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The Department of Energy Disclosure Policy for Individually Identifiable Information Maintained by the Energy Information Administration

by
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Overview

The Energy Information Administration (EIA) collects a wide variety of energy information from individuals in various parts of the public and business communities. The information is collected to fulfill the EIA mandate to develop and maintain a base of energy information with which government, business, and the general public can make informed decisions—personal, political, and strategic about our energy future. The EIA receives many requests for the energy information produced in these collection efforts. Such requests are normally honored by the EIA when they can be answered with aggregated information. Occasionally, requests are made for information concerning individual respondents. Current laws and regulations provide specific guidance to the EIA on the disclosure of individually identifiable energy information to the public, the Congress, the General Accounting Office, and other offices in the Department of Energy (DOE). However, with respect to disclosure to other Federal agencies and the States, more discretion is generally allowed.

On September 10, 1980, after many discussions with interested groups, including representatives from the public sector, the Department's policy on disclosure of individually identifiable energy information in the possession of the EIA was published in the *Federal Register* (45 F.R. 59812, September 10, 1980). The policy is intended to guide the EIA and other DOE offices concerning the conditions and terms under which individual respondent information will be shared with other DOE offices, the Congress, the General Accounting Office, other Federal agencies, and the States. This policy addresses the disclosure of information collected or maintained by the EIA either on its own behalf or for the Federal Energy Regulatory Commission or other offices of the DOE. As required by the policy, all new EIA data collection forms will include notification to respondents about the planned uses and potential disclosures of the information they are asked to provide.

Briefly, data will be disclosed—

- To the public to the extent required by the Freedom of Information Act (5 U.S.C. 552).
- To the Congress and to the General Accounting Office, as required by statute.
- To other components of the DOE, as required by the DOE Organization Act; although, in order to protect the integrity of statistical data, individuals in other DOE offices will not generally request for other than statistical purposes, information that is part of a statistical sample, or information on individuals, families, and households.
- To other Federal agencies and to States if—
  - the data are available to the public;
  - disclosure is required by the terms of the statute under which the information was collected;
  - the data were collected for regulatory purposes;
  - notice has been given to the provider;
  - the data, whether regulatory or statistical, will be used for statistical purposes only;
  - the provider has consented to the disclosure;
  - a court has ordered the disclosure; or
  - the President has directed the disclosure.

The policy is a DOE policy—as opposed to an EIA policy—because, under the provisions of the Department of Energy Organization Act, P.L. 95–91 Section 205(f), other DOE offices have access to any information in EIA's possession. Therefore, disclosure of EIA-collected data is a matter of Departmental concern.

This disclosure policy has been under development since late 1977. There has been substantial review of, and comment on, various drafts of the policy by offices in DOE, other Federal agencies, members of Congress, and the public. An interagency meeting to discuss the development of the policy was

held on November 30, 1977. A public hearing was held on February 9, 1978, following the publication in the *Federal Register* of a notice describing a series of proposed alternatives for a disclosure policy (see 43 F.R. 2653, January 18, 1978). The draft policy has also been discussed at public meetings between EIA and the American Statistical Association Ad Hoc Committee on Energy Statistics.

The official policy centers around the issue of the extent to which individually identifiable energy information should be disclosed outside the DOE, particularly to other Federal agencies, or to the States and the appropriate purposes for such disclosures. Individually identifiable energy information, as covered by the policy, includes any record or portion of a record that includes information that may identify specific respondents. It also includes certain aggregated data that could reasonably be expected to reveal information about a specific person.

Subissues include the distinction to be made between information collected for statistical and for regulatory purposes, whether and how the providers of information will be notified of disclosures, the kind and amount of information that will be disclosed, the limitations to be placed on redisclosure, and the safeguarding of information by recipients.

The EIA is responsible for developing a sound energy data base for both enforcement and policy-formulation purposes. Regulatory processes generally involve access to information on an individually identifiable case basis. An individual firm is likely to be the focus of interest for the purpose of assuring compliance with existing statutes and regulations. However, the statistical process generally addresses aggregate questions and does not typically involve access to individually identifiable data. Frequently, sampling methods can be used, with considerable monetary savings and reduced respondent burden, to obtain reliable answers to statistical questions.

Good policy calls for revealing the intended uses of the information, including interagency or State disclosure, in advance to survey respondents. Informing respondents that their replies will be used only for statistical purposes encourages cooperation and tends to elicit complete and prompt responses. However, telling respondents that their replies will be made available to agencies with enforcement responsibilities tends to be inhibitory.

Advocates of full disclosure of energy information cite the need to have data available for such purposes as developing additional legislation, monitoring existing programs, and enforcing energy laws. Those who provide information tend to oppose wide disclosure of energy information, asserting that widespread disclosure could place them at a competitive disadvantage and that information collected for statistical purposes should not, in fairness, be used for regulatory purposes. In the past the distinction between statistical and regulatory data has not always been readily discernable.

As a general rule, the EIA does not make blanket determinations of nondisclosure nor enter into agreements of confidentiality with survey respondents. Most data collections are made using the mandatory authority of the Federal Energy Administration Act of 1974, P.L. 93–275, which requires that, with respect to public disclosure, data collected pursuant to its authority be treated in accordance with the provisions of the Freedom of Information Act (FOIA), 5 U.S.C. 552. Determinations of exemptions from required disclosure under the FOIA are made on a case-by-case basis at the time of a specific request. This procedure provides individual treatment of each request on its own merits and eliminates advance determinations about information which may never be requested.

The principle that the defensively-oriented respondent is likely to provide less candid information is uniformly accepted in the statistical profession, both within and outside the Government. Therefore, in order to preserve the integrity of statistical data, Federal statistical agencies such as the Census Bureau and the National Center for Health Statistics are constrained by law or regulation from disclosing individual respondent data.

There are, however, compelling arguments to support a case for fuller interagency disclosure. Under the DOE Organization Act, the EIA has broader obligations than do the purely statistical Federal agencies. DOE is mandated to foster competition in the energy industries and to assure compliance with laws within DOE's enforcement jurisdiction. While DOE was given these responsibilities, much of the enforcement authority rests with the Department of Justice and the Federal Trade Commission. The DOE and the EIA contribute to fulfilling these obligations by collecting and maintaining energy information that can be used in responding to requests from enforcement agencies for energy information. Failure to do so might lead to a feeling

that the interests of consumers and the general public are not being fully represented.

To counter the argument that adequate information will not be provided by survey respondents, it is noted that the DOE's statutes not only empower the Department to require the submission of data, but also give DOE the means to enforce that requirement. Thus, regardless of how the information will be used, respondents must provide it under the law. The enforcement of data collection requirements, however, is cumbersome and time consuming, and, can potentially reduce the timeliness and quality of the reported information.

The disclosure policy, as adopted, is intended to strike a balance between the conflicting goals of maintaining the integrity of the EIA statistical data base and serving the legitimate needs of enforcement officials. It is intended that the balance between these competing goals be achieved by providing for disclosure only under enumerated conditions, with limitations on the redisclosure of information by recipients. The notification to respondents, of all possible disclosures of information is also covered by the policy.

This brief summary does not, of course, include all of the detailed provisions of the policy. For detailed information, the full text of the policy follows.

DOE POLICY ON THE DISCLOSURE OF INDIVIDUALLY IDENTIFIABLE ENERGY INFORMATION IN THE POSSESSION OF THE EIA

This Department of Energy (DOE) policy applies to all components of the DOE with respect to the disclosure, and the conditions which attach to such disclosure, of Individually Identifiable Energy Information in the possession of the Energy Information Administration (EIA). Specifically, the policy addresses disclosures which may be made 1) to the public, 2) pursuant to a Court Order, 3) to the General Accounting Office (GAO), the Congress or any duly established Committee of the Congress, 4) to other components of the DOE, and 5) to other agencies and organizations. Individually Identifiable Energy Information known by the EIA and the affected respondents to be already publicly available shall be made available to any party upon request and will not be subject to any of the provisions which follow. Part I of the policy addresses information in the possession of the EIA other than that which is collected or maintained on behalf of the Federal Energy Regulatory Commission (FERC). Part II addresses information collected and maintained by the EIA on behalf of the FERC. Definitions of key terms are contained in the Appendix.

I. Information in the possession of the EIA (not collected or maintained on behalf of the FERC)

A. Disclosure to the Public

1. If any member of the public requests in writing, whether under the Freedom of Information Act (FOIA) or otherwise, disclosure of Individually Identifiable Energy Information in the possession of the EIA, the EIA will disclose such information when (a) the requested information is known by the EIA to be already publicly available; (b) disclosure would be in the public interest as determined by the EIA and the information is not prohibited from being disclosed by statute, Executive Order or regulation; or (c) required to do so by the FOIA and DOE implementing regulations or by another statute.

2. For Individually Identifiable Energy Information collected or maintained by the EIA on behalf of another component of the DOE, that other component will determine, in consultation with the EIA, whether to make public disclosure of the information and will respond to the request.

3. Specific written notice of any intended public disclosure shall be provided to all affected respondents in accordance with the terms of the DOE FOIA implementing regulations.

B. Disclosure Pursuant to a Court Order

1. The EIA shall disclose Individually Identifiable Energy Information in its possession when required to do so by the Order of a Court of competent jurisdiction, and shall advise the Court, as ap-

propriate, that the information may be confidential information which is prohibited from disclosure to the public by 18 U.S.C. 1905.

2. For information collected or maintained by the EIA on behalf of another component of the DOE, the EIA shall consult with such component prior to making such a disclosure.

3. Specific written notice of any such intended or actual disclosure shall be provided to all affected respondents at the earliest practicable time.

C. Disclosure to the GAO and Congress

1. Except as otherwise authorized by law, the EIA shall disclose any Individually Identifiable Energy Information in its possession, upon written request, to the GAO, the Congress or any duly established Committee of the Congress and shall advise them with respect to the DOE policy regarding disclosure of such information and, as appropriate, that the information may be confidential information which is prohibited from disclosure to the public by 18 U.S.C. 1905.

2. For information collected or maintained by the EIA on behalf of another component of the DOE, the EIA shall consult with such component prior to responding to such a request.

3. Henceforth, the EIA shall inform affected respondents, prior to collection, that the information they submit will be disclosed, upon request, to the GAO, the Congress, or any duly established Committee of Congress.

4. Subsequent disclosures of such information will be subject to the applicable rules and laws governing the GAO, the Congress, or the Committee of Congress.

D. Disclosure to Other Components of the DOE

1. Except as otherwise authorized by law, the EIA shall disclose to any other component of the DOE, upon written request, any Individually Identifiable Energy Information which such component determines to be related to its functions. The EIA shall advise such component, as appropriate, that the information may be confidential information which is prohibited from public disclosure by 18 U.S.C. 1905.

2. Other components of the DOE will not ordinarily request, for other than statistical purposes, Individually Identifiable Energy Information which relates to individuals, families, or households, or which has been collected on a sample basis from a particular group of respondents.

3. For information collected or maintained by the EIA on behalf of another component of the DOE, the EIA shall consult with such component prior to responding to a request from any other component of the DOE.

4. Henceforth, the EIA shall inform affected respondents, prior to collection, that the information they submit will be disclosed, upon request, to other components of the DOE.

5. With regard to subsequent disclosure, any component of the DOE that has obtained Individually Identifiable Energy Information from the EIA:

   a. shall not make any public disclosure of such information without obtaining the concurrence of the EIA, except that such component may, after consultation with the EIA, make public disclosure of such information (i) in the course of an administrative or judicial proceeding sponsored by such component or to which such component is a legal party, (ii) in response to an FOIA request when the request is for information collected or maintained by the EIA on behalf of that component, or (iii) when required to do so upon the Order of a Court of competent jurisdiction. Under this subsection, public disclosure does not include disclosure to pub-

lic officials assisting the DOE in administrative or judicial proceedings sponsored by the DOE or to which the DOE is a party. The DOE component shall give all affected respondents (i) not less than seven calendar days written notice of any intended public disclosure, except when disclosure is required pursuant to the Order of a Court of competent jurisdiction, and (ii) written notice at the earliest practicable time of intended or actual public disclosure required pursuant to the Order of a Court of competent jurisdiction.

b. shall refer to the EIA, or to that component of the DOE on whose behalf the EIA collects or maintains the information, for response, in accordance with the provisions of Section I.A, that portion of any FOIA request encompassing such information. This subsection does not apply in the case of Individually Identifiable Energy Information which has been incorporated into an agency record (within the meaning of the FOIA) of the FERC, in which case the FERC may respond to such FOIA requests, after consultation with the EIA.

c. shall consult with the EIA prior to responding to any request for such information from the GAO, the Congress, or any duly established Committee of Congress.

d. shall refer to the EIA for response any request for such information from another agency of the Federal government, from another component of DOE or from a State, except where EIA has authorized such disclosure in advance.

E. Disclosure to Other Agencies of the Federal Government or to a State

1. Except as otherwise authorized by law, Individually Identifiable Energy Information in the possession of the EIA shall be liable to disclosure to another agency of the Federal Government or to the chief executive officer of a State:

a. if the information would be disclosed to the public under the provisions of Section I.A.1.; or

b. if the information was collected under the authority of any law which provides by its own terms for disclosure of information collected under that law to named agencies, in which case disclosure shall be made in accordance with the terms of that law; or

c. if the information, as determined by the EIA and the component on whose behalf the information was collected and maintained in their discretion, was collected primarily for compliance/enforcement or benefit/action purposes; or

d. if notice of intended interagency or State disclosure was provided to affected respondents prior to the collection of information; or

e. if the requesting agency or State provides effective assurance in writing that the information is to be used by that agency or State for statistical purposes only; or

f. if the consent of the affected respondent has been received by the EIA; or

g. if required to do so upon the Order of a Court of competent jurisdiction; or

h. if required to do so at the direction of the President.

2. The determination whether notice will be given so that information collected for other than compliance/enforcement or benefit/action purposes may be liable to interagency or State disclosure pursuant to section I.E.1.d. above will be made as follows: The EIA will provide other interested components of the DOE, including, but not limited to, the Office

of the General Counsel and the Economic Regulatory Administration, the opportunity to review proposed data collections. The components will advise the EIA if they believe there is a demonstrable need to disclose the information to other Federal agencies or States. If so, the components will request that notice to that effect be given on the data collection form. If the EIA denies the request, the other components may request that the Deputy Secretary consider the EIA decision. This consultation will be made prior to the final approval of new or revised data collection forms. This procedure will not be applicable for data collection forms which relate to individuals, families, or households, or which will collect information on a sample basis from a particular group of respondents.

3. Except as provided in I.E.1. above, Individually Identifiable Energy Information shall not ordinarily be liable to disclosure to another agency of the Federal government or the chief executive officer of a State.

4. For Individually Identifiable Energy Information collected or maintained on behalf of another component of the DOE, the EIA shall consult with that component prior to making such a disclosure. If the EIA and the other component of the DOE do not agree on whether the data should be disclosed, the matter shall be resolved by the Deputy Secretary.

5. The EIA shall advise the recipient agency or State, as appropriate, that the information may be confidential information which is prohibited from public disclosure by 18 U.S.C. 1905.

6. Respondents will be notified of potential or actual interagency or State disclosures as follows:

   a. Henceforth, the EIA will inform affected respondents, prior to the collection of information, as to whether, and the conditions under which, the information to be collected is liable to interagency or State disclosure.

   b. In all instances of actual interagency or State requests to the EIA for the disclosure of Individually Identifiable Energy Information where the EIA determines that the requested information will be disclosed, the EIA shall specifically notify all affected respondents, in writing to their last known address, not less than seven calendar days prior to each such proposed disclosure except that (i) notice need not be given where respondents have already been provided notice of the possibility of actual disclosure, or where the requesting agency or State has provided effective assurance that the information will be used for statistical purposes only; and (ii) notice will not be given where the information was collected for compliance/enforcement or benefit/action purposes, and the requesting Federal agency is undertaking the prosecution of a specific person for a probable violation of a law within DOE's enforcement jurisdiction, unless otherwise provided by the terms of the data collection.

   c. When interagency or state disclosure is required pursuant to the Order of a Court of competent jurisdiction or at the direction of the President, the EIA shall notify all affected respondents of the intended or actual disclosure in writing at the earliest practicable time.

7. Where one or more of the conditions under Section I.E.1. is applicable, the EIA may disclose Individually Identifiable Energy Information to another Federal agency pursuant to a written request which meets the conditions set forth below.

   a. the request shall stipulate that the information requested is necessary to the requesting agency in carrying out its lawful duties and responsibilities;

   b. the requesting agency shall agree to make no subsequent disclosure

of such information except (i) in response to an FOIA request, (ii) in response to a written request from the GAO or from the Congress or any duly established Committee of Congress, (iii) when considered to be essential in the course of an administrative or judicial proceeding sponsored by the requesting agency or to which the requesting agency is a legal party, or (iv) when required to do so upon the Order of a Court of competent jurisdiction;

c. the requesting agency, in responding to an FOIA request for such information (i) will consult with and give great deference to the views of the EIA in determining whether such information falls within one or more of the FOIA exemptions from mandatory disclosure; provided, however, that where the pertinent regulations of the requesting agency permit the referral of an FOIA request for records or information originating in another agency to the originating agency, the requesting agency shall refer any request for such records or information to the EIA for response; and (ii) will not make a public release of any information which falls within an exemption from mandatory disclosure;

d. the requesting agency shall (i) in the case of disclosure pursuant to an FOIA request or in connection with any proceeding, give the EIA and the original respondent not less than seven calendar days written notice of the intended disclosure, (ii) in the case of the Order of a Court of competent jurisdiction, give the EIA and the original respondent of such information written notice of the intended or actual disclosure at the earliest practicable time, and (iii) in the case of intended disclosure to the GAO, the Congress, or any duly established committee of Congress, notify the EIA in writing prior to the intended disclosure; and

e. the requesting agency shall refer any other request for such information to the EIA for response.

8. Where one or more of the conditions under Section I.E.1. is applicable, the EIA may disclose Individually Identifiable Energy Information to a State pursuant to a request which meets the conditions set forth below. Such requests must be made in writing by the chief executive officer of the State. Normally, responses to such requests will be within the State which has requested the information. The State must:

   a. stipulate that the information requested is necessary to the requesting State in carrying out its lawful duties and responsibilities;

   b. agree to make no subsequent disclosure of the information except as authorized in advance by the EIA;

   c. agree to refer to the EIA for response any request for disclosure of such information that the EIA has not authorized in advance;

   d. provide assurance that State law and regulations will not require the disclosure of information which is determined by the EIA not to be publicly available; and

   e. agree to return to the EIA all such information prior to the effective date of any subsequently adopted law or regulation which would be in conflict with these conditions.

F. Security Measures

Any party requesting Individually Identifiable Energy Information shall certify in writing that appropriate administrative, technical, and physical security measures to protect such information from unauthorized disclosure will be in place prior to any transfer of such information.

G. Authorization to disclose information collected or maintained by the EIA on behalf of another component.

For Individually Identifiable Energy Information which was collected or is maintained by the EIA on behalf of another component, that component is authorized to disclose such information after consultation with the EIA and in accordance with the procedures of Section I.A. through I.F. above.

II. Information Collected or Maintained by the EIA on Behalf of the FERC

A. Disclosure to the Public

The EIA shall refer to the FERC, to the extent permissible by the FOIA and DOE's implementing regulations, any requests by a member of the public for Individually Identifiable Energy Information collected or maintained by the EIA on behalf of the FERC. The FERC shall respond directly to such requests after consultation with the EIA.

B. Disclosure Pursuant to a Court Order

The EIA shall disclose Individually Identifiable Energy Information collected or maintained by the EIA on behalf of the FERC when required to do so pursuant to the Order of a Court of competent jurisdiction. The EIA shall consult with the FERC prior to making such a disclosure and notify all affected respondents of any such intended or actual disclosure in writing at the earliest practicable time.

C. Disclosure to GAO and Congress

The EIA shall consult with the FERC prior to responding to a request from the GAO, the Congress, or any duly established Committee of Congress for any Individually Identifiable Energy Information collected or maintained by the EIA on behalf of the FERC.

D. Disclosure to Other Components of DOE

The EIA shall disclose any Individually Identifiable Energy Information collected or maintained by the EIA on behalf of the FERC, upon request, to any other component of the DOE. The EIA shall consult with the FERC prior to making any such disclosure. However, other components of DOE will ordinarily request such information directly from the FERC. No component of DOE shall make any subsequent disclosure of such information until it has consulted with and obtained the concurrence of the FERC, as appropriate, prior to such disclosure.

E. Disclosure to Other Agencies of the Federal Government or to States

The EIA shall refer to the FERC any requests by another agency of the Federal government or a State for Individually Identifiable Energy Information collected or maintained by the EIA on behalf of the FERC. The FERC shall respond directly to such requests.

F. Security Measures

Any party requesting Individually Identifiable Energy Information collected or maintained by the EIA on behalf of the FERC shall certify, in writing, that appropriate administrative, technical, and physical security measures to protect such information from unauthorized disclosure will be in place prior to any transfer of such information.

G. Authorization to Disclose Information Collected or Maintained by the EIA on behalf of the FERC

For Individually Identifiable Energy Information which was collected or is maintained by the EIA on behalf of the FERC, the FERC is authorized to disclose such information after consultation with the EIA.

APPENDIX
DEFINITIONS

1. Energy Information: all information in whatever form on (1) fuel reserves, exploration, extraction, and energy resources (including petrochemical feedstocks) wherever located; (2) production, distribution, and consumption of energy and fuels wherever carried on; and (3) matters relating to energy and fuels, such as corporate structure and proprietary relationships, costs, prices, capital investments, and assets, and other matters directly related thereto, wherever they exist.
2. Individually Identifiable Energy Information: any individual record or portion of a record or aggregated data containing energy information about a person or persons obtained from any source, the disclosure of which could reasonably be expected to reveal information

about a specific person. Information provided to EIA by a unit of Federal, State, local or foreign government will be included on this definition if such information would qualify for exemption from mandatory disclosure under the Freedom of Information Act.

3. Person: any individual, family, household, proprietorship, partnership, corporation, association, business, institution, establishment, religious body or organization of any nature whatsoever, including departments, agencies and establishments of the United States and local governments, and foreign governments.
4. Energy information in the possession of EIA: all energy information collected or maintained by the EIA (whether collected or maintained for its own use or on behalf of any other component of the Department) and accessible by the EIA. This definition excludes and the policy as not applicable to energy-related information solely in the possession of another component of the DOE which was collected or obtained pursuant to (a) authority vested in that component by statute, (b) a delegation of authority from the Secretary of Energy, or (c) a redelegation of authority from the EIA Administrator.
5. Compliance/enforcement purpose: use of energy information gathered from a person for the purpose of assessing or enforcing the compliance of that person with a law, including regulations.
6. Benefit/action purpose: use of energy information submitted by a person seeking a benefit from, or action on the part of, the DOE.
7. Statistical purpose: use of energy information for the purpose of developing or reporting aggregate or anonymous information not intended to be used, in whole or in part, in any way in which the specific identity of any person is material to the intended use of the information. Included in this definition are the development of lists to be used in the conduct of a project with an exclusively statistical purpose and the pretesting and evaluation of procedures in such projects.
8. Other purpose: use of energy information for other than compliance/enforcement and benefit/action purposes, including, but not limited to, use of energy information for statistical purposes.
9. Respondent: a person who originally submitted information in response to a survey, data collection form, or any other data gathering effort.
10. Energy information collected or maintained by the EIA on the behalf of another component of the DOE: any energy information in the possession of the EIA which was either gathered by or submitted to the EIA at the specific request of the other component.
11. Energy Information collected or maintained by the EIA on behalf of the FERC: any energy information in the possession of the EIA which was either gathered by or submitted to the Federal Power Commission (FPC) or the FERC and subsequently transferred to the EIA, or gathered by or submitted to the EIA at the specific request of the FERC.
12. Component of the DOE: DOE principals (Secretary, Deputy Secretary, Under Secretary) and those DOE offices which report directly to the DOE principals, including the Special Assistant, the Executive Assistant, the Assistant to the Secretary (Public Affairs), the Assistant to the Secretary (Legislative Affairs), the Assistant Secretaries, the Chairman of the Board of Contract Appeals, the Inspector General, the General Counsel, the Director of the Office of Hearings and Appeals, the Chief Financial Officer, the Director of the Office of Minority Impact, the Director of Energy Research, the Economic Regulatory Administrator, the Director of the Office of Consumer Affairs, the Director of the Office of Intergovernmental Affairs, and the DOE Regional Representatives. The Federal Energy Regulatory Commission is also considered to be a DOE component.
13. State: the various States, the District of Columbia, the Commonwealth of Puerto Rico, or any territory or possession of the United States.

Part 1 Executive Summary

Overview

Production

Energy production during the first 9 months of 1980 totaled 48.5 quadrillion Btu, a 2.7 percent increase compared to production during the same period of 1979. This increase amounted to 2.3 percent when measured as a daily rate (a measure which removes the influence of leap year). Increases in production occurred for petroleum and coal. Petroleum production was up 1.3 percent and coal 8.7 percent (all measured as daily rates). Natural gas production decreased by 1.0 percent. All other forms of energy production combined were down by 2.1 percent, primarily due to a decline in electricity production by nuclear plants.

Consumption

During the first 9 months of 1980, energy consumption totaled 56.7 quadrillion Btu, a 3.6 percent decrease compared to consumption during the same period of 1979, or 4.0 percent lower when average daily rates are compared. Decreases in the daily consumption rates of petroleum (8.8 percent) and natural gas (1.1 percent) contributed to the overall decline in energy consumption during this period. The average daily rate of coal consumption was up 4.2 percent over the level during the first 9 months of 1979.

Imports

Net imports of energy during the first 9 months of 1980 totaled 9.3 quadrillion Btu, 25.7 percent below the first 9 months of 1979. This decrease amounted to 26.0 percent when measured as a daily rate. By energy source, the decreases in net imports were petroleum, 19.6 percent; natural gas 20.6 percent; and electricity and coal coke combined, 40.8 percent (daily rates). Net exports of coal during the first 9 months of 1980 were 43.3 percent higher than the level during the same period of 1979.

ENERGY SUMMARY
(Quadrillion (10^{15}) Btu)

	September			Cumulative January through September				
	1980	1979	Percent Change	1980	1980 Daily Rate	1979	1979 Daily Rate	Percent Change*
Total Production	**5.340**	**5.136**	**+4.0**	**48.486**	**0.177**	**47.227**	**0.173**	**+2.3**
Petroleum[1]	1.669	1.657	+0.7	15.413	0.056	15.153	0.056	+1.3
Natural Gas	1.549	1.587	−2.4	14.690	0.054	14.787	0.054	−1.0
Coal	1.662	1.449	+14.7	14.036	0.051	12.863	0.047	+8.7
Other[2]	0.460	0.443	+3.7	4.347	0.016	4.424	0.016	−2.1
Total Consumption	**5.863**	**5.901**	**−0.7**	**56.730**	**0.207**	**58.864**	**0.216**	**−4.0**
Petroleum[3]	2.750	2.886	−4.7	25.533	0.093	27.908	0.102	−8.8
Natural Gas	1.335	1.347	−0.9	14.967	0.055	15.078	0.055	−1.1
Coal	1.305	1.201	+8.7	11.755	0.043	11.239	0.041	+4.2
Other[4]	0.472	0.468	+0.9	4.474	0.016	4.638	0.017	−3.9
Net Imports	**0.795**	**1.315**	**−39.6**	**9.320**	**0.034**	**12.552**	**0.046**	**−26.0**
Petroleum[5]	0.952	1.328	−28.3	10.203	0.037	12.637	0.046	−19.6
Natural Gas	0.056	0.096	−41.9	0.720	0.003	0.903	0.003	−20.6
Coal	(0.226)	(0.134)	(+68.1)	(1.730)	(0.006)	(1.203)	(0.004)	(+43.3)
Other[6]	0.013	0.025	−49.3	0.128	0.000	0.215	0.001	−40.8

Totals may not equal sum of components due to independent rounding.
Parentheses indicate exports are greater than imports.
*Based on daily rates in order to remove the influence of leap year.
[1] Includes crude oil, lease condensate, and natural gas plant liquids.
[2] Includes hydroelectric, nuclear, and geothermal power and electricity produced from wood and waste.
[3] Includes refined petroleum products and natural gas plant liquids.
[4] Includes hydroelectric, nuclear, and geothermal power, electricity produced from wood and waste, and net imports of electricity and coal coke.
[5] Includes crude oil, lease condensate, refined petroleum products, unfinished oils, natural gasoline, plant condensate, and imports of crude oil for the Strategic Petroleum Reserve.
[6] Includes net imports of electricity and coal coke.

Executive Summary

Energy Summary

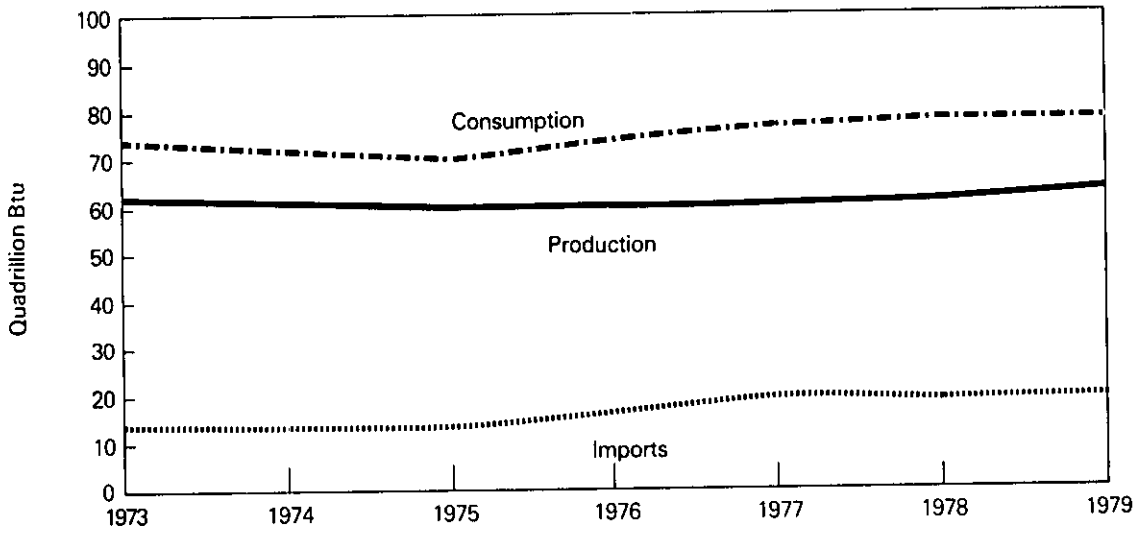
		Energy Production[1]	Energy Consumption[2]	Energy Imports[3]	Energy Exports[4]
		Quadrillion (10^{15}) Btu			
1973	**TOTAL**	**62.433**	**74.609**	**14.732**	**2.073**
1974	**TOTAL**	**61.229**	**72.759**	**14.417**	**2.243**
1975	**TOTAL**	**60.059**	**70.707**	**14.113**	**2.389**
1976	**TOTAL**	**60.090**	**74.509**	**16.838**	**2.213**
1977	**TOTAL**	**60.297**	**76.390**	**20.092**	**2.097**
1978	**TOTAL**	**61.208**	**78.154**	**19.262**	**1.951**
1979	January	5.291	7.933	1.777	0.175
	February	4.897	7.257	1.532	0.161
	March	5.479	6.987	1.727	0.242
	April	5.223	6.140	1.519	0.237
	May	5.438	6.203	1.606	0.257
	June	5.284	5.990	1.593	0.252
	July	4.981	6.109	1.646	0.272
	August	5.497	6.343	1.693	0.259
	September	5.136	5.901	1.537	0.222
	October	5.600	6.388	1.703	0.288
	November	5.362	6.537	1.562	0.264
	December	5.338	7.164	1.693	0.261
	TOTAL	**63.528**	**78.953**	**19.587**	**2.891**
1980	January	5.547	7.407	1.659	0.225
	February	5.206	7.011	1.467	0.206
	March	R5.589	6.976	1.492	0.265
	April	R5.392	6.011	1.337	0.297
	May	R5.497	5.838	1.281	0.348
	June	R5.325	5.759	R1.293	0.366
	July	R5.219	R5.965	1.166	0.330
	August	5.372	R5.900	1.187	0.320
	September	5.340	5.863	1.128	0.333
	TOTAL (Year-to-date)	**48.486**	**56.730**	**12.010**	**2.690**

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]See Explanatory Note 1.
[2]See Explanatory Note 2.
[3]See Explanatory Note 3.
[4]See Explanatory Note 4.
R=Revised data.
Note: The sum of domestic energy production and net imports of energy does not equal domestic energy consumption. The difference is attributed to stock changes; losses and gains in conversion, transportation and distribution; the addition of blending compounds; shipments of anthracite to U.S. Armed Forces in Europe; and adjustments to account for discrepancies between reporting systems.
Source: •Energy Information Administration calculations based on data appearing elsewhere in this publication.

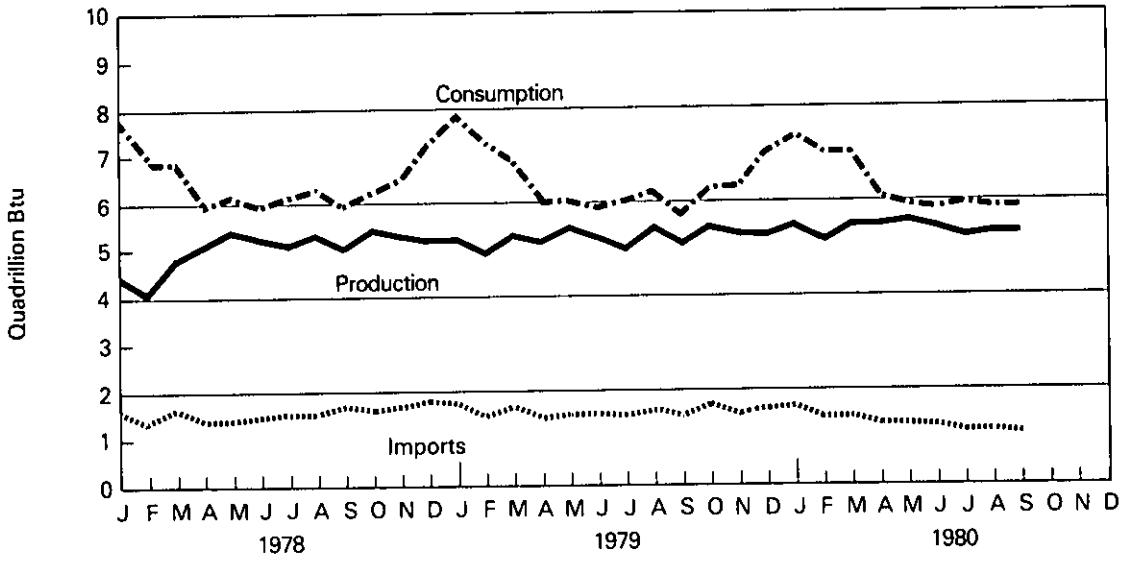
Executive Summary

Energy Summary

Yearly



Monthly



Executive Summary

Production of Energy by Type

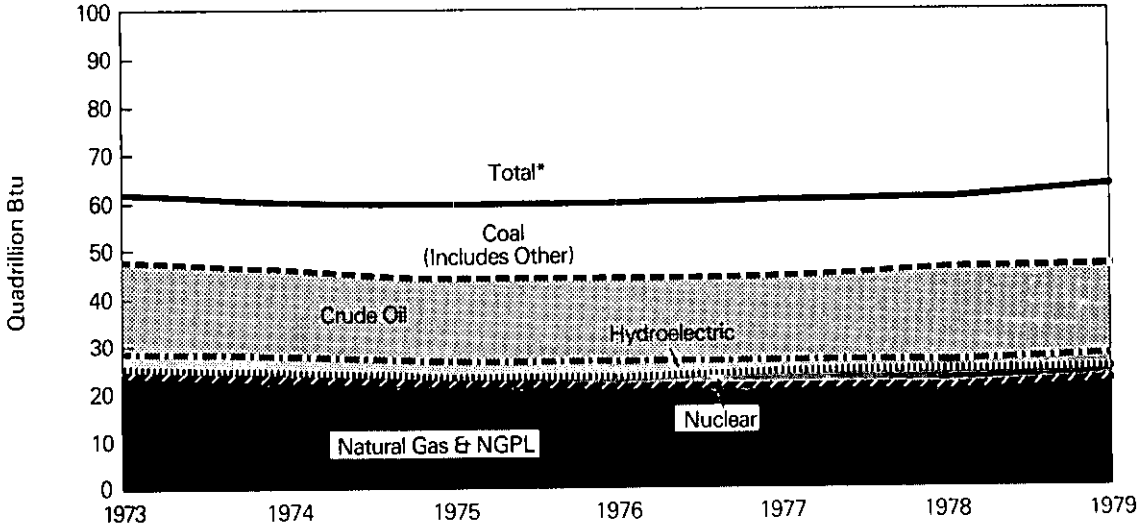
		Coal[1]	Crude Oil[2]	NGPL[3]	Natural Gas (Dry)	Hydro-electric Power[4]	Nuclear Electric Power	Other[5]	Total Energy Produced	Yearly Cumulative Energy Produced
					Quadrillion (10^{15}) Btu					
1973	**TOTAL**	**14.366**	**19.493**	**2.569**	**22.187**	**2.861**	**0.910**	**0.046**	**62.433**	
1974	**TOTAL**	**14.468**	**18.575**	**2.471**	**21.210**	**3.177**	**1.272**	**0.056**	**61.229**	
1975	**TOTAL**	**15.189**	**17.729**	**2.374**	**19.640**	**3.155**	**1.900**	**0.072**	**60.059**	
1976	**TOTAL**	**15.853**	**17.262**	**2.327**	**19.480**	**2.976**	**2.111**	**0.081**	**60.090**	
1977	**TOTAL**	**15.829**	**17.454**	**2.327**	**19.565**	**2.337**	**2.702**	**0.082**	**60.297**	
1978	**TOTAL**	**15.037**	**18.434**	**2.245**	**19.485**	**2.962**	**2.977**	**0.068**	**61.208**	
1979	January	1.297	1.521	0.186	1.718	0.264	0.299	0.007	5.291	5.291
	February	1.230	1.380	0.172	1.606	0.225	0.279	0.006	4.897	10.188
	March	1.498	1.544	0.188	1.706	0.274	0.262	0.008	5.479	15.668
	April	1.435	1.485	0.190	1.641	0.268	0.198	0.007	5.223	20.891
	May	1.559	1.544	0.191	1.670	0.305	0.162	0.007	5.438	26.329
	June	1.586	1.463	0.185	1.606	0.264	0.173	0.007	5.284	31.613
	July	1.203	1.502	0.190	1.613	0.241	0.224	0.007	4.981	36.594
	August	1.607	1.564	0.192	1.641	0.225	0.261	0.008	5.497	42.091
	September	1.449	1.473	0.184	1.587	0.201	0.235	0.007	5.136	47.227
	October	1.763	1.540	0.196	1.655	0.213	0.225	0.008	5.600	52.827
	November	1.537	1.505	0.197	1.671	0.237	0.207	0.008	5.362	58.189
	December	1.363	1.544	0.198	1.762	0.240	0.222	0.009	5.338	63.528
	TOTAL	**17.526**	**18.064**	**2.269**	**19.875**	**2.957**	**2.748**	**0.089**	**63.528**	
1980	January	1.532	1.555	0.200	1.772	0.267	0.213	0.008	5.547	5.547
	February	1.451	1.463	0.188	1.663	0.226	0.208	0.008	5.206	10.752
	March	1.578	1.566	0.191	R1.773	0.257	0.216	0.008	R5.589	R16.342
	April	R1.579	1.512	0.191	1.626	0.272	0.202	0.008	R5.392	R21.733
	May	R1.591	1.553	0.189	1.651	0.305	0.198	0.010	R5.497	R27.230
	June	R1.612	R1.487	R0.184	1.544	0.292	0.197	0.009	R5.325	R32.555
	July	1.408	1.555	0.188	1.573	R0.258	0.226	0.010	R5.219	R37.774
	August	1.622	1.539	0.183	1.539	0.217	0.262	0.011	5.372	R43.146
	September	1.662	1.486	0.183	1.549	0.196	0.254	0.010	5.340	48.486
	TOTAL (Year-to-date)	**14.036**	**13.717**	**1.697**	**14.690**	**2.289**	**1.976**	**0.082**	**48.486**	

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]Includes bituminous coal, lignite, and anthracite.
[2]Includes lease condensate.
[3]Natural gas plant liquids.
[4]Includes industrial and utility production of hydropower.
[5]Includes geothermal power and electricity produced from wood and waste.
R = Revised data.
Source: •Energy Information Administration calculations based on data reported elsewhere in this publication.

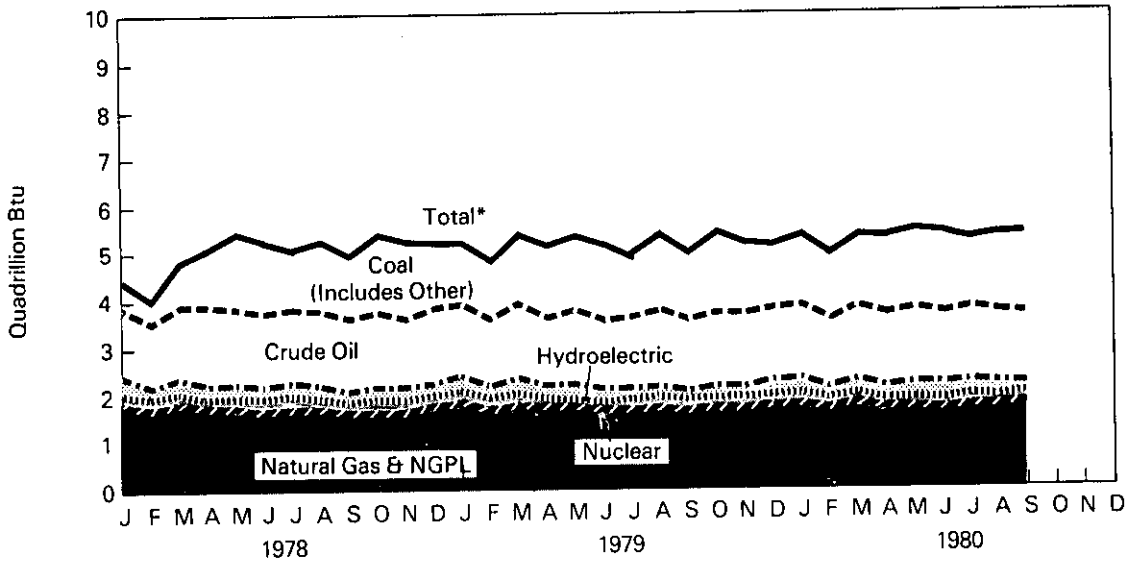
Executive Summary

Production of Energy by Type

Yearly



Monthly



*Btu equivalents for all fuels are cumulated to create total.

