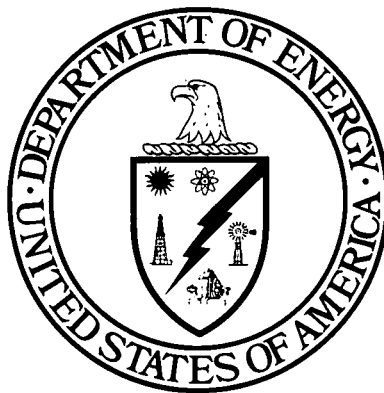


DOE/0035/12
NTISUB/D/127-012

December 1978

Monthly Energy Review



The *Monthly Energy Review* is prepared by the Office of Energy Data, Energy Information Administration, U.S. Department of Energy, under the direct supervision of Frank E. Lalley.

Editor: Kit C. Washam

Publication Coordinator and Editorial Review:
Bettie Bowman

Graphics Review: Graphics Branch, Office of
Administrative Services

Overview: Editor

Crude Petroleum and Products: William
Carrico, Leonard L. Fanelli

Natural Gas: Gordon Koelling

Coal: Leonard W. Westerstrom

Electric Utilities: Mark A. O'Neal

Nuclear Power: Barry W. Roberts

Consumption: Katherine Seiferlein,
Barbara Hughes

Degree-Days: Katherine Seiferlein,
Barbara Hughes

Resource Development: Robert Schmer

Price: Christopher B. Bordeaux, William Davis,
Annie Whatley

International: David A. Carleton

The cooperation of other government agencies and private establishments which provide data appearing in this publication is gratefully acknowledged.

This periodical is available on a subscription basis from the following:

Subscriptions
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

For addresses within the North American Continent, the cost is \$50 per year (12 issues), or \$68 per year for priority mailing. For addresses outside the North American Continent, the cost is \$100 per year. Single copies are available at \$6.25 each within the North American Continent and \$12.50 each outside the North American Continent.

Correspondence regarding editorial matters should be addressed to:

Editor, Monthly Energy Review
National Energy Information Center
U.S. Department of Energy
Washington, D.C. 20461

Feature articles appearing in previous issues:

Energy Consumption—March 1975

Nuclear Power—April 1975

The Price of Crude Oil—June 1975

U.S. Coal Resources and Reserves—July 1975

Propane, A National Energy Resource—
September 1975

Short-Term Energy Supply and Demand
Forecasting at FEA—October 1975

Curtailments of Natural Gas Service—January
1976

Home Heating Conservation Alternatives and the
Solar Collector Industry—March 1976

Trends in United States Petroleum Imports—
September 1976

Crude Oil Entitlements Program—January 1977

Motor Gasoline Supply and Demand—July 1977

Short-Term Petroleum Supply and Demand—
May 1978

Contents

Part 1—Overview	1
Energy Production	4
Net Imports of Energy	6
Merchandise Trade	8
Part 2—Consumption	11
Energy Consumption	12
Degree-Days	20
Part 3—Crude Oil and Refined Petroleum Products	21
Crude Oil	22
Total Refined Petroleum Products	24
Total Petroleum Imports	26
Motor Gasoline	28
Jet Fuel	30
Distillate Fuel Oil	32
Residual Fuel Oil	34
Natural Gas Plant Liquids	36
U.S. Petroleum Supply and Demand	38
Part 4—Natural Gas	39
Part 5—Resource Development	43
Oil and Gas Exploration and Development	44
Part 6—Coal	47
Bituminous, Lignite and Anthracite	48
Bituminous and Lignite	50
Anthracite	52
Part 7—Electric Utilities	53
Part 8—Nuclear Power	61
Part 9—Price	67
Crude Oil	68
Motor Gasoline	75
Aviation Fuels	81
Heating Oil	82
Diesel Fuel	84
Residual Fuel Oil	85
Propane and Butane	86
Electric Utilities	87
Natural Gas	88
Utility Fossil Fuels	91
Part 10—International	95
Petroleum Consumption	96
Crude Oil Production	98
Definitions	99
Explanatory Notes	103
Units of Measure	106

Overview

Domestic consumption of energy during September decreased 7.0 percent from August's consumption and 0.7 percent from September, 1977. For the first 9 months of 1978, domestic consumption was up 2.4 percent from the same period in 1977.

Domestic production of energy during September, 1978 totaled 4.9 quadrillion Btu, a decrease of 6.8 percent from August's production, and 5.8 percent from September of 1977. For the first 9 months of 1978, domestic production of energy was down 0.8 percent from the same period in 1977.

