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Annual Report to Congress 1997

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

PREFACE

Section 205 of the Department of Energy Organization Act of 1977 established the Energy Information Administration (EIA). One of the mandates in this legislation is that EIA prepare for Congress an annual report summarizing both activities and information collected and published. EIA's major 1997 accomplishments are profiled in the body of this edition of the *Annual Report to Congress*.

Appendix A contains abstracts of significant reports issued by EIA in 1997, and a chart of all titles and a list of all feature articles published during the year. Appendix B contains graphs of selected performance measures. Appendix C lists contact information for EIA subject matter specialists. Appendix D lists the major laws which form the basis of EIA's legislative mandate.

Previous editions of this report have included three additional appendices: ordering information for all of EIA's publications (summarized from the *EIA Publications Directory*) and summary descriptions of the models and energy data collection forms currently in use (taken from the *Directory of Energy Information Administration Models* and *Directory of Energy Data Collection Forms*). All three reports are now available in electronic form in their entirety on EIA's World Wide Web site at **www.eia.doe.gov/bookshelf.html**. They are also available in printed form, free of charge, from the National Energy Information Center. Ordering information is available on the inside front cover of this report.

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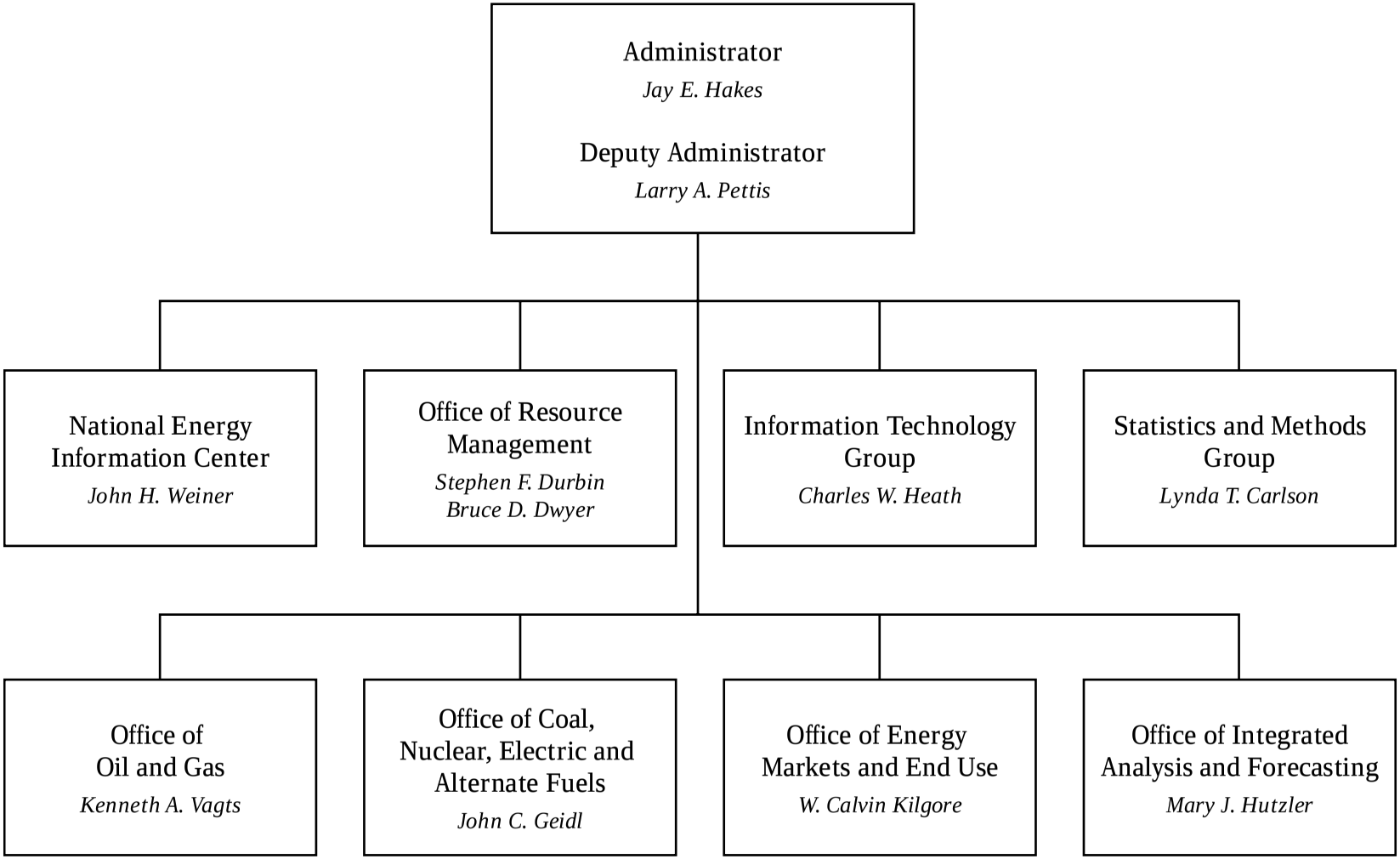
Energy Information Administration



Effective as of June 1997

INTRODUCTION

Since its creation in 1977, the Energy Information Administration (EIA) has provided high-quality energy information products and services to a broad spectrum of customers across the Nation and around the world, including Congress, representatives of the print and broadcast news media, businesses, officials of Federal, State, and local agencies, foreign governments and international organizations, students, librarians, researchers, lawyers, and private citizens. Our motto: "On-line or off the shelf, EIA is the first place to go for the last word in energy information." Established as an independent statistical and analytical agency within the U.S. Department of Energy (DOE), EIA was charged by its enabling legislation with:

- Maintaining a comprehensive data and information program on 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.

Four years ago, EIA was one of the 28 departments and agencies selected as a pilot project in the Office of Management and Budget's implementation of the Government Performance and Results Act (GPRA) of 1993. Beginning with Fiscal Year 1997, GPRA required Federal agencies to prepare: (1) strategic plans that define an agency's mission and long-term general goals, (2) annual performance plans containing specific targets, and (3) annual reports comparing actual performance to the targets set in the annual performance plans.

EIA's experience as a pilot program participant has been crucial in preparing the agency to meet the GPRA requirements. EIA has already completed several strategic planning cycles, establishing and refining program goals, objectives, action plans, and, most importantly, the performance measures that help gauge agency progress in realizing its goals and objectives. This annual report, EIA's twenty-first, provides a narrative summary of program accomplishments. It also documents EIA's success in meeting the specific quantitative performance targets set out in the strategic plan.

In 1997, EIA continued to emphasize improving the development and delivery of timely, innovative, customer-oriented products and services, standardizing core business systems, and raising productivity through performance measurement and quality management. Selected 1997 accomplishments are highlighted on the following pages, including major program initiatives, business reengineering, improvements in information dissemination, performance measurement activities, a new process for developing an analysis agenda, and our customer feedback program.

SELECTED PROGRAM HIGHLIGHTS

EIA Provides Information for the Electric Power Restructuring Debate

The electric power industry is currently transitioning from a regulated monopoly to a competitive market for generation. As a part of its responsibility to provide data, analysis, and forecasts to the debate on major energy issues, EIA released two service reports, gave numerous briefings before both governmental and industry forums, and provided continually updated information on its Internet site concerning electricity restructuring.

Early in 1997, EIA released a report, *The Changing Structure of the Electric Power Industry: An Update*, which was designed to serve as a basic reference document about the industry. The report described the industry in its traditional structure, the factors contributing to the interest in competition, the legislative and regulatory actions taken to achieve competition, and how the industry is changing to adapt to competition. The report was so popular that a second printing was required within a month and it was the most frequently visited report on our Internet site for months. In addition, the staff of the Senate Energy and Natural Resources Committee requested that EIA give a seminar on the industry. The seminar was repeated three times for additional members of the staff and for Senator Rod Grams of Minnesota. The report and seminars resulted in an invitation to speak at the Power Summit on Electricity Competition in the Northwest that was sponsored in part by Senator Craig of Idaho. A speech on the report was also given at the Virginia Coal Council Conference on Power Deregulation.

Numerous requests for information about the industry and issues of restructuring have been addressed as a result of the report. Some of the issues are related to proposals for renewable energy portfolio standards; the change in the relative price of electricity to the industrial sector as compared to the price of electricity in the residential and commercial sectors; mergers of electric utilities; the formation of independent system operators; the electricity futures market; and estimates of stranded costs.

One table ("Status of Electric Industry Restructuring by State") from the report *The Changing Structure of the Electric Power Industry: An Update* has been updated monthly on the EIA Internet site. The table provides a summary of the status of regulatory and legislative actions in each State. It also describes the pilot programs that have been initiated in some of the States, along with estimates of the percent of customers that can participate. Finally, it highlights the proposed treatment of any potential stranded costs in each State.

In August 1997, EIA released a second report, *Electricity Prices in a Competitive Environment: Marginal Cost Pricing of Generation Services and Financial Status of Electric Utilities*, which provided the first comprehensive examination of the structural and financial issues that arose from the movement to competitive electricity generation markets. The analysis highlighted national and regional prices that could be expected under competition, but it also included estimates of potential stranded costs and the financial impact on the investor-owned electric utility industry. As with EIA's earlier report, this publication generated significant media coverage and general interest. It set a record for EIA Internet accessions on its first day on the EIA Internet site, was the subject of a number of articles in the electricity trade press, and stimulated debate across much of the country concerning its projections for how prices might change in a competitive generation market.

Numerous requests to brief Federal and State legislative bodies and other organizations were made of EIA as a result of this report. The Administrator of EIA testified in September before the House Commerce Committee on the methodology and implications of the analysis, a hearing in which EIA's analysis was taken as the standard from which discussion concerning the impacts on prices would proceed. EIA staff were also asked to make presentations before the National Association of State Energy Officials and the Western

Interstate Energy Board and gave testimony to the Washington State Senate Energy Committee concerning the impact electricity restructuring would have on prices in the Northwest. EIA's nationally-recognized reputation for objectivity and informed analysis was an important factor in this report; we were and are considered the authoritative source concerning the price and financial impacts of electricity restructuring.

EIA also began work on a service report at the request of Senator James Jeffords of Vermont to evaluate his proposed bill on electricity restructuring that included a renewable energy portfolio and caps on environmental emissions. The report, released in early 1998, was entitled *Analysis of S. 687, the Electric System Public Benefits Protection Act of 1997*. In its analysis, EIA showed the costs and market impacts of the proposed legislation, which included stringent requirements for generating electricity from renewable sources and new caps on emissions of sulfur dioxide, carbon dioxide, and oxides of nitrogen from electricity generation. As a result of EIA's preliminary analysis and briefings to the Senator's staff, the proposed legislation was modified to reduce some of the costs to consumers that EIA had estimated. This was the second major project EIA completed for Sen. Jeffords, the first being an analysis of the impacts of the Federal Energy Regulatory Commission's Orders 888 and 889 concerning open access of interstate transmission lines, which was published in 1996.

To accommodate the changes in the electric power industry, EIA has made a concerted effort to adapt its electric power data collection instruments. This has involved publishing a Notice in the *Federal Register* for interested parties to submit their opinions on which portions of the electric power data should be held confidential by EIA. EIA also held 11 focus group meetings with a variety of interested parties to obtain their views on which data EIA should collect in the future. These groups included representatives from the Federal, State and local governments; Congressional staffs; investor-owned utilities; publicly-owned utilities; non-utilities; investment bankers; the media; academia; and consumers' organizations. Information gathered from these groups will be used for both short-term and long-term changes to EIA's data collection forms.

Greenhouse Gases Programs of the Energy Information Administration

The Energy Information Administration's involvement in greenhouse gases can be dated to President Bush's signing of the Framework Convention on Climate Change in May 1992 and the passage of the Energy Policy Act of 1992 in October. The Act gave the EIA two specific greenhouse gas-related missions:

- Section 1605(a) of the Energy Policy Act requires the EIA to prepare annual estimates of U.S. emissions of greenhouse gases;
- Section 1605(b) of the Act requires the EIA to establish a registry for the voluntary reporting of claims of greenhouse gas emissions reductions made by corporations, non-profit organizations, trade associations, and households.

The Annual Emissions Report. EIA prepares *Emissions of Greenhouse Gases in the United States* annually. Since 1993, there have been many improvements in the quality and the detail of the emissions estimates. During 1994, EIA undertook a research program to improve the quality of energy-related emissions factors used in the reports. In 1995, significant improvements were made in the estimation of methane emissions from coal production and landfills. In 1996, estimates of methane emissions from oil and gas systems were doubled as a result of research work jointly undertaken by the Environmental Protection Agency and the Gas Research Institute. In 1997, for the first time, complete 1996 emissions estimates for all sources and all gases were released within the year.

EIA has also embarked on a collaborative process with the Environmental Protection Agency (EPA) to improve the quality of greenhouse gas emissions estimates. This work involved close cooperation with EPA staff responsible for greenhouse gas-related programs, EIA's participation in expert workshops held by the Intergovernmental Panel on Climate Change, peer review of each other's publications, and comprehensive sharing of data and estimation methods between the two organizations.

The Voluntary Reporting Program. The Voluntary Reporting Program has also matured in recent years. During 1993-1994, the Department of Energy's Policy Office held a series of public hearings to define the program and then published a three-volume set of "Guidelines" in October 1994. After publication of the guidelines, EIA promptly fielded a set of draft forms for public comment and released the final forms in July 1995.

While the guidelines were being developed, U.S. climate policy continued to evolve. On Earth Day 1993, President Clinton committed the United States to stabilizing U.S. emissions of greenhouse gases at 1990 levels by using an array of voluntary programs. These voluntary programs, under such rubrics as "Climate Challenge," "Climate Wise," and "The Landfill Methane Outreach Program," were targeted at specific sources and types of emissions and sought to encourage corporations to voluntarily take steps to reduce their emissions. Voluntary program managers and participants soon discovered that the statutory 1605(b) reporting mechanism was a convenient registry for recording the activities of participants. The first 1605 voluntary reporting cycle was dominated by electric utility participants in the Department's "Climate Challenge" program. In the first year, some 108 companies and other entities reported on some 645 emissions reduction projects. In 1996, EIA published its first report on the activities of the program: *Voluntary Reporting of Greenhouse Gases 1995*. The program has had two main classes of participants:

- Corporations that are participating in one or more U.S. government voluntary programs. These companies have taken positive steps to reduce emissions of greenhouse gases and wish to document their emissions and "showcase" their reductions;
- Companies, households, and voluntary organizations which do not participate in voluntary programs but still wish to publicly demonstrate that they, or their industry, are contributing by their actions to a public environmental objective.

The second year of reporting saw the debut of the EIA's electronic reporting form and public use database. This innovative software, distributed on CD-ROM and via the Internet, permits reporters to fill out their reports on a computer; use data from the prior year's report so that repeated information does not have to be re-entered; use the same edit-checks that EIA itself uses to examine their reports; file reports with EIA by E-mail or diskette; and browse, query, or print out all of the reports submitted to EIA.

Some 142 reporters provided data on 967 emissions reduction projects. EIA published its second annual report, *Mitigating Greenhouse Gas Emissions: Voluntary Reporting*, in 1997. Last year's report (covering data through 1996) is now being finalized: some 150 organizations reported on over 1000 reduction projects. EIA plans to launch a second reporting cycle this year, so that 1997 data will be available prior to the end of 1998.

The Voluntary Reporting Program has resulted in several significant accomplishments:

- Participants have, as they wished, created a public record of their emissions reduction actions. The voluntary reporting program has grown into a useful registry for U.S. government-sponsored voluntary programs, such as "Climate Challenge," and the public use database has opened a "window" into the accomplishments of these programs.
- The EIA has educated hundreds of American business people how to estimate their emissions; what actions can reduce emissions; and on various unresolved aspects of emissions property rights.
- In the voluntary reporting software, EIA has developed a flexible instrument for recording and reporting greenhouse gas emissions from an array of sources. There has been considerable interest in using EIA software to track emissions in Canada and at the State level in the United States.
- Developing the voluntary reporting program has required EIA to amass an array of institutional experience in the estimation, recording, and property rights aspects of greenhouse gas emissions and reductions that may be useful as a resource to inform policy development in future years.

The Kyoto Protocol and the Energy Information Administration

On December 11, 1997, some 174 countries, including the United States, negotiated the most complex, ambitious and far-reaching international environmental agreement ever attempted: The Kyoto Protocol to the Framework Convention on Climate Change. The Kyoto Protocol requires the United States, the European Union, Japan, Australia, New Zealand, Russia, and the Ukraine to limit their emissions of greenhouse gases below 1990 levels. The role of developing countries under this agreement remains to be negotiated.

Because most U.S. greenhouse gas emissions are caused by the combustion of fossil fuels, an area where EIA has much expertise, the work of EIA is regularly cited in the press and by participants on all sides of the ongoing national debate on the Kyoto Protocol.

- EIA's domestic energy data collection systems are indispensible to any assessment of past, current, or future U.S. greenhouse gas emissions.
- Section 1605(a) of the Energy Policy Act of 1992 requires the EIA to develop a national inventory of emissions of greenhouse gases, published annually in *Emissions of Greenhouse Gases in the United States*. As the leading repository of data and expertise on energy consumption within the U.S. Government, the EIA has been a valued partner with the Environmental Protection Agency and other Government agencies in developing the U.S. "National Communications" on emissions and reduction plans required under the Framework Convention.
- In the National Energy Modeling System, the EIA has fielded a powerful tool for analyzing the effects of domestic policies aimed at implementing the Kyoto Protocol. The annual "business as usual" forecast of energy consumption and emissions published in the *Annual Energy Outlook* provides a baseline for illustrating how far the United States must go to achieve the targets in the Protocol.
- EIA also projects international energy consumption and emissions for selected countries and regions in its *International Energy Outlook*. These projections give a useful perspective on key trends in the level and composition of energy consumption in developing and developed countries. This capability may be useful in assessing the potential reactions and costs to other countries of implementing the Kyoto Protocol and the likely effectiveness (or otherwise) of agreements covering a sub-set of countries in limiting longer-run global emissions.

The Executive Branch spent much of 1997 developing an official U.S. negotiating position to present at Kyoto. The United States Government proposed a single global quantitative limit on emissions, coverage of all greenhouse gases and sinks, trading permitted between countries, "banking" of early emissions reductions, and a mechanism for "joint implementation" of emissions reduction projects. To develop and document these proposals, the Administration held a series of interagency meetings. In this context, EIA staff provided technical advice to the Department of Energy's Office of Policy & International Affairs on the reliability of emissions estimation methods and the availability of data for various emissions sources.

In addition, the EIA developed modifications to its 1997 *Annual Energy Outlook* projections under the guidance of, and using assumptions provided by, the Department of Energy's Office of Policy and International Affairs to support the Policy Office's analysis of possible policy instruments aimed at limiting greenhouse gas emissions. EIA's work in this area was ultimately published in the EIA service report *Analysis of Carbon Stabilization Cases*. This report illustrated some of the difficulties anticipated in implementing a domestic carbon cap at close to 1990 levels of emissions.

In reportage related to the Kyoto Protocol, EIA energy and emissions data and projections were cited by ABC, CNN, the *New York Times*, the *Washington Post*, the *Washington Times*, *USA Today*, the *Wall Street Journal*, *Time*, *Newsweek*, *U.S. News and World Report*, and a host of specialized trade publications. EIA's Administrator and EIA staff were also interviewed by domestic and international media, such as National Public Radio and the British Broadcasting Corporation's World Service.

Outreach Activities

The purpose of EIA outreach activities is to inform policy makers and the general public about energy issues and to make EIA products and services more accessible and useful to them. The most effective outreach tools in 1997 were briefings and presentations, press conferences and press releases, brochures, and displays of the EIA products and services exhibit at conferences.

Briefings and Presentations

More than 100 EIA briefings and presentations were given to organizations, groups and individuals in 1997, principally Members of Congress and staffs and representatives of DOE and other Federal agencies; State and local governments; foreign governments and international organizations; private industry, domestic and foreign; trade and industry associations; and academic institutions and professional associations. The most popular briefing covered basic information about the electric power industry for policy makers involved in restructuring issues. EIA gave this presentation to diverse audiences in private briefings and to conferences and workshops. At least 50 Senate staff members attended one of these sessions. Another was given at the Power Summit on Electricity Competition in the Northwest, held in Idaho and co-chaired by Senator Larry Craig and several other Members of Congress from Idaho, Montana, Oregon, and Washington.

EIA also briefed the Congress on its analysis of the potential impacts of competitive pricing and requirements to use a prescribed percentage of renewables in electricity generation. Testimony on competitive pricing was presented to the Energy and Power Subcommittee in the House of Representatives. Briefings on the renewables portfolio were provided for the staff of a Senator preparing legislation on the subject.

Legislative briefings were not confined to the subject of electricity. EIA provided testimony on propane prices at a meeting conducted by Senator Tom Daschle in South Dakota. EIA also provided testimony on gasoline prices at committee hearings in the Connecticut Legislature.

Other topics covered in EIA's 1997 briefings and presentations include: future oil import dependence; natural gas deregulation's shipping trends; modeling shallow offshore oil and gas production; minivans' and sport utility vehicles' effects on fuel consumption; computer-based geographic information systems; EIA's World Wide Web site; the outlook for heating oil and propane; and carbon emissions.

Among the more interesting "presentations" of EIA data by outside groups: graphs of U.S. energy consumption from fossil fuels, renewables, and nuclear energy, used in "Building the Trans-Alaska Pipeline," an exhibit at the Smithsonian Institution; retail diesel fuel price data and other wholesale price data published in *Fuel Line*, an American Trucking Association's newsletter: and use of weekly retail gasoline price data in a class-action suit against 9 refiners of reformulated gasoline sold in California.

During 1997, EIA staff made numerous presentations at variety of National and international conferences and workshops, among them the following:

- National Energy Modeling System Conference
- 5th Annual North American Natural Gas Conference
- Institute for Operations Research and Management Science Conference
- Toronto Gas Fair
- Workshop at Rutgers University
- Macguire Oil and Gas Institute at Southern Methodist University Presentation
- 1997 Illinois Coal Export Conference
- International Energy Agency Meeting
- United Nations European Conference
- 1997 Energy Evaluation Conference
- Philippine Department of Energy Meeting
- Asia Pacific Energy Research Center Conference Meeting

- Federal Committee on Statistical Methodology Workshop
- International Association of Energy Economists Workshop
- Department of Energy/National Association of Regulatory Utility Commissioners (DOE/NARUC) Meeting
- American Statistical Association's Committee on Energy Statistics
- American Chamber of Commerce Seminar
- National Association of State Energy Officials Meeting
- Energy Frontiers International Seminar
- Electric Power Research Institute Conference
- New England Governors Conference
- Royal Institute of International Affairs Meeting.

Other Outreach Activities

Brochures are an effective and inexpensive method of conveying EIA information in a brief, visually attractive, and convenient format. They can convey pertinent information on timely topics or highlight and summarize a significant publication. Working with technical staff, writers, and designers in 1997, EIA began to design and produce topical brochures on major analysis issues and brochures highlighting and summarizing the data in each energy area: petroleum, natural gas, electricity, coal, nuclear energy, alternate fuels, international data, consumption data, forecasts, and greenhouse gases. Among the eight brochures produced in 1997, three of the most popular were: a primer on carbon emissions, entitled *Greenhouse Gases, Global Climate Change, and Energy*; and summaries of two publications, *Electricity Reform Abroad and U.S. Investment* and *Annual Energy Outlook 1998*.

In 1997, EIA issued 38 **press releases** and held six **press conferences**. There were three press conferences that coincided with the release of the *Short-Term Energy Outlook* forecasts, two associated with the *Annual Energy Outlook 1998* (one for the early release of the reference case forecasts and one for the release of the full report), and one presenting the release of the *International Energy Outlook 1997*.