Executive Summary

Consumption of Energy by Type

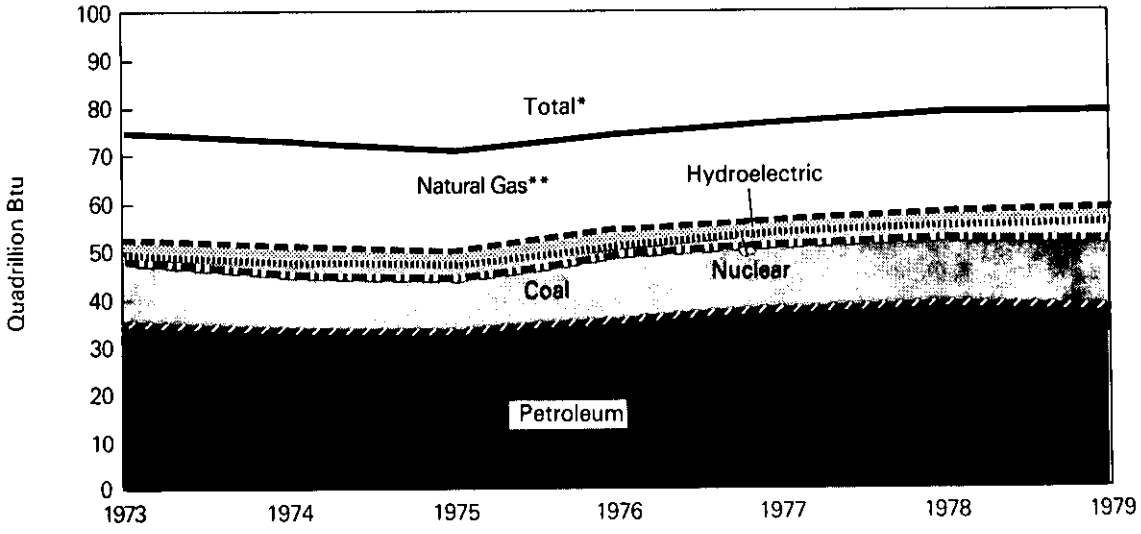
		Coal[1]	Natural Gas (Dry)	Petroleum	Hydroelectric Power[2]	Nuclear Electric Power	Net Imports of Coal Coke[3]	Other[4]	Total Energy Consumed	Yearly Cumulative Energy Consumed
					Quadrillion (10^{15}) Btu					
1973	**TOTAL**	**13.300**	**22.512**	**34.840**	**3.010**	**0.910**	**(0.008)**	**0.046**	**74.609**	
1974	**TOTAL**	**12.876**	**21.732**	**33.455**	**3.309**	**1.272**	**0.059**	**0.056**	**72.759**	
1975	**TOTAL**	**12.823**	**19.948**	**32.731**	**3.219**	**1.900**	**0.014**	**0.072**	**70.707**	
1976	**TOTAL**	**13.732**	**20.345**	**35.175**	**3.066**	**2.111**	**0.000**	**0.081**	**74.509**	
1977	**TOTAL**	**13.965**	**19.931**	**37.176**	**2.519**	**2.702**	**0.015**	**0.082**	**76.390**	
1978	**TOTAL**	**13.846**	**20.000**	**37.965**	**3.168**	**2.977**	**0.131**	**0.068**	**78.154**	
1979	January	1.355	2.463	3.524	0.281	0.299	0.004	0.007	7.933	7.933
	February	1.206	2.237	3.286	0.241	0.279	0.003	0.006	7.257	15.191
	March	1.215	1.912	3.297	0.291	0.262	0.002	0.008	6.987	22.177
	April	1.143	1.616	2.886	0.285	0.198	0.005	0.007	6.140	28.317
	May	1.196	1.454	3.049	0.323	0.162	0.011	0.007	6.203	34.520
	June	1.241	1.339	2.940	0.281	0.173	0.010	0.007	5.990	40.510
	July	1.337	1.348	2.926	0.258	0.224	0.008	0.007	6.109	46.619
	August	1.345	1.362	3.116	0.242	0.261	0.009	0.008	6.343	52.963
	September	1.201	1.347	2.886	0.218	0.235	0.008	0.007	5.901	58.864
	October	1.234	1.579	3.107	0.231	0.225	0.004	0.008	6.388	65.252
	November	1.240	1.792	3.036	0.253	0.207	0.000	0.008	6.537	71.789
	December	1.357	2.096	3.221	0.258	0.222	0.002	0.009	7.164	78.953
	TOTAL	**15.070**	**20.546**	**37.272**	**3.163**	**2.748**	**0.066**	**0.089**	**78.953**	
1980	January	1.409	2.323	3.167	0.284	0.213	0.003	0.008	7.407	7.407
	February	1.323	2.235	2.996	0.242	0.208	(0.001)	0.008	7.011	14.418
	March	1.304	2.220	2.956	0.275	0.216	(0.003)	0.008	6.976	21.394
	April	1.166	1.599	2.751	0.289	0.202	(0.005)	0.008	6.011	27.405
	May	1.170	1.382	2.762	0.322	0.198	(0.006)	0.010	5.838	33.243
	June	1.242	1.277	R2.728	0.309	0.197	(0.004)	0.009	5.759	39.002
	July	1.419	1.327	2.713	R0.275	0.226	(0.004)	0.010	R5.965	44.967
	August	1.417	R1.270	2.709	0.234	0.262	(0.003)	0.011	R5.900	R50.867
	September	1.305	1.335	2.750	0.213	0.254	(0.004)	0.010	5.863	56.730
	TOTAL (Year-to-date)	**11.755**	**14.967**	**25.533**	**2.443**	**1.976**	**(0.027)**	**0.082**	**56.730**	

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]Includes bituminous coal, lignite, and anthracite.
[2]Includes industrial and utility production, and net imports of electricity.
[3]Parentheses indicate exports are greater than imports.
[4]Includes geothermal power and electricity produced from wood and waste.
R = Revised data.
Source: •Energy Information Administration calculations based on data reported elsewhere in this publication.

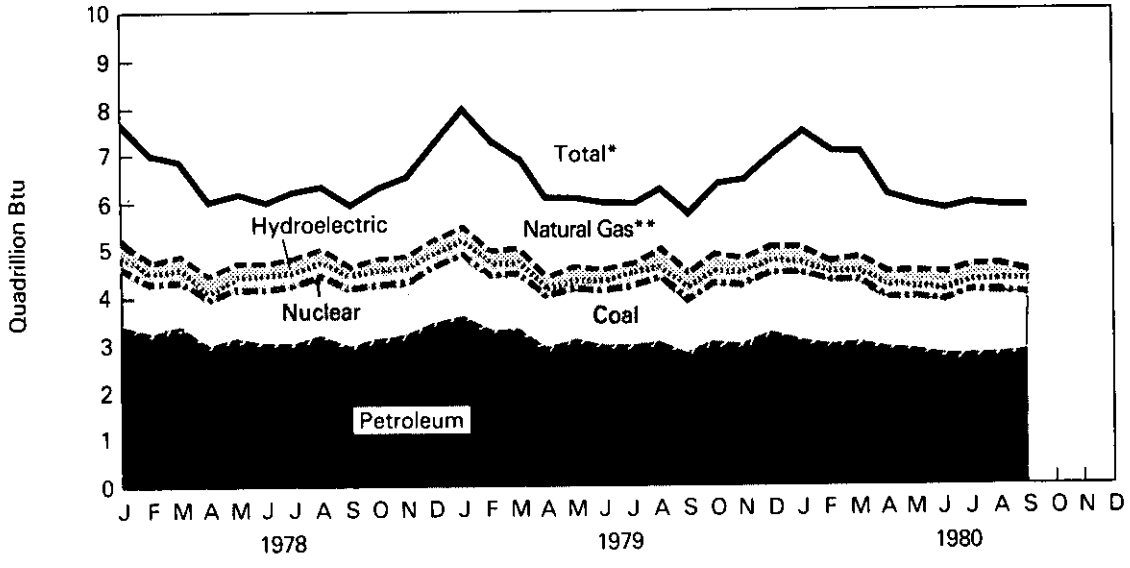
Executive Summary

Consumption of Energy by Type

Yearly



Monthly



*Btu equivalents for all fuels were cumulated to create total.
**Includes net imports of coal coke and other.

Executive Summary

Net Imports of Energy by Type[1]

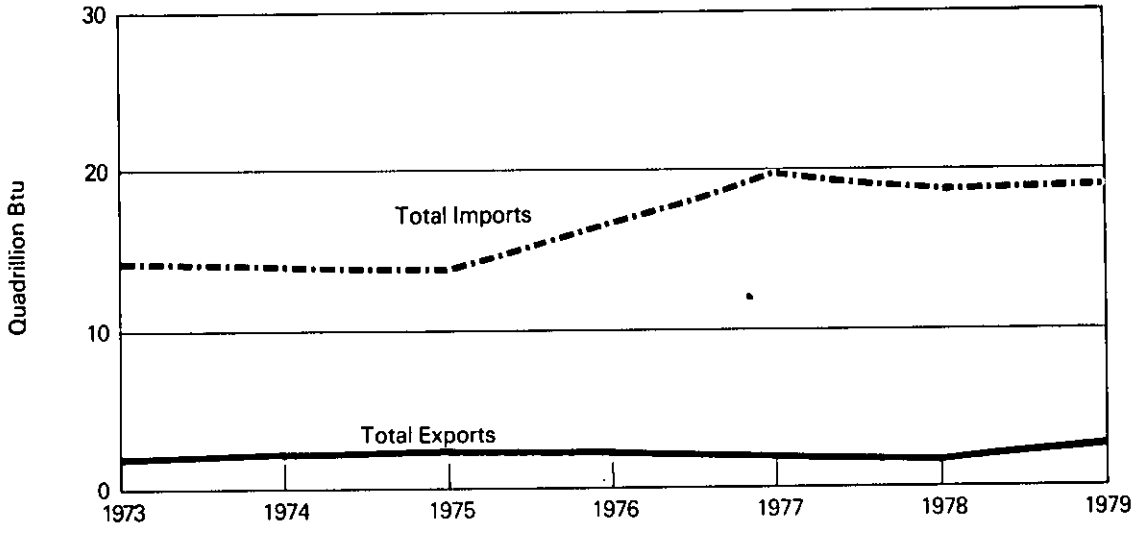
		Coal[2]	Crude Oil[3]	Refined Petroleum Products[4]	Natural Gas (Dry)	Electricity[5]	Coal Coke	Net Imports	Yearly Cumulative Net Imports of Energy
		Quadrillion (10^{15}) Btu							
1973	**TOTAL**	**(1.442)**	**6.883**	**6.097**	**0.981**	**0.148**	**(0.008)**	**12.659**	
1974	**TOTAL**	**(1.586)**	**7.389**	**5.273**	**0.907**	**0.133**	**0.059**	**12.174**	
1975	**TOTAL**	**(1.766)**	**8.708**	**3.800**	**0.904**	**0.064**	**0.014**	**11.725**	
1976	**TOTAL**	**(1.590)**	**11.221**	**3.982**	**0.922**	**0.089**	**0.000**	**14.625**	
1977	**TOTAL**	**(1.424)**	**13.921**	**4.321**	**0.981**	**0.182**	**0.015**	**17.995**	
1978	**TOTAL**	**(1.023)**	**13.125**	**3.932**	**0.941**	**0.206**	**0.131**	**17.311**	
1979	January	(0.093)	1.202	0.372	0.099	0.017	0.004	1.602	1.602
	February	(0.067)	1.013	0.311	0.095	0.016	0.003	1.371	2.973
	March	(0.122)	1.078	0.398	0.111	0.017	0.002	1.485	4.457
	April	(0.138)	1.036	0.258	0.104	0.017	0.005	1.282	5.739
	May	(0.165)	1.095	0.287	0.102	0.017	0.011	1.349	7.088
	June	(0.156)	1.111	0.260	0.099	0.017	0.010	1.341	8.429
	July	(0.168)	1.105	0.310	0.101	0.017	0.008	1.374	9.803
	August	(0.160)	1.181	0.290	0.096	0.017	0.009	1.434	11.237
	September	(0.134)	1.085	0.243	0.096	0.017	0.008	1.315	12.552
	October	(0.197)	1.201	0.283	0.107	0.017	0.004	1.415	13.967
	November	(0.163)	1.025	0.305	0.114	0.017	0.000	1.298	15.265
	December	(0.166)	1.090	0.378	0.109	0.017	0.002	1.432	16.696
	TOTAL	**(1.729)**	**13.223**	**3.697**	**1.234**	**0.206**	**0.066**	**16.696**	
1980	January	(0.117)	1.088	0.325	0.118	0.017	0.003	1.434	1.434
	February	(0.104)	0.947	0.292	0.111	0.016	(0.001)	1.261	2.695
	March	(0.150)	0.982	0.274	0.106	0.017	(0.003)	1.228	3.923
	April	(0.202)	0.929	0.213	0.088	0.017	(0.005)	1.040	4.963
	May	(0.227)	0.857	0.225	0.066	0.017	(0.006)	0.933	5.896
	June	(0.237)	R0.890	R0.202	0.059	0.017	(0.004)	R0.927	R6.823
	July	(0.221)	0.793	0.191	0.060	0.017	(0.004)	0.835	R7.658
	August	(0.246)	0.826	0.215	0.057	0.017	(0.003)	0.867	R8.525
	September	(0.226)	0.739	0.213	0.056	0.017	(0.004)	0.795	9.320
	TOTAL (Year-to-date)	**(1.730)**	**8.052**	**2.151**	**0.720**	**0.155**	**(0.027)**	**9.320**	

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]Net imports = imports minus exports. Parentheses indicate exports are greater than imports.
[2]Includes bituminous coal, lignite, and anthracite.
[3]Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.
[4]Includes refined petroleum products, unfinished oils, natural gasoline, and plant condensate.
[5]Only yearly totals are available for electricity imports and exports of data. Figures shown are estimates derived by dividing the yearly net import total by the number of days in the year and multiplying by the number of days in the month. Annual data for 1978 are used in estimating 1979 and 1980 data until actual annual data become available for those years.
R = Revised data.
Source: •Energy Information Administration calculations based on data reported elsewhere in this publication.

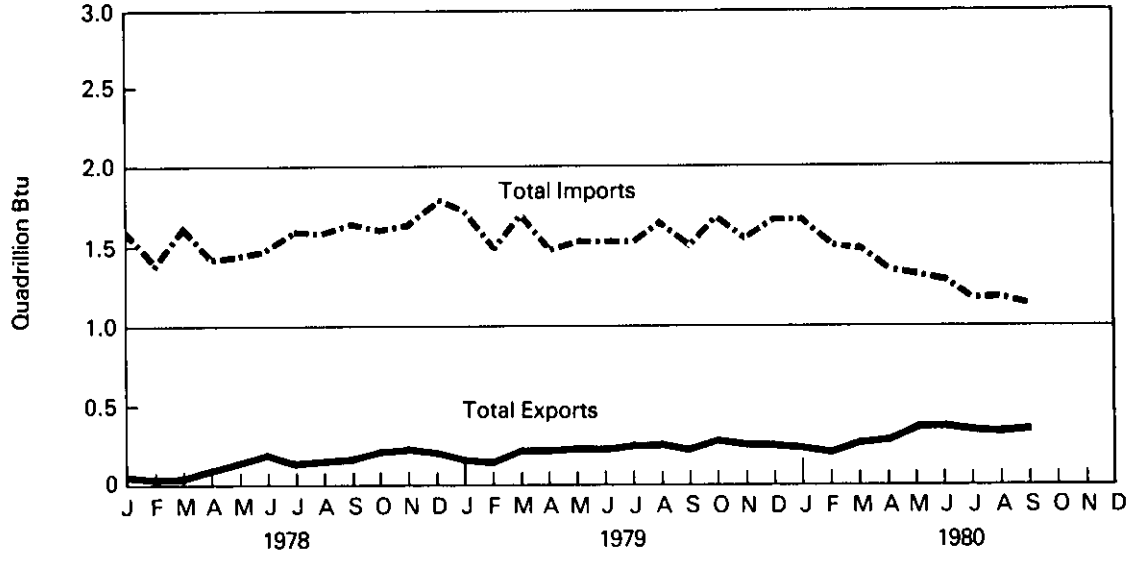
Executive Summary

Energy Imports and Exports

Yearly



Monthly



Executive Summary

Merchandise Trade Value[1]

		Exports				Imports			
		Energy	Manufactured Products	Agricultural, Chemical, and Other	Total	Energy	Manufactured Products	Agricultural, Chemical, and Other	Total
		Million dollars							
1973	**TOTAL**	**1,671**	**38,982**	**29,643**	**70,296**	**8,173**	**42,537**	**19,122**	**69,832**
1974	**TOTAL**	**3,444**	**54,704**	**39,085**	**97,233**	**25,454**	**51,205**	**23,989**	**100,648**
1975	**TOTAL**	**4,470**	**62,260**	**39,832**	**106,562**	**26,476**	**47,384**	**22,714**	**96,574**
1976	**TOTAL**	**4,226**	**67,282**	**42,159**	**113,667**	**33,996**	**60,004**	**27,010**	**121,010**
1977	**TOTAL**	**4,184**	**69,339**	**45,484**	**119,007**	**44,537**	**71,583**	**31,550**	**147,670**
1978	**TOTAL**	**3,881**	**81,850**	**55,310**	**141,041**	**42,096**	**93,887**	**35,996**	**171,979**
1979	January	350	7,035	4,965	12,349	4,228	8,391	3,227	15,846
	February	292	7,446	4,966	12,705	3,525	7,480	2,771	13,776
	March	436	8,842	6,020	15,298	3,948	8,432	3,385	15,765
	April	467	8,038	5,506	14,011	4,241	8,550	3,381	16,172
	May	471	8,474	5,584	14,529	4,166	8,690	3,655	16,512
	June	500	8,527	6,054	15,081	4,528	9,247	3,661	17,436
	July	534	7,879	6,077	14,490	5,075	8,778	3,262	17,115
	August	496	7,981	6,237	14,714	5,460	8,988	3,482	17,931
	September	438	8,086	6,142	14,666	6,084	8,539	3,452	18,076
	October	567	9,072	7,352	16,991	6,559	9,255	3,430	19,243
	November	522	8,849	7,577	16,948	5,411	9,363	3,884	18,658
	December	543	9,030	7,039	16,612	6,836	9,037	3,924	19,797
	TOTAL	**5,616**	**99,259**	**73,519**	**178,394**	**60,061**	**104,750**	**41,514**	**206,327**
1980	January	481	8,837	6,696	16,015	6,559	9,772	3,801	20,132
	February	436	9,684	6,556	16,675	7,742	9,226	3,671	20,639
	March	567	10,870	7,865	19,302	7,392	9,801	3,848	21,041
	April	631	10,481	6,691	17,803	6,346	9,543	3,737	19,626
	May	737	10,574	7,079	18,390	6,895	9,791	3,818	20,503
	June	730	10,570	7,000	18,300	6,938	9,745	3,837	20,520
	July	707	9,669	6,491	16,867	5,792	9,797	3,736	19,324
	August	703	9,974	6,947	17,624	6,237	9,195	3,428	18,859
	September	710	10,158	6,632	17,500	5,831	9,443	3,806	19,080
	October	755	11,271	7,483	19,509	6,231	10,067	3,970	20,268
	TOTAL (Year-to-date)	**6,457**	**102,088**	**69,440**	**177,985**	**65,963**	**96,380**	**37,652**	**199,992**

Note: The U.S. trade statistics include the 50 States, the District of Columbia, and Puerto Rico, except data on shipments between the United States, Puerto Rico, and U.S. possessions, between U.S. possessions and foreign countries, shipments to U.S. Armed Forces and diplomatic missions abroad for their own use and American goods returned to the United States by its Armed Forces, intransit shipments, etc.

Totals may not equal sum of components due to independent rounding.

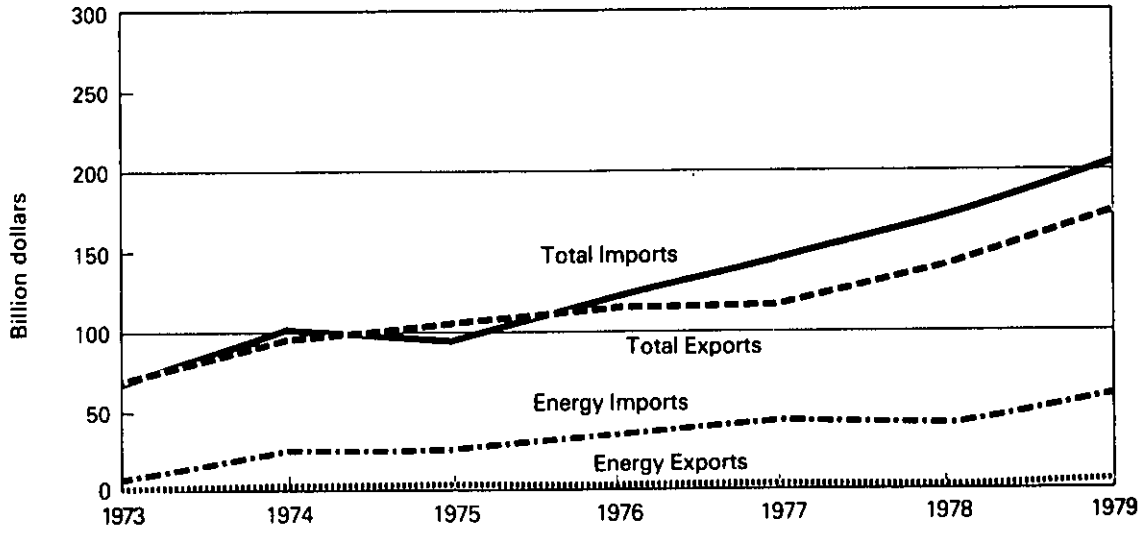
[1]Data presented are free alongside ship (f.a.s.) basis and are unadjusted for seasonality and working days. Beginning January 1979, the data excludes U.S. Department of Defense Military Assistance Program Grant-Aid Shipments. Commodity categories shown above include groups of BOC sections as follows: Energy—BOC section 3. (Mineral fuels, lubricants, and related materials). Manufactured products—BOC sections 6. (Manufactured goods classified chiefly by material), 7. (Machinery and transport equipment), and 8. (Miscellaneous manufactured articles, not elsewhere classified). Agricultural, chemical, and other—BOC sections 0. (Food and live animals), 1. (Beverages and tobacco), 2. (Crude material inedible, except fuels), 4. (Animal and vegetable fats and oils), 5. (Chemicals), and 9. (Commodities and transactions not classified according to kind).

Source: • U.S. Department of Commerce, Bureau of the Census (BOC) publication FT 900, *Summary of U.S. Export and Import Merchandise Trade.*

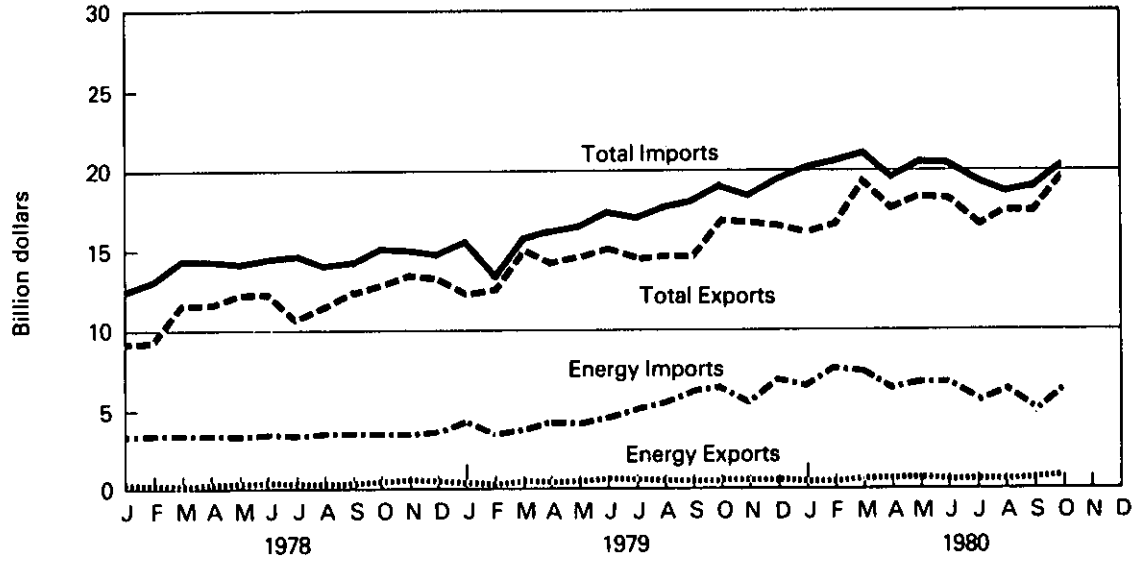
Executive Summary

Merchandise Trade Value

Yearly



Monthly



Executive Summary

Heating Degree-Days[1]

Petroleum Administration For Defense (PAD) Districts	November 3 through November 30					Cumulative July 1 through November 30				
	1980	1979[2]		Normal (1941–70)[2]		1980	1979[2]		Normal (1941–70)[2]	
PAD District I	554	421	(31.5)	504	(9.9)	938	814	(15.3)	841	(11.6)
New England	715	536	(33.5)	642	(11.5)	1,327	1,167	(13.7)	1,174	(13.0)
Conn., Maine, Mass., N.H., R.I., Vt.										
Middle Atlantic	656	489	(34.1)	589	(11.4)	1,111	964	(15.3)	994	(11.8)
Del., Md., N.J., N.Y., Pa.										
Lower Atlantic	329	269	(22.6)	316	(4.3)	508	433	(17.2)	465	(9.2)
Fla., Ga., N.C., S.C., Va., W. Va.										
PAD District II	671	696	(−3.7)	706	(−5.0)	1,271	1,243	(2.3)	1,206	(5.4)
Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, Okla., S. Dak., Tenn., Wisc.										
Pad District III	324	356	(−9.0)	285	(13.5)	463	444	(4.2)	386	(20.0)
Ala., Ark., La., Miss., N. Mex., Tex.										
PAD District IV	717	907	(−21.0)	779	(−8.0)	1,299	1,411	(−8.0)	1,441	(−9.9)
Colo., Idaho, Mont., Utah, Wyo.										
PAD District V	241	299	(−19.1)	303	(−20.3)	483	476	(1.5)	614	(−21.4)
Ariz., Calif., Nev., Oreg., Wash.										
U.S. AVERAGE[3]	**525**	**498**	**(5.4)**	**523**	**(0.5)**	**935**	**877**	**(6.6)**	**889**	**(5.2)**

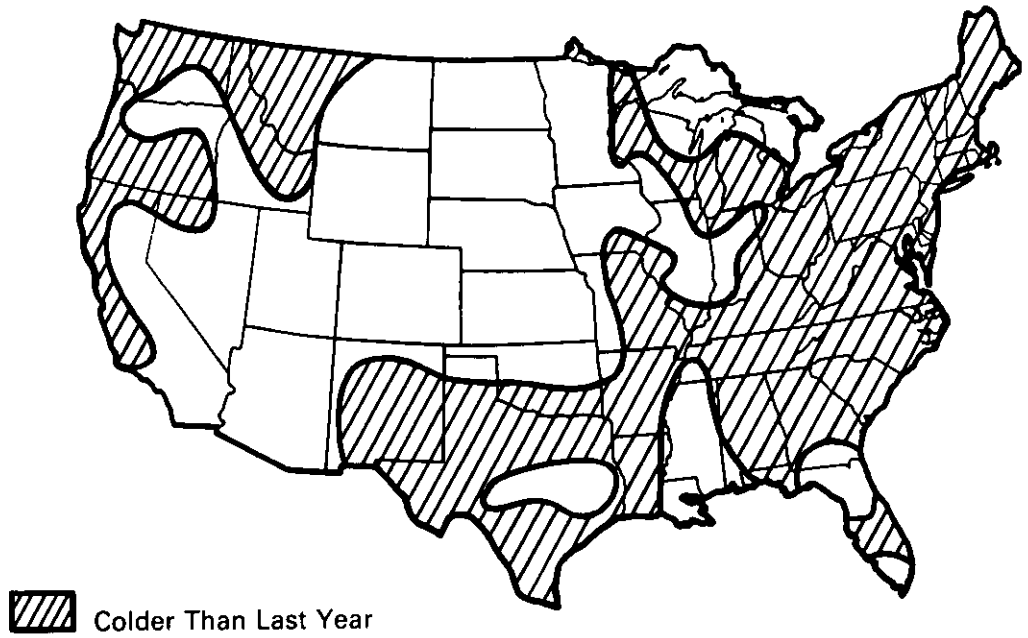
[1]See Explanatory Note 6 for explanation of degree-days.
[2]Percentage change in parentheses.
[3]Excludes Alaska and Hawaii.

Executive Summary

Heating Degree-Days

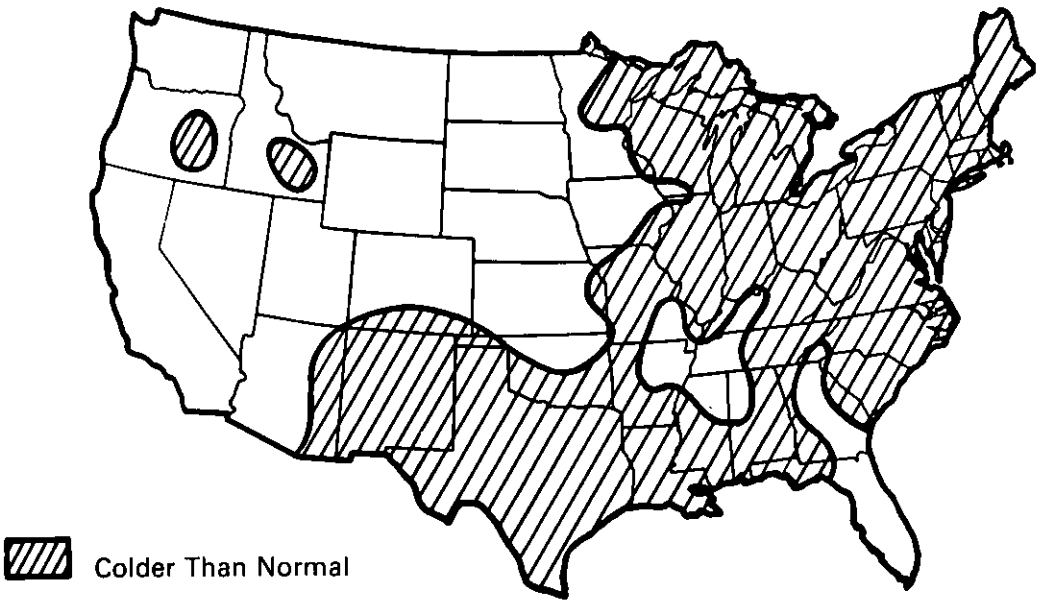
Heating Degree-Days Accumulated from July 1 through November 30

Departure from Last Year



Colder Than Last Year

Departure from Normal



Colder Than Normal

Source: • Department of Commerce – NOAA.

Executive Summary

Energy Indicators—

		Energy Consumption per GNP Dollar				U.S. Dependence on Petroleum Imports[3]			
				Gross National Product (Annual rate)		Direct Imports			
		Energy Consumption per GNP Dollar[1]	Yearly Rate of Energy Consumption	Current Dollars	1972 Dollars[2]	From Arab/OPEC Countries	From OPEC Countries	Total All Countries	Domestic Petroleum Products Supplied
ANNUAL RATE		Quadrillion Btu		Trillion dollars		Million barrels per day			
1973	AVERAGE	60.4	74.609	1.307	1.235	0.91	2.99	6.26	17.31
1974	AVERAGE	59.7	72.759	1.413	1.218	0.75	3.28	6.11	16.65
1975	AVERAGE	58.8	70.707	1.529	1.202	1.38	3.60	6.06	16.32
1976	AVERAGE	58.5	74.509	1.702	1.273	2.42	5.07	7.31	17.46
1977	AVERAGE	57.0	76.390	1.900	1.341	3.19	6.19	8.81	18.43
1978	AVERAGE	55.9	78.154	2.128	1.399	2.96	5.75	8.36	18.85
1979	1st Qtr	R62.9	R89.940	2.292	1.431	3.24	5.87	8.81	R20.35
	2nd Qtr	R51.7	R73.533	2.330	1.422	3.16	5.44	8.09	R17.67
	3rd Qtr	R50.8	R72.818	2.397	1.433	2.95	5.68	8.31	R17.58
	4th Qtr	55.3	R79.998	2.457	1.440	2.80	5.46	8.44	R18.44
	AVERAGE	R55.2	R78.998	2.369	1.432	3.04	5.61	8.41	R18.50
1980	1st Qtr	59.5	86.046	2.521	1.445	3.00	4.97	7.90	18.16
	2nd Qtr	R50.3	R70.819	R2.521	R1.409	R2.59	R4.28	R6.81	R16.41
	3rd Qrt	49.9	70.527	2.569	1.412	2.22	3.69	6.03	16.10

Geographic coverage: the 50 United States and District of Columbia.
[1]Thousand Btu per 1972 constant dollar.
[2]Current dollars converted to 1972 constant dollars by the formula:

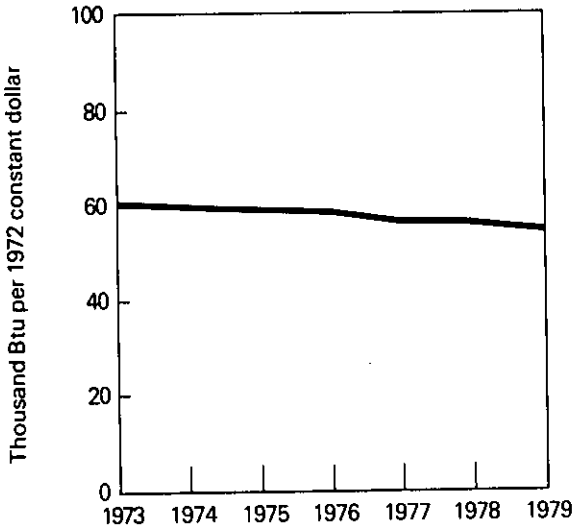
$$\text{Constant 1972 dollars} = \frac{\text{Current dollars in year N}}{\text{Gross National Product implicit price deflator in year N}} \times 100$$

The Gross National Product deflators (1972 = 100) were determined by the Department of Commerce, Bureau of Economic Analysis. GNP rates are from the Business Conditions Digest published by the Bureau of Economic Analysis.
[3]Beginning in October 1977 Strategic Petroleum Reserve imports are included.
R = Revised.
Note: This page is updated every quarter, during the months of March, June, September, and December. In other months, data appearing elsewhere in this publication are more current.

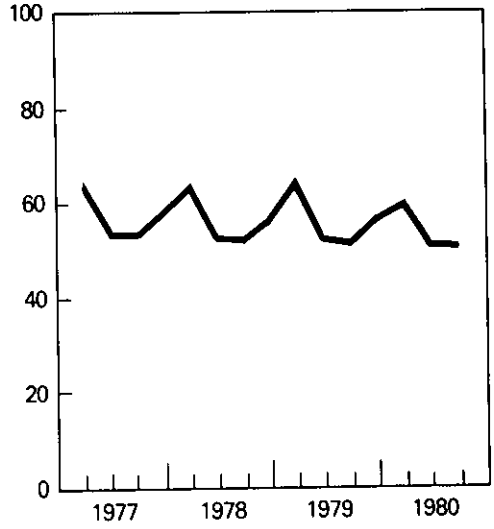
Executive Summary

Energy Consumption per GNP Dollar

Yearly

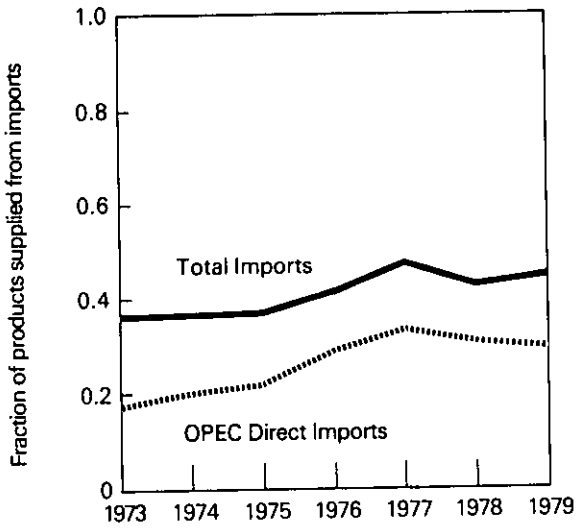


Quarterly

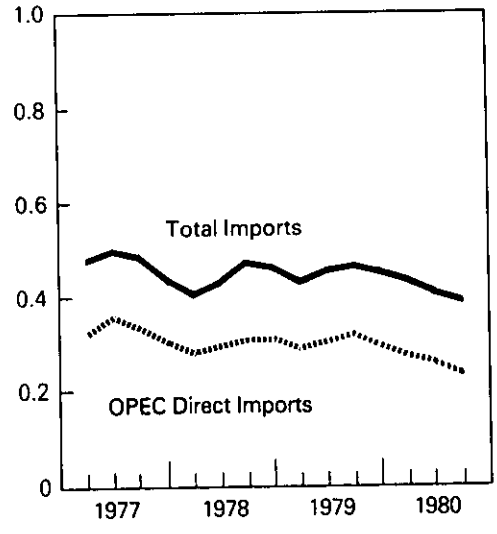


U.S. Dependence on Petroleum Imports

Yearly



Quarterly

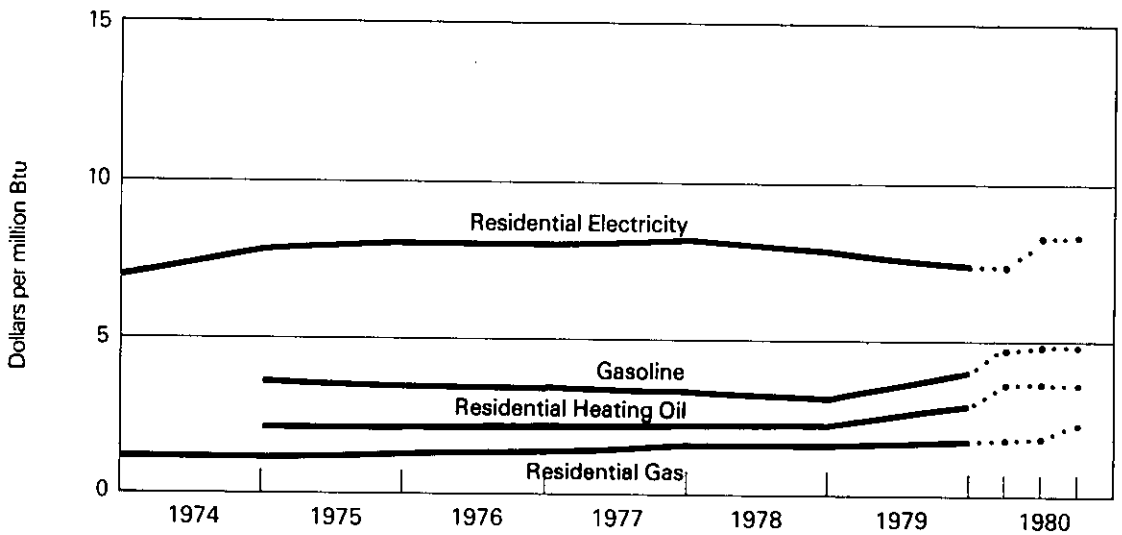


Executive Summary

Energy Indicator—Cost of Fuels to End Users (1972 Dollars)

		Leaded Regular Motor Gasoline		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
		cent/gal	$/MMBtu	cent/gal	$/MMBtu	cent/Mcf	$/MMBtu	cent/kWh	$/MMBtu
1973	**AVERAGE**	**NA**	**NA**	**NA**	**NA**	**121.2**	**1.19**	**2.39**	**7.00**
1974	**AVERAGE**	**45.1**	**3.61**	**29.4**	**2.12**	**121.4**	**1.19**	**2.63**	**7.71**
1975	**AVERAGE**	**44.1**	**3.53**	**29.3**	**2.11**	**132.8**	**1.30**	**2.73**	**8.00**
1976	**AVERAGE**	**43.4**	**3.47**	**30.2**	**2.18**	**145.4**	**1.43**	**2.74**	**8.03**
1977	**AVERAGE**	**42.9**	**3.43**	**31.2**	**2.25**	**162.2**	**1.59**	**2.80**	**8.20**
1978	**AVERAGE**	**40.1**	**3.21**	**31.7**	**2.29**	**164.4**	**1.62**	**2.76**	**8.10**
1979	1st Qtr	41.5	3.32	33.8	2.44	179.4	1.77	2.51	7.36
	2nd Qtr	46.9	3.75	37.2	2.68	181.3	1.79	2.74	8.03
	3rd Qtr	53.3	4.26	44.0	3.17	189.0	1.86	2.79	8.17
	4th Qtr	54.9	4.39	46.4	3.35	193.1	1.90	2.66	7.79
	AVERAGE	**49.3**	**3.94**	**40.8**	**2.94**	**185.3**	**1.88**	**2.66**	**7.79**
1980	1st Qtr	62.3	4.98	49.8	3.59	190.8	1.88	2.53	7.42
	2nd Qtr	63.6	5.09	49.8	3.59	197.0	1.94	2.75	8.06
	3rd Qtr	60.6	4.85	49.2	3.55	207.5	2.04	2.86	8.38

Average Cost of Fuels to End Users (1972 constant dollars)



Geographic coverage: the 50 United States and District of Columbia.
NA = Not available.
Note: This page is updated every quarter, during the months of March, June, September, and December. In other months, data appearing elsewhere in this publication are more current.
Sources: • Motor Gasoline—Bureau of Labor Statistics.
- Heating Oil—1974 and 1975, Form CLC-92, "No. 2 Heating Oil Monthly Price Adjustment Report," and 1976 forward, FEA Form P112-M-1, and EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."
- Natural Gas—1973 through 1979 annual numbers, Bureau of Mines and Energy Information Administration Form 1340-A, "Supply and Disposition of Natural Gas to Non-Producing Distributors;" and Form 1341-A, "Supply and Disposition of Natural Gas to Producers and Pipelines;" 1980 quarterly numbers, Bureau of Labor Statistics.
- Electricity—1973 through February 1980: FPC Form 5, "Reports of Classes A and B Privately Owned Electric Utilities"; March 1980 forward: FERC Form 5, " Electric Utility Company Monthly Statement."
- Deflator—The Consumer Price Index.

Energy Consumption

Energy consumption in the 50 United States and the District of Columbia in September 1980 was 5.9 quadrillion Btu, 0.6 percent lower than during a month earlier. This figure was 0.6 percent lower than the September 1979 consumption level.

