

# **EIA Publications Directory 1990**

**June 1991**

**EIA Energy Information Administration**

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# **EIA Publications Directory 1990**

**June 1991**

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

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**MASTER**

# Preface

Enacted in 1977, the Department of Energy (DOE) Organization Act established the Energy Information Administration (EIA) as the Department's independent statistical and analytical agency, with a mandate to collect and publish data and prepare analyses on energy production, consumption, prices, and resources, and projections of energy supply and demand. This edition of the *EIA Publications Directory* contains titles and abstracts of periodicals and one-time reports produced by the EIA from January through December 1990. This edition supplements *EIA Publications Directory 1977-1989*.

The body of the *Directory* contains citations and abstracts arranged by broad subject categories, such as coal, petroleum, and natural gas and subcategories such as reserves, products and byproducts, and marketing and economics. All reports are indexed alphabetically by subject and title and numerically by report number.

The *Directory* was compiled by Paula L. Altman of the National Energy Information Center (NEIC), to whom questions about its contents should be addressed.

# How to Use the Publications Directory

**Availability.** This directory contains abstracts and ordering information for individual issues of semiannual, annual, biennial and triennial Energy Information Administration (EIA) periodicals, analysis reports, service reports, and model documentations. (Service reports are prepared by EIA upon special request and may be based on assumptions specified by the requestor.) Most publications are available from the National Technical Information Service (NTIS), U.S. Department of Commerce. Order numbers and price codes are given. If there is no order number beginning with "DE," use the DOE/EIA number. The price codes are interpreted on page 44. The NTIS telephone number and an order form are on page 46.

All publications listed as available from NTIS are available on microfiche at the same price as the paper copy. Most publications are also available in paper copy. If no paper copy code is given, the publication is available in microfiche only.

Periodicals produced more frequently than semiannually--quarterlies, monthlies, and weeklies--are listed as single titles--individual issues are not listed, and no ordering information is given. If the periodical is current, it is available by subscription from the U.S. Government Printing Office (GPO). Some recent individual issues are also available from GPO. Most back issues of current and discontinued periodicals are available from NTIS; call NTIS directly for ordering information for these. If they are not available from NTIS, call the National Energy Information Center (NEIC). Annual and one-time reports published in the last 12 months may be available from GPO. The GPO telephone number and an order form are on page 45. Publications not available from NTIS are available from NEIC.

**Abstracts.** Abstracts are arranged by abstract number within subject categories as listed in the table of contents. The principal elements of an abstract entry are illustrated below.

Abstract number	Title	Report number	Frequency	NTIS ordering information
472	<i>International Energy Annual, 1987.</i>	(DOE/EIA-0219(87))	{(Annual) Oct 1988 141p.	{NTIS DE89002414 A07}
Abstract	This report presents current data and trends for production, consumption, stocks, imports, and exports for primary energy commodities in more than 190 countries, dependencies, and areas of special sovereignty. Also included are prices on crude petroleum and petroleum products in selected countries. Data are included on: total primary energy production; crude oil and natural gas liquids production; petroleum consumption, trade, and stocks; natural gas production, consumption, and trade; coal production, consumption, and trade; hydroelectric power production; nuclear electric power production; and oil, gas, and coal reserves.			

**Indices.** The directory has three indices: the subject index, the report number index, and the title index. Each index entry contains an abstract number which refers the reader to the abstract.

**Subject Index:** The subject index is arranged alphabetically by specific energy terminology. Each entry includes the document title, abstract number, and report number. First-level index terms used in the subject index are listed in

the table of contents for easy reference.

## **Bituminous Coal**

*Weekly Coal Production*, 7 (DOE/EIA-0218)

### **Exports**

*Quarterly Coal Report*, 6 (DOE/EIA-0121)

**Report Number Index:** The report number index is arranged alpha-numerically by the DOE/EIA number. The index begins with the report number, followed by the title, date, number of pages, ordering information, and the abstract number.

(DOE/EIA-0436(90)) *World Nuclear Fuel Cycle Requirements* Nov 1990. 88p; NTIS DE91001973 A03 34

**Title Index:** The title index provides an alphabetical title approach to the publications with the report number and the abstract number.

*Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations 1987, 1988, 1989*  
(DOE/EIA-0185(89)) 19

# Contents

	Page
Abstracts .....	1
00 EIA Programs and Products .....	1
01 Coal and Coal Products .....	1
0130 Transport and Handling .....	2
0150 Marketing and Economics .....	2
02 Petroleum .....	2
0201 Reserves .....	3
0202 Geology and Exploration .....	3
0203 Drilling and Production .....	4
0204 Processing .....	4
0207 Marketing and Economics .....	4
0210 Policy, Legislation, and Regulation .....	5
0240 Storage .....	5
03 Natural Gas .....	6
0306 Marketing and Economics .....	6
05 Nuclear Fuels .....	6
0510 Marketing and Economics .....	6
0520 Waste Management .....	6
08 Multifuel .....	6
20 Electric Power .....	7
2001 Power Plants and Power Generation .....	7
2003 Power Transmission and Distribution .....	8
21 Nuclear Power Plants .....	8
29 Economics, Analysis, and Forecasting .....	9
2901 Energy Modeling .....	9
2902 Economics and Sociology .....	9
2920 Supply, Demand, and Forecasting .....	10
2980 Consumption and Utilization .....	12
Subject Index .....	15
Alaska .....	15
Anthracite .....	15
Atomic Power .....	15
Automobiles .....	15
Automotive Fuels .....	15
Aviation Fuels .....	15
Bituminous Coal .....	15
Coal .....	15
Coal Industry .....	16
Coal Liquefaction .....	16
Coal Miners .....	17
Coke .....	17
Conservation .....	17
Cooling Degree Days .....	17
Crude Oil .....	17
Data Acquisition .....	17
Degree Days .....	17
Diesel Fuel .....	17
Directories .....	17
Distillate Fuel Oil .....	17
Electric Power .....	17
Electric Utilities .....	18



Electricity	19
Energy Conservation	19
Energy Consumption	19
Energy Data Collection	19
Energy Expenses	19
Energy Information Administration	19
Energy Models	19
Energy Supply and Demand	19
Enriched Uranium	20
Forecasting	20
Foreign Statistics	21
Fossil Fuel Power Plants	21
Fossil Fuels	21
Fuel Oil	21
Gas Turbines	21
Heating Degree Days	21
Heating Oil	21
Houses	21
Housing	21
Hydroelectric Power Plants	21
International Statistics	22
Jet Fuel	22
Kerosene	22
Lignite	22
Liquefied Natural Gas	22
Methane	22
Models	22
National Energy Strategy	22
Natural Gas	22
Natural Gas Fields	23
Natural Gas Industry	23
Natural Gas Liquids	24
Nuclear Industry	24
Nuclear Power	24
Nuclear Power Plants	24
Nuclear Waste	24
Oil	24
Oil Fields	24
Pennsylvania	25
Persian Gulf War	25
Petroleum	25
Petroleum Industry	26
Petroleum Products	27
Petroleum Refineries	27
Power Plants	27
Prices	27
Projections	27
Reactors	27
Refineries	27
Renewable Energy	27
Reporting Requirements	27
Residential Sector	28
Shortages	28
Spent Fuel	28
State Level Data	28
Strategic Petroleum Reserve	28
Supply Disruptions	28
SPR	28
Transportation Sector	28
Uranium	28
Vehicles	28
World Energy Data	28
Report Number Index	29

Title Index .....	33
Energy Information Administration's Products, Services, and Ordering Information .....	35
Machine-Readable Data Files and Modeling Programs .....	35
NTIS .....	35
GPO .....	37
Energy Information Directory .....	38
EIA New Releases .....	38
Directory of Energy Data Collection Forms .....	38
Directory of Energy Information Administration Models .....	38
Energy Facts .....	38
Energy Information Sheets .....	38
Energy Information for School Children .....	39
Feature Articles .....	39
Telecommunications Device for the Deaf .....	39
Electronic Publication System .....	39
How to Order from the U.S. Government Printing Office .....	39
How to Order from the National Technical Information Service .....	41
Reaching NTIS .....	41
How To Pay .....	42
Rush Services .....	42
Local Delivery and Pickup .....	42
Additional Information .....	42
NTIS Price Schedules 1991 .....	44
How to Order from the National Energy Information Center .....	44
How to Use Order Forms .....	44

## Illustrations

	Page
1. Order Form A: GPO Order Form .....	45
2. Order Form B: NTIS Order Form .....	46
3. Order Form C: NEIC Order Form .....	47

# Abstracts

## 00 EIA Programs and Products

**1** *EIA Publications Directory 1977-1989* (DOE/EIA-0149(77-89)) (Annual) Jun 1990. 412pp. NTIS DE90012418 A18

This directory contains abstracts and ordering information for EIA publications released in the above time period. The abstracts are arranged by broad subject category such as coal, petroleum, natural gas, and energy planning/policy. A comprehensive subject index, a title index, and a report number index are included. Each entry gives the title, report number, publication frequency, date, number of pages, and ordering information.

**2** *Annual Report to Congress 1989* (DOE/EIA-0173(89)) (Annual) Mar 1990. 80pp. NTIS DE90007494 A05

Begun in 1982, the Energy Information Administration's *Annual Report to Congress* gives a general overview for the calendar year followed by descriptions of significant agency activities. Selected energy statistics and facts for several years are provided in separate sections. Active models and data collection surveys are described in the appendices along with a listing of publications and periodicals published during the year.

**3** *EIA New Releases* (DOE/EIA-0204) (Bimonthly) Available: NEIC

The latest available Energy Information Administration (EIA) publications and upcoming reports are listed and described. Availability and ordering information are provided. News about EIA and other items of interest to users of EIA publications are also included.

**4** *Directory of Energy Data Collection Forms* (DOE/EIA-0249(89)) (Annual) Jan 1990. 68pp. NTIS DE90006017 A04

This updated directory contains abstracts of forms used by the Energy Information Administration (EIA) to collect energy data. Each entry contains an abstract of the form, the energy source(s) and function(s) covered by the form, identification of group(s) responding to the form, report requirements, the legislative mandate under which the data in these forms were collected, and the frequency with which they were collected. The names and numbers of previous publica-

tions, of current publications resulting from the forms, and of parent reporting systems are also indicated.

## 01 Coal and Coal Products

**5** *Coal Production 1989* (DOE/EIA-0118(89)) (Annual) Dec 1990. 160pp. NTIS DE91004900 A08

U.S. coal production and related data are reported for the current year, with similar data for the previous year given for comparison. The data were collected on Form EIA-7A, "Coal Production Report," from U.S. mines that produced, processed, or prepared 10,000 or more short tons of coal. Among the items covered are production, prices, employment, productivity, stocks, and recoverable reserves. Some data are reported by State, county, coal producing district, type of mining, and by type of coal (anthracite, bituminous, subbituminous, and lignite). Also included are a glossary of coal terms used, a map of the coal producing districts, and Form EIA-7A with instructions. Beginning with the 1981 issue, annual trends are presented in the Appendix. Beginning with the 1982 issue, the demonstrated reserve base is provided in the Appendix. The 1984 issue contains results of the 1983 supplemental survey on coal preparation and shipments. Beginning with the 1986 issue, the Appendix contains State coal facts.

**6** *Quarterly Coal Report* (DOE/EIA-0121) (Quarterly) Available: GPO Subscription

Comprehensive information about U.S. coal production, consumption, exports, imports, receipts, and stocks is provided for the most recent quarter, with aggregated quarterly data for previous years also given. To provide a complete picture of coal supply and demand, historical information and forecasts have been integrated in this report. Data are reported by State, Census region, end-use sector (electric utilities, coke plants, other industrial, and residential/commercial), and Standard Industrial Classification. Prices are also given for exports, imports, and receipts data. Explanatory notes, a discussion of data sources, and a glossary are provided. Appendices present detailed coke data; historical trends and projections for each year from 1960 through the most current date and for future years; U.S. coal imports data; and reference tables and maps. A section of highlights presents extensive coverage of recent developments.

**7 Weekly Coal Production** (DOE/EIA-0218) (Weekly)  
Available: GPO Subscription

U.S. production of bituminous coal and lignite and the production of Pennsylvania anthracite are provided for each of the 2 most recent weeks, for a corresponding week in the previous year, and for the prior 52-week period and the corresponding period in the previous year, with percentage changes. Total U.S. production, State production, and the number of railroad cars loaded are also reported. In addition, data are provided at intervals about the following topics: export/import, individual State coal profiles, and coal at the electric utilities.

## 0130 Transport and Handling

**8 Coal Distribution** (DOE/EIA-0125) (Quarterly)  
Available: GPO Subscription

U.S. coal distribution is reported quarterly; historical data for the same quarter of each of the 4 preceding years are also provided. Shown is distribution by: origin (Coal Producing District), destination (State, Canada, and overseas), consumer category (electric utilities, coke plants, other industrial plants, and residential/commercial), and method of transportation (railroad, water, truck, and tramway/conveyor/slurry pipeline). Coal production/purchases, stocks, and distribution by secondary methods of transportation (tidewater piers, coastal ports, Great Lakes coal-loading docks, and rivers) are also reported. Appendices describe the data collection form (Form EIA-6), present sources of data/technical notes, and provide maps. This publication was previously entitled *Bituminous Coal and Lignite Distribution* and *Bituminous and Subbituminous coal and Lignite Distribution*. Publication began July 1980.

## 0150 Marketing and Economics

**9 Annual Outlook for U.S. Coal 1990** (DOE/EIA-0333(90)) (Annual) May 1990. 56pp. NTIS DE90011958 A03

This report presents a detailed forecast for U.S. coal supply and demand. Current events and factors affecting the outlook for coal are provided. Some examples are: the utility and industrial sectors, coking coal market, coal technologies, and the environment. The major legislative and regulatory initiatives that may affect the outlook for U.S. coal are also discussed. Projections, based on the *Annual Energy Outlook*, focus on the base case outlook for U.S. coal supply and demand through the year 2010. Appendices include: Regional Coal Data, Descriptions of the Models Used, and a Glossary of Acronyms and Technical Terms.

**10 Annual Prospects for World Coal Trade 1990** (DOE/EIA-0363(90)) (Annual) Jun 1990. 124pp. NTIS DE90013084 A06

The future development of the world coal market is examined in a more detailed analysis of the projections contained in the Energy Information Administration's *Annual Energy Outlook* (DOE/EIA-0383). Both U.S. and world coal trade projections are highlighted, as well as the factors affecting the growth of world demand for metallurgical and steam coal. Coal import demand and the export market are discussed in addition to issues in the world coal trade such as environment, legislation, and transportation. Appendices include: Coal Trade Tables Using Metric Tons, Recent History of World Coal Trade, *Annual Energy Outlook* Variant Scenarios, and a Glossary of Acronyms and Technical Terms.

## 02 Petroleum

**11 Energy Situation Analysis Report** (DOE/EIA-ESAR) (Irregular) Aug 1990. 6pp. Available: NEIC

The Iraqi invasion of Kuwait on August 2, 1990, resulted in a widespread need for accelerated public sharing of the energy information being collected and analyzed by the Energy Information Administration (EIA). From August 10, 1990, through March 4, 1991 EIA published a fact sheet entitled "Energy Situation Analysis Report." The report included daily spot and futures prices for crude oil, unleaded gasoline, No. 2 heating oil and kerosene-type jet fuel. Retail gasoline prices were presented. Various issues also included statistical and analytic information on topics related to the loss of oil supplies from Iraq and Kuwait and the resulting effects on oil supply, demand, and prices. The number of pages varied from 4 to 17.

