



## PUBLICATIONS DIRECTORY 2000-2001

### **Energy Information Administration**

National Energy Information Center

U.S. Department of Energy

Washington, DC 20585

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This report is available on the Web at:

*<http://tonto.eia.doe.gov/FTP/ROOT/other/01492001.pdf>*

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



## PREFACE

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, resources, and projections of energy supply and demand.

This edition of the *EIA Publications Directory* is divided into two parts: Part I, which contains the titles and abstracts of periodicals, one-time reports, and Web-based EIA products produced by EIA from January 2000 through December 2001, and Part II, which contains titles and abstracts of EIA Service Reports. The body of the *Directory* contains citations and abstracts arranged by broad subject categories; alternative fuels, coal, electricity, end-use consumption, environmental, forecasting, metadata, model documentation, multi-fuel, natural gas and petroleum, nuclear and uranium, and renewable energy.

Questions concerning publications in the *Directory* should be directed to the National Energy Information Center (NEIC) at (202) 586-8800. Comments on the *Directory* itself should be directed to Mary Ellen Golby at (202) 586-1094.



# HOW TO USE THE EIA PUBLICATIONS DIRECTORY

## ***Availability***

This directory contains abstracts and brief ordering information for individual issues of semiannual, annual, biennial, and triennial periodicals, analysis reports, Service Reports, and model documentation. (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. Contact NTIS at (703) 605-6000 or 1-800-553-6847 for all specific ordering information.

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). Contact GPO at (202) 512-1800.

Some recent individual issues are also available from GPO. Most recent issues of current and discontinued periodicals are available from NTIS. For ordering information regarding these periodicals, call NTIS directly. Annual and one-time reports are available from GPO.

## ***Abstracts***

Publication abstracts are arranged alphabetically by subject categories as listed in the Contents.



# CONTENTS

## PART I

<b>ABSTRACTS</b> .....	1
<b>MetaData</b> .....	1
EIA Publications Directory 2000 .....	1
Energy Education Resources: Kindergarten Through 12th Grade (November 2000) .....	1
Energy Education Resources: Kindergarten Through 12th Grade (October 2001) .....	2
<b>Coal</b> .....	3
Coal Industry Annual 1999 .....	3
Energy Policy Act Transportation Rate Study: Final Report on Coal Transportation .....	3
Quarterly Coal Report .....	4
<b>Electricity</b> .....	5
The Changing Structure of the Electric Power Industry 2000: An Update .....	5
Electric Power Annual 1998, Volume 1 .....	5
Electric Power Annual 1998, Volume 2 .....	6
Electric Power Annual 2000, Volume 1 .....	6
Electric Power Monthly .....	7
Electric Sales and Revenue 1999 .....	7
Financial Statistics of Major U.S. Publicly-Owned Electric Utilities 2000 .....	8
Inventory of Electric Utility Power Plants in the United States 1999 .....	8
Inventory of Nonutility Electric Power Plants in the United States 1999 .....	9
<b>Environmental</b> .....	10
Emissions of Greenhouse Gases in the United States 1999 .....	10
Emissions of Greenhouse Gases in the United States 2000 .....	10
Emissions of Greenhouse Gases in the United States 2000, Executive Summary .....	11
Voluntary Reporting of Greenhouse Gases 1999 .....	11
<b>Multi-Fuel</b> .....	12
Annual Energy Review 1999 .....	12
Annual Energy Review 2000 .....	13
Foreign Direct Investment in U.S. Energy in 1998 .....	13
Foreign Direct Investment in U.S. Energy in 1999 .....	14
International Energy Annual 1999 .....	15
Monthly Energy Review .....	15
Performance Profiles of Major Energy Producers 1999 .....	16
State Energy Data Report 1999: Consumption Estimates .....	17
State Energy Price and Expenditure Report 1999 .....	18

<b>Natural Gas and Petroleum</b> .....	19
Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations, 1996 Through 1999 .....	19
Fuel Oil and Kerosene Sales 1999 .....	19
Fuel Oil and Kerosene Sales 2000 .....	20
Future Oil Production for the Alaska North Slope .....	20
Historical Natural Gas Annual 1930 Through 2000 .....	21
International Petroleum Monthly .....	21
Natural Gas Annual 1999 .....	22
Natural Gas Annual 2000 .....	22
Natural Gas Monthly .....	23
Natural Gas Productive Capacity for the Lower - 48 States .....	23
Oil and Gas Field Code Master List Updates 1999 .....	24
Oil and Gas Field Code Master List Updates 2000 .....	24
Petroleum Marketing Annual 1999 .....	25
Petroleum Marketing Annual 2000 .....	25
Petroleum Marketing Monthly .....	26
Petroleum Supply Annual 1999, Volume 1 .....	27
Petroleum Supply Annual 1999, Volume 2 .....	28
Petroleum Supply Annual 2000, Volume 1 .....	28
Petroleum Supply Annual 2000, Volume 2 .....	29
Petroleum Supply Monthly .....	29
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1999 Annual Report .....	30
Weekly Petroleum Status Report .....	30
<b>Nuclear and Uranium</b> .....	31
Uranium Industry Annual 1999 .....	31
Uranium Industry Annual 2000 .....	31
<b>Renewable Energy and Alternative Fuels</b> .....	32
Renewable Energy Annual 1999 .....	32
Renewable Energy Annual 2000 .....	32
Renewable Energy: Issues and Trends 2000 .....	33
<b>Forecasting</b> .....	34
Annual Energy Outlook 2001 .....	34
Annual Energy Outlook 2002 .....	34
Assumptions to Annual Energy Outlook 2002 .....	35
International Energy Outlook 2000 .....	36
International Energy Outlook 2001 .....	37
Short-Term Energy Outlook .....	38
Supplement Tables to the AEO2002 .....	38
The National Energy Modeling System: An Overview 2000 .....	38



<b>Model Documentation</b> .....	39
Directory of EIA Models 2001 .....	39
Coal Market Module of the National Energy Modeling System, EIA Model Documentation 2001 .....	40
Commercial Sector Demand Module of the National Energy Modeling System, Part 1, EIA Model Documentation 2000 .....	41
Documentation of the Oil and Gas Supply Module, EIA Model Documentation 2001 .....	41
Electricity Market Module of the National Energy Modeling System, Model Documentation 2001 .....	42
Industrial Sector Demand Module of the National Energy Modeling System, β EIA Model Documentation Report 2001 .....	42
Integrating Module of the National Energy Modeling System, EIA Model Documentation 2001 .....	42
Macroeconomic Activity Module (MAM) of the National Energy Modeling System, EIA Model Documentation 2001 .....	43
Natural Gas Transmission and Distribution Model of the National Energy Modeling System, EIA Model Documentation 2001 .....	43
Renewable Fuels Module of the National Energy Modeling System, Model Documentation 2001 .....	43
Residential Sector Demand Module of the National Energy Modeling System, Model Documentation 2001 .....	44
Transportation Sector Model of the National Energy Modeling System, Model Documentation 2001 .....	44

PART II

**SERVICE REPORTS** ..... 45

- Accelerated Depletion: Assessing Its Impacts on Domestic Oil and Natural Gas Prices and Production ..... 45
- Analysis of the Climate Change Technology Initiative: Fiscal Year 2001 ..... 45
- Analysis of Strategies for Reducing Multiple Emissions from Electric Power Plants: Sulfur Dioxide, Nitrogen Oxides, Carbon Dioxide, and Mercury and a Renewable Portfolio Standard ..... 45
- Analysis of Strategies for Reducing Multiple Emissions from Power Plants: Sulfur Dioxide, Nitrogen Oxides, and Carbon Dioxide ..... 46
- Analysis of Strategies for Reducing Multiple Emissions from Electric Power Plants With Advanced Technology Scenarios ..... 46
- Carbon Dioxide Emissions from the Generation of Electric Power in the United States ..... 46
- Energy Consumption and Renewable Energy Development Potential on Indian Lands ..... 47
- Federal Financial Interventions and Subsidies in Energy Markets 1999:
  - Energy Transformation and End Use ..... 47
- Impact of Interruptible Natural Gas Service on Northeast Heating Oil Demand ..... 47
- The Northeast Heating Fuel Market: Assessment and Options ..... 47
- Potential Oil Production from the Coastal Plain of the Arctic National Wildlife Refuge: Updated Assessment ..... 48
- Power Plant Emission Reductions Using a Generation Performance Standard ..... 48
- Reducing Emissions of Sulfur Dioxide, Nitrogen Oxides, and Mercury from Electric Power Plants ..... 48
- The Transition to Ultra-Low-Sulfur Diesel Fuel: Effects on Prices and Supply ..... 49
- U.S. Natural Gas Markets: Mid-Term Prospects for Natural Gas Supply ..... 49
- U.S. Natural Gas Markets: Recent Trends and Prospects for the Future ..... 49

**How to Order from the National Energy Information Center** ..... 50

# PART I

## ABSTRACTS

### MetaData

#### EIA PUBLICATIONS DIRECTORY 1999

Enacted in 1977, the Department of Energy 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, 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 EIA from January 1999 through December 1999.

DOE/EIA-0149(99). ANNUAL (FEBRUARY 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/OTHER/014999.PDF](http://tonto.eia.doe.gov/ftp/root/other/014999.pdf)

#### ENERGY EDUCATION RESOURCES: KINDERGARTEN THROUGH 12TH GRADE

*Energy Education Resources: Kindergarten Through 12th Grade* is published by the National Energy Information Center (NEIC), a service of the Energy Information Administration (EIA), to provide students, educators, and other information users a list of generally available free or low-cost energy-related educational materials.

The entries are listed alphabetically by organization title. Each entry includes the address, telephone number, and description of the organization and the energy-related materials available. Most of the entries also include Internet (Web) and electronic mail (E-mail) addresses. In the back of the book there is a subject index cross-referenced by number to the alphabetical entries.

Some of the organizations represented in this list take policy positions on certain energy issues and express them even in educational materials. Because EIA is the independent statistical and analytical agency within the U.S. Department of Energy (DOE), it does not advocate any policy position of DOE or any other organization. EIA has completed this list solely to aid educators and students in locating materials.

DOE/EIA-0546(00). ANNUAL (NOVEMBER 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/OTHER/05462000.PDF](http://tonto.eia.doe.gov/ftp/root/other/05462000.pdf)

## ENERGY EDUCATION RESOURCES: KINDERGARTEN THROUGH 12TH GRADE 2001

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**DOE/EIA-0546(O1) (OCTOBER 2001)**

**[FTP://FTP.EIA.DOE.GOV/PUB/PDF/OTHER.DOCS/05462001.PDF](ftp://ftp.eia.doe.gov/pub/pdf/other/docs/05462001.pdf)**

### COAL INDUSTRY ANNUAL 1999

*Coal Industry Annual 1999* provides comprehensive information about U.S. coal production, number of mines, prices, productivity, employment, productive capacity, and recoverable reserves. U.S. coal production data for 1998 and 1999 are based on the U.S. Department of Labor's Mine Safety and Health Administration's Form 7000-2, "Quarterly Mine Employment and Coal Production Report." Coal production for 1997 and previous years is based on the annual survey EIA-7A, "Coal Production Report."

This report also presents data on coal consumption, coal distribution, coal stocks, coal prices, and coal quality. Appendix A contains a compilation of coal statistics for the major coal-producing States. This report includes national total coal consumption for nonutility power producers that are not in the manufacturing, agriculture, mining, construction, or commercial sectors.

The base year for the implicit price deflator, which is used to convert nominal figures to real figures, is 1996 (Table D2).

DOE/EIA-0584(99). ANNUAL (JULY 2001)  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/COAL/058499.PDF](http://tonto.eia.doe.gov/ftp/root/coal/058499.pdf)

### ENERGY POLICY ACT TRANSPORTATION RATE STUDY: FINAL REPORT ON COAL TRANSPORTATION

This is the final in a series of reports prepared for the U.S. Congress by the Secretary of Energy on coal distribution and transportation rates as mandated by Title XIII, Section 1340, "Establishment of Data Base and Study of Transportation Rates," of the Energy Policy Act of 1992 (P.L. 102-486).

#### **Section 1340 of the Energy Policy Act of 1992 states:**

- (a) Data Base – The Secretary [of Energy] shall review the information currently collected by the Federal Government and shall determine whether information on transportation rates for rail and pipeline transport of domestic coal, oil, and gas during the period of January 1, 1988, through December 31, 1997, is reasonably available. If he determines that such information is not reasonably available, the Secretary shall establish a data base containing, to the maximum extent practicable, information on all such rates. The confidentiality of contract rates shall be preserved. To obtain data pertaining to rail contract rates, the Secretary shall acquire such data in aggregate form only from the Interstate Commerce Commission, under terms and conditions that maintain the confidentiality of such rates.

DOE/EIA-0597(2000).  
(OCTOBER 2000)  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/COAL/059700.PDF](http://tonto.eia.doe.gov/ftp/root/coal/059700.pdf)

## QUARTERLY COAL REPORT

The *Quarterly Coal Report (QCR)* provides comprehensive information about U.S. coal production, distribution, exports, imports, receipts, prices, consumption, and stocks to a wide audience, including Congress, Federal and State agencies, the coal industry, and the general public. Coke production, consumption, distribution, imports, and export data are also provided. The data presented in the *QCR* are collected and published by the Energy Information Administration (EIA) to fulfill data collection and dissemination responsibilities as specified in the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended.