Imports of fossil fuels during September totaled 1.6 quadrillion Btu. For the first 9 months of 1978, imports of fossil fuels were down 9.3 percent from the same period in 1977 mainly due to the increase in Alaskan oil production and to the drawdown in primary stocks.

Exports of fossil fuels during September decreased 3.0 percent from August exports and 18.3 percent from September 1977 exports. For the first 9 months of 1978, exports decreased 20.8 percent from the same period in 1977.

Net imports of fossil fuels during September totaled 1.5 quadrillion Btu's. For the first 9 months of 1978, net imports decreased 9.1 percent from the same period in 1977.

The spread between total imports and exports during September showed a \$1.9 billion deficit, marking a 26.4 percent reduction below the August deficit.

		Domestic Production of Energy*	Domestic Consumption of Energy**	Imports of Fossil Fuels***	Exports of Fossil Fuels****
		Quadrillion Btu			
1972	TOTAL	R62.805	R71.643	R11.503	R2.134
1973	TOTAL	62.421	R74.620	R14.726	R2.071
1974	TOTAL	61.203	R72.736	R14.395	R2.245
1975	TOTAL	R60.022	R70.678	R14.079	R2.387
1976	January	R5.069	7.189	R1.317	R.136
	February	R4.858	R6.268	R1.235	R.132
	March	R5.194	R6.262	R1.310	R.151
	April	R4.946	5.737	R1.258	R.207
	May	R5.057	R5.665	R1.242	R.197
	June	R5.052	5.697	R1.404	R.226
	July	R4.799	5.891	R1.516	R.187
	August	R4.971	R5.836	R1.434	R.168
	September	R4.961	R5.613	R1.481	R.201
	October	R5.038	R6.124	R1.472	R.204
	November	4.957	6.607	R1.513	R.218
	December	R5.167	R7.524	R1.632	R.183
	TOTAL	R60.069	R74.413	R16.815	R2.210
1977	January	R4.782	R7.710	R1.715	R.103
	February	R4.632	R6.530	R1.737	R.130
	March	R5.333	R6.422	R1.793	R.139
	April	R5.017	R5.852	R1.623	R.200
	May	R5.154	R5.858	R1.658	R.215
	June	R5.072	R5.949	R1.651	R.214
	July	R4.837	R6.054	R1.732	R.199
	August	R5.043	R6.151	R1.654	R.169
	September	R5.202	R5.947	R1.603	R.197
	October	R5.270	R6.144	1.587	R.182
	November	R5.262	R6.369	R1.523	R.175
	December	R4.621	R7.314	R1.610	R.164
	TOTAL	R60.223	R76.299	R19.884	R2.088
1978	January	R4.485	R7.592	R1.565	R.079
	February	R4.142	R6.913	R1.391	R.058
	March	R4.864	R6.800	R1.618	R.066
	April	R5.147	R5.991	R1.420	R.135
	May	R5.481	R6.142	R1.425	R.186
	June	R5.307	R5.976	R1.475	R.225
	July	†R5.134	R6.162	R1.554	†.165
	August	†R5.260	R6.352	†R1.676	†.166
	September	†4.901	5.907	†1.627	†.163
	TOTAL (Year to date)	44.722	57.835	13.749	1.239

*See Explanatory Note 1.

**See Explanatory Note 2.

***See Explanatory Note 3.

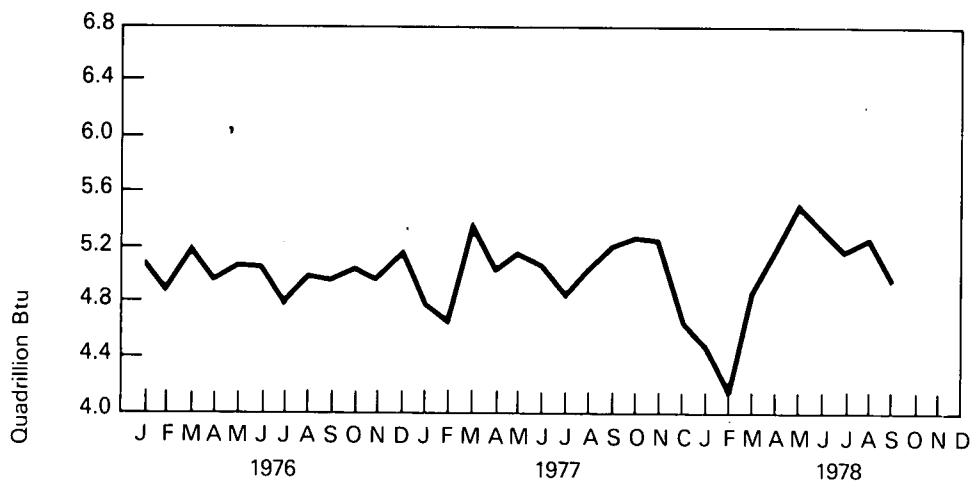
****See Explanatory Note 4.