The Residential and Commercial Sector consumption was 2.1 quadrillion Btu in September 1980, 7.2 percent lower than August 1980 and 7.1 percent higher than the amount consumed during September 1979. The Residential and Commercial Sector consumed 36.5 percent of the total consumption for September 1980, up from the sector's 33.8 percent share in September 1979.

The Industrial Sector consumption was 2.3 quadrillion Btu in September 1980, up 7.6 percent from August 1980, and down 4.3 percent from the consumption level in September 1979. The Industrial Sector consumed 38.4 percent of the September 1980 total, as compared to the 39.9 percent share of September 1979.

The Transportation Sector consumption was 1.5 quadrillion Btu in September 1980, down 2.1 percent from August 1980 and down 5.2 percent from the consumption level in September 1979. This sector consumed 25.1 percent of the September 1980 total, as compared to a 26.3 percent share in September 1979.

The Electric Utilities consumption was an estimated 2.1 quadrillion Btu of energy in September 1980, 8.7 percent lower than in the previous month, and 6.3 percent higher than the energy consumed in September 1979. Coal contributed 48.5 percent of the energy consumed by Electric Utilities in September 1980, while natural gas contributed 17.6 percent, nuclear power 12.1 percent, petroleum 11.3 percent, hydroelectric power 10.0 percent, and geothermal, wood and waste 0.5 percent.

Consumption

Energy Consumption Summary for September 1980
Quadrillion (10^{15}) Btu

Primary Energy Source	Sector: Residential and Commercial	Industrial	Transportation	Electric Utilities	TOTAL
Coal	0.013	0.272	0.000	1.020	1.305
Natural Gas (dry)	0.252	0.679	0.034	0.370	1.335
Petroleum	0.545	0.533	1.434	0.238	2.750
Hydroelectric	0.000	0.003	0.000	0.210	0.213
Nuclear	0.000	0.000	0.000	0.254	0.254
Net Coke Imports	0.000	(0.004)	0.000	0.000	(0.004)
Other	0.000	0.000	0.000	0.010	0.010
TOTAL PRIMARY ENERGY	**0.809**	**1.483**	**1.469**	**2.101**	**5.863**
Electricity Sales	0.411	0.237	0.001	(0.649)	
Net Energy Consumption	1.220	1.721	1.469		4.410
Electrical Energy Losses	0.919	0.531	0.002	(1.452)	1.452
TOTAL ENERGY CONSUMED	**2.139**	**2.252**	**1.471**		**5.863**

Totals may not equal sum of components due to independent rounding.
Notes and sources for this table and all other tables in this section are provided on the last page of this section.

Consumption

Consumption of Energy by the End-Use Sector[1]

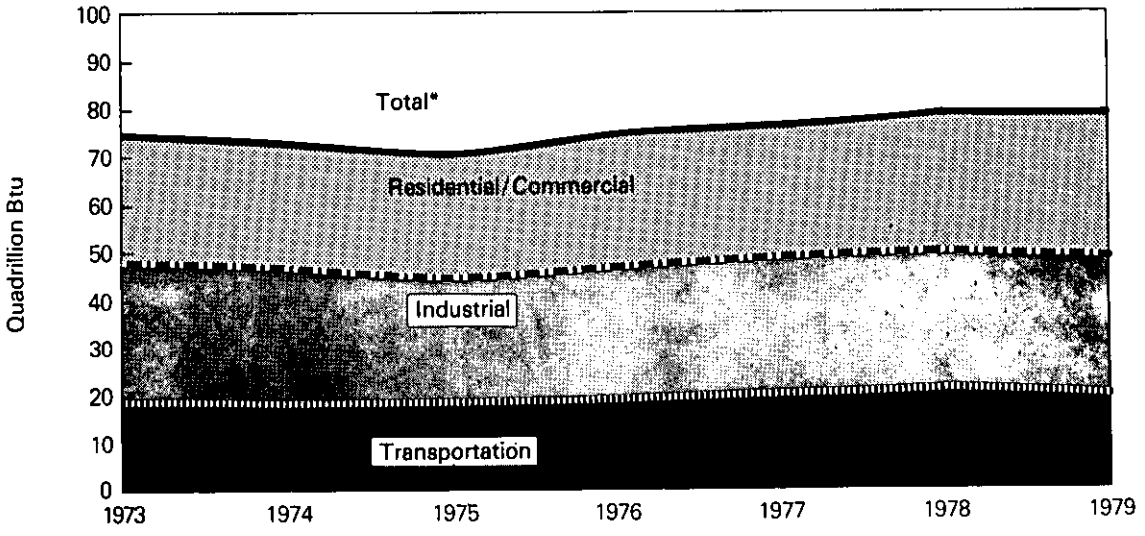
		Residential and Commercial	Industrial	Transportation	Total Energy Consumed
			Quadrillion (10^{15}) Btu		
1973	**TOTAL**	**27.396**	**28.685**	**18.525**	**74.609**
1974	**TOTAL**	**26.699**	**27.998**	**18.057**	**72.759**
1975	**TOTAL**	**26.635**	**25.881**	**18.186**	**70.707**
1976	**TOTAL**	**27.831**	**27.603**	**19.071**	**74.509**
1977	**TOTAL**	**28.193**	**28.442**	**19.751**	**76.390**
1978	**TOTAL**	**28.807**	**R28.715**	**R20.627**	**78.154**
1979	January	3.419	2.733	1.780	7.933
	February	3.236	2.337	1.684	7.257
	March	2.814	2.419	1.753	6.987
	April	2.299	2.257	1.584	6.140
	May	2.074	2.466	1.663	6.203
	June	1.990	2.403	1.597	5.990
	July	2.098	2.425	1.587	6.109
	August	2.198	2.463	1.682	6.343
	September	R1.997	R2.353	R1.551	5.901
	October	R2.104	R2.633	1.651	6.388
	November	R2.321	R2.626	1.589	6.537
	December	2.774	2.722	1.667	7.164
	TOTAL	**R29.323**	**R29.838**	**19.787**	**78.953**
1980	January	3.086	2.702	1.618	7.407
	February	3.026	2.430	1.555	7.011
	March	2.825	2.565	1.586	6.976
	April	2.252	2.220	1.538	6.011
	May	2.006	R2.298	1.533	5.838
	June	R2.081	R2.199	1.478	5.759
	July	R2.289	R2.128	R1.549	R5.965
	August	R2.306	R2.092	R1.502	R5.900
	September	2.139	2.252	1.471	5.863
	TOTAL (Year-to-date)	**22.010**	**20.887**	**13.829**	**56.730**

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]See Explanatory Note 5 for definitions of the Residential and Commercial, Industrial, and Transportation Sectors. The methodology used for sector calculations is provided in the Notes and Sources on the last page of this section.
R = Revised data.
Source: •See Notes and Sources on the last page of this section.

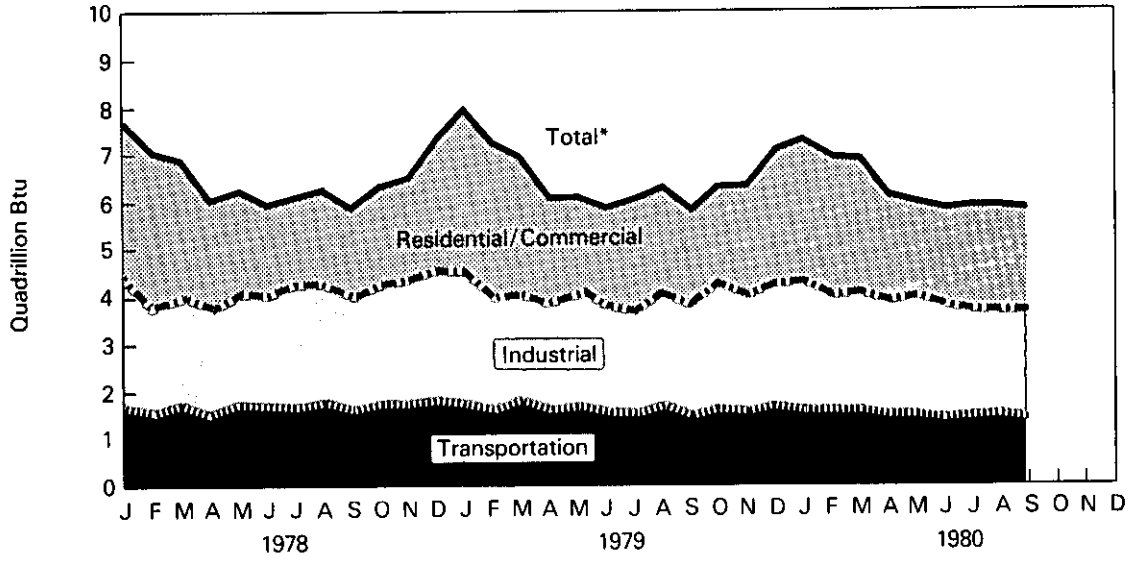
Consumption

Consumption of Energy by End-Use Sector

Yearly



Monthly



*Btu consumption for all sectors were cumulated to create total.

Consumption

Consumption of Energy by the Residential and Commercial Sector[1]

		Coal	Natural Gas (Dry)	Petroleum	Electricity Sales	Electrical Energy Losses[2]	Total Energy Consumed	Yearly Cumulative Energy Consumed
		Quadrillion (10^{15}) Btu						
1973	**TOTAL**	**0.291**	**7.626**	**7.524**	**3.495**	**8.460**	**27.396**	
1974	**TOTAL**	**0.293**	**7.518**	**6.865**	**3.475**	**8.548**	**26.699**	
1975	**TOTAL**	**0.239**	**7.581**	**6.413**	**3.588**	**8.814**	**26.635**	
1976	**TOTAL**	**0.227**	**7.866**	**6.919**	**3.729**	**9.089**	**27.831**	
1977	**TOTAL**	**0.225**	**7.461**	**6.869**	**3.936**	**9.702**	**28.193**	
1978	**TOTAL**	**0.250**	**7.624**	**6.916**	**4.100**	**9.918**	**28.807**	
1979	January	0.031	1.294	0.698	0.399	0.997	3.419	3.419
	February	0.020	1.316	0.646	0.388	0.866	3.236	6.655
	March	0.015	0.982	0.582	0.352	0.883	2.814	9.469
	April	0.013	0.740	0.496	0.312	0.738	2.299	11.767
	May	0.012	0.457	0.541	0.299	0.765	2.074	13.841
	June	0.013	0.316	0.528	0.323	0.810	1.990	15.831
	July	0.012	0.270	0.532	0.366	0.918	2.098	17.929
	August	0.011	0.249	0.580	0.393	0.966	2.198	20.127
	September	0.014	0.260	0.531	R0.370	R0.822	R1.997	R22.124
	October	0.019	0.359	0.598	R0.322	R0.807	R2.104	R24.228
	November	0.023	0.626	0.568	R0.315	0.788	R2.321	R26.549
	December	0.025	0.902	0.604	0.349	0.894	2.774	R29.323
	TOTAL	**0.209**	**7.770**	**6.905**	**R4.186**	**R10.252**	**R29.323**	
1980	January	0.025	1.113	0.597	0.381	0.970	3.086	3.086
	February	0.022	1.191	0.552	0.375	0.886	3.026	6.112
	March	0.015	1.053	0.513	0.359	0.885	2.825	8.937
	April	0.014	0.716	0.433	0.319	0.770	2.252	11.189
	May	0.009	0.450	0.451	0.298	0.799	2.006	R13.196
	June	0.007	0.329	R0.512	0.334	R0.899	R2.081	R15.277
	July	0.014	R0.258	R0.522	0.410	1.084	R2.289	R17.565
	August	0.014	R0.240	R0.544	0.439	R1.069	R2.306	R19.871
	September	0.013	0.252	0.545	0.411	0.919	2.139	22.010
	TOTAL (Year-to-date)	**0.132**	**5.602**	**4.668**	**3.326**	**8.282**	**22.010**	

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]The Residential and Commercial Sector consists of housing units, non-manufacturing business establishments (e.g., wholesale and retail businesses), health and educational institutions, and government office buildings. Notes on the methodology used for sector calculations are provided in the Notes and Sources on the last page of this section.
[2]Proportion of total electrical energy losses incurred in the generation and transmission of electricity plus plant use and unaccounted for that are attributed to this sector.
R=Revised data.
Source: • See Notes and Sources on the last page of this section.

Consumption

Consumption of Energy by the Industrial Sector[1]

		Coal	Natural Gas (Dry)	Petroleum	Hydroelectric	Net Coke Imports[2]	Electricity Sales	Electrical Energy Losses[3]	Total Energy Consumed	Yearly Cumulative Energy Consumed
		Quadrillion (10^{15}) Btu								
1973	**TOTAL**	**4.350**	**10.397**	**5.893**	**0.035**	**(0.008)**	**2.341**	**5.676**	**28.685**	
1974	**TOTAL**	**4.057**	**10.012**	**5.750**	**0.033**	**0.059**	**2.337**	**5.751**	**27.998**	
1975	**TOTAL**	**3.801**	**8.531**	**5.530**	**0.032**	**0.014**	**2.304**	**5.669**	**25.881**	
1976	**TOTAL**	**3.791**	**8.768**	**6.325**	**0.033**	**0.000**	**2.525**	**6.162**	**27.603**	
1977	**TOTAL**	**3.494**	**8.642**	**7.106**	**0.037**	**0.015**	**2.635**	**6.513**	**28.442**	
1978	**TOTAL**	**3.462**	**8.540**	**R7.178**	**0.036**	**0.131**	**2.732**	**6.637**	**R28.715**	
1979	January	0.315	0.869	0.726	0.003	0.004	0.233	0.583	2.733	2.733
	February	0.295	0.629	0.661	0.003	0.003	0.231	0.515	2.337	5.070
	March	0.300	0.610	0.669	0.003	0.002	0.238	0.597	2.419	7.490
	April	0.289	0.565	0.592	0.003	0.005	0.239	0.564	2.257	9.747
	May	0.290	0.674	0.615	0.003	0.011	0.245	0.627	2.466	12.213
	June	0.282	0.657	0.590	0.003	0.010	0.245	0.615	2.403	14.616
	July	0.318	0.662	0.583	0.003	0.008	0.242	0.608	2.425	17.041
	August	0.297	0.689	0.616	0.003	0.009	0.246	0.604	2.463	19.504
	September	0.286	0.703	0.572	0.003	0.008	R0.242	R0.539	R2.353	R21.857
	October	0.297	0.846	0.627	0.003	0.004	0.244	R0.612	R2.633	R24.490
	November	0.301	0.850	0.638	0.003	0.000	0.238	R0.596	R2.626	R27.116
	December	0.331	0.883	0.686	0.003	0.002	0.230	0.588	2.722	R29.838
	TOTAL	**3.602**	**8.636**	**7.576**	**0.037**	**0.066**	**R2.873**	**R7.048**	**R29.838**	
1980	January	0.311	0.864	0.703	0.003	0.003	0.231	0.587	2.702	2.702
	February	0.291	0.714	0.639	0.003	(0.001)	0.233	0.551	2.430	5.132
	March	0.297	0.816	0.634	0.003	(0.003)	0.236	0.582	2.565	7.698
	April	0.278	0.577	0.575	0.003	(0.005)	0.232	0.560	2.220	9.917
	May	0.272	0.605	R0.579	0.003	(0.006)	0.229	0.614	R2.298	R12.216
	June	0.256	0.567	R0.537	0.003	(0.004)	0.228	R0.613	R2.199	R14.415
	July	0.283	R0.599	R0.432	0.003	(0.004)	0.224	R0.592	R2.128	R16.543
	August	R0.271	R0.577	R0.454	0.003	(0.003)	0.230	R0.560	R2.092	R18.635
	September	0.272	0.679	0.533	0.003	(0.004)	0.237	0.531	2.252	20.887
	TOTAL (Year-to-date)	**2.532**	**5.997**	**5.088**	**0.028**	**(0.027)**	**2.080**	**5.189**	**20.887**	

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]The Industrial Sector is made up of construction, manufacturing, agriculture, and mining establishments. Notes on the methodology used for sector calculations are provided in the Notes and Sources on the last page of this section.
[2]Net Imports = imports minus exports. Parentheses indicate exports are greater than imports.
[3]Proportion of total electrical energy losses incurred in the generation and transmission of electricity plus plant use and unaccounted for that are attributed to this sector.
R = Revised data.
Source: •See Notes and Sources on the last page of this section.

Consumption

Consumption of Energy by the Transportation Sector[1]

		Coal	Natural Gas (Dry)	Petroleum	Electricity Sales	Electrical Energy Losses[2]	Total Energy Consumed	Yearly Cumulative Energy Consumed
				Quadrillion (10^{15}) Btu				
1973	**TOTAL**	**0.003**	**0.743**	**17.751**	**0.009**	**0.020**	**18.525**	
1974	**TOTAL**	**0.002**	**0.685**	**17.341**	**0.009**	**0.021**	**18.057**	
1975	**TOTAL**	**0.001**	**0.595**	**17.557**	**0.010**	**0.024**	**18.186**	
1976	**TOTAL**	**(3)**	**0.559**	**18.477**	**0.010**	**0.025**	**19.071**	
1977	**TOTAL**	**(3)**	**0.543**	**19.173**	**0.010**	**0.024**	**19.751**	
1978	**TOTAL**	**(3)**	**0.539**	**R20.059**	**0.009**	**0.020**	**R20.627**	
1979	January	(3)	0.064	1.714	0.001	0.002	1.780	1.780
	February	(3)	0.058	1.624	0.001	0.002	1.684	3.465
	March	(3)	0.049	1.701	0.001	0.002	1.753	5.217
	April	(3)	0.042	1.540	0.001	0.002	1.584	6.801
	May	(3)	0.038	1.623	0.001	0.002	1.663	8.464
	June	(3)	0.035	1.560	0.001	0.002	1.597	10.060
	July	(3)	0.035	1.549	0.001	0.002	1.587	11.647
	August	(3)	0.035	1.644	0.001	0.002	1.682	13.329
	September	(3)	0.035	1.514	0.001	0.002	R1.551	14.880
	October	(3)	0.041	1.607	0.001	0.002	1.651	16.531
	November	(3)	0.046	1.540	0.001	0.002	1.589	18.120
	December	(3)	0.054	1.610	0.001	0.002	1.667	19.787
	TOTAL	**(3)**	**0.530**	**19.227**	**0.009**	**0.021**	**19.787**	
1980	January	(3)	0.060	1.555	0.001	0.002	1.618	1.618
	February	(3)	0.058	1.495	0.001	0.002	1.555	3.173
	March	(3)	0.057	1.526	0.001	0.002	1.586	4.758
	April	(3)	0.041	1.495	0.001	0.002	1.538	6.296
	May	(3)	0.036	1.495	0.001	0.002	1.533	7.829
	June	(3)	0.033	R1.443	0.001	0.002	1.478	R9.308
	July	(3)	0.034	R1.512	0.001	0.002	R1.549	R10.856
	August	(3)	0.033	1.467	0.001	0.002	R1.502	R12.358
	September	(3)	0.034	1.434	0.001	0.002	1.471	13.829
	TOTAL (Year-to-date)	**(3)**	**0.386**	**13.420**	**0.007**	**0.016**	**13.829**	

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]The Transportation Sector consists of both private and public passenger and freight transportation, as well as government transportation, including military operations. Notes on the methodology used for sector calculations are provided in the Notes and Sources on the last page of this section.
[2]Proportion of total electrical energy losses incurred in the generation and transmission of electricity plus plant use and unaccounted for that are attributed to this sector.
[3]Since 1976 the amount of coal consumed by the Transportaion Sector has been negligible.
R=Revised data.
Source: •See Notes and Sources on the last page of this section.

Consumption

Consumption of Energy by the Electric Utilities

		Coal[1]	Natural Gas (Dry)	Petroleum	Hydroelectric power[2]	Nuclear Electric Power	Other[3]	Total Energy Consumed	Yearly Cumulative Energy Consumed
					Quadrillion (10^{15}) Btu				
1973	**TOTAL**	**8.655**	**3.746**	**3.671**	**2.975**	**0.910**	**0.046**	**20.004**	
1974	**TOTAL**	**8.524**	**3.518**	**3.499**	**3.276**	**1.272**	**0.056**	**20.144**	
1975	**TOTAL**	**8.783**	**3.241**	**3.231**	**3.187**	**1.900**	**0.072**	**20.414**	
1976	**TOTAL**	**9.714**	**3.153**	**3.454**	**3.032**	**2.111**	**0.081**	**21.544**	
1977	**TOTAL**	**10.245**	**3.285**	**4.028**	**2.482**	**2.702**	**0.082**	**22.825**	
1978	**TOTAL**	**10.134**	**3.297**	**3.813**	**3.132**	**2.977**	**0.068**	**23.421**	
1979	January	1.009	0.236	0.386	0.279	0.299	0.007	2.215	2.215
	February	0.892	0.235	0.354	0.238	0.279	0.006	2.003	4.218
	March	0.900	0.270	0.345	0.288	0.262	0.008	2.073	6.291
	April	0.840	0.270	0.258	0.282	0.198	0.007	1.855	8.146
	May	0.894	0.286	0.270	0.319	0.162	0.007	1.938	10.084
	June	0.946	0.331	0.262	0.278	0.173	0.007	1.996	12.080
	July	1.007	0.382	0.261	0.255	0.224	0.007	2.136	14.217
	August	1.037	0.390	0.275	0.239	0.261	0.008	2.210	16.427
	September	0.901	0.350	0.268	0.215	0.235	0.007	1.976	18.403
	October	0.917	0.334	0.274	0.228	0.225	0.008	1.987	20.390
	November	0.916	0.270	0.289	0.250	0.207	0.008	1.940	22.330
	December	1.000	0.257	0.320	0.255	0.222	0.009	2.064	24.394
	TOTAL	**11.258**	**3.610**	**3.563**	**3.125**	**2.748**	**0.089**	**24.394**	
1980	January	1.073	0.286	0.312	0.281	0.213	0.008	2.172	2.172
	February	1.010	0.272	0.311	0.239	0.208	0.008	2.048	4.221
	March	0.992	0.293	0.283	0.271	0.216	0.008	2.064	6.284
	April	0.874	0.265	0.249	0.286	0.202	0.008	1.884	8.169
	May	0.890	0.291	0.236	0.319	0.198	0.010	1.944	10.112
	June	0.979	0.349	R0.236	0.306	0.197	0.009	R2.076	R12.188
	July	1.122	0.435	0.247	R0.272	0.226	0.010	R2.312	R14.501
	August	R1.133	0.420	R0.244	0.231	0.262	0.011	R2.301	R16.802
	September	1.020	0.370	0.238	0.210	0.254	0.010	2.101	18.903
	TOTAL (Year-to-date)	**9.092**	**2.981**	**2.357**	**2.415**	**1.976**	**0.082**	**18.903**	

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]Includes bituminous coal, lignite, and anthracite.
[2]Includes net imports of electricity.
[3]Includes geothermal power and electricity produced from wood and waste.
R=Revised data.
Source: •See Notes and Sources on the last page of this section.

Notes and Sources for the Consumption Section

1. See Explanatory Note 5 for definitions of the Residential and Commercial, Industrial, Transportation, and Electric Utilities Sectors.
2. **Coal:** Coal is bituminous coal, anthracite, and lignite. *Sources:* • Anthracite—1973 through 1976: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook,* "Coal—Pennsylvania Anthracite, Annual."
• 1977 through 1980, U.S. Department of Energy (DOE), Energy Information Administration, (EIA) *Energy Data Reports,* "Weekly Coal Report."
• Bituminous coal and lignite—1973 through 1975, U.S. DOI, BOM, *Minerals Yearbook,* "Bituminous Coal and Lignite, Annual," Federal Power Commission (FPC), Form 4, "Monthly Power Plant Report," 1976 through 1980, DOE, EIA, *Energy Data Reports,* "Weekly Coal Report."
• Electric Utility consumption of coal sources: same as Note 6 below.
3. **Natural Gas:** Total natural gas consumption is estimated monthly based on a supply/disposition balance calculation. Residential and Commercial Sector monthly consumption is estimated by allocating the EIA annual Residential and Commercial Sector consumption to the months in proportion to the American Gas Association (AGA) monthly sales to the Residential and Commercial Sectors. For incomplete years, the AGA monthly sales data are used temporarily. Monthly Transportation Sector consumption (which is natural gas for pipeline use) for complete years is estimated by allocating the EIA annual Transportation total to the months based on each month's total natural gas consumption as a share of the annual total natural gas consumption. For incomplete years, each month's Transportation total is estimated by applying the percentage of total natural gas accounted for by the Transportation Sector in the same month a year ago to the current month's total natural gas consumption. The Electric Utility consumption of natural gas is available monthly from Form 4, "Monthly Power Plant Report." Each month's Industrial Sector consumption is estimated by subtracting the Residential and Commercial, Transportation, and Electric Utilities Sectors consumption from the total natural gas consumption.
Sources: • 1973 through 1975: DOI, BOM, *Minerals Yearbook,* "Natural Gas" chapter.
• 1976 through 1980, DOE, *Energy Data Reports,* "Natural Gas Monthly Production and Consumption."
• Electric Utilities consumption: 1973 through 1976, FPC, Form 4, "Monthly Power Plant Report."
• 1977 through 1980, DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."
• American Gas Association, "Monthly Gas Utility Statistical Report."
4. **Petroleum:** Petroleum consumption by end-use is the sum of all individual petroleum products consumed in each end-use. First, total consumption by product is determined. Petroleum consumption in this section of the *Monthly Energy Review* uses the series called "products supplied" in the Petroleum Section.
Sources for petroleum products supplied by individual products are:
• 1973 through 1975: DOI, BOM, *Mineral Industry Surveys,* "Petroleum Statement, Annual."
• 1976 through 1978: DOE, EIA, *Energy Data Reports,* "Petroleum Statement, Annual."
• 1979 and 1980: DOE, EIA, *Energy Data Reports,* "Petroleum Statement, Monthly." DOE, EIA, Monthly Petroleum Statistics Report. DOE, EIA, estimates based on EIA weekly data.
DOE, EIA estimates for current and previous month data for several minor petroleum products' total consumption.
Each product's total is allocated to end-use sectors as follows:
• Aviation gasoline—Transportation.
• Asphalt and road oil—Commercial.
• Distillate fuel, residual fuel, kerosene end-uses are proportioned according to sales by end-use reported for 1973 through 1976 in the DOI, BOM, *Mineral Industry Surveys,* "Fuel Oil Sales, Annual," and for 1976 through 1978 in the DOE, EIA, *Energy Data Reports,* "Fuel Oil Sales, Annual." The proportions from 1978 are applied to 1979 and 1980 data.
• Jet fuel—small amounts in 1975 through 1977 are used in industrial and small amounts in all months are consumed by the electric utilities. All remaining jet fuel is allocated to the Transportation Sector.
• Liquefied petroleum gases—end-uses are proportioned according to sales by end-use reported for 1973 through 1975 in the DOI, BOM, *Mineral Industry Surveys,* "Liquefied Petroleum Gas Sales, Annual," and for 1976 through 1978 in the DOE, EIA, *Energy Data Reports,* "Liquefied Petroleum Gas Sales, Annual." The proportions from 1978 are applied to 1979 and 1980 data.
• Lubricants—allocated to Industrial and Transportation Sectors for all months according to proportions of sales to those sectors from U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports,* "Sales of Lubricating and Industrial Oils and Greases, 1977."
• Motor gasoline—the DOE motor gasoline consumption data are allocated to end-use according to shares derived from the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics,* Tables MF-21, MF-24 and MF-25. The proportions from 1978 are applied to 1979 and 1980 data.
• Petroleum coke consumed by the Electric Utilities—FPC, Form 4, "Monthly Power Plant Report."
• All other products are allocated to the Industrial Sector.
Sources: • 1973 through 1975: DOI, BOM, *Mineral Industry Surveys,* "Petroleum Statement, Annual."
• 1976 through 1978: DOE, EIA, *Energy Data Reports,* "Petroleum Statement, Annual."
• 1979 and 1980: DOE, EIA, *Energy Data Reports,* "Petroleum Statement, Monthly" and "Monthly Petroleum Statistics Report," and EIA estimates based on data from the American Petroleum Institute, "Weekly Statistical Bulletin."
• Electric Utility consumption of petroleum sources: 1973 through 1976: FPC, Form 4, "Monthly Power Plant Report."
• 1977 through 1980: DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."
5. **Hydroelectric:** Industrial and electric utility generation of hydropower. *Sources:* • 1973 through 1976, FPC, Form 4, "Monthly Power Plant Report."
• 1977 through 1980: DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."
• Imports and exports of electricity—*Sources:* DOE, Economic Regulatory Administration, "Report on Electric Energy Exchanges with Canada and Mexico." Monthly estimates are derived from annual data by dividing by the number of days in the year and multiplying by the number of days in the month. 1978 data are temporarily used for 1979 and 1980.
6. **Nuclear:** *Sources:* • 1973 through 1976: FPC, Form 4, "Monthly Power Plant Report."
• 1977 through 1980: DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."
7. **Net Coke Imports:** Net coke imports is coke made from coal. *Sources:* • 1973 through 1975, DOI, BOM, *Minerals Yearbook,* "Coke and Coal Chemicals, Annual."
• 1976 through 1980: DOE, EIA, *Energy Data Reports,* "Coke and Coal Chemicals, Monthly."
8. **Other Energy:** "Other" is electricity produced from geothermal power and from wood and waste. *Sources:* same as Note 6 above.
9. **Electricity Sales:** Energy consumed by electric utilities to produce electricity is distributed to the major end-use sectors using EIA data in kilowatt-hour sales to ultimate customers. "Other" sales, largely for use in government buildings, are distributed to the Residential and Commercial Sector and a small portion to the Transportation Sector. *Source:* • Sales data—1973 through February 1980:—FPC, Form 5, "Monthly Statement of Electric Operating Revenue and Income"; FERC Form 5, "Electric Utility Company Monthly Statement."
10. **Electrical Energy Losses:** In generating electricity with nuclear or fossil fuels, approximately 65 percent of the energy is lost in the form of heat. Transmission and distribution losses consume about an additional 3 percent of the energy inputs of the utility industry. In order to fully account for all energy consumed both directly and indirectly (i.e., utilities energy disposition), the electricity losses are allocated to the final end-use sectors in proportion to their direct kilowatt-hour usage.

Crude Oil and Refined Petroleum Products*

Domestic crude oil production during October 1980 is estimated at 8.6 million barrels per day. This production rate was approximately the same as in October 1979 and 0.4 percent higher than in September 1980.

Total petroleum imports averaged 5.8 million barrels per day in October 1980, 33.0 percent less than the October 1979 rate and 3.3 percent lower than in September 1980.

In October 1980, 16.3 million barrels per day of petroleum products were supplied for domestic use. Motor gasoline accounted for 39.0 percent of the total, distillate fuel oil 17.3 percent, and residual fuel oil 14.2 percent.

The average for motor gasoline supplied during October 1980 was 6.4 million barrels per day, 9.4 percent lower than the amount supplied in October 1979 and 2.3 percent lower than in September 1980.

In October 1980, 2.8 million barrels of distillate fuel oil were supplied per day, 9.1 percent lower than the amount supplied a year ago and 7.1 percent higher than in September 1980. Distillate fuel oil stocks were 228.4 million barrels at the end of October 1980, 1.2 percent below the stock level 1 year ago, and 1.8 percent lower than the previous month's level.

Residual fuel oil supplied in October 1980 averaged 2.3 million barrels per day, 9.4 percent lower than in October 1979. Residual fuel oil stocks measured 87.4 million barrels at the end of October 1980, 3.9 percent below the level a year ago and 2.7 percent lower than the previous month.

*Estimates for the most recent month are based on EIA weekly data (except crude production) and will be revised to conform with data from the EIA Petroleum Reporting System as available. For the most recent months, crude production is an EIA estimate.

Petroleum

Crude Oil

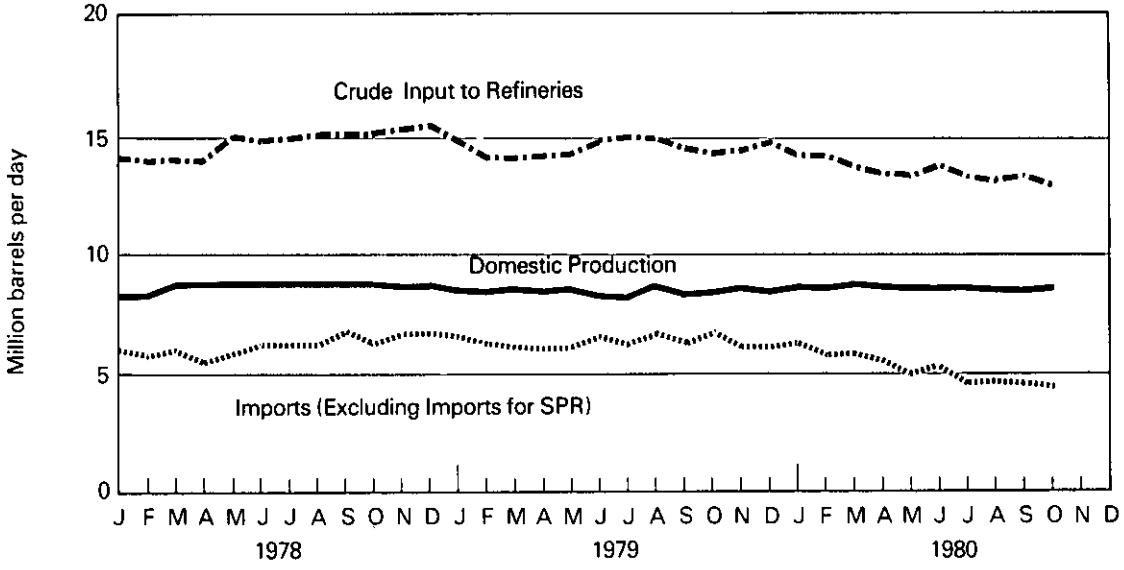
		Crude Input to Refineries	Total Domestic Production[1,2]	Alaskan Production	Crude Oil Imports[3]	Strategic Petroleum Reserve (SPR) Imports	Crude Oil Exports	Primary Crude Oil Stocks[1,3]	Strategic Petroleum Reserve (SPR) Stocks[3]
		Thousand barrels per day						Thousand barrels	
1973	**AVERAGE**	**12,431**	**9,208**	**198**	**3,244**		**2**	**‡242,478**	
1974	**AVERAGE**	**12,133**	**8,774**	**193**	**3,477**		**3**	**‡265,020**	
1975	**AVERAGE**	**12,442**	**8,375**	**191**	**4,105**		**6**	**‡271,354**	
1976	**AVERAGE**	**13,416**	**8,132**	**173**	**5,287**		**8**	**‡285,471**	
1977	**AVERAGE**	**14,602**	**8,245**	**464**	**6,594**	**21**	**50**	**‡339,857**	**‡7,826**
1978	**AVERAGE**	**14,739**	**8,707**	**1,229**	**6,195**	**161**	**158**	**‡309,421**	**‡66,860**
1979	January	14,833	8,457	1,351	6,656	204	177	302,728	73,142
	February	14,315	8,498	1,267	6,344	179	288	302,981	78,166
	March	14,259	8,585	1,355	6,240	122	370	317,432	82,501
	April	14,570	8,533	1,347	6,145	66	260	319,759	83,867
	May	14,452	8,585	1,350	6,163	97	171	316,355	86,880
	June	14,806	8,409	1,247	6,554	65	235	325,893	88,567
	July	15,098	8,355	1,405	6,349	41	244	312,852	90,101
	August	14,964	8,699	1,434	6,774	35	242	320,745	91,189
	September	14,595	8,466	1,436	6,410	0	175	323,854	91,189
	October	14,423	8,568	1,481	6,854	0	179	344,679	[4]91,191
	November	14,524	8,649	1,614	6,154	0	264	347,367	91,191
	December	14,875	8,587	1,520	6,273	0	210	339,080	91,191
	AVERAGE	**14,646**	**8,533**	**1,401**	**6,411**	**67**	**234**		
1980	January	14,147	8,648	1,634	6,359	0	311	353,611	91,191
	February	14,094	8,696	1,630	5,936	0	310	361,648	91,191
	March	13,603	8,712	1,647	5,785	0	323	361,742	91,191
	April	13,376	8,688	1,649	5,555	0	216	379,352	91,191
	May	13,326	8,640	1,628	5,071	0	308	383,902	91,191
	June	R13,705	R8,547	R1,626	R5,480	0	365	R382,035	91,191
	July†	13,240	*8,650*	*1,607*	4,645	0	238	380,737	91,191
	August†	13,012	*8,560*	*1,610*	4,673	0	78	388,839	91,191
	September†	R13,310	*8,540*	*1,607*	R4,569	54	322	R376,512	92,824
	October†	*12,912*	*8,570*	*1,641*	*4,500*	NA	NA	*394,060*	NA
	AVERAGE	**13,469**	**8,625**	**1,628**	**5,253**	**NA**	**NA**		

Geographic coverage: the 50 United States and District of Columbia.
[1]Includes lease condensate.
[2]Includes Alaskan production.
[3]Excludes SPR. Strategic Petroleum Reserve storage began in October 1977.
[4]Indicates an adjustment in reported barrels in storage.
Estimated data in italics. These are likely to be revised next month.
‡Total as of December 31.
†Preliminary data. R=Revised data. NA=Not available.
Sources: •See Sources on the last page of this section.

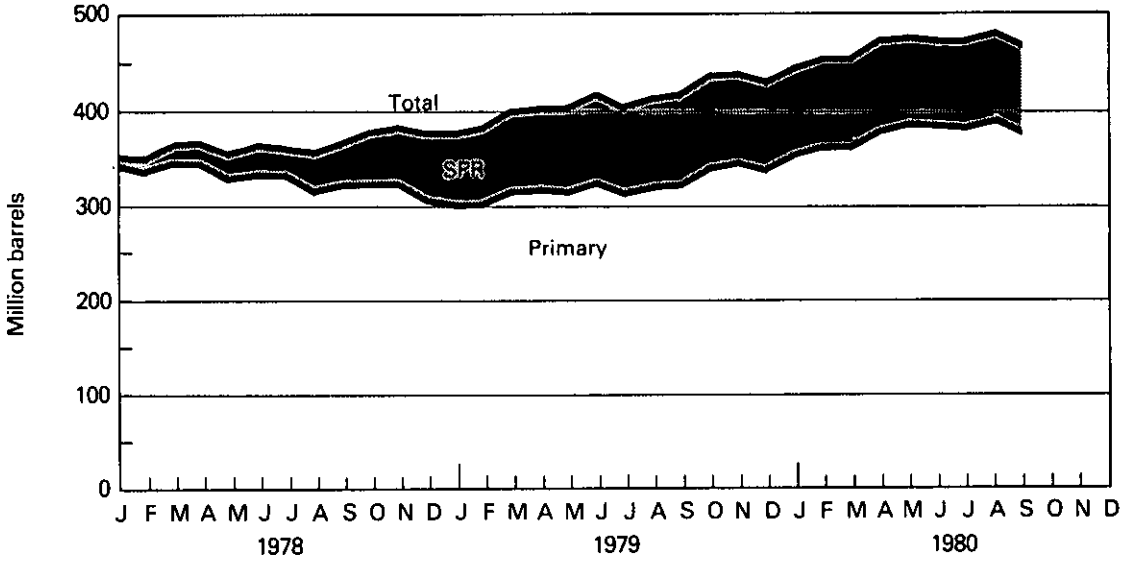
Petroleum

Crude Oil

Production, Refinery Input and Imports



Stocks



Petroleum

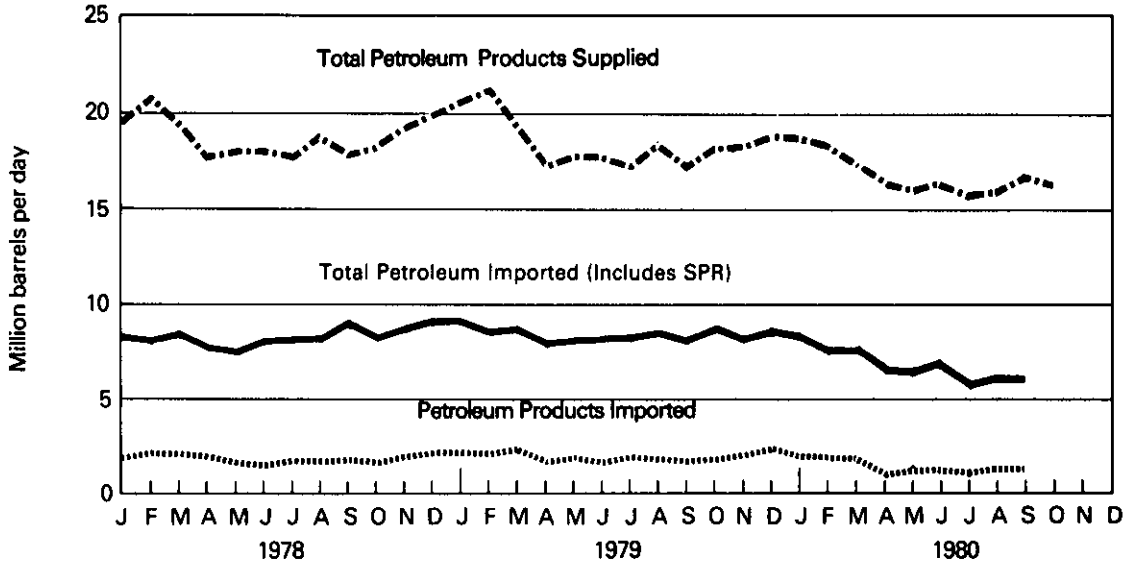
		Total Petroleum Products[1]			Total Crude Oil and Petroleum Products Trade				
		Products Supplied[1]	Product Imports[2]	Product Exports	Total Imports (Excluding SPR)	SPR Imports[3]	Total Imports (Including SPR)[3]	Total Exports	Net Imports
		Thousand barrels per day			Thousand barrels per day				
1973	**AVERAGE**	**17,308**	**3,012**	**229**	**6,256**			**231**	**6,025**
1974	**AVERAGE**	**16,653**	**2,635**	**218**	**6,112**			**221**	**5,892**
1975	**AVERAGE**	**16,322**	**1,951**	**204**	**6,056**			**209**	**5,846**
1976	**AVERAGE**	**17,461**	**2,026**	**215**	**7,313**			**223**	**7,090**
1977	**AVERAGE**	**18,431**	**2,193**	**193**	**8,787**	**21**	**8,807**	**243**	**8,565**
1978	**AVERAGE**	**18,847**	**2,008**	**204**	**8,202**	**161**	**8,363**	**362**	**8,002**
1979	January	20,596	2,222	212	8,878	204	9,082	388	8,694
	February	21,266	2,062	200	8,406	179	8,585	488	8,096
	March	19,270	2,385	234	8,625	122	8,747	604	8,144
	April	17,429	1,673	235	7,820	66	7,885	495	7,390
	May	17,822	1,826	278	7,989	97	8,087	449	7,638
	June	17,755	1,672	220	8,226	65	8,291	455	7,836
	July	17,100	1,932	258	8,280	41	8,322	502	7,819
	August	18,211	1,778	210	8,552	35	8,587	451	8,136
	September	17,428	1,596	241	8,006	0	8,006	416	7,590
	October	18,159	1,785	258	8,639	0	8,639	437	8,202
	November	18,336	1,946	246	8,099	0	8,099	510	7,590
	December	18,824	2,305	262	8,577	0	8,577	472	8,105
	AVERAGE	**18,502**	**1,933**	**238**	**8,344**	**67**	**8,411**	**472**	**7,939**
1980	January	18,509	1,983	228	8,342	0	8,342	539	7,803
	February	18,721	1,911	227	7,847	0	7,847	536	7,311
	March	17,279	1,724	243	7,509	0	7,509	566	6,943
	April	16,616	1,430	241	6,985	0	6,985	457	6,528
	May	16,143	1,478	266	6,549	0	6,549	573	5,975
	June	R16,479	R1,413	R288	R6,893	0	R6,893	654	R6,239
	July†	15,856	1,322	293	5,967	0	5,967	531	5,436
	August†	15,836	1,402	241	6,075	0	6,075	319	5,756
	September†	R16,612	R1,420	235	R5,989	54	R6,043	557	5,486
	October†	*16,322*	*1,289*	NA	*5,789*	NA	NA	NA	NA
	AVERAGE	**16,828**	**1,536**	**NA**	**5,941**	**NA**	**NA**	**NA**	**NA**

Geographic coverage: the 50 United States and the District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]See Definitions.
[2]Includes plant condensate, natural gasoline and unfinished oils.
[3]Strategic Petroleum Reserve storage began in October 1977.
Estimated data in italics. These are likely to be revised next month.
†Preliminary data. R=Revised data. NA=Not available.
Sources: •See Sources on the last page of this section.