The historical data in this report are collected by the EIA in three quarterly coal surveys (coal consumption at manufacturing plants, coal production, and coal consumption at coke plants), one annual coal production survey, and two monthly surveys of electric utilities. The coal surveys originated in the 1920s at the Bureau of Mines, U.S. Department of Interior. In 1977, the responsibility for these surveys was transferred to the EIA under the Department of Energy Organization Act (Public Law 95-91). The two electric utility surveys originated at the Federal Power Commission — one in 1936 under the Federal Power Act and one in 1972 under FPC Order Number 453. The EIA continued these surveys, reducing the frequency and quantity of information requested and increasing the automation of the associated data processing and report generation functions. Coal export and import data are obtained from the Bureau of the Census, U.S. Department of Commerce, which compiles monthly data from documents filed with the U.S. Customs Service, as required by law.

DOE/EIA-0121. QUARTERLY

[HTTP://WWW.EIA.DOE.GOV/CNEAF/COAL/QUARTERLY/QCR.PDF](http://www.eia.doe.gov/cneaf/coal/quarterly/qcr.pdf)

## Electricity

### THE CHANGING STRUCTURE OF THE ELECTRIC POWER INDUSTRY 2000: AN UPDATE

The U.S. electric power industry, the last major regulated energy industry in the United States, is changing to be more competitive. In some States, retail electricity customers can now choose their electricity company. New wholesale electricity trading markets, which were previously nonexistent, are now operating in many regions of the country. The number of independent power producers and power marketers competing in these new retail and wholesale power markets has increased substantially over the past few years. To better support a competitive industry, the power transmission system is being reorganized from a balkanized system with many transmission system operators, to one where only a few organizations operate the system. However, the introduction of these new markets has been far from seamless. California, where retail competition was introduced in 1998, has had problems recently. Electricity prices in some parts of the State have tripled and there have been supply problems as well. Although not as severe as California, New York's electricity market has had price spikes which may be attributable to problems in the market design. While some observers argue that deregulation should be scrapped, others argue that deregulation is a noble endeavor and that these problems can be solved with structural adjustments to the markets.

DOE/EIA-0562(2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/ELECTRICITY/056200.PDF](http://tonto.eia.doe.gov/ftp/root/electricity/056200.pdf)

### ELECTRIC POWER ANNUAL 1998, VOLUME I

The *Electric Power Annual, Volume I (EPAVI)*, contains 1999 data on U.S. electric utility net generation; wholesale trade; fossil fuel consumption, stocks, receipts, and cost; preliminary data on generating capability and planned additions; and estimated retail sales of electricity, associated revenue, and average revenue per kilowatthour of electricity sold. Also included in Volume I is information on net generation and associated generating capability from renewable energy sources and estimates for national-level nonutility data. The *EPAVI* is intended for a wide audience, including Congress, Federal and State agencies, the electric power industry, and the general public.

DOE/EIA-0348(99)/1. ANNUAL (AUGUST 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/ELECTRICITY/0348981.PDF](http://tonto.eia.doe.gov/ftp/root/electricity/0348981.pdf)

## ELECTRIC POWER ANNUAL 1998, VOLUME II

The *Electric Power Annual, Volume II (EPAVII)*, presents an overview of the electric power industry in the United States and a summary of the key statistics for the reporting year. The chapters present information and data in each specific area: electric utility retail sales, revenue, and average revenue per kilowatthour; financial statistics for major electric utilities; wholesale trade among electric utilities; electric utility environmental statistics; electric utility demand-side management activities; and statistics for nonutility power producers. Monetary values in this publication are expressed in nominal terms.

Data published in the *EPAVII* are compiled from seven forms filed annually by electric utilities and one form filed annually by nonutility power producers. These forms are described in detail in the "Technical Notes."

**DOE/EIA-0348(99)/2. ANNUAL (OCTOBER 2000)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/ELECTRICITY/0348982.PDF](http://tondo.eia.doe.gov/ftp/root/electricity/0348982.pdf)**

## ELECTRIC POWER ANNUAL 2000, VOLUME I

The *Electric Power Annual, Volume I* is intended for a wide audience, including Congress, Federal and State agencies, the electric power industry, and the general public. The primary purpose of this report is to provide a statistical review of the domestic electric power industry's data collected by EIA for the most recent year. Statistical information contained in this report includes industry capability, generation, fossil-fuel receipts and costs, as well as data on retail sales of electricity and average revenue per kilowatthour.

**DOE/EIA-0348(2000)/1. ANNUAL (AUGUST 2001)**

**[HTTP://WWW.EIA.DOE.GOV/CNEAF/ELECTRICITY/EPV1/EPV1.PDF](http://www.eia.doe.gov/cneaf/electricity/epav1/epav1.pdf)**



## ELECTRIC POWER MONTHLY

The *Electric Power Monthly (EPM)* presents monthly electricity statistics for a wide audience, including Congress, Federal and State agencies, the electric utility industry, and the general public. The purpose of this publication is to provide energy decision makers with accurate and timely information that may be used in forming various perspectives on electric issues that lie ahead. The Energy Information Administration (EIA) collected the information in this report to fulfill its data collection and dissemination responsibilities as specified in the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended.

The EIA publishes statistics in the *EPM* on net generation by energy source; consumption, stocks, quantity, quality, and cost of fossil fuels; and capability of new generating units by company and plant.

The *EPM* contains information from seven data sources: Form EIA-759, "Monthly Power Plant Report;" Federal Energy Regulatory Commission (FERC) Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants;" Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions;" Form EIA-900, "Monthly Nonutility Power Report;" Form EIA-861, "Annual Electric Utility Report;" Form EIA-860A, "Annual Electric Generator Report"– Utility;" and Form EIA-860B, "Annual Electric Generator Report"– Nonutility."

**DOE/EIA-0226. MONTHLY**

[HTTP://WWW.EIA.DOE.GOV/CNEAF/ELECTRICITY/EPM/EPM.PDF](http://www.eia.doe.gov/cneaf/electricity/epm/epm.pdf)

## ELECTRIC SALES AND REVENUE 1999

The *Electric Sales and Revenue 1999* provides information on electricity sales, associated revenue, average revenue per kilowatthour sold, and number of consumers throughout the United States. The data provided are presented at the national, Census division, State, and electric utility levels. The information is based on annual data reported by electric utilities for the calendar year ending December 31, 1999.

In the private sector, users of the *Electric Sales and Revenue* include researchers, analysts, and members of the electric power industry community. Other users include financial and investment institutions, economic development organizations, special interest groups, lobbyists, electric power associations, and the news media.

In the public sector, users include analysts, researchers, statisticians, and other professionals engaged in regulatory, policy, and program activities for Federal, State, and local governments. Congress, other legislative bodies, public service commissions, and other special government groups also use information on general trends related to electricity at State and national levels. Data in this report are used in analytical studies to evaluate new legislation and regulatory alternatives and to forecast demand for electric power.

**DOE/EIA-0540(99). ANNUAL (OCTOBER 2000)**

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/ELECTRICITY/054099.PDF](http://tonto.eia.doe.gov/ftp/root/electricity/054099.pdf)

## FINANCIAL STATISTICS OF MAJOR U.S. PUBLICLY-OWNED ELECTRIC UTILITIES 2000

The 2000 edition of the *Financial Statistics of Major U.S. Publicly-Owned Electric Utilities*, published in November 2001, presents 5 years (1996 through 2000) of summary financial data and current-year, detailed financial data on the major publicly-owned electric utilities. The objective of the publication is to provide Federal and State governments, industry, and the general public with current and historical data that can be used for policymaking and decisionmaking purposes related to publicly-owned electric utility issues.

The primary source of publicly owned financial data is the survey Form EIA-412, "Annual Report of Public Electric Utilities." Public electric utilities file this survey on a fiscal year basis, in conformance with their record keeping practices. The EIA undertook a review of the survey Form EIA-412 submissions to determine if alternative classifications of publicly-owned electric utilities would permit the inclusion of all respondents. The review indicated that financial indicators differ most according to whether or not a publicly-owned electric utility generates electricity. Therefore, the front portion of the report provides summary information on generator/nongenerator classifications.

**DOE/EIA-0437(2000). ANNUAL (NOVEMBER 2001)**  
**[HTTP://TONDO.EIA.DOE.GOV/FTP/ROOT/ELECTRICITY/043700.PDF](http://tondo.eia.doe.gov/ftp/root/electricity/043700.pdf)**

## INVENTORY OF ELECTRIC UTILITY POWER PLANTS IN THE UNITED STATES 1999

The *Inventory of Electric Utility Power Plants in the United States 1999* provides annual statistics on generating units operated by electric utilities in the United States (the 50 States and the District of Columbia). Statistics presented in this report reflect the status of generating units as of December 31, 1999. This publication also provides a 5-year outlook for generating unit additions and generating unit retirements.

The "Summary" contains aggregate statistics on existing capacity at the national and various regional levels. Also, for existing capacity, aggregate data at the national level are presented by energy source and prime mover; aggregate data on various regional levels are presented by primary energy source. Certain aggregate statistics on capacity of planned generating unit additions and planned generating unit retirements are presented to the extent that they do not disclose individual company data. This chapter also contains detailed generating unit level data about electric generating units that started commercial operation during 1999 and electric generating units that were retired from service during 1999. The chapter "Electric Generating Units" gives an overview of the generating technologies represented by generating units reported in this publication. It also presents detailed data about these existing electric generating units.

**DOE/EIA-0095(99)/1. ANNUAL (SEPTEMBER 2000)**  
**[HTTP://TONDO.EIA.DOE.GOV/FTP/ROOT/ELECTRICITY/0095991.PDF](http://tondo.eia.doe.gov/ftp/root/electricity/0095991.pdf)**

## INVENTORY OF NONUTILITY ELECTRIC POWER PLANTS IN THE UNITED STATES 1999

The *Inventory of Nonutility Electric Power Plants in the United States 1999* provides annual statistics on generating units operated by nonutilities in the United States (the 50 States and the District of Columbia). Statistics presented in this report reflect the status of generating units as of December 31, 1999. The publication also provides a 5-year outlook for generating unit additions and generating unit changes.

Generally, tables in this publication that contain electric utility capacity data present generator nameplate capacity and net summer capability. Additionally, any discussion of generator capacity by energy source is based on the primary energy source used by the respective generating unit.

Data published in the *Inventory of Nonutility Electric Power Plants in the United States 1999* were compiled from the survey Form EIA-860B, "Annual Electric Generator Report"— Nonutility," filed annually with the EIA. The survey is used to collect information from approximately 2,200 nonutilities. A detail description of the survey is included in the Technical Notes.

**DOE/EIA-0095(99)/2. ANNUAL (NOVEMBER 2000)**

**[HTTP://TONTO.EIA.DOE.GOV/FTPROOT/ELECTRICITY/0095992.PDF](http://tonto.eia.doe.gov/ftproot/electricity/0095992.pdf)**

### EMISSIONS OF GREENHOUSE GASES IN THE UNITED STATES 1999

The Energy Information Administration (EIA) is required by the Energy Policy Act of 1992 to prepare a report on aggregate U.S. national emissions of greenhouse gases for the period 1987-1990, with annual updates thereafter. This report, *Emissions of Greenhouse Gases in the United States 1999*, is the eighth annual update, covering national emissions over the period 1990-1998, with preliminary estimates of emissions for 1999. The methods used by EIA to estimate national emissions of greenhouse gases are subject to continuing review. As better methods and information become available, EIA revised both current and historical emissions estimates. (See “What’s New in This Report,” page 3.) Emissions estimates for carbon dioxide are reported in metric tons of carbon; estimates for other gases are reported in metric tons of gas. (See “Units for Measuring Greenhouse Gases,” page 2.) Total national estimates measured in carbon equivalents are shown in Tables ES2.

Chapter 1 of this report briefly summarizes some background information about global climate changes and the greenhouse effect and discusses important recent developments in global climate change activities. Chapters 2 through 5 cover emissions of carbon dioxide, methane, nitrous oxide, and halocarbons and related gases, respectively. Chapter 6 describes potential sequestration and emissions of greenhouse gases as a result of land use changes.

DOE/EIA-0573(99). ANNUAL (OCTOBER 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/ENVIRONMENT/057399.PDF](http://tondo.eia.doe.gov/ftp/root/environment/057399.pdf)

### EMISSIONS OF GREENHOUSE GASES IN THE UNITED STATES 2000

The first report in this series, *Emissions of Greenhouse Gases in the United States 1985-1990*, was published in September 1993. This report — the ninth annual report, as required by law — presents the Energy Information Administration’s latest estimates of emissions for carbon dioxide, methane, nitrous oxide, and other greenhouse gases.

U.S. emissions of greenhouse gases in 2000 totaled 1,906 million metric tons carbon equivalent, 2.5 percent more than in 1999 (1,860 million metric tons carbon equivalent). The increase from 1999 to 2000 is nearly double the 1.3-percent average annual growth rate of total U.S. greenhouse gas emissions from 1990 to 2000 and the 1.3-percent increase from 1998 to 1999. The increase from 1999 to 2000 is attributed to strong growth in carbon dioxide emissions due to a return to more normal weather, decreased hydroelectric power generation that was replaced by fossil-fuel power generation, and strong economic growth (a 4.1-percent increase in gross domestic product).

DOE/EIA-0573(2000)

NOVEMBER 2001

(WEB ONLY)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/ENVIRONMENT/057300.PDF](http://tondo.eia.doe.gov/ftp/root/environment/057300.pdf)

## EMISSIONS OF GREENHOUSE GASES IN THE UNITED STATES 2000, EXECUTIVE SUMMARY

U.S. emissions of greenhouse gases in 2000 totaled 1,906 million metric tons carbon equivalent, 2.5 percent more than in 1999 (1,860 million metric tons carbon equivalent). The increase from 1999 to 2000 is nearly double the 1.3-percent average annual growth rate of total U.S. greenhouse gas emissions from 1990 to 2000 and the 1.3-percent increase from 1998 to 1999. The increase from 1999 to 2000 is attributed to strong growth in carbon dioxide emissions due to a return to more normal weather, decreased hydroelectric power generation that was replaced by fossil-fuel power generation, and strong economic growth (a 4.1-percent increase in gross domestic product).