The **EIA exhibit**, staffed by technical experts and featuring displays of EIA products and services, appeared at eight conferences in 1997, attended by more than 5,000 energy professionals. The conferences included:

- The National Marketplace for the Environment
- Society of Petroleum Engineers Annual Technical Conference and Exhibition
- DOE/National Association of Regulatory Utility Commissioners Natural Gas Conference
- Annual Conference of the US and International Association for Energy Economics
- National Conference of State Legislatures
- American Council for an Energy Efficient Economy—Summer Study
- National Association of State Energy Officers —Training Workshop on Energy Supply, Disruption, Preparedness, Response, Recovery, and Mitigation
- Gas/Power Mart.

Dissemination Initiatives

Web Site

The EIA Web site has become the first place many individuals and organizations look for energy information. Use of the EIA Web site has increased dramatically, with 60,000 unique customers using the site in December 1997 alone. The total of 714,000 unique daily users in 1997 represented an expansion of 275 percent over the 1996 level, which was itself a 175 percent increase over the previous year. EIA is a leader among Federal agencies in providing electronic access to data and reports, thereby making information more rapidly and readily available to our customers. EIA's Web site is included on the list of top energy sites in the Lycos search engine review, a selective directory of top-shelf sites rated by the Web's most experienced reviewers.

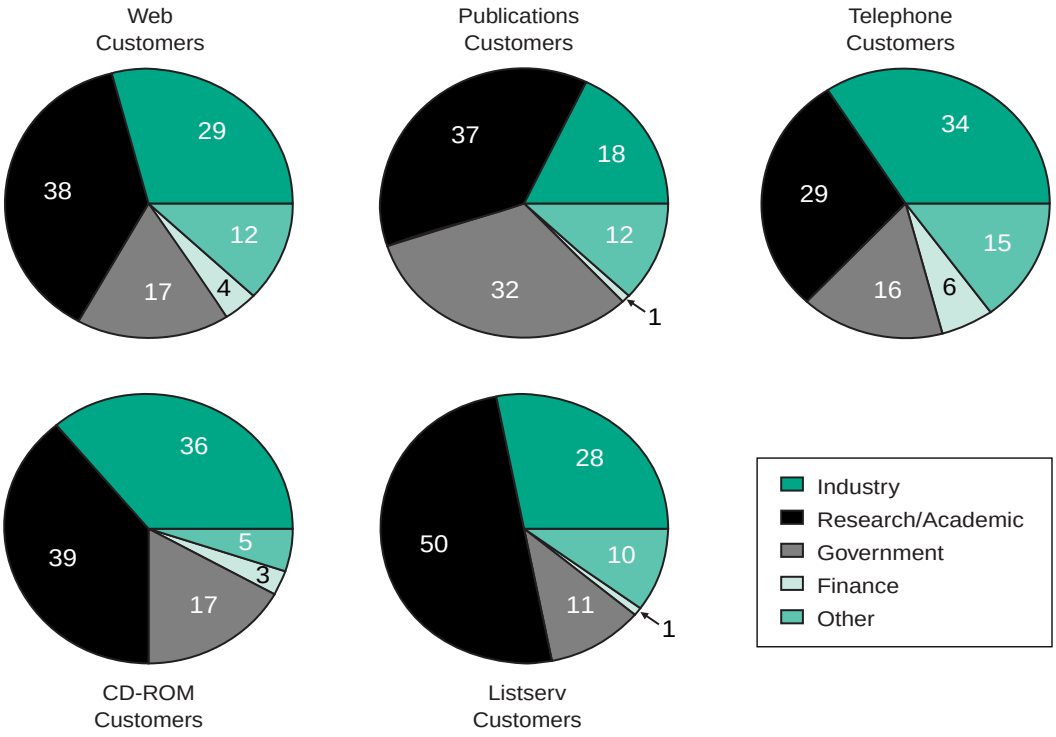
Virtually all EIA reports and analyses are available on the Web site. In 1997, new keyword and search features were added to help users find the information they need. Large data files were presented in smaller chunks to make downloading easier. There are over 70,000 separate files containing information by energy source/fuel group (energy overview, petroleum, natural gas, coal, electricity, nuclear, renewable, and alternative fuels) and by other energy topics (international, end-use consumption, financial, forecasts, and historical data).

EIA also developed a more powerful version of its Interactive Query (IQ) system in 1997 and will open it to public access in May 1998. Introduced in 1996, IQ-1 allowed users to create custom data tables, either in HTML or text format, from a small number of available data elements. IQ-2 consists of over 1 million records and data from EIA's most popular data publications, 5 times the contents of IQ-1. It also generates graphics and spreadsheet formats and uses new software applications to speed the process of data updating.

Other features on the EIA Web site include:

- "What's New at EIA" lets customers know what has been added to the site recently and allows them to click on their selections and see the new items immediately.

Figure 1. EIA Customer Groups by Mode of Access



- A list of more than 300 links to other related sites, including DOE, National Laboratories, other Federal Government, universities and other academic institutions, international statistical organizations, energy companies, energy news services, and energy trade associations.
- All recent EIA press releases.
- Annotated EIA contacts list, with telephone numbers and e-mail addresses.

A typical reaction to EIA's Web site is this response from a very pleased member of the American Association of Utility Marketing Executives:

> "This is an exciting find! The EIA Web site is a superb on-line information resource about everything to do with electric power. The site itself has useful statistics, but the real key is the 'List of Experts,' complete with phone numbers, at the Department of Energy. These people are helpful, friendly, and knowledgeable; they make April 15th seem just a little less painful and a little more worthwhile." (4/98)

Listserv Email

Web customers also can register for 32 electronic mail lists (listserves) to receive energy information automatically via e-mail. There is no charge for any of these lists. In December 1997, EIA reached a major milestone, having distributed over 1 million e-mails since the service began. Listserv sign-ups increased by more than 300 percent over 1996 levels, with 9,800 customers signed up to receive reports automatically as of the end of 1997. As of December 1997, EIA had about 5,000 customers signed up to receive press releases, our most popular listserv subject. Other popular listserves include the *Short-Term Energy Outlook*, "What's New at EIA," the *Monthly Oil Market Chronology*, *Electric Power Summary*, and *Petroleum Market Report*. A total of 103,000 listserv documents were mailed to customers in March 1998.

Energy InfoDisc

EIA has been producing its Energy InfoDisc CD-ROM since March 1996. This information product offers an extensive library of EIA data and analysis publications, national and international energy databases, and analysis applications. The InfoDisc is a comprehensive, high-tech product that is easy to use yet robust enough for serious number-crunching and analysis. As of December 1997, EIA had over 1,000 subscribers to the CD, including more than half of the government depository libraries across the Nation.

The Energy InfoDisc is updated quarterly to provide the most current data and publications. Each issue is a "rolling bookshelf" that contains EIA publications and directories released during the previous 12 months. With each quarterly update to the CD, monthly and quarterly data publications and many annual publications and special reports are "refreshed" as new issues of these reports supplement or replace earlier issues. The energy databases and applications also are updated to include new forecasts and data.

Another important feature of the CD is Internet connectivity. The Energy InfoDisc is now a hybrid CD-ROM. This means it has the features of a CD but can also be connected to an Internet session. Any Web browser that supports a frames capability will allow the user to click back and forth between the current edition of the CD and the EIA Web site and locate information that may have been released more recently than the disc itself.

Results of the CD customer survey conducted in the summer of 1997 showed EIA that customers were satisfied with viewing publications, using databases, and printing information from the CD but were relatively less satisfied with the search mechanism and interactive applications. In response to this feedback, EIA's CD development team made the following improvements in 1997:

- Added a separate entry for historical information to help customers find these data more easily
- Added a separate entry for keyword searching across all EIA documents
- Included order and renewal forms for subscribers on the CD itself and on the Web site
- Incorporated Netscape Navigator as the built-in browser on the CD. This provides improved navigating and linking through the CD and to EIA's Web site.

Customer Feedback

EIA's main business is the collection, analysis and dissemination of *energy* information, and our expertise in survey design and data analysis transfers to the collection of *customer* information as well. We are very much aware of our vast customer base and very sensitive to the diversity of needs and expectations. We are continually talking with customers and asking for their feedback. To keep current with changing needs, we directly integrate customer input into the strategic planning process each year.

What did we hear from customers in 1997?

During 1997, EIA conducted four major customer surveys and one smaller survey. We received valuable feedback to help us improve our products and services.

- Results from our fourth annual **telephone survey** show that most customers continue to be satisfied or very satisfied with all aspects of our products and services. Interesting results from the telephone survey revealed:
  - Satisfaction with the timeliness of our information was much higher in the 1998 telephone survey than in the previous three surveys. EIA has worked hard to make the information available earlier and to promote early release on the Website.
  - A total of 73 percent of the telephone customers surveyed reported using an electronic product or service in the past year, and 69 percent of them reported using our Website in early 1998.
  - Despite the availability of electronic information, 62 percent of the telephone customers still want the paper copy.

Figure 2. Customer Satisfaction with Service

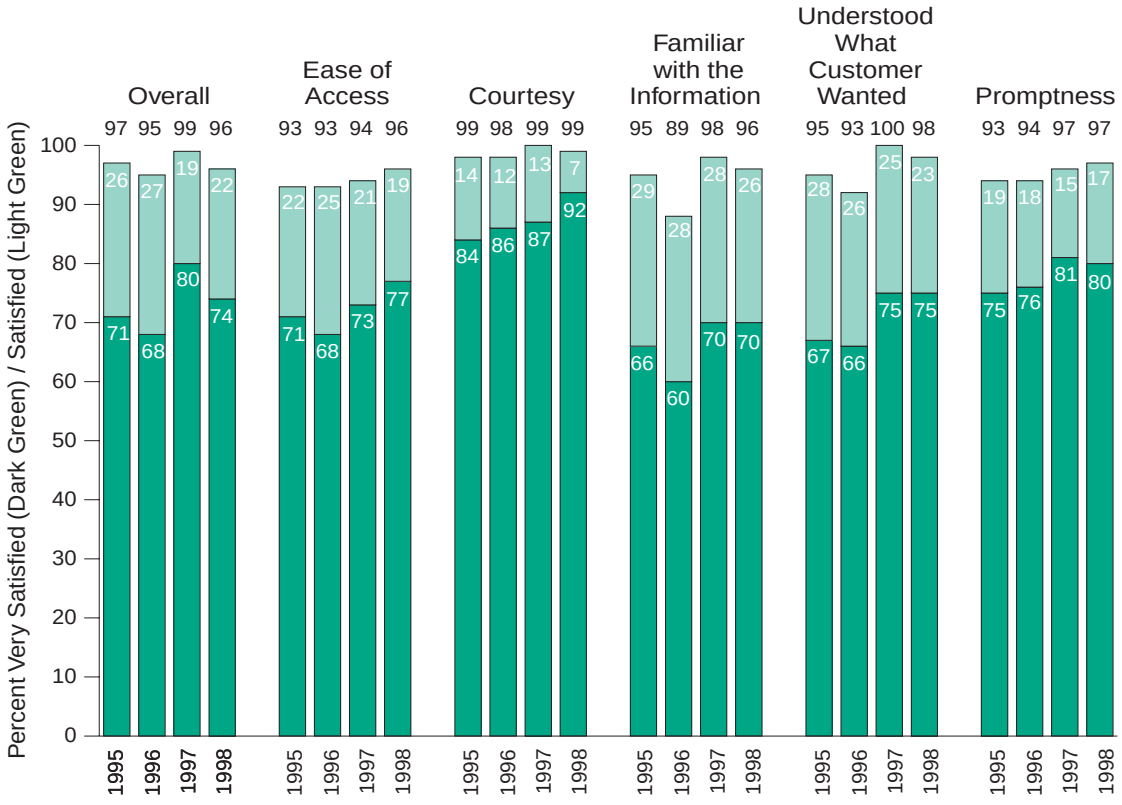
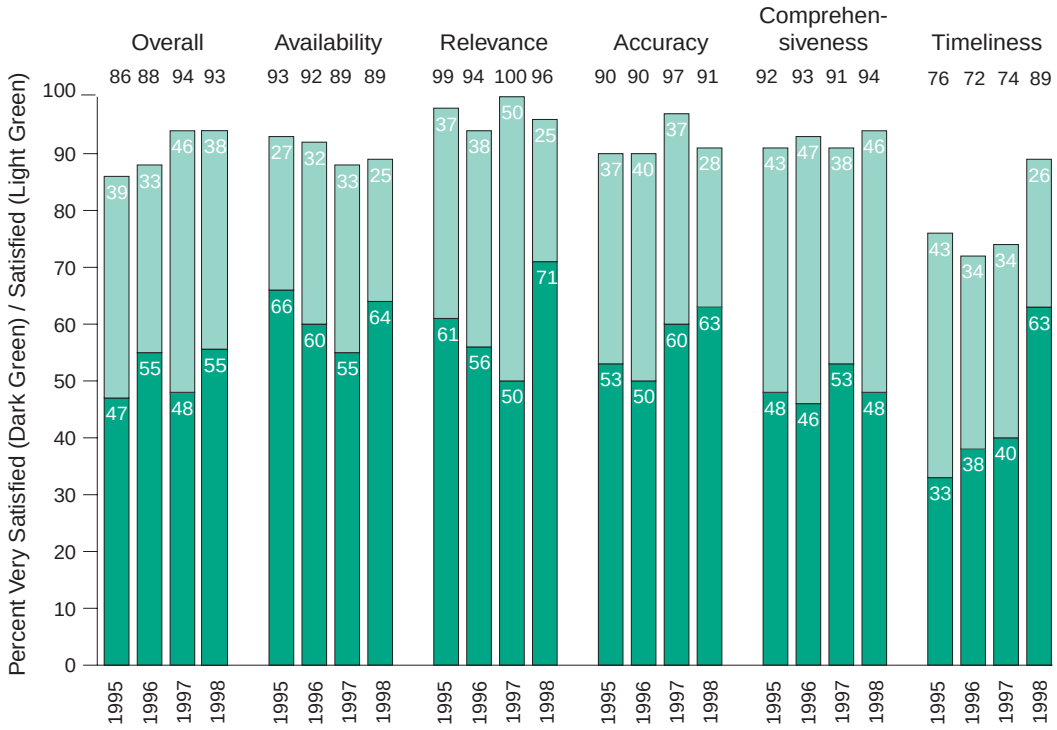


FIGURE 3. Customer Satisfaction with Information Quality



- EIA received a total of 632 responses to our **Web site survey** fielded on the Web. The survey was posted for one week on our Home Page. Most customers said the information on our site met their needs and that the Web site was easy to use. A large majority (82 percent) of the Web users said they use paper publications as well as electronic information. As a result of customer feedback, EIA has added an "Historical Data" button on the Web to help customers find this area.

- In the summer of 1997, every CD-ROM subscriber was called by an EIA staff member in the **CD-ROM survey**. Customers were satisfied with most aspects of the CD but were relatively less satisfied with the search mechanism and with using the databases. CD customers also were less satisfied with timeliness of the information than those customers responding to the other three EIA surveys in 1997. Based on this feedback, the CD developers agreed on a list of improvements and sent the plans to customers in the next edition on the CD.

- EIA sent an electronic **Listserv survey** to those customers who had signed up to automatically receive certain EIA products via electronic mail. Results showed that 91 percent said the information they received met their needs and 95 percent were either satisfied or very satisfied with the timeliness of the information.

- In 1997, EIA sent **resubscription postcards** to nearly 13,000 publication subscribers asking whether they wanted to continue to receive EIA publications. On this card customers were asked one question: If the EIA information you use is available electronically, would you still want the paper copy? A total of 75 percent of the 4,000 customers who responded to the question said YES, they did still want the paper copy.

- In 1998, EIA is planning its largest customer survey ever. We will mail out surveys to over 4,000 of our **publications subscribers**, asking product-specific questions and investigating customer capabilities and preferences for paper vs. electronic access to our information.

Recent customer comments include:

About the Web site...

"Your site is absolutely wonderful and I refer people to it all the time."

"Amazing site....congratulations!"

"There is an unbelievable amount of technical stuff which I was desperately looking for. Thanks a million."

"A great site — a real help for use in business."

About service...

"Your staff bent over backwards."

"I wish all agencies were as courteous as this one."

"I wish other agencies were as responsive and as easy to work with as the EIA people."

About having the paper publications...

"Downloading 200 pages is not handy for a library."

"I need publications for court testimony."

"Some people don't like to read 500 pages on the screen."

Business Reengineering

The Business Reengineering Steering Committee, comprised of EIA senior managers and Union representatives, initiated two major organizational actions designed to improve our business practices, including a major pilot project to determine potential cost savings available through consolidation of operations. These improvements originated in the recommendations submitted to EIA Senior Management in the spring of 1996 which included proposals for dealing with data operations, survey management, and information technology.

The Information Technology Group was created in January 1997, consolidating all planning, operations, and training for information technology in a single organization. The major goal of this action was to promote efficiencies through the development and use of common data models, data collection systems, and survey processing systems.

One major recommendation considered in 1997 was the proposed consolidation of all survey operations to achieve maximum efficiencies. Faced with budget and staffing reductions, EIA aimed to identify ways of conducting its business more efficiently. The Steering Committee established a pilot to test potential cost savings and improvements in operations resulting from a central information management group. The pilot involved 14 energy surveys (about 10 percent of EIA's data collection program) from petroleum, natural gas, and coal. The pilot looked at efficiencies to be gained through cross-training of staff, sharing of best practices across multiple surveys, and systems consolidation.

The Steering Committee evaluated the pilot and decided that, although the group was very successful in producing high quality data in a different way, the effort was not able to demonstrate significant cost savings that were separate from those to be gained by the implementation of the common data collection and processing system being designed by the Information Technology Group. The Committee decided that the expected benefits from consolidation were not worth the costs of a major reorganization and the risk of lowering the effectiveness of programs that currently were operating well.

Major initiatives sponsored by the Steering Committee during 1997:

- In March 1997, the Desktop Publishing Transition Team was chartered by the Business Reengineering Steering Committee to help achieve cost reductions in desktop publishing by:
  - Implementing one standard desktop publishing package for all of EIA
  - Improving agency communications and information sharing in document creation and production
  - Creating agency experts in desktop publishing technology
  - Identifying technology and style issues of current desktop publishing applications and recommending standard solutions for the agency.

Through 1997 and into 1998, EIA has continued to work toward standardization in desktop publishing. To date, most offices have converted recurring publications to the new system, and all offices have produced at least one publication using the new system.

- In 1997, EIA switched from a large IBM mainframe computer that was two generations old to a more efficient IBM Enterprise Server. The benefits of the new machine include:
  - Compliance with Year 2000 requirements
  - Reduction of electricity bills for computer use by 95 percent
  - Cost savings of $750,000 per year as a result of space saved by using the smaller machine
  - Reduction of facility maintenance contractor support by about 15 staff people
  - Faster operation and state-of-the-art technology.

New Contracting Method for EIA

In 1997, support service contractors performed $24 million in work to help EIA accomplish its mission. Historically, most of these support services were obtained through one of 12 contractors, and each new contract had to go through a long competition process. In addition, most awards were on a cost-plus-fixed-fee basis, meaning that the actual cost was not known until the work was completed.

During 1997, EIA pursued a new, more efficient way to contract work in line with the Business Reengineering initiatives. This change was in response to the Federal Acquisition Streamlining Act, which says that support service contracts over $10 million and over 3 years must be multi-award contracts; it was also in response to recommendations from EIA's Procurement Planning Advisory Group, which was formed to address issues in EIA's Strategic Plan. EIA coordinated this effort with the Department as well as with the Office of Management and Budget and the Small Business Administration to establish the EIA Omnibus Procurement (EOP) support services contract. The EOP contract was awarded in December 1997.

In a nutshell, EIA will not have to go through the competitive process for any support service contracts for five years. We will be able to issue either fixed price task orders or cost-plus-fixed-fee task orders. We will be able to compete task orders among the EOP contractors, and we will have the option of doing directed tasks in certain cases. The EOP gives EIA the opportunity to award fixed-price tasks where the deliverables and total price are agreed to in advance. The EOP also allows competition among the contractors for tasks, with the potential for lower costs.

The EIA Administrator said this new method provides EIA with powerful tools to obtain the best value for the government. The EOP is a multi-award contract with three functional areas: Information Management and Product Production, Energy Analysis and Forecasting, and Information Technology. The initial estimate for this EOP over the next five years is between $80 and $110 million. Small and small disadvantaged businesses are expected to be provided with significant opportunities to participate, because they will be able to compete for all competed task orders within their functional area or they may receive directed tasks.

The EIA Contracts Management Team worked with the Procurement Operations Team in the Department during 1997 to develop an EOP implementation plan to ensure a smooth transition to this new multi-award contract. This effort included establishing new procedures for task orders, training EIA staff who monitor these tasks, and getting the necessary information and tools to all staff so they can use the new contracting process effectively.

EIA began using the new EOP in spring 1998. As a frontrunner at the Department of Energy Headquarters in doing multiple-award contracts, EIA is setting an example for other parts of the organization that are considering using this type of contracting to improve efficiency.

Analysis Review Board

In 1997, EIA continued to enhance the corporate approach begun in 1996 to select our analysis projects through an EIA-wide Analysis Review Board (ARB). During 1997, EIA worked on the analysis efforts approved in 1996 and concurrently developed its analysis agenda for FY 1998. The process involved (1) identifying analysis themes and priorities by using customer and EIA staff input and (2) proposing and approving projects in alignment with these analytic themes. The goals of this process are to improve the relevance and accessibility of EIA analysis products, to cover top priorities first, to put EIA in closer contact with our customers, and to make sure that our analysis products meet customer requirements.

Last year, the Analysis Review Board developed four prioritized themes for EIA's 1997 Analysis Agenda. A total of 33 projects were approved and, as of December 1997, 22 had been completed. This year's Board again identified analysis themes as well as gaps in the 1997 analysis coverage. To obtain customer input, two Round Table meetings were held (one with Government customers and one with non-Government customers) in April 1997. All interested EIA staff were invited to attend. Customers were given a draft list of themes along with the 33 projects already underway and were asked for their thoughts on topics that EIA should be looking at during the next two years.

Based on the results of the sessions, the Board determined the following themes for the FY 1998 EIA Analysis Agenda (in priority order):

1. *Changes in the Electric Power Industry*
2. *Energy-Economic Impacts of Environmental Quality Goals*
3. *Oil and Other Energy Supply, Consumption, and Price Developments*
4. *Impact of Technological Change on Future Energy Markets.*

These are the same basic themes as in 1997, but the priorities have shifted. The supply and demand issues concerning petroleum and energy security are contained in the third item, which moved up in priority from last year's list.

Offices were asked to prepare analysis proposals aligned with these themes. These proposals then were posted on an electronic Bulletin Board for staff review and comment. The Analysis Review Board conducted a thorough review of approximately 30 proposals for 1998 analysis work and sent recommendations to the Administrator on specific projects as well as on general improvements in the EIA analysis program, as follows:

- High-priority themes should have a significant number of projects. Offices were asked to submit additional proposals for those themes the Analysis Review Board felt were not covered adequately.
- In line with EIA's strategic goal to reduce or consolidate the number of paper publications, several individual but related reports should be published together. This combining of like topics is also customer friendly: information about similar topics would be available in one place.
- To improve EIA's ability to perform analyses in new, high-priority themes, the ARB established an Environmental Special Interest Group in 1997 and recommended the creation of others as needed, including one on electric power industry restructuring. The goals of the Special Interest Groups are to:
  - Bring together analysts with common interests
  - Arrange seminars and technical courses to strengthen EIA's technical disciplines
  - Provide a mechanism to identify customer analysis needs and to propose specific analysis projects.