†Preliminary data.

R=Revised data.

Source: Energy Information Administration (EIA) calculations based on data appearing elsewhere in this publication.

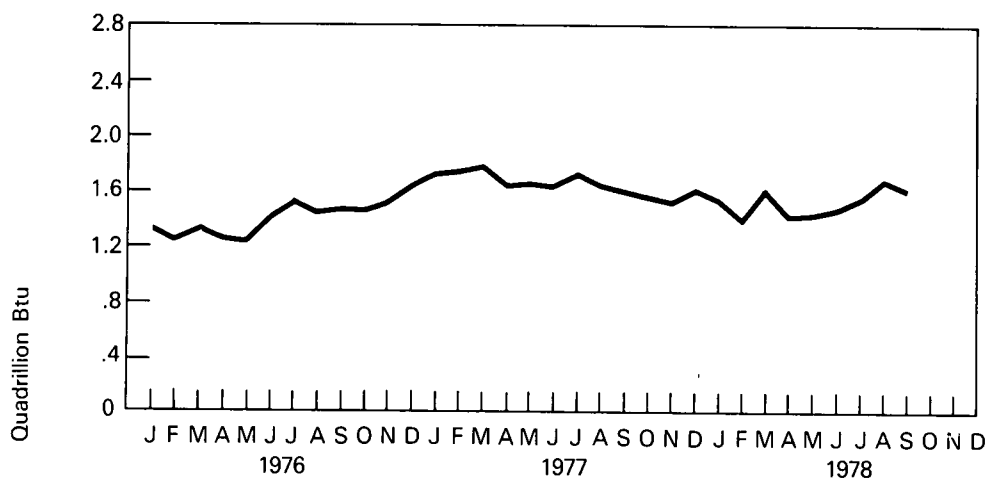
Domestic Production of Energy



Domestic Consumption of Energy



Imports of Fossil Fuels



U.S. Production of Energy

		Coal ¹	Crude Oil ²	NGPL ³	Natural Gas (dry)	Hydro-electric Power ⁴	Nuclear Electric Power	Geo-thermal and Other ⁵	Total
		Quadrillion Btu							
1972	TOTAL	14.500	20.041	2.578	22.208	2.864	.577	.039	62.805
1973	TOTAL	14.381	19.493	2.558	22.187	2.861	.890	.050	62.421
1974	TOTAL	14.487	18.575	2.479	21.211	3.177	1.215	.059	61.203
1975	TOTAL	15.201	17.729	2.382	19.641	3.155	1.839	.075	60.022
1976	January	1.230	1.480	.197	1.709	.274	.172	.008	5.069
	February	1.256	1.385	.191	1.609	.258	.153	.007	4.858
	March	1.424	1.460	.201	1.674	.280	.149	.008	5.194
	April	1.382	1.406	.194	1.585	.254	.117	.007	4.946
	May	1.355	1.469	.197	1.634	.269	.127	.007	5.057
	June	1.397	1.417	.193	1.601	.269	.168	.007	5.052
	July	1.038	1.457	.198	1.636	.274	.189	.007	4.799
	August	1.256	1.465	.198	1.597	.251	.196	.007	4.971
	September	1.417	1.418	.193	1.528	.214	.184	.007	4.961
	October	1.376	1.450	.199	1.600	.222	.185	.007	5.038
	November	1.373	1.406	.195	1.596	.209	.172	.006	4.957
	December	1.364	1.450	.197	1.711	.213	.225	.007	5.167
	TOTAL	15.870	17.262	2.350	19.480	2.986	2.037	.084	60.069
1977	January	1.030	1.401	.189	1.700	.218	.236	.008	4.782
	February	1.134	1.310	.175	1.636	.161	.209	.007	4.632
	March	1.537	1.442	.206	1.710	.209	.220	.008	5.333
	April	1.393	1.406	.196	1.606	.197	.212	.007	5.017
	May	1.439	1.440	.198	1.653	.198	.220	.007	5.154
	June	1.453	1.399	.191	1.610	.182	.229	.007	5.072
	July	1.142	1.446	.196	1.636	.178	.233	.007	4.837
	August	1.334	1.482	.194	1.607	.177	.243	.007	5.043
	September	1.599	1.464	.187	1.561	.174	.209	.007	5.202
	October	1.558	1.530	.199	1.591	.182	.203	.008	5.270
	November	1.589	1.481	.192	1.569	.216	.207	.008	5.262
	December	0.719	1.514	.199	1.687	.240	.253	.007	4.621
	TOTAL	15.926	17.315	2.323	19.565	2.331	2.674	.088	60.223
1978	January	0.540	1.501	.190	1.707	.264	.275	.008	4.485
	February	0.547	1.360	.172	1.588	.236	.233	.007	4.142
	March	0.903	1.583	.194	1.679	.260	.239	.006	4.864
	April	1.378	1.515	.191	1.604	.267	.187	.005	5.147
	May	1.591	1.582	.187	1.597	.303	.218	.004	5.481
	June	1.517	1.535	.187	1.561	.266	.236	.005	5.307
	July	1.209	e1.573	e.190	e1.633	.258	.267	.005	5.134
	August	1.437	e1.545	e.191	e1.572	.234	.273	.007	5.260
	September	1.255	e1.493	e.186	e1.501	.224	.237	.007	4.901
	TOTAL	10.377	13.689	1.688	14.442	2.312	2.165	.053	44.722
	(Year to date)								