U.S. greenhouse gas emissions in 2000 were about 14 percent higher than 1990 emissions (1,678 million metric tons carbon equivalent). Since 1990, U.S. emissions have increased slightly faster than the average annual growth in population (1.2 percent) but more slowly than the growth in energy consumption (1.6 percent), electric power generation (2.3 percent), or gross domestic product (3.2 percent).

**DOE/EIA-0573(2000/ES). (NOVEMBER 2001)**

**(WEB ONLY)**

**[HTTP://WWW.EIA.DOE.GOV/OIAF/1605/GGRPT/PDF/EXECUTIVE\\_SUMMARY.PDF](http://www.eia.doe.gov/oiaf/1605/ggrpt/pdf/executive_summary.pdf)**

## VOLUNTARY REPORTING OF GREENHOUSE GASES 1999

Title XVI, Section 1605(b) of the Energy Policy Act of 1992 (EPACT), directed the EIA to establish a mechanism for “the voluntary collection and reporting of information on... annual reductions of greenhouse gas emissions and carbon fixation achieved through any measures, including fuel switching, forest management practices, tree planting, use of renewable energy, manufacture or use of vehicles with reduced greenhouse gas emissions, application efficiency, methane recovery, cogeneration, chlorofluorcarbon capture and replacement, and power plant heat rate improvement....”

The legislation further instructed EIA to create forms for the reporting of greenhouse gas emissions and reductions and to establish a database of the information voluntarily reported under this subsection of EPACT. The reporting Forms EIA-1605 and EIA-1605EZ, “Voluntary Report of Greenhouse Gases,” were first made available to the public in July 1995, providing a vehicle for voluntary reporting on activities that occurred before and during 1994. This publication summarizes data reported for 1999, the sixth year of data collection for the Voluntary Reporting of Greenhouse Gases Program.

**DOE/EIA-0608(99). ANNUAL (JANUARY 2001)**

**[HTTP://TONTO.EIA.DOE.GOV/FTPROOT/ENVIRONMENT/0608\(99\).PDF](http://tonto.eia.doe.gov/ftp/root/environment/0608(99).pdf)**

## Multi-Fuel

### ANNUAL ENERGY REVIEW 1999

A generation ago, the Ford Foundation convened a group of experts to explore and assess the Nation's energy future, and published their conclusions. The Energy Policy Project developed scenarios of U.S. potential energy use in 1985 and 2000.

The study group sketched three primary scenarios with differing assumptions about the growth of energy use. The Historical Growth scenario assumed that U.S. energy consumption would continue to expand by 3.4 percent per year, the average rate from 1950 to 1970. This scenario assumed no intentional efforts to change the pattern of consumption, only efforts to encourage development of our energy supply. The Technical Fix scenario anticipated a "conscious national effort to use energy more efficiently through engineering know-how." The Zero Energy Growth scenario, while not clamping down on the economy or calling for austerity, incorporated the Technical Fix efficiencies plus additional efficiencies. This third path anticipated that economic growth would depend less on energy-intensive industries and more on those that require less energy, i.e., the service sector.

In 2000, total energy consumption was projected to be 187 quadrillion British thermal units (Btu) in the Historical Growth case, 124 quadrillion Btu in the Technical Fix case, and 100 quadrillion Btu in the Zero Energy Growth case. The *Annual Energy Review 1999* reports a preliminary total consumption for 1999 of 97 quadrillion Btu (see Table 1.1), and the Energy Information Administration's *Short-Term Energy Outlook* (April 2000) forecasts total energy consumption of 98 quadrillion Btu in 2000.

We present this 1999 edition of the *Annual Energy Review* to stimulate and inform our thinking about what the future holds.

DOE/EIA-0384(99). ANNUAL (JULY 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MULTIFUEL/038499.PDF](http://tonto.eia.doe.gov/ftp/root/multifuel/038499.pdf)

## ANNUAL ENERGY REVIEW 2000

Year 2000 is over and is recorded, in preliminary form, in this edition of the *Annual Energy Review*. We can now test that forecast against reality. The Nation, in fact, consumed 98.8 quadrillion Btu in 2000, remarkably only 3.7 quadrillion Btu under the 1981 long-range forecast. The resource mix recorded in 2000 was 85 percent fossil fuels, 8 percent nuclear electric power, and 7 percent renewable energy — more fossil fuels and less nuclear electric power and renewable energy than had been projected.

The historical time series presented in the *Annual Energy Review 2000* record what has already happened and is known about our Nation's energy usage. The information contained in this report will be combined with a multitude of assumptions about our resources, the economy, and technology expectations to create contemporary scenarios that look into the years now ahead of us.

The Energy Information Administration invites you to read the report's new section called "Energy Perspectives" for a broad overview of U.S. energy history, thumb (or surf) through the whole document to see the extent of material available to you, and study the figures for patterns, relationships, and milestones in the data. In doing so, you will join today's energy analysts who are working to understand where we are now so that we can better anticipate the future.

DOE/EIA-0384. ANNUAL (AUGUST 2001)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MULTIFUEL/038400.PDF](http://tonto.eia.doe.gov/ftp/root/multifuel/038400.pdf)

## FOREIGN DIRECT INVESTMENT IN U.S. ENERGY IN 1998

This report presents an analysis of foreign direct investment in U.S. energy resources, assets, and companies in 1998. It describes the role of foreign ownership in U.S. energy enterprises with respect to acquisitions and divestitures, cumulative net investment (including net loans), capital investment, energy operations, and financial performance. Additionally, since energy investments are made in a global context, the report examines patterns of direct investment in foreign energy enterprises by U.S.-based companies.

Foreign direct investment (FDI) is the ownership or control of 10 percent or more of the voting securities of a U.S. business enterprise by a foreign entity. Foreign-affiliated companies (FDI affiliates) are U.S. business enterprises in which a foreign entity holds an ownership interest of 10 percent or more. An FDI-related transaction (FDI transaction) is a transaction directly or indirectly made by a foreign investor who has or gains an ownership interest of at least 10 percent in a U.S. business enterprise.

FDI is a measure of the continuing influence or control of foreign investors over the management and disposition of U.S. assets of production. However, holding 10 percent or more of a company often may, but does not necessarily, constitute control of that company. The determination of control is a complex and often subjective process in which many factors other than the percentage of ownership must be considered.

NOVEMBER 2000

(WEB ONLY)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/FINANCIAL/FDI98.PDF](http://tonto.eia.doe.gov/ftp/root/financial/fdi98.pdf)



## FOREIGN DIRECT INVESTMENT IN U.S. ENERGY IN 1999

This report presents an analysis of foreign direct investment in U.S. energy resources, assets and companies in 1999. It describes the role of foreign ownership in U.S. energy enterprises with respect to acquisitions and divestitures, cumulative net investment (including net loans), capital investment, energy operations, and financial performance. For a discussion of acquisitions and divestitures of U.S. energy assets by foreign investors in 1999, see “U.S. Energy Assets Attract Foreign Investment in 1999.” Additionally, since energy investments are made in a global context, the report examines patterns of direct investment in foreign energy enterprises by U.S.-based companies.

Foreign direct investment (FDI) is the ownership or control of 10 percent or more of the voting securities of a U.S. business enterprise by a foreign entity. In this report, the U.S. business is termed a foreign-affiliated company or “FDI affiliate”; the foreign owner is the “parent.” FDI is one measure of the continuing influence or control of foreign investors over the management and disposition of U.S. assets of production. However, holding 10 percent or more of a company often may, but does not necessarily, constitute control of that company. The determination of control is a complex and often subjective process in which many factors other than the percentage of ownership must be considered.

**JUNE 2001**

**(WEB ONLY)**

**[HTTP://WWW.EIA.DOE.GOV/EMEU/FINANCE/FDI/FDI1999.PDF](http://www.eia.doe.gov/emeu/finance/fdi/fdi1999.pdf)**



## INTERNATIONAL ENERGY ANNUAL 1999

The *International Energy Annual 1999* presents an overview of key international energy trends for production, consumption, imports, and exports of primary energy commodities in over 220 countries, dependencies, and areas of special sovereignty. Also included are population and gross domestic product data, as well as prices for crude oil and petroleum products in selected countries. Renewable energy sources reported in the *International Energy Annual 1999* include hydroelectric power and geothermal, solar, wind, and wood and waste electric power. Also included for the United States are geothermal, solar, and wood and waste energy not used for electricity generation.

This report is published to keep the public and other interested parties fully informed of primary energy supplies on a global basis. The data presented have been largely derived from published sources. The data have been converted to units of measurement and thermal values (Appendices E and F) familiar to the American public.

EIA attempts to identify and collect the best data available for foreign countries. The most authoritative sources are usually the official national statistical reports of a country. However, data from official sources are not always available. Therefore, EIA also uses data from reputable secondary sources, such as the Asia-Pacific Economic Cooperation Forum, the International Energy Agency, the International Monetary Fund, the Latin American Energy Organization, the United Nations, the World Bank, and others. In addition, EIA uses industry reports, academic studies, trade publications, and other sources. Typically these sources are less timely and complete than mandatory survey data for the United States collected by EIA. As a result, it usually takes EIA about two years to prepare complete energy information for all foreign countries.

**DOE/EIA-0219(99). ANNUAL (FEBRUARY 2001)**

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/INTERNATIONAL/021999.PDF](http://tonto.eia.doe.gov/ftp/root/international/021999.pdf)

## MONTHLY ENERGY REVIEW

The *Monthly Energy Review (MER)* presents an overview of the Energy Information Administration's recent monthly energy statistics. The statistics cover the major activities of U.S. production, consumption, trade, stocks, and prices for petroleum, natural gas, coal, electricity, and nuclear energy. Monthly renewable energy data and estimates are provided in Appendix E. Also included are international energy and thermal and metric conversion factors. The *MER* is intended for use by Congress, Federal and State agencies, energy analysts, and the general public.

**DOE/EIA-0035. MONTHLY**

[HTTP://WWW.EIA.DOE.GOV/MER/PDF/MER.PDF](http://www.eia.doe.gov/mer/pdf/mer.pdf)

## PERFORMANCE PROFILES OF MAJOR ENERGY PRODUCERS 1999

The information and analyses in *Performance Profiles of Major Energy Producers 1999* are intended to provide a critical review and promote an understanding of the possible motivations and apparent consequences of investment decisions made by some of the largest corporations in the energy industry. (For a list of the companies covered in this report, the Financial Reporting System [FRS] companies, see Chapter 1, the box titled “The FRS Companies in 1999.”)

The economic performance of these companies, in financial and physical dimensions, continues to serve as a significant factor in evaluating past decisions (from a corporate and a governmental point of view) and guiding future options in the development and supply of energy resources in the United States and abroad.

Emerging issues in financial performance are also analyzed. The report primarily examines these companies' operations on a consolidated corporate level, by individual line-of-business, by major functions within each line-of-business, and by various geographic regions. A companion analysis of foreign investment (trends and transactions) in U.S. energy resources, assets, and companies is also included as a separate chapter in the report. The coverage of foreign direct investment developments discussed in this chapter lags the discussion of the FRS companies by one year. This is due to the later release date of much of the foreign direct investment data.

This edition of *Performance Profiles* reviews financial and operating data for the calendar year 1999. Although the focus is on 1999 activities and results, important trends prior to that time and emerging issues relevant to U.S. energy company operations are also discussed.

**DOE/EIA-0206(99). ANNUAL (JANUARY 2001)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/FINANCIAL/020699.PDF](http://tonto.eia.doe.gov/ftp/root/financial/020699.pdf)**

## STATE ENERGY DATA REPORT 1999: CONSUMPTION ESTIMATES

The *State Energy Data Report 1999 (SEPR)* provides annual time series estimates of State-level energy consumption by major economic sectors. The estimates are developed in the Combined State Energy Data System (CSEDS), which is maintained and operated by the Energy Information Administration (EIA). The goal in maintaining CSEDS is to create historical time series of energy consumption by State that are defined as consistently as possible over time and across sectors. CSEDS exists for two principal reasons: (1) to provide State energy consumption estimates to Members of Congress, Federal and State agencies, and the general public and (2) to provide the historical series necessary for EIA's energy models.

Efforts are made to ensure that the sums of the State data equal the national totals as closely as possible for each energy type and end-use sector as published in other EIA publications. Estimates in this *State Energy Data Report* are generally comparable to the statistics in EIA's *Annual Energy Review 1999* and EIA's *Monthly Energy Review*, March 2001.

Due to page-size constraints, *SEDR* tables show data for selected years from 1960 through 1989; however, data for all years from 1960 forward are maintained in CSEDS, are included in the data files available via Internet, and are covered by the documentation in this report.

The methods used to estimate several of the consumption series were refined in this version of CSEDS. Although U.S. total petroleum coke consumption at petroleum refineries remains the same, a more accurate allocating series is used to estimate the State values for 1960 forward. Electricity imports and exports are estimated by using less complex methodology assumptions for 1990 forward. Motor gasoline consumption is converted from barrels to British thermal units by using new factors that vary annually for 1994 forward. Estimates of nonutility power producers' electricity generation from renewable energy sources are revised in this report to include estimates for smaller generators and to represent net generation rather than the gross generation previously available.