Once analysis projects are approved, the following information about the year's Analysis Agenda is placed on EIA's Web site for each project: the project title, a summary of the work to be done, the theme of the project, an EIA office contact, and

the completion schedule. When a project is completed, its electronic version is linked to the Analysis Agenda Web site so that users can retrieve the electronic version in a complete or summary form simply by clicking on its title on the Web site. EIA customers now have electronic access to current information about EIA's analysis plans for the year and the actual reports as soon as they are completed.

The Analysis Review Board will issue its call for proposals for the FY1999 Analysis Agenda during the spring of 1998.

Strategic Planning

In 1997, our third year of strategic planning, EIA expanded and strengthened the process used to set our strategic direction. Historically, EIA developed annual and multiyear plans oriented towards individual program inputs and activities. The 1997 plan broadened the scope to include corporate strategic goals and a focus on the results of EIA's operations.

Enhancements to the 1997 strategic planning process included the following:

- The planning horizon was expanded from one year to five years, so the current plan covers the period 1998-2002.
- EIA's performance measures were incorporated in the plan, thus aligning a primary feedback mechanism directly with the plan.
- Planners were provided with preplanning information on customer feedback, human resources, and teamwork (among other topics) to study before the meetings so the process could adopt a more fact-based approach.
- Individual program action plans, directly linked to the corporate plan, were developed at the office level.

During the planning sessions, senior managers reconfirmed the mission, vision, and goals of the agency; redefined the strategic objectives; and linked performance measures to these objectives. Prior to 1997, only corporate-level plans had been developed, most of which were directed to efforts that crossed functional or organizational lines. This process left unclear the responsibility for the actions necessary to accomplish plan goals. By developing office-level action plans during 1997, EIA enabled the corporate plan to be more fully deployed throughout the organization.

Strategies from the 1997 strategic plan centered around three themes:

- EIA is committed to continue to be a customer-driven organization.
- EIA is committed to become a more performance-driven organization.
- EIA will continue to reengineer our systems.

For the first time in 1997, EIA produced a document listing the goals, objectives, and performance measures of the plan, which has been made available to all staff and the public (both as a paper publication and on EIA's Internet site).

Strategic Goals

1. We will work together to achieve the full potential of a diverse workforce.
2. EIA will assure its data, analyses, and forecasts are of the highest quality.
3. EIA will assure its products and services are relevant to the needs of its customers.
4. EIA will provide its customers with fast and easy access to public energy information.
5. As a performance-driven organization, we will conduct our business in an efficient and cost-effective manner.

Performance Measures Program

During 1997, EIA continued to collect and analyze information on the performance measures we established in 1995. (See Appendix B.) Good performance measures help us summarize and demonstrate progress to ourselves and to the outside world. Measuring performance is essential to continuous improvement of our operations and, therefore, to our ongoing effort to be as efficient and effective as possible.

Currently, EIA performance measures cover employee and customer opinions, data accuracy and timeliness, forecast accuracy, Internet and CD-ROM usage, and media citations. The Performance Measures Committee, with representatives from across the organization, met monthly in 1997 and prepared summary reports in the spring and fall. The results were presented to EIA senior managers. Review of the performance measures is an important part of the agenda for such groups as senior staff and strategic planners.

Historical information on performance measures was used in strategic planning during 1997 to help establish goals for the year 2002. During 1997, EIA initiated a major effort to automate the collection of performance measures data. Previously, members of the Performance Measures Committee coordinated the collection of the data in separate files and manually combined the files to form a comprehensive package. With the development of a unified database (which is nearly completed), all the information will be stored in a single place and staff members responsible for the performance measures data (survey managers, for example, who are able to calculate the timeliness and accuracy of their energy data collection) can enter the data into the system themselves. For the first time, the performance measures will be updated on an ongoing basis. The system will allow every EIA employee to review the data at any time and to produce graphs with the latest data.

EIA's Principles for the Selection and Use of Performance Measures

- Performance measures will not be used to play "gottcha," but as a support to our mutual efforts to achieve continuous improvement and better customer service.
- We realize that many important goals are difficult to measure. As a result, we will measure what we can and take care not to allow the focus to be determined only by measurability.
- Decisions will be made by using trend data from performance measures and will include qualitative information as well.
- We will evolve from measurement tools that may be fairly crude in the early years to more sophisticated ones as we increase our experience with performance measures.
- We will regularly review all measures through EIA's Performance Measures Committee, which will rigorously scrutinize them for suitability and reliability.
- Some goals may constitute stretch targets, and results short of these goals may represent substantial progress.
- Achieving goals on outcome measures, such as the usage of EIA products, is not solely under the control of EIA. We will, however, develop strategies that increase the likelihood of such results.
- Corporate strategies will be needed to achieve many of the goals but, in other cases, initiatives will be needed throughout the organization to develop strategies on a more decentralized basis.

APPENDIX A. PUBLICATIONS OF THE ENERGY INFORMATION ADMINISTRATION

Service Reports

EIA Service Reports are analyses prepared, as the name implies, as a service upon specific request from other Executive Branch agencies or Congress. They are often based on assumptions provided by the requestor. During 1997, EIA produced two Service Reports, one on carbon stabilization, the other on U.S. propane markets in the winter of 1996-97.

Analysis of Carbon Stabilization Cases (SR-01AF/97-01)

This study was undertaken at the request of the U.S. Department of Energy (DOE), Office of Policy and International Affairs (PO). Carbon mitigation and climate change are issues that must be addressed on a global scale by the international community. This study contributes to the analytical process by examining the impact of several carbon stabilization scenarios on the U.S. energy economy. One set of cases extensively analyzes the impacts on the U.S. system by assuming that carbon stabilization is achieved without the benefit of flexible international trading policies. The second sensitivity estimates the impacts on the U.S. energy-economy system of a much lower carbon value that may be realized under more flexible trading and other comprehensive approaches. Each potential member of the international community is expected to evaluate its options in a similar way prior to signing any international commitment to control carbon emissions. International emissions trading and a comprehensive approach to greenhouse gases are key elements of the U.S. position within the current international negotiations on climate.

The DOE Office of Policy and International Affairs was a participant in the analytical effort of the Interagency Analysis Team (IAT) studying the economic effects of global climate change policing in the United States. DOE/PO requested the analysis of several carbon policy scenarios by use of the National Energy Modeling System (NEMS) to examine how carbon stabilization could be achieved by 2010 and beyond. NEMS is an integrated energy–economy modeling system for U.S. energy markets, developed by the EIA as a policy analysis tool to provide an integrated framework for policymakers to understand the implications of proposed policies and alternative assumptions concerning energy markets. NEMS is used annually by EIA's Office of Integrated Analysis and Forecasting (OIAF) to produce a reference case and a range of alternative projections for the midterm future, which were published most recently in the *Annual Energy Outlook 1998*.

This analysis relies on the NEMS for estimates of the implied costs of carbon stabilization, both as reflected in revenues from possible sales of carbon permits, as well as the effect on energy prices and quantities. The macroeconomic impacts of the primary carbon stabilization cases were analyzed by EIA by use of the in-house capability with the Data Resources, Inc. (DRI), Macroeconomic model. The macroeconomic analysis considered different options for allocating and financing the carbon stabilization costs and alternative central bank behavior.

All of the findings indicated in this report are based on the IAT assumptions and additional assumptions provided by the client in order to implement IAT assumptions. The client's assumptions and guidance were implemented within the NEMS/DRI system. Findings are given on carbon stabilization without international carbon emissions trading and on carbon stabilization with flexible international carbon emissions testing.

An Analysis of U.S. Propane Markets, Winter 1996-97 (SR100G197-01)

In late summer 1996, in response to relatively low inventory levels and tight world oil markets, prices for crude oil, natural gas, and products derived from both began to increase rapidly ahead of the winter heating season. Various government and private sector forecasts indicated the potential for supply shortfalls and sharp price increases, especially in the event of unusually severe winter weather. Following a rapid runup in gasoline prices in the spring of 1996, public concerns were mounting about a possible similar situation

in heating fuels, with potentially more serious consequences.

In response to these concerns, the Energy Information Administration (EIA) participated in numerous briefings and meetings with Executive Branch officials, Congressional committee members and staff, State Energy Offices, and consumers. EIA instituted a coordinated series of actions to closely monitor the situation and inform the public. This study constitutes one of those actions: an examination of propane supply, demand, and price developments and trends.

EIA's approach focused on identifying the underlying reasons for the tight supply/demand balance in the fall of 1996 and on examining the potential for a recurrence of these events next winter. Because of the relative lack of public knowledge regarding propane supply, demand, and markets, it was decided that a comprehensive review of background material should be presented along with the study to enhance understanding of the relevant causes and consequences examined. Chapters 2, 3, and 4 of this report comprise an explanation of the fundamentals of propane supply, demand, and markets, largely for those readers not overly familiar with the industry.

EIA's analysis concluded that winter 1996-97 propane market behavior can be explained by a combination of fundamental market factors, as follows:

- The propane price increase from August through early November appeared to be due to price increases in crude oil, low stocks at the beginning of the heating season, and diminished prospects for late stock recovery, mainly as a result of strong demand in the Midwest.
- World crude oil price levels, underlying all petroleum product markets, are widely expected to be significantly lower in the fall of 1997 than in 1996.
- Assuming the return of both heating demand and the size of the corn crop to average levels, fall propane demand in PADD 2 should be well below the record levels seen in 1996; however, PADD 2's demand declines could be tempered by demand increases in PADDs 1 and 3, which experienced warmer-than-normal temperatures this past winter.
- The significantly higher season-ending propane stock levels in March 1997, compared to those of the previous spring, should allow for higher beginning stocks this fall than in 1996.
- High levels of refinery inputs expected through this spring and summer, in order to meet gasoline demand, will also result in higher domestic propane production.

Publications of Special Interest

Alternatives to Traditional Transportation Fuels 1996 (DOE/EIA-0585(96))

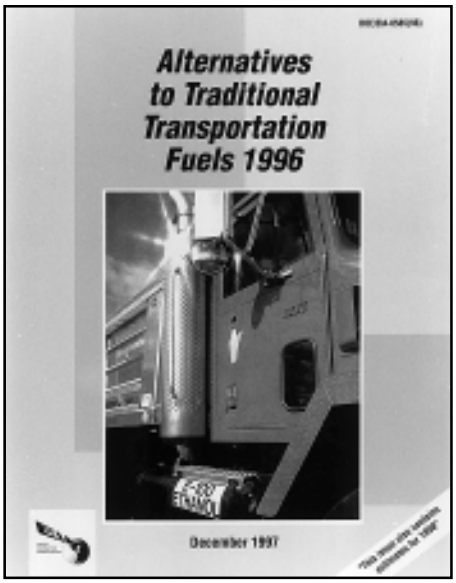
Interest in the alternative transportation fuels (ATF's) has increased in recent years due to the drives for cleaner air and less dependence upon foreign oil. This report provides information on ATF's, as well as on the vehicles that consume them.

This report has its roots in Section 503 of the Energy Policy Act of 1992 (EPACT), which directs the Energy Information Administration (EIA) to provide the U.S. Department of Energy (DOE) and the Congress with the following information on alternative-fueled vehicles (AFV's) and ATF's:

- The number, type, and geographic distribution of AFV's in use (Chapter 2)
- The consumption of ATF's and "replacement fuels" (Chapter 3)
- The number and type of AFV's "made available" (Chapter 4)

In addition to the information described above, this report includes:

- A discussion of the methodology used to develop the estimates, including a discussion of the survey Form EIA-886, "Alternative Fuel Vehicle Suppliers' Annual Report" (Appendix A)
- A map defining geographic regions used (Appendix B)
- A list of AFV suppliers (Appendix C)
- Revised AFV "made available" information for the Calendar year 1995 (Appendix D).



The ATF's considered in this report are compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG, i.e., propane), methanol, ethanol, electricity, and neat biodiesel. Vehicles consuming these fuels may either be "new" AFV's or existing vehicles with converted fuel systems.

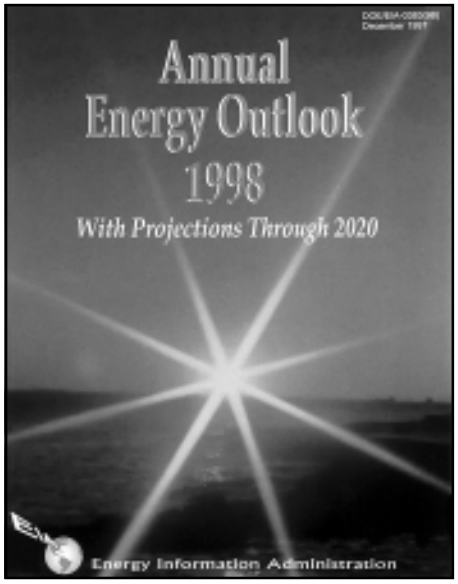
This report is EIA's fourth annual report on alternative transportation fuels. EIA produced its first report on AFV's and ATF's in 1994. It contains extensive background material on ATF and AFV characteristics, legislation and industry-related information, as well as some early estimates of AFV inventories and ATF consumption. Subsequently, EIA has published a data report updating AFV and ATF information annually.

Annual Energy Outlook 1998 with Projections Through 2020 (DOE/EIA-0383(98))

The *Annual Energy Outlook 1998 (AE098)* presents midterm forecasts of energy supply, demand, and prices through 2020 prepared by the Energy Information Administration (EIA). The projections are based on results from EIA's National Energy Modeling System (NEMS).

The report begins with an "Overview" summarizing the *AE098* reference case. The next section, "Legislation and Regulations," describes the assumptions made with regard to laws that affect energy markets and discusses evolving legislative and regulatory issues. "Issues in Focus" discusses three current energy issues — electricity restructuring, renewable portfolio standards, and carbon emissions. It is followed by the analysis of energy market trends.

The analysis in *AE098* focuses primarily on a reference case and four other cases that assume higher and lower economic growth and higher and lower world oil prices than in the reference case. Forecast tables for these cases are provided in Appendixes A through C. Appendixes D and E present a summary of the reference case forecasts in units of oil equivalence and household energy expenditures. Other cases explore the impacts of varying key assumptions in NEMS — generally, technology penetration. The major results are shown in Appendix F. Appendix G briefly describes NEMS and the *AE098* assumptions, with a summary table of the cases.



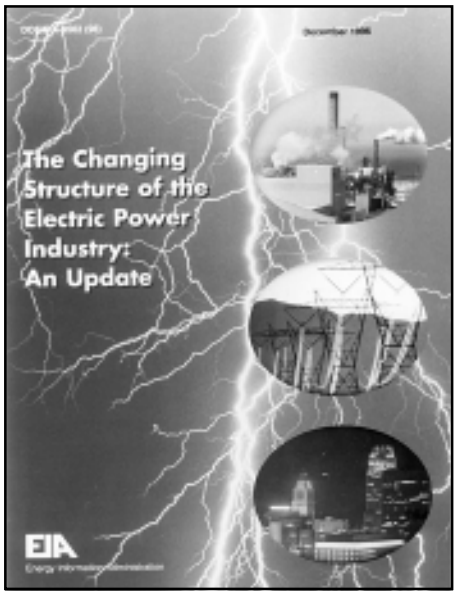
Appendix H provides tables of energy and metric conversion factors. *AE098*, the detailed assumptions, and supplementary tables will be available on the EIA Home Page and on CD-ROM.

The *AE098* projections are based on Federal, State, and local laws and regulations in effect on July 1, 1997. Pending legislation and sections of existing legislation for which funds have not been appropriated are not reflected in the forecasts. Historical data used for the *AE098* projections were the most current available as of July 31, 1997, when most 1996 data but only partial 1997 data were available.

The projections in *AE098* are not statements of what will happen but of what might happen, given the assumptions and methodologies used. The projections are business-as-usual trend forecasts, given known technology and demographic trends and current laws and regulations. Thus, they provide a policy-neutral reference case that can be used to analyze policy initiatives.

The Changing Structure of the Electric Power Industry: An Update (DOE/EIA-0562(96))

Electric utilities — one of the largest remaining regulated industries in the United States — are in the process of transition to a competitive market. Traditionally vertically integrated, the industry will in all probability be segmented at least functionally into its three component parts: generation, transmission, and distribution. The proposals and issues are being addressed in Federal and State legislation and are being debated in State regulatory hearings.



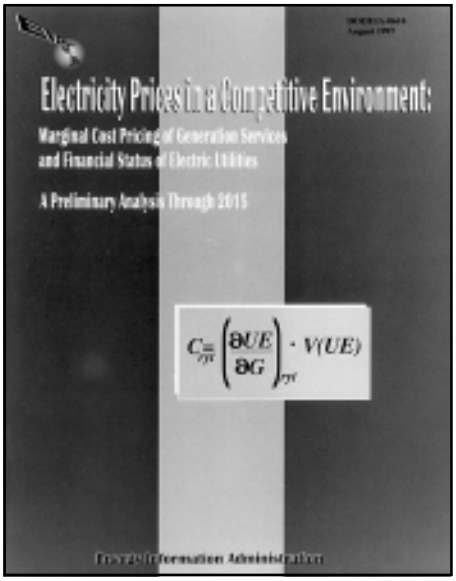
Change is occurring through the issuance by the Federal Energy Regulatory Commission (FERC) of Orders 888 and 889 (dated April 24, 1996) to encourage wholesale competition. Order 888 addresses the issues of open access to the transmission network and stranded costs. Order 889 requires utilities to establish electronic systems to share information about available transmission capacity. In addition, as of June 30, 1996, 44 States and the District of Columbia (more than 88 percent of the Nation's regulatory commissions) have started activities related to retail competition in one form or another. Issues such as recovery of stranded costs, divestiture of transmission assets, increased mergers, renewable energy incentives, energy efficiency investments, reliability, and the timing of retail competition are critical due to the degree of importance electricity holds in this country's economic and social well-being.

The Effects of Title IV of the Clean Air Act Amendments on Electric Utilities: An Update (DOE/EIA-0582(97))

The Clean Air Act Amendments of 1990 address numerous air quality problems in the United States that were not entirely covered in earlier legislation. One of these problems is acid rain caused by sulfur dioxide (SO_2) and nitrogen oxides (NO_x) emissions from fossil-fueled electric power plants and, to a lesser extent, from other industrial and transportation sources.

Title IV of the Act created a two-phased plan, administered by the U.S. Environmental Protection Agency (EPA), to reduce acid rain in the United States. Phase I runs from 1995 through 1999, and Phase II, which is more stringent than Phase I, begins in 2000. Title IV contains a table listing 261 generating units that are required to comply with Phase I. They are generally referred to by EPA as Table 1 units. Most of these units are coal fired, with relatively high emissions. An additional 174 units are participating in Phase I on the basis of the rules established by EPA, allowing a utility to designate substitution or compensating units as part of their Phase I compliance plans. Therefore, 435 units are now considered Phase I units. More than 2,000 units will be affected by Phase II.

This report updates and expands a report published by the Energy Information Administration in 1994 titled *Electric Utility Phase I Acid Rain Compliance Strategies for the Clean Air Act Amendments of 1990.* It describes the strategies used to comply with the Acid Rain Program in 1995, the effect of compliance on SO_2 emissions levels, the cost of compliance, and the effects of the program on coal supply and demand.

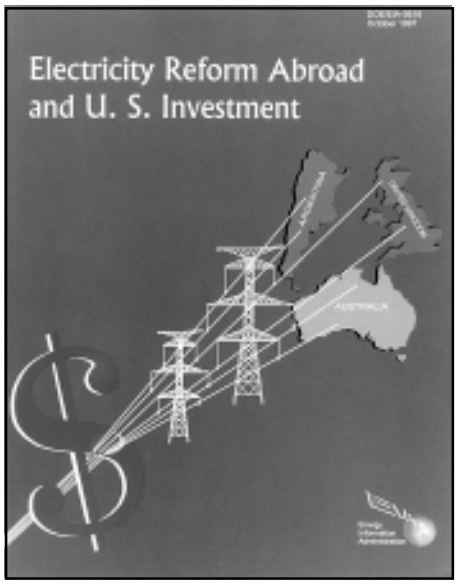


Electricity Prices in a Competitive Environment: Marginal Cost Pricing of Generation Services and Financial Status of Electric Utilities: A Preliminary Analysis Through 2015
(DOE/EIA-0614)

The U.S. electric power industry is in the early stages of a comprehensive restructuring that will bring far-reaching changes to regulations, legal statutes, and institutions that have been in place for decades. Consequently, there is a great deal of uncertainty about the ultimate form of the transformed industry. The method of calculating and projecting competitive prices, as presented in this report, is one of several that are consistent with the economics of deregulated markets. However, because of the high level of uncertainty surrounding the future structure of the U.S. electric power industry, it is not possible to determine the precise conditions that will set electricity prices in the future.

Price projections in this report are not meant to be *forecasts* of competitive electricity prices. Rather, they are illustrations of the potential effects of changes in certain parameters on the price for electricity that may emerge under competition, given the assumptions stated in this report. The areas of uncertainty include, but are not limited to, consumer responsiveness to electricity price changes, the development of time-of-use pricing for electricity, the market value of electric service reliability, and future generating technology improvements. Further, the illustrative prices in this report do not represent upper or lower bounds on competitive prices. Rather, they are the results of sensitivity tests on some of these major areas of uncertainty.

Users of this report are encouraged to review other literature on the topic of the restructuring of the U.S. electric power industry before using the results of any of the analyses. The users should also carefully review the assumptions of the studies and the resulting sensitivity to those assumptions.



Electricity Reform Abroad and U.S. Investment
(DOE/EIA-0616)

Over the past decade a number of nations have restructured their electricity industries. Several nations have also significantly reduced the government's role in the ownership and management of domestic electricity industries — both at the state and at the national level. The Energy Information Administration selected Argentina, Australia, and the United Kingdom (UK) for this study partly because of the extent to which these nations have undergone electricity reforms but also because of the major role that U.S. companies have played as investors in these nations' reformed and privatized electricity sectors. Understanding how Argentina, Australia, and the United Kingdom each addressed the issues of primary importance to their country's electricity sector reform may be informative to those who will

fashion the structure of similar reforms in the United States. This understanding may be all the more important because of the experiences that U.S. electric companies will have gained from their investments in these countries.

In each of the three case study countries, issues surrounding electric industry restructuring, competitive electricity pools, privatization, deregulation, and stranded costs are unique to each country's electricity reform experience However, there are often more commonalities than differences, particularly in the case of Australia and the United Kingdom. In all three countries, electricity reform involved a greater opening to foreign investment in electricity.

Emissions of Greenhouse Gases in the United States 1996 (DOE/EIA-0573(96))

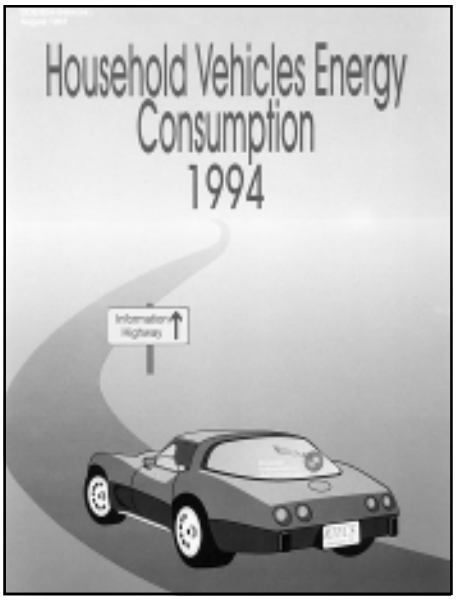
In 1996, U.S. emissions of greenhouse gases increased by 3.4 percent over 1995 emissions, the highest rate of increase in recent years. Although U.S. emissions have been growing since 1991, their growth accelerated in 1996. Greenhouse gas emissions expanded more rapidly than U.S. energy consumption in 1996, and the growth of energy consumption (up 3.2 percent) exceeded the growth of the U.S. economy (up 2.4 percent). Three principal sources contributed to the growth in U.S. greenhouse gas emissions:

- Energy consumption increased more rapidly in 1996 than in recent years, buoyed by strong economic growth and unusually severe weather. Residential and commercial carbon dioxide emissions (including their prorated share of electric utility emissions) expanded by 6.3 and 5.5 percent, respectively.
- The rapid growth of relatively low-carbon natural gas consumption, which has tended to moderate the growth of total carbon dioxide emissions in recent years by "capping" high-carbon coal use, slowed as natural gas prices increased. Consequently, electric utilities met the demand for increased electricity largely with coal-fired power generation. Electric utility carbon dioxide emissions increased by 4.7 percent, divided between a 2.4 percent rise resulting from increased electricity sales and a 2.3 percent increase resulting from the use of fuels with higher carbon content.
- Estimated emissions of exotic gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride — paced by increased emissions of HFC-134a, the widely accepted substitute for chlorofluorocarbons (CFCs) — grew by more than 10 percent in 1996, though from very low levels.