**12 Petroleum Supply Monthly** (DOE/EIA-0109) (Monthly) Available: GPO Subscription

Contains summary data on the supply and disposition of crude oil and petroleum products in the United States and major U.S. geographic regions. The data series describe monthly production, imports and exports, inter-Petroleum Administration for Defense (PAD) District movements, and inventories by the primary suppliers of petroleum products in the United States (50 States and the District of Columbia). The reporting universe includes petroleum refiners, motor gasoline blenders, operators of natural gas processing plants and fractionators, inter-PAD transporters, importers, and major inventory holders of petroleum products and crude oil. Data presented are divided into two sectors: (1) the "Summary Statistics" and (2) the "Detailed Statistics." The tables and figures in the "Summary Statistics" section present a time series of selected petroleum data on a U.S. level. Tables in the "Detailed Statistics" section present statistics for the most current month available as well as year-to-date. Publication began March 1982.

**13 *Weekly Petroleum Status Report* (DOE/EIA-0208) (Weekly) Available: GPO Subscription**

Current information on the petroleum supply situation in the United States is given for the most recent week and month. Some monthly data go back 2 or 3 years. Shown are the U.S. petroleum balance sheet; refinery activity; stocks; imports; products supplied; and prices. Refinery data cover inputs, utilization, and production. Data on stocks are given for crude oil and major products (gasoline, distillate fuel oil, residual fuel oil, etc.) and by Petroleum Administration for Defense District. Data on prices are refiner acquisition cost of crude oil; retail selling prices for motor gasoline and residential heating oil; world crude oil prices; and spot market product prices. Strategic Petroleum Reserve data are shown when appropriate. Five appendices discuss survey design and estimation methods for weekly data; interpretation and derivation of average inventory levels; projections from the *Short-Term Energy Outlook*, (DOE/EIA-0202); calculation of world oil prices; and explanation and coverage of spot market product prices. A glossary and list of data sources are also provided. Publication began April 1979.

**14 *Petroleum Supply Annual 1989, Volume 1* (DOE/EIA-0340(89)/1) (Annual) May 1990. 180pp. NTIS DE90012613 A09**

**14 *Petroleum Supply Annual 1989, Volume 2* (DOE/EIA-0340(89)/2) (Annual) Jun 1990. 588pp. NTIS DE90016012 A25**

The *Petroleum Supply Annual* consists of two volumes. Volume 1 contains annual supply, disposition, and stock data beginning in 1973. Monthly data are given for the most recent 3 years. Supply and disposition are reported for crude oil, natural gas liquids and LRGs, individual finished petroleum products and other liquids. The movements of crude oil and petroleum products between Petroleum Administration for Defense (PAD) Districts are detailed as well as imports and exports of crude oil and petroleum products by country, and the production of heavy oils by sulfur content. Volume 2 contains supply and disposition data for each month of the current year. Supply and disposition are reported for crude oil, natural gas plant liquids/liquefied refinery gases, other liquids, and individual finished petroleum products. Movements of crude oil and petroleum products between Petroleum Administration for Defense (PAD) Districts by pipeline, tanker and barge are detailed, as well as imports and exports of crude oil and petroleum products by country, and the production of heavy oils by sulfur content. Information from the annual report *Sales of Liquefied Petroleum Gases and Ethane* (DOE/EIA-0114) is included in the 1981 and 1982 issues. Also, information from the annual report *Deliveries of Fuel Oil and Kerosene* (DOE/EIA-0113) is provided in 1981-1983 issues.

**15 *International Petroleum Statistics Report* (DOE/EIA-0520) (Monthly) Available: GPO Subscription**

This report presents data on international oil production, consumption, imports, exports, and stocks. The

report has three sections. Section 1 contains time series on world oil production and oil consumption and stocks in the Organization for Economic Cooperation and Development (OECD). This section contains annual data beginning in 1973 and monthly data for the most recent 2 years. Section 2 presents an oil supply/consumption balance for the market economies (i.e. non-Communist countries). This balance is presented in quarterly intervals for the most recent 2 years. Section 3 presents data on oil imports by OECD countries. This section contains annual data beginning in 1982 and quarterly data for the most recent 2 years. Publication began January 1989.

## **0201 Reserves**

**16 *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1989 Annual Report* (DOE/EIA-0216(89)) (Annual) Oct 1990. 120pp. NTIS DE91001303 A06**

Proved reserves of crude oil and natural gas and natural gas liquids in the United States are reported by State, with U.S. totals. A national summary is given, along with a discussion of areas of notable developments in the industry. Shown for each producing State and the United States are crude oil proved reserves and production, reserves in nonproducing reservoirs, and indicated additional reserves; natural gas proved reserves and production, reserves in nonproducing reservoirs, and commitment status. A glossary of terms and references is included. The methodology for the report is described in the appendices.

**17 *U.S. Oil & Gas Reserve by Year of Field Discovery* (DOE/EIA-0534) (One-time) Sep 1990. 152pp. NTIS DE90017657 A07**

This report provides EIA estimates of the total discovered oil and gas reserves, usually termed "ultimate recovery." It also allocates the ultimate recovery to categories according to the oil and gas field discovery years. Reserves credited to the period between the first U.S. oil field discovery, in 1859, through the year 1899 are shown in the aggregate. Also presented for each year-of-discovery vintage are the two components of ultimate recovery, cumulative production (reserves previously produced) and proved reserves (reserves yet to be produced). Annual production and counts of identified oil and gas fields are indicated for each vintage as well.

## **0202 Geology and Exploration**

**18 *International Oil and Gas Exploration and Development Activities* (DOE/EIA-0523) (Quarterly) Available: GPO Subscription**

This quarterly report monitors discoveries of crude oil and natural gas in foreign countries. A discovery, as used in this publication, can be either a published report of ultimately recoverable reserves for a new field or reservoirs, or a well in a new area. The report contains an overview and a list of reserve additions for the quarter (with maps). All of the reserve additions obtained from the literature are presented in the "Foreign Oil and Gas Discoveries" table of Appendix A, with those appearing in the table for the first time highlighted. Entries in this table are arranged alphabetically by country and by report date within each country. Appendix B, "World Crude Oil and Natural Gas Reserves," presents published oil and gas estimates by country. A glossary of abbreviations used in this report is also included.

## 0203 Drilling and Production

**19** *Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations 1987, 1988, 1989* (DOE/EIA-0185(89)) (Annual) Aug 1990. 116pp. NTIS DE90014685 A06

Estimated costs and cost indices for domestic oil field equipment and production operations are provided. The information is given for several depth categories in oil-producing regions, both offshore and onshore, of the United States. Narrative sections discuss the results and the indexing procedure and review the current year indexing. Beginning with the 1980 issue, a section on cost and indices for equipping and operating gas wells has been added. Also added was an analysis of equipment and operating costs for each area, depth, method of production, and type of production.

**20** *Oil and Gas Field Code Master List 1989* (DOE/EIA-0370(89)) (Annual) Jan 1990. 688pp. NTIS DE9005313 A99

The *Oil and Gas Field Code Master List* provides standardized field name spellings and unique 6-digit codes for all identified oil and/or gas fields in the United States. For each field, the master list displays the field code, the field name, State postal abbreviation and State subdivision code, county code, county name, field discovery year, and field type. Also provided is a list of "alias" or alternate field names. The master list field name spellings and codes are to be used by respondents to Department of Energy forms.

## 0204 Processing

**21** *U.S. Petroleum Refining Industry in the 1980's, The* (DOE/EIA-0536) (One-time) Oct 1990. 100pp. NTIS DE91001726 A06

An historical analysis of the changes that took place

in the U.S. petroleum refining industry during the 1980's are presented. The report consists of six chapters and four appendices. Included is a detailed description of the major events and factors that affected the domestic refining industry during this period. Some of the changes that occurred in the 1980's are the result from events that started in the 1970's. The impact of these events on U.S. refinery configuration, operations, economics, and company ownership are examined.

## 0207 Marketing and Economics

**22** *Petroleum Prices and Profits in the 90 Days Following the Invasion of Kuwait* (DOE/EIA-SR/OA/90-01) (Service report) Nov 1990. 84pp. NTIS DE91006828 A05

This report examines the performance of energy markets and energy firms during the 90 days following the Iraqi invasion of Kuwait on August 2, 1990. International implications of the disruption of the oil supply, both the pre-invasion and post-invasion scenarios, are discussed. Petroleum product and crude oil prices are tracked to give a proper perspective of what transpired in the energy marketplace. Other factors affecting petroleum market prices are discussed. The report reviews the petroleum industry profits during the time of rising oil prices and describes the magnitude of the income of petroleum companies, using the most current data available. Also, the report describes the futures market behavior and its relationship to petroleum marketing. Appendices contain supplementary tables and data for figures presented in the discussion.

**23** *Analysis of Heating Fuel Market Behavior 1989-1990, An* (DOE/EIA-SR/OG-90-01) (Service report) Jun 1990. 148pp. NTIS DE91005275 A07

This service report presents an interpretation of the increase of heating fuel prices and market trends from December 1989 to January 1990, brought on by extremely cold weather in December, which initiated a dramatic increase in heating fuel prices as well as propane and No. 2 heating oil. This report provides essential background information on the nature of interrelationships among the markets in which heating fuels are bought and sold. An overview of the contract, spot, and future markets is presented that explains the similarities and differences between the three, and the ways in which each influences and is influenced by supply and pricing phenomena. The relationships among the various markets are discussed, including the possible effects of futures market trading and speculation on prices in the cash markets.

**24** *Petroleum Marketing Monthly* (DOE/EIA-0380) (Monthly) Available: GPO Subscription

Petroleum product marketing data are reported for the United States, Petroleum Administration for Defense (PAD) Districts, and each State for the current month,

the previous month, and the corresponding month of the previous year. Some data are also summarized for each year from 1978 forward and for each month from the previous 2 years through the current month. Shown for 16 individual petroleum products are sales prices, sales volumes, percentages of sales, and first sales for consumption. Data are given by type of seller (major refiner, other refiner/gas plant operator, and reseller) and by type of sale (sales to end users and sales for resale). Crude oil price tables present data from 1978 through the current month on refiner acquisition cost; first purchase price by State; and FOB/landed cost of purchases for U.S. importation from selected countries, by API gravity, and for selected crude streams. Feature articles on current topics appear periodically. Standard errors and survey response percentages are also presented. Explanatory notes, a glossary, and a product guide to tables are also included. Publication began May 1983.

**25** *Annual Outlook for Oil and Gas 1990* (DOE/EIA-0517(90)) (Annual) Jun 1990. 128pp. NTIS DE90012192 A07

This report provides projections of crude oil and natural gas supply and prices through the year 2010. It discusses in detail recent developments in the crude oil and natural gas markets, emphasizing the dramatic changes in the price of these fuels, the regulatory changes affecting natural gas over recent years, and the implications of these changes over the longer term. A base case projection is presented together with alternative scenarios based upon differing projections of world oil prices and economic growth and of natural gas import levels.

**26** *Winter Fuels Report* (DOE/EIA-0538) (Irregular) Oct 1990. Available: NEIC

This weekly report contains monthly and weekly propane and fuel oil data, natural gas supply and disposition data, and selected price information. Distillate fuel oil net production, imports, and stocks for all PADs, and product supplied on a U.S. level are given. Propane net production, imports, and stocks for PAD I, II, and III, are shown in addition to recent historical data. Natural gas supply and disposition and underground storage for the U.S. are provided together with consumption for all PADs. For selected States, residential and wholesale pricing data for propane and heating oil are shown. United States crude oil and No. 2 distillate and propane prices are listed. For a few selected cities, No. 2 distillate and propane prices are presented. Included is a brief weather summary with U.S. total heating degree days by city. Appendices include PAD descriptions and maps, explanatory notes, and a glossary. This report will only be published during the heating season, terminating the first week in April.

## 0210 Policy, Legislation, and Regulation

**27** *Implications of Lifting the Ban on the Export of Alaskan Crude Oil* (DOE/EIA-SR/EMEU/90-01) (Service report) Apr 1990. 36pp. NTIS DE91005277 A03  
The main objective of this report is to estimate the potential impacts on crude oil prices that would result from lifting the export ban on Alaskan crude oil. The report focuses on the Japanese market and the U.S. West Coast (Petroleum Administration for Defense District V) market. Japan is the principal potential export market for Alaskan crude oil. Exports to that market would also affect the price of Alaskan crude oil as well as crude oil and product prices on the West Coast and the volume of petroleum imported into that area.

**28** *Implications of Lifting the Ban on the Export of Alaskan Crude Oil: Price and Trade Impacts* (DOE/EIA-SR/EMEU/90-3) (Service report) Jul 1990. 56pp. NTIS DE91005276 A04

The main objective of this report is to estimate the potential impacts on crude oil prices that would result from lifting the export ban on Alaskan crude oil. This report focuses on the Japanese market and the U.S. West Coast market. It presents a perspective on Alaskan crude oil and its decreasing production which is decreasing as proven reserves become increasingly depleted. It also describes the factors that would determine the trade flow of Alaskan crude oil if the export ban were abolished, as well as the methodology used in the analysis to generate values for Alaskan crude oil.

## 0240 Storage

**29** *Analysis of Increasing the Size of the Strategic Petroleum Reserve to One Billion Barrels, An* (DOE/EIA-SR/ICID/90-01) (Service report) Feb 1990. 111pp. NTIS DE91005278 A06

This report analyzes the expansion in size of the Strategic Petroleum Reserve (SPR), from its originally planned 750 million barrels to 1,000 million barrels. At the time when this report was begun, the SPR contained only 580 million barrels. A cost-benefit approach was used to complete this analysis. The costs associated with the SPR include the development, operation, and maintenance costs of providing underground salt domes as well as the cost of acquiring the crude oil. Benefits from the SPR result mainly from the reduction in economic damage (during an oil supply disruption) due to its drawdown.

## 03 Natural Gas

**30 *Natural Gas Monthly*** (DOE/EIA-0130) (Monthly)  
Available: GPO Subscription

Current data on natural and supplemental gas production, supply, consumption, disposition, interstate pipeline activities, storage, imports, exports, and prices in the United States are presented. Production data are given by State; consumption and price data are given by State and sector; company-specific data on storage operators and interstate pipelines are also presented. Explanatory notes, a discussion of data sources, and a glossary are included. Feature articles on current topics are published periodically. Annual reports on imports/exports and mainline sales to industrial users appear periodically. Publication began November 1982.

**31 *Natural Gas Annual 1989*** (DOE/EIA-0131(89))  
(Annual) Oct 1990. 252pp. NTIS DE91001333 A12

Contains national, regional and State level statistics on natural gas reserves, production, imports, exports, transportation, storage, consumption, and prices. Consumption and price data are broken down by end-use sector. Regional and State summaries present data for the most recent 5 years. Appendices review data for the collection methodology and thermal conversion factors. A glossary of terms is provided.

## 0306 Marketing and Economics

**32 *Natural Gas Production Responses to a Changing Market Environment 1978-1988*** (DOE/EIA-0532)  
(One-time) Jun 1990. 140pp. NTIS DE90011844 A07

This publication presents an historical analysis of the activities of natural gas producers and their responses to market developments occurring since 1978. The report examines natural gas reserves and well production data for the period 1978 through 1988, particularly in respect to productive capacity in a changing market environment. In addition, the report examines productivity levels and the number of well abandonments or shut-ins relative to changes in market conditions and/or regulatory initiatives during the period

## 05 Nuclear Fuels

**33 *Uranium Industry Annual 1989***  
(DOE/EIA-0478(89)) (Annual) Sep 1990. 132pp.  
NTIS DE90017413 A07

Information on the U.S. uranium industry is presented. Uranium raw material activities described include exploration, resources, mine production, milling operations, and employment. Uranium marketing activities discussed include: utility purchases, uranium prices,

domestic procurement, foreign purchases, enrichment, inventories, market requirements, and availability. This information is collected on Form EIA-858, "Uranium Industry Annual Survey." This report contains data previously reported in *Survey of United States Uranium Marketing Activity* (DOE/EIA-0403) and *Survey of U.S. Uranium Exploration Activity* (DOE/EIA-0402). Appendices describe the survey methodology, provide technical notes, list respondents to the survey, and present the survey. A glossary is included.