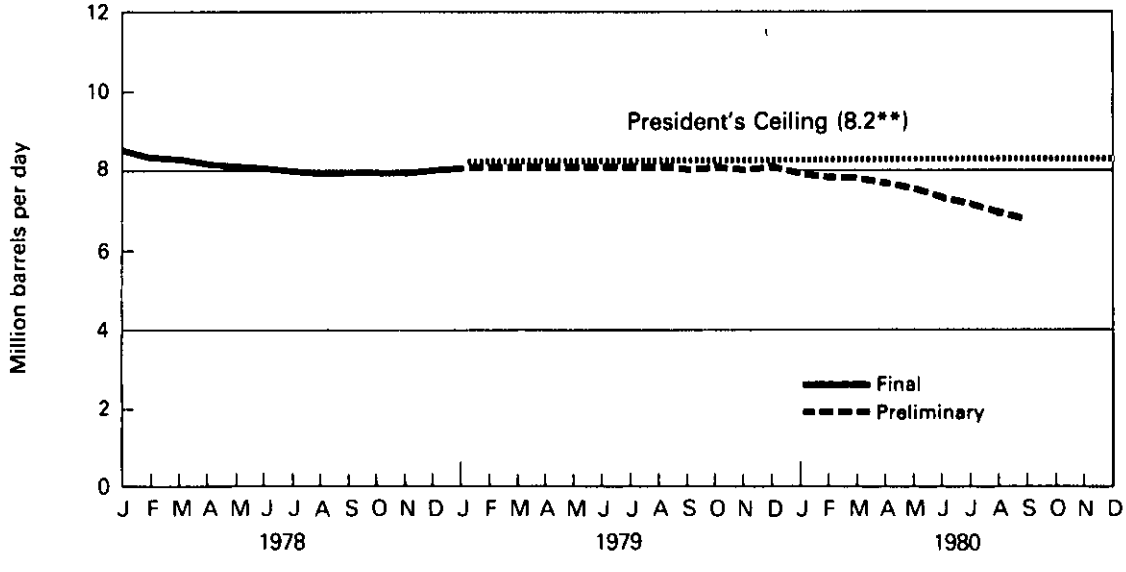
Petroleum

Products Supplied and Imports

Products Supplied and Imports



Net Imports* of Crude Oil and Refined Products (Average for the Latest 12 Months)



* Includes SPR.
** In his January 1980 State of the Union address, President Carter announced his revised net import ceiling of 8.2 million barrels per day for 1980. The figure was previously 8.5 million barrels per day.

Petroleum

Petroleum Imports from OPEC Sources

	Algeria	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	United Arab Emirates	Venezuela	Other OPEC[1]	Total OPEC	Arab Members of OPEC[2]
	Thousand barrels per day										
1973 AVERAGE	**136.0**	**213.3**	**222.8**	**164.4**	**458.8**	**485.7**	**70.6**	**1,134.9**	**106.4**	**2,992.9**	**914.7**
1974 AVERAGE	**190.1**	**300.4**	**468.8**	**4.4**	**713.4**	**461.3**	**73.9**	**979.1**	**88.4**	**3,279.8**	**752.5**
1975 AVERAGE	**282.4**	**389.6**	**280.4**	**231.8**	**761.8**	**714.6**	**116.7**	**702.5**	**121.5**	**3,601.3**	**1,382.6**
1976 AVERAGE	**432.2**	**538.8**	**298.5**	**453.3**	**1,024.7**	**1,229.8**	**254.4**	**700.1**	**134.0**	**5,065.8**	**2,424.1**
1977 AVERAGE	**558.6**	**541.0**	**535.0**	**722.6**	**1,143.0**	**1,380.4**	**335.3**	**690.4**	**286.7**	**6,193.1**	**3,185.1**
1978 AVERAGE	**648.7**	**573.3**	**555.3**	**653.9**	**919.5**	**1,143.9**	**385.4**	**644.9**	**226.0**	**5,750.9**	**2,963.2**
1979											
January	669.2	502.8	187.1	734.9	1,158.6	1,562.9	341.4	661.0	240.4	6,058.4	3,405.9
February	746.3	521.3	85.8	613.7	984.3	1,628.2	309.8	745.9	170.8	5,806.0	3,403.8
March	579.0	418.9	22.2	598.3	1,403.0	1,298.4	298.4	851.4	272.5	5,742.0	2,938.3
April	686.8	376.1	51.6	770.8	988.9	1,483.5	285.2	619.3	129.6	5,391.8	3,311.0
May	755.5	342.5	196.5	650.5	1,117.9	1,273.4	291.9	671.2	147.5	5,447.0	3,023.7
June	559.9	390.5	318.3	764.2	932.0	1,258.3	281.9	609.4	363.8	5,478.4	3,156.6
July	591.4	416.1	410.7	654.2	981.4	1,359.9	252.6	675.8	170.6	5,509.1	2,956.0
August	669.3	499.1	516.0	657.2	1,183.0	1,332.4	247.1	731.0	261.5	6,096.6	3,051.7
September	510.2	358.7	372.9	610.5	1,103.3	1,281.1	269.9	726.2	199.8	5,432.6	2,833.1
October	601.5	452.2	495.6	761.6	973.7	1,262.1	234.0	616.7	304.4	5,701.9	3,064.2
November	614.2	332.9	548.6	469.5	1,007.1	1,162.9	307.1	713.0	151.4	5,306.7	2,602.6
December	589.2	394.5	413.8	559.2	1,079.9	1,279.4	241.5	677.6	130.5	5,365.6	2,729.7
AVERAGE	**630.5**	**416.9**	**303.2**	**654.0**	**1,077.6**	**1,346.8**	**279.7**	**691.1**	**212.2**	**5,612.0**	**3,037.4**
1980											
January	484.2	433.0	80.5	616.8	1,054.4	1,562.1	201.6	583.3	179.1	5,195.1	3,000.7
February	638.7	317.1	9.2	603.3	1,012.6	1,398.9	304.0	543.0	140.3	4,967.1	3,016.7
March	472.0	405.4	0.0	654.1	924.2	1,389.5	370.1	352.3	174.8	4,742.3	2,978.6
April	555.9	373.6	0.0	682.7	722.3	1,294.3	150.1	339.2	227.9	4,346.0	2,866.2
May	441.0	360.1	0.0	468.4	954.9	1,149.4	172.0	405.0	132.4	4,083.1	2,314.4
June	R497.3	R330.9	0.0	R561.2	998.3	1,327.4	178.1	R409.3	105.6	R4,408.1	R2,597.6
July†	537.0	290.2	0.0	492.3	720.5	1,178.9	157.6	411.3	55.5	3,843.2	2,378.1
August†	432.5	259.6	0.0	412.4	802.2	1,141.2	142.1	404.1	49.8	3,643.7	2,143.4
September†	361.3	289.5	0.0	511.8	727.8	1,096.2	106.8	424.0	77.1	3,594.6	2,128.1
AVERAGE	**490.2**	**340.2**	**10.1**	**555.2**	**879.4**	**1,281.6**	**197.8**	**429.8**	**126.7**	**4,311.1**	**2,600.4**

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
Beginning in October 1977 Strategic Petroleum Reserve imports are included.
[1]Includes Ecuador, Gabon, Iraq, Kuwait and Qatar.
[2]Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait and Qatar.
†Preliminary data. R=Revised data.
Sources: • See Sources on the last page of this section.

Petroleum

Petroleum Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Puerto Rico	Trinidad and Tobago	Virgin Islands	Other[1]	Total
					Thousand barrels per day				
1973									
AVERAGE	**174.0**	**1,324.8**	**15.7**	**584.7**	**99.5**	**254.8**	**329.4**	**480.3**	**3,263.2**
1974									
AVERAGE	**163.8**	**1,069.5**	**8.5**	**511.0**	**90.4**	**250.8**	**391.0**	**347.4**	**2,832.4**
1975									
AVERAGE	**152.4**	**846.4**	**71.4**	**331.8**	**89.7**	**242.4**	**406.4**	**313.9**	**2,454.4**
1976									
AVERAGE	**118.5**	**599.3**	**87.2**	**275.4**	**88.1**	**274.3**	**422.3**	**381.7**	**2,246.8**
1977									
AVERAGE	**170.5**	**516.9**	**179.4**	**210.9**	**105.1**	**289.3**	**466.2**	**675.8**	**2,614.1**
1978									
AVERAGE	**159.9**	**466.8**	**317.8**	**229.2**	**93.8**	**253.1**	**428.7**	**663.2**	**2,612.5**
1979									
January	159.5	564.1	584.1	237.9	109.1	116.0	477.0	776.3	3,023.9
February	103.6	560.3	415.4	254.8	68.2	191.4	421.1	763.6	2,778.5
March	93.6	614.5	397.5	314.1	63.8	214.7	561.6	745.5	3,005.4
April	129.4	577.0	301.6	178.7	64.9	154.3	474.7	612.4	2,492.9
May	134.8	554.8	402.9	191.1	101.7	216.6	382.0	655.7	2,639.7
June	138.1	468.4	457.7	171.4	105.7	169.5	413.7	888.2	2,812.6
July	193.2	488.6	370.3	208.7	117.2	169.1	451.2	814.2	2,812.4
August	156.6	463.1	439.4	246.5	92.5	237.9	357.1	497.4	2,490.4
September	149.1	463.4	431.3	275.8	86.2	166.2	285.7	715.9	2,573.5
October	150.5	486.3	531.1	242.4	60.2	199.7	403.0	863.6	2,936.7
November	181.7	554.5	417.7	195.8	109.7	161.1	438.4	733.8	2,792.7
December	178.1	595.8	453.9	257.4	120.3	236.7	507.5	862.1	3,211.9
AVERAGE	**147.7**	**532.5**	**434.1**	**231.3**	**91.8**	**186.3**	**431.5**	**744.0**	**2,799.1**
1980									
January	175.1	568.9	545.2	289.0	55.9	239.4	467.2	R806.1	3,146.8
February	111.5	539.6	462.6	205.2	95.3	191.8	521.6	752.5	2,880.1
March	124.0	459.7	459.6	184.0	81.3	188.7	443.2	826.6	2,767.1
April	55.7	411.2	545.6	230.8	63.1	143.4	418.2	771.0	2,639.0
May	77.1	418.5	576.4	184.4	87.9	220.8	303.4	597.1	2,465.6
June	77.1	R404.6	R626.8	R195.7	R90.8	R160.3	R319.1	R610.6	R2,485.0
July†	42.9	335.4	434.2	225.5	80.7	175.2	365.1	464.9	2,123.8
August†	62.0	358.8	602.5	250.8	84.8	153.9	263.6	654.8	2,431.3
September†	57.5	392.4	511.1	210.0	51.8	202.6	336.7	686.4	2,448.4
AVERAGE	**87.1**	**431.7**	**529.5**	**219.7**	**76.8**	**186.4**	**381.3**	**685.0**	**2,597.3**

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
Beginning in October 1977 Strategic Petroleum Reserve imports are included.
[1]Includes Non-OPEC Arab, Western Europe, Angola, U.S.S.R., Rumania, other Western Hemisphere and other Eastern Hemisphere.
†Preliminary data. R = Revised data.
Sources: •See Sources on the last page of this section.

Petroleum

Motor Gasoline

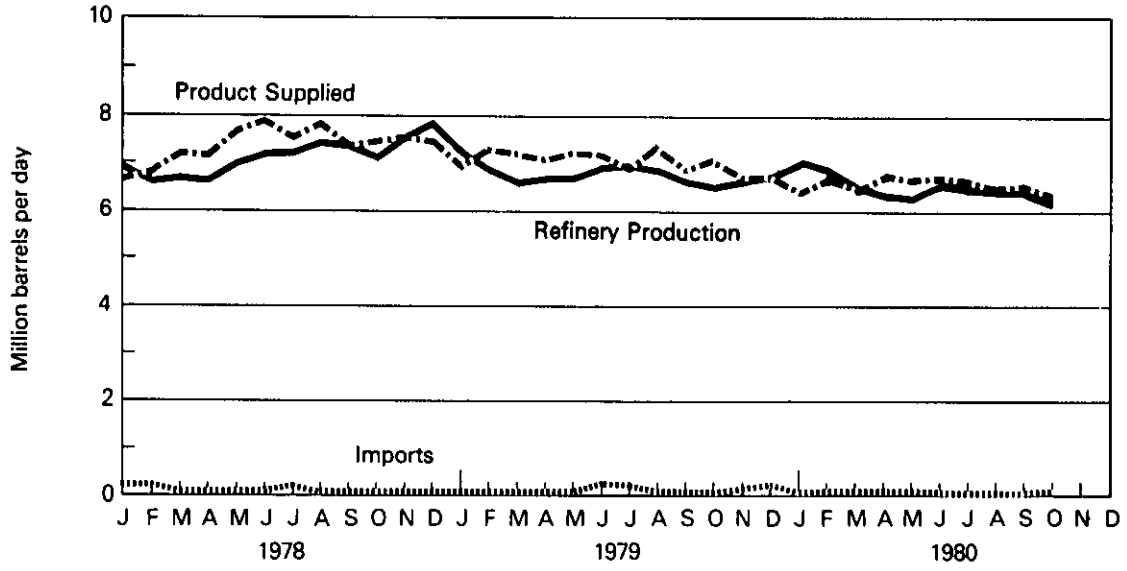
		Product Supplied						
		Total	Unleaded	Unleaded Percent of Total	Refinery Production[1]	Imports	Exports	Stocks[1]
		Thousand barrels per day						Thousand barrels
1973	**AVERAGE**	**6,674**	**NA**	**NA**	**6,527**	**134**	**4**	**‡209,395**
1974	**AVERAGE**	**6,537**	**NA**	**NA**	**6,358**	**204**	**2**	**‡218,346**
1975	**AVERAGE**	**6,675**	**NA**	**NA**	**6,518**	**184**	**2**	**‡234,925**
1976	**AVERAGE**	**6,978**	**NA**	**NA**	**6,838**	**131**	**3**	**‡231,387**
1977	**AVERAGE**	**7,177**	**1,976**	**27.5**	**7,031**	**217**	**2**	**‡257,578**
1978	**AVERAGE**	**7,412**	**2,521**	**34.0**	**7,167**	**190**	**1**	**‡237,956**
1979	January	6,893	2,609	37.8	7,272	179	2	255,664
	February	7,267	2,715	37.4	6,941	160	2	251,346
	March	7,218	2,733	37.9	6,654	168	1	239,162
	April	7,068	2,786	39.4	6,765	156	1	235,192
	May	7,203	2,751	38.2	6,786	145	2	227,193
	June	7,187	2,787	38.8	6,987	261	1	229,349
	July	6,850	2,789	40.7	7,006	222	1	241,536
	August	7,332	2,970	40.5	6,882	147	1	232,742
	September	6,878	2,815	40.9	6,626	135	1	229,608
	October	7,022	2,802	39.9	6,483	150	1	218,066
	November	6,771	2,928	43.2	6,654	182	1	220,486
	December	6,690	2,890	43.2	6,962	263	1	237,503
	AVERAGE	**7,030**	**2,798**	**39.8**	**6,835**	**181**	**1**	
1980	January	6,335	2,718	42.9	6,977	141	1	262,134
	February	6,594	2,969	45.0	6,851	153	(s)	274,422
	March	6,411	3,032	47.3	6,512	154	(s)	282,688
	April	6,799	3,021	44.5	6,268	152	1	271,729
	May	6,726	2,980	44.3	6,294	132	1	262,938
	June	R6,661	3,099	R46.5	6,552	R148	1	R264,583
	July†	6,754	3,131	46.4	6,446	145	3	259,523
	August†	6,584	3,135	47.6	6,434	141	1	259,203
	September	R6,515	3,054	46.9	R6,368	R106	7	R257,948
	October†	*6,362*	NA	NA	*6,190*	*115*	NA	*254,528*
	AVERAGE	**6,573**	**NA**	**NA**	**6,488**	**139**	**NA**	

Geographic coverage: the 50 United States and District of Columbia.
[1]See Definitions.
Estimated data in italics. These are likely to be revised next month.
‡Total as of December 31.
†Preliminary data. R=Revised data. NA=Not available.
(s)=Less than 500 barrels per day.
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.
Sources: •See Sources on the last page of this section.

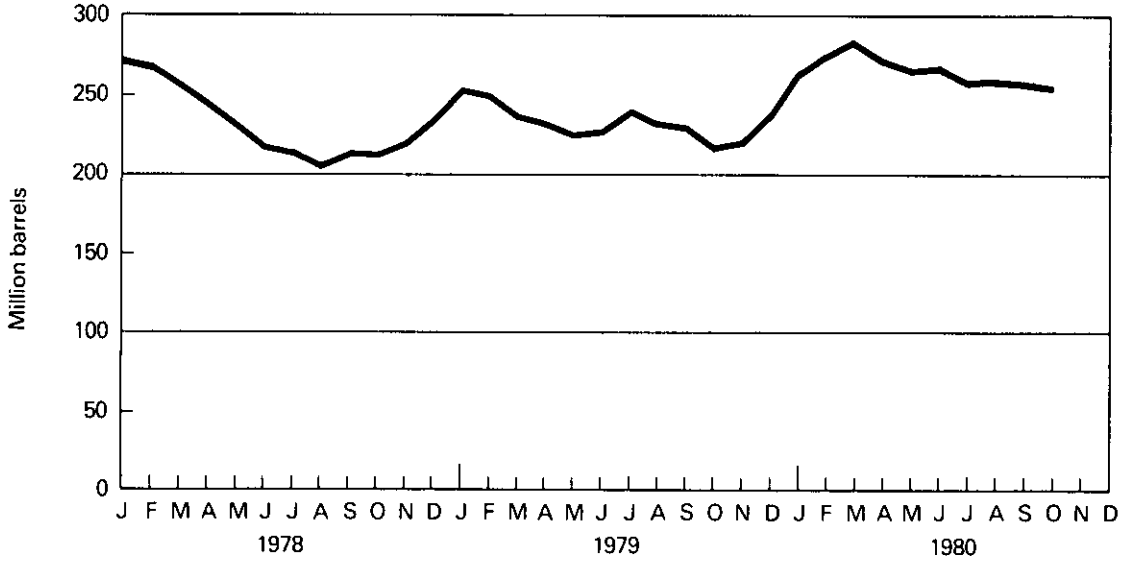
Petroleum

Motor Gasoline

Product Supplied, Refinery Production and Imports



Stocks



Petroleum

Jet Fuel

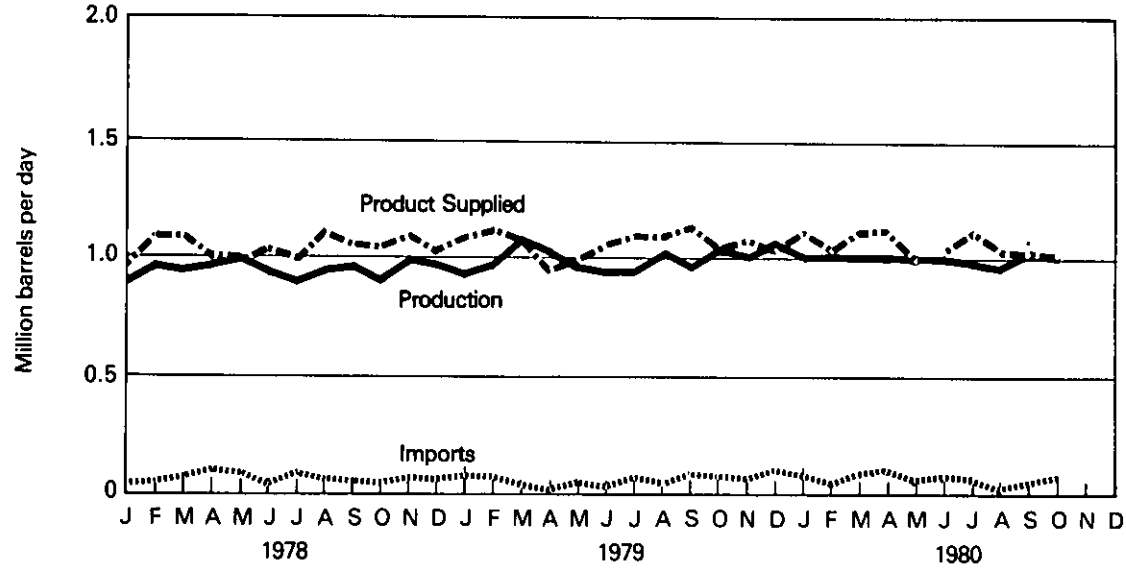
		Product Supplied	Refinery Production	Imports	Exports	Stocks
		Thousand barrels per day				Thousand barrels
1973	**AVERAGE**	**1,059**	**859**	**212**	**4**	**‡28,544**
1974	**AVERAGE**	**993**	**836**	**163**	**3**	**‡29,435**
1975	**AVERAGE**	**1,001**	**871**	**133**	**2**	**‡30,380**
1976	**AVERAGE**	**987**	**918**	**76**	**2**	**‡32,085**
1977	**AVERAGE**	**1,039**	**973**	**75**	**2**	**‡34,548**
1978	**AVERAGE**	**1,057**	**970**	**86**	**1**	**‡33,665**
1979	January	1,100	950	97	1	31,993
	February	1,137	996	88	2	30,449
	March	1,088	1,097	61	1	32,607
	April	961	1,040	43	1	36,217
	May	1,008	976	75	1	37,547
	June	1,073	956	57	1	35,741
	July	1,105	964	90	1	34,152
	August	1,088	1,040	49	1	34,156
	September	1,105	958	84	1	32,251
	October	1,050	1,046	90	(s)	34,891
	November	1,070	1,027	83	1	36,058
	December	1,095	1,068	108	2	38,520
	AVERAGE	**1,073**	**1,011**	**77**	**1**	
1980	January	1,101	1,004	95	1	38,412
	February	1,072	1,026	43	2	38,258
	March	1,116	1,031	99	2	38,661
	April	1,105	1,023	107	3	39,339
	May	1,015	1,001	79	2	41,310
	June	R1,057	R1,004	R86	1	R42,283
	July†	1,113	974	83	2	40,612
	August†	1,028	961	60	1	40,347
	September†	R1,041	R1,043	R60	1	R42,191
	October†	*1,009*	*1,002*	*89*	NA	*45,415*
	AVERAGE	**1,066**	**1,007**	**80**	**NA**	

Geographic coverage: the 50 United States and District of Columbia.
Estimated data in italics. These are likely to be revised next month.
‡Total as of December 31.
†Preliminary data. R=Revised data. NA=Not available.
(s)=Less than 500 barrels per day.
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.
Sources: •See Sources on the last page of this section.

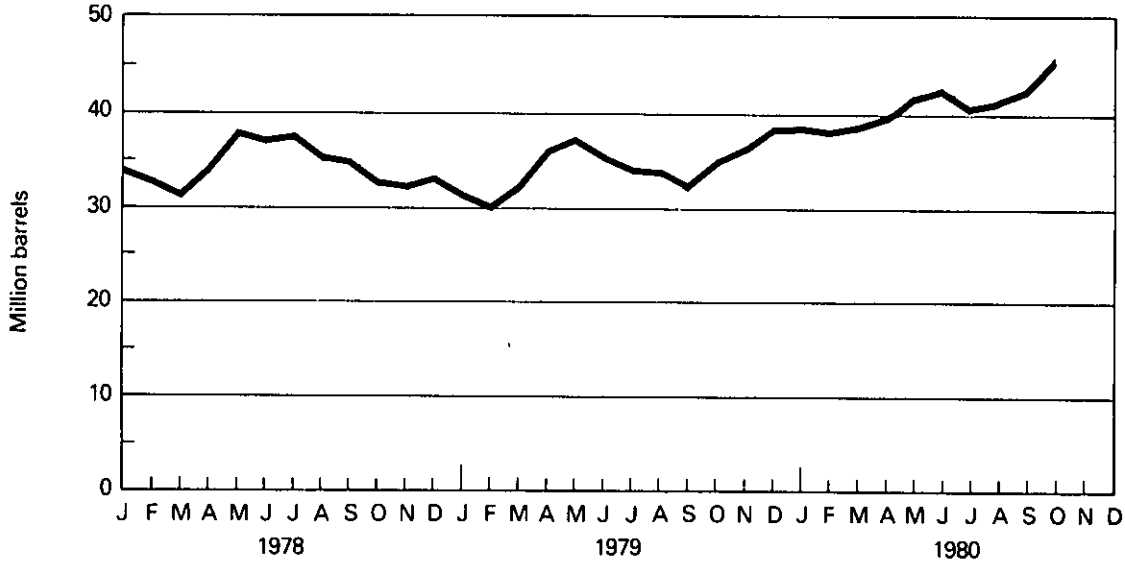
Petroleum

Jet Fuel

Product Supplied, Refinery Production and Imports



Stocks



Petroleum

Distillate Fuel Oil

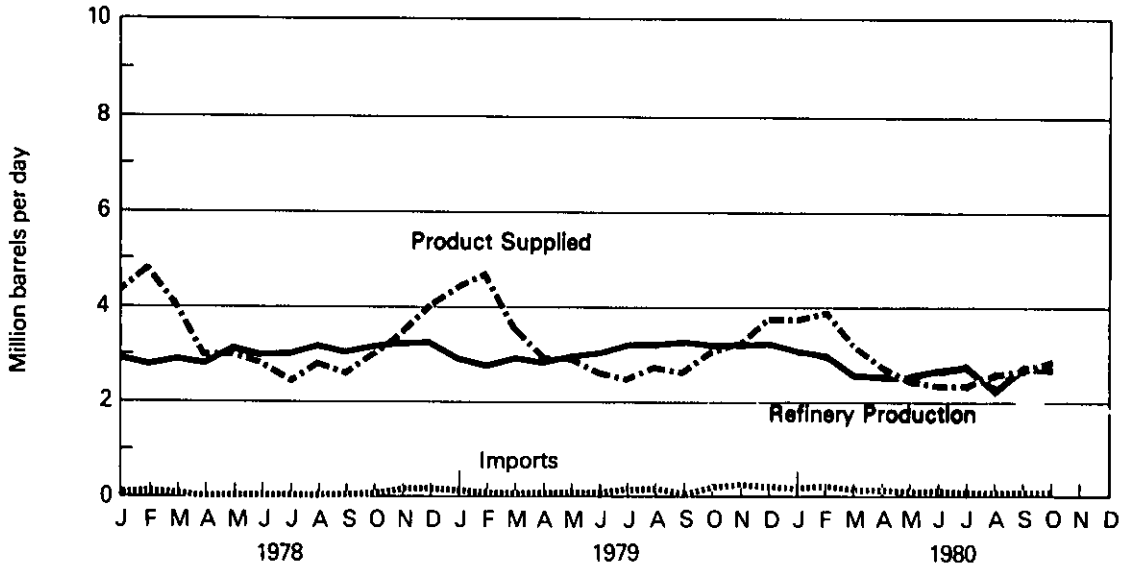
		Product Supplied	Refinery Production[1]	Imports	Exports	Stocks[1]
		Thousand barrels per day				Thousand barrels
1973	**AVERAGE**	**3,092**	**2,820**	**392**	**9**	**‡196,421**
1974	**AVERAGE**	**2,948**	**2,668**	**289**	**2**	**‡200,029**
1975	**AVERAGE**	**2,851**	**2,653**	**155**	**1**	**‡208,787**
1976	**AVERAGE**	**3,133**	**2,924**	**146**	**1**	**‡185,948**
1977	**AVERAGE**	**3,352**	**3,277**	**250**	**1**	**‡250,260**
1978	**AVERAGE**	**3,432**	**3,167**	**173**	**3**	**‡216,439**
1979	January	4,543	3,005	226	1	175,695
	February	4,792	2,863	196	7	127,034
	March	3,627	2,992	176	5	112,728
	April	3,006	2,935	149	4	114,989
	May	2,989	3,064	185	2	123,059
	June	2,707	3,137	180	1	141,365
	July	2,552	3,305	219	9	171,243
	August	2,772	3,332	217	2	195,339
	September	2,659	3,368	126	3	220,328
	October	3,104	3,248	211	10	231,083
	November	3,311	3,257	235	(s)	236,554
	December	3,722	3,238	229	1	228,706
	AVERAGE	**3,308**	**3,147**	**196**	**4**	
1980	January	3,732	3,023	179	7	212,126
	February	3,706	2,778	221	8	191,464
	March	3,171	2,564	179	19	177,659
	April	2,630	2,462	147	2	177,006
	May	2,402	2,471	126	1	183,072
	June	R2,331	R2,645	R108	(s)	R195,790
	July†	2,294	2,782	106	3	213,307
	August†	2,226	2,578	86	(s)	226,858
	September†	R2,636	R2,724	R98	(s)	R232,436
	October†	*2,822*	*2,664*	*100*	NA	*228,358*
	AVERAGE	**2,792**	**2,669**	**135**	**NA**	

Geographic coverage: the 50 United States and District of Columbia.
[1]See Definitions.
Estimated data in italics. These are likely to be revised next month.
‡Total as of December 31.
†Preliminary data. R=Revised data. NA=Not available.
(s)=Less than 500 barrels per day.
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.
Sources: •See Sources on the last page of this section.

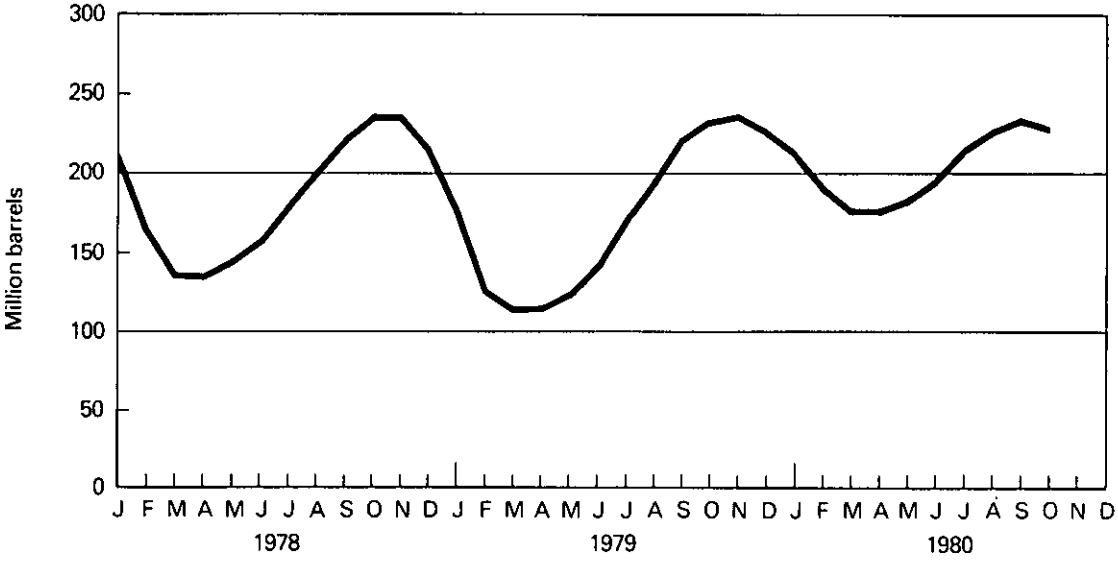
Petroleum

Distillate Fuel Oil

Product Supplied, Refinery Production and Imports



Stocks



Petroleum

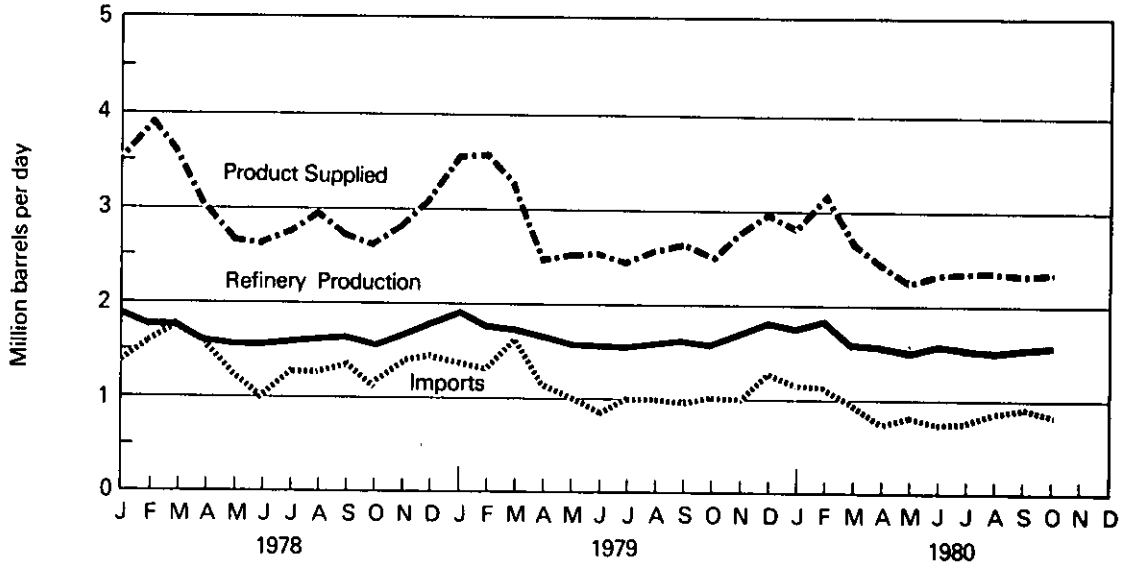
Residual Fuel Oil

		Product Supplied	Refinery Production	Imports	Exports	Stocks
		Thousand barrels per day				Thousand barrels
1973	**AVERAGE**	**2,822**	**971**	**1,853**	**23**	**‡53,480**
1974	**AVERAGE**	**2,639**	**1,070**	**1,587**	**14**	**‡59,694**
1975	**AVERAGE**	**2,462**	**1,235**	**1,223**	**15**	**‡74,126**
1976	**AVERAGE**	**2,801**	**1,377**	**1,413**	**12**	**‡72,344**
1977	**AVERAGE**	**3,071**	**1,754**	**1,359**	**6**	**‡89,993**
1978	**AVERAGE**	**3,023**	**1,667**	**1,355**	**13**	**‡90,194**
1979	January	3,550	1,907	1,371	6	81,997
	February	3,589	1,792	1,300	10	68,229
	March	3,238	1,718	1,642	14	71,968
	April	2,487	1,643	1,134	2	81,002
	May	2,519	1,588	1,051	8	84,855
	June	2,552	1,534	880	8	80,893
	July	2,451	1,576	1,065	18	86,631
	August	2,582	1,590	1,023	14	87,542
	September	2,617	1,638	979	2	87,775
	October	2,553	1,611	1,042	8	90,896
	November	2,793	1,742	1,037	5	90,636
	December	2,976	1,879	1,272	16	95,859
	AVERAGE	**2,822**	**1,684**	**1,150**	**9**	
1980	January	2,865	1,766	1,132	5	97,153
	February	3,099	1,770	1,119	17	90,959
	March	2,650	1,581	971	2	88,269
	April	2,434	1,591	769	[1]40	85,219
	May	2,234	1,507	812	20	87,639
	June	R2,324	R1,575	R749	14	R87,657
	July†	2,341	1,532	788	60	85,517
	August†	2,334	1,507	874	2	86,665
	September†	R2,304	R1,515	R904	21	R89,855
	October†	*2,312*	*1,549*	*810*	NA	*87,387*
	AVERAGE	**2,487**	**1,588**	**892**	**NA**	

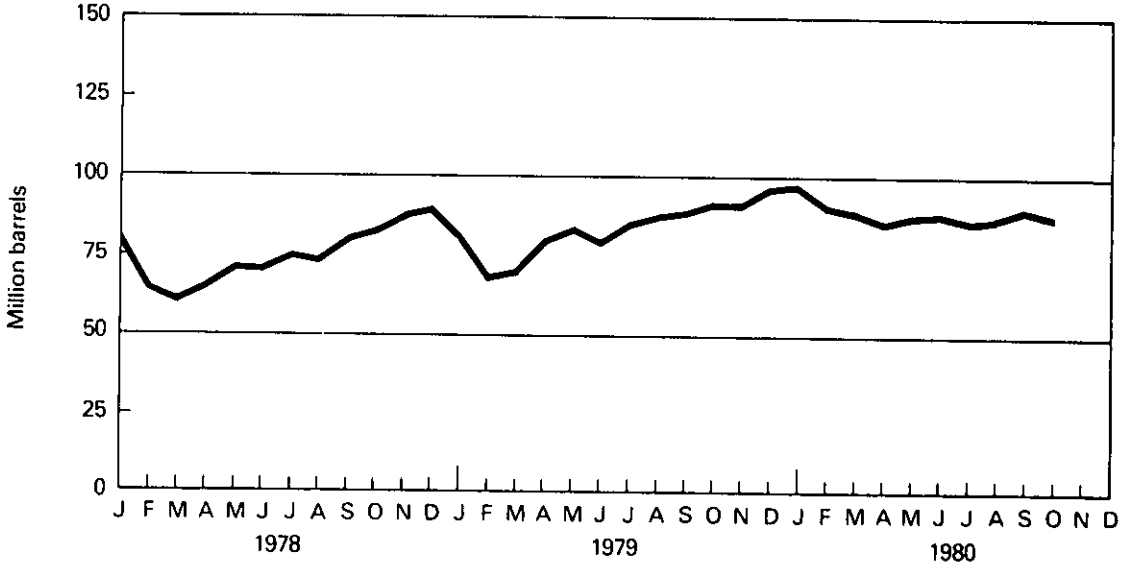
Geographic coverage: the 50 United States and District of Columbia.
[1]Beginning in April 1980, residual fuel oil exports increased due to shipments of high sulfur fuel to a Caribbean refinery to be desulfurized and returned to the United States.
Estimated data in italics. These are likely to be revised next month.
‡Total as of December 31.
†Preliminary data. R=Revised data. NA=Not available.
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.
Sources: •See Sources on the last page of this section.

Residual Fuel Oil

Product Supplied, Refinery Production and Imports



Stocks



Petroleum

Natural Gas Plant Liquids, Including Liquefied Refinery Gases

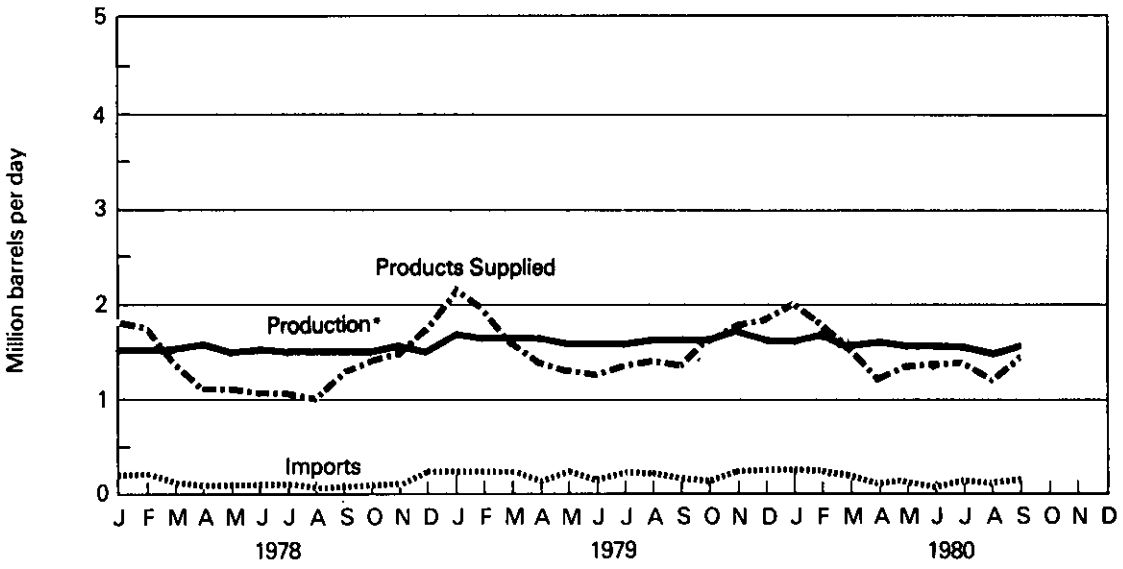
		Products Supplied[1]	Production[1]		Used at Refineries[1]	Imports	Stocks[1]
			At processing plants	At refineries			
		Thousand barrels per day					Thousand barrels
1973	**AVERAGE**	**1,454**	**1,738**	**375**	**815**	**239**	**‡106,659**
1974	**AVERAGE**	**1,422**	**1,688**	**338**	**746**	**212**	**‡120,175**
1975	**AVERAGE**	**1,352**	**1,633**	**311**	**710**	**185**	**‡132,653**
1976	**AVERAGE**	**1,407**	**1,603**	**340**	**725**	**196**	**‡124,518**
1977	**AVERAGE**	**1,427**	**1,618**	**352**	**673**	**203**	**‡144,902**
1978	**AVERAGE**	**1,416**	**1,567**	**355**	**639**	**139**	**[2]‡140,052**
1979	January	1,745	1,530	337	589	256	128,112
	February	2,119	1,561	325	564	252	112,418
	March	1,760	1,548	333	521	257	107,513
	April	1,544	1,611	354	455	160	110,909
	May	1,476	1,570	389	476	255	118,647
	June	1,396	1,571	382	455	175	126,620
	July	1,454	1,564	361	444	240	134,599
	August	1,504	1,575	363	461	236	140,776
	September	1,534	1,565	323	450	194	143,455
	October	1,700	1,607	321	506	193	140,411
	November	1,881	1,676	323	586	268	133,818
	December	1,917	1,626	343	572	273	125,479
	AVERAGE	**1,666**	**1,584**	**346**	**506**	**230**	
1980	January	2,076	1,647	338	698	282	110,378
	February	1,843	1,651	354	572	265	105,389
	March	1,573	1,569	342	518	224	106,070
	April	1,212	1,626	328	507	149	117,006
	May	1,376	1,555	325	428	187	124,615
	June	R1,385	R1,559	R335	R386	R93	R133,516
	July†	1,396	1,544	362	509	179	133,000
	August†	1,232	1,502	360	527	172	141,000
	September†	1,443	1,552	351	508	163	146,000
	AVERAGE	**1,503**	**1,578**	**344**	**510**	**202**	

Geographic coverage: the 50 United States and District of Columbia.
[1]See Explanatory Note 7 and Definitions.
[2]EIA natural gas plant coverage was expanded in January 1979 to include approximately 80 more plants. Calculated on the new basis, December 1978 closing stocks of natural gas plant liquids totaled 135,031 thousand barrels.
‡Total as of December 31.
†Preliminary data. R = Revised data.
Sources: • 1973 through June 1980 are shown on last page of this section.
• July 1980 through September 1980: EIA estimates based on historical analyses.
• Sources for the *Energy Data Reports* are shown on the last page of this section.