Specific gases contributing to the greenhouse gases emissions problem examined in this report are carbon dioxide, methane, nitrous oxide, halocarbons and related compounds, criteria pollutants (carbon monoxide, nitrogen oxide, and nonmethane volatile organic compounds), and land use issues (e.g., expansion of forest land and the growth of existing forests).

Household Vehicles Energy Consumption 1994 (DOE/EIA-0464 (94))

Household Vehicles Energy Consumption 1994 reports on the results of the 1994 Residential Transportation Energy Consumption Survey (RTECS). The RTECS is a national sample survey that has been conducted every 3 years since 1985. For the 1994 survey, more than 3,000 households that own or use some 6,000 vehicles provided information to describe vehicle stock, vehicle-miles traveled, energy end-use consumption, and energy expenditures for personal vehicles. The survey results represent the characteristics of the 84.9 million households that used or had access to vehicles in 1994 nationwide. (An additional 12 million households neither owned nor had access to vehicles during the survey year.) To be included in the RTECS survey, vehicles must be either owned or used by household members on a regular basis for personal transportation, or owned by a company rather than a household but kept at home regularly available for the use of household members. Most vehicles included in the RTECS are classified as "light-duty vehicles" (weighing less than 8,500 pounds). However, the RTECS also includes a very small number of "other" vehicles, such as motor homes and larger trucks that are available for personal use.

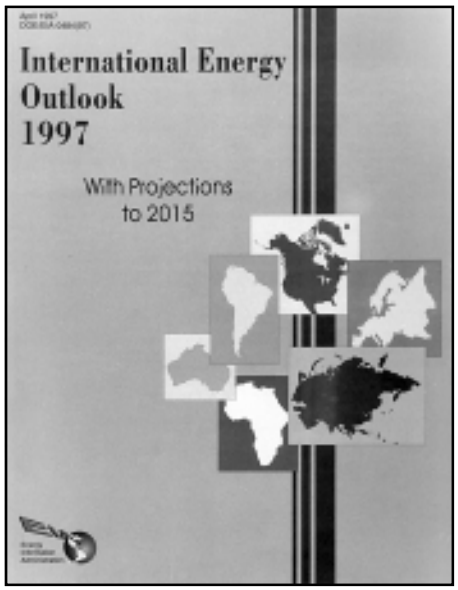


The survey results have implications for the overall fuel economy in the United States and the amount of motor gasoline consumed. The increase in the number of minivans, sport-utility vehicles, and pickup trucks may depress overall fleet fuel economy, because these vehicles are subject to the fuel economy standards for light trucks and consume more fuel per mile traveled. Fuel economy is increased, however, by the retirement of older vehicles that are less fuel efficient than newer models. Passenger cars built after 1979 showed a dramatic increase in fuel economy, which rose 3 miles per gallon between 1979 and 1980 and then increased steadily — though less dramatically — throughout the 1980's. Fuel economy has leveled off in the 1990's. In 1991, 35 million vehicles, or 23 percent of the total vehicle stock, were from model year 1979 or earlier. By 1994, that number had dropped to 20 million, or 13 percent of the vehicle stock. Those older vehicles tend to be driven fewer miles than the new vehicles that replaced them, according to the survey data. Therefore, although older vehicles tend to consume more fuel per mile, their effect on the fleet average is mitigated by the fact that they are driven fewer miles.

Household Vehicles Energy Consumption 1994 examines the effects of household size, household income, age of primary driver, vehicle characteristics, and Census region on household vehicle stock, miles traveled, fuel economy, and fuel consumption. In general, the size of the household, composition of the household, and household income had a large effect on those variables.

International Energy Outlook 1997
(DOE/EIA-0484(97))

The *International Energy Outlook 1997 (IE097)* presents an assessment by the Energy Information Administration (EIA) of the outlook for international energy markets through 2015. The report is an extension of the EIA's *Annual Energy Outlook 1997 (AE097)*, which was prepared by using the National Energy Modeling System (NEMS). U.S. projections appearing in the *IE097* are consistent with those published in the *AE097*. *IE097* is provided as a statistical service to energy managers and analysts, both in government and in the private sector. The projections are used by international agencies, Federal and State governments, trade associations, and other planners and decisionmakers.



The report begins with a review of world trends in energy demand. The historical time frame begins with data from 1970 and extends to 1995, providing readers with a 25-year historical view of energy demand. The forecasts cover the 20-year period from 1995 to 2015. New to this year's report is an expanded look at energy use in developing Asia and the EE/FSU — the regions of greatest uncertainty.

Issues in Midterm Analysis and Forecasting 1997 (DOE/EIA-0607(97))

Issues in Midterm Analysis and Forecasting 1997 (Issues) presents a series of seven papers, which cover topics in analysis and modeling that underlie the *Annual Energy Outlook 1997 (AE097)*, as well as other significant issues in midterm energy markets. *AE097*, DOE/EIA-0383(97), published in December 1996, presents national forecasts of energy production, demand, imports, and prices through the year 2015 for five cases — a reference case and four additional cases that assume higher and lower economic growth and higher and lower world oil prices than in the reference case. The forecasts were generated by using the Energy Information Administration's (EIA) National Energy Modeling System (NEMS).

The titles of the seven papers presented in *Issues* are as follows:

- "Sensitivity of Energy Intensity in U.S. Energy Markets to Technological Change and Adoption"
- "Development Patterns for Liquefied Natural Gas Supply and Demand"
- "The Impact of International Learning on Technology Cost"
- "The Possible Impacts of Electricity Futures on Forecasting Competitive Electricity Markets"
- "Forecasting Annual Energy Outlook Coal Transportation Rates"
- "Annual Energy Outlook *Forecast Evaluation*"
- "National Energy Modeling System/Annual Energy Outlook Conference Summary"

Manufacturing Consumption of Energy 1994 (DOE/EIA-0512(94))

To determine how energy is used in the manufacturing sector, EIA gathers information from a national representative sample of the manufacturing establishments that transform input materials or substances into new products, assemble components, or perform blending operations. In 1994, of the approximately 380 thousand manufacturing establishments in the United States, the MECS sample represented about 250 thousand of the largest establishments. Those establishments account for approximately 98 percent of U.S. economic output from manufacturing and an expected similar proportion of manufacturing energy use. The amount of energy an establishment uses is collected for all of its operations and not solely for the amount of energy used in manufacturing its product.

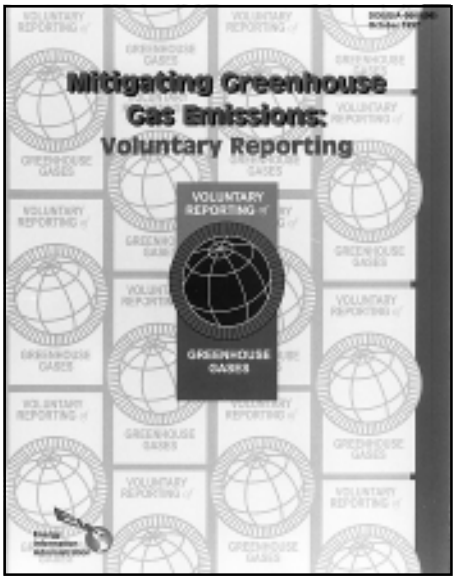
The 1994 MECS is EIA's fourth survey of the manufacturing sector. Previous manufacturing surveys were conducted in 1986, 1989, and 1992 (for reporting years 1985, 1988, and 1991, respectively). The next manufacturing survey will be conducted for reporting year 1998, with subsequent surveys being conducted every 4 years thereafter.

Mitigating Greenhouse Gas Emissions: Voluntary Reporting (DOE/EIA-0608(96))

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

This, the second annual report of the Voluntary Reporting Program, describes information provided by the participating organizations on their aggregate emissions and emissions reductions, as well as their emissions reduction or avoidance projects, through 1995. This information has been compiled into a database that includes reports

from 142 organizations and descriptions of 967 projects that either reduced greenhouse gas emissions or sequestered carbon. Fifty-one reporters also provided for their entire organizations estimates of emissions and emissions reductions achieved.



The projects described actions taken to reduce emissions of carbon dioxide from energy production and use; to reduce methane and nitrous oxide emissions from energy use, waste management, and agricultural processes; to reduce emissions of halocarbons, such as CFCs and their replacements; and to increase carbon sequestration. Current reporters represent 13 different industries, as defined by the two-digit Standard Industrial Classification (SIC) code. More than 80 percent are electric utilities. Nonetheless, representation from other sectors is significant. Other reporters include large enterprises in the automotive, metals, chemicals, and computer industries.

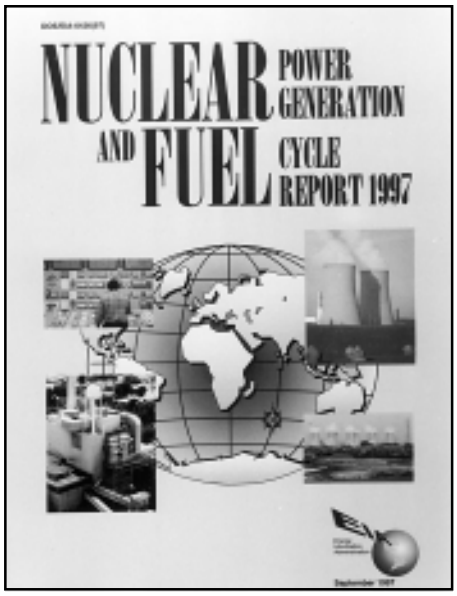
To date, U.S. policy initiatives to promote progress toward the goal of stabilizing U.S. greenhouse gas emissions have emphasized voluntary efforts. President Clinton's Climate Change Action Plan (CCAP) sought to energize cooperative approaches to identify and implement actions that could reduce emissions of greenhouse gases. In that spirit, an array of government–industry partnerships was formed to search for and pursue opportunities to mitigate greenhouse gas emissions. Most Voluntary Reporting Program participants are also affiliated with one or more government-sponsored voluntary programs.

Motor Gasoline Assessment, Spring 1997
(DOE/EIA-0613)

The springs of 1996 and 1997 provide an excellent example of contrasting gasoline market dynamics. In spring 1996, tightening crude oil markets pushed up gasoline prices sharply, adding to the normal seasonal gasoline price increases; however, in spring 1997, crude oil markets loosened and crude oil prices fell, bringing gasoline prices down. This pattern was followed throughout the country except in California. As a result of its unique reformulated gasoline, California prices began to vary significantly from those of the rest of the country in 1996 and continued to exhibit distinct variations in 1997. In addition to the price contrasts between 1996 and 1997, changes occurred in the way in which gasoline markets were supplied. Low stocks, high refinery utilizations, and high imports persisted through 1996 into summer 1997, but these factors seem to have had little impact on gasoline price spreads relative to average spread.

Retail conventional regular gasoline prices in spring 1996 rose sharply, increasing by 19 cents between mid-February and mid-May. While gasoline prices frequently increase this time of year, the speed and magnitude of the increase in 1996 alarmed many consumers. The spring 1996 price increases resulted from a combination of factors, some of which were unusual but not unprecedented. Rising crude oil prices and the normal seasonal increase in gasoline prices accounted for most of the retail price increase. However, gasoline markets were also affected by unusual factors, including a late-winter cold spell which caused refiners to focus on production of distillate (heating oil, diesel fuel, and kerosene jet fuel) instead of gasoline longer than usual; lower-than-normal gasoline stocks; continuing high gasoline demand and high refinery capacity utilization; and the persistent expectation that prices would fall several months in the future, a pattern which discouraged production of gasoline in excess of demand to build stocks.

The petroleum markets in spring 1997 completed the story of the spring 1996 runup, with a price reversal, providing an excellent opportunity to watch the oil market dynamics when crude market factors move in the opposite direction.



Nuclear Power Generation and Fuel Cycle Report 1997 (DOE/EIA-0436(97))

This report provides information and forecasts important to the domestic and world nuclear and uranium industries. The first chapter presents the current status and projections through 2015 of nuclear capacity and generation for all countries with commercial nuclear power programs. U.S. capacity projections are consistent with those published in the *Annual Energy Outlook 1997*. Because of its robust growth in nuclear power, a special section on the Far East appears on colored sheets at the back of this chapter.

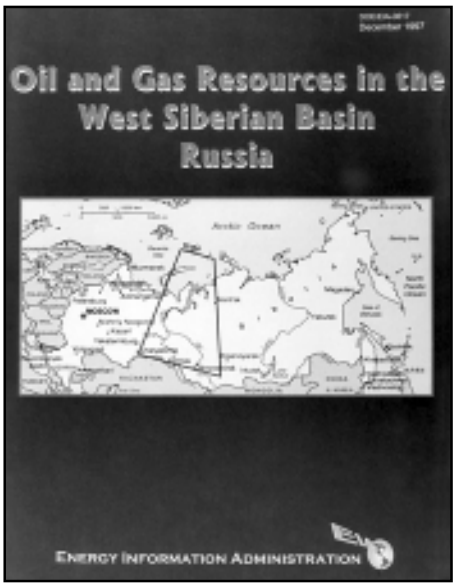
The next chapter contains current information and projections on worldwide uranium requirements, enrichment service requirements and spent fuel discharges from 1997 to 2015. The projections for U.S. spot-market prices, production, and imports are given to 2010. There is also a discussion of the U.S. uranium market analyzing how uranium purchases vary with spot-market prices. Information on deliveries of surplus Russian defense material is also presented in this chapter.

The last chapter compares EIA's projections with those of Energy Resources International, Inc., and NAC International.

Oil and Gas Resources of the West Siberian Basin, Russia (DOE/EIA-0617)

Oil and Gas Resources of the West Siberian Basin, Russia is part of the Energy Information Administration's (EIA's) Foreign Energy Supply Assessment Program (FESAP). The primary objective of this study is to assess the oil and gas potential of the West Siberian Basin of Russia. The study does not analyze the costs or technology necessary to achieve the estimates of the ultimate recoverable oil and gas.

Russia's West Siberian Basin contains sufficient oil and natural gas to affect world petroleum markets. The basin supplies approximately 70 percent of the oil and 90 percent of the gas produced for Russia. Decreases in produced volumes from the basin would require that the demand for petroleum in Russia be met from other sources. Likewise, increases in production would increase the amount of oil or gas for export into international markets.



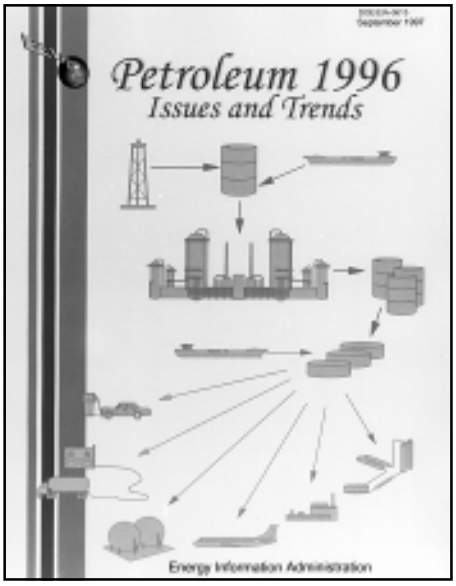
This study uses reservoir data to estimate recoverable oil and gas quantities which were aggregated to the field level. Field totals were summed to a basin total for discovered fields. An estimate of undiscovered oil and gas, from work of the United States Geological Survey (USGS), was added to give a total basin resource volume.

The estimates of recoverable oil and gas for the regions of the basin, the individual fields, and the geologic intervals are intended as a guide to organizations such as oil and gas operating companies, financial institutions, and government agencies.

Petroleum 1996: Issues and Trends
(DOE/EIA-0615)

Increasingly, users of the Energy Information Administration's petroleum data and analytical reports have expressed an interest in a recurring report that takes a broad view of the petroleum sector. What is sought is some perspective on the complex interrelationships that comprise an industry and markets accounting for 40 percent of the energy consumed in the United States and ranging from the drilling rig in the oil field to the pump at the local gasoline station.

This report comprehensively examines historical *trends*, and selectively focuses on major *issues* and the events they represent. It analyzes different dimensions of the industry and related markets in terms of how they relate to a common theme, in this case, the volatility in petroleum markets.



One notable development in petroleum product markets has been volatility, as reflected in the rapid and conspicuous change in petroleum product prices. An instance of volatility, the turbulence in motor gasoline wholesale and retail markets in the spring of 1996, made this a matter of national concern. At the time, the Energy Information Administration co-authored a report undertaken at the request of President Clinton, which examined the market conditions that impacted the supply–demand balance leading up to the motor gasoline season, and how the wholesale, commodity, and retail markets responded. In a sense, this report, *Petroleum 1996: Issues and Trends*, picks up where that report left off.

The first chapter of the report presents, in summary terms, a broad overview of trends in petroleum markets. The other seven chapters present, in greater depth, analyses of key issues and the underlying trends that influence petroleum markets today and in the future.

Feature Articles

Accuracy of Petroleum Supply Data

Data collected by EIA provided an accurate picture of petroleum supply in 1996. These data were presented in a series of EIA publications: the *Weekly Petroleum Status Report (WPSR)*, the *Winter Fuels Report (WFR)*, the *Petroleum Supply Monthly (PSM)*, and the *Petroleum Supply Annual (PSA)*. Weekly estimates in the *WPSR* and *WFR* were the first values available.

The monthly-from-weekly (MFW) data are the least accurate but "good." The *PSM* data are more accurate or "better" and the *PSA* data are the most accurate or "best." For 1997, 66 petroleum supply data series were analyzed to determine how close the *PSM* values were to the final *PSA* values. For these series, 47 out of the 66 were within 1 percent of the *PSA* values in terms of mean absolute percent error. Sixty-one petroleum supply data series were analyzed to see how close the MFW estimates were to the final PSA values. For these 61 series, 26 were within 2 percent of the PSA values in terms of mean absolute percent error and, of those, 11 were within 1 percent.

This article, which appears in the December 1997 issue of the *Petroleum Supply Monthly*, concludes that two major factors that contribute to the *PSM* values being more accurate than the MFW estimates are: (1) the greater length of time between the close of the reference period and the publication date of the *PSM*; and, (2) some MFW values are estimates,

whereas many *PSM* respondents extract their actual data from automated accounting systems.

Reprinted from *Petroleum Supply Monthly*
December 1997 (October 1997 Data)

Comparisons of Independent Petroleum Supply Statistics

This article, which appears in the July 1997 issue of the *Petroleum Supply Monthly*, compares final petroleum data published in the *Petroleum Supply Annual* with similar petroleum data obtained from other sources. Data comparisons are presented for 1986 through 1995 for the following series: crude oil production, crude oil imports, motor gasoline supplied, distillate fuel oil supplied, and residual fuel oil supplied. Graphs were added in order to better portray the data similarities and data differences.

Reprinted from *Petroleum Supply Monthly*
July 1997 (May 1997 Data)

A Comparison of Selected EIA-782 Data With Other Data Sources

EIA compares its EIA-782 series of petroleum market prices and volumes with both internal and external data sources on an ongoing basis. The sources include:

- The Bureau of Labor Statistics (BLS) Consumer Price Index (CPI) data for retail prices of motor gasoline and No. 2 fuel oil
- Form EIA-821, Annual Fuel Oil and Kerosene Sales Report, for volumes of distillate and residual fuel oil
- EIAs *Petroleum Supply Annual* (PSA) product supplied for volumes of distillate fuel oil, residual fuel oil, and motor gasoline
- Federal Highway Administration (FHWA) for volumes of motor gasoline.

Conceptual differences exist among the data sources. Thus, for some comparisons, PMD adjusted the data to more closely approximate EIA-782 survey conditions because of differences in coverage, definition, and units of measure. In these instances, explanations appear in the text. The reader can find a general description of each data source in the notes at the end of the article, which appears in the November 1997 issue of the *Petroleum Marketing Monthly*.

Reprinted from *Petroleum Marketing Monthly*
November 1997 (August 1997 Data)

A Contrast Between Distillate Fuel Oil Markets in Autumn 1996 and 1997

The Distillate Assessment in autumn provides concise analysis of the dominant factors shaping the supply and price of the product for the upcoming winter heating season. Critical developments in distillate markets since the previous year are identified and analyzed. The report discusses short-term issues concerning distillate stock levels and their impact on monthly retail prices. It was released as a feature article in the December 1997 issue of the *Petroleum Marketing Monthly* and the *Petroleum Supply Monthly*. It typically appears in the October editions, in advance of the winter heating season.

Completion Date: December 1997
http//:www.eia.doe.gov/analysis/analys18.htm

The Intricate Puzzle of Oil and Gas "Reserves Growth"

This article, which appears in the July 1997 issue of the *Petroleum Marketing Monthly* and the *Petroleum Supply Monthly*, is part of a joint research effort by EIA and the United States Geological Survey's Energy Resources Survey Program. This effort will examine the generally observed appreciation of oil and gas ultimate recovery estimates over post-field discovery time (URA). First noted in 1960, URA is a major "source" of both current and expected future domestic oil and gas supply. Prior studies of URA have been based on highly aggregated data that did not allow separation and study of the effects of factors that either cause URA or modulate its pace. Consequently, rather crude estimates of the expected future effect of URA, the projective reliabilities of which are unknown, drive present expectations regarding future domestic oil and gas supplies. Given that the available URA estimates are not as firmly based as they need to be, the objectives of the joint EIA/USGS URA research are to develop a detailed

understanding of the phenomenon, leading to improved URA estimation methods that yield better estimates and to a much better understanding of these estimates' applicability to projections of the future.

Completion Date: July 1997
http//:www.eia.doe.gov/analysis/96anal17.htm

Natural Gas Residential Pricing Developments During the Winter of 1996/97

This article, which appears in the August 1997 issue of *Natural Gas Monthy*, addresses the gas market experience of the recent winter months, in which delivered prices and residential bills were substantially higher than in previous years. The higher prices and the increased residential natural gas bills have raised concerns about the performance of the industry. Most analyses indicate that the natural gas markets have become more competitive with the advent of regulatory reform. The presence of competition does not provide protection from price movements. This analysis is intended to provide an understanding for the reasons behind the rise in the delivered price of natural gas to residential consumers and the corresponding increase in residential gas bills.

Completion Date: August 1997
http//:www.eia.doe.gov/analysis/97anal32.htm

Propane Market Assessment for Winter 1997-98

The Propane Assessment in the autumn provides concise analysis of the dominant factors shaping the supply and price of the product for the upcoming winter heating season. Critical developments in propane markets since the previous year's are identified and analyzed. Prospects for month-to-month price and stock paths for the upcoming season are based on an econometric model that is updated on the basis of the previous 12 months. This article addresses short-term issues concerning propane stock levels and their impact on monthly retail prices and it appears in the December 1997 issue of the *Petroleum Marketing Monthly* and the November 1997 issue of the *Petroleum Supply Monthly*.