## 0510 Marketing and Economics

**34 *World Nuclear Fuel Cycle Requirements 1990***  
(DOE/EIA-0436(90)) (Annual) Nov 1990. 88pp. NTIS DE91001973 A05

This report presents the projected requirements for uranium concentrate and uranium enrichment services to fuel the nuclear power plants expected to be operating under two nuclear supply scenarios. These nuclear supply scenarios are reported in *Commercial Nuclear Power: Prospects for the United States and the World* (DOE/EIA-0438). The report contains an analysis of the sensitivities of the nuclear fuel cycle projections to different levels and types of projected nuclear capacity, different enrichment tails assays, higher and lower capacity factors, changes in nuclear fuel burnup levels, and other exogenous assumptions. The report also presents annual projections of spent nuclear fuel discharges and inventories of spent fuel.

## 0520 Waste Management

**35 *Spent Nuclear Fuel Discharges From U.S. Reactors 1988*** (DOE/EIA-SR/CNEAF/90-01) (Service report) Mar 1990. 176pp. NTIS DE91005279 A09

Information is provided on the amount and characteristics of radioactive waste material currently stored at commercial nuclear facilities and the amount of additional waste likely to be produced over the operating lives of existing and planned nuclear reactors. Data are reported on the shipment and storage of discharged nuclear fuel assemblies and storage site capacities and inventories as of December 31, 1988. The appendices contain site-specific detail data on current inventories and storage capacity.

## 08 Multifuel

**36 *Monthly Energy Review*** (DOE/EIA-0035)  
(Monthly) Available: GPO Subscription

The *Monthly Energy Review* presents current U.S. total



energy summaries and key data series for production, consumption, stocks, imports, exports, and prices of the individual energy commodities. Most of the data series are from 1973 forward. Also included are data on the international production of crude oil, consumption of petroleum products, petroleum stocks, and production of electricity from nuclear power facilities.

**37** *State Energy Data Report Consumption Estimates 1960-1988* (DOE/EIA-0214(88)) (Annual) May 1990. 484pp. NTIS DE90010700 A20

The *State Energy Data Report* presents estimates of annual energy consumption at the State and national levels by principal energy type (petroleum, natural gas, coal, and electricity) and by major economic sector (residential, commercial, industrial, transportation, and electric utility) from 1960 forward. Data are presented in both physical units and British thermal units for the current year. State rankings for total energy consumption, consumption per capita, and by individual energy commodity are presented. Included in the report are documentation describing how the estimates are made for each energy source, sources of all input data, and a summary of changes from the previous report.

**38** *Energy Information Sheet (series)* (DOE/EIA-0240) (Irregular) Jun 1990. 1p. Available: NEIC

*Information Sheets* are 1-page flyers highlighting a specific energy theme and based on a regularly-issued publication of the Energy Information Administration (EIA). Current issues highlight: production, consumption, reserves, and prices for petroleum, natural gas, and coal; electricity production, consumption, capacity, and prices; nuclear power generation; renewable energy, degree-days, and energy measurement using Btu's.

**39** *State Energy Price and Expenditure Report 1988* (DOE/EIA-0376(88)) (Annual) Oct 1990. 260pp. NTIS DE91000925 A12

Estimated annual energy prices and expenditures are presented for the 50 States, the District of Columbia, and the United States for selected years, from 1970 forward. Data for all years from 1970 forward are available on computer-readable diskettes. Estimates are shown by energy source (coal, natural gas, petroleum products, nuclear, wood/waste at electric utilities, and electricity) and by sector (residential, commercial, industrial, transportation, and electric utility). Also given are various State rankings for total expenditures, expenditures per capita, and prices by fuel type. Documentation on the price and expenditure estimates is provided, including sources of data, methods of estimation, conversion factors, and a summary of changes since the previous report.

**40** *Annual Energy Review 1989* (DOE/EIA-0384(89)) (Annual) Jun 1990. 324pp. NTIS DE90012064 A14

The *Annual Energy Review* presents historical energy data summaries (total U.S. consumption, imports, and exports) as well as complete data coverage of the prin-

cipal energy commodities. Additionally, price, inventory, and resource reserve information are provided by fuel. Most of the data series are from 1949 forward. Key international data series for major energy sources and activities are also included.

**41** *Energy Facts 1989* (DOE/EIA-0469(89)) (Annual) Dec 1990. 128pp. NTIS DE91004629 A07

A broad range of domestic and international energy data is provided for for current year, as well as historical data. This report is designed for quick reference to major facts about energy. Separate chapters present an overview for each energy source (petroleum, natural gas, coal, electric power, and nuclear power). A glossary is included. Source publications are listed.

## 20 Electric Power

### 2001 Power Plants and Power Generation

**42** *Inventory of Power Plants in the United States 1989* (DOE/EIA-0095(89)) (Annual) Oct 1990. 400pp. NTIS DE91000630 A17

Detailed information on all operable electric utility generating units in the United States for the present year is included, as well as aggregate capacity at the national, regional, and State levels. Detailed data on generating units include: name of operating utility, location of unit, primary/alternate energy sources, installed nameplate capacity, net summer capability, and net winter capability. Also included are detailed data on units retired in the past year, projected to go into service within 10 years, planned capacity retirements, and units that are jointly owned by two or more utilities.

**43** *Cost and Quality of Fuels for Electric Utility Plants 1989* (DOE/EIA-0191(89)) (Annual) Jul 1990. 244pp. NTIS DE90014382 A11

Annual information on the cost and quality of fossil fuel receipts at electric utility plants is presented, with some data presented in a historical series. Data on receipts, cost, and quality are reported by individual plant and utility company, and data on receipts and cost are also aggregated by State and Census division. Through 1983, data are reported for plants with a capacity of 25 megawatts or greater. Since 1984, the data are for plants with 50 megawatts or greater capacity.

**44** *Electric Power Monthly* (DOE/EIA-0226) (Monthly) Available: GPO Subscription

This report presents monthly summaries of electric utility statistics at the national, Census division, and State level for net generation, fuel consumption, fuel stocks, quantity and quality of fuel, cost of fuel, elec-

tricity sales, and average retail prices of electricity. Data on net generation are also displayed at the North American Electric Reliability Council (NERC) region level. Additionally, company and plant level information are published on the capability of new plants. Beginning with the February 1989 issue, plant level data are given for net generation, fuel consumption, fuel stocks and the quantity, cost, and quality of fuel receipts each month. Publication began June 1980.

**45 *Financial Statistics of Selected Electric Utilities 1988* (DOE/EIA-0437(88)) (Annual) Mar 1990. 1116pp. NTIS DE90008781 A99**

Financial data for both privately and publicly owned electric utilities are reported for the current year with summary data given for 4 prior years for privately owned utilities. Data include balance sheets; income/retained earnings statements; statement of changes in financial position; electric utility operating revenues, sales, and customers by classes of service; electric utility operation/maintenance expenses; physical quantities; selected financial indicators; research/development/demonstration; and environmental protection facilities investments/expenses. Data for privately owned utilities are given for all utilities combined and for each individual utility, while data for publicly owned utilities are given only for each individual utility. Two appendices present additional information on rural electric cooperative borrowers and Federal power marketing agents. Data for the private utilities were collected on FERC Form 1, "Annual Report of Major Electric Utilities, Licensees, and Others"; data for the selected public utilities were collected on Form EIA-412, "Annual Report of Public Electric Utilities." Before the 1982 report, this information was found in two publications: *Statistics of Privately Owned Electric Utilities* (DOE/EIA-0044) and *Statistics of Publicly Owned Electric Utilities* (DOE/EIA-0172).

**46 *Electric Plant Cost and Power Production Expenses 1988* (DOE/EIA-0455(88)) (Annual) Aug 1990. 172pp. NTIS DE90015997 A06**

Information on the historical plant cost and annual power production expenses for selected hydroelectric, fossil-fueled steam-electric, gas-turbine, and nuclear steam-electric plants is provided for the current year. Some summary data are provided for several years. Historical plant cost is the initial investment in plant (cumulative to the start of commercial operation), plus the cost of all additions to the plant, less the value of retirements. Thus, these costs include expenditures made over several years. Power production expenses include operation, maintenance, and fuels. Also reported are data on installed generating capacity, net generation, net capability, fuel consumption, and physical plant characteristics. Data and narrative discussions on each type of power plant are contained in separate chapters. Plant-level data are arranged alphabetically by State, utility, and plant. This publication combines the following: *Thermal-Electric Plant Construction Cost and Annual Production Expenses* (DOE/EIA-0323) and *Hydroelectric Plant Construction Cost*

*and Annual Production Expenses* (DOE/EIA-0171). A glossary and technical notes are included.

**47 *Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* (DOE/EIA-0474(90)) (Annual) Jun 1990. 80pp. NTIS DE90012750 A05**

Historical data and projections of the U.S. electric utility market are presented. Summary information on the generation of electric power, its distribution to end-use sectors, and electric power costs and prices is also presented. The text describes the U.S. electric utility market, discusses alternatives to traditional new capacity construction and legislation affecting capacity growth, and examines the outlook for electric power in the future.

**48 *Electric Sales, Revenue and Bills 1988* (DOE/EIA-0540(88)) (Annual) Mar 1990. 236pp. NTIS DE90008854 A11**

This report, which replaces the EIA publication *Typical Electric Bills* (DOE/EIA-0040), presents a summary of electric utility statistics at the national, regional, State, and electric utility levels. The publication provides information about sales, revenue, average revenue per kilowatthour of electricity sold, and typical monthly electric bills to residential, commercial, and industrial consumers throughout the United States.

## **2003 Power Transmission and Distribution**

**49 *Electric Trade in the United States 1986* (DOE/EIA-0531(86)) (Biennial) Jun 1990. 304pp. NTIS DE90012819 A13**

This report provides data on the U.S. electric utility industry's domestic and international wholesale trade and the quantities of electricity carried by the U.S. transmission system. Data for the purchased power, sales for resale, exchanges, and transmission for and by others (wheeling) are presented. Data are at the national, North American Electric Reliability Council (NERC) region, and electric utility levels and cover all utility ownership classes. An introduction discusses current conditions and emerging issues affecting electricity trade. Appendices and a glossary are also provided.

## **21 Nuclear Power Plants**

**50 *Commercial Nuclear Power: Prospects for the United States and the World 1990* (DOE/EIA-0438(90)) (Annual) Oct 1990. 160pp. NTIS DE91000877 A07**

Historical data, current status, and outlook projections for commercial nuclear power reactors for all countries in the world outside centrally planned economic areas

(WOCA) are described. Documentation of the U.S. nuclear capacity and generation projections through 2000 that are presented in the *Annual Energy Outlook* (DOE/EIA-0383) is provided. In addition, U.S. nuclear capacity and generation projections through 2020 are presented for various nuclear power supply scenarios. Foreign nuclear power projections are provided through 2010. Institutional and technological developments are discussed. WOCA nuclear power programs are reviewed. Appendices present additional material, including listings of both U.S. and foreign nuclear power plants that are operable and in the construction pipeline. Information regarding operable reactors in countries with centrally planned economies is also presented. A glossary is included.

## 29 Economics, Analysis, and Forecasting

### 2901 Energy Modeling

**51** *Oil Market Simulation Model User's Guide* (DOE/EIA-M028(90)) (One-time) Jul 1990. 10pp. NTIS DE90015982 A03

The Oil Market Simulation model (OMS) is a LOTUS 1-2-3 Spreadsheet that simulates the world oil market. OMS is an annual model with a data base that begins in 1979 and computes projections through the year 2000. The geographic coverage includes all market economies, with net imports from the centrally planned economies taken as an assumption. The model estimates the effects of price changes on oil supply and demand and computes an oil price path over time that allows supply and demand to remain in balance within the market economies area as a whole. This user's manual is designed to be used with the 1989 OMS model on diskette.

**52** *PC-AEO Forecasting Model for the Annual Energy Outlook 1990* (DOE/EIA-M036(90)) (One-time) Mar 1990. 444pp. NTIS DE90007664 A16

The objective of the PC-AEO modelling system is to make forecasts of national energy trends by fuel and sector for the *Annual Energy Outlook*. The model was built with the aim of representing the most significant national characteristics of U.S. energy markets, but entirely within the operating capability of a large personal computer, typically a fast "386" type of machine. The integrated PC-AEO model consists of a series of linked spreadsheets, most of which are specific to a fuel supply of end-use sector of consumption. Many are written to characterize the data at the four Census

regions level for the United States of America. The individual spreadsheet models were designed so that each could be run on a conventional but capable IBM personal computer using Lotus 1-2-3 as the host language.

**53** *Short-Term Integrated Forecasting System: Model Documentation* (DOE/EIA-M041) (One-time) Aug 1990. 136pp. NTIS DE90017380 A07

The Short-Term Integrated Forecasting System (STIFS) is the integrated system for the development of supply and demand forecasts that are published quarterly in the *Short-Term Energy Outlook*. The demand and price forecasts for petroleum, electricity, coal, and natural gas are described in this report, followed by a description of the integrated model.

**54** *Directory of Energy Information Administration Models 1990* (DOE/EIA-0293(90)) (Annual) Jun 1990. 100pp. NTIS DE90012082 A05

Abstracts of Energy Information Administration (EIA) models are presented. The main body is an alphabetical listing of all basic and auxiliary models. Brief statements regarding each model's title, acronym, purpose, and status are given, followed by more detailed information on characteristics, cases, and requirements. Sources for additional information are identified. This report revises and updates *Applied Analysis Model Summaries* (DOE/EIA-0293).

### 2902 Economics and Sociology

**55** *Performance Profiles of Major Energy Producers 1988* (DOE/EIA-0206(88)) (Annual) Feb 1990. 176pp. NTIS DE90006865 A09

Pursuant to Section 205(h)(2) of the Department of Energy Organization Act, the Energy Information Administration, through Form EIA-28, has collected financial information and other measures of energy related business efforts and results for major energy companies on a uniform, segmented basis. In 1988, 23 companies filed Form EIA-28. The comparability of information across energy lines of business is unique to this reporting system. For example, petroleum activities can be compared to activities in other lines of business or nonenergy areas, and domestic activities can be contrasted to foreign activities. The purpose of this publication is to examine year-to-year developments in the operations of the 23 major U.S. energy-producing companies on a corporate level, by major line of energy business, by major functions within each line of business, and by geographic area. This report presents data collected on Form EIA-28 for the reporting year. Although the focus is on developments in the reporting year, important trends since 1974 are also featured.

Economic performance, in financial and physical dimensions, continues to serve as a significant factor in evaluating past decisions and guiding future options in the development and supply of energy resources. The information contained in this report is intended to promote both an understanding and a critical review of the possible motivations and apparent consequences of investment decisions by some of the largest corporations in the energy industry.

## 2920 Supply, Demand, and Forecasting

**56 *Improving Technology: Modeling Energy Futures for the National Energy Strategy*** (DOE/EIA-SR/NES/90-01) (Service report) Jan 1991. 148pp. NTIS DE91009199 A07

This report was prepared as a contribution to the formulation of the National Energy Strategy. It is an attempt to examine how commercializing and deploying known technologies might affect America's energy future. The report does not examine a full range of energy policy issues; rather, it examines a limited set of energy technology and regulatory issues. In the long run, technological changes are one of the most important sources of economic growth. The report estimates the impact of a number of frequently discussed technologies on U.S. energy production, consumption, and prices. Most technologies considered have been demonstrated in a laboratory setting or reduced to practice, though many have not yet been adopted for commercial use. Consequently, some technology assumptions used in this report may prove to be very optimistic.