DOE/EIA-0214(99). ANNUAL (JUNE 2001)

[HTTP://EIA.DOE.GOV/PUB/STATE.DATA/PDF/SEDR.PDF](http://eia.doe.gov/pub/state.data/pdf/sedr.pdf)

## STATE ENERGY PRICE AND EXPENDITURE REPORT 1999

The *State Energy Price and Expenditure Report 1999* presents energy price and expenditure estimates individually for the 50 States and the District of Columbia and in aggregate for the United States. The estimates developed in the Combined State Energy Data System are provided by energy source and economic sector and are published for the years 1970, 1975, and 1980 through 1999.

Consumption estimates used to calculate expenditures and the documentation for those estimates are taken from the *State Energy Data Report 1999, Consumption Estimates* published in May 2001. Expenditures are calculated by multiplying the price estimates by the consumption estimates, which are adjusted to remove process fuel; intermediate petroleum products; other consumption that has no direct fuel costs, i.e., hydroelectric, geothermal, wind, solar, and photovoltaic energy sources; and wood and waste obtained at no cost. See Section 7, "Consumption Adjustments for Calculating Expenditures," on page 419.

All expenditures are consumer expenditures; that is, they represent estimates of money spent directly by consumers to purchase energy, generally including taxes. (See box on page 2.)

DOE/EIA-0376(99). ANNUAL (NOVEMBER 2001)

[HTTP://TONTO.EIA.DOE.GOV/FTPROOT/MULTIFUEL/037699.PDF](http://tonto.eia.doe.gov/ftproot/multifuel/037699.pdf)

## Natural Gas and Petroleum

### COSTS AND INDICES FOR DOMESTIC OIL AND GAS FIELD EQUIPMENT AND PRODUCTION OPERATIONS, 1996 THROUGH 1999

This is the Energy Information Administration's (EIA's) seventeenth report in the series on domestic costs and indices for oil and gas field equipment and production operations. The purpose of the series is to provide a continuing means of gauging changes in the oil- and gas-producing industry's costs. The cost data presented in this report are used by government agencies, the academic community, and the oil and gas industry. EIA gratefully acknowledges the cooperation received from personnel of service, supply and production companies through the United States, without which this study would not have been possible.

DOE/EIA-0185(2000). ANNUAL (MARCH 2000)

(WEB ONLY)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/01852000.PDF](http://tonto.eia.doe.gov/ftp/root/petroleum/01852000.pdf)

### FUEL OIL AND KEROSENE SALES 1999

The *Fuel Oil and Kerosene Sales 1999* report provides information, illustrations, and State-level statistical data on end-use sales of kerosene; No. 1, No. 2, and No. 4 distillate fuel oil; and residual fuel oil. State-level kerosene sales include volumes for residential, commercial, industrial, farm, and all other uses. State-level distillate sales include volumes for residential, commercial, industrial, oil company, railroad, vessel bunkering, military, electric utility, farm, on- and off-highway construction, and other uses. State-level residual fuel sales include volumes for commercial, industrial, oil company, vessel bunkering, military, electric utility, and other uses.

DOE/EIA-0535(99). ANNUAL (SEPTEMBER 2000)

[FTP://FTP.EIA.DOE.GOV/PUB/OIL\\_GAS/PETROLEUM/DATA\\_PUBLICATIONS/  
FUEL\\_OIL\\_AND\\_KEROSENE\\_SALES/HISTORICAL/1999/PDF/FOKSALL.PDF](ftp://ftp.eia.doe.gov/pub/oil_gas/petroleum/data_publications/fuel_oil_and_kerosene_sales/historical/1999/pdf/foksall.pdf)

## FUEL OIL AND KEROSENE SALES 2000

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DOE/EIA-0535(OO). ANNUAL (SEPTEMBER 2001)

(WEB ONLY)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/053500.PDF](http://tondo.eia.doe.gov/ftp/root/petroleum/053500.pdf)

## FUTURE OIL PRODUCTION FOR THE ALASKA NORTH SLOPE

*Future Oil Production for the Alaska North Slope* provides a range of plausible production scenarios for the North Slope area of Alaska based on the decline of existing production, the anticipated start-up of identified field development projects, and future discovery and development of the remaining undiscovered oil resources estimated for the area by the U.S. Geological Survey (USGS), the Bureau of Land Management (BLM), and the Minerals Management Service (MMS).

Because EIA is a policy-neutral agency, this report focuses on those portions of the North Slope not presently subject to exploration and development restrictions. The production potential associated with currently withdrawn or prohibited areas of the National Petroleum Reserve-Alaska (NPR-A) and the Arctic National Wildlife Refuge (ANWR) is not considered here. Also not considered in this report are heavy (viscous) oil production and the conversion of natural gas to liquid.

DOE/EIA-0627(O1). ANNUAL (MAY 2001)

(WEB ONLY)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/0627.PDF](http://tondo.eia.doe.gov/ftp/root/petroleum/0627.pdf)

## HISTORICAL NATURAL GAS ANNUAL 1930 THROUGH 2000

The *Natural Gas Annual* provides information on the supply and disposition of natural gas to a wide audience including industry, consumers, Federal and State agencies, and educational institutions. This report, the *Historical Natural Gas Annual*, presents historical data for the Nation from 1930-2000, and by State from 1967-2000.

The data in this publication are taken from surveys conducted by the Energy Information Administration (EIA), U.S. Department of Energy (DOE), to fulfill its responsibilities for gathering and reporting energy data. Two EIA surveys provide most of the information presented in this report — the mandatory Form EIA-176, “Annual Report of Natural and Supplemental Gas Supply and Disposition,” and the Form EIA-895, “Monthly Quantity and Value of Natural Gas Report.” Form EIA-176 was submitted by respondents out of an identified universe of operators of fields, wells, or natural gas processing plants who distribute gas to end users or transport gas to or across a State border; operators of synthetic natural gas plants; natural gas distributors; natural gas pipeline companies; and companies that operate underground natural gas storage facilities. Form EIA-895 was submitted by the appropriate agencies of the 32 natural gas-producing States.

**DOE/EIA-E-0110(OO). ANNUAL (DECEMBER 2001)**

**(WEB ONLY)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/NATGAS/011000.PDF](http://tonto.eia.doe.gov/ftp/root/natgas/011000.pdf)**

## INTERNATIONAL PETROLEUM MONTHLY

The *International Petroleum Monthly* is a monthly publication that provides current international oil data. This report is published for the use of Members of Congress, Federal agencies, State agencies, industry, and the general public. Publication of this report is in keeping with the responsibilities given the Energy Information Administration in Public Law 95-91 (Section 205(a)(2)).

The *International Petroleum Monthly* presents data on international oil production, demand, imports, and stocks. The report has four sections. Section 1 contains time series data on world oil production, and on oil demand and stocks in the Organization for Economic Cooperation and Development (OECD). This section contains annual data beginning in 1990, and monthly data for the most recent two years. Section 2 presents an oil supply/demand balance for the world. This balance is presented in quarterly intervals for the most recent two years and annually for the three years prior to that. Section 3 presents data on oil imports by OECD countries. This section contains annual data for the most recent year, quarterly data for the most recent two quarters, and monthly data for the most recent twelve months. Section 4 presents annual time series data on world oil production and oil stocks, demand, and trade in OECD countries. World oil production and OECD demand data are from 1970 through 2000; OECD stocks from 1973 through 2000; and OECD trade from 1990 through 2000.

**DOE/EIA-0520. MONTHLY**

**[HTTP://WWW.EIA.DOE.GOV/PUB/PDF/INTERNATIONAL/IPM.PDF](http://www.eia.doe.gov/pub/pdf/international/ipm.pdf)**

## NATURAL GAS ANNUAL 1999

The *Natural Gas Annual 1999* provides information on the supply and disposition of natural gas to a wide audience, including Congress, Federal and State agencies, industry analysts, consumers, and educational institutions. The 1999 data are presented in a sequence that follows natural gas (including supplemental supplies) from its production to its end use. This is followed by tables summarizing natural gas supply and disposition from 1995 to 1999 for each Census Division and each State. Annual historical data are shown at the national level.

Two EIA surveys provide most of the information presented in this report — the mandatory Form EIA-176, — “Annual Report of Natural and Supplemental Gas Supply and Disposition,” and the Form EIA-895, “Monthly Quantity and Value of Natural Gas Report.” Form EIA-176 was submitted by respondents out of an identified universe of operators of fields, wells, or natural gas processing plants that distribute gas to end users or transport gas to or across a State border; operators of synthetic natural gas plants; natural gas distributors; natural gas pipeline companies; and companies that operate underground natural gas storage facilities. Form EIA-895 was submitted by the appropriate agencies of the 33 natural gas-producing States.

**DOE/EIA-0131(99). ANNUAL (OCTOBER 2000)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/NATGAS/013199.PDF](http://tonto.eia.doe.gov/ftp/root/natgas/013199.pdf)**

## NATURAL GAS ANNUAL 2000

The *Natural Gas Annual* provides information on the supply and disposition of natural gas to a wide audience, including Congress, Federal and State agencies, industry analysts, consumers, and educational institutions. The 2000 data are presented in a sequence that follows natural gas (including supplemental supplies) from its production to its end use. This is followed by tables summarizing natural gas supply and disposition from 1996 to 2000 for each Census Division and each State. Annual historical data are shown at the national level.

The data in the *Natural Gas Annual 2000* are taken from surveys conducted by the Energy Information Administration (EIA), U.S. Department of Energy (DOE), to fulfill its responsibilities for gathering and reporting energy data. Two EIA surveys provide most of the information presented in this report — the mandatory Form EIA-176, “Annual Report of Natural and Supplemental Gas Supply and Disposition,” and the Form EIA-895, “Monthly Quantity and Value of Natural Gas Report.”

**DOE/EIA-0131(00). (NOVEMBER 2001)**

**(WEB ONLY)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/NATGAS/013100.PDF](http://tonto.eia.doe.gov/ftp/root/natgas/013100.pdf)**



## NATURAL GAS MONTHLY

The *Natural Gas Monthly* highlights activities, events, and analyses of interest to public and private sector organizations associated with the natural gas industry. Volume and price data are presented each month for natural gas production, distribution, consumption, and interstate pipeline activities. Producer-related activities and underground storage data are also reported.

The data in this publication are collected on surveys conducted by the EIA to fulfill its responsibilities for gathering and reporting energy data. Some of the data are collected under the authority of the Federal Energy Regulatory Commission, an independent commission within the DOE, which has jurisdiction primarily in the regulation of electric utilities and the interstate natural gas industry. Geographic coverage is the 50 States and the District of Columbia.

All natural gas volumes are reported at a pressure base of 14.73 pounds per square inch absolute (psia) and at 60 degrees Fahrenheit. Cubic feet are converted to cubic meters by applying a factor of 0.02831685.

**DOE/EIA-0130.**

[HTTP://WWW.EIA.DOE.GOV/PUB/OIL\\_GAS/NATURAL\\_GAS/DATA\\_PUBLICATIONS/NATURAL\\_GAS\\_MONTHLY/CURRENT/PDF/NGM\\_ALL.PDF](http://www.eia.doe.gov/pub/oil_gas/natural_gas/data_publications/natural_gas_monthly/current/pdf/ngm_all.pdf)

## NATURAL GAS PRODUCTIVE CAPACITY FOR THE LOWER-48 STATES

This on-line presentation contains monthly projections of natural gas effective productive capacity in the lower-48 States for 2001. Effective productive capacity declined in 1998 and 1999, increased through 2000, and in 2001, is projected to increase faster than production.

- Natural gas effective productive capacity measures the maximum production available from natural gas wells. It is measured in billion cubic feet per day (Bcf/d).
- The difference between effective productive capacity and actual production is called surplus capacity.
- The ratio of actual production to effective productive capacity is called the effective capacity utilization rate.

Four cases are developed in this analysis. The *Base* case uses the corresponding oil and gas price paths and production path in EIA's January 2001 *Short Term Energy Outlook (STEO)* (Table 1). Oil and gas prices were reduced or increased 25 percent for the Low and High cases. The *Constant Drilling* case estimates effective productive capacity if drilling stays at some constant rate (879 active gas rigs starting in January 2001) independent of the actual or projected gas price path.

**JUNE 2001**

**(WEB ONLY)**

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/NATGAS/GASCAP\\_32.PPT](http://tonto.eia.doe.gov/ftp/root/natgas/gascap_32.ppt)

## OIL AND GAS FIELD CODE MASTER LIST UPDATES 1999

The *Oil and Gas Field Code Master List Updates 1999* is an addendum to the 1998 edition of the EIA publication *Oil and Gas Field Code Master List*, an annual listing of all identified oil and gas fields in the United States. These updates represent the addition of new fields to the list and changes to the records of previously listed fields, including deletions. The current publication is based on field information collected through November 1999.

The purpose of this publication is to provide standardized names and codes for identifying domestic fields. Use of these field names and codes fosters consistency of field identification by government and industry. As a result of their widespread adoption, they have in effect become a national standard. The use of field names and codes listed in *Oil and Gas Field Code Master List* is required on survey forms and other reports regarding field-specific data collected by EIA. The surveys currently using these field names and/or field codes are Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves," and Form EIA-191, "Monthly Underground Gas Storage Report."

DOE/EIA-0370U(99). ANNUAL (JANUARY 2000)

(WEB ONLY)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/0370U99.PDF](http://tondo.eia.doe.gov/ftp/root/petroleum/0370U99.pdf)

## OIL AND GAS FIELD CODE MASTER LIST 2000

The *Oil and Gas Field Code Master List 2000* is the nineteenth annual listing of all identified oil and gas fields in the United States. It is updated with field information collected through November 2000.