Completion Date: November 1997
http//:www.eia.doe.gov/analysis/analys27.htm

Restructuring Energy Industries: Lessons from Natural Gas

This article, which appears in the May 1997 issue of the *Natural Gas Monthly*, summarizes restructuring events in the natural gas industry and analyzes which of these events is likely to have a counterpart — based on similarities and differences in the two industries — during the restructuring of the electric power industry. The two industries differ in at least three major aspects — extraction vs. manufacturing, ownership structure, and response times. This study focuses on causes, changes, and results (including costs and consumer impacts) of the gas industry restructuring to develop selective insights for the electric power industry restructuring.

Completion Date: May 1997
http//:www.eia.doe.gov/analysis/analys5.htm

The Role of Thorium in Nuclear Energy

Thorium, like uranium, is a nuclear fuel, but the use of thorium fuel has been nearly forgotten ever since the demise of the Fort St. Vrain commercial High Temperature Gas-Cooled Reactor and the U.S. Government cancellation of the Clinch River Breeder Reactor research program. The sustained absence of interest in thorium as a nuclear fuel resulted in limited research efforts, and very few data have been compiled in the United States on the subject and even fewer have been published in recent years. This article, which appears in the April 1997 edition of the *Uranium Industry Annual*, presents an historical overview of thorium activities in nuclear energy development and includes the following related issues: (1) distribution of deposits, (2) ore reserves, (3) concentrate production, (4)commercial development of thorium-fueled reactors, (5) the thorium fuel cycle, (6) government procurement, and (7) the environmental remediation of thorium sites.

Completion Date: April 1997
http//:www.eia.doe.gov/analysis/97anal33.htm

EIA Reports Published in Electronic Form Only

Commercial Buildings Characteristics 1995

The Commercial Buildings Energy Consumption Survey (CBECS) is a quadrennial (formerly triennial) national-level survey of commercial buildings' characteristics and related energy consumption and expenditures. This report summarizes and analyzes data from the 1995 survey. Major building characteristics (including building type, size, age, and location), energy sources and end-use equipment used, and conservation features or practices are profiled. The building characteristics data are compared to those of 1992 and earlier CBECS data to identify changes that have occurred between surveys. Within the 1995 data set, new buildings (those constructed since the 1992 survey) are compared to pre-1993 buildings to determine how these two groups differ from each other.

This report accompanies the release of the full set of 1995 CBECS buildings characteristics data as *Commercial Buildings Characteristics 1995*. This report is the latest in the series of CBECS data reports, which began in 1979 and have been triennial since 1983. *Commercial Buildings Characteristics 1995* describes and analyzes the 1995 CBECS data in two ways. There is a descriptive profile of the 1995 commercial buildings stock, with a focus on major characteristics (building type, size, age, location, number of workers, operating hours), energy sources used, end-use equipment, and conservation features and practices. In the analysis portion of the report, the 1995 CBECS data are compared with previous CBECS data to identify changes that have occurred between surveys. Within the 1995 data set, characteristics of the newest buildings (1993 to 1995) are compared to those of older buildings to identify differences within the 1995 building stock.

Completion Date: August 1997
http//:www.eia.doe.gov/analysis/analys7.htm

The Impact of Environmental Compliance Costs on U.S. Refining Profitability

This study assesses the impact of environmentally related costs — as opposed to other refinery operating costs — on the financial performance of the U.S. refining industry. The study utilizes EIA's Form EIA-28, Financial Reporting System (FRS), database. The companies responding to the FRS Form EIA-28 have accounted for 70 percent of U.S. refining capacity over the past decade or so. Estimates of environmental compliance costs, both operating and capital, are regularly developed (as a part of the annual FRS Performance Profiles report) from company-level annual report data and the Census Form MA-200. These data complement the FRS Form EIA-28 data and are used to analyze the extent to which environmental requirements have affected the profitability of U.S. refining. So far in the 1990's, the profitability of the U.S. refining industry has been generally low and declining in comparison with the profitability of U.S. industry overall. This decline in financial performance has occurred at the same time that the Clean Air Act Amendments of 1990 have placed unprecedented demands for environmental quality investments on the U.S. refining industry. This study assesses the effects of environmental costs vs. other costs on the financial performance of the U.S. refining industry.

The report begins with an overview of the capital and operating environmental quality requirements placed on energy companies in the U.S. refining/marketing business sector. Next, the analytic framework (largely a cost-based disaggregation of company data) is developed, with particular attention paid to ascertaining the impact of environmental compliance costs, including operating expenses and capital costs, on energy company financial performance.

Completion Date: October 1997
http//:www.eia.doe.gov/analysis/analys14.htm

Natural Gas Productive Capacity for the Lower 48 States, 1985 Through 1997

Natural gas demand in the lower 48 States has been increasing during the last few years. Natural gas well drilling has remained at low levels during these same years, raising concern about the adequacy of future gas supplies, especially in periods of peak heating or cooling demand. Total demand for natural gas in the United States is met by a combination of natural gas production, underground gas storage, imported gas, and supplemental gaseous fuels. Unpredictable market forces affect the number of new well completions and recompletions, which are related to drilling activity and rig efficiency. These forces include prices for oil and gas, imports, gas storage, regulatory changes, market dynamics, and total system deliverability. This report addresses these concerns for the natural gas production element of total demand by presenting an historical analysis of the monthly productive capacity of natural gas at the wellhead for 1985 through 1995 and projecting productive capacity for 1996 and 1997. The impact of drilling, well completions, oil and gas price assumptions, and demand on gas productive capacity are integrated into the capacity projections as low, base, and high cases to account for the unpredictable market forces. The base case reflects what would most likely occur if current market trends continue and drilling and production levels perform as they have in the past. The high case reflects an increase in the amount of drilling and favorable market conditions, while the low case reflects a decrease in drilling due to less favorable market conditions.

Completion Date: August 1997
http//:www.eia.doe.gov/analysis/96anal12.htm

EIA 1997 Press Releases	Number	Date Issued
Alternatives to Traditional Fuels, Vehicles Continue to Make Inroads in U.S. Markets	EIA-97-01	01/02/97
EIA Short-Term Outlook Projects Downtrend in Crude Oil Prices; Heating Fuel Prices Likely to Remain Above Last Year's Levels	EIA-97-02	01/03/97
Projected Natural Gas Supplies Adequate Through 1997	EIA-97-03	01 /03/97
States Test Giving Residential Natural Gas Customers Freedom to Choose Among Competing Sellers	EIA-97-04	01/07/97
Move to Competition Raises Critical Issues for Electric Power Industry, Regulators	EIA-97-05	01/27/97
U.S. Uranium Production Up 5 Percent in 1996	EIA-97-06	01/31/97
Profits High for Major Energy Companies in 1995 Despite Near-Zero Return from Refining	EIA-97-07	02/03/97
EIA Says Fuel Supplies Adequate With Assist from Warmer-Than-Normal Weather	EIA-97-08	03/05/97
EIA Resumes Semimonthly Dissemination of Residential Winter Fuels Prices	EIA-97-09	03/12/97
Compliance Costs Low as Utilities Meet Clean Air Requirements; Lower Sulfur Coal, Emission Allowances Play Key Roles	EIA-97-10	03/25/97
EIA Forecasts 1997 Summer Gasoline Prices Slightly Below Last Summer's Levels	EIA-97-11	04/03/97
U.S. Uranium Industry Continues Turnaround; EIA Reports Production, Employment Up in 1996	EIA-97-12	05/01/97
EIA Projects Developing Asia to Outstrip U.S. Energy Demand by 2005	EIA-97-13	05/06/97
Renewable Energy Expands Market Share in 1995	EIA-97-14	05/15/97
EIA Begins Publication of Weekly Retail Diesel Prices for California, New England, Central Atlantic, and Lower Atlantic Regions	EIA-97-15	05/28/97
EIA Anticipates Rise in Demand for Natural Gas	EIA-97-16	07/07/97
EIA Analyzes Spring Motor Gasoline Price Behavior; Forecasts Lower Prices to Continue through Labor Day	EIA-97-17	08/05/97
EIA Sees Lower Gasoline Prices Continuing Despite Rise in Summer Gasoline Demand	EIA-97-18	08/06/97
EIA Says Competition Likely to Lower Electricity Prices in Most Areas	EIA-97-19	08/13/97
Minivans and Sport-Utility Vehicles Take Off	EIA-97-20	08/15/97
Energy Conservation Measures Widespread, EIA Study Finds	EIA-97-21	08/21/97
Note to Editors (Caution in the Use of EIA Statistics When Covering U.S. Electricity Industry)	EN-97-01	09/02/97
Hydroelectric Generation Up at Electric Utilities, as Natural Gas Plant Output Drops in 1996	EIA-97-22	09/08/97
U.S. Natural Gas Reserves Up Again: 1996 Increase Marks 3-Year Trend	EIA-97-23	09/18/97
EIA Analyzes Oil Markets for Clues to Changing Conditions	EIA-97-24	09/19/97
Natural Gas Use Reaches Record Levels in Residential, Industrial Sectors	EIA-97-25	09/26/97
Nuclear Energy Provides Growing Share of Electric Power	EIA-97-26	10/06/97
EIA Says Use of Alternative Fueled Vehicles, Alternative Transportation Fuels on Rise	EIA-97-27	10/08/97
EIA Expects Lower Prices for Heating Fuels This Winter	EIA-97-28	10/08/97
Argentina, Australia, UK Pioneer Electricity Industry Reform, Open Electricity Sectors to Foreign Investment	EIA-97-29	10/20/97
Colder Than Average Weather Fuels Greenhouse Gas Emissions Rise in 1996	EIA-97-30	10/20/97
Participation Up in Voluntary Program to Reduce Greenhouse Emissions	EIA-97-31	10/24/97
EIA Study Shows Environmental Costs Play Minor Role in Declining Profitability of Major U.S Refining Operations	EIA-97-32	11/05/97
Electricity Production Boosts Renewable Energy Use	EIA-97-33	11/10/97
Energy Use, Carbon Emissions Continue to Rise in New EIA Forecast; Industry Restructuring, Competition Help Lower Electricity Prices	EIA-97-34	11/12/97
Coal Production Sets New Record in 1996 As Number of Mines Continues to Decline	EIA-97-35	11/18/97
Oil, Gas Potential in Russia's West Siberian Basin Exceeds Estimated Remaining U.S. Resource Base	EIA-97-36	l2/10/97
Natural Gas Key Factor in Future Electricity Price Reductions; Rapid Technological Advances Able to Slow Carbon Emissions	EIA-97-37	12/18/97
Gasoline Price Decline Gives Consumers a Holiday Gift	EIA-97-38	12/23/97

Energy Information Administration Periodical Released in 1997

	Petroleum	Petroleum & Natural Gas	Natural Gas	Electricity	Coal	Nuclear Energy	Solar & Renewable Energy	Multisource Energy	Energy Consumption	Metadata
Weekly/ Biweekly	Crude Oil Watch *(Electronic Only)* Distillate Watch *(Electronic Only)* Motor Gasoline Watch *(Electronic Only)* Petroleum Market Report *(Electronic Only)* Propane Watch *(Electronic Only)* Weekly Petroleum Status Report		Natural Gas Weekly: Market Update *(Electronic Only)*		Weekly Coal Production *(Electronic Only)*					
Monthly/ Bimonthly	International Petroleum Statistics Report Petroleum Marketing Monthly Petroleum Supply Monthly		Natural Gas Monthly	Electric Power Monthly				Monthly Energy Review		
Quarterly					Quarterly Coal Report			Short-Term Energy Outlook: Quarterly Projections		EIA New Releases *(Electronic Only)*

ENERGY INFORMATION ADMINISTRATION PERIODICAL RELEASED IN 1997 *(CONTINUED)*

	Petroleum	Petroleum & Natural Gas	Natural Gas	Electricity	Coal	Nuclear Energy	Solar & Renewable Energy	Multisource Energy	Energy Consumption	Metadata
Annual/Other	Emissions of Greenhouse Gases in the United States 1996 Fuel Oil and Kerosene Sales 1996 Motor Gasoline Assessment, Spring 1997 Petroleum Marketing Annual 1996 *(Electronic Only)* Petroleum Supply Annual 1996, Vol. 1 Petroleum Supply Annual 1996, Vol. 2 Petroleum 1996: Issues and Trends	Advanced Summary of the U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1996 Annual Report Oil and Gas Resources of the West Siberian Basin, Russia U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1996 Annual Report	Natural Gas Annual 1996	The Changing Structure of the Electric Power Industry: An Update Cost and Quality of Fuels for Electric Utility Plants 1996 *(Electronic Only)* The Effects of Title IV of the Clean Air Act Amendments of 1990 on Electric Utilities: An Update Electric Power Annual 1996, Vol. 1 Electric Sales and Revenue 1995 and 1996 Financial Statistics of Major U.S. Investor-Owned Electric Utilities 1995 Financial Statistics of Major U.S. Investor-Owned Electric Utilities 1996	Coal Industry Annual 1996	Nuclear Power Generation and Fuel Cycle Report 1997 Uranium Industry Annual 1996	Renewable Energy Annual 1996	Alternatives to Traditional Transportation Fuels 1996 Annual Energy Outlook 1998 Annual Energy Review 1996 International Energy Outlook 1997 Issues in Midterm Analysis and Forecasting 1997 National Energy Modeling System: An Overview Performance Profiles of Major Energy Producers 1995 State Energy Data Report 1995: Consumption Estimates State Energy Price and Expenditure Report 1994	Household Vehicles Energy Consumption 1994 Manufacturing Consumption of Energy 1994	Annual Report to Congress 1996 EIA Publications Directory 1996 Energy Education Resources: Kindergarten through 12th Grade 1996 Energy Information Directory 1996 Energy Information Directory 1997

	Petroleum	Petroleum & Natural Gas	Natural Gas	Electricity	Coal	Nuclear Energy	Solar & Renewable Energy	Multisource Energy	Energy Consumption	Metadata
Annual/Other *(Continued)*				Financial Statistics of Major U.S. Publicly-Owned Electric Utilities 1995 Inventory of Power Plants in the U.S. 1995 U.S. Electric Utility Demand-Side Management 1995 U.S. Electric Utility Demand-Side Management 1996						

ENERGY INFORMATION ADMINISTRATION ONE-TIME REPORTS RELEASED IN 1997

	Petroleum & Natural Gas	Natural Gas	Electricity	Coal	Renewable & Alternate Fuels	Nuclear Energy	Energy Markets & End Use
Data Reports, Analysis Reports, Documentation Reports, and Service Reports	Analysis of U.S. Propane Markets Winter 1996-97 Documentation of the Oil and Gas Supply Module EIA Model Documentation: Petroleum Market Model of the National Energy Modeling System Mitigating Greenhouse Gas Emissions: Voluntary Reporting Motor Gasoline Assessment, Spring 1997	Model Documentation: Natural Gas Transmission and Distribution Model of the National Energy Modeling System	EIA Model Documentation: Electricity Market Module, Electricity Fuel Dispatch Electricity Prices in a Competitive Environment Electricity Reform Abroad and U.S. Investment	Model Documentation: Coal Market Module of the National Energy Modeling System	Model Documentation: Renewable Fuels Module of the National Energy Modeling System		An Analysis of Carbon Stabilization Cases EIA Documentation Residential Sector Demand Module of the National Energy Modeling System 1997 EIA Model Documentation: Industrial Sector Demand Module of the National Energy Modeling System EIA Model Documentation: Transportation Sector Model of the National Energy Modeling System Model Documentation Report: Commercial Sector Demand Module of the National Energy Modeling System Model Documentation Report: Macroeconomic Activity Module of the National Energy Modeling System National Energy Modeling System Integrating Module Documentation Report Residential Sector Demand Module of the National Energy Modeling System 1997

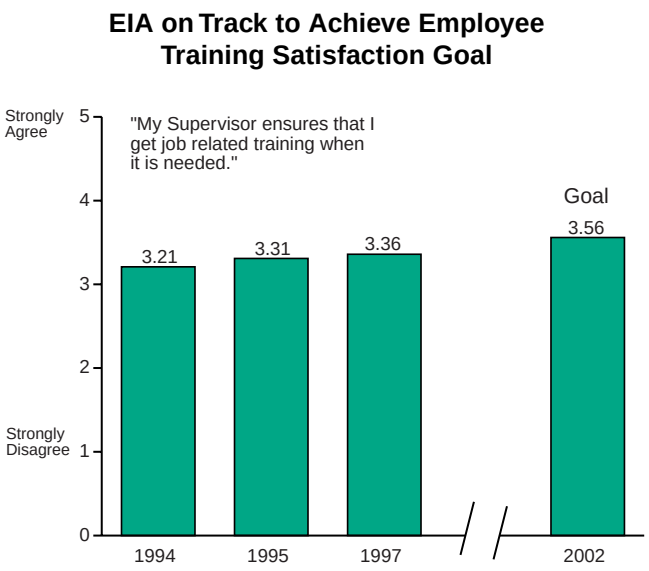
APPENDIX B. SELECTED 1997 PERFORMANCE MEASURES

EIA's most recent strategic plan contains five strategic goals and 22 objectives.

This appendix includes graphs of performance measures showing EIA's progress in meeting some of these objectives, specifically those for which we have quantitative data, and the latest data available. Each objective ties to one of the five EIA strategic goals, which are listed on page 21. Additional objectives, not shown here, are measured by qualitative discussion and analysis.

OBJECTIVE: EIA will support its employees in acquiring the *training* necessary for them to do their jobs well between 1998 and 2000.

Figure B1 Satisfaction With Training



Note: Converted from a 7 to 5 point scale.

Figure B2 Training Courses Taken

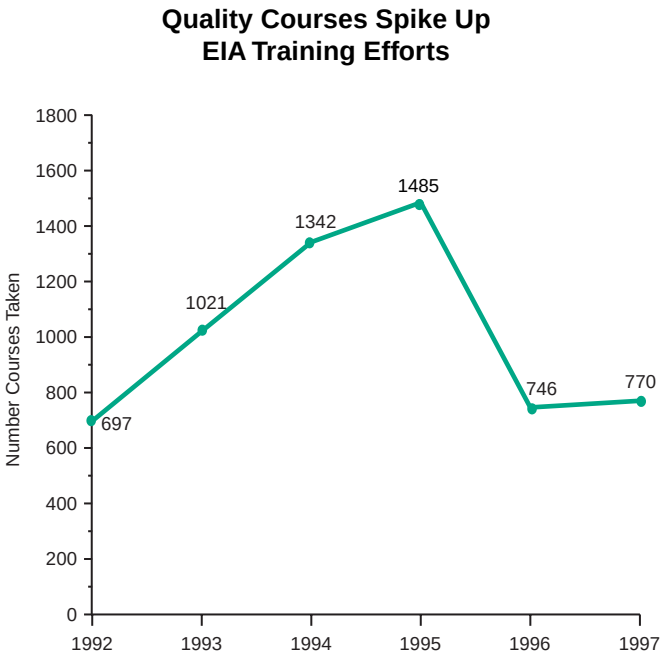
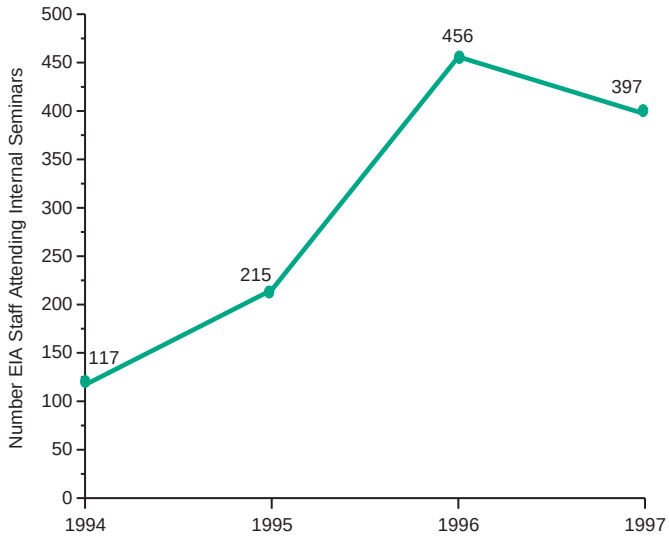


FIGURE B3 In-House Seminars



OBJECTIVE: EIA teams will acquire and use effective *team-building skills* in carrying out team-related work by 2000.

Figure B4 Mission Understanding

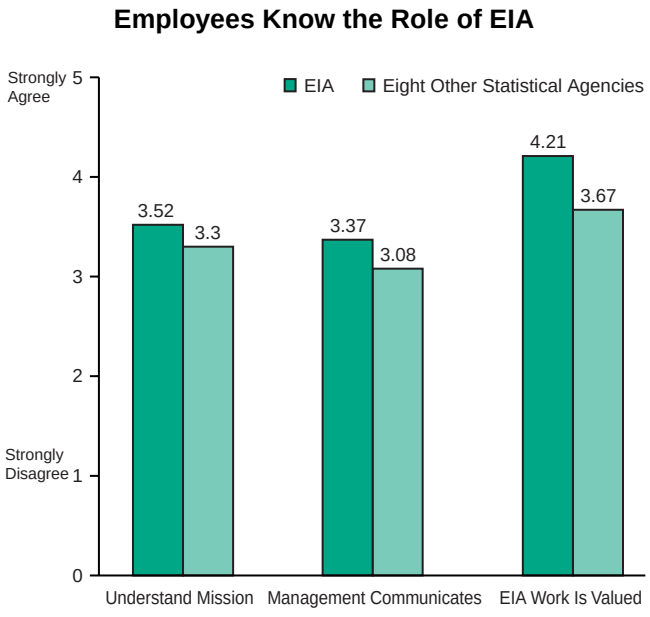


Figure B5 Work Climate

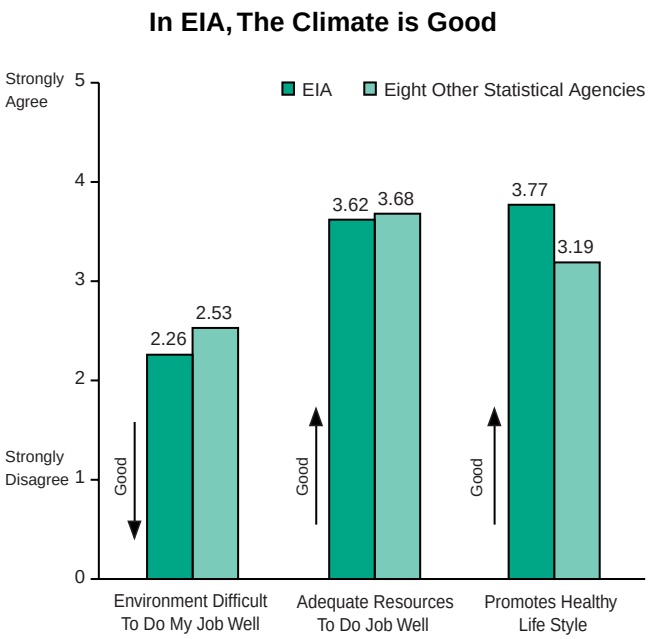


FIGURE B6 Job Satisfaction

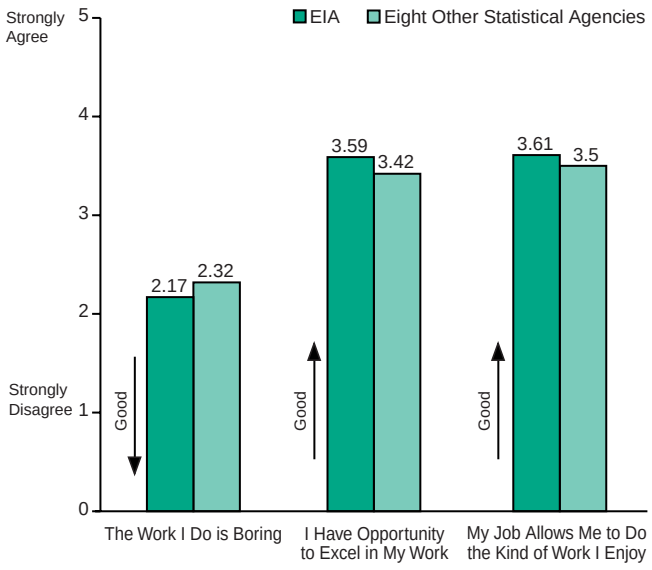
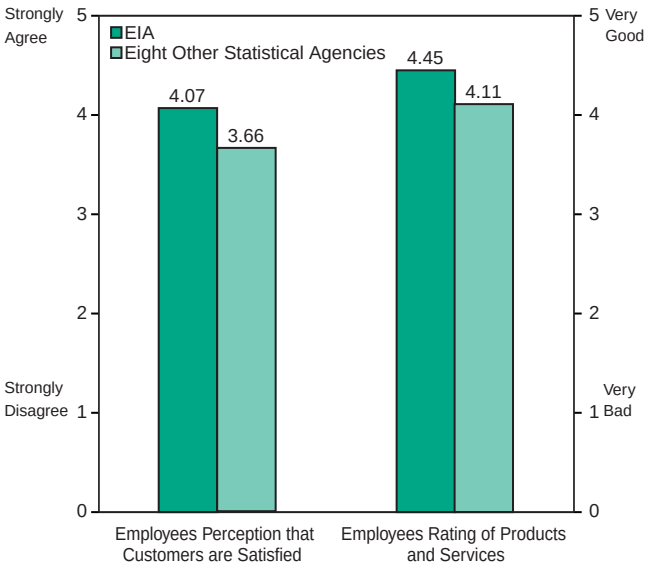


Figure B7 Employees' Perceptions of Customer Satisfaction and Quality



OBJECTIVE: EIA will improve customer satisfaction with the *accuracy* and the *relevance* of its data and analyses between 1998 and 2000.