**57 *Energy Consumption and Conservation Potential: Supporting Analysis for the National Energy Strategy*** (DOE/EIA-SR/NES/90-02) (Service report) Dec 1990. 272pp. NTIS DE91009200 A12

This report serves as an auxiliary document to Chapter 3 of the National Energy Strategy (NES) publication, *Improving Technology: Modeling Energy Futures for the National Energy Strategy* (DOE/EIA-SR/NES/90-01).

As requested by the Department of Energy (DOE) Office of Conservation and Renewable Energy (CE), this report presents a detailed assessment of the conservation potential in the end-use energy sectors of the U.S. economy. Three projections are presented. The first projection, the reference case, is an update and extension to the year 2030 of the base case projection in the Energy Information Administration (EIA) publication titled the *Annual Energy Outlook 1990* (AEO). The second and third projections presents a High Conservation (HC) excursion and a Very High Conservation (VHC) excursion. The DOE Office of Policy, Planning and Analysis (PE) specified the general nature

of the conservation excursions to be used in the report as part of the NES, while CE defined the overall strategies to be addressed in each economic sector.

**58 *Electricity Supply: Supporting Analysis for the National Energy Strategy*** (DOE/EIA-SR/NES/90-03) (Service report) Jan 1991. 52pp. NTIS DE91009201 A04

This report has been prepared by the Energy Information Administration at the request of the Department of Energy's Office of Policy, Planning and Analysis. The results are based on the assumptions provided by the Department of Energy's Office of Conservation and Renewable Energy, the Office of Nuclear Energy, the Office of Fossil Energy, and the Office of Policy, Planning and Analysis. This report serves as an auxiliary document to Chapter 4 of the publication, *Improving Technology: Modeling Energy Futures for the National Energy Strategy*, prepared by the Energy Information Administration (EIA), to be used as input to the development of a National Energy Strategy. The excursions discussed in this report are not necessarily the policy options which will be selected for inclusion in the National Energy Strategy (NES). This report examines the effects of various supply side options for the electric utilities. The three excursions presented are: (1) "Effects of Clean Air Act Amendments on Reducing SO<sub>2</sub>/NO<sub>x</sub> Emissions" (Chapter 1); (2) "Nuclear Life Extensions/New Nuclear Orders" (Chapter 2), which illustrates the impact of new nuclear power plant orders and the life extension of existing the impact of new nuclear power plant orders and the life extension of existing nuclear plants; and (3) "Nuclear and Accelerated Fossil-Fueled Generating Technologies" (Chapter 2), which portrays accelerated research and development of advanced fossil-fueled generating technologies, making them commercially available earlier, with the inclusion of the nuclear option.

**59 *Renewable Energy Excursion: Supporting Analysis for the National Energy Strategy*** (DOE/EIA-SR/NES/90-04) (Service report) Jan 1991. 28pp. NTIS DE91009202 A03

This report serves as an auxiliary document to three chapters of the National Energy Strategy publication *Improving Technology: Modeling Energy Futures* (DOE/EIA-SR/NES/90-01). It has been prepared by the Energy Information Administration (EIA) at the request of the Department of Energy's Office of Policy, Planning and Analysis. The results are based on a variety of sources, assumptions, forecasts, and in several cases, technologies still in the research and development and demonstration phases. The analysis undertaken for the development of the National Energy Strategy (NES) examines several potential energy supply and demand scenarios over the period 1990-2030. This component of that overall effort addresses the prospects for enhancing the development of the wide-ranging set of energy supplies derived from renewable

resources. Expanding the use of renewable resources is of interest because it could potentially alleviate problems which arise from the depletion of domestic oil and gas resources and because, in general, the renewable forms of energy are more environmentally benign.

**60 Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The** (DOE/EIA-SR/NES/90-05) (Service report) Dec 1990. 72pp. NTIS DE91009203 A04

This report presents the results of a study conducted by the Energy Information Administration (EIA) to estimate U.S. recoverable hydrocarbon resources in support of the National Energy Strategy (NES). NES is intended to serve as a long-term strategy, based on a balancing of numerous interests involving economic growth, energy security, the environment, and energy costs. NES required an analytic background and framework for the formulation of long-term policy. As part of the overall effect, analytic excursions were also undertaken to investigate distinct energy issues relevant to the NES.

**61 Outlook for Natural Gas Imports: Supporting Analysis for the National Energy Strategy, The** (DOE/EIA-SR/NES/90-06) (Service report) Jan 1991. 54pp. NTIS DE91009201 A05

This report presents the results of a study conducted by the Energy Information Administration (EIA) to estimate the potential for future natural gas imports into the United States in support of the National Energy Strategy (NES). NES is intended to serve as a long-term strategy, based on a balancing of numerous interests involving economic growth, energy security, the environment, and energy costs. NES required an analytic background and framework for the formulation of long-term policy. As part of the overall effort, analytic excursions were also undertaken to investigate distinct energy issues relevant to the NES. There are two natural gas import cases addressed in this study: the Reference case and the Expanded LNG Import Capacity case. This report documents the direct contribution of the Energy Information Administration (EIA) to NES: estimates of the levels of Canadian and Mexican pipeline imports and imports received at the four current LNG sites. LNG imports projected from new import terminals depend on projected economic conditions, and so they are dependent on the particular NES scenario and were not specified directly by EIA.

**62 Potential for Coal Liquefaction: Supporting Analysis for the National Energy Strategy, The** (DOE/EIA-SR/NES/90-07) (Service report) Jan 1991. 39pp. NTIS DE91009205 A03

This service report was prepared by the Energy Information Administration (EIA) at the request of the Office of Policy, Planning and Analysis of the U.S. Department of Energy (DOE). To assist in the formulation of the National Energy Strategy (NES), the EIA, in cooperation with other DOE program offices, pre-

pared a reference forecast through 2030, modeled various excursions from the reference case, and analyzed the model results to be used as input to the development of the NES. One of the topics analyzed by the EIA was the potential for coal liquefaction. The EIA's overall work was summarized in *Improving Technology: Modeling Energy Futures for the National Energy Strategy*. This service report is an auxiliary document to the summary publication, describing in detail the topic of coal liquefaction. Also included in the report are the background information on coal liquefaction technology, illustrations of its benefits and costs, and the model input assumptions. The report focuses on the comparison of two cases, a reference case and an accelerated coal liquefaction case, and details their respective coal liquefaction potential as well as their effects on world oil prices and U.S. coal supply and demand. Also summarized in Appendix A are the results of eight other sensitivity cases that were developed to further examine the uncertainty surrounding coal liquefaction potential.

**63 Short-Term Energy Outlook, Quarterly Projections** (DOE/EIA-0202) (Quarterly) Available: GPO Subscription

The Energy Information Administration's (EIA) quarterly forecasts of energy supply, demand, stocks, and prices are presented for each quarter. The forecasts are produced using the Short-Term Integrated Forecasting System (STIFS), which uses two principal driving variables, a macroeconomic forecast, and world oil price assumptions. The three projections for petroleum supply and demand are based on low, middle, and high economic growth scenarios that incorporate high, middle, and low crude oil price trajectories. The tables and discussion in this volume primarily refer to the middle, or base case, scenario and to the domestic situation. Other cases examining the sensitivity of total petroleum demand to varying assumptions about prices, weather, and economic activity are presented. The petroleum outlook includes detailed projections of domestic crude oil production, motor gasoline, distillate fuel oil, residual fuel oil, other products, and inventories. Other projections include natural gas, coal, and electric power. The international petroleum situation is also discussed. An annual companion volume analyzes previous forecast errors. Publication began October 1979.

**64 Annual Energy Outlook 1990, Long-Term Projections** (DOE/EIA-0383(90)) (Annual) Jan 1990. 112pp. NTIS DE90006009 A06

Annual projections of energy supply, demand and prices are presented for the major fuels and electricity. The projections are based on assumptions about world oil prices, economic growth and other factors affecting energy markets. A base case is presented, which is the central forecast. To reflect the uncertainty inherent in any forecast of the future, additional cases are presented. They are based on reasonable lower and upper bounds on two key factors that affect energy

trends--world oil price and the rate of economic growth. The forecasts are policy neutral--they are based on current law, and no new energy laws or regulations are introduced for any purpose. This publication replaces the report entitled *Annual Report to Congress, Volume 3: Energy Projections* (DOE/EIA-0173/3). Due to a change in the naming convention, there was no 1988 issue.

**65** *International Energy Outlook 1990* (DOE/EIA-0484(90)) (Annual) Apr 1990. 68pp. NTIS DE90009069 A04

This report presents the current Energy Information Administration (EIA) assessment of the long-term outlook for international energy markets. It emphasizes oil market developments, particularly future world oil prices and oil production potential. Also presented are projections of the consumption of oil, natural gas, coal, nuclear, and "other" energy sources for selected countries and country groups. The world oil price projections developed in this international setting are used as assumptions for analyses of the U.S. domestic energy markets. Since the U.S. energy market is affected by the international market, the methodology incorporates this interaction to the extent possible. Assessments are revised and published annually.

**66** *Assumptions for the Annual Energy Outlook 1990* (DOE/EIA-0527(90)) (Annual) Feb 1990. 116pp. NTIS DE90007086 A06

This auxiliary document to the *Annual Energy Outlook* (AEO) (DOE/EIA-0383) presents assumptions underlying the forecasts in the AEO. The forecasts presented in the AEO and discussed in this report are outputs of the PC-AEO Forecasting Model (PC-AEO), a personal computer-based modeling system. This is an economic equilibrium modeling system, with component modules representing electric utility pricing and fuel consumption, coal supply and end-use pricing, petroleum product pricing, crude oil production, and natural gas production and pricing. Also included are energy demand models representing end-use energy consumption by major end-use sector. PC-AEO accounts for the interactions among these components of energy markets and projects prices and quantities for which energy supply equals demand. The projections are presented in the AEO as a base case forecast of energy markets and as alternative cases that vary a key determinate of energy market activity, and world oil prices, to characterize a reasonable range of uncertainty for domestic oil production and petroleum imports. This report presents oil price and economic growth assumptions, as well as other quantitative assumptions for specific demand and supply modules of PC-AEO, that were used by EIA in developing the AEO base case and alternative scenario projections. Further details on the methodology, data, and assumptions are available from the contacts listed in the preface.

## 2980 Consumption and Utilization

**67** *Indicators of Energy Efficiency: An International Comparison* (DOE/EIA-SR/EMEU-90-02) (Service report) Aug 1990. 16pp. NTIS DE91005289 A03

This report presents the results of an analysis that examined energy intensity trends in the major industrialized countries and the differences in these trends. In this analysis, the industrialized economies considered are the Group of Seven (G-7): the United States, Canada, Japan, France, Italy, West Germany, and the United Kingdom. The United States is compared with the other G-7 countries on the efficiency of energy; specifically, a comparison of total energy consumption per unit of gross domestic product (GDP) as one of the most common measures of "energy efficiency." The report is shown in colorful graphic charts for the G-7 countries as it examines sectoral energy consumption, industry energy intensity, energy consumption per capita in transportation, population density per square mile, vehicles per person, gasoline prices and taxes, new car fuel efficiency, heating intensities for dwellings/floor space as a measure of climate correction, and energy self-sufficiency.

**68** *Household Energy Consumption and Expenditures 1987, Part 2: Regional Data* (DOE/EIA-0321(87)/2) (Triennial) Feb 1990. 316pp. NTIS DE90006853 A13

This two-part report presents data from the Residential Energy Consumption Survey on the consumption and expenditures of energy in all types of housing units--single-family (including townhouses), apartments, and mobile homes. Part 1 (DOE/EIA-0321(87)1) (published in 1989) contains national-level household energy consumption, expenditures, and the price households pay for electricity, natural gas, fuel oil and kerosene, and liquefied petroleum gas. Part 2 contains household energy consumption, expenditures, and price data for four Census regions and nine Census divisions. Data are presented by household characteristic, such as type of housing structure, number of rooms, area, age of house, degree-day category, ownership, income, and other demographic categories. The number of households and the average amount of fuel consumed are shown for households using each fuel as the main heating fuel along with the average price of each fuel. Appendices include the survey methodology described in detail. The 1987 survey is the first to collect the data on a calendar-year basis. The 1987 issue (Part 1) also includes estimates of end-use consumption and expenditures for space heating, water heating, air conditioning, and appliances.

**69** *Household Vehicles Energy Consumption 1988* (DOE/EIA-0464(88)) (Triennial) Mar 1990. 216pp. NTIS DE90007867 A10

Information on how energy is used for personal transportation by households is presented. These data are collected by the Residential Transportation Energy Consumption Survey (RTECS). Data on energy use

in personal-use vehicles in 1979 through 1981 were collected by the Residential Energy Consumption Survey (RECS). Energy used in household vehicles is compared with energy used in the home. RTECS collects data on the number and type of vehicles per household and, for each vehicle, annual miles traveled, gallons of fuel consumed, type of fuel used, price paid for fuel, and vehicle miles-per-gallon. A summary of findings is presented along with a glossary. Appendices discuss the survey methodology and quality of the data as well as geographic area. Data were collected monthly from June 1979 to September 1981 and then annually in 1983, 1985, and 1988. In 1988, the survey name was dropped from the title. The new title is *Household Vehicles Energy Consumption*.

**70** *Energy Consumption by End-Use Sector: A Comparison of Measures by Consumption and Supply Surveys* (DOE/EIA-0533) (One-time) Apr 1990. 48pp. NTIS DE90015858 A03

This report presents an analysis of how data from the consumption surveys compare with data from the supply surveys. The consumption surveys provide valuable details about energy use by the consumers, while the supply surveys provide valuable detail on trends in total consumption. This report highlights those areas where the two types of surveys overlap and reinforce each other and those areas where they have differences.