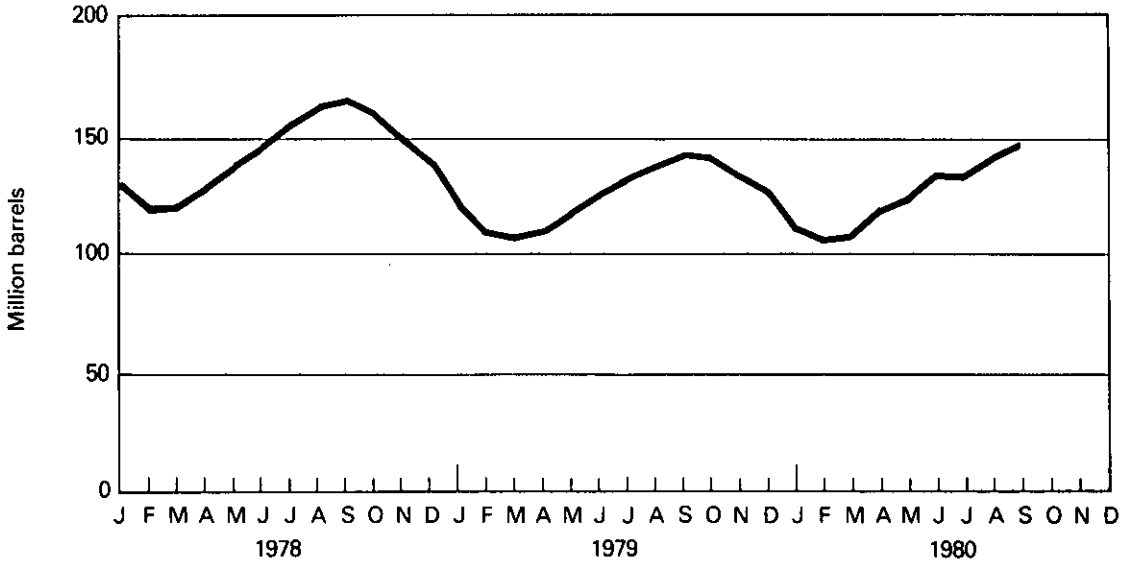
Petroleum

Natural Gas Plant Liquids

Products Supplied, Production and Imports



Stocks



*At processing plants.

Petroleum

Petroleum Primary Supply Balance

	1979				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Year
	Thousand barrels per day				
Primary Supply					
Crude oil lease and condensate production	8,514	8,510	8,507	8,601	8,533
Natural gas plant liquids production	1,546	1,584	1,568	1,636	1,584
Other hydrocarbon supply	32	38	64	70	51
Crude oil imported[1]	6,584	6,362	6,537	6,430	6,478
Petroleum products imported[2]	2,228	1,725	1,771	2,013	1,933
Total new primary supply	18,904	18,219	18,447	18,750	18,579
Processing gain	458	498	567	560	521
Stock change—all oils[3]	-1,553	+712	+1,061	+368	+155
Total net primary supply	20,915	18,005	17,953	18,942	18,945
Unaccounted for crude oil[4]	-58	+147	+100	-12	+45
Disposition					
Crude oil and petroleum products exported	494	466	457	473	472
Crude oil losses	15	16	16	16	16
Total products supplied[5]	20,348	17,671	17,581	18,441	18,502
Total disposition	20,857	18,153	18,054	18,929	18,990

	1980		
	1st Qtr.	2nd Qtr.	3rd Qtr.*
Primary Supply			
Crude oil lease and condensate production	8,685	R8,625	8,584
Natural gas plant liquids production	1,622	R1,580	1,532
Other hydrocarbon supply	56	R49	44
Crude oil imported[1]	6,029	R5,366	4,647
Petroleum products imported[2]	1,872	R1,441	1,381
Total new primary supply	18,263	R17,061	16,188
Processing gain	629	R567	597
Stock change—all oils[3]	-2	R+665	+383
Total net primary supply	18,895	R16,962	16,402
Unaccounted for crude oil[4]	-175	R+25	+177
Disposition			
Crude oil and petroleum products exported	547	R562	468
Crude oil losses	15	15	15
Total products supplied[5]	18,157	R16,410	16,096
Total disposition	18,720	R16,987	16,579

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]Includes crude oil imported for the Strategic Petroleum Reserve.
[2]Includes plant condensate, natural gasoline and unfinished oils.
[3]Includes petroleum stored in the Strategic Petroleum Reserve.
[4]Balancing item resulting from statistical inconsistencies.
[5]Includes international bunkers.
*Preliminary data. R=Revised data.
Sources: • 1979 through the 2nd quarter 1980: Energy Information Administration (EIA) *Energy Data Reports,* "Petroleum Statement, Monthly."
• 3rd Quarter 1980 EIA, "Monthly Petroleum Statistics Report" (except exports and domestic production).
• Exports for July 1980 through September 1980 are preliminary data based on the EIA-87 and the Bureau of the Census publications EM 522 and EM 594.
• Domestic production for July 1980 through September 1980 is based on historical data from State Conservation Agencies.
• Sources for the *Energy Data Reports* and the "Monthly Petroleum Statistics Report" are shown on the last page of this section.

Sources for the Petroleum Section

- 1973 through 1976: Bureau of Mines *Mineral Industry Surveys,* "Petroleum Statement, Annual" (except unleaded gasoline) and "PAD Districts Supply/Demand, Annual."
- Unleaded gasoline — Energy Information Administration (EIA) "Monthly Petroleum Statistics Report."
- 1977 and 1978: EIA *Energy Data Reports,* "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."
- January 1979 through June 1980: EIA *Energy Data Reports,* "Petroleum Statement, Monthly" and "PAD Districts Supply/Demand, Monthly."
- July 1980 through September 1980: EIA "Monthly Petroleum Statistics Report"(except domestic production and exports).
- Domestic production for the 4 most recent months are EIA estimates based on historical data from State Conservation Agencies.
- Exports for July 1980 through September 1980 are preliminary data based on Form EIA-87 and the Bureau of the Census publications EM 522 and EM 594.
- Data for the most recent month are estimates based on EIA weekly data.
- Sources for the *Energy Data Reports* and the "Monthly Petroleum Statistics Report" are: EIA Forms EIA-64 (Natural Gas Liquids Operations Report), EIA-87 (Refinery Report), EIA-88 (Bulk Terminals Report), EIA-89 (Pipeline Report) and EIA-90 (Crude Oil Stock Report); Economic Regulatory Administration (ERA) Forms ERA-60 (Imports) and FEA P133 (Imports from Puerto Rico); Bureau of the Census publications IM 145 (Imports), EM 522 (Exports), and EM 594 (Exports); and State Conservation Agencies (Crude Production).

Natural Gas

Consumption of natural gas in the United States during October 1980 was an estimated 1.6 trillion cubic feet (Tcf). This was 19.1 percent higher than in September 1980 and slightly higher than in October 1979. Estimated consumption during the first 10 months of 1980 totaled 16.2 Tcf, 0.6 percent less than during the period January through October 1979.

Production of dry natural gas in October 1980 was an estimated 1.6 Tcf, 5.2 percent higher than in September 1980 and approximately 1.5 percent lower than in October 1979. Output during the first 10 months of 1980 totaled 16.0 Tcf, 0.7 percent less than during the comparable 1979 period.

Imports of natural gas in October 1980 were an estimated 70 Bcf, 34.6 percent less than in the previous October. Receipts of foreign gas during October 1980 included Algerian liquefied natural gas (LNG) equivalent to about 3 Bcf. Imports of natural gas during the period January through October 1980 totaled an estimated 813 Bcf, 21.0 percent less than during the first 10 months of 1979.

Domestic producer sales to major interstate pipelines in September 1980 totaled 800 Bcf, 2.4 percent below sales for the previous September. Total sales during the first 3 quarters of 1980 were 7.8 Tcf, 1.5 percent above those for the comparable 1979 period.

Stocks of working gas* in underground natural gas storage reservoirs at the end of October 1980 totaled 3.2 Tcf, according to preliminary data. This was 3.4 percent above stocks available a year earlier and a record high for the beginning of the winter heating season (November through March). Net injections into storage during October 1980 were 88 Bcf, as compared with 162 Bcf during the previous October.

*Gas available for withdrawal.

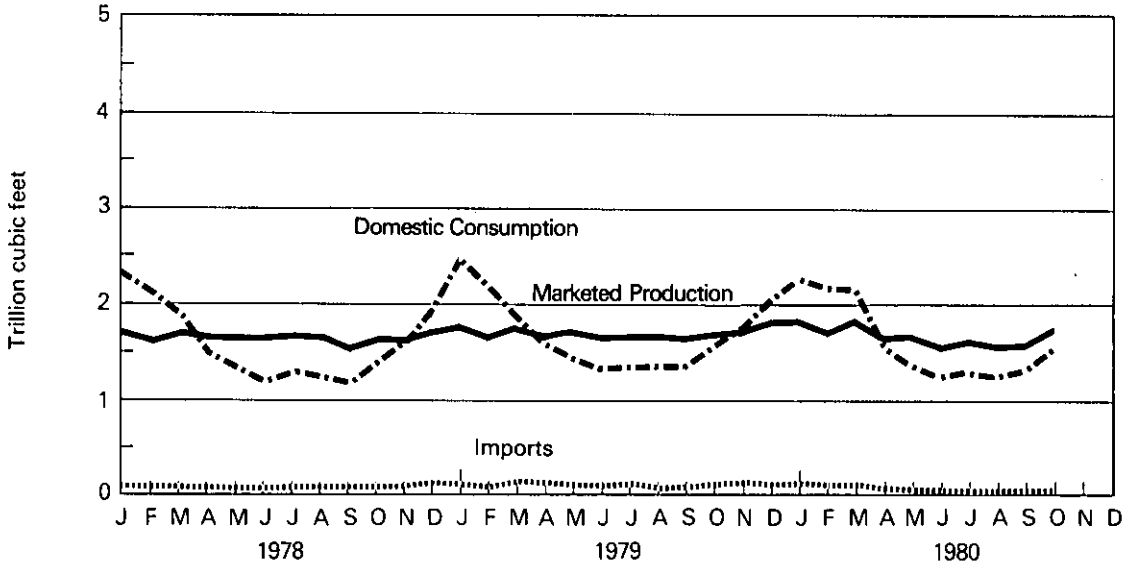
Natural Gas

		Domestic Consumption	Production		Domestic Producer Sales to Major Interstate Pipelines	Imports	Exports
			Marketed	Dry			
		Billion cubic feet					
1973	**TOTAL**	**22,049**	**22,648**	**21,731**	**12,067**	**1,033**	**77**
1974	**TOTAL**	**21,223**	**21,601**	**20,714**	**11,462**	**959**	**77**
1975	**TOTAL**	**19,538**	**20,109**	**19,237**	**10,652**	**953**	**73**
1976	**TOTAL**	**19,946**	**19,952**	**19,098**	**10,140**	**964**	**65**
1977	**TOTAL**	**19,521**	**20,025**	**19,163**	**9,883**	**1,011**	**56**
1978	**TOTAL**	**19,627**	**19,974**	**19,122**	**9,911**	**966**	**53**
1979	January	2,417	1,761	1,686	890	102	6
	February	2,195	1,646	1,576	819	97	5
	March	1,876	1,749	1,674	907	113	5
	April	1,586	1,682	1,610	871	106	5
	May	1,427	1,712	1,639	877	104	5
	June	1,314	1,646	1,576	812	101	5
	July	1,323	1,654	1,583	851	104	6
	August	1,337	1,682	1,610	880	97	4
	September	1,322	1,626	1,557	820	98	5
	October	1,550	1,696	1,624	888	107	3
	November	1,759	1,713	1,640	921	114	3
	December	2,057	1,806	1,729	960	110	4
	TOTAL	**20,163**	**20,373**	**19,504**	**10,496**	**1,253**	**56**
1980	January	2,280	1,817	1,739	981	119	5
	February	2,193	1,705	1,632	898	111	3
	March	2,179	1,827	1,749	960	108	5
	April	1,569	1,667	1,596	897	91	6
	May	1,356	1,692	1,620	859	70	6
	June	1,253	1,583	1,515	794	62	5
	July	1,302	1,613	1,544	825	64	6
	August	R1,246	R1,572	1,510	828	60	5
	September	1,310	1,590	1,520	800	58	4
	October	1,560	1,660	1,600	NA	70	3
	TOTAL (Year-to-date)	**16,248**	**16,734**	**16,025**	**NA**	**813**	**48**

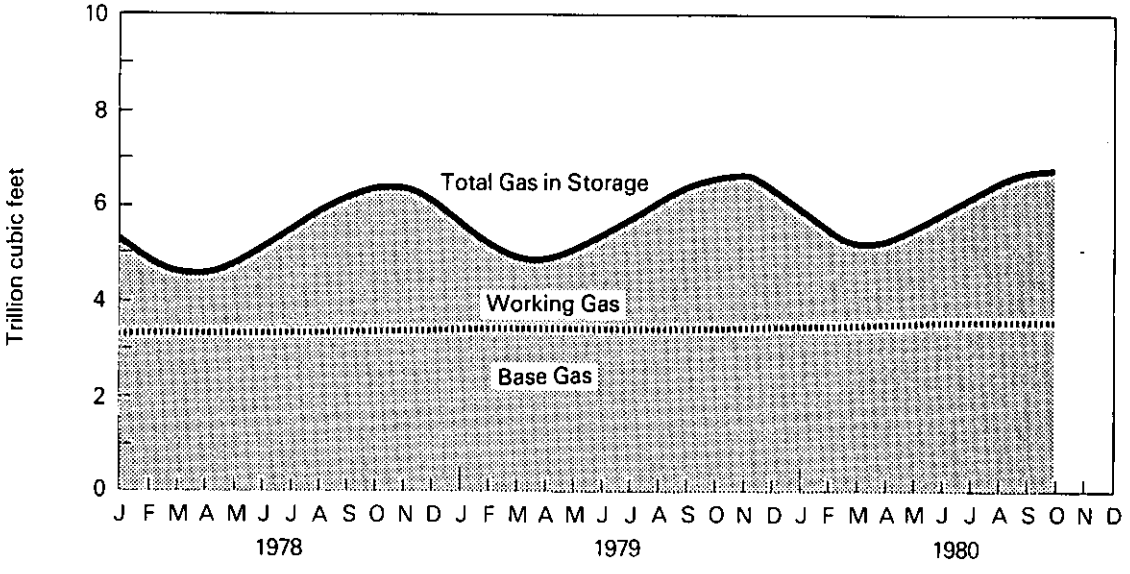
Geographic coverage: the 50 United States and District of Columbia.
R = Revised data. NA = Not available.
Sources: • Domestic Consumption — 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook,* "Natural Gas" chapter; 1977 through 1979: Energy Information Administration (EIA) *Energy Data Report,* "Natural Gas Production and Consumption"; January 1980 forward: EIA estimates based on a supply/disposition balance calculation.
- Production — State reports to the Interstate Oil Compact Commission, data from the United States Geological Survey and EIA estimates for states that do not report monthly data on a regular or timely basis.
- Domestic Producer Sales — Federal Power Commission (FPC) Form 11, "Natural Gas Pipeline Company Monthly Statement."
- Imports — 1973 through 1979: FPC Form 14, "Imports and Exports of Natural Gas"; January 1980 forward: EIA estimates based on import data from FPC Form 11.
- Exports — 1973 through 1979: FPC Form 14; January 1980 forward: EIA estimates based primarily on historical data reported on FPC Form 14.

Natural Gas

Domestic Consumption, Marketed Production and Imports



Gas in Storage



Natural Gas

Natural Gas in Underground Storage[1]

		Total Gas in Storage	Base Gas	Working Gas	Storage Injections	Storage Withdrawals	Net Storage Injections[2]
				Billion cubic feet			
1975		**‡5,358**	**‡3,150**	**‡2,208**	**NA**	**NA**	**NA**
1976		**‡5,231**	**‡3,310**	**‡1,921**	**1,952**	**2,074**	**(122)**
1977		**‡5,844**	**‡3,377**	**‡2,467**	**2,390**	**1,767**	**623**
1978		**‡5,999**	**‡3,459**	**‡2,540**	**2,330**	**2,176**	**154**
1979	January	5,348	3,458	1,890	21	673	(652)
	February	4,806	3,457	1,349	23	566	(543)
	March	4,695	3,459	1,236	94	205	(111)
	April	4,762	3,427	1,335	182	73	109
	May	5,057	3,438	1,619	308	13	295
	June	5,399	3,449	1,950	350	8	342
	July	5,743	3,459	2,284	361	19	342
	August	6,095	3,467	2,628	362	12	350
	September	6,401	3,481	2,920	326	14	312
	October	6,563	3,484	3,079	196	34	162
	November	6,541	3,496	3,045	108	132	(24)
	December	6,297	3,537	2,760	53	292	(239)
1980	January	5,865	3,535	2,330	21	465	(444)
	February	5,397	3,536	1,861	24	493	(469)
	March	5,131	3,542	1,589	41	307	(266)
	April	5,227	3,547	1,680	174	78	96
	May	5,538	3,553	1,985	319	8	311
	June	5,841	3,560	2,281	316	13	303
	July	6,127	3,564	2,563	302	18	284
	August	6,444	3,594	2,850	328	30	298
	September	R6,692	R3,596	R3,096	R260	11	R249
	October	6,782	3,598	3,184	141	53	88

Geographic coverage: the 50 United States and District of Columbia.
R = Revised data.
[1]See Explanatory Note 9.
[2]Net Storage Injections = storage injection minus storage withdrawal. Parentheses indicate withdrawal greater than injection.
‡Total as of December 31.
NA = Not available.
Source: • Energy Information Administration Form 191 and Federal Power Commission Form 8, "Underground Gas Storage Report."

Part 5 Oil and Gas Resource Development

Oil and Gas Resource Development

The October rotary rig count of 3,148 is the highest in U.S. drilling history. The count surpassed the previous record of 3,099 rigs the month before. This represents a 32.3 percent increase over the October 1979 count of 2,380 rotary rigs.

Well completions reported in October 1980 totaled 5,636. This is a 37.5 percent increase from the number reported during October 1979.

Oil well completions reported in October 1980 (2,576 reported) were up 56.4 percent from October 1979 (1,647 reported). In October 1980, 1,275 gas well completions were reported, 12.0 percent above the October 1979 level. Dry hole completions reported increased 35.9 percent (1,785 as compared to 1,313 during the previous October). Total reported footage drilled increased 39.1 percent (26.7 million feet as compared to 19.2 million feet the year before).

There were 41 crews engaged in seismic exploratory work offshore in October 1980. This is a 41.4 percent increase from the October 1979 level. October 1980 onshore seismic activity attained a new high of 530 crews, 30.2 percent higher than activity during October 1979.

Oil and Gas Resource Development

		Rotary Rigs in Operation		Exploratory and Development Wells Completed[1] [2]				Total Footage of Wells Completed[1]
		Monthly average		Oil	Gas	Dry	Total	Thousand feet
1973	**AVERAGE**	**1,194**	**TOTAL**	**9,902**	**6,385**	**10,305**	**26,592**	**136,391**
1974	**AVERAGE**	**1,475**	**TOTAL**	**12,784**	**7,240**	**11,674**	**31,698**	**150,551**
1975	**AVERAGE**	**1,660**	**TOTAL**	**16,408**	**7,580**	**13,247**	**37,235**	**174,434**
1976	**AVERAGE**	**1,656**	**TOTAL**	**17,059**	**9,085**	**13,621**	**39,765**	**181,780**
1977	**AVERAGE**	**2,001**	**TOTAL**	**18,912**	**11,378**	**14,692**	**44,982**	**210,848**
1978	**AVERAGE**	**2,259**	**TOTAL**	**17,775**	**13,064**	**16,218**	**47,057**	**227,110**
1979	January	2,199		1,372	996	1,278	3,646	17,963
	February	2,064		1,463	1,139	1,076	3,678	18,017
	March	1,971		1,544	1,343	1,372	4,259	21,175
	April	1,943		1,135	1,085	926	3,146	16,019
	May	1,960		1,335	1,024	1,166	3,525	17,451
	June	1,999		1,696	1,199	1,252	4,147	19,520
	July	2,094		1,535	1,090	1,131	3,756	16,910
	August	2,222		1,529	1,245	1,366	4,140	19,555
	September	2,284		1,831	1,382	1,423	4,636	22,676
	October	2,380		R1,647	R1,138	R1,313	R4,098	R19,216
	November	2,460		1,867	1,273	1,496	4,636	21,846
	December	2,552		2,383	1,739	1,886	6,008	27,010
	AVERAGE	**2,177**	**TOTAL**	**19,383**	**14,681**	**15,752**	**49,816**	**238,659**
1980	January	2,571		1,440	781	1,243	3,464	16,438
	February	2,613		1,632	1,007	1,311	3,950	18,988
	March	2,658		2,383	1,839	1,547	5,769	27,665
	April	2,682		1,836	1,120	1,168	4,124	18,884
	May	2,797		2,061	1,080	1,202	4,343	20,034
	June	2,850		2,232	1,296	1,463	4,991	24,640
	July	2,953		2,068	1,037	1,333	4,438	21,649
	August	3,045		2,340	1,270	1,537	5,147	24,037
	September	3,099		2,636	1,721	1,761	6,118	28,168
	October	3,148		2,576	1,275	1,785	5,636	26,734
	AVERAGE	**2,843**	**TOTAL**	**21,238**	**12,420**	**14,345**	**48,003**	**227,360**

Geographic coverage: the 50 United States and District of Columbia.
[1]These data are for well completions reported to the American Petroleum Institute during the reporting period. Excludes service wells and stratigraphic and core tests.
[2]Data reported for the first 2 months of each quarter cover 4 weeks of drilling activity, and data for the last month of the quarter cover 5 weeks of drilling activity.
R = Revised data.
Note: Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.
Sources: • Rotary Rigs: Hughes Tool Company, "Rotary Rigs Running—By State."
• Wells: American Petroleum Institute (API), "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States."

Oil and Gas Resource Development

		Crews Engaged in Seismic Exploration			Line-Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore[1]	Onshore[1]	Total[1]
		Monthly average			Annual total		
1973	**AVERAGE**	**23**	**227**	**250**	**258,944**	**127,160**	**386,104**
1974	**AVERAGE**	**31**	**274**	**305**	**341,784**	**158,629**	**500,413**
1975	**AVERAGE**	**30**	**254**	**284**	**309,283**	**150,694**	**459,977**
1976	**AVERAGE**	**25**	**237**	**262**	**226,303**	**142,926**	**369,229**
1977	**AVERAGE**	**27**	**281**	**308**	**124,676**	**120,072**	**244,748**
1978	**AVERAGE**	**25**	**327**	**352**	**174,607**	**135,899**	**310,506**
1979	January	28	327	355			
	February	29	321	350			
	March	32	332	364			
	April	30	330	360			
	May	28	355	383			
	June	32	372	404			
	July	31	376	407			
	August	31	393	424			
	September	30	403	433			
	October	29	407	436			
	November	31	408	439			
	December	31	419	450			
	AVERAGE	**30**	**370**	**400**	**193,212**	**163,929**	**357,141**
1980	January	29	439	468			
	February	29	440	469			
	March	29	448	477			
	April	31	465	496			
	May	34	468	502			
	June	39	496	535			
	July	42	514	556			
	August	44	521	565			
	September	44	523	567			
	October	41	530	571			
	AVERAGE	**36**	**485**	**521**			

Geographic coverage: the 50 United States and District of Columbia.
[1]Monthly data not available.
Sources: • Society of Exploration Geophysicists, "Monthly Seismic Crew Count" and annual reports published in their bulletin, *Geophysics.*

Coal

Coal production in September 1980 was 74.1 million tons, 14.7 percent above the 64.6 million tons produced in September 1979. Production in the first 9 months of 1980 totaled 625.6 million tons, 9.1 percent higher than production in the first 9 months of 1979.

Imports of coal in September 1980 totaled only 2,000 tons. In September 1979, 0.2 millions tons of coal were imported. Exports of coal in September 1980 totaled 8.4 million tons, 3.2 million tons more than the amount exported during September 1979. During September 1980, coal exports were principally to Japan (25.6 percent) and Canada (18.6 percent).

Electric utility coal consumption in September 1980 totaled 47.9 million tons, 5.7 million tons more than consumption in September 1979. Coke plants, the second largest coal consuming sector, used 4.8 million tons in September 1980, 24.3 percent below the amount consumed in September 1979.

Electric utility stockpiles increased from 139.1 million tons at the end of September 1979 to 175.1 million tons at the end of September 1980. Coal stocks held by coke plants declined from 9.0 million tons at the end of September 1979 to 8.2 million tons at the end of September 1980.

Coal

Coal

Bituminous, Lignite, and Anthracite

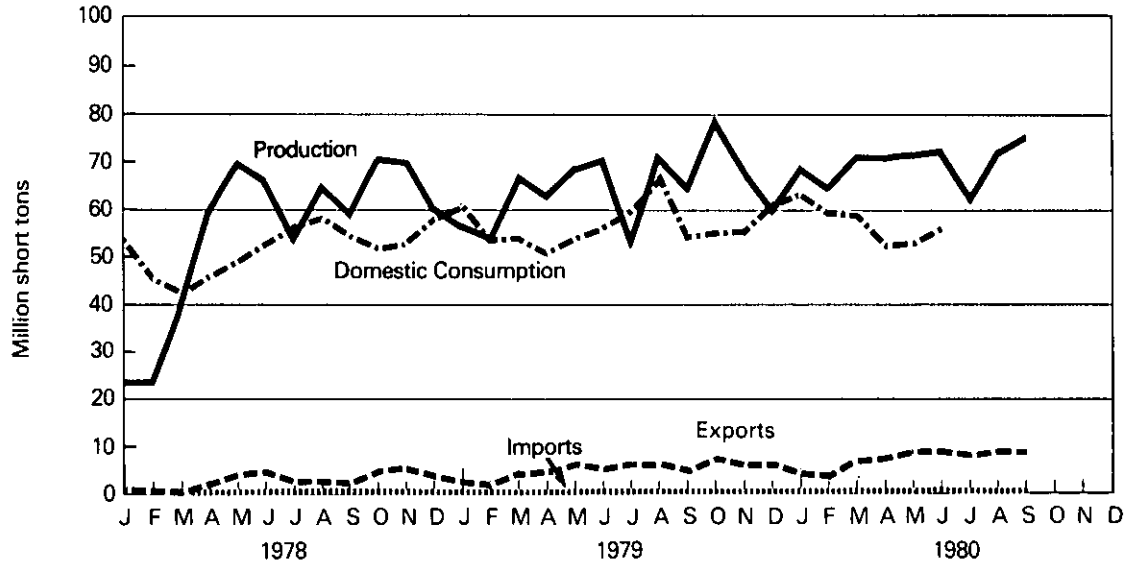
		Production	Domestic Consumption	Imports[1]	Exports[2,3]	Stocks[4]
				Thousand short tons		
1973	**TOTAL**	**598,568**	**562,584**	**127**	**53,587**	**104,335**
1974	**TOTAL**	**610,023**	**558,402**	**2,080**	**60,661**	**96,323**
1975	**TOTAL**	**654,641**	**562,641**	**940**	**66,309**	**128,050**
1976	**TOTAL**	**684,913**	**603,791**	**1,203**	**60,021**	**134,438**
1977	**TOTAL**	**697,205**	**625,290**	**1,647**	**54,312**	**157,098**
1978	**TOTAL**	**670,164**	**625,225**	**2,953**	**40,691**	**145,551**
1979	January	57,794	61,199	186	3,605	136,425
	February	54,810	54,463	252	2,726	129,042
	March	66,775	54,864	123	4,642	134,044
	April	63,937	51,601	161	5,268	142,328
	May	69,488	54,026	112	6,215	151,269
	June	70,698	56,025	209	5,975	155,406
	July	53,595	60,397	88	6,297	148,265
	August	71,616	60,750	320	6,248	152,787
	September	64,590	54,219	180	5,146	158,016
	October	78,563	55,719	152	7,446	169,633
	November	68,506	55,997	130	6,170	177,722
	December	60,762	61,263	146	6,278	181,646
	TOTAL	**781,134**	**680,524**	**2,059**	**66,016**	
1980	January	68,276	63,615	121	4,460	179,424
	February	64,678	59,761	193	4,041	176,772
	March	70,326	58,904	93	5,633	176,637
	April	R70,381	52,641	63	7,563	183,956
	May	R70,899	52,842	207	8,597	193,782
	June	R71,850	56,107	104	8,899	199,110
	July	62,750	NA	32	8,247	NA
	August	72,295	NA	166	9,270	NA
	September	74,100	NA	2	8,364	NA
	TOTAL (Year-to-date)	**625,555**	**NA**	**981**	**65,074**	**NA**

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
See Explanatory Note 10 for methodology used to calculate domestic consumption from 1978 forward.
[1]Bituminous coal is the only type of coal imported during the years shown above.
[2]Data include bituminous coal and anthracite only from 1973 through 1979. 1980 includes lignite (about 2,000 short tons in September 1980).
[3]Excludes shipments of anthracite to U.S. Armed Forces overseas (300,000 tons in 1979).
[4]Stocks held by electric utilities, coke plants, and the other Industrial Sector at the end of period.
NA = Not available. R = Revised data.
Sources: • See Sources on the last page of this section.

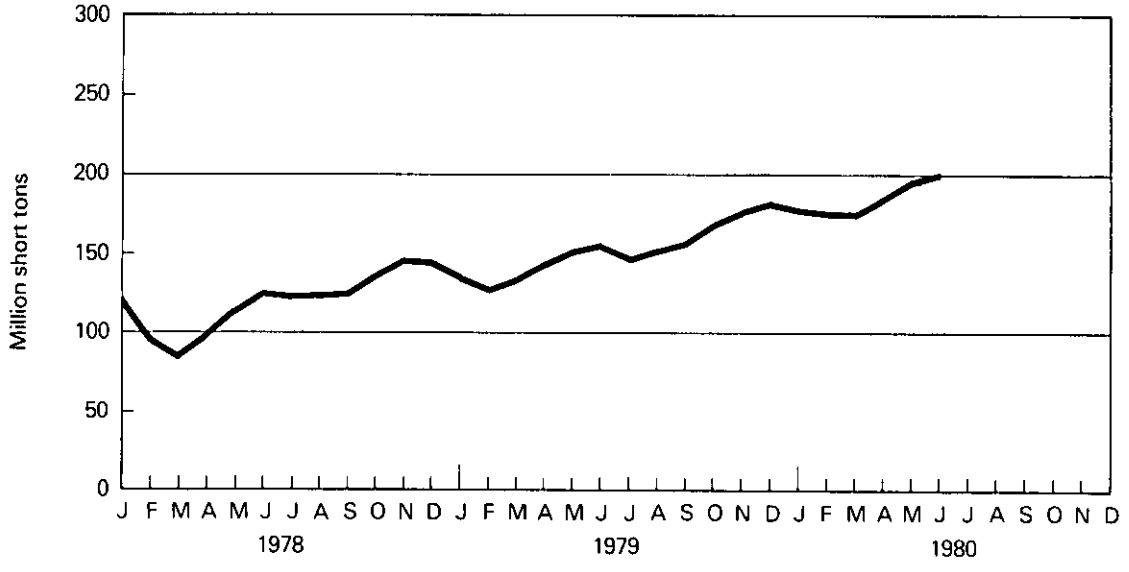
Coal

Bituminous, Lignite, and Anthracite

Domestic Production, Consumption, Imports, and Exports



Stocks



Coal

Consumption — Bituminous, Lignite, and Anthracite

		Electric Utilities	Industrial		Residential and Commercial	Total
			Coke Plants[1]	Other Industrial[2] Including Transportation		
		Thousand short tons				
1973	**TOTAL**	**389,212**	**94,101**	**68,154**	**11,117**	**562,584**
1974	**TOTAL**	**391,811**	**90,191**	**64,983**	**11,417**	**558,402**
1975	**TOTAL**	**405,962**	**83,598**	**63,670**	**9,410**	**562,641**
1976	**TOTAL**	**448,371**	**84,704**	**61,800**	**8,916**	**603,791**
1977	**TOTAL**	**477,126**	**77,739**	**61,472**	**8,954**	**625,290**
1978	**TOTAL**	**481,235**	**71,394**	**63,085**	**9,511**	**625,225**
1979	January	46,902	6,578	6,428	1,291	61,199
	February	41,891	5,954	5,836	782	54,463
	March	41,781	6,850	5,617	616	54,864
	April	38,979	6,558	5,511	553	51,601
	May	41,532	6,725	5,269	500	54,026
	June	44,008	6,470	5,034	513	56,025
	July	48,216	6,513	5,223	445	60,397
	August	48,549	6,417	5,363	421	60,750
	September	42,167	6,334	5,159	559	54,219
	October	42,970	6,404	5,565	780	55,719
	November	42,980	6,138	5,946	933	55,997
	December	47,075	6,427	6,766	995	61,263
	TOTAL	**527,051**	**77,368**	**67,717**	**8,388**	**680,524**
1980	January	50,369	6,343	5,923	980	63,615
	February	47,513	6,010	5,380	858	59,761
	March	46,685	6,428	5,179	612	58,904
	April	40,692	6,247	5,132	570	52,641
	May	41,464	6,127	4,907	344	52,842
	June	45,821	5,326	4,688	272	56,107
	July	53,582	4,903	NA	NA	NA
	August	53,214	4,878	NA	NA	NA
	September	47,913	4,794	NA	NA	NA
	TOTAL (Year-to-date)	**427,253**	**51,056**	**NA**	**NA**	**NA**

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]Bituminous coal and anthracite only. Lignite is not used at coke plants.
[2]See Explanatory Note 10.
NA = Not available.
Sources: • See Sources on the last page of this section.

Coal

Stocks[1]—Bituminous, Lignite, and Anthracite

		Electric Utilities	Industrial		Total
			Coke Plants[2]	Other Industrial	
		Thousand short tons			
1973		**86,967**	**6,998**	**10,370**	**104,335**
1974		**83,509**	**6,209**	**6,605**	**96,323**
1975		**110,724**	**8,797**	**8,529**	**128,050**
1976		**117,436**	**9,902**	**7,100**	**134,438**
1977		**133,219**	**12,816**	**11,063**	**157,098**
1978		**128,225**	**8,278**	**9,048**	**145,551**
1979	January	119,948	7,647	8,830	136,425
	February	114,394	6,763	7,885	129,042
	March	118,542	7,561	7,941	134,044
	April	125,776	8,482	8,070	142,328
	May	133,793	9,228	8,248	151,269
	June	136,627	10,051	8,728	155,406
	July	131,095	8,306	8,864	148,265
	August	134,257	9,021	9,509	152,787
	September	139,129	9,036	9,851	158,016
	October	149,949	9,724	9,960	169,633
	November	157,737	9,983	10,002	177,722
	December	159,714	10,155	11,777	181,646
1980	January	158,707	9,634	11,083	179,424
	February	157,120	9,263	10,389	176,772
	March	157,625	9,317	9,695	176,637
	April	164,524	9,579	9,907	184,010
	May	174,044	9,692	10,119	193,855
	June	178,959	9,913	R10,238	R199,110
	July	R166,852	8,427	NA	NA
	August	171,891	7,866	NA	NA
	September	175,067	8,213	NA	NA

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]Stocks held by utilities, coke plants, and general industry at end of period.
[2]Bituminous coal and anthracite only. Lignite is not used at coke plants.
NA = Not available. R=Revised data.
Sources: • See Sources on the last page of this section.

Sources for the Coal Section

- 1973 through September 1977: Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys.*
- October 1977 forward: Production: Association of American Railroads, Statement CS54A; Commonwealth of Pennsylvania, Department of Environmental Resources, "Anthracite Mines—Monthly Tonnage, Manhour and Accident Report" and "Annual Report on Mining, Oil and Gas, and Land Reclamation and Conservation Activities"; Energy Information Administration (EIA) "Weekly Coal Report," "Bituminous Coal and Lignite Quarterly Distribution Report" (Form EIA-6), "Bituminous Coal and Lignite, Production and Mine Operation—Annual Report" (Form EIA-7), and Bureau of Mines Form 6–1385A, "Pennsylvania Anthracite Production, Mines Without Preparation Plants," BOM Form 6–1387A, "Pennsylvania Anthracite Production, Contractor's Report," BOM Form 6–1388A, "Pennsylvania Anthracite Production, River Coal Report"; and Various States, Annual Coal Mining Reports.
- October 1977 forward: Domestic Consumption and Stocks: EIA, "Monthly Power Plant Report" (FPC Form 4), "Monthly Fuel Consumption Report—Manufacturing Plants" (Form EIA-3), "Coke and Coal Chemicals—Monthly/Annual" (Form EIA-5/5A), "Bituminous Coal and Lignite—Quarterly Distribution Report" (Form EIA-6) and "Monthly Coal Report, Retail Dealers and Upper Lakes Docks" (Form EIA-2).
- October 1977 forward: Imports/Exports: Bureau of the Census, Monthly Reports IM 145 (Imports) and EM 552 (Exports).

Part 7 Electric Utilities

Electric Utilities

September 1980 production of electricity by utilities was 191.5 billion kilowatt-hours, 5.9 percent above the September 1979 production level. Coal-fired production totaled 97.6 billion kilowatt-hours, natural gas-fired production totaled 33.6 billion kilowatt-hours, and nuclear production totaled 23.6 billion kilowatt-hours. These figures reflect increases of 13.9, 6.8, and 8.1 percent, respectively, above the September 1979 output levels. Petroleum-fired production totaled 17.8 billion kilowatt-hours, and hydroelectric production totaled 18.5 billion kilowatt-hours, 20.8 and 2.6 percent, respectively, below the September 1979 levels.

Sales of electricity to all ultimate consumers in the United States in September 1980 totaled 190.1 billion kilowatt-hours, a decrease of 3.1 percent from sales of the month before and 5.8 percent above September 1979 sales. Sales to residential consumers during September 1980 were 68.0 billion kilowatt-hours, 13.8 percent above sales for the corresponding month in 1979. Commercial sales were 46.0 billion kilowatt-hours, 8.3 percent more than the amount for September 1979. Sales to industrial consumers totaled 69.6 billion kilowatt-hours in September 1980, about 2.0 percent less than the September 1979 figure. In September 1980 other sales totaled 6.6 billion kilowatt-hours, 2.3 percent below the September 1979 level.

Electric utility petroleum consumption during September 1980 was 30.7 million barrels, a 20.4 percent drop from the September 1979 level. Coal consumption for September 1980 was 47.9 million tons, 13.6 percent above the September 1979 rate. During September 1980, consumption of natural gas by electric utilities was 357.2 billion cubic feet, 5.6 percent above the September 1979 consumption level.

On September 30, 1980, utility stocks of anthracite, bituminous and lignite totaled 175.1 million tons. Stockpiles were 25.8 percent above the levels of September 1979.

Petroleum stocks (excluding petroleum coke) on September 30, 1980, totaled 140.1 million barrels, 13.3 percent above the levels for the same month of 1979.

Electric Utilities

Net Electricity Production by Primary Energy Source

		Coal[1]	Petroleum[2]	Natural Gas	Nuclear	Hydro	Other[3]	Total
				Million kilowatt-hours				
1973	**TOTAL**	**847,651**	**314,343**	**340,858**	**83,479**	**272,083**	**2,294**	**1,860,710**
1974	**TOTAL**	**828,433**	**300,931**	**320,065**	**113,976**	**301,032**	**2,703**	**1,867,140**
1975	**TOTAL**	**852,786**	**289,095**	**299,778**	**172,505**	**300,047**	**3,437**	**1,917,649**
1976	**TOTAL**	**944,391**	**319,988**	**294,624**	**191,104**	**283,707**	**3,883**	**2,037,696**
1977	**TOTAL**	**985,219**	**358,179**	**305,505**	**250,883**	**220,475**	**4,063**	**2,124,323**
1978	**TOTAL**	**975,742**	**365,060**	**305,391**	**276,403**	**280,419**	**3,315**	**2,206,331**
1979	January	94,986	39,474	22,093	27,792	25,021	326	209,692
	February	84,748	32,274	21,844	25,911	21,275	285	186,337
	March	85,220	22,076	24,916	24,335	25,921	382	182,849
	April	80,450	20,599	24,763	18,418	25,389	342	169,962
	May	86,149	21,470	26,135	15,025	28,939	350	178,069
	June	90,817	24,367	30,107	16,065	24,979	347	186,682
	July	97,879	25,750	34,676	20,825	22,761	364	202,255
	August	97,910	26,123	34,949	24,204	21,260	405	204,850
	September	85,664	22,509	31,442	21,804	18,978	354	180,751
	October	87,528	20,279	30,419	20,934	20,167	389	179,716
	November	87,456	23,380	24,661	19,255	22,367	387	177,506
	December	96,230	25,223	23,481	20,586	22,727	456	188,703
	TOTAL	**1,075,037**	**303,525**	**329,485**	**255,155**	**279,783**	**4,387**	**2,247,372**
1980	January	103,147	25,099	26,350	19,746	25,297	388	200,027
	February	98,148	24,784	24,748	19,277	21,378	373	188,708
	March	95,387	20,419	26,964	20,039	24,332	401	187,542
	April	83,534	16,064	24,015	18,794	25,745	410	168,562
	May	84,882	16,560	26,573	18,385	28,866	468	175,733
	June	93,690	18,034	31,282	18,322	27,656	445	189,430
	July	C107,891	C23,293	C39,060	21,024	C24,418	475	C216,160
	August	107,580	24,889	C37,640	24,333	20,476	517	C215,435
	September	97,556	17,816	33,572	23,578	18,491	469	191,483
	TOTAL (Year-to-date)	**871,815**	**186,958**	**270,203**	**183,498**	**216,659**	**3,946**	**1,733,080**

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]Includes Bituminous, Lignite, and Anthracite.
[2]Includes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.
[3]Includes geothermal, wood and waste.
C=Corrected.
Source: •Federal Power Commission Form 4, "Monthly Power Plant Report".