¹ Includes bituminous coal, lignite and anthracite coal.

² Includes lease condensate.

³ Gas plant liquids.

⁴ Hydropower includes industrial production of hydropower.

⁵ Other includes wood, refuse, and other vegetal fuels used for electricity generation.

R=Revised.

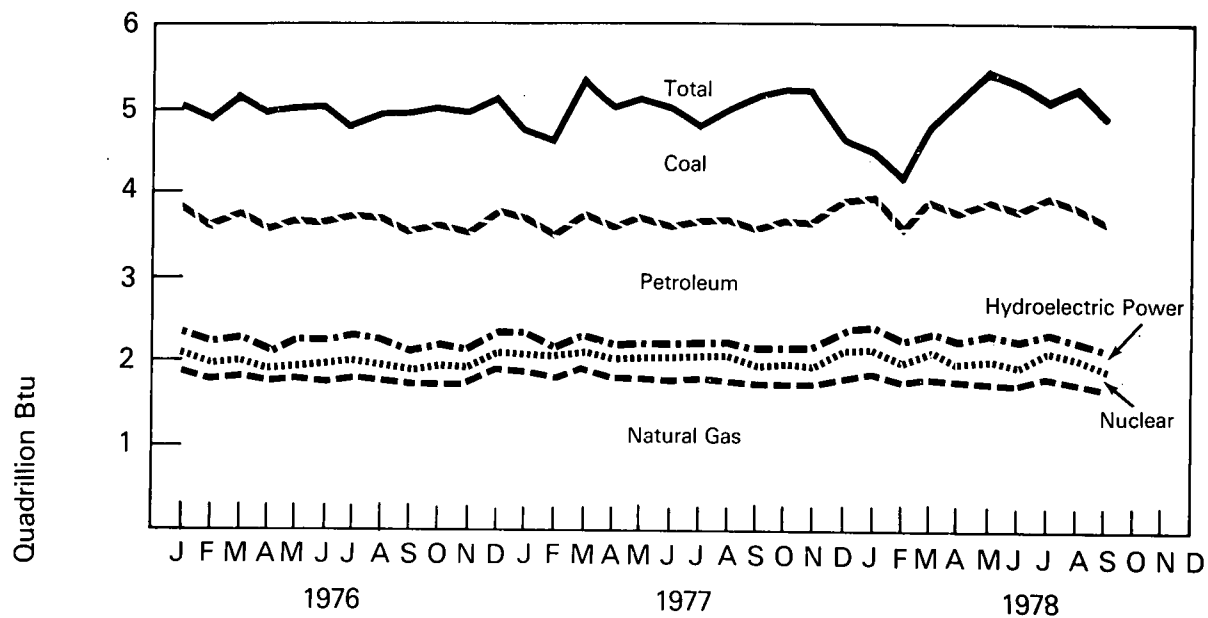
e=estimated.

p=preliminary.