The purpose of this publication is to provide standardized names and codes for identifying domestic fields. Use of these field names and codes fosters consistency of field identification by government and industry. As a result of their widespread adoption, they have in effect become a national standard. The use of field names and codes listed in *Oil and Gas Field Code Master List* is required on survey forms and other reports regarding field-specific data collected by EIA. The surveys currently using these field names and/or field codes are Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves," and Form EIA-191, "Monthly Underground Gas Storage Report."

DOE/EIA-0370(OO). ANNUAL (JANUARY 2001)

(WEB ONLY)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/0370OO.PDF](http://tondo.eia.doe.gov/ftp/root/petroleum/0370OO.pdf)

## PETROLEUM MARKETING ANNUAL 1999

The *Petroleum Marketing Annual (PMA)* provides information and statistical data on a variety of crude oils and refined petroleum products. The publication presents statistics on crude oil costs and refined petroleum products sales for use by industry, government, private sector analysts, educational institutions, and consumers. Data on crude oil include the domestic first purchase price, the f.o.b. and landed costs of imported crude oil, and the refiners' acquisition cost of crude oil. Refined petroleum product sales data include motor gasoline, distillates, residuals, aviation fuels, kerosene, and propane.

**DOE/EIA-0487(00). (AUGUST 2000)**

**(WEB ONLY)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/048799.PDF](http://tonto.eia.doe.gov/ftp/root/petroleum/048799.pdf)**

## PETROLEUM MARKETING ANNUAL 2000

The *Petroleum Marketing Annual (PMA)* provides information and statistical data on a variety of crude oils and refined petroleum products. The publication presents statistics on crude oil costs and refined petroleum products sales for use by industry, government, private sector analysts, educational institutions, and consumers. Data on crude oil include the domestic first purchase price, the f.o.b. and landed cost of imported crude oil, and the refiners' acquisition cost of crude oil. Refined petroleum product sales data include motor gasoline, distillates, residuals, aviation fuels, kerosene, and propane.

For this publication, all estimates have been recalculated since their earlier publication in the *Petroleum Marketing Monthly (PMM)*. These calculations made use of additional data and corrections that were received after the *PMM* publication date.

**DOE/EIA-0487(01). (AUGUST 2001)**

**(WEB ONLY)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/048700.PDF](http://tonto.eia.doe.gov/ftp/root/petroleum/048700.pdf)**

## PETROLEUM MARKETING MONTHLY

The *Petroleum Marketing Monthly (PMM)* provides information and statistical data on a variety of crude oils and refined petroleum products. The publication presents statistics on crude oil costs and refined petroleum products sales for use by industry, government, private sector analysts, educational institutions, and consumers. Data on crude oil include the domestic first purchase price, the f.o.b. and landed costs of imported crude oil, and the refiners' acquisition cost of crude oil. Refined petroleum product sales data include motor gasoline, distillates, residuals, aviation fuels, kerosene, and propane.

The data within the *Petroleum Marketing Monthly* are compiled from six Energy Information Administration (EIA) survey forms. The crude oil statistics are calculated from data collected on the following three survey forms: Form EIA-182, "Domestic Crude Oil First Purchase Report;" Form EI-856, "Monthly Foreign Crude Oil Acquisition Report;" and Form EIA-14, "Refiners' Monthly Cost Report."

The statistics on petroleum product sales prices and volumes are derived from Form EI-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report" and Form EIA-782B, "Resellers'/Retailers' Monthly Petroleum Product Sales Report."

The data presented in Tables 48 to 50 are derived from aggregations of data from Form EI-782C, "Monthly Report of Prime Supplier Sales of Petroleum Products Sold for Local Consumption."

### DOE/EIA-0380. MONTHLY

[HTTP://WWW.EIA.DOE.GOV/PUB/OIL\\_GAS/PETROLEUM/DATA\\_PUBLICATIONS/  
PETROLEUM\\_MARKETING\\_MONTHLY/CURRENT/PDF/PMMALL.PDF](http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_marketing_monthly/current/pdf/pmall.pdf)

## PETROLEUM SUPPLY ANNUAL 1999, VOLUME 1

The *Petroleum Supply Annual (PSA)* contains information on the supply and disposition of crude oil and petroleum products. The publication reflects data that were collected from the petroleum industry during 1999 through annual and monthly surveys. The *PSA* is divided into two volumes. This first volume contains three sections: Summary Statistics, Detailed Statistics, and Refinery Statistics, each with final annual data. The second volume contains final statistics for each month of 1999 and replaces data previously published in the *Petroleum Supply Monthly (PSM)*. The tables in Volumes 1 and 2 are similarly numbered to facilitate comparison between them. Below is a description of each section in Volume 1 of the *PSA*.

### *Summary Statistics*

This section contains a summary of the data presented each month in the *PSM* and in Volume 2 of the *PSA*. Graphs and tables are provided which show 16 years of data depicting the balance between supply, disposition and ending stocks for various commodities including crude oil, motor gasoline, distillate fuel oil, jet fuel, propane/propylene, and liquefied petroleum gases.

### *Detailed Statistics*

The tables contained in this section provide 1999 detailed statistics on supply and disposition, refinery operations, imports and exports, stocks, and transportation of crude oil and petroleum products. In most cases, the statistics are presented for several geographic areas — the United States (50 States and the District of Columbia), five Petroleum Administration for Defense (PAD) Districts, and 12 Refining Districts. At the U.S. and PAD District level, the total volume and the daily rate of activities are presented.

### *Refinery Statistics*

The tables contained in this section are compiled from the Form EIA-820 “Annual Refinery Report.” Of particular note are listings of refineries and associated crude oil distillation and downstream capacities by State, as of January 1, 2000, as well as summaries of corporate refinery capacities and refinery storage capacities. In addition, refinery receipts of crude oil by method of transportation for 1999 are provided. Also included are fuels consumed at refineries, and lists of shutdowns, sales, reactivations, and mergers during 1999.

DOE/EIA-0340(99)/1. ANNUAL (JUNE 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/0340991.PDF](http://tonto.eia.doe.gov/ftp/root/petroleum/0340991.pdf)

## PETROLEUM SUPPLY ANNUAL 1999, VOLUME 2

The *Petroleum Supply Annual (PSA)* contains information on the supply and disposition of crude oil and petroleum products. The publication reflects data that were collected from the petroleum industry during 1999 through monthly surveys. The *PSA* is divided into two volumes. The first volume contains three sections: Summary Statistics, Detailed Statistics, and Refinery Statistics; each with final annual data. The second volume contains final statistics for each month of 1999 and replaces data previously published in the *Petroleum Supply Monthly*. The tables in Volumes 1 and 2 are similarly numbered to facilitate comparison between them. Explanatory Notes, located at the end of this publication, present information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements, and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary.

**DOE/EIA-0340(99)/2. ANNUAL (JUNE 2000)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/0340992.PDF](http://tonto.eia.doe.gov/ftp/root/petroleum/0340992.pdf)**

## PETROLEUM SUPPLY ANNUAL 2000, VOLUME 1

The *Petroleum Supply Annual (PSAV1)* contains information on the supply and disposition of crude oil and petroleum products. The publication reflects data that were collected from the petroleum industry during 2000 through monthly surveys. The *PSA* is divided into two volumes. The first volume contains three sections: Summary Statistics, Detailed Statistics, and Refinery Statistics, each with final annual data. The second volume contains final statistics for each month of 2000 and replaces data previously published in the *Petroleum Supply Monthly*. The tables in Volumes 1 and 2 are similarly numbered to facilitate comparison between them. Sections described in Volume I cover: Summary Statistics, Detailed Statistics, Refinery Statistics, and Appendices.

**DOE/EIA-0340(2000)/1. ANNUAL (JUNE 2001)**

**[HTTP://TONTTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/0340001.PDF](http://tonto.eia.doe.gov/ftp/root/petroleum/0340001.pdf)**

## PETROLEUM SUPPLY ANNUAL 2000, VOLUME 2

The *Petroleum Supply Annual (PSA)* contains information on the supply and disposition of crude oil and petroleum products. The *PSA* is divided into two volumes. The first volume contains three sections: Summary Statistics, Detailed Statistics, and Refinery Statistics, each with final annual data. The second volume contains final statistics for each month of 2000 and replaces data previously published in the *Petroleum Supply Monthly*. The tables in Volumes 1 and 2 are similarly numbered to facilitate comparison between them. Explanatory Notes, located at the end of this publication, present information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary.

DOE/EIA-0340(2000)/2. ANNUAL (JUNE 2001)

(WEB ONLY)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/0340002.PDF](http://tonto.eia.doe.gov/ftp/root/petroleum/0340002.pdf)

## PETROLEUM SUPPLY MONTHLY

Data presented in the *PSM* describe the supply and disposition of petroleum products in the United States and major U.S. geographic areas. The data series describe 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 those petroleum sectors in primary supply. Included are: 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. When aggregated, the data reported by these sectors approximately represent the consumption of petroleum products in the United States.

Data presented in the *PSM* are divided into two sections: Summary Statistics and Detailed Statistics.

The tables and figures in the Summary Statistics section of the *PSM* present a time series of selected petroleum data on a U.S. level. Most time series include preliminary estimates for one month based on the Weekly Petroleum Supply Reporting System; statistics based on the most recent data from the Monthly Petroleum Supply Reporting System; and statistics published in prior issues of the *PSM* and *PSA*.

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas — the United States (50 States and the District of Columbia), five PAD Districts, and 12 Refining Districts. At the U.S. and PAD District level, the total volume and the daily rate of activities are presented. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

DOE/EIA-0109. MONTHLY

[HTTP://WWW.EIA.DOE.GOV/PUB/OIL\\_GAS/PETROLEUM/DATA\\_PUBLICATIONS/PETROLEUM\\_SUPPLY\\_MONTHLY/CURRENT/PDF/PSMALL.PDF](http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_supply_monthly/current/pdf/psmall.pdf)

## U.S. CRUDE OIL, NATURAL GAS, AND NATURAL GAS LIQUIDS RESERVES 1999 ANNUAL REPORT

The *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1999 Annual Report* is the 23rd prepared by the Energy Information Administration (EIA) to fulfill its responsibility to gather and report annual proved reserves estimates. The EIA annual reserves report series is the only source of comprehensive domestic proved reserves estimates. This publication is used by the Congress, Federal and State agencies, industry, and other interested parties to obtain accurate estimates of the Nation's proved reserves of crude oil, natural gas, and natural gas liquids. These data are essential to the development, implementation, and evaluation of energy policy and legislation.

This report presents estimates of proved reserves of crude oil, natural gas, and natural gas liquids as of December 31, 1999, as well as production volumes for the United States and selected States and State subdivisions for the year 1999. Estimates are presented for the following four categories of natural gas: total gas (wet after lease separation), nonassociated gas and associated-dissolved gas (which are the two major types of wet natural gas), and total dry gas (wet gas adjusted for the removal of liquids at natural gas processing plants). In addition, reserve estimates for two types of natural gas liquids, lease condensate and natural gas plant liquids, are presented. The estimates are based upon data obtained from two annual EIA surveys: Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves," and Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." Also included is information on indicated additional crude oil reserves and crude oil, natural gas, and lease condensate reserves in nonproducing reservoirs. A discussion of notable oil and gas exploration and development activities during 1999 is provided.

DOE/EIA-0216(99). ANNUAL (DECEMBER 2000)  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/PETROLEUM/021699.PDF](http://tonto.eia.doe.gov/ftp/root/petroleum/021699.pdf)

## WEEKLY PETROLEUM STATUS REPORT

The *Weekly Petroleum Status Report (WPSR)* provides timely information on supply and selected prices of crude oil and principal petroleum products in the context of historical data and forecasts. It serves the industry, the press, planners, policymakers, consumers, analysts, and State and local governments with a ready, reliable source of current information. The supply data contained in this report are based primarily on company submissions for the week ending 7:00 a.m. the preceding Friday. Weekly price data are collected as of 8:00 a.m. every Monday. The daily spot and futures prices are provided by Reuters, Inc. Data are released electronically after 9:00 a.m. each Wednesday, and hard copies of the publication are available for distribution on Friday. For some weeks which include holidays, publication of the *WPSR* is delayed by one day.

DOE/EIA-0208/. WEEKLY  
[HTTP://WWW.EIA.DOE.GOV/PUB/OIL\\_GAS/PETROLEUM/DATA\\_PUBLICATIONS/  
WEEKLY\\_PETROLEUM\\_STATUS\\_REPORT/CURRENT/PDF/WPSRALL.PDF](http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/current/pdf/wpsrall.pdf)



## Nuclear and Uranium

### URANIUM INDUSTRY ANNUAL 1999

The *Uranium Industry Annual 1999 (UIA 1999)* provides current statistical data on the U.S. uranium industry's activities relating to uranium raw materials and uranium marketing. The *UIA 1999* is prepared for use by the Congress, Federal and State agencies, the uranium and nuclear electric utility industries, and the public. It contains data for the period 1990 through 2009 as collected on the Form EIA-858, "Uranium Industry Annual Survey."

Data collected on the "Uranium Industry Annual Survey" provide a comprehensive statistical characterization of the industry's activities for the survey year and also include some information about industry's plans and commitments for the near-term future.

For 1992 through 1995, this information was provided in a separate issue entitled *Uranium Purchases Report* that is no longer being produced. The data are now contained in Chapter 2 (pages 11 and 13, Tables 12, 22, 23, and 25) of this report.

Data on uranium raw materials activities for 1990 through 1999, including exploration activities and expenditures, EIA-estimated reserves, mine production of uranium, production of uranium concentrate, and industry employment, are presented in Chapter 1. Data on uranium marketing activities for 1995 through 2009, including purchases of uranium and enrichment services, enrichment feed deliveries, uranium fuel assemblies, filled and unfilled market requirements, and uranium inventories, are shown in Chapter 2.