Electric Utilities

Electricity Sales[1]

		Residential	Commercial	Industrial	Other[2]	Total
				Million kilowatt-hours		
1973	**TOTAL**	**579,231**	**388,266**	**686,085**	**59,326**	**1,712,909**
1974	**TOTAL**	**578,184**	**384,826**	**684,875**	**58,039**	**1,705,924**
1975	**TOTAL**	**584,712**	**401,674**	**675,271**	**68,153**	**1,729,810**
1976	**TOTAL**	**602,863**	**423,639**	**739,965**	**69,557**	**1,836,024**
1977	**TOTAL**	**641,134**	**444,931**	**772,291**	**70,489**	**1,928,845**
1978	**TOTAL**	**671,094**	**459,908**	**800,656**	**73,152**	**2,004,814**
1979	January	69,939	40,362	68,324	6,762	185,387
	February	67,842	39,865	67,632	6,176	181,515
	March	59,314	38,123	69,783	6,029	173,249
	April	50,079	35,930	69,944	5,604	161,557
	May	45,730	36,398	71,798	5,625	159,551
	June	49,556	39,689	71,919	5,696	166,860
	July	58,606	42,773	70,984	5,976	178,339
	August	64,808	44,199	71,956	6,346	187,310
	September	R59,703	R42,498	R71,014	R6,425	R179,641
	October	R49,505	R38,820	R71,472	R6,151	R165,948
	November	R49,617	R36,711	R69,780	R6,163	R162,271
	December	58,437	37,952	67,283	6,142	169,815
	TOTAL	**R683,136**	**R473,320**	**R841,889**	**R73,095**	**R2,071,443**
1980	January	65,852	39,516	67,634	6,658	179,660
	February	64,503	39,600	68,384	6,171	178,658
	March	60,497	38,784	69,058	6,028	174,368
	April	51,749	36,436	68,007	5,510	161,703
	May	45,699	36,110	67,235	5,807	154,851
	June	52,267	40,129	66,739	5,737	164,872
	July	68,611	45,525	65,531	6,215	185,882
	August	74,893	47,679	67,377	6,255	196,205
	September	67,969	46,028	69,570	6,572	190,139
	TOTAL (Year-to-date)	**552,040**	**369,807**	**609,535**	**54,953**	**1,586,338**

Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
[1]Electricity sales to all ultimate consumers.
[2]Includes street lighting and transportation uses.
R = Revised data.
Source: • 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: Federal Energy Regulatory Commission Form 5, "Electric Utility Company Monthly Statement."

Electric Utilities

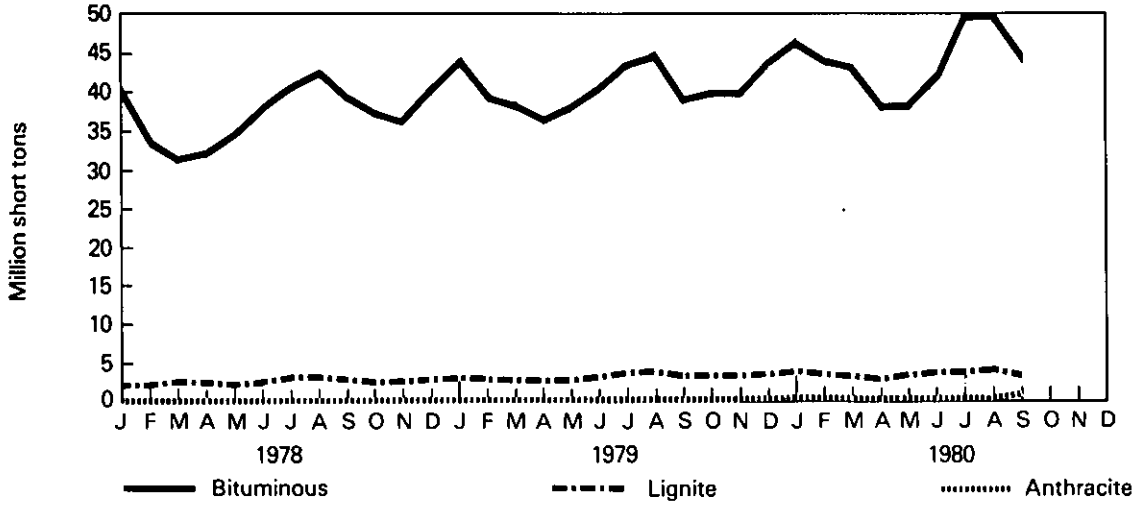
Primary Energy Consumed to Produce Electricity

		Coal				Petroleum			Natural Gas
		Anthracite	Bituminous	Lignite	Total	Steam	Gas Turb./ Int. Comb.	Coke	
		Thousand short tons				Thousand barrels		Thousand short tons	Million cubic feet
1973	**TOTAL**	**1,443**	**376,975**	**10,794**	**389,212**	**513,190**	**47,058**	**507**	**3,660,172**
1974	**TOTAL**	**1,498**	**378,643**	**11,670**	**391,811**	**483,146**	**53,128**	**625**	**3,443,428**
1975	**TOTAL**	**1,480**	**388,523**	**15,960**	**405,962**	**467,221**	**38,907**	**70**	**3,157,669**
1976	**TOTAL**	**1,350**	**425,205**	**21,817**	**448,371**	**514,077**	**41,843**	**68**	**3,080,868**
1977	**TOTAL**	**1,425**	**451,051**	**24,650**	**477,126**	**574,869**	**48,837**	**98**	**3,191,200**
1978	**TOTAL**	**1,064**	**448,763**	**31,407**	**481,235**	**588,319**	**47,520**	**398**	**3,188,363**
1979	January	89	43,791	3,021	46,902	62,226	6,244	33	228,479
	February	75	39,010	2,806	41,891	51,655	4,959	32	226,896
	March	65	38,865	2,852	41,781	36,371	1,872	22	260,351
	April	66	36,362	2,551	38,979	33,800	1,682	15	260,974
	May	106	38,669	2,757	41,532	35,285	2,053	23	277,318
	June	103	40,882	3,023	44,008	39,258	2,314	25	320,196
	July	96	44,391	3,730	48,216	41,895	2,413	23	369,318
	August	97	44,553	3,899	48,549	42,478	2,416	23	375,370
	September	86	38,920	3,162	42,167	36,768	1,747	17	338,308
	October	75	39,634	3,261	42,970	33,445	1,132	16	323,082
	November	92	39,571	3,317	42,980	37,822	1,954	18	260,982
	December	96	43,480	3,499	47,075	41,601	1,906	20	249,249
	TOTAL	**1,046**	**488,129**	**37,876**	**527,051**	**492,606**	**30,691**	**268**	**3,490,523**
1980	January	74	46,516	3,779	50,369	41,107	2,197	54	276,784
	February	72	43,969	3,471	47,513	40,238	1,920	21	263,709
	March	83	43,244	3,357	46,685	33,413	1,397	13	283,845
	April	71	37,971	2,651	40,692	27,030	673	7	256,606
	May	86	38,116	3,262	41,464	27,090	841	11	281,862
	June	89	42,073	3,658	45,821	29,635	1,139	11	336,894
	July	93	49,743	3,746	53,582	37,298	2,801	11	C420,339
	August	80	49,077	4,057	53,214	40,165	2,832	15	C405,292
	September	84	44,487	3,342	47,913	29,374	1,289	11	357,152
	TOTAL (Year-to-date)	**733**	**395,197**	**31,323**	**427,253**	**305,352**	**15,089**	**155**	**2,882,480**

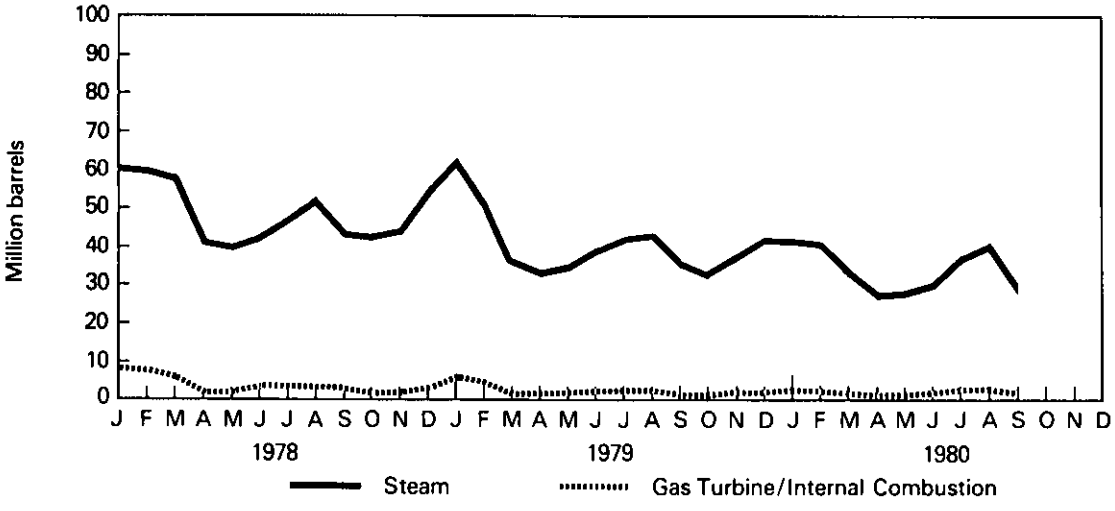
Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
C = Corrected.
Source: • Federal Power Commission Form 4, "Monthly Power Plant Report."

Electric Utilities

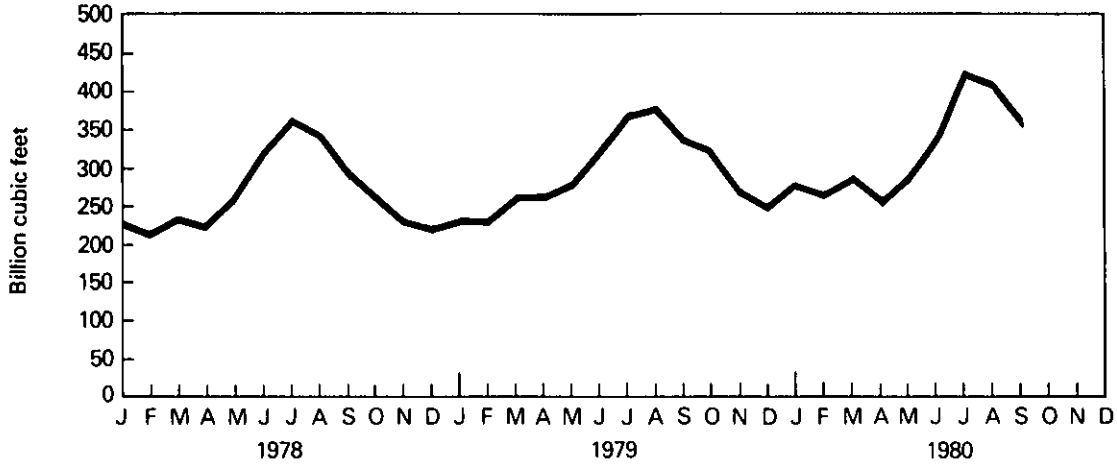
Coal Consumption



Petroleum Consumption



Natural Gas Consumption



Electric Utilities

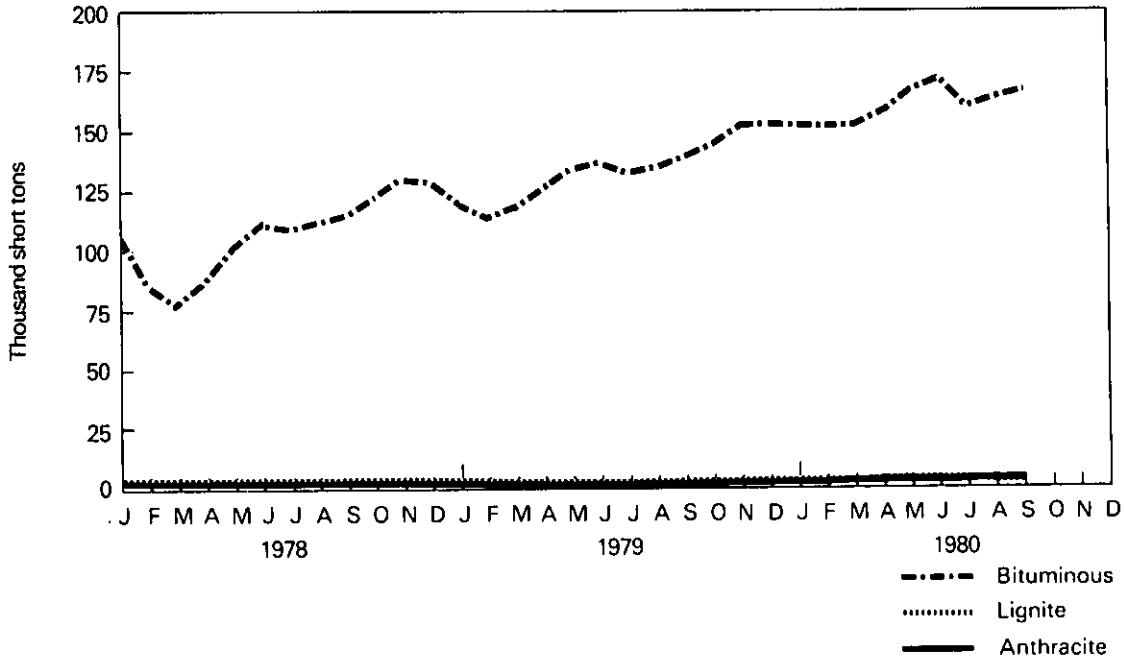
End-of-Month Coal and Petroleum Stocks

		Coal				Petroleum		
		Anthracite	Bituminous	Lignite	Total	Steam	Gas Turb./ Int. Comb.	Coke
		Thousand short tons				Thousand barrels		Thousand short tons
1973		**‡1,066**	**‡84,941**	**‡961**	**‡86,967**	**‡79,121**	**‡10,095**	**‡312**
1974		**‡930**	**‡81,712**	**‡867**	**‡83,509**	**‡97,718**	**‡15,199**	**‡35**
1975		**‡982**	**‡107,927**	**‡1,815**	**‡110,724**	**‡108,825**	**‡16,432**	**‡31**
1976		**‡1,000**	**‡114,130**	**‡2,306**	**‡117,436**	**‡106,993**	**‡14,703**	**‡32**
1977		**‡2,321**	**‡128,210**	**‡2,688**	**‡133,219**	**‡124,750**	**‡19,281**	**‡44**
1978		**‡2,178**	**‡123,020**	**‡3,027**	**‡128,225**	**‡102,402**	**‡16,386**	**‡198**
1979	January	2,154	114,980	2,814	119,948	89,583	15,635	181
	February	2,136	109,532	2,726	114,394	82,078	15,541	166
	March	2,170	113,669	2,704	118,542	96,033	16,386	170
	April	2,220	120,876	2,680	125,776	99,500	16,835	170
	May	2,231	128,962	2,600	133,793	106,017	16,974	159
	June	2,233	131,898	2,495	136,627	104,513	17,180	150
	July	2,290	126,328	2,478	131,095	104,170	17,578	160
	August	2,328	128,760	3,170	134,257	103,965	17,910	163
	September	2,385	133,605	3,139	139,129	104,857	18,733	164
	October	2,452	144,035	3,462	149,949	109,590	19,410	170
	November	2,496	151,848	3,393	157,737	111,072	19,714	170
	December	3,274	152,981	3,459	159,714	111,121	20,301	183
1980	January	3,371	151,881	3,455	158,707	114,007	19,607	175
	February	3,451	150,147	3,522	157,120	111,362	19,050	168
	March	3,488	151,022	3,116	157,625	116,291	18,909	154
	April	3,533	157,148	3,843	164,524	118,803	19,176	103
	May	3,725	166,339	3,980	174,044	122,832	19,463	69
	June	3,838	171,041	4,079	178,959	124,781	19,216	65
	July	3,955	159,205	3,691	166,852	C121,622	20,490	65
	August	4,098	163,756	4,036	171,891	118,524	19,043	63
	September	4,291	166,515	4,262	175,067	122,235	17,818	61

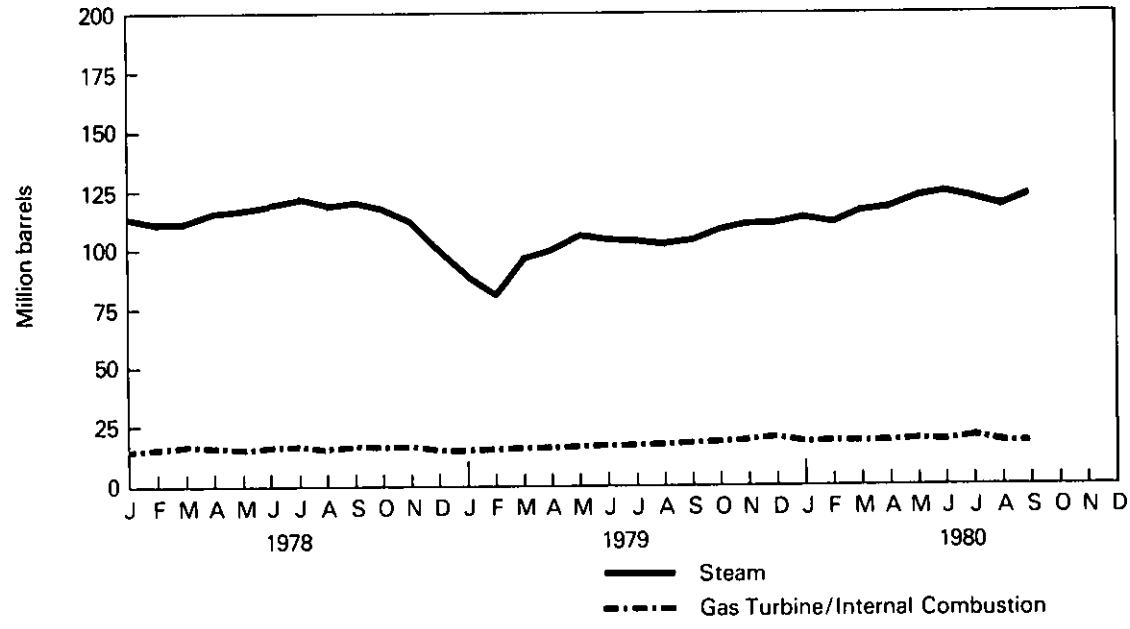
Geographic coverage: the 50 United States and District of Columbia.
Totals may not equal sum of components due to independent rounding.
‡Total as of December 31.
C = Corrected.
Source: • Federal Power Commission Form 4, "Monthly Power Plant Report."

Electric Utilities

Coal Stocks (Bituminous, Lignite, and Anthracite)



Petroleum Stocks



Part 8

Nuclear

During September the 74 domestic reactor units generated a total of 23.6 billion net kilowatt hours of electricity, 3.1 percent below the August 1980 level but 8.1 percent above the September 1979 level. Capacity utilization for September was narrowly above the August level but was two percent above the September 1979 level.

As of September, 68 power reactors were in commercial operation, two (Sequoyah-1 and North Anna-2) were in power ascendency and one plant (Salem-2) was in fuel loading phase. The operations of three additional powers reactors (Dresden-1, Humboldt Bay and Three Mile Island-2) have been indefinitely suspended for various reasons; however, they are carried in the accompanying reactor-status table.

As of September 30, 1980, the total number of reactor units planned, in startup or licensed for commercial operation was 176; this level has remained unchanged since March of this year but is 14 below the September 1979 level.

Nuclear

Nuclear

Domestic Nuclear Powerplant Operations

		Reactors Licensed For Commercial Operation[1]	Nuclear-Based Electricity Generation[2]	Nuclear Portion of Domestic Electricity Generation	Maximum Dependable Capacity[3]	Capacity Factor[4]
			Million net kilowatts-hours	Percent	Million net kilowatts	Percent
1973	**AVERAGE**	**40**	**83,479**	**4.5**	**13.850**	**63.2**
1974	**AVERAGE**	**53**	**113,976**	**6.1**	**29.921**	**43.5**
1975	**AVERAGE**	**56**	**172,505**	**9.0**	**35.671**	**55.2**
1976	**AVERAGE**	**62**	**191,104**	**9.4**	**40.642**	**53.5**
1977	**AVERAGE**	**67**	**250,883**	**11.8**	**45.554**	**62.9**
1978	**AVERAGE**	**71**	**276,403**	**12.5**	**49.385**	**63.9**
1979	January	71	27,792	13.3	50.771	73.6
	February	71	25,911	13.9	50.720	76.0
	March	71	24,335	13.3	50.720	64.5
	April	71	18,418	10.8	50.705	50.5
	May	71	15,025	8.4	50.705	39.8
	June	71	16,065	8.6	50.705	44.0
	July	71	20,825	10.3	50.759	55.1
	August	71	24,204	11.8	50.732	64.1
	September	71	21,804	12.1	50.781	59.6
	October	71	20,934	11.6	50.814	55.7
	November	71	19,255	10.8	49.917	53.6
	December	71	20,586	11.0	49.937	55.4
	AVERAGE	**71**	**255,155**	**11.4**	**50.604**	**57.6**
1980	January	71	19,746	9.9	49.945	53.1
	February	72	19,277	10.2	51.055	54.3
	March	72	20,039	10.7	51.031	52.8
	April	74	18,794	11.1	53.040	49.3
	May	74	18,385	10.5	53.040	46.6
	June	74	18,322	9.7	53.040	48.0
	July	74	21,024	9.7	R54.064	R52.3
	August	74	24,333	11.3	R53.957	R60.6
	September	74	23,578	12.3	53.855	60.8
	AVERAGE	**74**	**183,498**	**10.6**	**52.559**	**53.1**

Geographic coverage: the 50 United States and District of Columbia.
[1]From Reactor Status Table.
[2]Electricity generation entries represent yearly or monthly totals rather than averages.
[3]See Explanatory Note 11 and Definitions.
[4]Average percentage of Maximum Dependable Capacity utilized yearly or monthly.
Sources: • Capacity data for units in commercial operation or start-up testing—Nuclear Regulatory Commission.
• Nuclear Regulatory Commission Report NUREG 0020, "Operating Units Status Report."
• Federal Power Commission Form 4, "Monthly Power Plant Report."

Nuclear

Status of Nuclear Reactor Units[1]

		Reactors Licensed For Commercial Operations[2]	Construction Permits Granted	Construction Permits Pending	Reactor Units on Order	Reactor Units Announced	Total Reactor Units	Total Design Capacity (Million Gross Kilowatts)
1973		**40**	**51**	**58**	**48**	**20**	**217**	**212**
1974		**53**	**58**	**80**	**28**	**16**	**235**	**234**
1975		**56**	**69**	**73**	**19**	**19**	**236**	**236**
1976		**62**	**72**	**66**	**16**	**19**	**235**	**236**
1977		**67**	**80**	**52**	**13**	**9**	**221**	**220**
1978		**71**	**90**	**32**	**9**	**4**	**206**	**204**
1979	January	71	92	30	5	1	199	195
	February	71	92	28	5	1	197	193
	March	71	92	28	5	1	197	193
	April	71	92	27	5	0	195	190
	May	71	92	27	5	0	195	190
	June	71	92	27	5	0	195	190
	July	71	91	25	5	0	192	187
	August	71	91	25	5	0	192	187
	September	71	91	25	3	0	190	185
	October	71	91	25	3	0	190	185
	November	71	91	23	3	0	188	182
	December	71	91	21	3	0	186	180
1980	January	71	90	17	3	0	181	174
	February	72	89	16	3	0	180	173
	March	72	87	14	3	0	176	168
	April	74	85	14	3	0	176	168
	May	74	85	14	3	0	176	168
	June	74	85	14	3	0	176	168
	July	74	85	14	3	0	176	168
	August	74	85	14	3	0	176	168
	September	74	85	14	3	0	176	168

Geographic coverage: the 50 United States and District of Columbia.
[1]Monthly data are recorded the last day of the month. Annual data are recorded as of December 31 of each year.
[2]These figures include reactors in fuel-loading, power-testing, and power-ascendancy phases as well as reactors that have been licensed but which are shut down for indefinite periods, including: Dresden-1, which is undergoing major modifications; Humboldt Bay, which is shut down for seismic modifications and Three Mile Island-2, shut down due to an accident in March 1979. Also includes two Department of Energy, dual-purpose reactors (Shippingport and Hanford) which are licensed to generate electricity on a commercial basis. Does not include the Indian Point-1 reactor since it is soon to be decommissioned.
Sources: • Compiled by the Energy Information Administration from various sources, but primarily from the Nuclear Regulatory Commission (NRC), Report NUREG 0380, "Program Summary Report."

Price

Crude Oil

The average price of domestic crude oil purchased at the wellhead was $22.63 per barrel in August 1980. The Alaskan North Slope price increased to $14.38 per barrel. Actual stripper price of $35.71 per barrel was a 1.5 percent decrease from the July 1980 price. The Naval Petroleum Reserve crude oil price of $32.96 per barrel decreased 0.9 percent below the July 1980 level. The upper tier price of $14.60 per barrel increased by 0.2 percent above the previous month's figure, and the lower tier price of $6.60 per barrel was 0.7 percent above the July 1980 price.

During September 1980, the composite refiner acquisition cost of crude oil was $28.96 per barrel, $0.26 per barrel (0.9 percent) above the previous month's price. The imported price increased $0.02 per barrel from the August 1980 level to $34.46 per barrel in September. This price was 0.1 percent above the previous month's level and 37.5 percent above the September 1979 level. The domestic price was $25.37, an increase of $0.39 per barrel (1.6 percent) above the August average.

Residual Fuel Oil

The average price, excluding taxes, for No. 6 residual fuel oil sold to utilities, industry, and other ultimate consumers in August 1980 was $25.12 per barrel, $1.26 above the previous month's price (5.3 percent) and 23.6 percent over the August 1979 average. The average price, excluding taxes, for No. 6 residual fuel oil sold to resellers, bulk plants, jobbers, and other wholesale accounts was $22.40 per barrel, $1.12 above (5.3 percent) the July 1980 average and a 17.9 percent increase over the August 1979 average.

Heating Oil

The national average price of heating oil sold to residential customers increased 0.3 cent in September 1980 to 98.2 cents per gallon. This was a 0.3 percent increase above the selling price in August 1980 and a 21.2 percent increase over the September 1979 price. The average residential distributor margin in August was 15.4 cents per gallon, 12.4 percent above the margin of September 1979. Refiners' national average selling price to resellers and retailers was 79.6 cents per gallon, 15.4 percent above the September 1979 average.

Aviation Fuel

The average price, excluding taxes, for kerosene-type jet fuel sold to commercial airlines, Department of Defense, and other ultimate consumers in August 1980 was 90.7 cents per gallon, or 1.0 cents (1.1 percent) over the previous month's average and a 49.2 percent increase over the August 1979 average.

Motor Gasoline

The national average retail price for all grades and all types of motor gasoline was 122.3 cents per gallon in October 1980. Leaded regular gasoline at all types of stations sold for an average of 118.8 cents per gallon in October, 0.9 cent lower (0.8 percent) than the price in September. The price for unleaded regular gasoline at all types of stations was 125.0 cents per gallon in October, 0.7 cent lower (0.6 percent) than in September.

Liquefied Petroleum Gases

The average wholesale price for propane during August 1980, excluding taxes, was 41.1 cents per gallon, 0.3 cent above the previous month's level, or 0.7 percent, and 33.4 percent above the August 1979 level.

In August 1980, the average wholesale price for butane, excluding taxes, was 53.5 cents per gallon, 0.6 percent below the previous month's revised price and 11.5 percent above the August 1979 average.

Price

Petroleum Price Summary

		Actual Domestic Average Wellhead Price[1]	Refiner Acquisition Cost of Crude Oil[2]			No. 6 Residual Oil Price Average[3]	
			Domestic	Imported	Composite	Wholesale[4]	Retail[4]
		Dollars per barrel					
1976	**AVERAGE**	**8.19**	**8.84**	**13.48**	**10.89**	**10.72**	**11.49**
1977	**AVERAGE**	**8.57**	**9.55**	**14.53**	**11.96**	**11.96**	**13.23**
1978	**AVERAGE**	**9.00**	**10.61**	**14.57**	**12.46**	**11.51**	**12.75**
1979	January	9.46	11.02	15.50	13.11	12.78	14.13
	February	9.69	11.34	15.88	13.42	13.72	14.68
	March	9.83	11.45	16.41	13.70	14.82	15.95
	April	10.33	12.06	17.58	14.52	15.51	16.61
	May	10.71	12.41	19.00	15.40	15.71	17.18
	June	11.70	13.24	21.03	17.00	17.81	17.97
	July	13.39	14.61	23.09	18.58	19.18	19.89
	August	14.00	15.73	23.98	19.75	19.00	20.33
	September	14.57	16.05	25.06	20.14	19.62	20.90
	October	15.11	16.93	25.05	20.68	20.88	21.59
	November	15.52	17.65	27.02	22.04	22.00	22.84
	December	17.03	18.84	28.91	23.63	23.55	24.44
	AVERAGE	**12.64**	**14.27**	**21.67**	**17.72**	**17.66**	**18.67**
1980	January	17.86	19.78	30.75	24.81	24.41	26.21
	February	18.81	21.22	32.40	26.11	23.34	26.48
	March	19.34	22.07	33.42	26.88	21.11	25.33
	April	20.29	22.89	33.54	27.09	19.09	22.87
	May	21.01	23.63	34.33	27.85	20.22	23.75
	June	21.53	24.48	34.48	28.80	20.44	24.09
	July	R22.26	25.05	34.51	28.73	R21.28	R23.86
	August	22.63	24.98	34.44	28.70	22.40	25.12
	September †	NA	25.37	34.46	28.96	NA	NA
	AVERAGE	**NA**	**23.26**	**33.50**	**27.49**	**NA**	**NA**

Geographic coverage: Actual domestic average wellhead prices and No. 6 residual oil prices— the 50 United States and District of Columbia. Refiner acquisition cost of crude oil— the 50 United States, District of Columbia, Puerto Rico, Guam, and the Virgin Islands.
[1]See Explanatory Note 12.
[2]See Explanatory Note 13. Crude oil costs and volumes reported on the Economic Regulatory Administration (ERA) Form 49 exclude unfinished oils but include Strategic Petroleum Reserve (SPR). Crude oil costs and volumes reported on the FEA Form P110-M-1 include unfinished oils but exclude SPR. Imported averages derived from ERA Form 49 exclude crude oil purchased for Strategic Petroleum Reserve (SPR), whereas, the composite averages derived from the ERA Form 49 include SPR.
[3]Wholesale refers to the price of residual fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and other residual dealers. Retail refers to the price at which residual fuel oil is sold to ultimate consumers such as utility, industrial, commercial and residential accounts.
[4]Excludes tax.
†Preliminary data. R=Revised data. NA=Not available.
Sources: •Actual domestic average, January 1976: FEA Form 90, "Crude Petroleum Production Monthly Report." February 1976 forward: ERA Form 182, "Domestic Crude Oil First Purchase Report."
•Refiner acquisition cost, January 1976: Form FEO 96, "Monthly Cost Allocation Report." February 1976 through June 1978: FEA Form P110-M-1, "Refiners' Monthly Cost Allocation Report." July 1978 forward: ERA Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report."
•No.6 residual oil price, FEA Form P302-M-1, "Petroleum Industry Monthly Report for Product Prices."

Price

Petroleum Price Summary (continued)

		No. 2 Diesel Price Average[1]		No. 2 Heating Oil Price Average		Gasoline Price Average All Grades[2]	Propane Price Average[3]	Butane Price Average[3]
		Wholesale[4]	Retail[4]	Wholesale	Retail	Retail	Wholesale[4]	Wholesale[4]
		Cents per gallon						
1976	**AVERAGE**	**31.9**	**34.7**	**32.6**	**40.6**	**NA**	**20.6**	**21.9**
1977	**AVERAGE**	**36.1**	**39.3**	**36.9**	**46.0**	**NA**	**25.0**	**25.4**
1978	**AVERAGE**	**37.1**	**40.2**	**38.7**	**49.4**	**65.2**	**24.0**	**23.0**
1979	January	39.7	43.0	42.1	53.7	69.5	22.4	24.9
	February	41.8	46.1	44.5	56.3	70.7	21.8	28.5
	March	44.5	47.9	47.0	58.8	73.3	21.2	32.5
	April	47.7	50.6	49.3	61.1	78.0	22.0	35.4
	May	53.4	56.1	52.6	64.2	82.3	24.2	39.5
	June	58.7	65.0	56.9	69.1	88.0	27.9	46.9
	July	62.4	68.9	61.1	73.8	93.0	29.3	51.1
	August	66.0	72.3	64.6	78.4	96.7	30.8	48.0
	September	69.0	71.8	67.8	81.0	99.8	33.3	51.9
	October	71.1	74.8	68.1	82.3	100.6	35.2	56.1
	November	70.3	72.1	69.0	83.7	101.9	37.6	57.0
	December	73.0	80.7	70.8	85.8	104.2	40.4	65.8
	AVERAGE	**58.2**	**62.4**	**53.0**	**65.6**	**88.2**	**29.5**	**45.8**
1980	January	76.0	82.2	75.2	90.8	111.0	41.8	73.3
	February	78.3	85.0	79.0	95.3	118.6	42.7	70.1
	March	79.8	87.8	80.4	97.1	123.0	41.0	66.8
	April	80.4	88.0	81.0	97.4	124.2	41.2	63.1
	May	80.5	87.8	81.4	97.2	124.4	41.7	63.7
	June	81.7	88.6	82.5	97.9	124.6	41.2	58.2
	July	R 81.9	R 87.6	83.0	97.9	124.7	R40.8	R53.8
	August	81.8	85.9	82.9	R97.9	124.3	41.1	53.5
	September †	NA	NA	83.0	98.2	123.1	NA	NA
	October	NA	NA	NA	NA	122.3	NA	NA
	AVERAGE	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Geographic coverage: the 50 United States and District of Columbia.
Note: The average year-to-date gasoline price for the current year is not yet available from the Bureau of Labor Statistics.
[1]Wholesale refers to the price of diesel fuel sold to other refiners and resellers, including branded jobbers, unbranded jobbers, and commercial accounts. Retail refers to the price at which company-owned and operated retail dealers sell to customers.
[2]See Explanatory Note 16.
[3]Wholesale refers to the price at which refiners, resellers, retailers and gas plants sell to one another, including sales to agricultural and industrial accounts. Excludes butane/propane mixtures.
[4]Excludes tax.
†Preliminary data. R=Revised data. NA=Not available.
Sources: •No. 2 diesel price, FEA Form P302-M-1, "Petroleum Industry Monthly Report for Product Prices."
•No. 2 heating oil price, FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."
•Gasoline price average, Bureau of Labor Statistics.
•Propane and Butane prices, FEA Form P302-M-1, "Petroleum Industry Monthly Report for Product Prices."

Price

Domestic Prices and Percentages of Crude Oil Purchased at the Wellhead[1]

		Incremental Tertiary[2]		Newly Discovered[2]		Marginal Property[2]		Heavy Crude[2]		Other Decontrolled Oil[2]		Tertiary Incentive[2]	
		Dollars per barrel											
		Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price	Percent
1976	AVERAGE												
1977	AVERAGE												
1978	AVERAGE												
1979	January												
	February												
	March												
	April												
	May												
	June	11.98	0.05	22.97	0.61	13.16	0.81						
	July	15.09	0.02	26.60	1.12	13.28	1.13						
	August	16.14	0.15	26.63	1.66	13.37	1.33						
	September	17.89	0.06	30.38	2.38	13.67	3.08	16.77	2.82	12.54	NA	24.89	NA
	October	14.21	(0.01)	31.92	3.04	13.55	3.39	17.12	3.46	13.08	NA	21.07	NA
	November	26.17	NA	33.86	3.24	13.70	3.11	18.61	3.28	11.33	NA	NA	NA
	December	15.80	(0.03)	37.59	3.61	13.83	3.05	23.62	4.04	10.05	NA	NA	NA
1980	January	31.14	0.01	39.04	3.86	14.01	3.16	26.43	4.24	33.37	2.15	28.18	NA
	February	26.33	0.01	38.68	4.33	13.90	2.71	25.70	5.13	33.11	4.79	36.47	0.01
	March	29.82	0.01	38.97	4.76	14.07	2.52	25.55	5.15	32.91	7.42	39.00	0.04
	April	34.94	0.04	38.67	5.20	14.12	2.99	25.57	4.96	33.03	9.89	37.52	0.12
	May	34.46	0.03	39.07	5.53	14.21	2.79	25.42	5.38	32.97	12.52	34.60	0.43
	June	33.72	0.02	38.93	5.96	14.37	2.75	25.87	5.34	32.39	14.58	30.29	0.53
	July	21.87	0.00	R38.72	R6.33	R14.37	R2.91	R25.63	R5.88	R32.81	R16.94	R30.34	R0.68
	August†	33.39	0.03	37.82	6.73	14.65	2.53	25.49	5.77	30.80	20.10	33.48	0.78
	AVERAGE	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Not Applicable

Geographic coverage: the 50 United States and District of Columbia.
[1]See Explanatory Note 12.
[2]See Definitions.
†Preliminary data. R=Revised data. NA=Not available.
Note: Parentheses indicate negative adjustment to recertify production as heavy oil.
Source: • Economic Regulatory Administration Form 182, "Domestic Crude Oil First Purchase Report."

Price

Domestic Prices and Percentages of Crude Oil Purchased at the Wellhead[1] (continued)

		Lower Tier[2]		Upper Tier[2]		Actual Stripper[3]		Alaskan North Slope[4]		Naval Petroleum Reserve[5]		Actual Domestic Average
		Dollars per barrel										
		Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price
1976	**AVERAGE**	**5.13**	**54.4**	**11.71**	**31.5**	**12.16**	**14.1**	**NA**	**NA**	**NA**	**NA**	**8.19**
1977	**AVERAGE**	**5.19**	**45.92**	**11.22**	**36.11**	**13.59**	**13.32**	**6.35**	**4.14**	**12.34**	**0.51**	**8.57**
1978	**AVERAGE**	**5.46**	**37.54**	**12.15**	**34.41**	**13.95**	**14.03**	**5.22**	**12.96**	**12.85**	**1.08**	**9.00**
1979	January	5.75	35.51	12.66	34.25	14.55	14.14	5.79	14.88	13.10	1.20	9.46
	February	5.76	35.20	12.78	34.97	14.88	15.08	5.87	13.71	13.94	1.01	9.69
	March	5.82	34.59	12.84	34.56	14.88	14.95	6.66	14.58	13.97	1.29	9.83
	April	5.85	33.98	12.94	34.93	16.71	15.27	7.45	14.52	14.56	1.28	10.33
	May	5.91	33.55	13.02	34.77	17.53	15.62	8.47	14.71	15.85	1.32	10.71
	June	5.95	29.32	13.14	38.22	20.24	15.97	8.97	13.64	16.02	1.34	11.70
	July	5.98	26.96	13.25	37.49	24.76	16.01	13.35	15.86	20.13	1.38	13.39
	August	6.09	26.03	13.33	36.72	25.71	16.93	14.14	15.82	20.77	1.33	14.00
	September	6.09	23.52	13.53	33.89	27.09	16.55	13.09	16.08	20.85	1.57	14.57
	October	6.12	23.46	13.56	32.58	29.42	16.20	13.12	16.27	21.01	1.57	15.11
	November	6.09	23.11	13.68	32.76	30.64	15.35	13.48	17.49	26.48	1.61	15.52
	December	6.21	22.31	13.76	32.52	34.99	16.34	13.60	16.51	29.04	1.60	17.03
	AVERAGE	**5.95**	**28.91**	**13.20**	**34.79**	**22.93**	**15.71**	**10.57**	**15.36**	**19.40**	**1.38**	**12.64**
1980	January	6.24	21.19	13.86	31.12	36.02	15.61	13.77	17.06	28.94	1.54	17.86
	February	6.37	20.52	14.03	29.45	36.14	15.82	13.77	15.73	34.96	1.44	18.81
	March	6.35	19.83	13.99	28.22	36.26	15.18	13.77	15.30	34.67	1.55	19.34
	April	6.37	18.71	14.18	25.87	36.54	15.80	14.07	14.75	33.81	1.61	20.29
	May	6.47	17.62	14.29	25.21	36.11	15.43	14.36	13.48	34.16	1.56	21.01
	June	6.51	16.99	14.42	23.19	35.53	16.14	14.14	12.94	34.00	1.49	21.53
	July	6.55	R16.39	14.57	R21.88	36.26	R16.02	14.26	R11.35	R33.27	1.58	R22.26
	August†	6.60	14.79	14.60	20.50	35.71	15.83	14.38	11.28	32.96	1.61	22.63
	AVERAGE	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Geographic coverage: the 50 United States and District of Columbia.
[1]See Explanatory Note 12.
[2]See Definitions.
[3]Stripper oil was exempt from price controls beginning September 1, 1976. From February through August 1976 stripper oil was subject to upper tier price ceilings. Annual average is for 12 months (January through December 1976).
[4]Alaskan North Slope (ANS) crude oil prices are treated as Upper Tier for determining the applicable wellhead ceiling prices. ANS is included in the Actual Domestic Average price determination.
[5]The Naval Petroleum Reserves (NPR) are exempt from pricing regulations but have been reported here as Upper Tier prior to July 1977. NPR is included in the Actual Domestic Average price determination.
†Preliminary data. R=Revised data. NA=Not available.
Sources: • January 1976: FEA Form 90, "Crude Petroleum Production Monthly Report."
• February 1976 forward: Economic Regulatory Administration Form 182, "Domestic Crude Oil First Purchase Report."