# Subject Index

## Alaska

### Petroleum

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil* 27 (DOE/EIA-SR/EMEU/90-01)

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil: Price and Trade Impacts* 28 (DOE/EIA-SR/EMEU/90-3)

## Anthracite

### Production

*Weekly Coal Production* 7 (DOE/EIA-0218)

## Atomic Power

See Nuclear Power

## Automobiles

### Fuel Consumption

*Household Vehicles Energy Consumption 1988* 69 (DOE/EIA-0464(88))

## Automotive Fuels

### Cost

*Household Vehicles Energy Consumption 1988* 69 (DOE/EIA-0464(88))

## Aviation Fuels

See Petroleum

## Bituminous Coal

See Coal

## Coal

*Energy Information Sheet (series)* 38 (DOE/EIA-0240)

### Consumption

*Quarterly Coal Report* 6 (DOE/EIA-0121)

### Distribution

*Coal Distribution* 8 (DOE/EIA-0125)

### Employment

*Coal Production 1989* 5 (DOE/EIA-0118(89))

### Exports

*Quarterly Coal Report* 6 (DOE/EIA-0121)

*Annual Prospects for World Coal Trade 1990* 10 (DOE/EIA-0363(90))

## Forecasting

*Potential for Coal Liquefaction: Supporting Analysis for the National Energy Strategy, The* 62  
(DOE/EIA-SR/NES/90-07)

*Annual Prospects for World Coal Trade 1990* 10  
(DOE/EIA-0363(90))

## Imports

*Quarterly Coal Report* 6 (DOE/EIA-0121)

*Annual Prospects for World Coal Trade 1990* 10  
(DOE/EIA-0363(90))

## International Statistics

*Annual Prospects for World Coal Trade 1990* 10  
(DOE/EIA-0363(90))

## Legislation

*Quarterly Coal Report* 6 (DOE/EIA-0121)

## Prices

*Coal Production 1989* 5 (DOE/EIA-0118(89))

*Quarterly Coal Report* 6 (DOE/EIA-0121)

## Production

*Coal Production 1989* 5 (DOE/EIA-0118(89))

*Quarterly Coal Report* 6 (DOE/EIA-0121)

*Weekly Coal Production* 7 (DOE/EIA-0218)

## Productivity

*Coal Production 1989* 5 (DOE/EIA-0118(89))

## Reserves

*Coal Production 1989* 5 (DOE/EIA-0118(89))

## Stockpiles

*Coal Production 1989* 5 (DOE/EIA-0118(89))

*Quarterly Coal Report* 6 (DOE/EIA-0121)

*Electric Power Monthly* 44 (DOE/EIA-0226)

## Supply and Demand

*Quarterly Coal Report* 6 (DOE/EIA-0121)

## Trade

*Annual Prospects for World Coal Trade 1990* 10  
(DOE/EIA-0363(90))

## Coal Industry

*Quarterly Coal Report* 6 (DOE/EIA-0121)

## Financial Data

*Performance Profiles of Major Energy Producers 1988* 55 (DOE/EIA-0206(88))

## Forecasting

*Annual Outlook for U.S. Coal 1990* 9  
(DOE/EIA-0333(90))

*Annual Prospects for World Coal Trade 1990* 10  
(DOE/EIA-0363(90))

## Trade

*Annual Prospects for World Coal Trade 1990* 10  
(DOE/EIA-0363(90))

## Coal Liquefaction

### Forecasting

*Potential for Coal Liquefaction: Supporting Analysis for the National Energy Strategy, The* 62  
(DOE/EIA-SR/NES/90-07)

## Coal Miners

### Employment

*Coal Production 1989* 5 (DOE/EIA-0118(89))

### Productivity

*Coal Production 1989* 5 (DOE/EIA-0118(89))

## Coke

*Quarterly Coal Report* 6 (DOE/EIA-0121)

## Conservation

See Energy Conservation

## Cooling Degree Days

See Degree Days

## Crude Oil

See Petroleum

## Data Acquisition

### Directories

*Directory of Energy Data Collection Forms* 4 (DOE/EIA-0249(89))

### Evaluation

*Energy Consumption by End-Use Sector: A Comparison of Measures by Consumption and Supply Surveys* 70 (DOE/EIA-0533)

## Degree Days

*Monthly Energy Review.* 36 (DOE/EIA-0035)

## Diesel Fuel

See Petroleum

## Directories

*EIA Publications Directory 1977-1989* 1 (DOE/EIA-0149(77-89))

*EIA New Releases* 3 (DOE/EIA-0204)

*Directory of Energy Data Collection Forms* 4 (DOE/EIA-0249(89))

*Directory of Energy Information Administration Models 1990* 54 (DOE/EIA-0293(90))

## Distillate Fuel Oil

See Petroleum

## Electric Power

### Capacity

*Inventory of Power Plants in the United States 1989* 42 (DOE/EIA-0095(89))

*Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* 47 (DOE/EIA-0474(90))

### Cost

*Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* 47 (DOE/EIA-0474(90))

### Forecasting

*Electricity Supply: Supporting Analysis for the National Energy Strategy* 58 (DOE/EIA-SR/NES/90-03)

## Imports

*Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* 47 (DOE/EIA-0474(90))

*Electric Trade in the United States* 1986 49 (DOE/EIA-0531(86))

## Power Demand

*Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* 47 (DOE/EIA-0474(90))

## Power Generation

*Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* 47 (DOE/EIA-0474(90))

## Prices

*Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* 47 (DOE/EIA-0474(90))

*Electric Sales, Revenue and Bills* 1988 48 (DOE/EIA-0540(88))

## Production

*Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* 47 (DOE/EIA-0474(90))

## Transmission

*Electric Trade in the United States* 1986 49 (DOE/EIA-0531(86))

# Electric Utilities

## Capacity

*Inventory of Power Plants in the United States* 1989 42 (DOE/EIA-0095(89))

## Costs

*Electric Power Monthly* 44 (DOE/EIA-0226)

## Financial Data

*Financial Statistics of Selected Electric Utilities* 1988 45 (DOE/EIA-0437(88))

## Forecasting

*Electricity Supply: Supporting Analysis for the National Energy Strategy* 58 (DOE/EIA-SR/NES/90-03)

## Fossil Fuels

*Cost and Quality of Fuels for Electric Utility Plants* 1989 43 (DOE/EIA-0191(89))

## Fuel Consumption

*Electric Power Monthly* 44 (DOE/EIA-0226)

## Power Generation

*Electric Power Monthly* 44 (DOE/EIA-0226)

## Prices

*Electric Power Monthly* 44 (DOE/EIA-0226)

## Sales

*Electric Power Monthly* 44 (DOE/EIA-0226)

*Electric Sales, Revenue and Bills* 1988 48 (DOE/EIA-0540(88))

## Stockpiles

*Electric Power Monthly* 44 (DOE/EIA-0226)

## Transmission

*Electric Trade in the United States* 1986 49 (DOE/EIA-0531(86))

## Electricity

*Energy Information Sheet (series)* 38 (DOE/EIA-0240)

## Energy Conservation

### Forecasting

*Energy Consumption and Conservation Potential: Supporting Analysis for the National Energy Strategy* 57 (DOE/EIA-SR/NES/90-02)

## Energy Consumption

### State Level Data

*State Energy Data Report Consumption Estimates 1960-1988* 37 (DOE/EIA-0214(88))

## Energy Data Collection

See Data Acquisition

## Energy Expenses

### State Level Data

*State Energy Price and Expenditure Report 1988* 39 (DOE/EIA-0376(88))

## Energy Information Administration

*Annual Report to Congress 1989* 2 (DOE/EIA-0173(89))

## Energy Models

### Directories

*Directory of Energy Information Administration Models 1990* 54 (DOE/EIA-0293(90))

### Energy Models

*Short-Term Integrated Forecasting System: Model Documentation* 53 (DOE/EIA-M041)

### Energy Supply and Demand

*PC-AEO Forecasting Model for the Annual Energy Outlook 1990* 52 (DOE/EIA-M036(90))

### Forecasting

*PC-AEO Forecasting Model for the Annual Energy Outlook 1990* 52 (DOE/EIA-M036(90))

*Short-Term Integrated Forecasting System: Model Documentation* 53 (DOE/EIA-M041)

### Petroleum

*Oil Market Simulation Model User's Guide* 51 (DOE/EIA-M028(90))

## Energy Supply and Demand

*Monthly Energy Review* 36 (DOE/EIA-0035)

*Annual Energy Review 1989* 40 (DOE/EIA-0384(89))

*Energy Facts 1989* 41 (DOE/EIA-0469(89))

### Energy Models

*PC-AEO Forecasting Model for the Annual Energy Outlook 1990* 52 (DOE/EIA-M036(90))

### Forecasting

*PC-AEO Forecasting Model for the Annual Energy Outlook 1990* 52 (DOE/EIA-M036(90))

*Improving Technology: Modeling Energy Futures for the National Energy Strategy* 56 (DOE/EIA-SR/NES/90-01)

*Short-Term Energy Outlook, Quarterly Projections*  
63 (DOE/EIA-0202)

*Annual Energy Outlook 1990, Long-Term Projections* 64 (DOE/EIA-0383(90))

*Assumptions for the Annual Energy Outlook 1990*  
66 (DOE/EIA-0527(90))

## Enriched Uranium

See Uranium

## Forecasting

*Short-Term Integrated Forecasting System: Model Documentation* 53 (DOE/EIA-M041)

### Coal

*Potential for Coal Liquefaction: Supporting Analysis for the National Energy Strategy, The* 62 (DOE/EIA-SR/NES/90-07)

### Coal Industry

*Annual Outlook for U.S. Coal 1990* 9 (DOE/EIA-0333(90))

*Annual Prospects for World Coal Trade 1990* 10 (DOE/EIA-0363(90))

### Electric Power

*Electricity Supply: Supporting Analysis for the National Energy Strategy* 58 (DOE/EIA-SR/NES/90-03)

*Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* 47 (DOE/EIA-0474(90))

### Electric Utilities

*Electricity Supply: Supporting Analysis for the National Energy Strategy* 58 (DOE/EIA-SR/NES/90-03)

## Energy Conservation

*Energy Consumption and Conservation Potential: Supporting Analysis for the National Energy Strategy* 57 (DOE/EIA-SR/NES/90-02)

## Energy Models

*Oil Market Simulation Model User's Guide* 51 (DOE/EIA-M028(90))

*PC-AEO Forecasting Model for the Annual Energy Outlook 1990* 52 (DOE/EIA-M036(90))

## Energy Supply and Demand

*Improving Technology: Modeling Energy Futures for the National Energy Strategy* 56 (DOE/EIA-SR/NES/90-01)

*Short-Term Energy Outlook, Quarterly Projections* 63 (DOE/EIA-0202)

*Annual Energy Outlook 1990, Long-Term Projections* 64 (DOE/EIA-0383(90))

*Assumptions for the Annual Energy Outlook 1990* 66 (DOE/EIA-0527(90))

## International Statistics

*International Energy Outlook 1990* 65 (DOE/EIA-0484(90))

## Natural Gas

*Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* 60 (DOE/EIA-SR/NES/90-05)

*Outlook for Natural Gas Imports: Supporting Analysis for the National Energy Strategy, The* 61 (DOE/EIA-SR/NES/90-06)

*Annual Outlook for Oil and Gas 1990* 25 (DOE/EIA-0517(90))

## Nuclear Power

*Commercial Nuclear Power: Prospects for the United States and the World 1990* 50 (DOE/EIA-0438(90))

## **Petroleum**

*Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* 60 (DOE/EIA-SR/NES/90-05)

*Annual Outlook for Oil and Gas 1990* 25 (DOE/EIA-0517(90))

## **Prices**

*Annual Energy Outlook 1990, Long-Term Projections* 64 (DOE/EIA-0383(90))

## **Renewable Energy**

*Renewable Energy Excursion: Supporting Analysis for the National Energy Strategy* 59 (DOE/EIA-SR/NES/90-04)

## **Uranium**

*World Nuclear Fuel Cycle Requirements 1990* 34 (DOE/EIA-0436(90))

## **Foreign Statistics**

See International Statistics

## **Fossil Fuel Power Plants**

### **Cost**

*Electric Plant Cost and Power Production Expenses 1988* 46 (DOE/EIA-0455(88))

## **Fossil Fuels**

### **Cost**

*Cost and Quality of Fuels for Electric Utility Plants 1989* 43 (DOE/EIA-0191(89))

## **Fuel Oil**

See Petroleum

## **Gas Turbines**

See Power Plants

## **Heating Degree Days**

See Degree Days

## **Heating Oil**

See Petroleum

## **Houses**

See Residential Sector

## **Housing**

See Residential Sector

## **Hydroelectric Power Plants**

### **Cost**

*Electric Plant Cost and Power Production Expenses 1988* 46 (DOE/EIA-0455(88))

## International Statistics

### Energy Efficiency

*Indicators of Energy Efficiency: An International Comparison* 67 (DOE/EIA-SR/EMEU-90-02)

### Forecasting

*International Energy Outlook 1990* 65  
(DOE/EIA-0484(90))

### Natural Gas

*International Oil and Gas Exploration and Development Activities* 18 (DOE/EIA-0523)

### Nuclear Power

*Commercial Nuclear Power: Prospects for the United States and the World 1990* 50  
(DOE/EIA-0438(90))

### Petroleum

*International Petroleum Statistics Report* 15  
(DOE/EIA-0520)

*International Oil and Gas Exploration and Development Activities* 18 (DOE/EIA-0523)

## Jet Fuel

See Petroleum

## Kerosene

See Petroleum

## Lignite

See Coal

## Liquefied Natural Gas

### Imports

*Outlook for Natural Gas Imports: Supporting Analysis for the National Energy Strategy, The* 61  
(DOE/EIA-SR/NES/90-06)

## Methane

See Natural Gas

## Models

See Energy Models

## National Energy Strategy

*Improving Technology: Modeling Energy Futures for the National Energy Strategy* 56 (DOE/EIA-SR/NES/90-01)

*Energy Consumption and Conservation Potential: Supporting Analysis for the National Energy Strategy* 57 (DOE/EIA-SR/NES/90-02)

*Electricity Supply: Supporting Analysis for the National Energy Strategy* 58 (DOE/EIA-SR/NES/90-03)

*Renewable Energy Excursion: Supporting Analysis for the National Energy Strategy* 59 (DOE/EIA-SR/NES/90-04)

*Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* 60 (DOE/EIA-SR/NES/90-05)

*Outlook for Natural Gas Imports: Supporting Analysis for the National Energy Strategy, The* 61 (DOE/EIA-SR/NES/90-06)

*Potential for Coal Liquefaction: Supporting Analysis for the National Energy Strategy, The* 62 (DOE/EIA-SR/NES/90-07)

## Natural Gas

*Energy Information Sheet (series)* 38 (DOE/EIA-0240)



## Consumption

*Natural Gas Monthly* 30 (DOE/EIA-0130)

## Consumption Rates

*Natural Gas Annual* 1989 31  
(DOE/EIA-0131(89))

## Exploration

*International Oil and Gas Exploration and Development Activities* 18 (DOE/EIA-0523)

## Exports

*Natural Gas Monthly* 30 (DOE/EIA-0130)  
*Natural Gas Annual* 1989 31  
(DOE/EIA-0131(89))

## Forecasting

*Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* 60 (DOE/EIA-SR/NES/90-05)

*Outlook for Natural Gas Imports: Supporting Analysis for the National Energy Strategy, The* 61  
(DOE/EIA-SR/NES/90-06)

*Annual Outlook for Oil and Gas* 1990 25  
(DOE/EIA-0517(90))

## Imports

*Outlook for Natural Gas Imports: Supporting Analysis for the National Energy Strategy, The* 61  
(DOE/EIA-SR/NES/90-06)

*Natural Gas Monthly* 30 (DOE/EIA-0130)

*Natural Gas Annual* 1989 31  
(DOE/EIA-0131(89))

## Prices

*Natural Gas Monthly* 30 (DOE/EIA-0130)  
*Natural Gas Annual* 1989 31  
(DOE/EIA-0131(89))

## Production

*Natural Gas Monthly* 30 (DOE/EIA-0130)

*Natural Gas Annual* 1989 31  
(DOE/EIA-0131(89))

*Natural Gas Production Responses to a Changing Market Environment 1978-1988* 32 (DOE/EIA-0532)

## Reserves

*Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* 60 (DOE/EIA-SR/NES/90-05)

*U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1989 Annual Report* 16  
(DOE/EIA-0216(89))

*Natural Gas Production Responses to a Changing Market Environment 1978-1988* 32 (DOE/EIA-0532)

*U.S. Oil & Gas Reserve by Year of Field Discovery* 17 (DOE/EIA-0534)

## Resources

*Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* 60 (DOE/EIA-SR/NES/90-05)

## Storage

*Natural Gas Monthly* 30 (DOE/EIA-0130)

*Natural Gas Annual* 1989 31  
(DOE/EIA-0131(89))

## Natural Gas Fields

*Oil and Gas Field Code Master List* 1989 20  
(DOE/EIA-0370(89))

*U.S. Oil & Gas Reserve by Year of Field Discovery* 17 (DOE/EIA-0534)

## Natural Gas Industry

*Natural Gas Production Responses to a Changing Market Environment 1978-1988* 32 (DOE/EIA-0532)

## Financial Data

*Performance Profiles of Major Energy Producers*  
1988 55 (DOE/EIA-0206(88))

## Forecasting

*Outlook for Natural Gas Imports: Supporting Analysis for the National Energy Strategy, The* 61  
(DOE/EIA-SR/NES/90-06)

## Natural Gas Liquids

### Reserves

*U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1989 Annual Report* 16  
(DOE/EIA-0216(89))