DOE/EIA-0478(99). ANNUAL (MAY 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/NUCLEAR/047899.PDF](http://tonto.eia.doe.gov/ftp/root/nuclear/047899.pdf)

### URANIUM INDUSTRY ANNUAL 2000

The *Uranium Industry Annual 2000 (UIA 2000)* provides current statistical data on the U.S. uranium industry's activities relating to uranium raw materials and uranium marketing. The *UIA 2000* is prepared for use by the Congress, Federal and State agencies, the uranium and nuclear electric utility industries, and the public. It contains data for the period 1991 through 2010 as collected on the Form EIA-858, "Uranium Industry Annual Survey."

For 1992 through 1995, this information was provided in a separate issue entitled *Uranium Purchases Report* that is no longer being produced. The data are now contained in Chapter 2 (pages 11 and 13, Tables 12, 22, 23, and 25) of this report.

Data on uranium raw materials activities for 1991 through 2000, including exploration activities and expenditures, EIA-estimated reserves, mine production of uranium, production of uranium concentrate, and industry employment, are presented in Chapter 1. Data on uranium marketing activities for 1996 through 2009, including purchases of uranium and enrichment services, enrichment feed deliveries, uranium fuel assemblies, contracted and unfilled market requirements, and uranium inventories, are shown in Chapter 2.

DOE/EIA-0478(2000). ANNUAL (MAY 2001)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/NUCLEAR/04782000.PDF](http://tonto.eia.doe.gov/ftp/root/nuclear/04782000.pdf)

## Renewable Energy and Alternative Fuels

### RENEWABLE ENERGY ANNUAL 1999

This is the fifth annual report published by the Energy Information Administration (EIA) which presents information on U.S. renewable energy consumption, capacity, and electricity generation; U.S. solar thermal and photovoltaic collector manufacturing activities; and U.S. geothermal heat pump manufacturing activities. It updates and provides more detail on renewable energy information than what's published in EIA's *Annual Energy Review 1998*.

The renewable energy resources included in the report are: biomass (wood, wood waste, municipal solid waste, ethanol, and biodiesel); geothermal; wind; solar (solar thermal and photovoltaic); and hydropower. However, hydropower is also regarded as a "conventional" energy source because it has furnished a significant amount of electricity for more than a century. Therefore, the contribution of hydropower to total renewable energy consumption is discussed, but not in great detail. Since EIA collects data only on terrestrial (land-based) solar energy systems, satellite and military applications are not included in this report.

DOE/EIA-0603(99). ANNUAL (MARCH 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/RENEWABLES/060399.PDF](http://tonto.eia.doe.gov/ftp/root/renewables/060399.pdf)

### RENEWABLE ENERGY ANNUAL 2000

This report, *Renewable Energy Annual 2000 With Data for 1999*, is the sixth annual report published by the Energy Information Administration (EIA) which presents information on renewable energy consumption, capacity, and electricity generation data; U.S. solar thermal and photovoltaic collector manufacturing activities; and U.S. geothermal heat pump manufacturing activities. It updates and provides more detail on renewable energy information than what's published in EIA's *Annual Energy Review 1999*.

The renewable energy resources included in the report are: biomass (wood, wood waste, municipal solid waste, ethanol, and biodiesel); geothermal; wind; solar (solar thermal and photovoltaic); and hydropower. However, hydropower is also regarded as a "conventional" energy source because it has furnished a significant amount of electricity for more than a century. Therefore, the contribution of hydropower to total renewable energy consumption is discussed, although hydropower as an individual energy source is not addressed. Since EIA collects data only on terrestrial (land-based) systems, satellite and military applications are not included in this report.

The first chapter provides an overview of renewable energy use and capability from 1995 through 1999. It discusses renewable energy consumption, and electric capacity and generation data. Chapter 2 presents current (through 1999) information on the United States solar energy industry. EIA collected this information on the Form EIA-63A, "Annual Survey of Solar Collector Manufacturers," and the Form EIA-63B, "Annual Survey of Photovoltaic Module/Cell Manufacturers," covering the 1997 calendar year. Chapter 3 presents information on the U.S. geothermal heat pump industry. This information was collected on the Form EIA-902, "Annual Geothermal Heat Pump Manufacturers Survey," and covers the calendar years, 1995-1999.

DOE/EIA-0603(2000). ANNUAL (MARCH 2001)

[HTTP://TONTTO.EIA.DOE.GOV/FTP/ROOT/RENEWABLES/060300.PDF](http://tonto.eia.doe.gov/ftp/root/renewables/060300.pdf)

## RENEWABLE ENERGY: ISSUES AND TRENDS 2000

A renewable energy source is one that is regenerative or virtually inexhaustible. It includes biomass, geothermal, hydro (water), municipal solid waste, solar photovoltaic, solar thermal, and wind use in the electric utility or transportation sector. Renewable energy has beneficial attributes, such as low emissions and replenishable energy supply, that are not fully reflected in the market price. Accordingly, governments have used a variety of programs to promote renewable energy resources, technologies, and renewable-based transportation fuels.

*Renewable Energy: Issues and Trends 2000* discusses: (1) financial incentives and regulatory mandates used by Federal and State governments and Federal research and development, and (2) their effectiveness in promoting renewables.

**DOE/EIA-0628(2000). BIENNIAL (FEBRUARY 2001)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/RENEWABLES/06282000.PDF](http://tonto.eia.doe.gov/ftp/root/renewables/06282000.pdf)**

## Forecasting

### ANNUAL ENERGY OUTLOOK 2001

The *Annual Energy Outlook 2001, with Projections to 2020 (AEO2001)* presents mid-term forecasts of energy supply, demand, and prices through 2020 prepared by the Energy Information Administration (EIA). The projections are based on results from EIA's National Energy Modeling System.

The report begins with an "Overview" summarizing the "AEO2001" reference case. The next section, "Legislation and Regulations," describes the assumptions made with regard to laws that affect energy markets and discusses evolving legislative and regulatory issues. "Issues in Focus" discusses the macroeconomic projections, world oil and natural gas markets, oxygenates in gasoline, distributed electricity generation, electricity industry restructuring, and carbon dioxide emissions. It is followed by the analysis of energy market trends.

The *AEO2001* projections are based on Federal, State, and local laws and regulations in effect on July 1, 2000. Pending legislation and sections of existing legislation for which funds have not been appropriated are not reflected in the forecasts. Historical data used for the *AEO2001* projections were the most current available as of July 31, 2000, when most 1999 data but only partial 2000 data were available. Historical data are presented in this report for comparative purposes; documents referenced in the source notes should be consulted for official data values. The projections for 2000 and 2001 incorporate the short-term projections from EIA's September 2000' *Short-Term Energy Outlook*.

DOE/EIA-0383(2001). ANNUAL (NOVEMBER 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/FORECASTING/0383\(2001\).PDF](http://tonto.eia.doe.gov/ftp/root/forecasting/0383(2001).pdf)

### ANNUAL ENERGY OUTLOOK 2002

The *Annual Energy Outlook 2002 (AEO2002)* presents mid-term forecasts of energy supply, demand, and prices through 2020 prepared by the Energy Information Administration (EIA). The projections are based on results from EIA's National Energy Modeling System (NEMS).

The analysis in *AEO 2002* focuses primarily on a reference case and four other cases that assume higher and lower economic growth and higher and lower world oil prices than in the reference case.

The *AEO2002* projections are based on Federal, State, and local laws and regulations in effect on September 1, 2001. Pending legislation and sections of existing legislation for which funds have not been appropriated are not reflected in the forecasts. Historical data used for the *AEO2002* projections were the most current available as of July 31, 2001, when most 2000 data but only partial 2001 data were available.

DOE/EIA-0383(02). ANNUAL (DECEMBER 2001)

[HTTP://TONTTO.EIA.DOE.GOV/FTP/ROOT/FORECASTING/0383\(2002\).PDF](http://tonto.eia.doe.gov/ftp/root/forecasting/0383(2002).pdf)

## ASSUMPTIONS TO ANNUAL ENERGY OUTLOOK 2002

This report presents the major assumptions of the National Energy Modeling System (NEMS) used to generate the projections in the *Annual Energy Outlook 2002 (AEO2002)*, including general features of the model structure, assumptions concerning energy markets, and the key input data and parameters that are most significant in formulating the model results. Detailed documentation of the modeling system is available in a series of documentation reports. A synopsis of NEMS, the model components, and the interrelationships of the modules is presented in *The National Energy Modeling System: An Overview*.

The time horizon of NEMS is approximately 20 years, the mid-term period in which the structure of the economy and the nature of energy markets are sufficiently understood so that it is possible to represent considerable structural and regional detail. Because of the diverse nature of energy supply, demand, and conversion in the United States, NEMS supports regional modeling and analysis in order to represent the regional differences in energy markets, to provide policy impacts at the regional level, and to portray transportation flows. The level of regional detail for the end-use demand modules is the nine Census divisions. Other regional structures include production and consumption regions specific to oil, gas, and coal supply and distribution; the North American Electric Reliability Council regions and subregions for electricity; and aggregations of the Petroleum Administration for Defense Districts (PADD) for refineries. Only national results are presented in the *AEO2002*, with the regional and other detailed results available on the EIA CD-ROM and EIA Home Page.

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/FORECASTING/0554\(2002\).PDF](http://tonto.eia.doe.gov/ftp/root/forecasting/0554(2002).pdf)

## INTERNATIONAL ENERGY OUTLOOK 2000

The *International Energy Outlook 2000 (IEO2000)* presents an assessment by the Energy Information Administration (EIA) of the outlook for international energy markets through 2020. The report is an extension of EIA's *Annual Energy Outlook 2000 (AEO2000)*, which was prepared by using the National Energy Modeling System. U.S. projections appearing in *IEO2000* are consistent with those published in *AEO2000*. *IEO2000* is provided as a statistical service to energy managers and analysts, both in government and in the private sector. The projections are used by international agencies, Federal and State governments, trade associations, and other planners and decisionmakers.

Projections in the *IEO2000* are displayed according to six basic country groupings (Figure 1). The industrialized region includes projections for nine individual countries — the United States, Canada, Mexico, Japan, France, Germany, Italy, the Netherlands, and the United Kingdom — plus the subgroups Other Europe and Australasia (the latter defined as Australia, New Zealand, and the U.S. Territories). The developing countries are represented by four separate regional subgroups: developing Asia, Africa, Middle East, and Central and South America. China, India, and South Korea are represented in developing Asia. Brazil is represented in Central and South America. Turkey is represented in the Middle East.

The nations of Eastern Europe and the former Soviet Union (EE/FSU) are considered as a separate country grouping. In addition, in this year's report, the EE/FSU nations are further separated into Annex I and non-Annex I member countries participating in the Kyoto Climate Change Protocol on Greenhouse Gas Emissions. The new groupings are used to assess the potential role of Annex I EE/FSU countries in reaching the Annex I emissions targets of the Kyoto Climate Change Protocol.

**DOE/EIA-0484(2000). ANNUAL (MARCH 2000)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/FORECASTING/04842000.PDF](http://tonto.eia.doe.gov/ftp/root/forecasting/04842000.pdf)**

## INTERNATIONAL ENERGY OUTLOOK 2001

The *International Energy Outlook 2001 (IEO2001)* presents an assessment by the Energy Information Administration (EIA) of the outlook for international energy markets through 2020. The report is an extension of the EIA's *Annual Energy Outlook 2001 (AEO2001)*, which was prepared by using the National Energy Modeling System. U.S. projections appearing in the *IEO2001* are consistent with those published in the *AEO2001*. *IEO2001* is provided as a statistical service to energy managers and analysts, both in government and in the private sector. The projections are used by international agencies, Federal and State governments, trade associations, and other planners and decisionmakers. They are published pursuant to the Department of Energy Organization Act of 1977 (Public Law 95-91), Section 205(c). The *IEO2001* projections are based on U.S. and foreign government policies in effect on October 1, 2000.

The report begins with a review of world trends in energy demand. The historical time frame begins with data from 1970 and extends to 1999, providing readers with a 29-year historical view of energy periods. The *IEO2001* projections cover a 21-year period.

High economic growth and low economic growth cases were developed to depict a set of alternative growth paths for the energy forecast. The two cases consider alternative growth paths for regional gross domestic product. The resulting projections and the uncertainty associated with making international energy projections in general are discussed in the first chapter of the report. The status of environmental issues, including global carbon emissions, is reviewed. Comparisons of the *IEO2001* projections with other available international energy forecasts are included in the first chapter.

The next part of the report is organized by energy source. Regional consumption projections for oil, natural gas, coal, nuclear power, and renewable energy (hydroelectricity, geothermal, wind, solar, and other renewables) are presented in the five fuel chapters, along with a review of the current status of each fuel on a worldwide basis. The third part of the report looks at energy consumption in the end-use sectors, beginning with a chapter on energy use for electricity generation. New to this year's *Outlook* are chapters on energy use in the transportation sector and on environmental issues related to energy consumption.

DOE/EIA-0484(2001). ANNUAL (MARCH 2001)

[HTTP://TONTO.EIA.DOE.GOV/FTPROOT/FORECASTING/04842001.PDF](http://tonto.eia.doe.gov/ftproot/forecasting/04842001.pdf)

## SHORT-TERM ENERGY OUTLOOK

The *Short-Term Energy Outlook* is a report on energy and economics that appears on the Energy Information Administration's Web site on the 6<sup>th</sup> of every month. It contains both data and 2-year forecast projections on prices, demand and supply, and stocks of each of the main energy sources: crude oil and petroleum products, natural gas, and electricity. The *Outlook* consists of analyses, graphics, and data tables for each of the main fuels and deals with both international and domestic energy markets.