Figure B8 Satisfaction with Information Quality

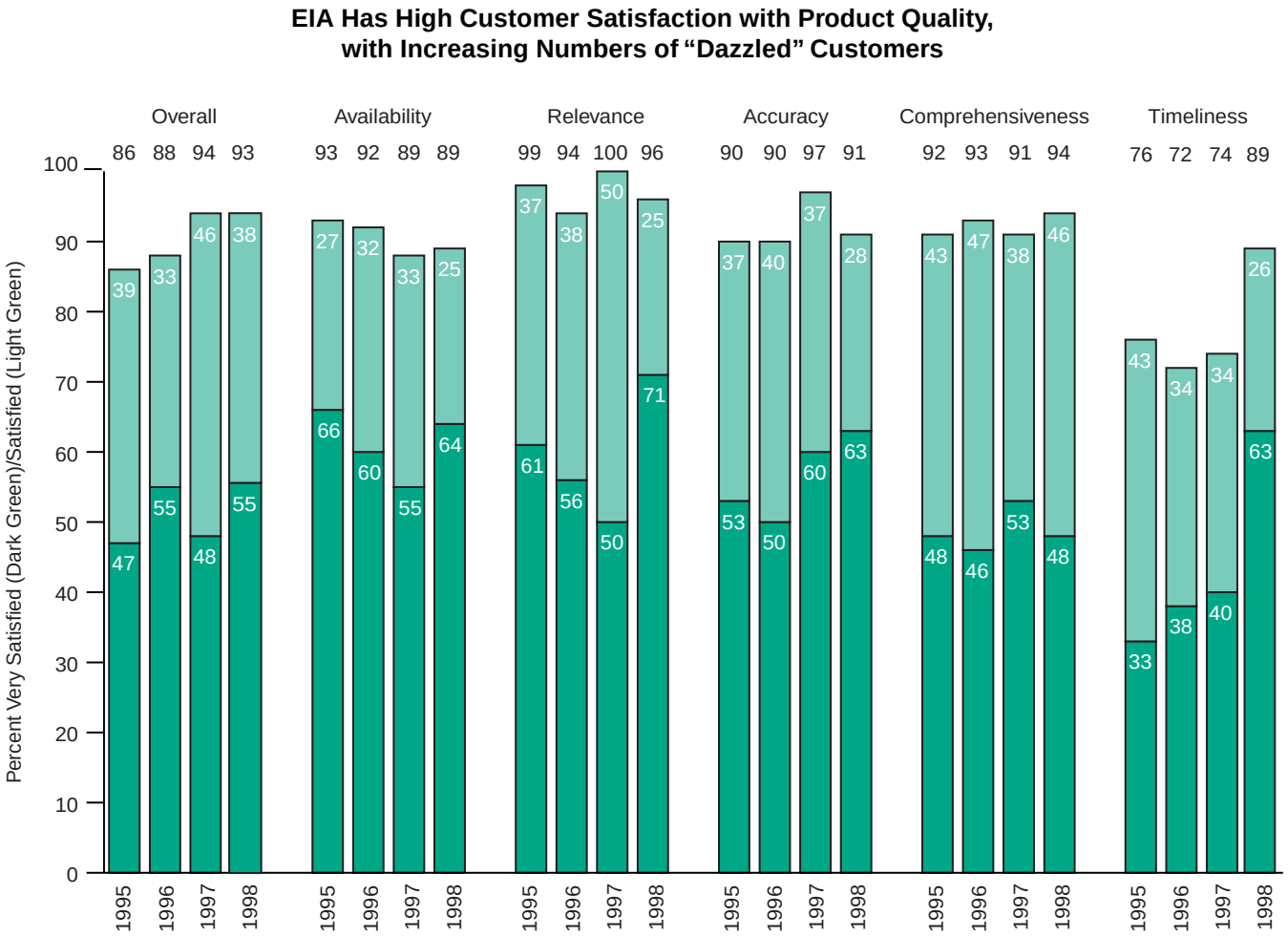


Figure B9 Most Important Attribute: Telephone

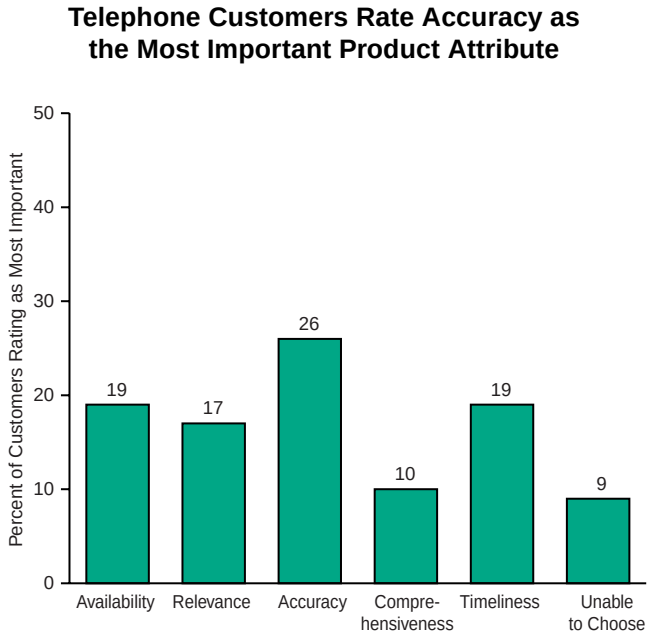
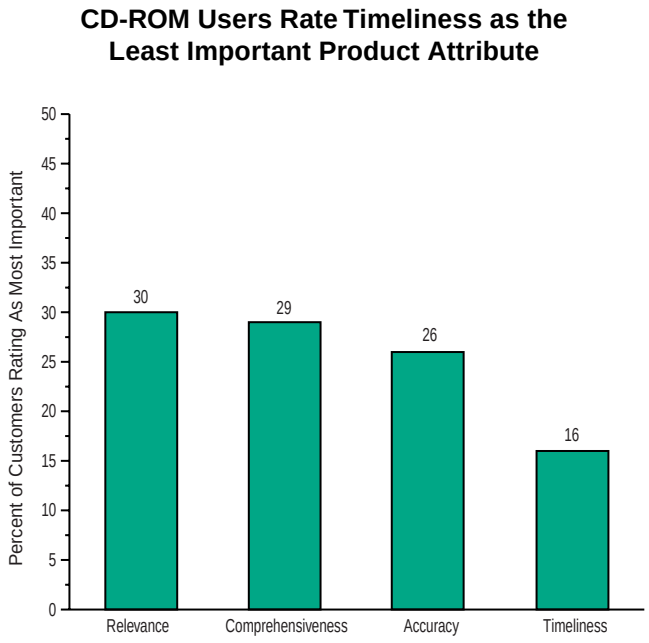


FIGURE B10 Most Important Attribute: CD-ROM



OBJECTIVE: *Data accuracy* will remain stable, or improve over time, as EIA improves the timeliness of its data and analysis products between 1998 and 2002.