## Nuclear Industry

### Financial Data

*Performance Profiles of Major Energy Producers*  
1988 55 (DOE/EIA-0206(88))

## Nuclear Power

*Energy Information Sheet (series)* 38 (DOE/EIA-0240)

### Forecasting

*Commercial Nuclear Power: Prospects for the United States and the World 1990* 50  
(DOE/EIA-0438(90))

### International Statistics

*Commercial Nuclear Power: Prospects for the United States and the World 1990* 50  
(DOE/EIA-0438(90))

## Nuclear Power Plants

### Cost

*Electric Plant Cost and Power Production Expenses*  
1988 46 (DOE/EIA-0455(88))

### Fuel Consumption

*World Nuclear Fuel Cycle Requirements 1990* 34  
(DOE/EIA-0436(90))

## Nuclear Waste

See Uranium

## Oil

See Petroleum

## Oil Fields

*Oil and Gas Field Code Master List 1989* 20  
(DOE/EIA-0370(89))

### Equipment

*Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations 1987, 1988, 1989* 19 (DOE/EIA-0185(89))

### Operating Cost

*Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations 1987, 1988, 1989* 19 (DOE/EIA-0185(89))

### Production

*Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations 1987, 1988, 1989* 19 (DOE/EIA-0185(89))

## Pennsylvania

### Coal

*Weekly Coal Production* 7 (DOE/EIA-0218)

## Persian Gulf War

*Energy Situation Analysis Report* 11 (DOE/EIA-ESAR)

## Petroleum

*Energy Information Sheet (series)* 38 (DOE/EIA-0240)

*International Petroleum Statistics Report* 15 (DOE/EIA-0520)

### Alaska

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil* 27 (DOE/EIA-SR/EMEU/90-01)

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil: Price and Trade Impacts* 28 (DOE/EIA-SR/EMEU/90-3)

### Energy Models

*Oil Market Simulation Model User's Guide* 51 (DOE/EIA-M028(90))

### Exploration

*International Oil and Gas Exploration and Development Activities* 18 (DOE/EIA-0523)

### Exports

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil* 27 (DOE/EIA-SR/EMEU/90-01)

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil: Price and Trade Impacts* 28 (DOE/EIA-SR/EMEU/90-3)

*Petroleum Supply Monthly* 12 (DOE/EIA-0109)

*Petroleum Supply Annual 1989, Volume 1* 14 (DOE/EIA-0340(89)/1)

*Petroleum Supply Annual 1989, Volume 2* 14 (DOE/EIA-0340(89)/2)

### Forecasting

*Oil Market Simulation Model User's Guide* 51 (DOE/EIA-M028(90))

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil* 27 (DOE/EIA-SR/EMEU/90-01)

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil: Price and Trade Impacts* 28 (DOE/EIA-SR/EMEU/90-3)

*Analysis of Increasing the Size of the Strategic Petroleum Reserve to One Billion Barrels, An* 29 (DOE/EIA-SR/ICID/90-01)

*Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* 60 (DOE/EIA-SR/NES/90-05)

*Annual Outlook for Oil and Gas 1990* 25 (DOE/EIA-0517(90))

### Imports

*Petroleum Supply Monthly* 12 (DOE/EIA-0109)

*Weekly Petroleum Status Report* 13 (DOE/EIA-0208)

*Petroleum Supply Annual 1989, Volume 1* 14 (DOE/EIA-0340(89)/1)

*Petroleum Supply Annual 1989, Volume 2* 14 (DOE/EIA-0340(89)/2)

### Inventories

*Petroleum Supply Monthly* 12 (DOE/EIA-0109)

*Weekly Petroleum Status Report* 13 (DOE/EIA-0208)

*Petroleum Supply Annual 1989, Volume 1* 14 (DOE/EIA-0340(89)/1)

*Petroleum Supply Annual 1989, Volume 2* 14 (DOE/EIA-0340(89)/2)

*Winter Fuels Report* 26 (DOE/EIA-0538)

### Market

*Energy Situation Analysis Report* 11 (DOE/EIA-ESAR)

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil* 27 (DOE/EIA-SR/EMEU/90-01)

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil: Price and Trade Impacts* 28 (DOE/EIA-SR/EMEU/90-3)

*Petroleum Prices and Profits in the 90 Days Following the Invasion of Kuwait* 22 (DOE/EIA-SR/OA/90-01)

*Analysis of Heating Fuel Market Behavior 1989-1990, An* 23 (DOE/EIA-SR/OG-90-01)

*Petroleum Marketing Monthly* 24 (DOE/EIA-0380)

## Prices

*Energy Situation Analysis Report* 11 (DOE/EIA-ESAR)

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil* 27 (DOE/EIA-SR/EMEU/90-01)

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil: Price and Trade Impacts* 28 (DOE/EIA-SR/EMEU/90-3)

*Petroleum Prices and Profits in the 90 Days Following the Invasion of Kuwait* 22 (DOE/EIA-SR/OA/90-01)

*Analysis of Heating Fuel Market Behavior 1989-1990, An* 23 (DOE/EIA-SR/OG-90-01)

*Weekly Petroleum Status Report* 13 (DOE/EIA-0208)

*Petroleum Marketing Monthly* 24 (DOE/EIA-0380)

*Winter Fuels Report* 26 (DOE/EIA-0538)

## Production

*Petroleum Supply Monthly* 12 (DOE/EIA-0109)

*Petroleum Supply Annual 1989, Volume 1* 14 (DOE/EIA-0340(89)/1)

*Petroleum Supply Annual 1989, Volume 2* 14 (DOE/EIA-0340(89)/2)

## Reserves

*Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* 60 (DOE/EIA-SR/NES/90-05)

*U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1989 Annual Report* 16 (DOE/EIA-0216(89))

*U.S. Oil & Gas Reserve by Year of Field Discovery* 17 (DOE/EIA-0534)

## Resources

*Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* 60 (DOE/EIA-SR/NES/90-05)

## Sales

*Petroleum Marketing Monthly* 24 (DOE/EIA-0380)

## Supply and Demand

*Petroleum Supply Monthly* 12 (DOE/EIA-0109)

*Weekly Petroleum Status Report* 13 (DOE/EIA-0208)

*Petroleum Supply Annual 1989, Volume 1* 14 (DOE/EIA-0340(89)/1)

*Petroleum Supply Annual 1989, Volume 2* 14 (DOE/EIA-0340(89)/2)

## Petroleum Industry

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil* 27 (DOE/EIA-SR/EMEU/90-01)

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil: Price and Trade Impacts* 28 (DOE/EIA-SR/EMEU/90-3)

## Financial Data

*Petroleum Prices and Profits in the 90 Days Following the Invasion of Kuwait* 22 (DOE/EIA-SR/OA/90-01)

*Analysis of Heating Fuel Market Behavior 1989-1990, An* 23 (DOE/EIA-SR/OG-90-01)

*Performance Profiles of Major Energy Producers 1988* 55 (DOE/EIA-0206(88))

*U.S. Petroleum Refining Industry in the 1980's, The* 21 (DOE/EIA-0536)

## Refining

*U.S. Petroleum Refining Industry in the 1980's, The* 21 (DOE/EIA-0536)

## Petroleum Products

*Annual Energy Review 1989* 40  
(DOE/EIA-0384(89))

See Petroleum

### Forecasting

*Short-Term Energy Outlook, Quarterly Projections*  
63 (DOE/EIA-0202)

*Annual Energy Outlook 1990, Long-Term Projections* 64 (DOE/EIA-0383(90))

## Petroleum Refineries

*Weekly Petroleum Status Report* 13 (DOE/EIA-0208)

*Petroleum Supply Annual 1989, Volume 1* 14  
(DOE/EIA-0340(89)/1)

*Petroleum Supply Annual 1989, Volume 2* 14  
(DOE/EIA-0340(89)/2)

## Projections

See Forecasting

### Operations

*U.S. Petroleum Refining Industry in the 1980's, The* 21 (DOE/EIA-0536)

## Reactors

See Nuclear Power Plants

### Ownership

*U.S. Petroleum Refining Industry in the 1980's, The* 21 (DOE/EIA-0536)

## Refineries

See Petroleum Refineries

## Power Plants

## Renewable Energy

### Capacity

*Inventory of Power Plants in the United States 1989*  
42 (DOE/EIA-0095(89))

### Forecasting

*Renewable Energy Excursion: Supporting Analysis for the National Energy Strategy* 59 (DOE/EIA-SR/NES/90-04)

### Cost

*Electric Plant Cost and Power Production Expenses 1988* 46 (DOE/EIA-0455(88))

## Reporting Requirements

### Operating Cost

*Electric Plant Cost and Power Production Expenses 1988* 46 (DOE/EIA-0455(88))

*Directory of Energy Data Collection Forms* 4  
(DOE/EIA-0249(89))

## Prices

*Monthly Energy Review* 36 (DOE/EIA-0035)

## Residential Sector

### Energy Consumption

*Household Energy Consumption and Expenditures  
1987, Part 2: Regional Data* 68  
(DOE/EIA-0321(87)/2)

## Shortages

See Supply Disruptions

## Spent Fuel

See Uranium

## State Level Data

### Prices

*State Energy Price and Expenditure Report 1988*  
39 (DOE/EIA-0376(88))

## Strategic Petroleum Reserve

*Analysis of Increasing the Size of the Strategic Petroleum Reserve to One Billion Barrels, An* 29  
(DOE/EIA-SR/ICID/90-01)

## Supply Disruptions

*Analysis of Increasing the Size of the Strategic Petroleum Reserve to One Billion Barrels, An* 29  
(DOE/EIA-SR/ICID/90-01)

## SPR

See Strategic Petroleum Reserve

## Transportation Sector

*Household Vehicles Energy Consumption 1988* 69  
(DOE/EIA-0464(88))

## Uranium

### Exploration

*Uranium Industry Annual 1989* 33  
(DOE/EIA-0478(89))

### Fuel Cycle

*Spent Nuclear Fuel Discharges From U.S. Reactors 1988* 35 (DOE/EIA-SR/CNEAF/90-01)

*World Nuclear Fuel Cycle Requirements 1990* 34  
(DOE/EIA-0436(90))

### Industry

*Uranium Industry Annual 1989* 33  
(DOE/EIA-0478(89))

### Market

*Uranium Industry Annual 1989* 33  
(DOE/EIA-0478(89))

## Vehicles

### Fuel Consumption

*Household Vehicles Energy Consumption 1988* 69  
(DOE/EIA-0464(88))

## World Energy Data

See International Statistics

# Report Number Index

**(DOE/EIA-ESAR)** *Energy Situation Analysis Report* Aug 1990. 6pp. Available: NEIC 11

**(DOE/EIA-M028(90))** *Oil Market Simulation Model User's Guide* Jul 1990. 10pp. NTIS DE90015982 A03 51

**(DOE/EIA-M036(90))** *PC-AEO Forecasting Model for the Annual Energy Outlook 1990* Mar 1990. 444pp. NTIS DE90007664 A16 52

**(DOE/EIA-M041)** *Short-Term Integrated Forecasting System: Model Documentation* Aug 1990. 136pp. NTIS DE90017380 A07 53

**(DOE/EIA-SR/CNEAF/90-01)** *Spent Nuclear Fuel Discharges From U.S. Reactors 1988* Mar 1990. 176pp. NTIS DE91005279 A09 35

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**(DOE/EIA-SR/ICID/90-01)** *Analysis of Increasing the Size of the Strategic Petroleum Reserve to One Billion Barrels, An* Feb 1990. 111pp. NTIS DE91005278 A06 29

**(DOE/EIA-SR/NES/90-01)** *Improving Technology: Modeling Energy Futures for the National Energy Strategy* Jan 1991. 148pp. NTIS DE91009199 A07 56

**(DOE/EIA-SR/NES/90-02)** *Energy Consumption and Conservation Potential: Supporting Analysis for the National Energy Strategy* Dec 1990. 272pp. NTIS DE91009200 A12 57

**(DOE/EIA-SR/NES/90-03)** *Electricity Supply: Supporting Analysis for the National Energy Strategy* Jan 1991. 52pp. NTIS DE91009201 A04 58

**(DOE/EIA-SR/NES/90-04)** *Renewable Energy Excursion: Supporting Analysis for the National Energy Strategy* Jan 1991. 28pp. NTIS DE91009202 A03 59

**(DOE/EIA-SR/NES/90-05)** *Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* Dec 1990. 72pp. NTIS DE91009203 A04 60

**(DOE/EIA-SR/NES/90-06)** *Outlook for Natural Gas Imports: Supporting Analysis for the National Energy Strategy, The* Jan 1991. 54pp. NTIS DE91009201 A05 61

**(DOE/EIA-SR/NES/90-07)** *Potential for Coal Liquefaction: Supporting Analysis for the National Energy Strategy, The* Jan 1991. 39pp. NTIS DE91009205 A03 62

**(DOE/EIA-SR/OA/90-01)** *Petroleum Prices and Profits in the 90 Days Following the Invasion of Kuwait* Nov 1990. 84pp. NTIS DE91006828 A05 22

**(DOE/EIA-SR/OG-90-01)** *Analysis of Heating Fuel Market Behavior 1989-1990, An* Jun 1990. 148pp. NTIS DE91005275 A07 23

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**(DOE/EIA-0095(89))** *Inventory of Power Plants in the United States 1989* Oct 1990. 400pp. NTIS DE91000630 A17 42

