption Survey 1989** Contains data collected in the 1989 Commercial Buildings Energy Consumption Survey (CBECS). The data files contain information concerning commercial building characteristics and annualized energy consumption and expenditures. Energy sources annualized are electricity, natural gas, fuel oil, propane, district steam, district hot water, and district chilled water. Also included in the survey data files are 1989 temperature variables. The file contains data from 5,786 sampled buildings drawn from the 50 States and the District of Columbia. The smallest unit of analysis is the building; the finest geographic level of detail is Census division.

The documentation contains file layouts, details on data masking procedures, survey estimates and weights, and variance estimation.

Data are specific to Census division. Frequency of update is triennial. Time unit of data is yearly.

**Field Size Distributions for U.S. Oil and Gas Provinces** For each of the U.S. oil and gas producing geologic provinces or regionalized aggregates thereof, presents the numbers of oil fields and nonassociated (NA) gas fields according to the size of the largest known field in the province. Also presents province summary statistics for ultimate recovery, cumulative production, and proved reserves as of December 31, 1989, and the year of initial field discovery and the peak discovery decade, all by field type. Data are specific to geologic provinces. Time unit of data is 1989. This is a one-time study.

**Fuel Oil and Kerosene Sales** Annual petroleum marketing data are available on this diskette which contains statistics from the *Fuel*

*Oil and Kerosene Sales 1992* report. Included are annual sales data on volumes of kerosene, distillate fuel oil, and residual fuel oil by State. Annual historical data at the national level are provided in summary tables. Data are not company-specific. Frequency of update is annual.

**Historical Monthly Energy Review Database** This special edition of the Monthly Energy Review Database contains production, consumption, import, export, stock, and price data for the primary energy sources--coal, electricity, natural gas, nuclear, and petroleum--from January 1973 through December 1988.

The petroleum data are further disaggregated to show supply and disposition of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, liquefied petroleum gases, propane and propylene, and other petroleum products. Data are also presented by energy source for the principal consuming sectors: residential, commercial, industrial, transportation, and electric utilities.

Data on domestic oil and gas resource development activities are included, as well as petroleum production, consumption, stocks, and nuclear generation for selected foreign countries. Special series showing energy consumption per dollar of gross domestic product, U.S. dependence on petroleum net imports, and cost of fuels to end users in constant dollars that appear in the monthly release are not included in this monthly time-series issue.

Data are mostly national aggregates, with some State specific data on petroleum product prices. Time units of data are monthly.

**International Nuclear Model (INM)** This model simulates the commercial nuclear power industry with emphasis on the nuclear fuel cycle. The model projects nuclear fuel cycle requirements (including uranium and enrichment services, as well as spent fuel discharges) and electricity generation associated with a specific reactor deployment schedule.

**Levelized Nuclear Fuel Cycle Cost (LNFCC)** This model computes an electric utility's levelized nuclear fuel costs (mills per kilowatthour). 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 purchased fuel-cycle services from natural uranium through waste disposal are covered.

**Low Income Household Energy Assistance Program (LIHEAP) Model of State-Level Residential Energy Prices** LIHEAP is used to replicate projections presented in the EIA service report, *State Energy Price Projections for the Residential Sector, 1991-1992*, The model is comprised of mainframe and PC applications. When executed, LIHEAP produces 3-year State residential price forecasts of coal, electricity, distillate fuel oil, liquefied petroleum gas, kerosene, and natural gas.

**Market Penetration Models (MPM)** This model projects the potential of ground water heat pump systems, active and passive solar technologies, and residential rooftop photovoltaic systems to displace primary energy from the present to the year 2030. For the three systems, the model provides projections in 5-year increments for 4 aggregated groups of the 10 DOE regions.

**Monthly Electric Utility Sales and Revenue Report With State Distributions** Data on retail electricity sales (megawatthours) and associated revenue (thousand dollars) are reported. The Form EIA-826 is designed to facilitate the estimation of monthly retail electricity sales and associated revenue at the national, Census division, and State level, by class of consumer. These estimates, in turn, can be used to calculate average revenue per kilowatthour (the ratio of revenue to sales) and estimates of sales, revenue, and average revenue per kilowatthour coefficients of variation.

Data included are the amount of electricity sold and the revenue derived therefrom, by State, by month. Each issue contains data for the current year from January to the current month. Data are utility/State specific. Frequency of update is monthly.

**Monthly Energy Review Database** The Monthly Energy Review Database is a comprehensive monthly summary containing production, consumption, import, export, stock, and price data for the primary energy sources: coal, electricity, natural gas, nuclear, and petroleum. The petroleum data are further disaggregated to show supply and disposition of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, liquefied petroleum gases, propane and propylene, and other petroleum products. Data are also presented by energy source for the principal consuming sectors: residential, commercial, industrial, transportation, and electric utilities. Data on domestic oil and gas resource development activities are included, as well as petroleum production, consumption, stocks, and nuclear generation for selected foreign countries. Annual values are shown for most data series from 1973 forward while monthly values are shown for the current and 2 preceding years. Special series showing energy consumption per dollar of gross domestic product, U.S. dependence on petroleum net imports, and cost of fuels to end users in constant dollars are shown quarterly for the current year and 2 preceding years, with annual values from 1973 forward.