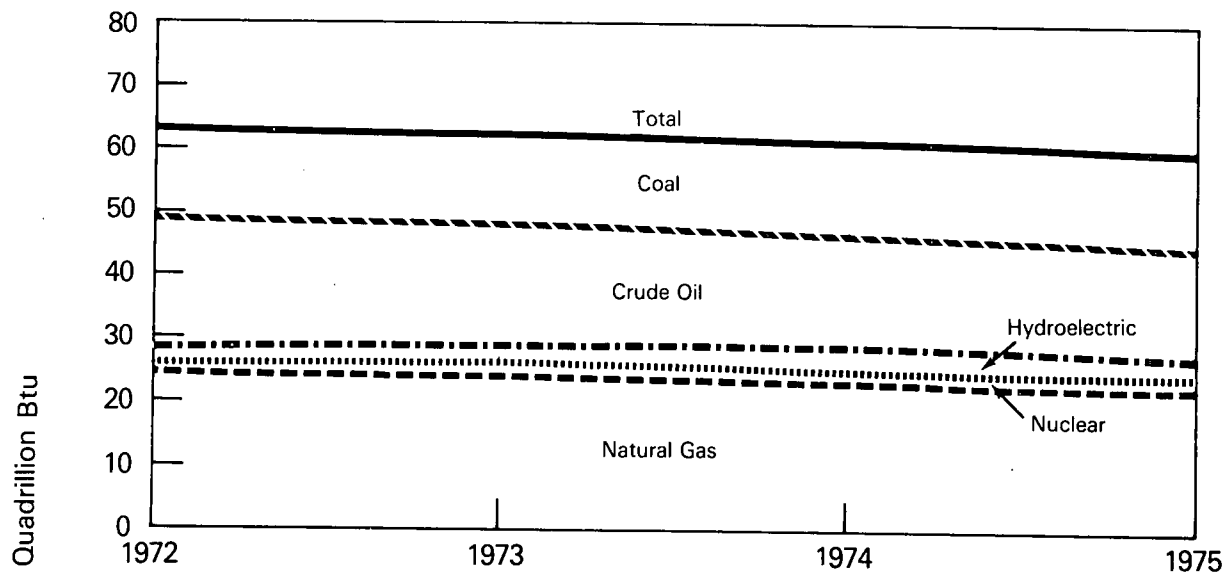
Note: Components may not sum to totals because figures are rounded.

Source: EIA calculations based on data reported elsewhere in this publication.

Domestic Energy Production (Monthly)



Domestic Energy Production (Yearly)



U.S. Net Imports/(Exports) of Energy*

		Coal ¹	Crude Oil ²	Refined Petroleum Products ³	Natural Gas (Dry)	Electricity ⁴	Coke ⁵	Total
		Quadrillion Btu						
1972	TOTAL	(1.530)	4.704	5.108	.966	e.148	(.027)	9.369
1973	TOTAL	(1.443)	6.863	6.119	.976	.148	(.008)	12.656
1974	TOTAL	(1.585)	7.355	5.286	.903	.133	.059	12.151
1975	TOTAL	(1.766)	8.677	3.805	.899	.064	.014	11.693
1976	January	(.098)	.826	.365	.081	.008	(.001)	1.181
	February	(.080)	.708	.394	.075	.008	(.002)	1.102
	March	(.107)	.852	.329	.081	.008	(.002)	1.159
	April	(.154)	.833	.286	.082	.008	(.002)	1.051
	May	(.153)	.840	.275	.079	.008	(.003)	1.045
	June	(.175)	.979	.295	.073	.008	(.002)	1.178
	July	(.132)	1.041	.345	.068	.008	(.001)	1.329
	August	(.113)	.997	.302	.072	.008	.002	1.267
	September	(.153)	1.022	.334	.069	.008	.001	1.281
	October	(.157)	1.020	.310	.082	.008	.006	1.268
	November	(.145)	1.029	.325	.078	.008	.001	1.300
	December	(.123)	1.059	.424	.080	.008	.003	1.450
	TOTAL	(1.590)	11.206	3.982	.917	.090	.000	14.605
1977	January	(.056)	1.128	.443	.084	.015	(.002)	1.612
	February	(.082)	1.071	.514	.090	.015	—	1.607
	March	(.092)	1.187	.446	.099	.015	(.002)	1.653
	April	(.148)	1.178	.298	.083	.015	(.002)	1.423
	May	(.153)	1.210	.285	.085	.015	—	1.443
	June	(.161)	1.216	.294	.073	.015	—	1.437
	July	(.138)	1.253	.334	.067	.015	.002	1.533
	August	(.114)	1.147	.364	.073	.015	.001	1.485
	September	(.134)	1.103	.343	.072	.015	.007	1.406
	October	(.126)	1.120	.310	.082	.015	.004	1.406
	November	(.115)	1.076	.288	.083	.015	.001	1.348
	December	(.100)	1.075	.363	.087	.015	.006	1.445
	TOTAL	(1.417)	13.764	4.282	.975	.180	(.015)	17.796
1978	January	(.021)	1.057	.350	.084	e.015	.001	1.486
	February	(.012)	.900	.354	.075	e.015	.001	1.333
	March	(.004)	1.065	.388	.084	e.015	.005	1.552
	April	(.060)	.912	.329	.077	e.015	.012	1.285
	May	(.113)	.958	.289	.074	e.015	.017	1.240
	June	(.139)	1.050	.252	.063	e.015	.009	1.250
	July	(.089)	1.061	.322	.065	e.015	.015	1.389
	August	(.092)	1.042	.307	.067	e.015	.014	1.353
	September	(.088)	1.135	.324	e.067	e.015	.012	1.466
	TOTAL	(.618)	9.178	2.916	.655	.135	.086	12.353
	(Year to date)							