**(DOE/EIA-0109)** *Petroleum Supply Monthly* Available: GPO Subscription 12

**(DOE/EIA-0118(89))** *Coal Production 1989* Dec 1990. 160pp. NTIS DE91004900 A08 5

**(DOE/EIA-0121)** *Quarterly Coal Report* Available: GPO Subscription 6

**(DOE/EIA-0125)** *Coal Distribution* Available: GPO Subscription 8

**(DOE/EIA-0130)** *Natural Gas Monthly* Available: GPO Subscription 30

- (DOE/EIA-0131(89)) *Natural Gas Annual 1989* Oct 1990. 252pp. NTIS DE91001333 A12 31
- (DOE/EIA-0149(77-89)) *EIA Publications Directory 1977-1989* Jun 1990. 412pp. NTIS DE90012418 A18 1
- (DOE/EIA-0173(89)) *Annual Report to Congress 1989* Mar 1990. 80pp. NTIS DE90007494 A05 2
- (DOE/EIA-0185(89)) *Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations 1987, 1988, 1989* Aug 1990. 116pp. NTIS DE90014685 A06 19
- (DOE/EIA-0191(89)) *Cost and Quality of Fuels for Electric Utility Plants 1989* Jul 1990. 244pp. NTIS DE90014382 A11 43
- (DOE/EIA-0202) *Short-Term Energy Outlook, Quarterly Projections* Available: GPO Subscription 63
- (DOE/EIA-0204) *EIA New Releases* Available: NEIC 3
- (DOE/EIA-0206(88)) *Performance Profiles of Major Energy Producers 1988* Feb 1990. 176pp. NTIS DE90006865 A09 55
- (DOE/EIA-0208) *Weekly Petroleum Status Report* Available: GPO Subscription 13
- (DOE/EIA-0214(88)) *State Energy Data Report Consumption Estimates 1960-1988* May 1990. 484pp. NTIS DE90010700 A20 37
- (DOE/EIA-0216(89)) *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1989 Annual Report* Oct 1990. 120pp. NTIS DE91001303 A06 16
- (DOE/EIA-0218) *Weekly Coal Production* Available: GPO Subscription 7
- (DOE/EIA-0226) *Electric Power Monthly* Available: GPO Subscription 44
- (DOE/EIA-0240) *Energy Information Sheet (series)* Jun 1990. 1p. Available: NEIC 38
- (DOE/EIA-0249(89)) *Directory of Energy Data Collection Forms* Jan 1990. 68pp. NTIS DE90006017 A04 4
- (DOE/EIA-0293(90)) *Directory of Energy Information Administration Models 1990* Jun 1990. 100pp. NTIS DE90012082 A05 54
- (DOE/EIA-0321(87)/2) *Household Energy Consumption and Expenditures 1987, Part 2: Regional Data* Feb 1990. 316pp. NTIS DE90006853 A13 68
- (DOE/EIA-0333(90)) *Annual Outlook for U.S. Coal 1990* May 1990. 56pp. NTIS DE90011958 A03 9
- (DOE/EIA-0340(89)/1) *Petroleum Supply Annual 1989, Volume 1* May 1990. 180pp. NTIS DE90012613 A09 14
- (DOE/EIA-0340(89)/2) *Petroleum Supply Annual 1989, Volume 2* Jun 1990. 588pp. NTIS DE90016012 A25 14
- (DOE/EIA-0363(90)) *Annual Prospects for World Coal Trade 1990* Jun 1990. 124pp. NTIS DE90013084 A06 10
- (DOE/EIA-0370(89)) *Oil and Gas Field Code Master List 1989* Jan 1990. 688pp. NTIS DE9005313 A99 20
- (DOE/EIA-0376(88)) *State Energy Price and Expenditure Report 1988* Oct 1990. 260pp. NTIS DE91000925 A12 39
- (DOE/EIA-0380) *Petroleum Marketing Monthly* Available: GPO Subscription 24
- (DOE/EIA-0383(90)) *Annual Energy Outlook 1990, Long-Term Projections* Jan 1990. 112pp. NTIS DE90006009 A06 64
- (DOE/EIA-0384(89)) *Annual Energy Review 1989* Jun 1990. 324pp. NTIS DE90012064 A14 40
- (DOE/EIA-0436(90)) *World Nuclear Fuel Cycle Requirements 1990* Nov 1990. 88pp. NTIS DE91001973 A05 34
- (DOE/EIA-0437(88)) *Financial Statistics of Selected Electric Utilities 1988* Mar 1990. 1116pp. NTIS DE90008781 A99 45
- (DOE/EIA-0438(90)) *Commercial Nuclear Power: Prospects for the United States and the World 1990* Oct 1990. 160pp. NTIS DE91000877 A07 50
- (DOE/EIA-0455(88)) *Electric Plant Cost and Power Production Expenses 1988* Aug 1990. 172pp. NTIS DE90015997 A06 46
- (DOE/EIA-0464(88)) *Household Vehicles Energy Consumption 1988* Mar 1990. 216pp. NTIS DE90007867 A10 69
- (DOE/EIA-0469(89)) *Energy Facts 1989* Dec 1990. 128pp. NTIS DE91004629 A07 41
- (DOE/EIA-0474(90)) *Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* Jun 1990. 80pp. NTIS DE90012750 A05 47
- (DOE/EIA-0478(89)) *Uranium Industry Annual 1989* Sep 1990. 132pp. NTIS DE90017413 A07 33
- (DOE/EIA-0484(90)) *International Energy Outlook 1990* Apr 1990. 68pp. NTIS DE90009069 A04 65



**(DOE/EIA-0517(90))** *Annual Outlook for Oil and Gas 1990* Jun 1990. 128pp. NTIS DE90012192 A07 25

**(DOE/EIA-0520)** *International Petroleum Statistics Report* Available: GPO Subscription 15

**(DOE/EIA-0523)** *International Oil and Gas Exploration and Development Activities* Available: GPO Subscription 18

**(DOE/EIA-0527(90))** *Assumptions for the Annual Energy Outlook 1990* Feb 1990. 116pp. NTIS DE90007086 A06 66

**(DOE/EIA-0531(86))** *Electric Trade in the United States 1986* Jun 1990. 304pp. NTIS DE90012819 A13 49

**(DOE/EIA-0532)** *Natural Gas Production Responses to a Changing Market Environment 1978-1988* Jun 1990. 140pp. NTIS DE90011844 A07 32

**(DOE/EIA-0533)** *Energy Consumption by End-Use Sector: A Comparison of Measures by Consumption and Supply Surveys* Apr 1990. 48pp. NTIS DE90015858 A03 70

**(DOE/EIA-0534)** *U.S. Oil & Gas Reserve by Year of Field Discovery* Sep 1990. 152pp. NTIS DE90017657 A07 17

**(DOE/EIA-0536)** *U.S. Petroleum Refining Industry in the 1980's, The* Oct 1990. 100pp. NTIS DE91001726 A06 21

**(DOE/EIA-0538)** *Winter Fuels Report* Oct 1990. Available: NEIC 26

**(DOE/EIA-0540(88))** *Electric Sales, Revenue and Bills 1988* Mar 1990. 236pp. NTIS DE90008854 A11 48



# Title Index

*Analysis of Heating Fuel Market Behavior 1989-1990, An* (DOE/EIA-SR/OG-90-01) 23

*Analysis of Increasing the Size of the Strategic Petroleum Reserve to One Billion Barrels, An* (DOE/EIA-SR/ICID/90-01) 29

*Annual Energy Outlook 1990, Long-Term Projections* (DOE/EIA-0383(90)) 64

*Annual Energy Review 1989* (DOE/EIA-0384(89)) 40

*Annual Outlook for Oil and Gas 1990* (DOE/EIA-0517(90)) 25

*Annual Outlook for U.S. Coal 1990* (DOE/EIA-0333(90)) 9

*Annual Outlook for U.S. Electric Power 1990: Projections Through 2010* (DOE/EIA-0474(90)) 47

*Annual Prospects for World Coal Trade 1990* (DOE/EIA-0363(90)) 10

*Annual Report to Congress 1989* (DOE/EIA-0173(89)) 2

*Assumptions for the Annual Energy Outlook 1990* (DOE/EIA-0527(90)) 66

*Coal Distribution* (DOE/EIA-0125) 8

*Coal Production 1989* (DOE/EIA-0118(89)) 5

*Commercial Nuclear Power: Prospects for the United States and the World 1990* (DOE/EIA-0438(90)) 50

*Cost and Quality of Fuels for Electric Utility Plants 1989* (DOE/EIA-0191(89)) 43

*Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations 1987, 1988, 1989* (DOE/EIA-0185(89)) 19

*Directory of Energy Data Collection Forms* (DOE/EIA-0249(89)) 4

*Directory of Energy Information Administration Models 1990* (DOE/EIA-0293(90)) 54

*Domestic Oil and Gas Recoverable Resource Base: Supporting Analysis for the National Energy Strategy, The* (DOE/EIA-SR/NES/90-05) 60

*Electric Plant Cost and Power Production Expenses 1988* (DOE/EIA-0455(88)) 46

*Electric Power Monthly* (DOE/EIA-0226) 44

*Electric Sales, Revenue and Bills 1988* (DOE/EIA-0540(88)) 48

*Electric Trade in the United States 1986* (DOE/EIA-0531(86)) 49

*Electricity Supply: Supporting Analysis for the National Energy Strategy* (DOE/EIA-SR/NES/90-03) 58

*Energy Consumption and Conservation Potential: Supporting Analysis for the National Energy Strategy* (DOE/EIA-SR/NES/90-02) 57

*Energy Consumption by End-Use Sector: A Comparison of Measures by Consumption and Supply Surveys* (DOE/EIA-0533) 70

*Energy Facts 1989* (DOE/EIA-0469(89)) 41

*Energy Information Sheet (series)* (DOE/EIA-0240) 38

*Energy Situation Analysis Report* (DOE/EIA-ESAR) 11

*EIA New Releases* (DOE/EIA-0204) 3

*EIA Publications Directory 1977-1989* (DOE/EIA-0149(77-89)) 1

*Financial Statistics of Selected Electric Utilities 1988* (DOE/EIA-0437(88)) 45

*Household Energy Consumption and Expenditures 1987, Part 2: Regional Data* (DOE/EIA-0321(87)/2) 68

*Household Vehicles Energy Consumption 1988* (DOE/EIA-0464(88)) 69

*Implications of Lifting the Ban on the Export of Alaskan Crude Oil: Price and Trade Impacts* (DOE/EIA-SR/EMEU/90-3) 28

***Implications of Lifting the Ban on the Export of Alaskan Crude Oil*** (DOE/EIA-SR/EMEU/90-01) 27

***Improving Technology: Modeling Energy Futures for the National Energy Strategy*** (DOE/EIA-SR/NES/90-01) 56

***Indicators of Energy Efficiency: An International Comparison*** (DOE/EIA-SR/EMEU-90-02) 67

***International Energy Outlook 1990*** (DOE/EIA-0484(90)) 65

***International Oil and Gas Exploration and Development Activities*** (DOE/EIA-0523) 18

***International Petroleum Statistics Report*** (DOE/EIA-0520) 15

***Inventory of Power Plants in the United States 1989*** (DOE/EIA-0095(89)) 42

***Monthly Energy Review*** (DOE/EIA-0035) 36

***Natural Gas Annual 1989*** (DOE/EIA-0131(89)) 31

***Natural Gas Monthly*** (DOE/EIA-0130) 30

***Natural Gas Production Responses to a Changing Market Environment 1978-1988*** (DOE/EIA-0532) 32

***Oil and Gas Field Code Master List 1989*** (DOE/EIA-0370(89)) 20

***Oil Market Simulation Model User's Guide*** (DOE/EIA-M028(90)) 51

***Outlook for Natural Gas Imports: Supporting Analysis for the National Energy Strategy, The*** (DOE/EIA-SR/NES/90-06) 61

***Performance Profiles of Major Energy Producers 1988*** (DOE/EIA-0206(88)) 55

***Petroleum Marketing Monthly*** (DOE/EIA-0380) 24

***Petroleum Prices and Profits in the 90 Days Following the Invasion of Kuwait*** (DOE/EIA-SR/OA/90-01) 22

***Petroleum Supply Annual 1989, Volume 1*** (DOE/EIA-0340(89)/1) 14

***Petroleum Supply Annual 1989, Volume 2*** (DOE/EIA-0340(89)/2) 14

***Petroleum Supply Monthly*** (DOE/EIA-0109) 12

***Potential for Coal Liquefaction: Supporting Analysis for the National Energy Strategy, The*** (DOE/EIA-SR/NES/90-07) 62

***PC-AEO Forecasting Model for the Annual Energy Outlook 1990*** (DOE/EIA-M036(90)) 52

***Quarterly Coal Report*** (DOE/EIA-0121) 6

***Renewable Energy Excursion: Supporting Analysis for the National Energy Strategy*** (DOE/EIA-SR/NES/90-04) 59

***Short-Term Energy Outlook, Quarterly Projections*** (DOE/EIA-0202) 63

***Short-Term Integrated Forecasting System: Model Documentation*** (DOE/EIA-M041) 53

***Spent Nuclear Fuel Discharges From U.S. Reactors 1988*** (DOE/EIA-SR/CNEAF/90-01) 35

***State Energy Data Report Consumption Estimates 1960-1988*** (DOE/EIA-0214(88)) 37

***State Energy Price and Expenditure Report 1988*** (DOE/EIA-0376(88)) 39

***U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1989 Annual Report*** (DOE/EIA-0216(89)) 16

***U.S. Oil & Gas Reserve by Year of Field Discovery*** (DOE/EIA-0534) 17

***U.S. Petroleum Refining Industry in the 1980's, The*** (DOE/EIA-0536) 21

***Uranium Industry Annual 1989*** (DOE/EIA-0478(89)) 33

***Weekly Coal Production*** (DOE/EIA-0218) 7

***Weekly Petroleum Status Report*** (DOE/EIA-0208) 13

***Winter Fuels Report*** (DOE/EIA-0538) 26

***World Nuclear Fuel Cycle Requirements 1990*** (DOE/EIA-0436(90)) 34

# Energy Information Administration's Products, Services, and Ordering Information

## Machine-Readable Data Files and Modeling Programs

Machine-readable data files and modeling programs are available on 9-track tape from the National Technical Information Service (NTIS). Some are available

on diskettes. Selected data files and models on diskette are also available from the U.S. Government Printing Office (GPO). Contact the National Energy Information Center (202/586-8800) for a comprehensive list and descriptions. Call NTIS on (703)487-4650 for current prices of NTIS products. Call GPO on (202)275-0186 for current prices of GPO products. Below are those released in 1990.

## NTIS

NTIS Order Number	Frequency	Title	Dates of Coverage
PB91-506741	Annual	Annual Electric Generator Report (ASCII Version)	1989
PB91-506741	Annual	Annual Electric Generator Report (EBCDIC Version)	1989
PB90-502352	Annual	Annual Electric Utility Report	1984-1988
PB91-505495	Annual	Annual Energy Outlook 1990 (Diskettes)	1990
PB91-505099	Annual	Annual Energy Review (Diskette)	1989
PB90-501594	Annual	Annual Report of Major Electric Utilities: Licensees and Others	1988
PB90-501701	Annual	Annual Report of Public Electric Utilities	1988
PB90-502378	Annual	Coal Production and Related Data	1986-1988
PB91-507285	Annual	Levelized Nuclear Fuel Cost Code (LNFCC 1990) (Diskette)	1990
PB90-591200	Monthly	Monthly Electric Sales and Revenue Report	01/90-12/90
PB90-591650	Monthly	Monthly Energy Review Data Base (Diskettes)	01/90-11/90
PB90-591250	Monthly	Monthly Power Plant Report	01/89-12/90
PB91-507038	Annual	National Utility Financial Model	1990
PB90-591220	Monthly	Natural Gas Policy Act Notices of Determination	12/78-12/90

NTIS Order Number	Frequency	Title	Dates of Coverage
PB91-506808	Triennial	Nonresidential Buildings Energy Consumption Survey (Diskettes)	1986
PB90-502857	Semi-Annual	Oil and Gas Field Code Master List	06/90
PB91-505115	Triennial	Residential Energy Consumption Survey, 1987, Diskette (ASCII)	1987
PB91-505107	Triennial	Residential Energy Consumption Survey, 1987, Diskette (dBase)	1987
PB90-502915	Quarterly	Short-Term Coal Analysis System (SCOAL90A)	1990(1Q)
PB91-507012	Quarterly	Short-Term Coal Analysis System (SCOAL90B)	1990(2Q)
PB90-502899	Quarterly	Short-Term Integrated Forecasting System (STIFS90)	1990(1Q)
PB91-507020	Quarterly	Short-Term Integrated Forecasting System (STIFS90)	1990(3Q)
PB90-501941	Annual	State Energy Data System Region 1 (Diskettes)	1960-1988
PB90-501958	Annual	State Energy Data System Region 2 (Diskettes)	1960-1988
PB90-501966	Annual	State Energy Data System Region 3 (Diskettes)	1960-1988
PB90-501974	Annual	State Energy Data System Region 4 (Diskettes)	1960-1988
PB90-501933	Annual	State Energy Data System U.S. and 4 Regions (Diskettes)	1960-1988
PB91-505164	Annual	State Energy Price and Expenditure Data System (Region 1) (Diskette)	1970-1988
PB91-505172	Annual	State Energy Price and Expenditure Data System (Region 2) (Diskette)	1970-1988
PB91-505180	Annual	State Energy Price and Expenditure Data System (Region 3) (Diskette)	1970-1988
PB91-505198	Annual	State Energy Price and Expenditure Data System (Region 4) (Diskette)	1970-1988
PB91-505156	Annual	State Energy Price and Expenditure Data System (Set) (Diskettes)	1970-1988
PB90-502857	Semi-Annual	Oil and Gas Field Code Master List	11/90
PB90-502444	Annual	Oil Imports Into the U.S. and Puerto Rico	1986-1988
PB90-591210	Monthly	Oil Imports Into the U.S. and Puerto Rico	01/89-12/90
PB90-501495	Annual	Oil Market Simulation Model (OMS90) (Diskette)	1990

NTIS (continued)

NTIS Order Number	Frequency	Title	Dates of Coverage
PB90-591230	Monthly	Petroleum Marketing Monthly	01/90-12/90
PB90-502436	Annual	Petroleum Supply Annual	1983-1989
PB90-591240	Monthly	Petroleum Supply Monthly	01/90-12/90
PB90-501461	Triennial	RECS 1987/RTECS 1988	1987/1987
PB90-502865	Annual	Steam-Electric Plant Operation and Design Report	1985-1988
PB90-502840	Annual	Typical Net Monthly Bills	1989
PB91-507046	Annual	U.S. Crude Oil, Natural Gas, and Natu- ral Gas Liquids Reserves (Diskette)	1977-1989
PB90-591190	Monthly	Cost and Quality of Fuels for Electric Utility Plants	01/90-11/90
PB91-505123	Annual	Cost and Quality of Fuels for Electric Utility Plants	1984-1989
PB91-505321	Biennial	Electric Trade in the United States	1986
PB90-501990	Annual	Gas Analysis Modeling System (GAMS-Ann, Outlook Oil and Gas)	1989
PB90-502006	Annual	Gas Analysis Modeling System (GAMS)	1990

GPO

GPO Order Number	Frequency	Title	Dates of Coverage
*	Annual	State Energy Data System (Diskette)	1960-1988
*	Annual	State Energy Price and Expenditure Data System (Diskette)	1970-1988
*	Annual	U.S. Crude Oil, Natural Gas, and Natu- ral Gas Liquids Reserves (Diskette)	1977-1989
*	Annual	Annual Energy Review (2 Diskettes)	1949-1989

\*Order by title.