MONTHLY

(WEB ONLY)

[HTTP://WWW.EIA.DOE.GOV/EMEU/STEO/PUB/CONTENTS.HTML](http://www.eia.doe.gov/emeu/steo/pub/contents.html)

## SUPPLEMENT TABLES TO THE AEO2002

The AEO supplementary tables were generated for the reference case of *the Annual Energy Outlook 2002 (AEO2002)* by using the National Energy Modeling System, a computer-based model which produces annual projections of energy markets for 1999 to 2020. Most of the tables were not published in the AEO2002 but contain regional and other more detailed projections underlying the AEO2002 projections. The files containing these tables are in spreadsheet format. A total of 107 tables are presented.

The data for tables 10 and 20 match those published in AEO2002 Appendix Tables A2 and A3, respectively. Forecasts for 2000-2002 may differ slightly from values published in the *Short-Term Energy Outlook*, which are the official EIA short-term forecasts and are based on more current information than the AEO.

DOE/EIA-0554. ANNUAL (DECEMBER 2001)

(WEB ONLY)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/FORECASTING/SUPP2002.PDF](http://tonto.eia.doe.gov/ftp/root/forecasting/supp2002.pdf)

## THE NATIONAL ENERGY MODELING SYSTEM: AN OVERVIEW 2000

*The National Energy Modeling System: An Overview* provides a summary description of the National Energy Modeling System (NEMS), which was used to generate the forecasts of energy production, demand, imports, and prices through the year 2020 for the *Annual Energy Outlook 2001 (AEO2001)*, released in November 2000. AEO2001 presents national forecasts of energy markets for five cases — a reference case and four additional cases that assume higher and lower economic growth and higher and lower world oil prices than in the reference case. The Overview presents a brief description of the methodology and scope of each of the component modules of NEMS. The model documentation reports listed in the appendix of this document provide further details.

DOE/EIA-0581 (2000). MARCH 2000

(WEB ONLY)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/FORECASTING/05812000.PDF](http://tonto.eia.doe.gov/ftp/root/forecasting/05812000.pdf)



## Model Documentation

### DIRECTORY OF EIA MODELS 2001

This directory was prepared by the Energy Information Administration, National Energy Information Center, by Mary Ellen Golby. Questions concerning the general content of this directory should be referred to Mary Ellen on (202) 586-1094. Questions relating to the uses of specific models may be directed to the individual model contacts listed in the model descriptions. Questions about this publication, as well as other energy inquiries, may be directed to the National Energy Information Center on (202) 586-8800.

#### PREFACE

This directory revises and updates the *Directory of Energy Information Administration Models 1999, DOE/EIA-0293(99)*, Energy Information Administration (EIA), U.S. Department of Energy, November 1999. The Transportation Energy Model of the World Energy Projection System (TEM) has been included for the first time. Since the last Directory was published, five models are inactive and not in use: (1) Low-Income Household Energy Assistance Program (LIHEAP); (2) Resource Allocation and Mine Costing Model (RAMC); (3) Petroleum Financial Analysis System (PETFAS-PC); (4) Short-Term Coal Analysis System (SCOAL); and (5) Refinery Yield Model Spreadsheet System (RYMSS-PC). One new model has been added: Short Term Hydroelectric Generation Model (STHGM).

Publication of this directory is supported by Public Law 93-275, Federal Energy Administration Act of 1974, Section 57(B)(1) (as amended by Public Law 94-385, Energy Conservation and Production Act), which states in part:

*...that adequate documentation for all statistical and forecast reports prepared...is made available to the public at the time of publication of such reports.*

With respect to its modeling efforts, EIA issued the following standards in 1991: Standard 91-01-01, Model Acceptance; Standard 91-01-02, Active Model Inventory Requirements; Standard 91-01-03, Model Documentation; and Standard 91-01-4, Model Archival. In 1992, Standard 92-01-05, Proprietary Models, was issued. It describes the necessary actions governing the use of proprietary models (i.e., models available to EIA through license, purchase, or subscription) in EIA reports and modeling systems.

This directory contains information about each model, including the title, acronym, description, followed by more details on characteristics, uses, and requirements. Sources for additional information are identified. Included in this directory are 29 EIA active models as of August 2001. The models are divided into two groups and listed in alphabetical order within those groups, except for the Integrating Module, which is listed first. The first group lists those models which are part of the National Energy Modeling System (NEMS). The second group lists all other EIA models that are not part of NEMS.

DOE/EI-0293(2001). ANNUAL (OCTOBER 2001)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/OTHER/02932001.PDF](http://tonto.eia.doe.gov/ftp/root/other/02932001.pdf)

## COAL MARKET MODULE OF THE NATIONAL ENERGY MODELING SYSTEM EIA MODEL DOCUMENTATION 2000

This report documents the objectives and the conceptual and methodological approach used in the development of the National Energy Modeling System's (NEMS) Coal Market Module (CMM) used to develop the *Annual Energy Outlook 2000 (AEO2000)*. This report catalogues and describes the assumptions, methodology, estimation techniques, and source code of the CMM's two submodules. These are the Coal Production Submodule (CPS) and the Coal Distribution Submodule (CDS).

The CMM provides annual forecasts of prices, production, and consumption of coal for the NEMS. In general, the CDS integrates the supply inputs from the CPS to satisfy demands for coal from exogenous demand models. The international component of the CDS forecasts annual world coal trade flows from major supply to major demand regions and provides annual forecasts of U.S. coal exports for input to NEMS. Specifically, the CDS receives minemouth prices produced by the CPS, demand and other exogenous inputs from other NEMS components, and provides delivered coal prices and quantities to the NEMS economic sectors and regions.

DOE/EIA-M060(2001). ANNUAL (JANUARY 2001)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M0602000.PDF](http://tonto.eia.doe.gov/ftp/root/modeldoc/m0602000.pdf)

## COMMERCIAL SECTOR DEMAND MODULE OF THE NATIONAL ENERGY MODELING SYSTEM, PART 1, EIA MODEL DOCUMENTATION 2000

This report documents the objectives and the conceptual and methodological approach used in the development of the National Energy Modeling System (NEMS) Commercial Sector Demand Module. The report catalogues and describes the model assumption, computational methodology, parameter estimation techniques, model source code, and forecast results generated through the synthesis and scenario development based on these components.

The NEMS Commercial Sector Demand Module is a simulation tool based upon economic and engineering relationships that models commercial sector energy demands at the nine Census division level of detail for eleven distinct categories of commercial buildings. Commercial equipment selections are performed for the major fuels of electricity, natural gas, and distillate fuel for the major services of space heating, space cooling, water heating, ventilation, cooking, refrigeration, and lighting. The market segment level of detail is modeled by use of a constrained life cycle cost minimization algorithm that considers commercial sector consumer behavior and time preference premiums. The algorithm also models demand for the minor fuels of residual oil, liquefied petroleum gas, steam coal, motor gasoline, and kerosene; the renewable fuel sources of wood, municipal solid waste, and solar energy; and the minor services of office equipment (with a separate breakout of personal computers) and "other" in less detail than the major fuels and services. Commercial decisions regarding the use of distributed generation and cogeneration technologies are performed by use of an endogenous positive cash-flow algorithm. Numerous specialized considerations are incorporated, including the effects of changing building shell efficiencies and consumption to provide district services.

**DOE/EIA-M066(2001). ANNUAL (DECEMBER 2000)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M066\(2001\).PDF](http://tonto.eia.doe.gov/ftp/root/modeldoc/m066(2001).pdf)**

## DOCUMENTATION OF THE OIL AND GAS SUPPLY MODULE, EIA MODEL DOCUMENTATION 2001

The purpose of this report is to define the objectives of the Oil and Gas Supply Model (OGSM), to describe the model's basic approach, and to provide details about how the model works. This report is intended as a reference document for model analysts, users, and the public. It is prepared in accordance with the Energy Information Administration's legal obligation to provide adequate documentation in support of its statistical and forecast reports (Public Law 93-275, Section 57(B)[2]).

**DOE/EIA-M063/1(2001). ANNUAL (JANUARY 2001)**

**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M063\(2001\).PDF](http://tonto.eia.doe.gov/ftp/root/modeldoc/m063(2001).pdf)**

## ELECTRICITY MARKET MODULE OF THE NATIONAL ENERGY MODELING SYSTEM, MODEL DOCUMENTATION 2001

This report documents the Electricity Market Module as it was used for the *Annual Energy Outlook 2001*. The Electricity Market Module (EMM) is the electricity supply component of the National Energy Modeling System. The EMM represents the generation, transmission, and pricing of electricity. It consists of four submodules: the Electricity Capacity Planning (ECP) Submodule, the Electricity Fuel Dispatch (EFD) Submodule, the Electricity Finance and Pricing (EFP) Submodule, and the Load and Demand-Side Management (LDSM) Submodule.

**DOE/EIA-M068(2001). ANNUAL (FEBRUARY 2001)**  
**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M0682001.PDF](http://tondo.eia.doe.gov/ftp/root/modeldoc/m0682001.pdf)**

## INDUSTRIAL SECTOR DEMAND MODULE OF THE NATIONAL ENERGY MODELING SYSTEM, EIA MODEL DOCUMENTATION REPORT 2001

This report documents the objectives, analytical approach, and development of the National Energy Modeling System Industrial Demand Model. The report catalogues and describes model assumptions, computational methodology, parameter estimation techniques, and model source code.

**DOE/EIA-M064(2001). ANNUAL (DECEMBER 2000)**  
**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M064\(2001\).PDF](http://tondo.eia.doe.gov/ftp/root/modeldoc/m064(2001).pdf)**

## INTEGRATING MODULE OF THE NATIONAL ENERGY MODELING SYSTEM, EIA MODEL DOCUMENTATION 2001

The National Energy Modeling System (NEMS) is a computer-based, energy-economy modeling system of U.S. energy markets for the midterm period. It provides an overview of the complete National Energy Modeling System (NEMS). NEMS projects the production, imports, conversion, consumption, and prices of energy, subject to a variety of assumptions. The assumptions encompass macroeconomic and financial indicators, world energy markets, resource availability and costs, behavioral and technological choice criteria, technology characteristics, and demographics. NEMS produces a general equilibrium solution for energy supply and demand in the U.S. energy markets on an annual basis through 2020.

For documentation purposes, the individual components of NEMS are considered distinct models and are documented individually. While the NEMS integrating module is a distinct component of NEMS, the integrating module is not, by itself, a model. Rather, it is a component of the overall NEMS model and implements specific aspects of the overall modeling methodology that are not documented elsewhere. The documentation is organized accordingly.

**DOE/EIA-M057(2001). ANNUAL  
DECEMBER 2000**  
**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M057\(2001\).PDF](http://tondo.eia.doe.gov/ftp/root/modeldoc/m057(2001).pdf)**

## MACROECONOMIC ACTIVITY MODULE OF THE NATIONAL ENERGY MODELING SYSTEM, EIA MODEL DOCUMENTATION 2001

The Macroeconomic Activity Module documents the objectives, analytical approach, and development of the National Energy Modeling System (NEMS) Macroeconomic Activity Module used to develop the *Annual Energy Outlook 2001*. It is not a structure model. It serves two functions within NEMS. First, it provides consistent sets of baseline macroeconomic variables (GDP and components, aggregate prices, interest rates, industrial output, housing starts, commercial floor space, new car sales, etc.) which are used by the supply, demand, and conversion modules in reaching an energy market equilibrium. Second, it is designed to provide a feedback mechanism that alters the baseline variables during the course of an integrated NEMS run.

DOE/EIA-M065(2001). ANNUAL (DECEMBER 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M065\(2001\).PDF](http://tonto.eia.doe.gov/ftp/root/modeldoc/m065(2001).pdf)

## NATURAL GAS TRANSMISSION AND DISTRIBUTION MODEL OF THE NATIONAL ENERGY MODELING SYSTEM, EIA MODEL DOCUMENTATION 2001

This report documents the archived version of the Natural Gas Transmission and Distribution Model (NGTDM) that was used to produce the natural gas forecasts used in support of the *Annual Energy Outlook 2001* (DOE/EIA-0383[2001]). The purpose of this report is to provide a reference document for model analysts, users, and the public that defines the objectives of the model, describes its basic approach, and provides detail on the methodology employed. Previously, this report represented Volume I of a two-volume set. Volume II reported on model performance, detailing convergence criteria and properties, results of sensitivity testing, comparison of model outputs with the literature and/or model results, and major unresolved issues, for the version of the NGTDM used for the *Annual Energy Outlook 1995*, (DOE/EIA-0383[95]). There are no plans for producing another version of Volume II in the foreseeable future. The model documentation is updated annually to reflect significant model methodology and software changes that take place as the model develops.

DOE/EIA-M062/1(2001). ANNUAL (FEBRUARY 2001)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M0622001.PDF](http://tonto.eia.doe.gov/ftp/root/modeldoc/m0622001.pdf)

## RENEWABLE FUELS MODULE OF THE NATIONAL ENERGY MODELING SYSTEM, MODEL DOCUMENTATION 2001

This report documents the objectives, analytical approach, and design of the National Energy Modeling System Renewable Fuels Module (RFM) as it relates to the production of the *Annual Energy Outlook 2001* (AEO2001) forecasts. This report catalogues and describes modeling assumptions, computational methodologies, data inputs, and parameter estimation techniques. A number of offline analyses used in lieu of RFM modeling components are also described.