Data are mostly national aggregates, with some at Census division level and some State specific. Frequency of update is monthly. Most time units of data are monthly and annual.

**Monthly Power Plant Report** Specific ownership code, prime mover code, fuel code, company code, plant name, current capacity, fuel name, old capacity, effective date - month/year, status, multi-State code, generation, consumption, stocks, electric plant code, and NERC code for electric power plants are included. The source for the data is the Form EIA-759. Data are utility and plant specific. Frequency of update is monthly. Time unit of data is monthly.

**National Energy Modeling System** NEMS, which produces the projections in the *Annual Energy Outlook* and the *Supplement to the Annual Energy Outlook*, is also available to interested users in a personal computer version (PC-NEMS). In April 1994, the Transportation Demand Module of NEMS was distributed for testing to a limited group of reviewers. This release included a prototype user interface running under Microsoft Windows 3.1 that allows the user to run the module, change key input assumptions, and generate reports. The other modules, with the exception of the Electricity Market and Renewable Fuels Modules, were released in the Fall with an updated and enhanced interface. In 1995, all of the modules for the 1995 version of NEMS will be released with a further improved user interface.

**Nonresidential Buildings Energy Consumption Survey 1986** Contains data collected in the 1986 Nonresidential Buildings Energy Consumption Survey (NBECS). The data file contains information concerning commercial building characteristics and annualized energy consumption and expenditures. Energy sources annualized are electricity, natural gas, fuel oil, propane, district steam, district hot water, and district chilled water. Also included in the survey data files are 1986 temperature variables. The file contains data from 6,072 sampled buildings drawn from the 50 States and the District of Columbia. The smallest unit of analysis is the building; the finest geographic level of detail is Census division.

**Oak Ridge Uranium Market Model (ORUMM)** The model 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).

**Oil and Gas Reserves by Year of Field Discovery** Provides distributions, by year of field discovery, of U.S. oil and gas proved reserves, production, total discovered oil and gas (ultimate recovery), and number of fields with oil and gas. Includes similar distributions by State and State subdivision. Data years are 1977 through 1988 inclusive. By-year-of-discovery estimates are grouped in 5-year increments for State and State subdivisions, and individual years for national data. This is a one-time release. Available from GPO.

**Oil Market Simulation Model (OMS)** OMS projects future world oil prices and world crude oil supplies and demands by region and country for the United States, Canada, Japan, and OECD-Europe, OPEC, developing countries, and net Communist trade on an annual basis through the year 2010. The model estimates the effects of price change on oil supply and demand and computes an oil price path over time that allows supply and demand to remain in balance within the market economies as a whole.

**Performance Profiles of Major Energy Producers** The data contained on the 20 tables are extracted from the EIA's Financial Reporting System (FRS) database. The FRS database is constructed from ownership-based data reported to the EIA on the EIA-28 annual survey form by 23 major, integrated energy companies. At a consolidated company level, the data are validated against company annual reports (to their stockholders) and company filings to the securities and exchange commission. The 20 tables are from Appendix B of the EIA annual report, *Performance Profiles of Major Energy Producers.*

The tables are selected, multi-year presentations which basically reflect the survey form. Descriptive table titles are contained in the documentation file.

In summary, the tables contain consolidated company financial and operating data designed to reflect trends in company profitability, resource development patterns, and information about the manufacture and supply of refined products.

**Residential Energy Consumption Survey, (RECS) 1990--Consumption and Expenditures Tables** The tables on this diskette were taken from the reports, *Housing Characteristics 1990; Household Energy Consumption and Expenditures 1990; and Household Energy Consumption and Expenditures 1990 Supplement: Regional.*

The reports provide information on the use of energy in residential housing units in the United States. The data were collected on the 1990 Residential Energy Consumption Survey (REC), Forms EIA-457A through G. The Energy Information Administration (EIA) conducts this national sample survey of residential housing units and their energy suppliers on a triennial basis. The 1990 RECS is the eighth in a series conducted since 1978 by EIA. Over 5,000 households were surveyed, providing information on their housing units, housing characteristics, energy consumption and expenditures, stock of energy-consuming appliances and energy-related behavior. The information provided represents the characteristics and energy consumption of 94 million households nationwide. This is the first time that tabular data, taken directly from the "Detailed Tables" of the report, have been made available on electronic media. Users may want to review the tables along with the text of the two reports mentioned above.