Price

FOB Cost of Crude Oil Imports from Selected Countries[1]

		Algeria	Indonesia	Iran	Libya	Mexico	Nigeria	Saudi Arabia	United Arab Emirates	United Kingdom	Venezuela
		Dollars per barrel									
1976	**AVERAGE**	**13.05**	**12.76**	**11.61**	**12.55**	**NA**	**13.08**	**11.69**	**11.94**	**NA**	**11.32**
1977	**AVERAGE**	**14.36**	**13.57**	**12.67**	**13.90**	**13.42**	**14.44**	**12.37**	**12.83**	**NA**	**12.68**
1978	**AVERAGE**	**14.10**	**13.64**	**12.65**	**13.75**	**13.24**	**14.04**	**12.70**	**13.24**	**13.82**	**12.45**
1979	January	14.87	14.06	12.55	14.60	13.94	14.84	13.26	13.98	15.41	13.69
	February	14.89	14.18	12.56	15.15	14.17	14.98	13.47	14.28	15.33	13.26
	March	15.54	14.42	19.04	16.46	14.14	15.07	13.61	15.72	16.13	13.88
	April	16.80	15.98	17.96	17.40	17.02	18.18	14.77	16.24	17.40	14.58
	May	19.14	16.84	17.27	19.13	18.56	20.02	14.62	17.38	18.39	15.76
	June	21.04	18.59	19.95	20.87	17.43	22.11	17.98	18.91	20.88	16.01
	July	22.42	20.95	21.99	23.88	22.29	24.46	18.54	21.33	23.14	18.22
	August	23.44	21.65	21.40	24.93	22.56	25.43	18.32	21.45	23.88	18.66
	September	23.60	22.11	27.27	25.17	22.32	25.77	18.72	22.93	22.93	18.14
	October	24.40	24.39	31.80	27.39	24.43	26.33	21.44	21.85	25.09	22.36
	November	26.38	23.72	28.81	29.60	24.50	28.17	23.72	24.15	27.57	19.27
	December	28.67	25.29	35.13	31.86	24.50	29.82	22.99	27.90	25.89	20.62
	AVERAGE	**20.65**	**19.35**	**23.71**	**22.43**	**20.29**	**21.80**	**17.63**	**19.58**	**21.20**	**17.37**
1980	January	33.67	29.67	29.28	35.72	29.43	31.57	26.25	29.85	30.77	25.34
	February	34.03	31.11	NA	35.71	31.77	33.39	26.62	30.95	32.66	24.82
	March	36.74	31.54	NA	35.88	30.56	35.59	26.85	29.34	34.34	24.03
	April	36.93	32.22	NA	35.30	30.24	36.11	27.78	30.38	34.15	23.85
	May	37.10	32.40	NA	36.13	30.68	36.50	28.50	32.67	34.10	24.82
	June	37.61	32.90	NA	36.83	30.76	36.99	28.95	33.34	36.28	25.56
	July†	38.31	33.21	NA	37.21	31.75	37.34	28.47	NA[2]	36.36	24.92

Note: Prices shown for 1980 are for the month of loading; whereas prior to 1980 the prices are for the month of reporting.
[1]The FOB cost excludes all costs related to insurance and transportation. See Explanatory Note 14.
[2]FOB cost of crude oil imports from United Arab Emirates is not published this month due to insufficient response to survey questionnaire.
NA = Not available.
†Preliminary data.
Sources: 1976 through January 1979: FEA Form 701-M-0, "Transfer Pricing Report."
• February 1979 forward: Economic Regulatory Administration Form 51, "Transfer Pricing Report."

Price

Landed Cost of Crude Oil Imports from Selected Countries[1]

		Algeria	Canada	Indonesia	Iran	Libya	Mexico	Nigeria	Saudi Arabia	United Arab Emirates	United Kingdom	Venezuela
						Dollars per barrel						
1975	**AVERAGE**	**12.72**	**12.72**	**13.79**	**12.21**	**12.35**	**NA**	**12.62**	**12.30**	**12.87**	**NA**	**11.65**
1976	**AVERAGE**	**13.81**	**13.57**	**13.82**	**12.82**	**13.58**	**NA**	**13.80**	**13.04**	**13.30**	**NA**	**11.80**
1977	**AVERAGE**	**15.20**	**14.21**	**14.63**	**13.80**	**14.87**	**13.75**	**15.25**	**13.61**	**14.04**	**NA**	**13.13**
1978	**AVERAGE**	**14.91**	**14.50**	**14.64**	**13.88**	**14.72**	**13.54**	**14.86**	**13.92**	**14.39**	**NA**	**12.83**
1979	January	15.88	16.19	15.29	13.76	15.81	14.51	15.88	14.73	15.53	16.29	14.16
	February	16.18	16.68	15.62	14.25	16.49	14.76	16.13	14.88	16.05	16.07	14.17
	March	16.61	17.18	15.68	19.54	17.56	14.81	16.20	15.28	17.10	15.91	14.61
	April	17.93	17.39	17.31	19.06	18.59	17.40	19.11	16.18	17.70	18.23	15.19
	May	20.22	20.22	17.92	18.56	20.16	18.82	21.06	16.29	18.65	19.26	16.74
	June	22.52	19.12	20.11	21.27	22.21	17.85	23.23	19.49	20.42	21.64	16.80
	July	23.54	20.22	22.50	23.35	25.48	22.74	25.79	20.06	22.84	23.96	18.95
	August	24.85	22.67	23.10	22.64	26.27	23.12	26.72	19.85	23.12	25.05	19.42
	September	25.09	25.64	23.72	28.36	26.54	23.23	27.03	20.36	24.59	24.18	18.99
	October	25.59	23.54	26.36	33.17	28.56	24.98	27.41	22.99	23.98	26.39	23.05
	November	27.95	26.01	25.37	30.44	30.38	25.12	29.41	25.19	25.95	29.10	20.13
	December	29.99	26.32	26.84	36.64	33.29	25.31	31.21	24.48	29.93	27.07	21.72
	AVERAGE	**21.90**	**20.43**	**20.69**	**25.02**	**23.68**	**20.86**	**22.96**	**19.15**	**21.90**	**22.16**	**18.18**
1980	January	35.32	27.73	31.03	30.37	37.10	30.18	33.03	27.85	32.35	32.14	26.25
	February	35.28	28.60	32.95	NA	36.98	32.38	35.25	28.15	32.71	34.07	25.91
	March	38.54	30.75	33.04	NA	37.18	31.17	36.93	28.26	30.96	35.73	24.97
	April	38.52	30.31	33.81	NA	36.57	30.77	37.41	29.14	32.29	35.34	25.10
	May	38.54	31.16	33.73	NA	37.36	31.22	37.53	30.30	34.06	35.82	25.93
	June	38.71	31.26	34.51	NA	38.09	31.43	38.15	30.16	34.96	37.41	26.42
	July†	39.51	31.32	34.78	NA	38.39	32.53	38.42	30.03	NA[2]	37.31	26.12

Note: Prices shown for 1980 are for the month of loading; whereas prior to 1980 prices are for the month of reporting.
[1]See Explanatory Note 15.
[2]Landed cost of crude oil imports from United Arab Emirates is not published this month due to insufficient response to survey questionnaire.
NA = Not available. †Preliminary data.
Sources: • 1975 through January 1979: FEA Form F701-M-0, "Transfer Pricing Report." Data provided by the Economic Regulatory Administration.
• February 1979 forward: ERA 51, "Transfer Pricing Report."

Price

		Crude Oil Entitlements and Supply Ratio			Unrecouped Costs for Refined Products for 29 Largest Refiners		
		Entitlement Benefit[1]	Entitlement Price[1]	National Old Oil (or Domestic Crude Oil) Supply Ratio[1]	Motor Gasoline	Other Products[2]	Total
		Dollars per barrel			Million Dollars		
1979	January	1.56	8.74	0.178	836	863	1,699
	February	1.67	9.03	0.185	1,110	878	1,988
	March	1.80	9.50	0.189	1,551	837	2,388
	April	2.06	10.53	0.196	2,067	1,649	3,716
	May	2.44	11.74	0.208	2,245	1,848	4,093
	June	3.01	13.70	0.220	2,507	1,973	4,480
	July	3.54	16.01	0.221	2,990	2,089	5,079
	August	3.78	17.26	0.218	2,856	2,347	5,203
	September	3.92	17.97	0.218	3,151	2,376	5,527
	October	4.00	18.27	0.219	3,094	2,295	5,389
	November	4.39	20.12	0.218	3,492	2,302	5,794
	December	4.71	21.91	0.215	3,724	1,171	4,895
1980	January	5.28	23.53	0.224	4,115	1,189	5,304
	February	5.14	24.70	0.208	5,362	1,167	6,529
	March	5.05	25.26	0.200	6,236	1,213	7,445
	April	5.10	25.74	0.198	6,202	1,391	7,593
	May	6.22	27.39	0.227	NA	NA	NA
	June	5.44	27.32	0.199	NA	NA	NA
	July	5.04	27.26	0.185	NA	NA	NA
	August	4.75	26.86	0.177	NA	NA	NA
	September†	3.52	26.07	0.135	NA	NA	NA

Geographic coverage: the 50 United States, District of Columbia, Puerto Rico, Guam, and the Virgin Islands.
[1]See Definitions.
[2]Other includes propane, butane, natural gasoline, some natural gas liquids, and aviation jet fuel in January and February 1979 when aviation jet fuel was decontrolled. From March 1979 to December 1979, it includes butane, natural gasoline, propane and some natural gas liquids. Since January 1980, when butane and natural gasoline were decontrolled, only propane and some natural gas liquids are included in this category.
†Preliminary data. NA = Not available.
Sources: • Crude oil entitlements, Economic Regulatory Administration Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report."
• Unrecouped costs: EIA Form 14, "Refiners' Monthly Cost Allocation Report." Data provided by the Economic Regulatory Administration.

Price

U.S. City Average Retail Prices for Motor Gasoline[1]

		Leaded Regular	Unleaded Regular	Leaded Premium	Average for All Grades
		Cents per gallon, including tax			
1974	**AVERAGE**	**53.2**	**NA**	**56.9**	**NA**
1975	**AVERAGE**	**56.7**	**NA**	**60.9**	**NA**
1976	**AVERAGE**	**59.0**	**61.4**	**63.6**	**NA**
1977	**AVERAGE**	**62.2**	**65.6**	**67.4**	**NA**
1978	**AVERAGE**	**62.6**	**67.0**	**69.4**	**65.2**
1979	January	66.8	71.6	73.7	69.5
	February	68.1	73.0	75.0	70.7
	March	70.6	75.5	77.4	73.3
	April	75.3	80.2	82.4	78.0
	May	79.7	84.4	86.7	82.3
	June	85.6	90.1	92.0	88.0
	July	90.8	94.9	96.5	93.0
	August	94.3	98.8	100.4	96.7
	September	97.3	102.0	103.6	99.8
	October	98.2	102.8	104.6	100.6
	November	99.4	104.1	105.6	101.9
	December	101.8	106.5	108.0	104.2
	AVERAGE	**85.7**	**90.3**	**92.2**	**88.2**
1980	January	108.6	113.1	114.9	111.0
	February	115.9	120.7	123.3	118.6
	March	120.2	125.2	127.7	123.0
	April	121.2	126.4	129.2	124.2
	May	121.5	126.6	129.5	124.4
	June	121.7	126.9	130.0	124.6
	July	121.6	127.1	130.7	124.7
	August	121.0	126.7	131.0	124.3
	September	119.7	125.7	130.4	123.1
	October	118.8	125.0	130.1	122.3

Geographic coverage: 85 urban areas selected to represent all urban consumers—80 percent of the total U.S. population.
[1] See Explanatory Note 16.
Source: Bureau of Labor Statistics.

Price

Aviation Fuel

		Aviation Gasoline		Naphtha-Type[1]	Kerosene-Type	
		Wholesale[2]	Retail[2]	Retail[2]	Wholesale[2]	Retail[2]
		Cents per gallon, excluding tax				
1976	**AVERAGE**	**42.4**	**43.1**	**31.5**	**32.5**	**31.2**
1977	**AVERAGE**	**46.7**	**47.7**	**35.0**	**36.7**	**35.8**
1978	**AVERAGE**	**51.0**	**52.1**	**37.5**	**38.9**	**38.9**
1979	January	54.1	53.9	38.6	42.2	40.1
	February	54.6	55.1	39.1	44.3	40.2
	March	56.6	56.8	40.7	54.8	41.3
	April	58.2	59.1	43.2	60.1	45.4
	May	60.6	61.2	44.1	58.1	48.4
	June	64.8	66.8	49.5	59.9	50.9
	July	70.0	71.8	50.4	67.1	58.2
	August	74.2	75.6	55.0	71.4	60.8
	September	78.2	79.0	60.2	73.1	65.9
	October	79.8	80.4	64.6	80.6	68.4
	November	81.3	80.6	66.4	83.4	69.7
	December	84.1	83.4	73.3	83.2	72.3
	AVERAGE	**68.5**	**69.5**	**52.3**	**66.5**	**55.1**
1980	January	90.6	90.0	76.0	83.4	77.0
	February	98.5	97.8	80.1	86.2	83.0
	March	102.9	107.0	84.1	86.6	86.3
	April	104.8	109.6	83.2	88.4	87.4
	May	106.2	109.7	89.1	89.0	87.6
	June	107.7	111.4	90.0	86.1	88.6
	July	109.3	113.4	91.4	R88.3	89.7
	August†	110.2	112.9	90.6	86.8	90.7
	AVERAGE	**104.8**	**107.2**	**85.5**	**86.9**	**86.3**

Geographic coverage: the 50 United States and District of Columbia.
[1]Nearly all naphtha-type fuels are sold directly to the Defense Fuel Supply Center. Consequently, wholesale prices are not applicable.
[2]Wholesale refers to the price of aviation fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and aviation fuel distributors. Retail refers to the price of aviation fuel sold to ultimate consumers, including commercial airline and military accounts.
†Preliminary data. R = Revised data.
Source: • FEA Form P302–M–1, "Petroleum Industry Monthly Report for Product Prices."

Price

National Average Heating Oil Prices[1]

		Refiners' Average Selling Price to Resellers and Retailers	Average Purchase Price Paid by Distributors for Heating Oil[2]	Average Distributor Margin on Residential Heating Oil[2]	Average Selling Price to Residential Customers[2]
		Cents per gallon			
1976	**AVERAGE**	**31.4**	**32.6**	**NA**	**40.6**
1977	**AVERAGE**	**35.7**	**36.9**	**NA**	**46.0**
1978	**AVERAGE**	**37.2**	**38.7**	**11.0**	**49.4**
1979	January	40.9	42.1	11.8	53.7
	February	43.1	44.5	12.0	56.3
	March	45.8	47.0	12.0	58.8
	April	48.3	49.3	12.1	61.1
	May	53.2	52.6	12.1	64.2
	June	58.8	56.9	12.7	69.1
	July	62.5	61.1	13.0	73.8
	August	65.7	64.6	13.0	78.4
	September	69.0	67.8	13.7	81.0
	October	68.6	68.1	14.8	82.3
	November	70.0	69.0	15.1	83.7
	December	71.7	70.8	15.5	85.8
	AVERAGE	**55.9**	**53.0**	**12.8**	**65.6**
1980	January	75.0	75.2	16.2	90.8
	February	77.8	79.0	16.7	95.3
	March	78.8	80.4	17.1	97.1
	April	78.8	81.0	17.0	97.4
	May	79.3	81.4	16.3	97.2
	June	80.2	82.5	15.8	97.9
	July	79.2	83.0	15.3	97.9
	August	R79.3	82.9	R15.2	R97.9
	September†	79.6	83.0	15.4	98.2
	AVERAGE	**78.3**	**79.3**	**16.5**	**95.3**

Geographic coverage: the 50 United States and District of Columbia.
[1]See Explanatory Note 17.
[2]Average selling prices, purchase prices, and dealer margins represent sales for residential heating oil only.
†Preliminary data. R = Revised data. NA = Not available.
Source: • FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."

Price

Residential Heating Oil Prices by Region

		DOE Region[1]									
		Cents per gallon									
		1	2	3	4	5	6	7	8	9	10
1979	January	55.1	54.5	53.3	51.6	51.5	NA	49.6	50.4	47.6	50.8
	February	57.7	57.3	55.5	53.2	53.7	NA	51.3	51.4	49.4	52.9
	March	60.6	59.8	57.5	54.3	56.3	NA	54.7	55.3	50.8	55.3
	April	62.8	61.9	60.0	57.3	58.8	NA	58.2	58.4	53.8	57.8
	May	65.9	64.8	63.4	61.2	62.8	NA	62.0	62.7	56.2	60.8
	June	70.5	69.7	68.4	66.2	68.5	NA	68.9	67.8	62.2	66.4
	July	75.9	73.9	72.9	70.9	73.2	NA	72.0	72.5	68.4	72.3
	August	80.1	78.6	77.7	74.8	78.5	NA	76.4	77.1	71.7	77.2
	September	83.3	81.4	80.0	79.4	81.5	NA	79.5	80.1	76.8	81.4
	October	84.1	82.5	81.7	79.1	82.6	NA	80.2	81.3	81.2	82.6
	November	85.1	83.7	82.4	80.5	83.9	NA	82.2	84.0	80.4	82.3
	December	87.2	85.7	85.1	82.9	86.1	NA	85.3	86.3	82.6	84.6
1980	January	91.8	91.0	90.2	88.6	90.4	NA	90.0	90.2	89.6	91.0
	February	96.7	95.3	94.7	93.0	93.5	NA	93.6	93.5	95.8	95.7
	March	98.7	97.2	96.5	94.8	94.3	NA	95.1	95.9	93.9	97.6
	April	99.2	97.3	96.6	94.1	94.5	NA	95.3	99.5	94.7	99.0
	May	98.7	97.3	96.4	94.2	95.8	NA	95.2	97.7	95.5	98.6
	June	99.8	97.9	96.8	95.1	95.8	NA	95.3	98.4	96.0	99.8
	July	100.3	98.1	96.6	94.2	96.2	NA	93.1	97.0	96.7	100.2
	August	R100.2	R97.9	R96.8	R94.8	R95.7	NA	95.4	92.1	99.7	100.4
	September†	100.6	98.2	97.0	95.5	95.5	NA	93.4	93.1	97.6	100.6

[1]DOE Regions are defined in Explanatory Note 18.
†Preliminary data.
R = Revised data.
NA = Not available. Data for Region 6 are based on a sample of less than four reporting firms.
Source: • FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."

Price

Average No. 6 Residual Fuel Oil Prices

		0.0 to 0.3 percent sulfur		0.31 to 1.0 percent sulfur		Greater than 1.0 percent sulfur		Average	
		Wholesale	Retail	Wholesale	Retail	Wholesale	Retail	Wholesale	Retail
		Dollars per barrel, excluding taxes							
1976	**AVERAGE**	**12.20**	**12.54**	**10.83**	**11.79**	**9.98**	**10.43**	**10.72**	**11.49**
1977	**AVERAGE**	**13.45**	**14.36**	**12.09**	**13.45**	**11.31**	**12.27**	**11.96**	**13.23**
1978	**AVERAGE**	**12.77**	**14.47**	**11.95**	**12.78**	**10.73**	**11.70**	**11.51**	**12.75**
1979	January	15.16	16.12	13.68	14.79	11.00	11.92	12.78	14.13
	February	16.12	17.28	15.01	15.30	11.31	12.28	13.72	14.68
	March	16.08	18.05	15.90	16.94	13.48	14.00	14.82	15.95
	April	17.79	19.09	16.34	17.44	13.70	14.59	15.51	16.61
	May	18.04	19.45	15.74	17.89	14.69	15.37	15.71	17.18
	June	20.92	19.79	18.08	18.51	15.95	16.40	17.81	17.97
	July	21.85	23.07	21.25	20.47	16.51	17.86	19.18	19.89
	August	21.05	22.63	19.49	21.28	17.51	18.32	19.00	20.33
	September	21.81	22.92	21.01	21.66	17.54	18.94	19.62	20.90
	October	23.80	23.29	22.99	22.33	18.31	19.53	20.88	21.59
	November	26.68	25.54	24.07	24.31	19.31	19.51	22.00	22.84
	December	27.09	27.78	25.83	25.01	20.67	21.05	23.55	24.44
	AVERAGE	**19.87**	**21.21**	**18.33**	**19.33**	**15.89**	**16.44**	**17.66**	**18.67**
1980	January	29.11	30.35	26.15	28.12	21.56	21.98	24.41	26.21
	February	27.07	30.32	25.82	28.15	20.21	22.22	23.34	26.48
	March	26.88	30.20	23.73	27.29	17.81	20.34	21.11	25.33
	April	25.16	28.69	20.38	24.78	16.41	18.36	19.09	22.87
	May	25.48	31.73	22.72	25.77	17.72	18.04	20.22	23.75
	June	R23.14	31.37	22.35	25.44	17.72	19.27	20.44	24.09
	July	R24.89	R28.51	R23.44	R25.55	R19.20	R20.58	R21.28	R23.86
	August†	24.40	31.18	25.37	26.22	20.47	21.47	22.40	25.12
	AVERAGE	**25.94**	**30.27**	**23.65**	**26.55**	**18.84**	**20.37**	**21.55**	**24.85**

Geographic coverage: the 50 United States and District of Columbia.
Note: Wholesale refers to the price of residual fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and other residual dealers. Retail refers to the price at which residual fuel oil is sold to ultimate consumers such as utility, industrial, commercial, and residential accounts.
† Preliminary data. R = Revised data.
Source: • FEA Form P302-M-1, "Petroleum Industry Monthly Report for Product Prices."

Price

Natural Gas

		Average Wellhead Value	Delivered to Electric Plant[1]	Average Residential Heating
		Cents per thousand cubic feet		
1973	**AVERAGE**	**21.6**	**35.0**	**108.2**
1974	**AVERAGE**	**30.4**	**49.0**	**125.3**
1975	**AVERAGE**	**44.5**	**76.9**	**154.2**
1976	**AVERAGE**	**58.0**	**105.9**	**184.6**
1977	**AVERAGE**	**79.0**	**133.4**	**226.4**
1978	**AVERAGE**	**90.5**	**147.9**	**262.6**
1979	January	R102.0	154.7	292.9
	February	R104.9	164.8	295.6
	March	R109.5	168.6	300.6
	April	R110.6	169.6	299.6
	May	R115.0	182.2	314.9
	June	R116.6	183.9	320.0
	July	R119.6	184.0	328.4
	August	R123.6	187.0	330.8
	September	R123.5	189.4	341.4
	October	R128.1	195.7	352.8
	November	R128.7	186.9	347.6
	December	R131.0	190.0	351.9
	AVERAGE	**R117.8**	**180.3**	**323.1**
1980	January	R134.4	201.1	354.9
	February	R139.8	210.5	357.9
	March	R141.6	214.7	368.1
	April	R140.9	210.4	367.8
	May	R142.6	218.1	393.9
	June	R146.4	216.4	394.8
	July	R150.3	237.3	410.6
	August	150.2	245.6	413.1
	September	NA	NA	417.0

Geographic coverage: the 50 United States and District of Columbia.
[1]Includes all electric utility generating plants with a combined capacity of 25 megawatts or greater. Small quantities of coke oven gas, refinery gas and blast furnace gas are included.
NA = Not available. R = Revised data.
Sources: • Annual data for wellhead values are from the appropriate agencies of the individual producing states and the U.S. Geological Survey; monthly data are estimated primarily on the basis of values reported by state agencies in New Mexico, Oklahoma, and Texas.
• Electric Plant data are from Federal Power Commission Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."
• Average residential heating prices, Bureau of Labor Statistics.

Price

Electricity

		Cost of Fossil Fuels Delivered to Steam-Electric Utility Plants				Average Retail Electricity Prices[1]				
		Coal	Residual Oil[2]	Natural Gas[3]	All Fossil Fuels[2]	Residential	Commercial	Industrial	Other	Total[4]
		Cents per million Btu				Cents per kilowatt-hour				
1973	**AVERAGE**	**40.5**	**78.8**	**33.8**	**47.5**	**2.54**	**2.41**	**1.25**	**2.10**	**1.96**
1974	**AVERAGE**	**71.0**	**191.0**	**48.1**	**90.9**	**3.10**	**3.04**	**1.69**	**2.75**	**2.49**
1975	**AVERAGE**	**81.4**	**201.4**	**75.4**	**103.0**	**3.51**	**3.45**	**2.07**	**3.08**	**2.92**
1976	**AVERAGE**	**84.8**	**195.9**	**103.4**	**110.4**	**3.73**	**3.69**	**2.21**	**3.27**	**3.09**
1977	**AVERAGE**	**94.7**	**220.4**	**130.0**	**127.7**	**4.05**	**4.09**	**2.50**	**3.51**	**3.42**
1978	**AVERAGE**	**111.6**	**212.3**	**143.8**	**139.3**	**4.31**	**4.36**	**2.79**	**3.62**	**3.69**
1979	January	115.8	228.1	150.2	150.4	4.07	4.28	2.81	3.55	3.64
	February	114.6	240.6	159.1	154.3	4.09	4.30	2.85	3.73	3.66
	March	116.8	258.8	163.0	152.3	4.28	4.44	2.91	3.87	3.76
	April	120.1	264.6	164.7	151.4	4.51	4.54	2.92	3.87	3.82
	May	121.1	274.1	177.5	158.0	4.69	4.65	2.98	3.98	3.91
	June	121.8	289.3	179.5	161.2	4.88	4.73	3.04	4.05	4.03
	July	122.2	311.8	178.9	168.7	4.92	4.77	3.13	4.22	4.15
	August	122.5	323.5	180.9	167.1	4.94	4.79	3.13	3.88	4.18
	September	125.3	333.5	183.5	167.9	R4.96	4.84	R3.15	R4.07	R4.19
	October	127.4	346.1	189.1	167.3	R5.01	R4.94	R3.19	R4.07	R4.19
	November	127.7	363.1	180.3	171.5	R4.84	4.92	R3.19	R4.14	R4.14
	December	129.2	394.8	183.3	183.8	4.71	4.90	3.23	4.18	4.15
	AVERAGE	**122.4**	**299.7**	**175.4**	**162.1**	**4.63**	**4.67**	**3.03**	**3.94**	**3.97**
1980	January	128.7	423.5	194.8	187.3	4.69	4.90	3.29	4.19	4.19
	February	129.9	429.7	203.9	189.8	4.74	4.96	3.31	4.64	4.24
	March	130.1	411.0	207.9	184.8	4.92	5.17	3.45	4.69	4.40
	April	133.8	394.9	204.0	178.2	5.14	5.28	3.49	4.71	4.48
	May	133.3	403.1	212.0	180.3	5.41	5.44	3.59	4.97	4.63
	June	135.1	392.7	209.3	178.8	5.60	5.61	3.79	4.58	4.85
	July	137.4	394.5	228.5	199.0	5.66	5.65	3.93	4.93	5.03
	August	139.5	404.9	237.2	196.2	5.72	5.64	3.94	4.81	5.07
	September	NA	NA	NA	NA	5.71	5.73	3.88	4.95	5.03

Geographic coverage: Fossil Fuels—the lower 48 States and the District of Columbia. Electricity—the 50 United States and the District of Columbia.
[1]Prices are for Classes A and B privately owned electric utilities.
[2]See Explanatory Note 19.
[3]Includes small quantities of coke oven gas, refinery gas and blast furnace gas.
[4]Average price for total sales to ultimate consumers.
NA = Not available. R = Revised data.
Sources: • Cost of Fossil Fuels, Federal Power Commission Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."
• Retail Price, January 1973 thru February 1980: Federal Power Commission, Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: Federal Energy Regulartory Commission, Form 5, "Electric Utility Company Monthly Statement."

Part 10 International

International

Crude Oil Production

World crude oil production during August 1980 was 59.5 million barrels per day, down just 0.2 million barrels per day from the July level.

OPEC output during August remained at the same level as July averaging 27.0 million barrels per day. Average production from Arab members of OPEC increased slightly. Among OPEC producers, Kuwait registered the only significant increase (0.1 million barrels per day) and Iran the notable decrease (0.1 million barrels per day).

Production by non-OPEC nations decreased during August to 32.5 million barrels per day, down 0.1 million barrels per day from the previous month's level. Production in both the United States and Canada decreased by nearly 0.1 million barrels per day in August.

Petroleum Consumption

Petroleum consumption by International Energy Agency (IEA) member nations was 30.9 million barrels per day during July 1980. This preliminary figure indicates a 0.5 million barrels per day decrease from the consumption rate during June 1980, and a 2.2 million barrels per day decrease from the July 1979 rate of 33.1 million barrels per day.

Preliminary consumption data for August and September 1980 were available for only France, Italy, and the United States. Consumption levels for all three countries were up in September 1980 from the previous month. The size of the increases were (in millions of barrels per day): United States, 0.8; France, 0.5; and Italy, 0.3. January through July data, however indicate a significant decline in the consumption rates for the group of IEA nations, as compared to the same period last year.

Nuclear Electricity Production

As of September 1980, 18 non-Communist countries operated a total of 203 reactors which were authorized to generate commercial electricity. These units represented a combined gross electricity generating capacity of 125.5 million kilowatts, of which 58.2 million kilowatts, or about half, were attributable to the 74 U.S. reactors. During September 1980, these 18 countries generated a total of 52.3 billion gross kilowatthours, an output essentially unchanged from August 1980, but about 10 percent higher than the September 1979 output.

The developing countries currently possess an installed nuclear-electricity generating capacity of about 3.4 million kilowatts, which accounts for less than 2 percent of their electricity consumption. The Swedish reactor, Ringhals-3, went on line in September 1980.

International

Crude Oil Production for Major Petroleum Exporting Countries

		Algeria	Iraq	Kuwait[1]	Libya	Qatar	Saudi Arabia[1]	United Arab Emirates	Arab Members of OPEC[2]	Indonesia	Iran
		Thousand barrels per day									
1973	**AVERAGE**	**1,070**	**2,018**	**3,020**	**2,175**	**570**	**7,596**	**1,533**	**17,982**	**1,339**	**5,860**
1974	**AVERAGE**	**960**	**1,971**	**2,546**	**1,521**	**518**	**8,480**	**1,679**	**17,675**	**1,375**	**6,022**
1975	**AVERAGE**	**960**	**2,262**	**2,084**	**1,480**	**438**	**7,075**	**1,664**	**15,963**	**1,307**	**5,350**
1976	**AVERAGE**	**1,020**	**2,415**	**2,145**	**1,933**	**497**	**8,577**	**1,936**	**18,523**	**1,504**	**5,863**
1977	**AVERAGE**	**1,100**	**2,350**	**1,980**	**2,065**	**445**	**9,210**	**2,000**	**19,150**	**1,685**	**5,665**
1978	**AVERAGE**	**1,160**	**2,560**	**2,135**	**1,985**	**485**	**8,300**	**1,830**	**18,455**	**1,635**	**5,240**
1979	January	1,235	3,535	2,605	2,165	550	9,790	1,840	21,720	1,600	410
	February	1,235	3,535	2,695	2,150	555	9,780	1,835	21,785	1,615	760
	March	1,235	3,535	2,580	2,070	370	9,780	1,830	21,400	1,625	2,190
	April	1,235	3,535	2,535	2,060	550	8,790	1,755	20,460	1,605	3,800
	May	1,235	3,535	2,575	2,040	540	8,780	1,860	20,565	1,565	4,100
	June	1,235	3,535	2,575	2,015	455	8,780	1,870	20,465	1,610	3,950
	July	1,035	3,335	2,540	2,070	520	9,780	1,835	21,115	1,600	3,750
	August	1,035	3,335	2,515	2,080	535	9,770	1,835	21,105	1,595	3,600
	September	1,035	3,335	2,365	2,020	455	9,780	1,840	20,830	1,575	3,600
	October	1,035	3,335	2,365	2,030	490	9,725	1,785	20,765	1,570	3,930
	November	1,035	3,335	2,435	2,085	525	9,795	1,870	21,080	1,570	3,170
	December	1,035	3,335	2,240	2,090	545	9,775	1,875	20,895	1,565	3,000
	AVERAGE	**1,135**	**3,435**	**2,500**	**2,065**	**505**	**9,530**	**1,835**	**21,005**	**1,590**	**3,035**
1980	January	1,150	3,400	2,140	2,100	495	9,785	1,740	20,810	1,565	2,295
	February	1,150	3,400	2,335	2,100	460	9,780	1,740	20,965	1,550	2,500
	March	1,150	3,400	2,090	2,000	500	9,790	1,695	20,625	1,575	2,350
	April	1,000	3,300	1,570	1,750	500	9,765	1,705	19,590	1,580	2,200
	May	1,000	3,300	1,525	1,750	480	9,775	1,765	19,595	1,550	1,700
	June	1,000	3,300	1,575	1,700	440	9,775	1,750	19,540	1,545	1,500
	July	1,000	3,100	R1,365	R1,680	460	9,765	1,710	R19,080	1,565	1,700
	August	1,000	3,100	1,465	1,680	465	9,765	1,665	19,140	1,565	1,600

Note: Data for 1980 are preliminary.
[1]Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In August 1980 total production in this region amounted to approximately 525,000 barrels per day.
[2]Arab members of OPEC include Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.
Additional footnotes on following page.

International

Crude Oil Production for Major Petroleum Exporting Countries (continued)

		Nigeria	Vene-zuela	Total OPEC[2]	Canada	Mexico	United Kingdom	United States	China	USSR	Other[3]	World
						Thousand barrels per day						
1973	**AVERAGE**	**2,054**	**3,366**	**30,961**	**1,800**	**450**	**8**	**9,208**	**1,140**	**8,420**	**3,843**	**55,830**
1974	**AVERAGE**	**2,255**	**2,976**	**30,683**	**1,695**	**580**	**9**	**8,774**	**1,310**	**9,020**	**3,805**	**55,875**
1975	**AVERAGE**	**1,783**	**2,346**	**27,134**	**1,420**	**720**	**20**	**8,375**	**1,490**	**9,630**	**4,201**	**52,990**
1976	**AVERAGE**	**2,067**	**2,294**	**30,711**	**1,300**	**800**	**245**	**8,132**	**1,735**	**10,170**	**4,302**	**57,395**
1977	**AVERAGE**	**2,085**	**2,240**	**31,230**	**1,320**	**980**	**770**	**8,245**	**1,875**	**10,700**	**4,490**	**59,610**
1978	**AVERAGE**	**1,895**	**2,165**	**29,800**	**1,315**	**1,215**	**1,080**	**8,707**	**2,080**	**11,215**	**4,698**	**60,190**
1979	January	2,440	2,265	28,880	1,450	1,395	1,465	8,457	2,120	11,370	4,743	59,880
	February	2,430	2,345	29,380	1,575	1,400	1,505	8,498	2,120	11,370	4,622	60,470
	March	2,440	2,425	30,515	1,405	1,310	1,335	8,585	2,120	11,370	5,230	61,870
	April	2,420	2,385	31,095	1,510	1,400	1,460	8,533	2,120	11,510	4,882	62,510
	May	2,400	2,385	31,445	1,465	1,405	1,645	8,585	2,120	11,110	4,695	62,470
	June	2,420	2,245	31,115	1,465	1,440	1,745	8,409	2,120	11,460	4,766	62,520
	July	2,380	2,325	31,515	1,520	1,440	1,710	8,355	2,120	11,400	5,630	63,690
	August	2,185	2,325	31,230	1,450	1,460	1,640	8,699	2,120	11,560	5,171	63,330
	September	2,115	2,365	30,895	1,490	1,475	1,675	8,466	2,120	11,460	5,129	62,710
	October	2,135	2,370	31,180	1,545	1,515	1,615	8,568	2,120	11,630	5,152	63,325
	November	2,150	2,390	30,770	1,525	1,620	1,520	8,649	2,120	11,700	5,236	63,140
	December	2,150	2,410	30,430	1,545	1,660	1,545	8,587	2,120	11,700	5,033	62,620
	AVERAGE	**2,305**	**2,355**	**30,710**	**1,495**	**1,460**	**1,570**	**8,533**	**2,120**	**11,470**	**5,042**	**62,400**
1980	January	2,155	2,280	29,535	1,515	1,720	1,600	8,648	2,120	11,560	R5,042	R61,740
	February	2,160	2,200	29,805	1,475	1,725	1,660	8,696	2,120	11,550	R5,189	R62,220
	March	2,155	1,995	29,100	1,475	1,830	1,670	8,712	2,120	11,640	R5,203	R61,750
	April	2,100	2,045	27,965	1,390	1,885	1,510	8,688	2,120	11,630	R5,352	R60,540
	May	2,200	2,150	27,645	1,470	1,910	1,600	8,640	2,120	11,700	R5,175	R60,260
	June	2,110	2,050	27,175	1,535	1,905	1,625	R8,547	2,120	11,630	R5,203	R59,740
	July	R2,095	2,170	R27,030	R1,520	2,015	1,585	8,650	2,120	11,800	R4,940	R59,660
	August	2,050	2,210	27,005	1,440	2,000	1,535	8,560	2,120	11,800	5,040	59,500

United States geographic coverage: the 50 United States and District of Columbia.
[2]OPEC total includes production in Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, United Arab Emirates, Indonesia, Iran, Nigeria, Venezuela, Ecuador, and Gabon.
[3]Other is a calculated total derived from the difference between world production and the nations represented above.
R = Revised data.
Note: Monthly data may not average to annual data. Data for 1980 are preliminary.
Sources: • 1973–1978 annual data for OPEC nations: *OPEC Annual Statistical Bulletin.*
- 1978 and 1979 annual data and 1980 monthly data (except U.S.): Central Intelligence Agency, *International Energy Statistical Review.*
- 1979 monthly data (except U.S.) are EIA estimates based on CIA revisions to annual data.
- 1973–1980 United States data: See sources on the last page of the Petroleum Section.

International

Petroleum Consumption for Major Free World Industrialized Countries[1]

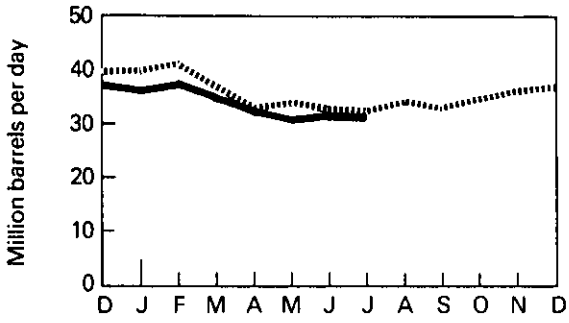
		Canada	France[2]	Italy	Japan	United Kingdom	United States	West Germany	Other IEA[3]	Total IEA[4]
					Thousand barrels per day					
1973	**AVERAGE**	**1,597**	**2,219**	**1,525**	**5,000**	**1,958**	**17,308**	**2,693**	**4,069**	**34,150**
1974	**AVERAGE**	**1,630**	**2,094**	**1,521**	**4,872**	**1,829**	**16,653**	**2,408**	**4,047**	**32,960**
1975	**AVERAGE**	**1,595**	**1,925**	**1,468**	**4,568**	**1,633**	**16,322**	**2,319**	**3,905**	**31,810**
1976	**AVERAGE**	**1,647**	**2,075**	**1,503**	**4,786**	**1,601**	**17,461**	**2,507**	**4,265**	**33,770**
1977	**AVERAGE**	**1,661**	**1,973**	**1,476**	**5,015**	**1,655**	**18,431**	**2,478**	**4,214**	**34,930**
1978	**AVERAGE**	**1,701**	**2,077**	**1,551**	**5,115**	**1,683**	**18,847**	**2,596**	**4,387**	**35,880**
1979	January	1,881	2,786	1,950	5,579	1,883	20,596	2,893	5,157	40,000
	February	2,019	2,731	1,912	6,009	2,067	21,266	2,708	5,240	41,100
	March	1,654	2,315	1,601	5,708	1,949	19,270	2,592	4,716	37,400
	April	1,605	2,150	1,447	5,009	1,703	17,429	2,590	4,327	34,000
	May	1,650	2,039	1,402	4,757	1,648	17,822	2,641	4,384	34,200
	June	1,737	1,663	1,312	4,709	1,517	17,755	2,613	4,137	33,700
	July	1,700	1,604	1,314	4,689	1,435	17,100	2,626	4,281	33,100
	August	1,775	1,553	1,311	4,894	1,488	18,211	2,617	4,531	34,800
	September	1,619	1,721	1,617	4,809	1,520	17,428	2,597	4,468	33,900
	October	1,852	2,007	1,807	4,771	1,652	18,159	2,846	4,448	35,500
	November	1,840	2,481	1,890	5,359	1,858	18,336	2,763	4,428	36,400
	December	1,877	2,278	1,744	5,800	1,606	18,824	2,489	4,801	37,100
	AVERAGE	**1,766**	**2,107**	**1,607**	**5,173**	**1,690**	**R18,502**	**2,664**	**4,569**	**35,900**
1980	January	1,812	2,465	1,778	5,255	R1,781	18,509	2,665	R4,499	36,300
	February	R1,925	2,444	1,864	5,722	1,621	18,721	2,393	R4,653	R36,900
	March	R1,740	1,982	1,657	R5,433	1,585	17,279	2,405	R4,400	R34,500
	April	R1,560	2,110	R1,541	R4,626	1,472	16,616	2,656	R4,328	32,800
	May	R1,573	R1,892	R1,448	R4,376	R1,348	16,143	2,203	R4,007	31,100
	June	1,621	R1,848	1,493	R4,224	R1,286	R16,479	R2,192	4,105	R31,400
	July	1,693	R1,437	1,506	4,215	1,225	15,856	2,404	4,001	30,900
	August	NA	1,220	1,310	NA	NA	15,836	NA	NA	NA
	September	NA	1,720	1,640	NA	NA	16,612	NA	NA	NA

United States geographic coverage: the 50 United States and District of Columbia.
[1]These data represent inland consumption, i.e., sales of petroleum products excluding refinery fuel, refinery losses, and ocean bunkers except for the United States, where it represents domestic products supplied.
[2]Not a member of the International Energy Agency (IEA).
[3]Other is a calculated total derived from the difference between total IEA consumption and the IEA nations represented above.
[4]The 21 signatory nations of the International Energy Agency (IEA) are: Australia, Austria, Belgium, Canada, Denmark, West Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States. Australia and Portugal joined the IEA as new members in 1979 and 1980, respectively. In an effort to maintain comparability within this time series, consumption data for these two countries have been incorporated into the IEA total for all years.
R = Revised data.
NA = Not available.
Note: Data for 1980 are preliminary.
Sources: • Central Intelligence Agency, "International Energy Statistical Review," 25 November 1980 (except United States).
• 1973–1980 United States data: See sources on last page of the Petroleum Section.
• IEA totals for most recent months are EIA estimates.