## Energy Information Directory

The *Energy Information Directory* is a free, annual directory which lists and describes Federal and State Government offices and trade associations involved in energy matters. The purpose is to assist energy information users in locating sources of energy information other than the National Energy Information Center. Use Order Form C to be placed on the mailing list or to receive the latest issue.

## EIA New Releases

This is a free bimonthly, current awareness newsletter which lists and describes recently released EIA publications. It also informs readers of new EIA products and services. Use Order Form C to be placed on the mailing list or to receive the latest issue.

## Directory of Energy Data Collection Forms

This directory is designed to provide an overview of the Department's energy information collection program. Each form listed in the directory contains an abstract with the following information: the general energy source(s) and function(s) covered by the form; the general categories of respondents; the frequency of collection; the public law and, if applicable, regulations associated with the collection; the requirement for reporting; the name and phone number of the collection manager; and the publications resulting from the data collection. The directory, as well as single blank copies of the forms listed, is available free of charge from the National Energy Information Center (NEIC). Use Order Form C to be placed on the mailing list or to receive the latest issue.

## Directory of Energy Information Administration Models

This directory contains descriptions of basic and auxiliary EIA models. Included for each model are the title, acronym, purpose, and type, followed by more detailed information on characteristics, uses, and requirements. Forty-two models are included in the 1990 directory, which is available free from the National Energy Information Center (NEIC). Use Order Form C to be placed on the mailing list or to receive the latest issue.

## Energy Facts

*Energy Facts* is an annual pocket-sized handbook that provides a quick reference to a broad range of domestic and international energy data. Some of the data are pulled from the *Annual Energy Review*. The 1989 issue of *Energy Facts* is available from GPO for \$1.50. The stock number is 061-003-00678-7. Use Order Form A. Can also be ordered from NEIC on Order Form C.

## Energy Information Sheets

The National Energy Information Center (NEIC) has 20 information sheets on various aspects of coal, electricity, petroleum, or natural gas. Some sheets explain renewable types of energy, nuclear fuel, and the meaning of such terms as "degree days" and "British thermal units." Written for the layman, the sheets are free, updated yearly, and range in length from 1 to 1-1/2 pages. Titles (subject to change) are as follows:

1. Crude Oil Production
2. Petroleum and Petroleum Product Prices
3. Petroleum Products Consumption
4. Petroleum Reserves
5. Coal Production
6. Coal Prices
7. Coal Consumption
8. Coal Reserves
9. Natural Gas Production
10. Natural Gas Prices
11. Natural Gas Consumption
12. Natural Gas Reserves
13. Electricity Production
14. Electricity Prices
15. Electricity Consumption (Sales)
16. Electricity Capacity
17. Nuclear Power Generation
18. Renewable Energy
19. Degree-Days
20. Apples, Oranges, and Btu

Use Order Form C to receive the latest issues.



## Energy Information for School Children

*Energy Education Resources* is a compilation of sources of free or low-cost energy-related educational materials geared for primary and secondary students and educators. It contains names, addresses, and telephone numbers of the publishers, and a brief description of the coverage. This is available free from the National Energy Information Center (NEIC). Use Order Form C.

## Feature Articles

Feature articles are short dissertations on key energy topics, written by the EIA staff, published in EIA's key periodicals. The National Energy Information Center (NEIC) reprints these articles and keeps current ones in stock for distribution. They are free of charge. Current articles are listed in *EIA New Releases*. Call the NEIC for further information.

## Telecommunications Device for the Deaf

The National Energy Information Center (NEIC) has installed a telecommunications device for the deaf (TDD). This device makes it possible for the hearing impaired to request and receive complete assistance from the Center. The number for the TDD is (202) 586-1181.

## Electronic Publication System

Selected statistics from the *Weekly Petroleum Status Report*, *Petroleum Supply Monthly*, *Weekly Coal Production*, *Electric Power Monthly*, *Natural Gas Monthly*, *Quarterly Coal Report*, *Petroleum Marketing Monthly*, and *Short-Term Energy Outlook* are available electronically on the Energy Information Administration computer facility. Public access to these machine-readable statistics is possible with a modem capable of receiving data at 300 or 1200 line speeds. Communications are asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although no password is required, you will be requested to use your telephone number as a user identifier. This service is available 7 days per week (8 a.m. - 11 p.m., Monday through Friday, and 10 a.m. - 6 p.m., weekends and holidays) by dialing (202) 586-8658.

Weekly petroleum statistics are updated on Wednesday (Thursday, in the event of a holiday) after 5 p.m. Monthly petroleum supply data for the current available month are also provided and are updated by 5 p.m. on the 20th of the month. Questions or comments concerning electronic data access should be directed to the Petroleum Supply Division.

Weekly coal production data are updated by 5 p.m. on Friday of each week, except in weeks containing holidays; then, the data are updated 1 or 2 workdays later. Questions or comments on coal data may be directed to the Coal Division.

Monthly electricity data are updated on or about the first working day of each month. Questions or comments on the data should be directed to the Electric Power Division.

Monthly natural gas statistics are available on or about the 20th of each month. Questions or comments on natural gas data should be directed to the Reserves and Natural Gas Division.

Call NEIC on (202)586-8800 for names and telephone numbers.

## How to Order from the U.S. Government Printing Office

Current periodicals are available on annual subscriptions basis or by single issues from the U.S. Government Printing Office (GPO). Current annual and one-time reports are also available by issue from GPO. Subscriptions are mailed first-class. The address for orders is:

Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402

By calling the GPO order desk at (202) 783-3238 between 7:30 a.m. and 4 p.m. eastern standard time, orders also may be placed, or information on prices, stock numbers, and availability of publications obtained. Orders may also be placed via telefacsimile (fax) machine 24 hours a day, 7 days a week, from U.S. and international customers. Telephone or telefacsimile orders require the use of credit cards or Superintendent of Documents deposit account. Call via fax on (202) 275-0019 or FTS 8-275-0019.

**How to Remit.** Regulations require payment in advance of shipment. Checks or money orders should be made payable to the Superintendent of Documents. Orders also may be charged to a MasterCard, VISA, or prepaid Superintendent of Documents deposit account. If a credit card is used, the date of expiration

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760-7825 BTBKS-UC  
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Cable: FASBAT NEW YORK

Items ordered through distributors may cost more than if ordered directly from GPO.

Orders directly from GPO for delivery outside of the United States are subject to a 25-percent surcharge for special handling, as required by international mailing regulations. Such orders will be shipped by surface mail. Airmail delivery is available at additional cost, based on the International Postal Zone of the recipient. For airmail delivery, contact GPO by mail, telephone (1-202-783-3238), telex (710-822-9413 USGPO WSH), or fax (1-202-275-0019) for the total cost of the order.

Orders sent directly to GPO must be in English. Remittance in U.S. dollars must accompany every order sent directly to GPO, or GPO will accept checks drawn on banks located in the United States or Canada, UNESCO coupons, International Postal Money Orders, and charges to prepaid Superintendent of Documents deposit accounts or NTIS deposit accounts, or to international Visa and MasterCard accounts. The expiration date of the credit card must be with the order. Checks and money orders should be made payable to the Superintendent of Documents. GPO cannot accept checks drawn on Canadian banks for less than U.S. \$4.00, foreign currency, checks on foreign banks, or postage stamps. Allow a minimum of 10 weeks for delivery. The GPO address is Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, USA.

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**Customer Service.** For problems with subscription orders, call (202) 275-3054.

**Government Printing Office Priority Announcement Service.** In response to numerous requests on how to be informed when annual or one-time publications are available for sale, the Government Printing Office (GPO) maintains a priority announcement service for all EIA annual and one-time reports available from GPO. This service includes all annual reports and one-time reports and is a FREE service.

All energy titles are included in Order Processing Code N562. Individuals may be added to the mailing list for this category and, when a new publication is available for sale, a notice will be sent with an order form. Please include the code number when requesting this service. To be placed on the mailing list, contact:

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U.S. Government Printing Office  
Mail List Branch (Stop: SSOM)  
Washington, D.C. 20402

**U.S. Government Depository Libraries.** U.S. Government Depository Libraries are congressionally designated libraries throughout the United States which automatically receive some or all U.S. Government publications. Their Government documents collection is available free for the use of the general public. Depository libraries are located in each State and congressional district in order to make Government publications widely available. Most States have one Regional Depository which carries all Government documents. The remaining 1,350 depository libraries carry selected Government documents. Most full-service public libraries will borrow EIA and other Government doc-

uments from depository libraries through inter-library loan.

## How to Order from the National Technical Information Service

The National Technical Information Service (NTIS) maintains microfiche of most EIA publications; paper copies can be produced from the microfiche in most cases.

Customers ordering from NTIS have a number of options to choose from.

### Reaching NTIS

#### Telephone Orders 1-800-553-NTIS

In Virginia, call (703)487-4650. The NTIS telephone sales desk is available between 8:30 a.m. and 5:30 p.m., Eastern time. (TDD for the hearing impaired (703)487-4639.)

#### Mail Orders

Send orders to: NTIS, Springfield, VA 22161. Do not mail Rush or Express orders.

#### FAX or Telex Orders

FAX--(703)321-8547. For assistance, call (703)487-4679.

Telex--89-9405 (domestic) or 64617 (international).

Orders may be charged to an NTIS Deposit Account, to American Express, VISA, or MasterCard. Orders for foreign destinations are subject to foreign prices.

FAXing your order? Get order forms designed to speed your order. Call 1-800-553-NTIS (in Virginia (703)487-4650) and ask for PR-OFA.

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With QuikSERVICE you place your order directly into the NTIS order system, so you avoid the mail order delay. QuikSERVICE lets you:

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- Request rush processing
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QuikSERVICE lets you know in advance the cost, availability restrictions, and the approximate time of shipment.

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For more information and an application for NTIS

QuikSERVICE, call 1-800-553-NTIS (in Virginia (703)487-4650) and ask for PR-846.

### **Ordering Through Online Services**

DIALOG, OCLC, ORBIT, and STN allow you to order NTIS technical reports online. Inquiries should be addressed to:

DIALOG, 1-800-334-2564  
OCLC, 1-800-848-5800  
(in Ohio, 1-800-848-8286)  
ORBIT, 1-800-421-7229  
(in Virginia, (703)442-0900)  
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This convenient debit account service makes it easier to order from NTIS. The advantages include:

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In the Washington, DC metropolitan area, rush or regular service orders can be delivered. Fees start at \$13 depending on the customer's location. For more information, call (703)487-4650.

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## **Additional Information**

### **Order Numbers**

All NTIS orders are processed using the NTIS order number. Always use it to speed your request. It is pro-

vided in each NTIS information citation.

If you do not have the order number, NTIS can provide it if you have a complete title. Write or call the NTIS Identification Department (703)487-4780. A limit of three titles will be identified by telephone. Help is available from 8:30 a.m. to 5:00 p.m., Eastern time.

#### **Prices**

Prices are usually identified with a price code. To convert price codes to a dollar amount, see page 44. To get additional copies of the price schedule, call 1-800-553-NTIS (in Virginia, (703)487-4650) and ask for PR-360-3 for U.S., Canada, and Mexico. For other countries, ask for PR-360-4.

#### **Handling Fee**

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## **NOTICE**

Prices of EIA publications and diskettes sold by the U.S. Government Printing Office (GPO) and the National Technical Information Service (NTIS) are subject to change without notice.

When EIA publications are discontinued and consolidated into other reports, the individuals who received copies of the terminated publication through the EIA mailing list are automatically placed on the mailing list for the new publication. Subscribers to discontinued, paid publications through the U.S. Government Printing Office (GPO) are generally sent refunds for any balances remaining on their subscription. For further information about paid subscriptions, please contact GPO at (202) 783-3238.

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NTIS generally uses price codes to indicate the cost of items sold. The following schedules convert these codes into actual 1991 prices for customers in the United States, Canada, and Mexico.

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The prices in the following tables are for the United States, Canada, and Mexico only and are subject to change. For the most recent schedule write or call (703)487-4650 and request PR-360-3. For customers in other countries, ask for PR-360-4.

### *Microfiche and Paper Copy Reports*

Note: "A" codes apply to standard prices.

Price Code	Price-\$
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A02	11.00
A03	15.00
A04 through A05	17.00
A06 through A09	23.00
A10 through A13	31.00
A14 through A17	39.00
A18 through A21	45.00
A22 through A26	53.00
A99	Contact NTIS for price

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Subscriptions and current in-stock single issues are available free of charge from the National Energy Information Center (NEIC) for the following users: government, media, public and academic libraries, and EIA's survey respondents.

Call (202) 586-8800 (or TDD 202-586-1181) for more information or use Order Form C. This form is also used for change of address, for deleting a name from the NEIC mailing list, or for ordering free publications.

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## Superintendent of Documents Publications and Subscriptions Order Form



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Qty.	List ID	Title	Price Each	Total Price
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(Signature)

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**Figure 2. Order Form B: NTIS Order Form**

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Energy Information Administration  
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(Company or personal name)

\_\_\_\_\_  
(Additional address/attention line)

\_\_\_\_\_  
(Street address)

\_\_\_\_\_  
(City, State, ZIP Code)

( ) \_\_\_\_\_  
(Daytime phone including area code)

Signature \_\_\_\_\_

Include full payment for publications desired except where deposit accounts are used. Payments may be made by check, money order, or American Express, VISA or Master Card.

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**RUSH SERVICE** - Orders are processed within 24 hours and sent First Class or equivalent. U.S., Canada, and Mexico, add \$12 per item, other countries add \$14.50 per item.

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**Figure 3. Order Form C: NEIC Order Form**

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Room 1F-048, Forrestal Building  
Washington, DC 20585

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Business Affiliation

Address \_\_\_\_\_

		( )
City and State	Zip Code	Phone number with area code

**Mail List I.D. Number**  
(Found in upper left  
corner of your mailing  
label.)

- ☐ Change of address
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Payment enclosed:

- ☐ VISA      ☐ MasterCard

[illegible]

(Credit card expiration date)

(Signature)

- ☐
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To find one in your area, contact your local library or write:  
Federal Depository  
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**Federal Depository  
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**Energy Information Administration  
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Forrestal Building, EI-231  
Washington, DC 20585**

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