DOE/EIA-M069(2001). ANNUAL (FEBRUARY 2001)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M0692001.PDF](http://tonto.eia.doe.gov/ftp/root/modeldoc/m0692001.pdf)

## RESIDENTIAL SECTOR DEMAND MODULE OF THE NATIONAL ENERGY MODELING SYSTEM, MODEL DOCUMENTATION 2001

This report documents the objectives, analytical approach and development of the National Energy Modeling System (NEMS) Residential Sector Demand Module. The report catalogues and describes the model assumptions, computational methodology, parameter estimation techniques, and FORTRAN source code.

This documents serves three purposes. First, it is a reference document that provides a detailed description of energy analysts, other users, and the public. Second, this report meets the legal requirement of the Energy Information Administration to provide adequate documentation in support of its statistical and forecast reports according to Public Law 93-275, Section 57(B)(1). Third, it facilitates continuity in model development by providing documentation from which energy analysts can undertake model enhancements, data updates, and parameter refinements.

The NEMS Residential Sector Demand Module is currently used for mid-term forecasting purposes and energy policy analysis over the forecast horizon of 1998 through 2020. The model generates forecasts of energy demand, which is used interchangeably with the concept of energy consumption in this document, for the residential sector by service, fuel, and Census Division. The policy impacts that result from the introduction of new technologies, market incentives, and regulatory changes can be estimated, by use of the module, by the user who defines alternative input and parameter assumptions.

DOE/EIA-M067(2001). ANNUAL (DECEMBER 2000)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M0672001.PDF](http://tonto.eia.doe.gov/ftp/root/modeldoc/m0672001.pdf)

## TRANSPORTATION SECTOR MODEL OF THE NATIONAL ENERGY MODELING SYSTEM, MODEL DOCUMENTATION 2001

This report documents the objectives, analytical approach and development of the National Energy Modeling System Transportation Model. The report catalogues and describes the model assumptions, computational methodology, parameter estimation techniques, model source code, and forecast results generated by the model.

DOE/EIA-M070/1(2001). ANNUAL (FEBRUARY 2001)

[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/MODELDOC/M0702001.PDF](http://tonto.eia.doe.gov/ftp/root/modeldoc/m0702001.pdf)

# PART II

## SERVICE REPORTS

### ACCELERATED DEPLETION: ASSESSING ITS IMPACTS ON DOMESTIC OIL AND NATURAL GAS PRICES AND PRODUCTION

This report analyzes the potential impacts of accelerated depletion on domestic oil and natural gas prices and production.

**PAGES: 95, RELEASED: JULY 2000, PERIODICITY: ONE-TIME**  
**PUBLICATION NUMBER SR/OIAF/2000-04**  
**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/OIAF0004.PDF](http://tonto.eia.doe.gov/ftp/root/service/oiaf0004.pdf)**

### ANALYSIS OF THE CLIMATE CHANGE TECHNOLOGY INITIATIVE: FISCAL YEAR 2001

Analysis of the potential impacts of Climate Change Technology Initiative, relative to the baseline energy projections in the *Annual Energy Outlook 2000 (AEO2000)*.

**PAGES: 101, RELEASED: APRIL 2000, PERIODICITY: ONE-TIME**  
**PUBLICATION NUMBER SR/OIAF/2000-01.**  
**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/OIAF0001.PDF](http://tonto.eia.doe.gov/ftp/root/service/oiaf0001.pdf)**

### ANALYSIS OF STRATEGIES FOR REDUCING MULTIPLE EMISSIONS FROM ELECTRIC POWER PLANTS: SULFUR DIOXIDE, NITROGEN OXIDES, CARBON DIOXIDE, AND MERCURY AND A RENEWABLE PORTFOLIO STANDARD

This report describes the impacts of imposing caps on power sector emissions of nitrogen oxides, sulfur dioxide, mercury, and carbon dioxide with and without a renewable portfolio standard.

**PAGES: 299, RELEASED: JULY 2001, PERIODICITY: ONE-TIME**  
**PUBLICATION NUMBER SR/OIAF/2001-03.**  
**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/OIAF2001-03.PDF](http://tonto.eia.doe.gov/ftp/root/service/oiaf2001-03.pdf)**

### ANALYSIS OF STRATEGIES FOR REDUCING MULTIPLE EMISSIONS FROM POWER PLANTS: SULFUR DIOXIDE, NITROGEN OXIDES, AND CARBON DIOXIDE

This report provides an analysis of the impacts on energy consumers and producers of coordinated strategies to reduce emissions of sulfur dioxide, nitrogen oxides, and carbon dioxides at U.S. power plants.

**PAGES: 281, RELEASED: DECEMBER 2000, PERIODICITY: ONE-TIME**  
**PUBLICATION NUMBER SR/OIAF/2000-05.**  
**[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/OIAF0005.PDF](http://tonto.eia.doe.gov/ftp/root/service/oiaf0005.pdf)**

## ANALYSIS OF STRATEGIES FOR REDUCING MULTIPLE EMISSIONS FROM ELECTRIC POWER PLANTS WITH ADVANCED TECHNOLOGY SCENARIOS

This analysis responds to a request of Senators James M. Jeffords and Joseph I. Lieberman. This report describes the impacts of technology improvements and other market-based opportunities on the costs of emissions reductions from electricity generators, including nitrogen oxides, sulfur dioxide, mercury, and carbon dioxide.

**PAGES: 228, RELEASED: DECEMBER 2001, ONE-TIME  
PUBLICATION NUMBER SR/OIAF/2001-05.  
HTTP://TONT0.EIA.DOE.GOV/FTPROOT/SERVICE/SROIAF(2001)05.PDF**

## CARBON DIOXIDE EMISSIONS FROM THE GENERATION OF ELECTRIC POWER IN THE UNITED STATES

The President issued a directive on April 15, 1999, requiring an annual report summarizing the carbon dioxide (CO<sub>2</sub>) emissions produced by the generation of electricity by utilities and nonutilities in the United States. In response, the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA) jointly submitted the first report on October 15, 1999. This is the second annual report that estimates the CO<sub>2</sub> emissions attributable to the generation of electricity in the United States.

**PAGES: 21, RELEASED: JULY 2000, PERIODICITY: PUBLISHED TWICE  
HTTP://TONT0.EIA.DOE.GOV/FTPROOT/ENVIRONMENT/CO2EMISS00.PDF**

## ENERGY CONSUMPTION AND RENEWABLE ENERGY DEVELOPMENT POTENTIAL ON INDIAN LANDS

This report contains new analysis of energy issues for Indian lands. Online Maps are available at <http://maps.nrel.gov/gis.html>.

**PAGES: 69, RELEASED: MARCH 2000, PERIODICITY: ONE-TIME  
PUBLICATION NUMBER SR/CNEAF/2000-01.  
HTTP://TONT0.EIA.DOE.GOV/FTPROOT/SERVICE/NEAF0001.PDF**



## FEDERAL FINANCIAL INTERVENTIONS AND SUBSIDIES IN ENERGY MARKETS 1999: ENERGY TRANSFORMATION AND END USE

This report is an update to the 1992 EIA report on Federal Energy Subsidies and includes any additions or deletions of Federal subsidies based on Administration and Congressional actions since the 1992 report was written. It also provides an estimate of the size of each current subsidy. Subsidies included are those through which a government or public body provides a financial benefit. This report focuses on end use energy and electricity.

**PAGES: 116, RELEASED: MAY 2000, PERIODICITY: ONE-TIME  
PUBLICATION NUMBER SR/OIAF/2000-02.  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/OIAF0002.PDF](http://tonto.eia.doe.gov/ftp/root/service/oiaf0002.pdf)**

## IMPACT OF INTERRUPTIBLE NATURAL GAS SERVICE ON NORTHEAST HEATING OIL DEMAND

Assesses the extent of interruptible natural gas contracts and their effect on heating oil demand in the Northeast. An earlier report with policy recommendations was issued by the Department of Energy's Office of Policy in November 2000 that examined the effect of interruptible contracts in New England. The current report expands the geographic scope of the analysis by including New Jersey, New York, and Pennsylvania and presents a more comprehensive assessment of gas service interruptions, the responses of different types of customers, and the effects on the distillate fuel oil market.

**PAGES: 88, RELEASED: FEBRUARY 2001, PERIODICITY: ONE-TIME  
PUBLICATION NUMBER SR/OOG/2001-01.  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/SROOG2001-01.PDF](http://tonto.eia.doe.gov/ftp/root/service/sroog2001-01.pdf) (TEMPORARILY UNAVAILABLE)**

## THE NORTHEAST HEATING FUEL MARKET: ASSESSMENT AND OPTIONS

Requested by the Secretary of Energy, U.S. Department of Energy, this report examines the feasibility and impacts of converting factories and other major users of heating oil to different fuels and discusses other options that may mitigate future heating oil supply problems in the Northeast.

**PAGES: 86, RELEASED: MAY 2000, PERIODICITY: ONE-TIME  
PUBLICATION NUMBER SR/OIAF/2000-03.  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/OIAF0003.PDF](http://tonto.eia.doe.gov/ftp/root/service/oiaf0003.pdf)**

## POTENTIAL OIL PRODUCTION FROM THE COASTAL PLAIN OF THE ARCTIC NATIONAL WILDLIFE REFUGE: UPDATED ASSESSMENT

This Service Report is a product of EIA's Reserves and Production Division. EIA, under various programs, has assessed foreign and domestic oil and gas resources, reserves, and production potential. As a policy-neutral agency, EIA's standard analysis of the potential of the Alaska North Slope (ANS) focused on the areas without exploration and development restrictions.

EIA received a letter (dated March 10, 2000) from Senator Frank H. Murkowski as Chairman of the Senate Committee on Energy and Natural Resources requesting an EIA Service Report "with plausible scenarios for ANWR supply development consistent with the most recent U.S. Geological Survey resource assessments." This Service Report is prepared in response to the request of Senator Murkowski. It focuses on the ANWR coastal plain, a region currently restricted from exploration and development, and updates EIA's 1987 ANWR assessment.

**PAGES: 24, RELEASED: MAY 2000, PERIODICITY: ONE-TIME  
PUBLICATION NUMBER SR/O&G/2000-02.  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/SROG0002.PDF](http://tonto.eia.doe.gov/ftp/root/service/srog0002.pdf)**

## POWER PLANT EMISSION REDUCTIONS USING A GENERATION PERFORMANCE STANDARD

In a previous analysis, the Energy Information Administration analyzed the impacts of power sector caps on nitrogen oxides, sulfur dioxide, and carbon dioxide emissions, assuming a policy instrument patterned after the sulfur dioxide allowance program created in the Clean Air Act Amendments of 1990. This report compares the results of that work with the results of an analysis that assumes the use of a dynamic generation performance standard as an instrument for reducing carbon dioxide emissions. In general, the results of the two analyses are similar: to reduce carbon dioxide emissions the power sector is expected to turn away from coal-fired generation to natural gas and, to a lesser extent, renewables.

**PAGES: 9, RELEASED: MAY 2001, PERIODICITY: ONE-TIME  
PUBLICATION NUMBER GPSSTUDY.PDF.  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/GPSSTUDY.PDF](http://tonto.eia.doe.gov/ftp/root/service/gpsstudy.pdf)**

## REDUCING EMISSIONS OF SULFUR DIOXIDE, NITROGEN OXIDES, AND MERCURY FROM ELECTRIC POWER PLANTS

This report describes the impacts of scenarios with alternative power sector emission caps on nitrogen oxides, sulfur dioxide, and mercury.

**PAGES: 89, RELEASED: OCTOBER 2001, PERIODICITY: ONE-TIME  
PUBLICATION NUMBER SR/OIAF/2001-04.  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/SROI\(2001\)04.PDF](http://tonto.eia.doe.gov/ftp/root/service/sroi(2001)04.pdf)**

## THE TRANSITION TO ULTRA-LOW-SULFUR DIESEL FUEL: EFFECTS ON PRICES AND SUPPLY

This study assesses the possible impact of the new sulfur requirement on the diesel fuel market. The study discusses the implications of the new regulations for vehicle fuel efficiency and examines the technology, production, distribution, and cost implications of supplying diesel fuel to meet the new standards.

**PAGES: 113, RELEASED: MAY 2001, PERIODICITY: ONE-TIME  
PUBLICATION NUMBER SR/OIAF-2001-01.  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/OIAF2001-01.PDF](http://tondo.eia.doe.gov/ftp/root/service/oiaf2001-01.pdf)**

## U.S. NATURAL GAS MARKETS: MID-TERM PROSPECTS FOR NATURAL GAS SUPPLY

This Service Report describes the recent behavior of natural gas markets with respect to natural gas prices, their potential future behavior, the potential future supply contribution of liquefied natural gas and increased access to Federally-restricted resources, and the need for improved natural gas data.

**PAGES: 93, RELEASED: DECEMBER 2001, PERIODICITY: ONE-TIME  
PUBLICATION NUMBER SR/OIAF/2001-06.  
[HTTP://TONTO.EIA.DOE.GOV/FTP/ROOT/SERVICE/SROIAF\(2001\)06.PDF](http://tondo.eia.doe.gov/ftp/root/service/sroiaf(2001)06.pdf)**

## U.S. NATURAL GAS MARKETS: RECENT TRENDS AND PROSPECTS FOR THE FUTURE

The purpose of this study is to examine recent trends and prospects for the future of the U.S. natural gas market. Natural gas prices rose dramatically in 2000 and remained high through the first part of 2001, raising concerns about the future of natural gas prices and potential for natural gas to fuel the growth of the U.S. economy.

**PAGES: 53, RELEASED: MAY 2001, PERIODICITY: ONE-TIME  
PUBLICATION NUMBER SR/OIAF-2001-02.  
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