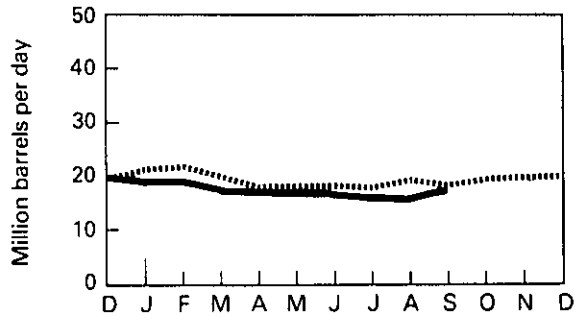
International

Petroleum Consumption

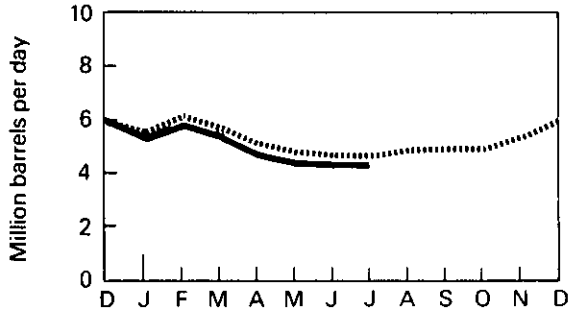
Total IEA



United States



Japan*



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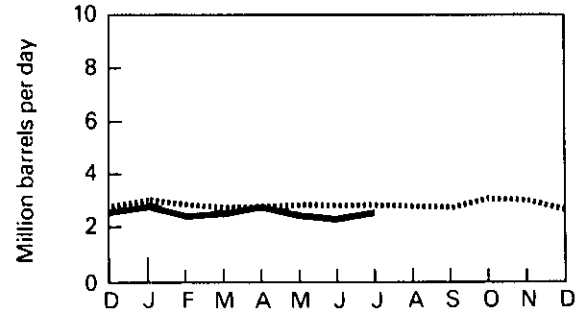
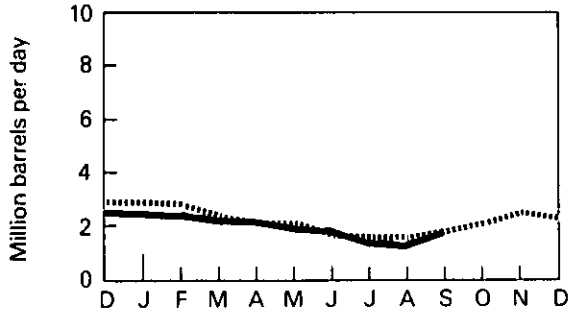


France**



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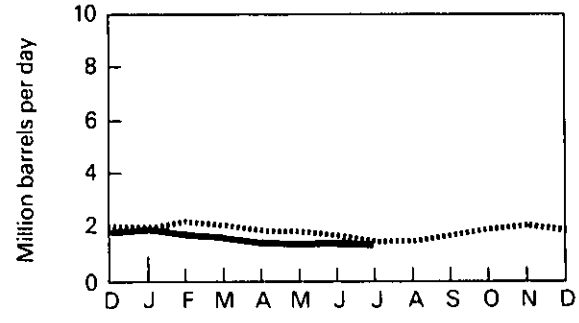

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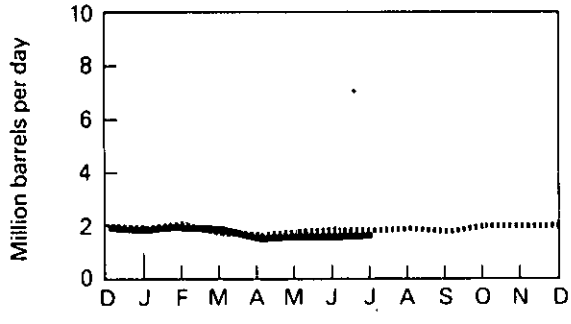
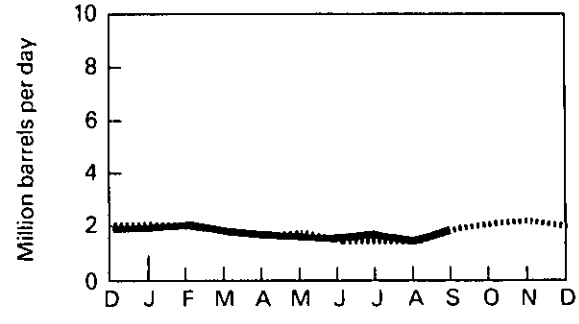


Italy***



*Excludes liquefied petroleum gases and condensates.
**Not a member of IEA.

***Principal products only.

..... 1979
——— 1980

International

Nuclear Electricity Generation by Non-Communist Countries[1]

		Argentina	Belgium	Canada[2]	Finland	France	India	Italy	Japan	Nether-lands	Pakistan
						Million gross kilowatt-hours					
1973	**TOTAL**	**0**	**0**	**18,273**	**0**	**R11,617**	**1,936**	**3,142**	**9,439**	**R1,111**	**458**
1974	**TOTAL**	**R1,036**	**121**	**15,410**	**0**	**14,703**	**2,475**	**3,410**	**18,097**	**R3,277**	**584**
1975	**TOTAL**	**2,517**	**6,763**	**13,243**	**0**	**18,296**	**2,514**	**3,801**	**R22,196**	**3,335**	**546**
1976	**TOTAL**	**2,572**	**10,011**	**18,016**	**0**	**15,764**	**3,194**	**R3,807**	**R36,846**	**3,872**	**487**
1977	**TOTAL**	**1,637**	**11,855**	**26,759**	**2,675**	**17,940**	**2,779**	**3,384**	**R28,135**	**3,710**	**338**
1978	**TOTAL**	**2,896**	**12,490**	**32,925**	**R3,288**	**R30,548**	**2,264**	**R4,428**	**R53,186**	**4,060**	**229**
1979	January	266	838	3,816	R548	3,831	356	401	R5,724	390	23
	February	175	559	2,945	R493	3,465	248	277	R4,774	R352	12
	March	181	786	2,909	467	3,192	215	241	R4,254	383	0
	April	261	1,047	3,104	623	3,151	218	290	R3,852	R222	0
	May	254	R1,292	2,717	520	3,294	239	200	R3,614	343	0
	June	229	1,161	3,194	394	2,963	285	132	R4,470	365	0
	July	168	992	3,848	491	2,604	R307	0	5,862	373	0
	August	275	558	2,820	391	2,341	R266	122	6,724	254	0
	September	142	792	2,956	709	3,094	248	169	R5,338	362	0
	October	247	1,119	3,316	780	3,808	314	203	6,186	267	0
	November	255	964	2,909	561	3,563	304	227	5,353	37	0
	December	239	1,263	3,849	R693	R4,622	209	R366	5,852	140	0
	TOTAL	**2,692**	**11,370**	**38,383**	**6,671**	**R39,929**	**R3,210**	**2,627**	**62,003**	**3,489**	**35**
1980	January	264	1,180	3,582	822	5,519	215	156	8,013	381	0
	February	126	1,011	3,476	765	5,324	107	441	7,379	365	0
	March	0	1,006	3,678	790	5,058	163	523	7,995	385	0
	April	68	499	3,193	754	R5,039	273	391	5,637	343	0
	May	179	687	R2,493	314	R4,184	294	294	6,033	323	0
	June	250	R1,114	3,108	0	R4,075	242	97	6,642	341	0
	July	162	1,292	3,559	383	4,832	228	131	7,553	369	3
	August	256	1,266	R3,912	392	3,246	303	111	8,264	369	19
	September	252	1,112	3,115	421	4,544	311	68	6,729	363	21
	TOTAL (Year-to-date)	**1,557**	**9,167**	**30,116**	**4,641**	**41,821**	**2,136**	**2,212**	**64,245**	**3,239**	**42**

Note: In some cases, monthly figures are adjusted to reflect amended cumulative totals. Totals may not equal sum of components due to independent rounding.
[1]Figures are for gross electrical generation as opposed to net electrical generation. Net figures are generally less than gross figures by about 5 percent, which represents the energy consumed by the generating plants themselves.
[2]A few countries, such as Canada and the United Kingdom, assess generation statistics at 4- or 5-week intervals, rather than by calendar month.
R = Revised data.
Source: • *Nucleonics Week.*

International

Nuclear Electricity Generation by Non-Communist Countries[1] (continued)

		South Korea	Spain	Sweden	Switzer-land	Taiwan	United Kingdom[2]	West Germany	Non-Communist World Excluding U.S.	United States	Total Non-Communist World
		Million gross kilowatt-hours									
1973	**TOTAL**	**0**	**6,545**	**2,111**	**6,192**	**0**	**27,996**	**R11,907**	**R100,727**	**R87,968**	**R188,695**
1974	**TOTAL**	**0**	**7,223**	**1,647**	**7,037**	**0**	**34,020**	**R12,038**	**R121,078**	**R104,479**	**R225,557**
1975	**TOTAL**	**0**	**7,544**	**12,021**	**7,721**	**0**	**30,508**	**21,672**	**R152,677**	**R181,822**	**R334,499**
1976	**TOTAL**	**0**	**7,555**	**15,992**	**7,900**	**0**	**R36,806**	**24,524**	**R187,346**	**R201,555**	**R388,891**
1977	**TOTAL**	**71**	**6,525**	**19,890**	**8,070**	**R98**	**R38,079**	**35,807**	**R207,752**	**R263,167**	**R470,919**
1978	**TOTAL**	**2,324**	**7,649**	**23,781**	**8,349**	**2,670**	**R36,662**	**R35,881**	**R263,630**	**292,664**	**R556,294**
1979	January	272	549	2,326	804	445	3,787	R4,167	R28,543	R29,184	R57,727
	February	R355	622	1,973	725	306	3,811	R3,362	R24,454	R27,327	R51,781
	March	324	706	2,679	796	R520	R3,968	R3,775	R25,396	R25,538	R50,934
	April	262	637	1,449	R848	565	3,210	R3,767	R23,506	19,320	R42,826
	May	250	R116	1,268	R864	482	2,265	R3,460	R21,179	15,808	R36,987
	June	300	R260	1,003	R744	645	R3,149	R3,265	R22,559	R17,140	R39,699
	July	337	R344	1,008	R811	691	R2,640	R3,323	R23,799	R22,493	R46,292
	August	384	663	1,099	R746	646	2,409	R2,873	R22,571	R26,174	R48,745
	September	386	R725	1,370	R1,244	644	3,116	R2,641	R23,936	R23,169	R47,105
	October	282	676	2,048	R1,388	509	2,771	R3,656	R27,570	R22,315	R49,885
	November	0	719	2,302	1,418	316	3,279	R3,812	R26,019	R20,298	R46,317
	December	0	683	2,515	1,461	559	4,070	R4,074	R30,594	21,933	R52,527
	TOTAL	**3,152**	**6,700**	**21,039**	**11,848**	**6,329**	**R38,477**	**R42,175**	**R300,130**	**R270,698**	**R570,827**
1980	January	110	719	2,512	1,505	859	3,704	R4,650	R34,191	21,111	R55,302
	February	1	333	2,423	1,197	685	3,380	R4,240	R31,253	R20,818	R52,071
	March	351	426	2,333	1,278	799	4,217	R3,383	R32,385	R21,038	R53,423
	April	385	355	1,865	1,444	743	2,693	3,625	R27,307	19,813	R47,120
	May	379	368	1,648	1,399	436	2,559	3,501	R25,091	19,612	R44,703
	June	84	307	1,570	R617	507	2,818	2,877	R24,649	19,386	R44,035
	July	411	316	1,337	577	827	2,031	3,034	R27,044	22,367	R49,411
	August	293	366	1,261	R704	773	2,579	2,712	R26,826	25,662	R52,488
	September	379	379	1,681	1,261	784	2,921	3,182	27,523	24,770	52,293
	TOTAL (Year-to-date)	**2,393**	**3,569**	**16,630**	**9,982**	**6,413**	**26,902**	**31,204**	**256,269**	**194,577**	**450,846**

United States geographic coverage: the 50 United States and District of Columbia.
Note: In some cases, monthly figures are adjusted to reflect amended cumulative totals. Totals may not equal sum of components due to independent rounding.
[1]Figures are for gross electrical generation, as opposed to net electrical generation. Net figures are generally less than gross figures by about 5 percent, which represents the energy consumed by the generating plants themselves.
[2]A few countries, such as Canada and the United Kingdom, assess generation at 4- or 5-week intervals, rather than by calendar month.
R = Revised data.
Source: • *Nucleonics Week.*

Definitions

Anthracite

A hard, black lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. Often referred to as hard coal. Includes metaanthracite and semianthracite. Conforms to ASTM Specification D388, for anthracite.

Average Retail Selling Price, Motor Gasoline

The average price of sales of motor gasoline to retail customers at service stations.

Base Production Control Level

(See Crude Oil)

Bituminous Coal

A coal which is high in carbonaceous matter, having a volatility greater than anthracite coal and a calorific value greater than lignite. Often referred to in the United States as soft coal. Includes subbituminous coal and conforms to ASTM Specification D388 for bituminous and subbituminous coal.

Ceiling Price

The maximum permissible selling price, prior to February 1, 1976, for a particular grade of domestic crude oil in a particular field is the May 15, 1973, posted price, plus $1.35 per barrel.

Coke (Coal)

Bituminous coal from which constituents have been driven off by heat so that the fixed carbon and the ash are fused together. It is primarily used in blast furnaces for smelting ores, especially iron ore.

Crude Oil

A mixture of hydrocarbons that is in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Statistically, crude oil reported at refineries, in pipelines, at pipeline terminals, and on leases may include lease condensate.

Base Production Control Level (BPCL): Prior to February 1, 1976, BPCL means the monthly total number of barrels of crude oil produced and sold from a property in 1972 or the average monthly production as defined in Section 212.72 of the Federal Energy Guidelines. After January 31, 1976, BPCL means either the daily average number of barrels produced and sold in 1975 multiplied by the number of days in the month (in 1972) or the daily number of barrels of crude oil produced and sold from the property in 1972 (leap year) multiplied by the number of days of the month (in 1972). A detailed explanation of BPCL and adjustments thereto may be found in Section 212.72 of the Federal Energy Guidelines.

A. Lower Tier (Old) Crude Oil: (1) Prior to February 1, 1976, the total number of barrels of domestic crude oil produced and sold from a property in a specific month, less the total number of barrels of new crude oil for that property in that month, and less the total number of barrels of *released* crude oil for that property in that month. (2) Effective February 1, 1976, the total number of barrels of domestic crude oil produced and sold from a property in a specific month, less the total number of barrels of new crude oil for that property in that month.

B. Upper Tier (New) Crude Oil: With respect to a specific property, (1) prior to February 1, 1976, the total number of barrels of domestic crude oil produced and sold in a specified month, less (a) the base production control level for that month, and less (b) the current cumulative deficiency; (2) effective February 1, 1976, the total number of barrels of domestic crude oil produced and sold in a specific month less (a) the property's base production control level for that month and less (b) the current cumulative deficiency since February 1, 1976; and (3) that the total number of barrels of domestic crude oil shall not in either period include any number of barrels not certified as new crude oil pursuant to the provisions of 10 CFR 313.131(a)(1) within the consecutive 2-month period immediately succeeding the month in which the crude oil is produced and sold except where such recertification is explicitly required or permitted by DOE order, interpretation, or ruling.

C. Decontrolled Oil: Crude oil (exclusive of Stripper oil, Naval Petroleum Reserves oil, Newly Discovered, and Incremental Tertiary oil) which has been explicitly exempted by rule or the exception process from Federal crude oil price controls.

1. Heavy Crude Oil: Crude oil produced and sold from a property whose production of crude oil in June 1979 (or if there was no such production sold in that month, the last preceding month in which there was such production sold) had a weighted average gravity of 16° API or less corrected to 60° F based on the average gravity reported on the run tickets. Effective December 29, 1979, regulations redefined heavy crude oil as 20° API gravity, or less.

2. Incremental Tertiary Oil: Oil which is produced under a qualified tertiary enhanced recovery project certified by the Economic Regulatory Administration, DOE, and which is certified as "incremental tertiary" crude oil in accordance with 10 CFR 212.78.

3. Marginal Property Oil: Oil which is produced from a property which has qualified as a "marginal" property under the average well-completion depth and daily production qualification thresholds of 10 CFR 212.72 and which has been released for sale at upper tier prices.

4. Newly Discovered Crude Oil: Crude oil sold after May 31, 1979, which was produced from: (1) an area in the Outer Continental Shelf for which the

lease was entered into on or after January 1, 1979, and from which there was no production in calendar year 1978; or (2) an onshore property from which no crude oil was produced in calendar year 1978.

5. Stripper Oil: Crude oil which is produced from property whose average daily production per well (excluding condensate recovered in nonassociated natural gas production) did not exceed 10 barrels per day during any preceding consecutive 12-month period beginning after December 31, 1972. Stripper oil was exempt from price controls beginning September 1, 1976.

6. Tertiary Incentive Oil: Price-controlled crude oil which has been released for sale at the market-clearing prices to provide front-end money to initiate or expand qualified tertiary enhanced recovery projects and which has been certified as "tertiary incentive" oil in accordance with 10 CFR 212.78.

Crude Oil Domestic Production

Domestic crude oil production is measured at the wellhead and includes lease condensate, which is a natural gas liquid recovered from lease separators or field facilities.

Crude Oil Entitlement Value

The average value a refiner receives from the entitlement program for each incremental barrel of imported crude oil. It is calculated by multiplying the entitlement price by the National Old Oil Supply Ratio for November 1974 through January 1976, and by the National Domestic Crude Oil Supply Ratio for February 1976 forward.

Crude Oil Refinery Input

Total crude oil (including lease condensate) input to crude oil distillation units and other units for processing.

Crude Oil Stocks

Stocks of crude oil and lease condensate held at refineries, in pipelines, at pipeline terminals, and on leases.

Distillate Fuel Oil

A light fuel oil distilled off during the refining process. Included are products known as No. 1 and No. 2 heating oils, diesel fuels, and No. 4 fuel oil, which conform to either ASTM Specification D396 or D975. These products are used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel), and electric power generation.

Distillate Fuel Oil Production

Total production of distillate fuel by refineries, measured at the refinery outlet. Relatively small quantities of distillate fuel are produced at natural gas processing plants, but these quantities are not included.

Electricity Production

Production at electric utilities only. Does not include industrial electricity generation.

Entitlement Position

The monthly entitlement position of a refiner indicates whether he bought or sold entitlements in that month. An entitlement is the right to process "deemed old oil," which is the sum of a refiner's receipts of "old" oil and a fraction of his receipts of "upper tier" crude oil. This fraction is set monthly by the Economic Regulatory Administration (ERA). A refiner must purchase entitlements for the amount of his "deemed old oil" receipts in excess of the national domestic crude oil supply ratio (NDCOSR). The NDCOSR, as calculated by ERA, reflects the differences in costs to refiners of "old" oil, "upper tier" crude oil, and imported crude oil.

Entitlement Price

The price of an entitlement, fixed by ERA, is the exact differential as reported for the month between the weighted average delivered cost per barrel to refiners of both imported crude oil and stripper crude oil, and the weighted average delivered cost per barrel to refiners of "old oil".

Exploratory Well

A well drilled to 1.) find and produce oil or gas in an unproved area; 2.) find a new reservoir in a field previously found to be productive of oil or gas in another reservoir; or 3.) extend the limit of a known oil or gas reservoir.

Full Serve

Motor vehicle services are provided by an attendant, such as: pumping gas, washing windows, checking under the hood, checking tire pressure, etc.

Imports

Receipts into the 50 States and the District of Columbia of foreign goods (including receipts of goods from U.S. territories and U.S. Foreign Trade Zones) which are classified by customs officials as "imports for consumption" or "withdrawals from bonded warehouse for consumption," including withdrawals from bonded warehouse for military offshore use and for bunkering of vessels or aircraft engaged in international commerce. Included are imports for the Strategic Petroleum Reserve. Excluded are receipts into bonded warehouse and into U.S. territories and U.S. Foreign Trade Zones.

Jet Fuel

Includes both naphtha-type and kerosene-type jet fuel meeting standards for use in aircraft turbine engines or

meeting ASTM Specification D1655. Although most jet fuel is used in aircraft, some is used for other purposes, such as fuel for gas turbines to produce electricity.

Landed Cost

Includes the purchase price at the foreign port (or U.S. land border), transportation and insurance costs, wharfage and demurrage, brokerage fees, import fees and duties, license (ticket) fees, and transportation costs to the refinery. Averages computed based on major importers which account for an estimated 90 to 95 percent of total crude oil imports. Coverage includes United States and its territories.

Lease Condensate

A natural gas liquid recovered from gas well gas (including gas produced from crude oil reservoirs) in lease separators and, in some instances, field facilities. It consists primarily of pentanes and heavier hydrocarbons. Generally, it is blended with crude oil for refining.

Line Miles of Seismic Exploration

The distance along the earth's surface that is covered by seismic traverses.

Lignite

A brownish-black coal of low rank with high inherent moisture and volatile matter. It is also referred to as brown coal. It conforms to ASTM Specification D388 for lignite and is used almost exclusively for electric power generation.

Lower Tier Crude Oil

(See Crude Oil, Part A.)

Major Brand

Lundberg Survey, Inc., defines major brand as an integrated company that produces, refines, transports, and markets in Interstate Commerce under its own brand(s) in 10 or more states.

Maximum Dependable Capacity

Represents the dependable main-unit net capacity of domestic reactors and generally varies throughout the year because the unit efficiency varies with seasonal cooling water temperature variations. Usually maximum dependable capacity is the highest net dependable output of the turbine generator during the most restrictive seasonal conditions (usually summer).

Motor Gasoline

A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark ignition engines. Included are leaded and unleaded products and all refinery products listed in ASTM Specification D439.

Motor Gasoline Production

Total production of motor gasoline by refineries, measured at the refinery outlet. Relatively small quantities of motor gasoline are produced at natural gas processing plants, but these quantities are not included.

Motor Gasoline, Regular Grade

Motor gasoline that has an antiknock designation of 2 for unleaded gasoline and 3 for leaded gasoline.

Motor Gasoline, Premium Grade

Volatile hydrocarbon mixture suitable for operation of an internal combustion engine and customarily marketed as "ethyl," "super," or equivalent classification.

National Domestic Crude Oil Supply Ratio

Old oil receipts adjusted for upper tier receipts, small refiner bias, and other minor adjustments, divided by crude runs to stills adjusted for residual fuel entitlements.

Natural Gas

A mixture of hydrocarbon compounds and small quantities of various non-hydrocarbons existing in gaseous phase or in solution with crude oil in natural underground reservoirs at reservoir conditions.

Natural Gas Liquids

Those portions of reservoir gas which are liquefied at the surface in lease separators, field facilities, or natural gas processing plants. Natural gas liquids include natural gas plant liquids and lease condensate.

Natural Gas Plant Liquids

Those portions of natural gas that are liquefied at natural gas processing plants, including natural gasoline, fractionating, and cycling plants, and, in some instances, field facilities. Products obtained include ethane, liquefied petroleum gases (propane, butanes, propane-butane mixtures, ethane-propane mixtures), isopentane, natural gasoline, unfractionated streams, plant condensate and other minor quantities of finished products such as motor gasoline, special naphthas, jet fuel, kerosene and distillate fuel oil.

Natural Gas Production (Dry)

Derived by subtracting extraction loss from marketed production. It represents the amount of domestic natural gas production that is available to be marketed and consumed as a gas.

New Crude Oil

(See Crude Oil, Part B.)

Old Crude Oil

(See Crude Oil, Part A.)

Petroleum

A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, refined petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products.

Petroleum Coke

A solid residue; the final product of the condensation process in cracking. It consists of aromatic hydrocarbons very poor in hydrogen. Calcination of petroleum coke can yield almost pure carbon or artificial graphite suitable for production of carbon or graphite electrodes, structural graphite, motor brushes, dry cells and similar productions.

Petroleum Products

Products obtained from the processing of crude oil, unfinished oils, natural gas liquids and other miscellaneous hydrocarbon compounds. Includes aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, ethane, liquefied petroleum gases, petrochemical feedstocks; special naphthas, lubricants, paraffin wax, petroleum coke, asphalt, road oil, still gas and other miscellaneous products.

Property

Prior to August 26, 1976, a property was defined as the right to produce domestic crude oil, which arises from a lease or from a fee interest. This definition was interpreted to apply only to a surface lease. In August 1976 the definition of a property was changed so that a producer may treat as a separate property each separate and distinct producing reservoir subject to the same right to produce crude oil, provided that such reservoir is recognized by the appropriate governmental regulatory authority as a producing formation that is separate and distinct from, and not in communication with any other producing formation. Although this new definition was not implemented until August 25, 1976, it was made effective retroactively to February 1, 1976. (F.R. 36171, August 26, 1976.)

Refined Petroleum Product Supplied

Total refined petroleum product supplied is the sum of each refined petroleum product supplied. For each product the amount supplied is derived by summing production, imports, and withdrawals from primary stocks and subtracting exports.

Refiner Acquisition Cost

The cost to the refiner, including transportation and fees, of crude oil. The composite cost is the average of domestic and imported crude oil costs, and represents the amount of crude oil cost which refiners may pass on to their customers.

Residual Fuel Oil

The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as No. 5 and No. 6 fuel oil that conform to ASTM Specification D396, heavy diesel oil, Navy Special Oil, Bunker C oil, and acid sludge and pitch used as refinery fuels. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

Rotary Rig

A machine, used for drilling wells, that employs a rotating tube attached to a bit for boring holes through rock.

Self Serve

Motor vehicle services are not provided by attendants.

Strategic Petroleum Reserves

A plan developed to reduce the impact of interruption of imports of pertroleum. Congress enacted legislation to establish a Strategic Petroleum Reserve in Title I, Part B of the Energy Policy and Conservation Act of 1975, Public Law 94–163.

Startup Test Phase of Nuclear Powerplant

A nuclear powerplant that has been licensed by the Nuclear Regulatory Commission to operate, but that is in the initial testing phase during which production of electricity may not be continuous. In general, when the electric utility is satisfied with the plant's performance, it formally accepts the plant from the manufacturer, and places it in "commercial operation" status. A request is then submitted to the appropriate utility rate commission to include the powerplant in the rate base calculation.

Stocks (Refined Petroleum Product)

Stocks held at refineries, bulk terminals, and pipelines (including pipeline fill) where the storage capacity exceeds 50,000 barrels. Stocks held at natural gas processing plants are not included as well as stocks held in secondary storage facilities, such as those held by jobbers, dealers, independent marketers, and consumers.

Synthetic Natural Gas (SNG)

A product resulting from the manufacture, conversion, or reforming of petroleum hydrocarbons which may be easily substituted for or interchanged with pipeline quality natural gas.

Unaccounted for Crude Oil

Represents the arithmetic difference between the indicated demand for crude oil and the total disposition of crude oil. Indicated demand is the sum of crude oil production and imports less changes in crude oil stocks. Total disposition of crude oil is the sum of refinery input, exports of crude oil, crude oil burned as fuel, and crude oil losses.

Unrecouped Costs

Costs which have not been recovered in the current month's product prices but which have been "banked" for later use.

Upper Tier Crude Oil

(See Crude Oil, Part B.)

Well

A hole drilled for the process of finding or producing crude oil or natural gas or providing services related to the production of crude oil or natural gas. Wells are classified as oil wells, gas wells, dry holes, stratigraphic tests, or service wells.

Explanatory Notes

1. Domestic production of energy includes production of coal (anthracite, bituminous, and lignite), crude oil and lease condensate, natural gas plant liquids, natural gas (dry), electric utility and industrial production of hydropower, and electricity generated from nuclear power, geothermal power, and wood and waste. The volumetric data were converted to approximate heat contents (Btu values) of these energy sources using conversion factors listed in Thermal Conversion Factors.

2. Domestic consumption of energy includes consumption of coal (anthracite, bituminous, and lignite), natural gas (dry), refined petroleum products supplied, electric utility and industrial production of hydropower, net imports of electricity produced from hydropower, net imports of coke made from coal, and electricity generated from nuclear power, geothermal power, and wood and waste. Approximate heat contents (Btu values) were derived using conversion factors listed in Thermal Conversion Factors.

3. U.S. energy imports include imports of bituminous coal, crude oil (including crude oil imported for the Strategic Petroleum Reserve), refined petroleum products, natural gas (dry), electricity produced from hydropower, and coke made from coal.

4. U.S. energy exports include bituminous coal and anthracite, crude oil, refined petroleum products, natural gas (dry), electricity produced from hydropower, and coke made from coal.

5. The Residential and Commercial Sector consists of housing units, non-manufacturing business establishments (e.g., wholesale and retail businesses), health and educational institutions, and government office buildings. The Industrial Sector is made up of construction, manufacturing, agriculture, and mining establishments. The Transportation Sector consists of both private and public passenger and freight transportation, as well as government transportation, including military operations. The Electric Utilities Sector is made up of privately- and publicly-owned establishments which generate electricity primarily for resale.

6. Degree-days relate energy consumption to outdoor air temperature. Cooling degree-days are defined as deviations of the mean daily temperature at a sampling station above a base temperature equal to 65° F by convention. Heating degree-days are deviations of the mean daily temperature below 65° F. For example, if a weather station recorded a mean daily temperature of 78° F, cooling degree-days for that station would be 13 (and heating degree-days, 0). A weather station recording a mean daily temperature of 40° F would report 25 heating degree-days (and 0 cooling degree-days).

There are two degree-day data bases maintained by the National Oceanic and Atmospheric Administration. Weekly degree-day information is based on mean daily temperatures recorded at about 200 major weather stations around the country. Monthly data are based on readings at more than 8,000 weather stations. The temperature information recorded at these weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Petroleum Administration for Defense (PAD) Districts and into the national average, also using a population weighting method.

Weekly weather reports are available much sooner than the monthly reports, and therefore the degree-day information published in the *Monthly Energy Review* is normally derived from the weekly source.

7. Domestic products supplied figures for natural gas liquids (NGL) in this publication do not include amounts utilized by refineries for blending purposes in the production of finished products, principally gasoline. Use of NGL at refineries is reported in a separate column. The production series cited in this publication shows both NGL produced at processing plants and liquefied gases produced at refineries (LRG). LRG produced at refineries is extracted from crude oil and hence, to avoid double counting, should not be included in calculations of total U.S. production of petroleum liquids. The stock series shown in this volume includes natural gas liquids held as stocks at both natural gas processing plants and at refineries and LRG held at refineries.

Preliminary monthly estimates for 1980 production, stocks, and products supplied are obtained by multiplying the reported data for the most recent month available by an appropriate ratio derived from data for the prior 3 years. For example, if an estimate were required for June 1980 and the most recent monthly data available were for April, the preliminary estimate would be obtained by multiplying the April 1980 data by the average of the June to April ratios for the years 1977 through 1979.

8. Domestic consumption of natural gas includes the quantities sold to consumers plus the gas used for plant and pipeline fuel, after the natural gas liquids have been extracted. All monthly consumption data are estimated. Marketed production of natural gas includes gross withdrawals from the ground less the quantities used for repressuring and the amount vented and flared, before the natural gas liquids have been extracted. Dry production of natural gas is the quantity remaining after the natural gas liquids have been extracted.

9. The Federal Energy Administration and Federal Power Commission began the coordinated collection and compilation of monthly underground storage information from all underground storage operators in the United States in October 1975. Initial storage information reported was for the month of September 1975. Comparable monthly information for total U.S. storage operations is not available for prior periods.

The total gas in storage is the total volume of gas (base gas plus working gas) in storage reservoirs as of the end of the month. Base gas is the volume of gas, including all native gas in place at the time of

conversion to storage, needed as a permanent inventory to maintain adequate reservoir pressures and deliverability rates throughout the withdrawal season. Base gas includes the volumes which will not be recoverable upon termination of storage operations. Working gas is the volume of gas above the designated base gas level available for withdrawal.

10. Bituminous coal and lignite production is calculated from the number of railroad cars loaded at mines, based on the assumption that approximately 60 percent of the coal produced is transported by rail. Production data are estimated by EIA from Association of American Railroads reports of carloadings.

Bituminous coal and lignite consumption is calculated by Energy Information Administration (EIA) from information provided by the Federal Energy Regulatory Commission, Department of Commerce, and reports from selected manufacturing industries and retailers.

Domestic consumption data in this series, therefore, approximate actual consumption. This is in contrast to domestic demand reported for petroleum products, which is calculated value representing total disappearance from primary supplies.

The data sources used to compute the monthly coal consumption estimates from 1978 forward for the "Other Industrial" (i.e. Industrial except coke plants) sector are:

(a) Form EIA–3, "Monthly Fuel Consumption Report—Manufacturing Plants."
(b) Form EIA–6, "Bituminous Coal and Lignite Distribution Report."

The basic assumption used in deriving a quarterly estimate for coal consumption is that consumption is equal to beginning stocks plus receipts minus ending stocks. In terms of an equation, consumption can be expressed as

$$C = S_B + R - S_E, \quad (1)$$

where

S_B = beginning stocks
R = receipts
S_E = ending stocks.

The change in stocks ($S_B - S_E$) can be denoted by ΔS. From equation (1), consumption is

$$C = \Delta S + R. \quad (2)$$

The Form EIA–6 provides complete coverage of the "Other Industrial" sector. The quarterly receipts are obtained from this form.

The Form EIA–3 does not provide total coverage of the "Other Industrial" sector, however it does contain stock change information. The impact of the stock change in the portion of the sector that is not covered by the Form EIA–3 is not substantial.

Given the estimated quarterly consumption for the "Other Industrial" sector (C), the monthly consumption for the sector (C_M) can be estimated for each month in the quarter as

$$C_M = (C_{M3}/C_3) \bullet C \quad (3)$$

where

C_{M3} = the monthly consumption in the "Other Industrial" sector as reported on Form EIA–3.
C_3 = the quarterly consumption in the "Other Industrial" sector as reported on Form EIA–3.

Equation (3) insures that a) the monthly consumption estimates (C_M) sum to C over the quarter and b) the estimated seasonality for the C_M's is the same as that for the C_{M3}'s.

11. The units used to describe power generation at nuclear plants are based on the watt, which is a unit of power. (Power is energy produced per unit of time.) As with fossil-fueled plants, nuclear plants have three design power ratings. The normal rating (expressed in thermal megawatts) is the rate of heat production by the reactor core. The gross electrical rating (expressed in electrical megawatts, MWe) is the generator capacity at the stated thermal rating of the plant. The net electrical rating (also expressed in MWe) is the power available as input to the electrical grid after subtracting the power needed to operate the plant. (A typical nuclear plant needs 5 percent of its generated electricity for its own operation.)

The electrical energy produced by a plant is expressed in kilowatt-hours (kWh). This enables a more direct comparison to design capacity and to previous months' performances.

12. The actual domestic average price represents the average price at which all domestic crude oil is purchased. Prior to February 1976, the domestic crude oil wellhead price represented an estimate of the average of posted prices; after February 1976, the wellhead price represents an average of first sale prices. For the 2-year period January 1974 through January 1976, the old oil price at the wellhead was originally estimated to be $5.25 per barrel based on representative postings. This estimate was revised in July 1976 after a survey of crude oil purchasers was implemented and more complete data became available. Estimates of the average old oil price given in the table for months prior to February 1976 are based on prices for old oil reported on new leases, and were not derived from a statistically valid sample of old oil leases.

13. The refiner acquisition cost of domestic crude oil is the price paid by refiners for domestic crude oil and natural gas plant liquids and includes transportation costs from the wellhead to the refinery. The refiner acquisition cost of imported crude oil is the average landed cost of imported crude oil to the refiner and represents the amount which may be passed on to the consumer. It incorporates transportation costs and fees

(including the supplemental import fees) and any other costs incurred in purchasing and shipping crude oil to the United States

14. FOB literally means "Free on Board." It denotes a transaction whereby the seller makes the product available with an agreement on a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance.

15. The landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to March 1975, imported crude costs to U.S. company-owned refineries in the Caribbean were not included in the landed cost, and costs of crude oil from countries which export only small amounts to the United States were also excluded. Beginning in March 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.

16. The motor gasoline prices are calculated monthly by the BLS in conjunction with the construction of the Consumer Price Index (CPI). These prices are collected in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-serve).

17. The survey and method used to derive data for March 1976 forward differ from those used for prior months. Data for January 1974 through February 1976 are derived from a survey of distributors, and prices and margins are computed as unweighted averages. The average distributor purchase price and average dealer margin for March 1976 forward are for distributors only, whereas the average selling price includes both refiners and distributors. Data for March 1976 forward are computed as sales weighted averages.

18. The U.S. Department of Energy Regions are defined as follows:

Region 1 —Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island;
Region 2 —New York, New Jersey, Puerto Rico, Virgin Islands;
Region 3 —Pennsylvania, Maryland, West Virginia, Virginia, District of Columbia, Delaware;
Region 4 —Kentucky, Tennessee, North Carolina, South Carolina, Mississippi, Alabama, Georgia, Florida, Canal Zone;
Region 5 —Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio;
Region 6 —Texas, New Mexico, Oklahoma, Arkansas, Louisiana;
Region 7 —Kansas, Missouri, Iowa, Nebraska;
Region 8 —Montana, North Dakota, South Dakota, Wyoming, Utah, Colorado;
Region 9 —California, Nevada, Arizona, Hawaii, Trust Territory of the Pacific Islands, American Samoa, Guam;
Region 10—Washington, Oregon, Idaho, Alaska.

19. Residual fuel oil prices include fuel oil No. 4, No. 5, No. 6, crude oil and top crude fuel oil prices. The weighted average for all fossil fuels includes both residual fuel oil prices and light oil (fuel oil No. 2, kerosene, and jet fuel) prices.

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Conversion Factors

Thermal Conversion Factors

Approximate Heat Content of Various Fuels		1973	1974	1975	1976	1977	1978–79–80
Anthracite							
Production	Btu/short ton	23,170,000	22,560,000	23,390,000	22,770,000	23,180,000	23,520,000
Imports and Exports	Btu/short ton	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000
Consumption, average	Btu/short ton	22,710,000	21,950,000	21,740,000	22,150,000	22,710,000	22,970,000
Electric utility consumption	Btu/short ton	17,920,000	17,200,000	17,060,000	17,530,000	17,240,000	17,100,000
Non-utility consumption	Btu/short ton	24,340,000	23,750,000	23,650,000	23,840,000	24,990,000	25,170,000
Bituminous coal and lignite							
Production	Btu/short ton	24,010,000	23,730,000	23,200,000	23,150,000	22,700,000	22,430,000
Imports	Btu/short ton	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
Exports	Btu/short ton	27,000,000	27,000,000	27,000,000	27,000,000	27,000,000	27,000,000
Consumption, average	Btu/short ton	23,650,000	23,070,000	22,800,000	22,750,000	22,330,000	22,140,000
Electric utility consumption	Btu/short ton	22,260,000	21,800,000	21,660,000	21,690,000	21,480,000	21,280,000
Non-utility consumption	Btu/short ton	26,840,000	26,120,000	25,810,000	25,870,000	25,130,000	25,070,000
Coal Coke	Btu/short ton	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000
Crude petroleum[1]							
Production	Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000
Imports	Btu/barrel	5,817,000	5,827,000	5,821,000	5,808,000	5,810,000	5,802,000
Exports	Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000
Crude petroleum and products							
Imports, average	Btu/barrel	5,897,000	5,884,000	5,858,000	5,856,000	5,834,000	5,839,000
Exports, average	Btu/barrel	5,752,000	5,774,000	5,748,000	5,745,000	5,797,000	5,808,000
Petroleum products							
Consumption, average	Btu/barrel	5,515,000	5,504,000	5,494,000	5,504,000	5,526,000	5,519,000
Residential and Commercial	Btu/barrel	5,498,000	5,494,000	5,496,000	5,517,000	5,522,000	5,530,000
Industrial	Btu/barrel	5,515,000	5,473,000	5,443,000	5,457,000	5,519,000	5,487,000
Transportation	Btu/barrel	5,395,000	5,394,000	5,392,000	5,397,000	5,402,000	5,410,000
Electric Utility	Btu/barrel	6,223,000	6,215,000	6,229,000	6,235,000	6,231,000	6,227,000
Imports	Btu/barrel	5,983,000	5,959,000	5,935,000	5,980,000	5,908,000	5,955,000
Exports	Btu/barrel	5,752,000	5,773,000	5,747,000	5,743,000	5,796,000	5,814,000
Natural gas plant liquid production	Btu/barrel	4,049,000	4,011,000	3,984,000	3,964,000	3,941,000	3,925,000
Natural gas, dry							
Production and consumption	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019
Electric utility consumption	Btu/cubic foot	1,024	1,022	1,026	1,023	1,029	1,034
Non-utility consumption	Btu/cubic foot	1,020	1,024	1,020	1,019	1,019	1,016
Imports	Btu/cubic foot	1,026	1,027	1,026	1,025	1,026	1,030
Exports	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013
Hydropower[2]	Btu/kWh	10,389	10,442	10,406	10,373	10,435	10,435
Nuclear power[2]	Btu/kWh	10,903	11,161	11,013	11,047	10,769	10,769
Geothermal power[2]	Btu/kWh	21,674	21,674	21,611	21,611	21,611	21,611
Electricity consumption	Btu/kWh	3,412	3,412	3,412	3,412	3,412	3,412

Refined Petroleum Products:	Btu/barrel
Asphalt	6,636,000
Aviation gasoline	5,048,000
Butane	4,326,000
Butane-propane mixture[3]	4,130,000
Distillate fuel oil	5,825,000
Ethane	3,082,000
Isobutane	3,974,000
Jet fuel—kerosene type	5,670,000
Jet fuel—naphtha type	5,355,000
Kerosene	5,670,000
Lubricants	6,065,000
Motor gasoline	5,253,000
Natural gasoline	4,620,000
Petrochemical feedstocks	
Naphtha 400°	5,248,000
Other oils over 400°	5,825,000
Still gas	6,000,000
Petroleum coke	6,024,000
Plant condensate	5,418,000
Propane	3,836,000
Residual fuel oil	6,287,000
Road oil	6,636,000
Special naphtha	5,248,000
Still gas	6,000,000
Unfinished oils	5,825,000
Wax	5,537,000
Miscellaneous	5,796,000

Units of Measure

Weight

1 metric ton **contains** 1,000 kilograms or 2,204.62 pounds
1 long ton **contains** 2,240 pounds
1 short ton **contains** 2,000 pounds

Conversion Factors for Crude Oil (Average Gravity)

1 barrel **contains** 42 gallons
1 barrel **contains** 0.136 metric tons (0.150 short tons)
1 metric ton **contains** 7.33 barrels
1 short ton **contains** 6.65 barrels

Conversion Factors for Uranium

1 short ton (U_3O_8) **contains** 0.769 metric tons of uranium
1 short ton (UF_6) **contains** 0.613 metric tons of uranium
1 metric ton (UF_6) **contains** 0.676 metric tons of uranium

[1]Includes lease condensate

[2]There is no generally accepted practice for measuring hydropower thermal conversion rates. The hydropower factors on this page are the prevailing heat rate factors at fossil fuel steam electric powerplants. By using the heat rate factor, it is possible to evaluate fossil fuel requirements for replacing hydropower production during periods of drought. Furthermore, it allows for better comparisons with certain other countries such as Norway where hydropower is the principal means for producing electricity. Similarly, the nuclear power and geothermal power conversion factors represent the thermal conversion equivalent of the uranium and geothermal steam consumed at powerplants. The heat content of a kilowatt-hour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatt-hour. It is not possible to determine the hydroelectric powerplant efficiency by using these factors. The efficiency factor for hydroelectric powerplants is derived by multiplying generation efficiency by turbine efficiency. The average hydroelectric powerplant efficiency in the United States is 86 percent while average generation efficiency is 97 percent and average turbine efficiency is 89 percent.

[3]60 percent butane and 40 percent propane.

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