Figure B11 Accuracy — Petroleum Marketing Data

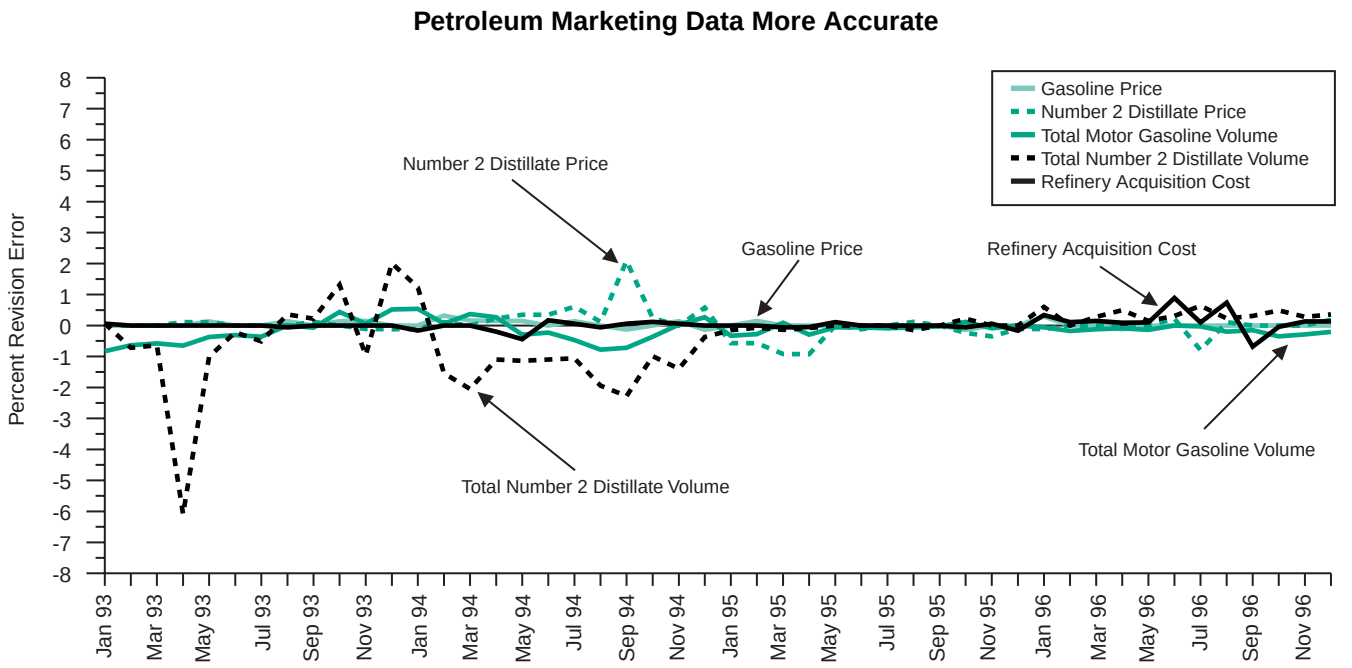


Figure B12 Accuracy — Petroleum Supply Data

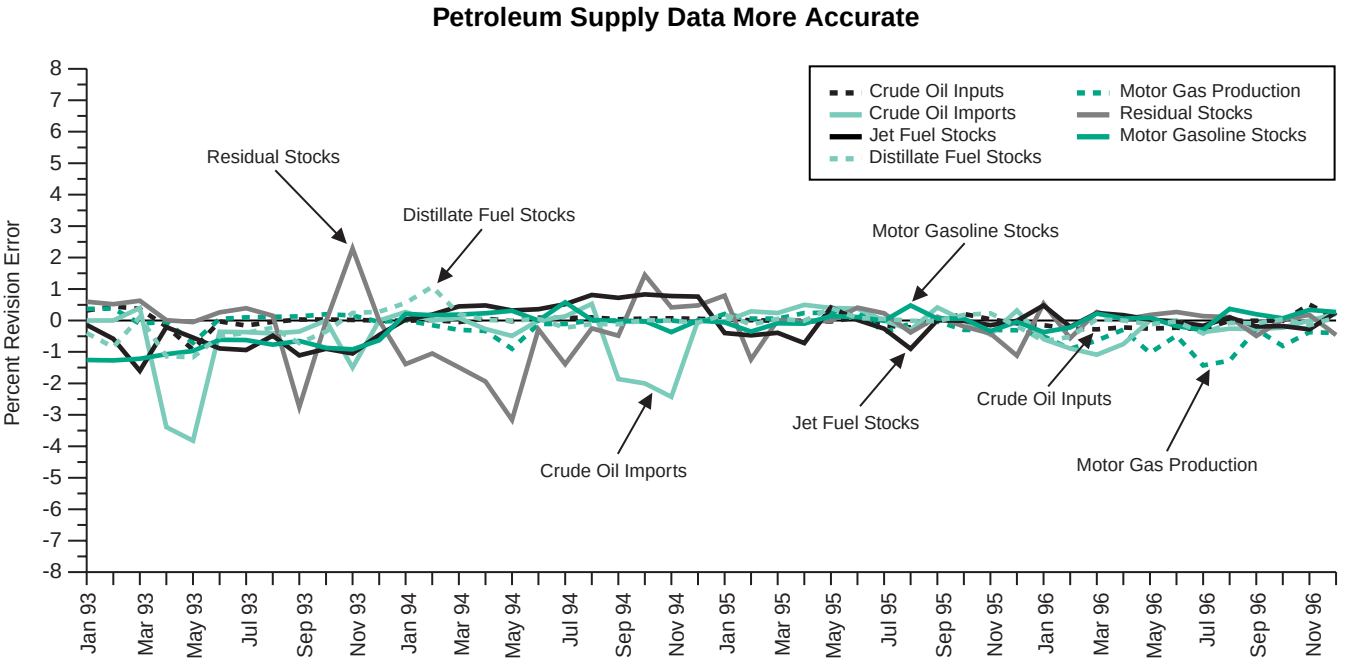


Figure B13 Accuracy — Coal Data

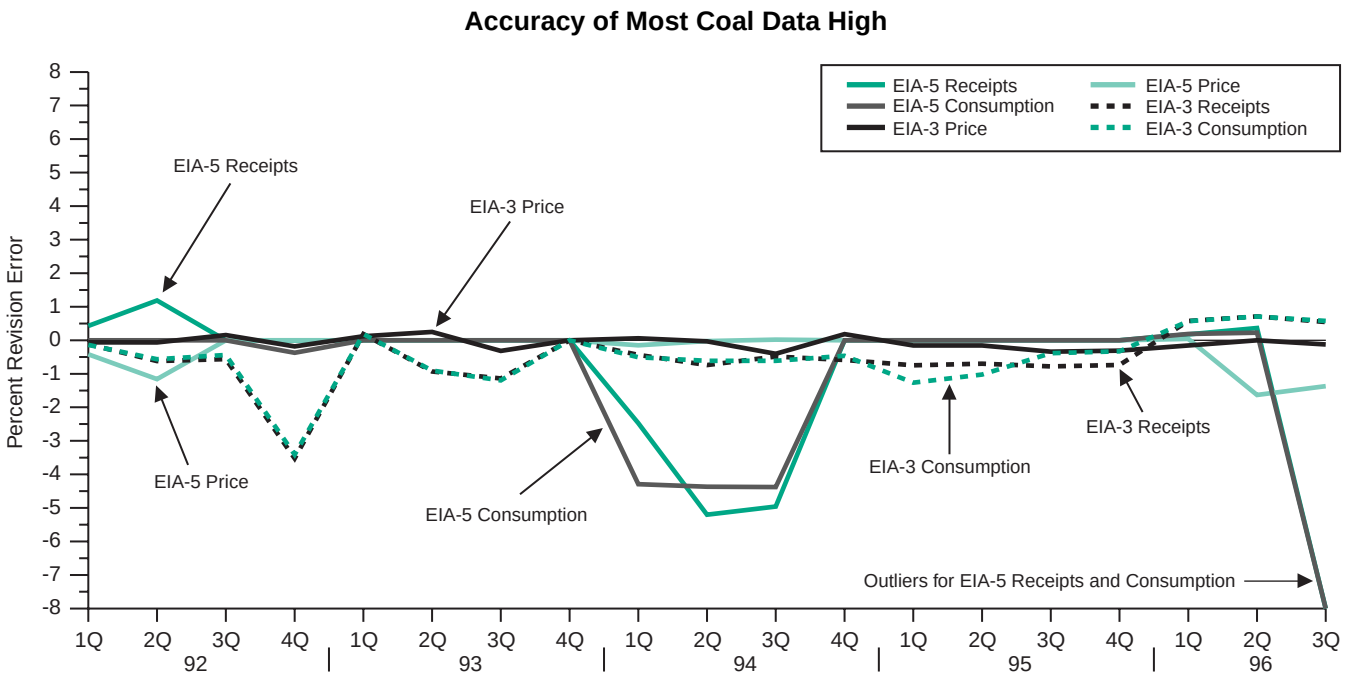


Figure B14 Accuracy — Natural Gas Data

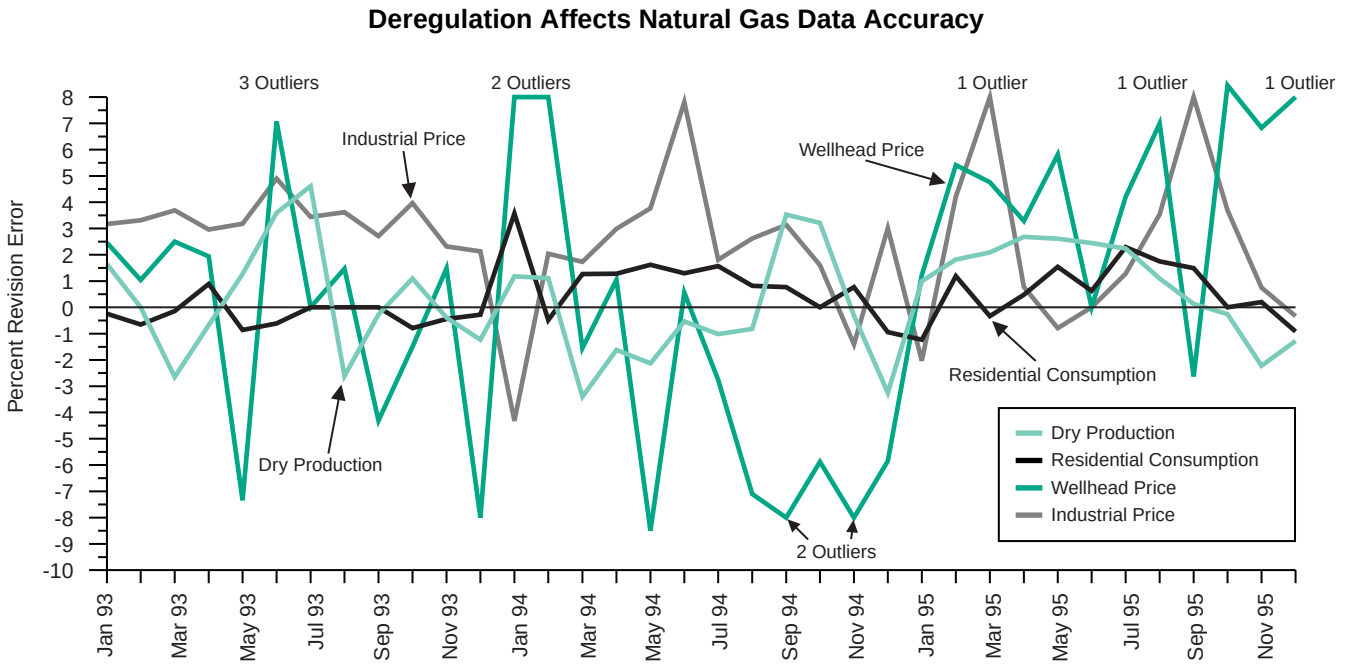


Figure B15 Accuracy — Electric Power Data

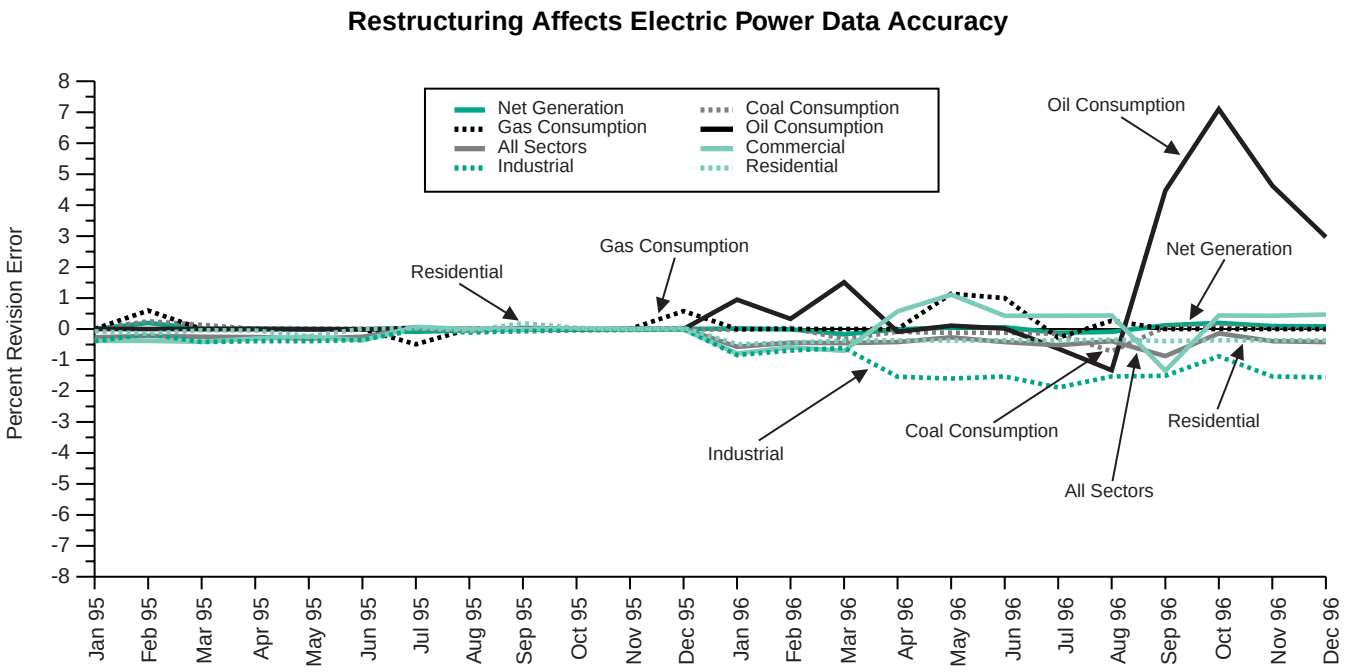
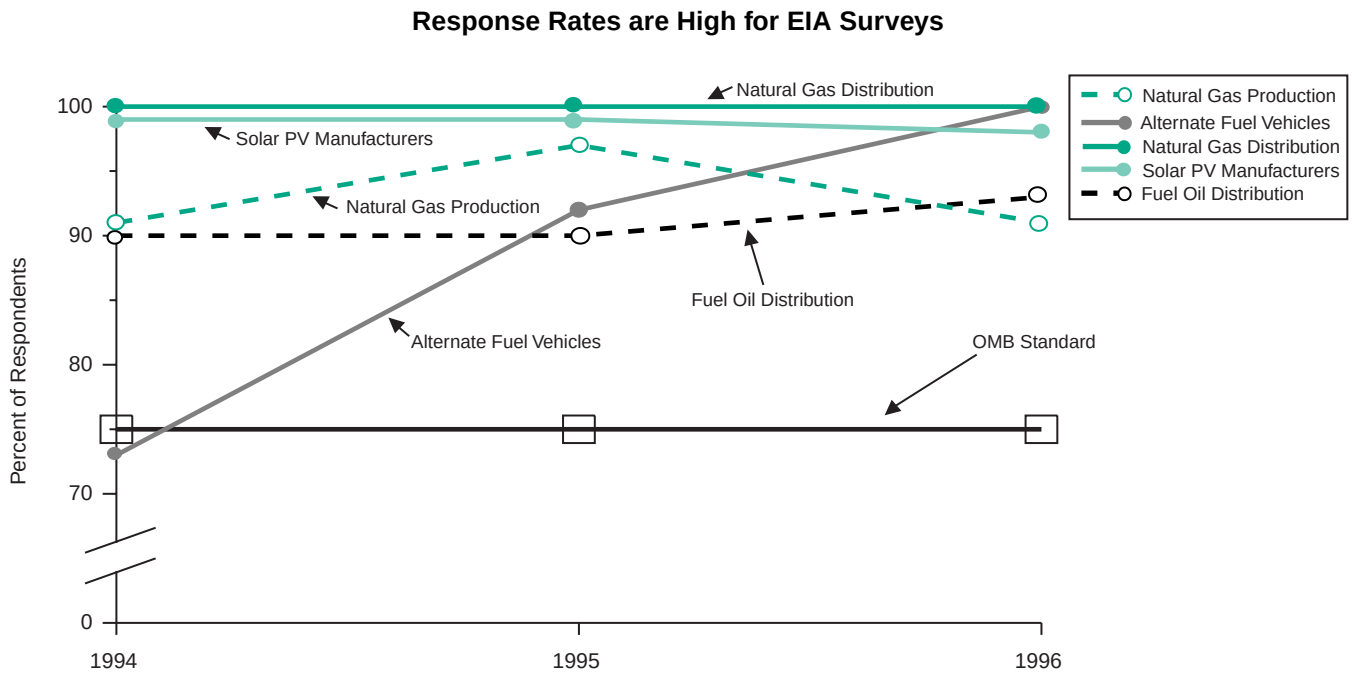
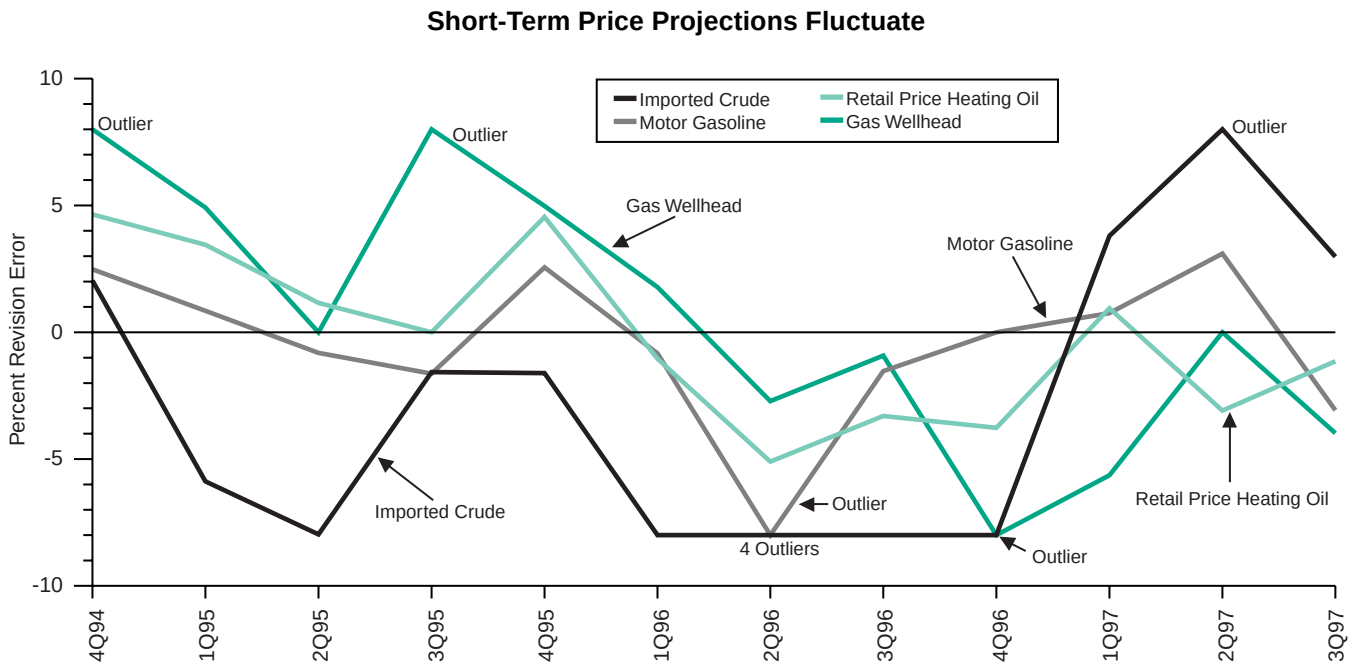


Figure B16 Response Rates for Annual Surveys



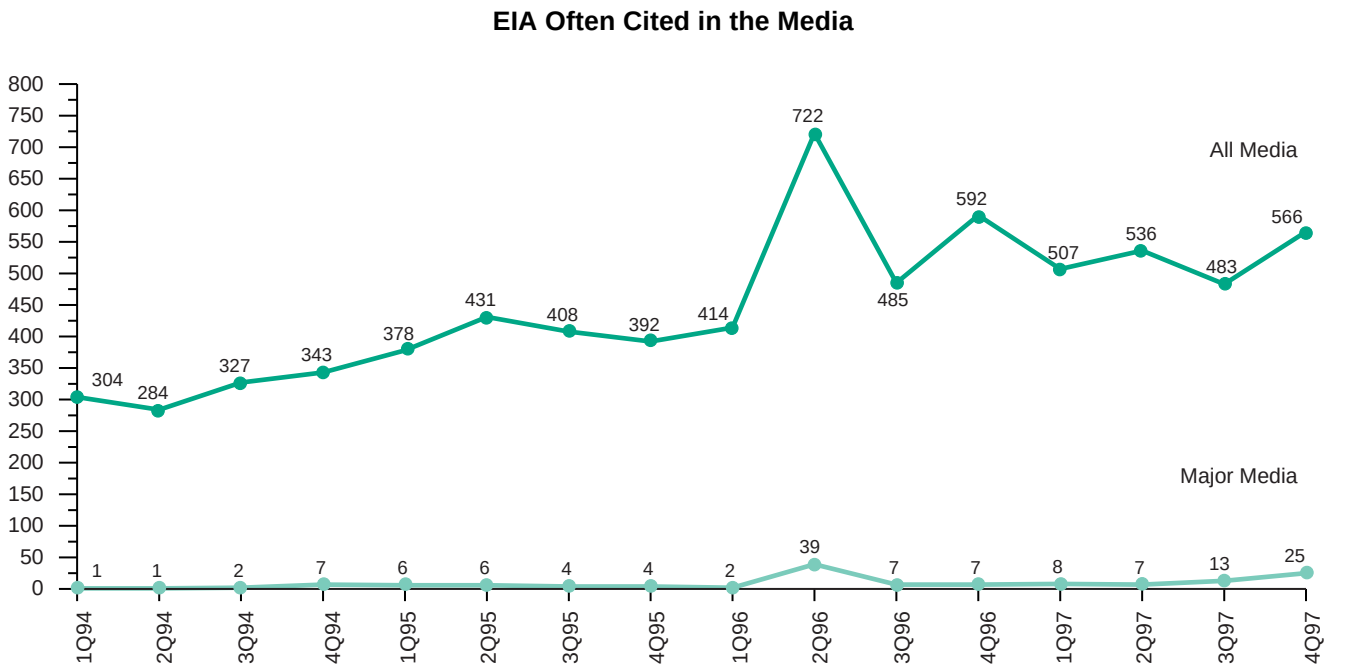
OBJECTIVE: *Forecast credibility* will remain stable, or improve over time, as EIA improves the timeliness of its products between 1998 and 2002.

Figure B17 STEO Petroleum Prices Forecast Accuracy



OBJECTIVE: EIA will increase the number of *citations* of energy information attributed to EIA in the news *media* between 1998 and 2002.

Figure B18 Citations of EIA Information in Media



OBJECTIVE: EIA will *increase its customer base* between 1998 and 2002.

Figure B19 Web Site Customer History

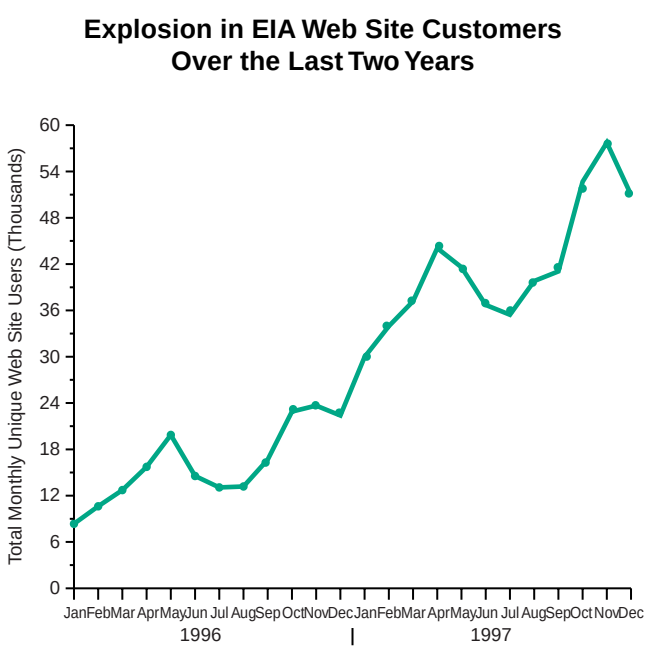


Figure B20 Files Accessed Electronically

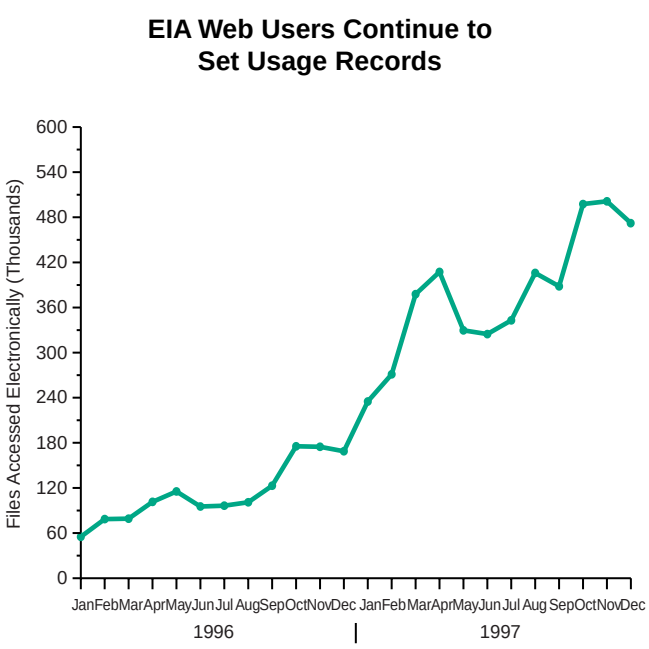


FIGURE B21 Listserv Customers

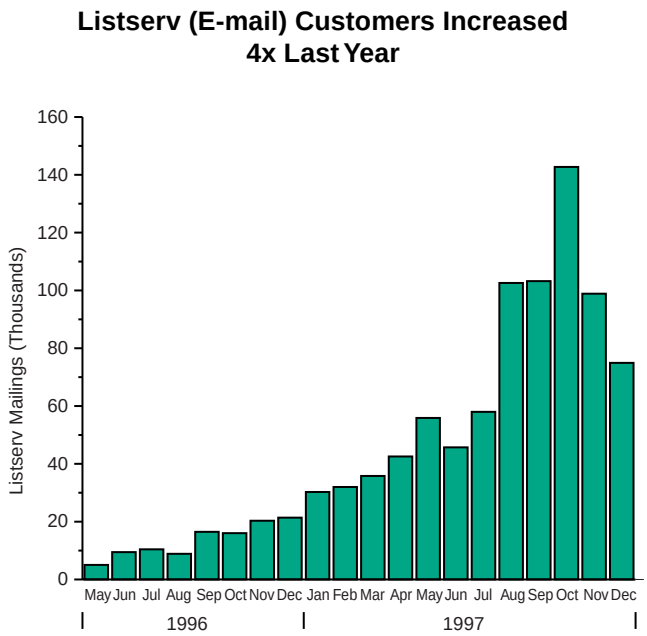
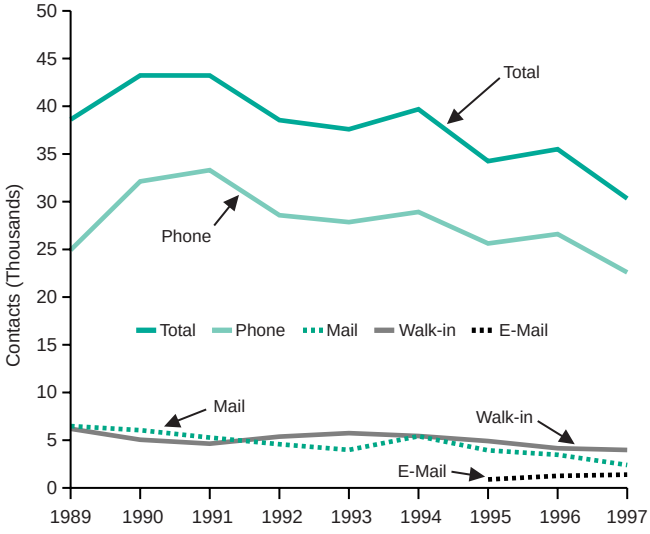


Figure B22 National Energy Information Center Contacts by Type



OBJECTIVE: EIA will improve the *design and delivery* of EIA products and services between 1998 and 2002 to take full advantage of electronic dissemination of energy information to our customers.

Figure B23 Satisfaction with "Easy to Use" by Product

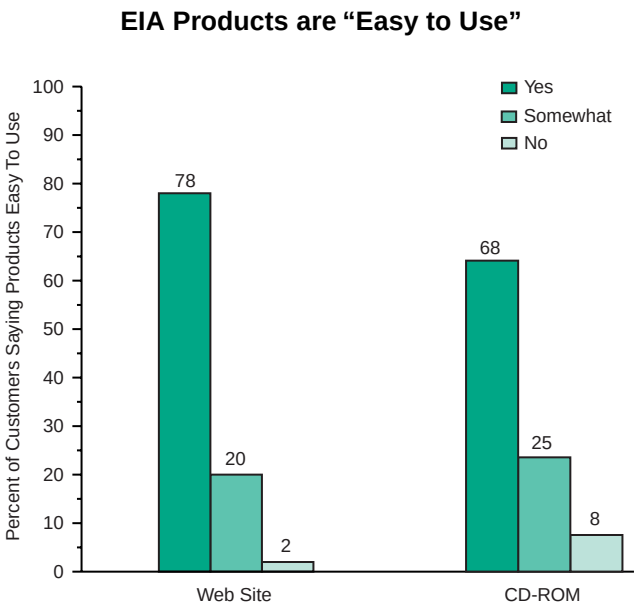


Figure B24 Satisfaction with "Meets Needs" by Mode of Access

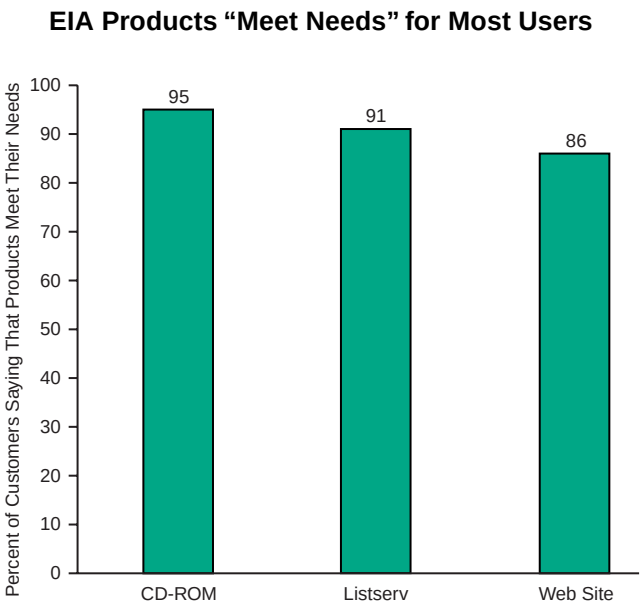


FIGURE B25

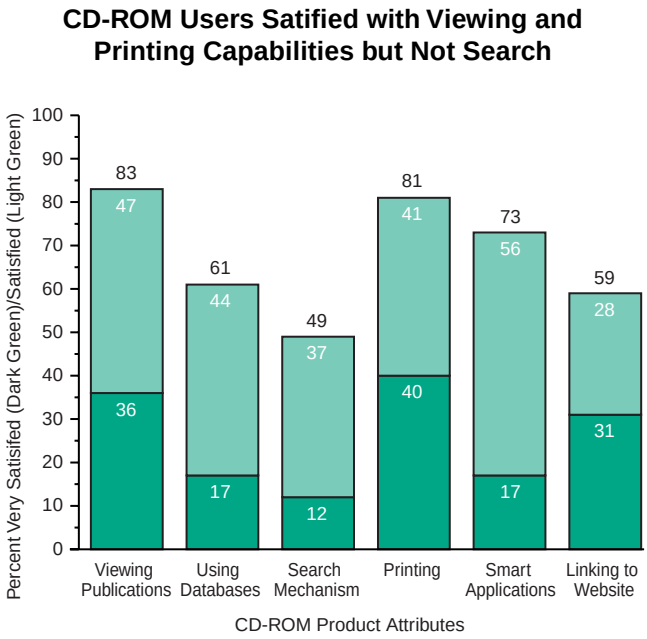


Figure B26 Number of EIA Publications

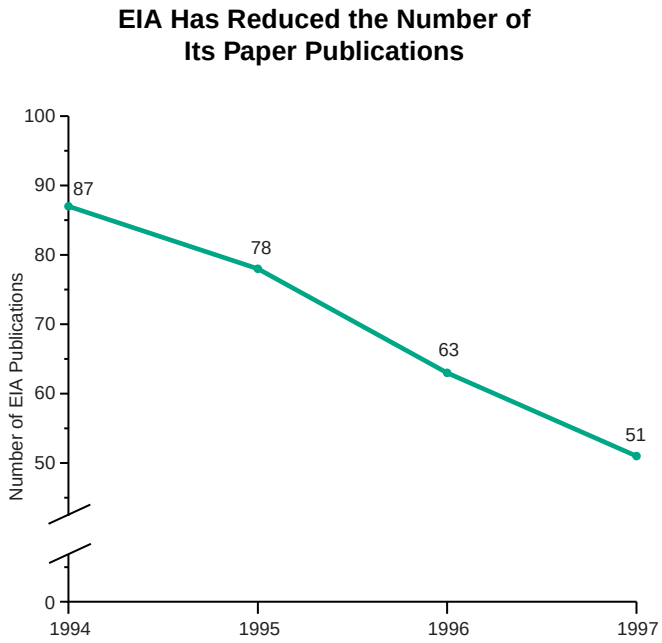
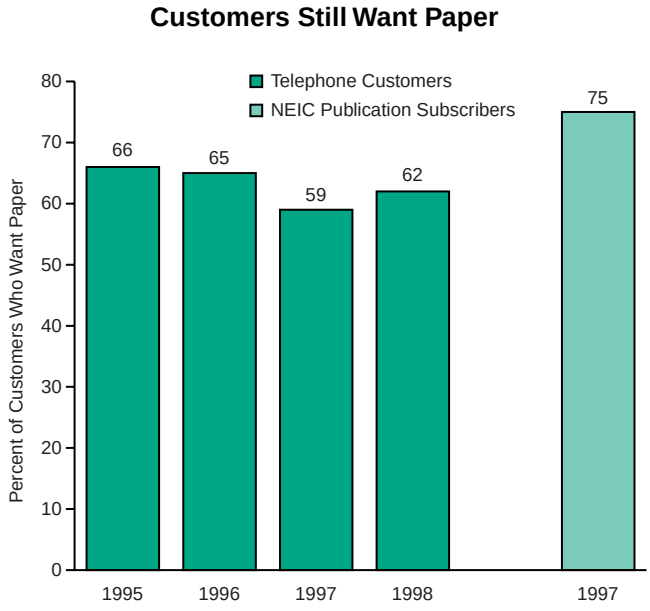
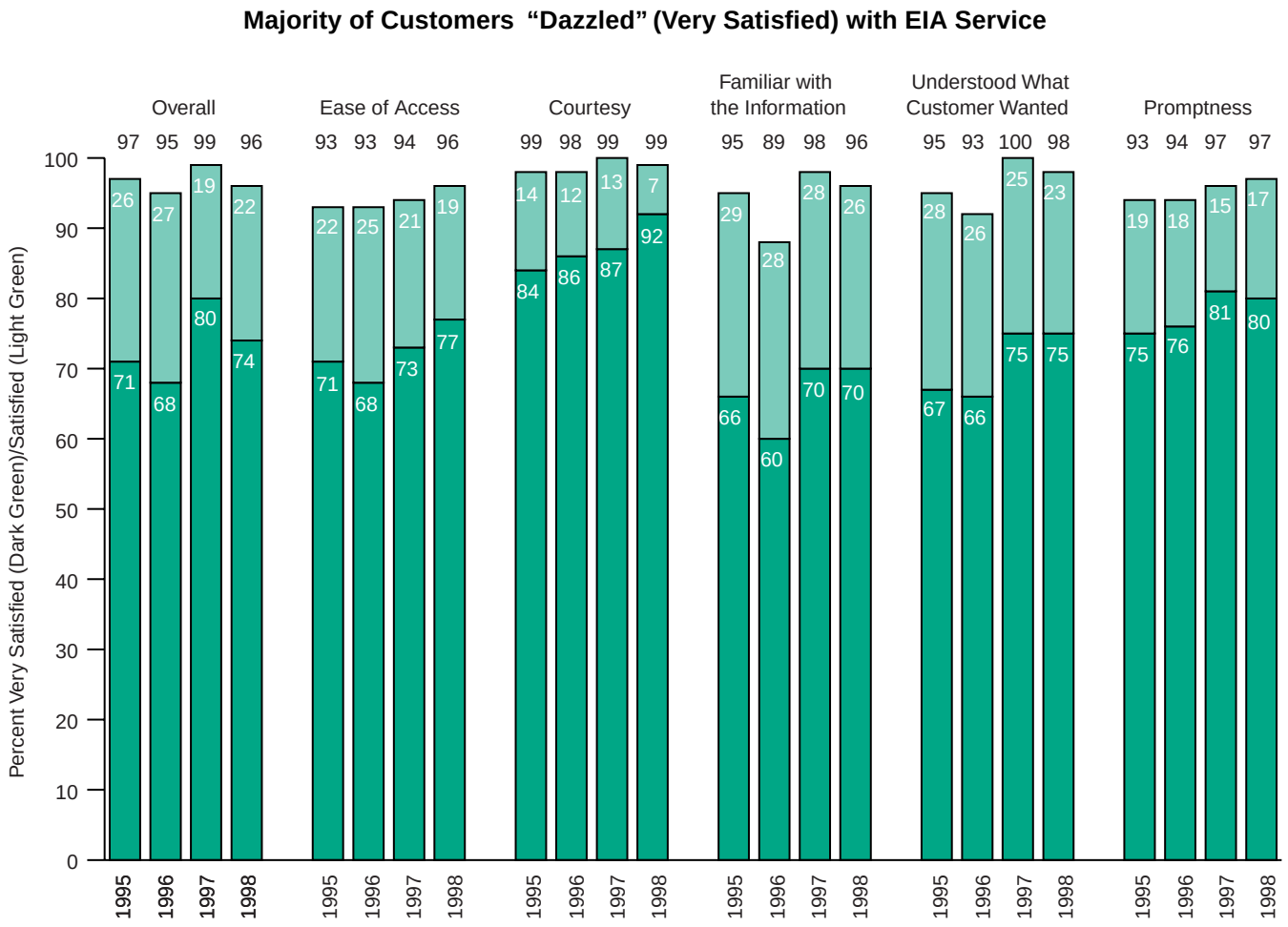


Figure B27 Customers Preferring Paper Copy



OBJECTIVE: EIA will improve customer satisfaction with *overall customer service* between 1998 and 2002.