**Residential Energy Consumption Survey (RECS) 1990--Consumption and Expenditures Household Level Data** The data were taken from the reports, *Housing Characteristics 1990; Household Energy Consumption and Expenditures 1990; and Household Energy Consumption and Expenditures 1990 Supplement: Regional.*
This public use microdata file provides information on the use of energy in residential housing units in the United States. The data were collected on the 1990 Residential Energy Consumption Survey (RECS), Forms EIA-457A

through G. The Energy Information Administration (EIA) conducts this national sample survey of residential housing units and their energy suppliers on a triennial basis. The 1990 RECS is the eighth in a series conducted since 1978 by EIA. Over 5,000 households were surveyed, providing information on their housing units, housing characteristics, energy consumption and expenditures, stock of energy-consuming appliances and energy-related behavior. The information provided represents the characteristics and energy consumption of 94 million households nationwide.

**Residential Transportation Energy Consumption Survey 1991** Contains data from the 1988 *Residential Transportation Energy consumption Survey (RTECS)*. This is the second time that data collected on the Residential Transportation Energy Consumption Survey (RTECS) are available on microcomputer readable diskettes. The RTECS was designed by the Energy Information Administration (EIA) to provide information on the use of energy in residential vehicles in the United States and the District of Columbia. Included are data about: the number and type of vehicles in the residential sector, the characteristics of those vehicles, the total annual Vehicle Miles Traveled (VMT), the per household and per vehicle VMT, the vehicle fuel consumption and expenditures, and the vehicle fuel efficiencies.

**State Energy Data System** The State Energy Data System (SEDS) contains data from the publication *State Energy Data Report Consumption Estimates*. Data are estimated energy consumption by energy source, by energy consuming sector, by State, by year, in both physical units and Btu. The records are written in the same order as the data are presented in SEDS statistical tables. The SEDS diskettes can be used with most popular spreadsheet software. The procedure for importing the data into Lotus 1-2-3 is included in the documentation.

The State data are grouped by Census region with one region per 5¼" high density (1.2 Mb) diskette except for Region 3, which is on two diskettes. In addition to the States in the Census region, each diskette contains data for the United States and diskette documentation. Data are State specific. Frequency of update is annual. Time unit of data is yearly.

**State Energy Price and Expenditure Data System** The State Energy Price and Expenditure Data System (SEPEDS) contains data from the publication *State Energy Price and Expenditure Report (SEPER)*. The State data are grouped with one Census region per diskette. In addition to the States in the region, each diskette contains data for the United States and data documentation. Data are presented at the State level for energy prices and energy expenditures by specific energy source and energy consuming sector. The records are written in the same order as the data are presented in the *SEPER* statistical tables.

The SEPEDS diskettes can be used with the most popular spreadsheet software. The procedure for importing the data into Lotus 1-2-3 is included in the documentation. Data are State specific. Frequency of update is annual. Time unit of data is yearly.

**Wellhead Gas Productive Capacity (GASCAP)** GASCAP estimates the historical wellhead productive capacity of natural gas for the lower 48 States and projects the productive capacity for 2 years. The *Short-Term Energy Outlook* (*STEO*) output for low, base, and high case is used to estimate the number of active rigs and oil and gas completions. The projected oil production is used to estimate the oil-well gas production (which is assumed to produce at capacity) using a constant gas-oil ratio. The gas demand is also taken from the *STEO*. The difference between demand and oil-well gas production is assumed to be gas-well demand and the production as long as capacity exceeds demand.

**World Energy Projection System (WEPS)** The World Energy Projection System (WEPS) is an integrated set of Lotus spreadsheets containing data compilations, assumption specifications, descriptive analysis procedures, and projection models. WEPS provides

projections to the year 2010 of total world primary energy consumption by major energy source disaggregated by 10 individual countries and 10 country groupings; related carbon emissions; total energy consumption per dollar of gross domestic product (GDP); and oil balances for historically planned economies. WEPS projections and analyses are published annually in the *International Energy Outlook.*

**World Integrated Nuclear Evaluation System (WINES)** WINES is used to project domestic and foreign nuclear energy requirements into the long-term (through 2030 and 2010, respectively). WINES, an aggregate demand-based partial equilibrium model, projects nuclear generation and capacity in a broad context of national economic activity, labor force population and productivity, energy demand measured at end uses, price and income effects, and electricity production.

Appendix D

# Major Laws Affecting EIA, 1974-1994

| Year | Law | Impact on EIA |
|---|---|---|
| 1974 | Federal Energy Administration (FEA) Act<br>P.L. 93-275, 15 USC 761 | Created the FEA and mandated it to "collect, assemble, evaluate, and analyze energy information;" provide energy information and projections to the Federal Government, State Governments, and the public; and provide Congress with an annual report summarizing these activities. 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<br>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<br>P.L. 94-163, 42 USC 6274 | Provided for exchange of information for the international energy program. |
| 1976 | Energy Conservation and Production Act<br>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<br>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 mandates 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<br>P.L. 95-620, 42 USC 8301 | Required a comprehensive annual summary on coal reserves. |
| 1982 | Energy Emergency Preparedness Act<br>P.L. 97-229, 42 USC 6245 | Required EIA to maintain State-level petroleum marketing data similar to those published in September 1981. |
| 1983 | Nuclear Regulatory Commission Authorization Act<br>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<br>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<br>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<br>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 data base 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 the DOE in the study of industrial energy use targets. |

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