Figure B28 Customer Satisfaction with Service



OBJECTIVE: EIA will improve customer satisfaction with *timeliness* between 1998 and 2002.

Figure B29 Satisfaction with Overall Timeliness

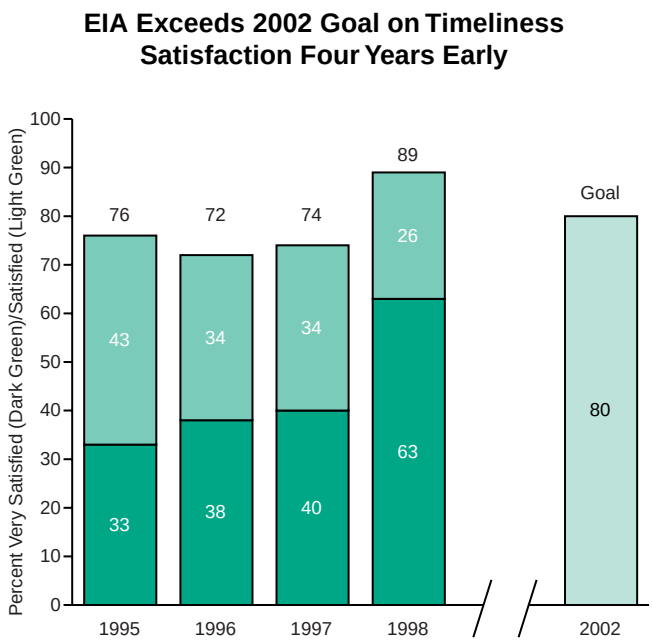
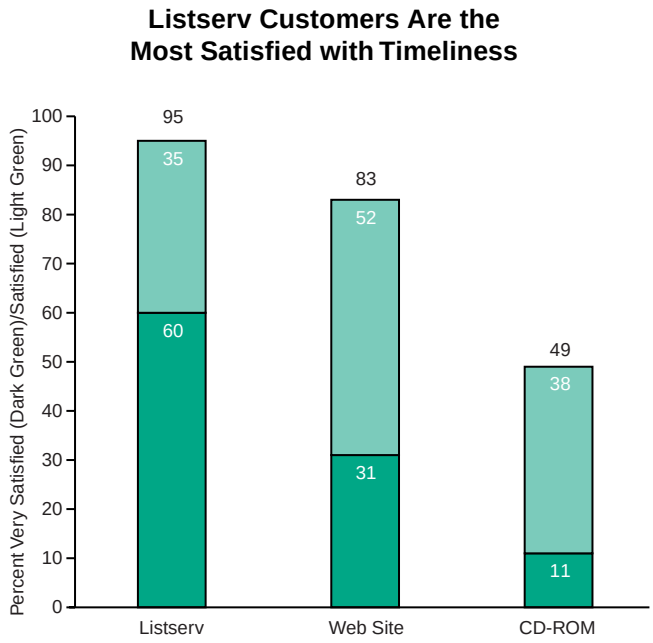


Figure B30 Satisfaction with Timeliness by Mode of Access



OBJECTIVE: EIA will improve the *timeliness* of its products between 1998 and 2002.

Figure B31 Date of Issue of Paper Products Following Close of Reporting Period: Annual Publications

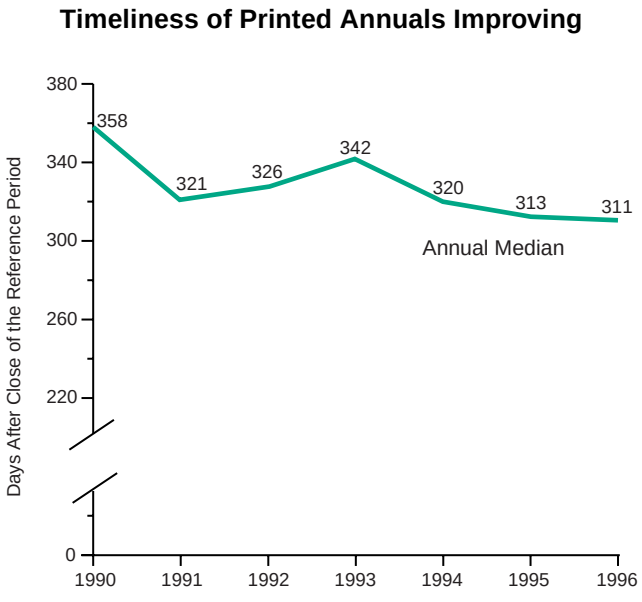
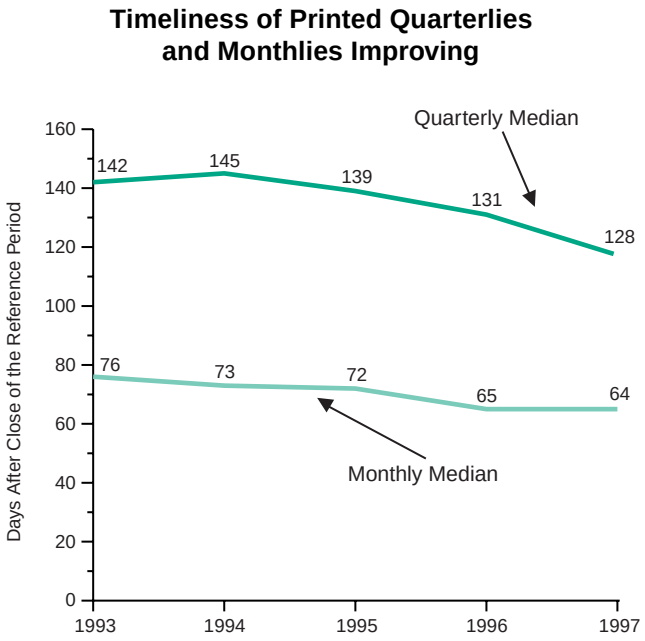


Figure B32 Date of Issue of Paper Products Following Close of Reporting Period: Quarterly and Monthly Publications



OBJECTIVE: EIA offices will sustain or *improve their level of service* between 1998 and 2002 without budget adjustments to account for inflation.

Figure B33 EIA Budget, Web Site Accesses, Media Citations

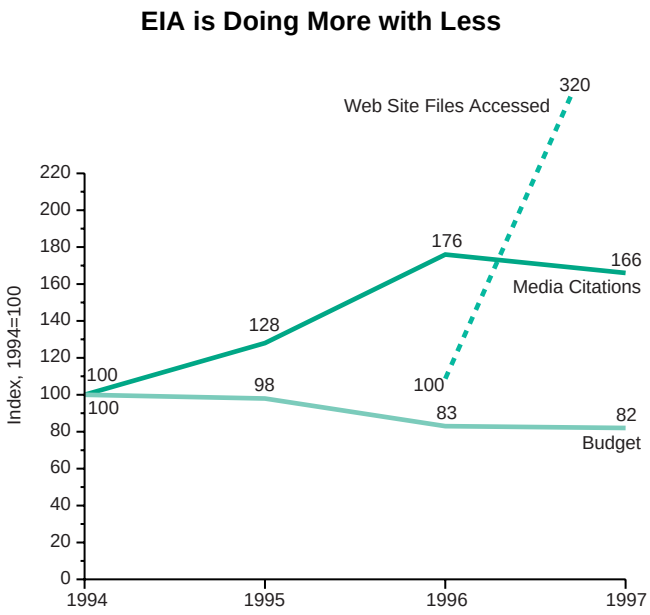


Figure B34 EIA Rent Costs History

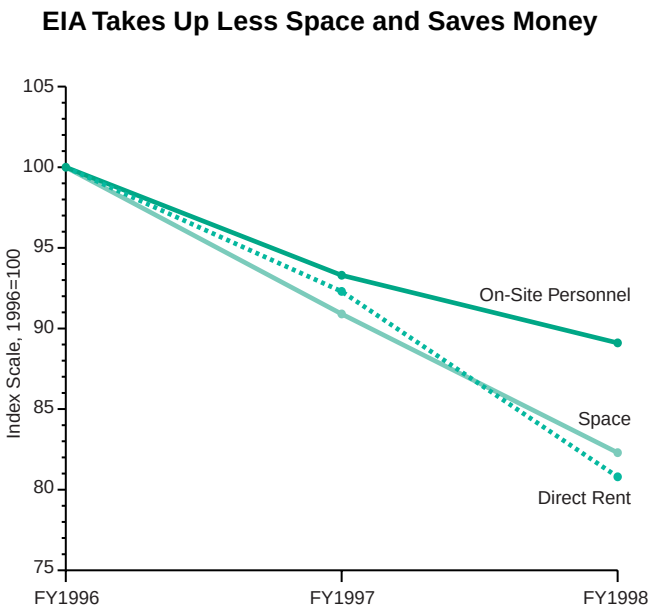


FIGURE B35 EIA Overhead Costs History

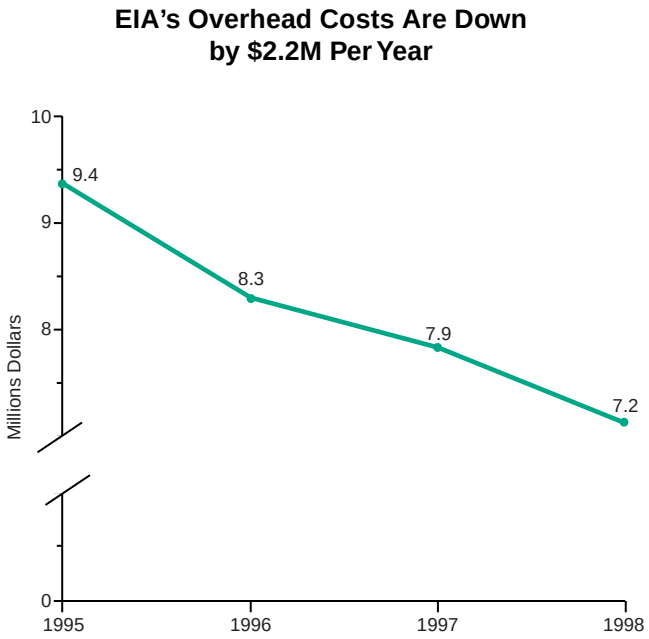


FIGURE B36 EIA Budget History

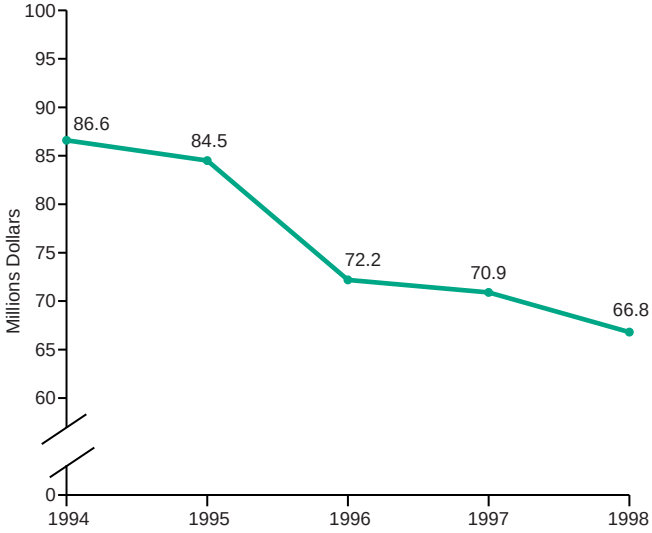
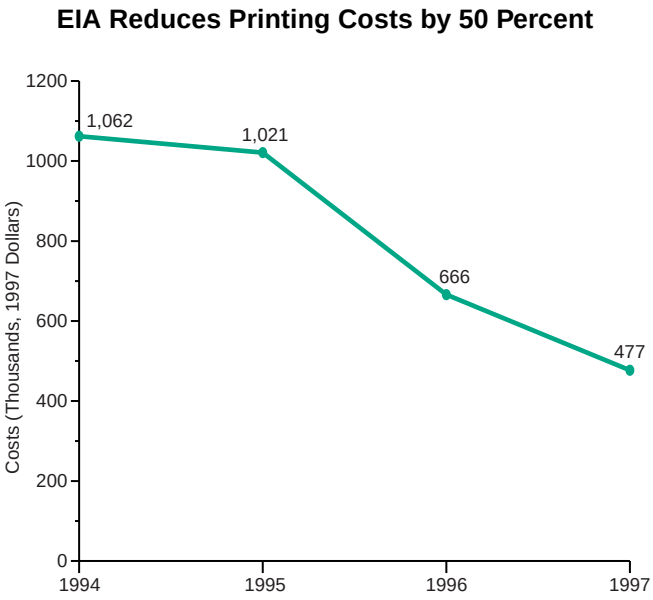


Figure B37 Printing Costs



Appendix C. Energy Information Administration

EIA Senior Management

Administrator	Jay Hakes	jhakes@eia.doe.gov
Deputy Administrator	Larry Pettis	lpettis@eia.doe.gov

EIA Office Directors

Statistics and Methods Group	Lynda Carlson	lcarlson@eia.doe.gov
Office of Coal, Nuclear, Electric and Alternate Fuels	John Geidl	jgeidl@eia.doe.gov
Information Technology Group	Charles Heath	cheath@eia.doe.gov
Office of Integrated Analysis and Forecasting	Mary Hutzler	mhutzler@eia.doe.gov
Office of Energy Markets and End Use	Cal Kilgore	ckilgore@eia.doe.gov
Office of Oil and Gas	Kenneth Vagts	kvagts@eia.doe.gov
National Energy Information Center	John Weiner	jweiner@eia.doe.gov
Office of Resource Management	Bruce Dwyer, Co-Director Stephen Durbin, Co-Director	bdwyer@eia.doe.gov sdurbin@eia.doe.gov

Energy Data and Analysis Contacts

All telephone numbers are in area code 202, except where noted otherwise. Each FAX number applies to all names that follow.

General Information:

National Energy Information Center
Phone (202) 586-8800
Fax (202) 586-0727
TTY: For people who are deaf or hard of hearing: (202) 586-1181
e-mail infoctr@eia.doe.gov

COAL

FAX Number: (202) 426-1278

Fuel and/or Specific Data Area	Name	Telephone (202)	E-mail
Annual Mining and Production	Michelle Bowles	426-1155	mbowles@eia.doe.gov
Consumption at Coke Plants	Shelly Anderson	426-1226	sanderso@eia.doe.gov
Consumption at Manufacturing Plants	Joyce Morrison	426-1470	jmorriso@eia.doe.gov
Distribution (Annual)	Tom Murphy	426-1151	tmurphy@eia.doe.gov
Imports/Exports (Quarterly)	Paulette Young	426-1150	pyoung@eia.doe.gov
Monthly Data (Includes Imports/Export Data)	Mary Lilly	426-1150	mlilly@eia.doe.gov
Producer/Distributor Stocks	Tom Murphy	426-1151	tmurphy@eia.doe.gov
Production and Consumption	Mary Paull	426-1153	mpaull@eia.doe.gov
Quarterly Data	Paulette Young	426-1150	pyoung@eia.doe.gov
Reserves	Richard Bonskowski	426-1132	rbonskow@eia.doe.gov
Short-Term Projections and Analysis	Willie Hong	426-1126	bhong@eia.doe.gov
Stocks	Mary Paull	426-1153	mpaull@eia.doe.gov
Weekly Production	Mary Lilly	426-1154	mlilly@eia.doe.gov

ECONOMIC: Analysis

FAX Number: (202)586-9753

Fuel and/or Specific Data Area	Name	Telephone (202)	E-mail
Alternate Energy Financial Analysis	Susanne Johnson	586-4795	susanne.johnson@eia.doe.gov
Coal Industry Financial Analysis	Neal Davis	586-6581	neal.davis@eia.doe.gov
Corporate Finance	Jon A. Rasmussen	586-1449	jon.rasmussen@eia.doe.gov
Domestic Refining and Worldwide Gasoline Marketing Financial Analysis	Neal Davis	586-6581	neal.davis@eia.doe.gov
Energy Taxation	Jon A. Rasmussen	586-1449	jon.rasmussen@eia.doe.gov
Foreign Investment	Neal Davis	586-6581	neal.davis@eia.doe.gov

Foreign Refining and Worldwide Transportation Financial Analysis	Susanne Johnson	586-4795	susanne.johnson@eia.doe.gov
Worldwide Oil and Gas Exploration, Development, and Production Financial Analysis	Larry Spancake	586-8597	larry.spancake@eia.doe.gov

ELECTRIC POWER: Nonutility

FAX Number: (202) 426-1308

Fuel and/or Specific Data Area	Name	Telephone (202)	E-mail
Capacity Generation/ Energy Use/Sales to Grid	Betty Williams	426-1269	bwilliam@eia.doe.gov
Monthly Sales to Electric Utilities	Deborah Bolden	426-1235	dbolden@eia.doe.gov
Nonutility Short-Term Projections	Rebecca McNerney	426-1251	rmcnerne@eia.doe.gov

ELECTRIC POWER: Utility

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Statistical Reports	Melvin Johnson	426-1172	mejohnso@eia.doe.gov
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FORECASTS

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Coal Distribution/End-Use Prices	Richard Newcombe	586-2415	rnewcomb@eia.doe.gov
Coal Exports/Midterm Projections	Michael Mellish	586-2152	mmellish@eia.doe.gov
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Electricity Generation and Cost	J. Alan Beamon	586-2025	abeamon@eia.doe.gov

Electricity Prices/Midterm Projections	Art Holland	586-2026	aholland@eia.doe.gov
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Renewable Energy/Midterm Projections	Tom Petersik	586-6582	tpetersi@eia.doe.gov
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Renewables/Short-Term Projections	David Costello	586-1468	dcostell@eia.doe.gov
Short-Term Energy Outlook	David Costello	586-1468	dcostell@eia.doe.gov
Short-Term Energy Model	John Pearson David Costello	586-6162 586-1468	jpearson@eia.doe.gov dcostell@eia.doe.gov

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Soviet Joint Ventures	Erik Kreil	586-6573	ekreil@eia.doe.gov
World Oil Market Disruption Analysis	Douglas MacIntyre	586-9502	dmacinty@eia.doe.gov
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INTERNATIONAL: Energy Statistics

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World Consumption & Production of Total Energy	Mike Grillot	586-6577	mgrillot@eia.doe.gov
World Population by Country	Joel Lou	586-1457	jlou@eia.doe.gov
World Production of Crude Oil & Natural Gas Plant Liquids	Patricia Smith	586-6925	psmith@eia.doe.gov
World Crude Oil Reserves and Refining Capacity	Patricia Smith	586-6925	psmith@eia.doe.gov
World Generation & Consumption of Electricity	Patricia Smith	586-6925	psmith@eia.doe.gov
World Consumption Production/Recoverable Coal	Vicky McLaine	586-9412	hmclaine@eia.doe.gov
World Imports and Exports of Crude Oil & World Consumption	Joel Lou	586-9412	jlou@eia.doe.gov

World Consumption/Reserves of NG by Country	Karen Griffin	586-1357	kgriffin@eia.doe.gov
World Gross Domestic Product at Market Exchange Rates	Joel Lou	586-1457	jlou@eia.doe.gov

MULTIFUEL: Consumption

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Short-Term Nuclear Generation Projections	Diane Jackson	426-1176	djackson@eia.doe.gov
Spent Fuel Projections	Diane Jackson	426-1176	djackson@eia.doe.gov
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STATISTICAL METHODS

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URANIUM

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APPENDIX D. LAWS AFFECTING EIA, 1974-1997

Year	Law	Impact on EIA
1974	Federal Energy Administration (FEA) Act P.L. 93-275, 15 USC 761	Created the FEA and mandated it to "collect assemble, evaluate, 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 P.L. 93-319, 15 USC 796	Provided additional authority for collecting energy information. The definition that was given "energy information" has been included in all subsequent energy information legislation.
1975	Energy Policy and Conservation Act P.L. 94-163, 42 USC 6274	Provided for exchange of information for the international energy program.
1976	Energy Conservation and Production Act P.L. 94-385, 15 USC 790	Established within the FEA the Office of Energy Information and Analysis (which later became the Energy Information Administration (EIA)). This office was to (1) operate a National Energy Information System, (2) possess expertise in energy analysis and forecasting, (3) be subject to performance audits by a Professional Audit Review Team, (4) coordinate energy information activities with other Federal agencies, (5) "promptly provide upon request any energy information. . .to any duly established committee of Congress," and (6) produce an annual report to Congress.
1977	Department of Energy (DOE) Organization Act P.L. 95-91, 42 USC 7135	Established EIA as the single Government authority for energy information. Gave EIA independence from the rest of the DOE with respect to data collection, and from the whole of Government with respect to the content of EIA reports. Incorporated all the 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. Established an annual requirement to conduct a complete and independent analysis of actual U.S. oil and gas reserves.
1978	Powerplant and Industrial Fuel Use Act P.L. 95-620, 42 USC 8301	Required a comprehensive annual summary on coal reserves.
1982	Energy Emergency Preparedness Act P.L. 97-229, 42 USC 6245	Required EIA to maintain State-level petroleum marketing data similar to those published in September 1981.
1983	Nuclear Regulatory Commission Authorization Act P.L. 97-415, 42 USC 2210	Required a one-time review by the President on the status of the domestic uranium mining and milling industry. Required an annual DOE report on the viability of this industry, using criteria for assessment given in this act. EIA gathers information for this report.
1985	Energy Policy and Conservation Act Amendments of 1985 P.L. 99-58, 42 USC 6201	Required EIA to conduct a comprehensive analysis of the U.S. coal import market and to issue quarterly reports on the status of coal imports.
1986	Omnibus Budget Reconciliation Act P.L. 99-509, 42 USC 7135	Required EIA to conduct a survey of energy consumption in 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	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.

How to Obtain EIA Products and Services

For further information on any of the following services, or for answers to energy information questions, please contact EIA's **National Energy Information Center**:

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Energy Information Administration
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EIA's **Internet Site Services** offer nearly all EIA publications. Users can view and download selected pages or entire reports, search for information, download EIA data and analysis applications, and find out about new EIA information products and services.

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EIA's **CD-ROM**, ***Energy InfoDisc***, contains most EIA publications and major energy database applications. The ***Energy InfoDisc***, produced quarterly, is available for a fee from STAT-USA, Department of Commerce, 1-800-STAT-USA.

The **Comprehensive Oil and Gas Information Source (COGIS)**, a bulletin board service, contains data files from most of EIA's oil- and gas-related reports. It is available for a fee from STAT-USA on 1-800-STAT-USA.

EIA's **Electronic Publishing System (EPUB)** bulletin board contains data files, directories, and forecasts from most EIA reports. It can be accessed free of charge by dialing (202) 586-2557.

Printed Publications

EIA **directories** are available free of charge from NEIC. Recent **periodicals** and **one-time reports** are available from the Government Printing Office. Older reports are available from the National Technical Information Service:

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