*Components may not sum to totals because figures are rounded.

¹Includes bituminous coal, lignite, and anthracite coal.

²Includes lease condensate; does not include imports of crude oil for the Strategic Petroleum Reserve.

³Includes natural gas plant liquids.

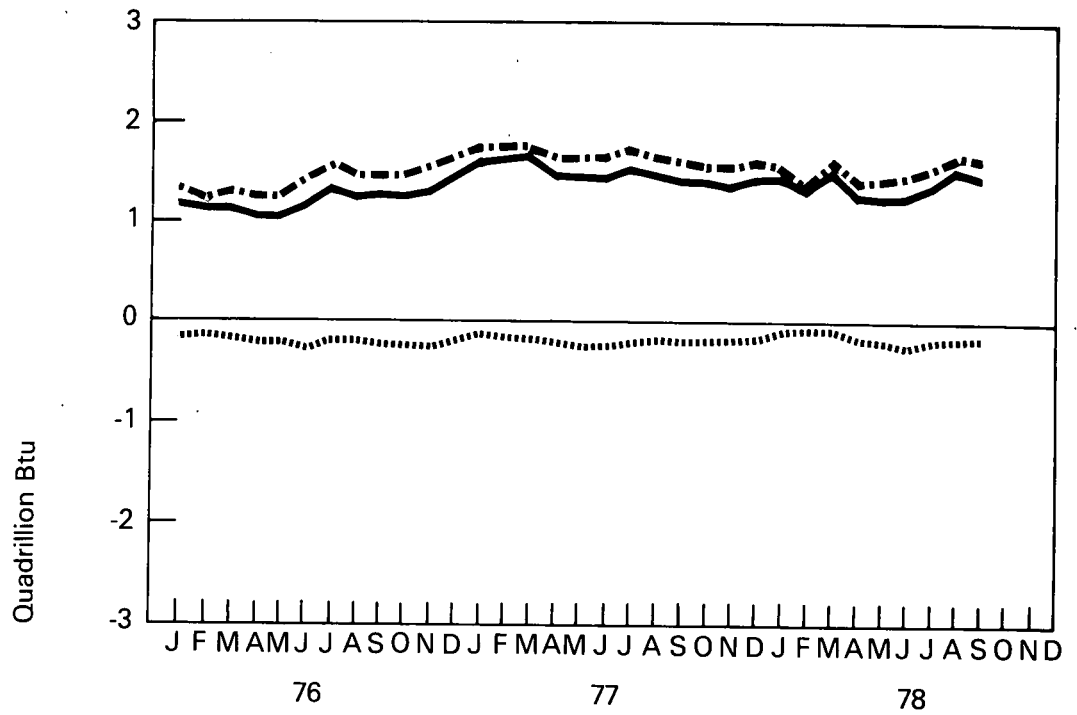
⁴Only yearly totals are available for electricity imports; figures shown are estimates derived by dividing the yearly total by 365 and multiplying by the number of days in the month.

⁵Imports of coke made from coal.

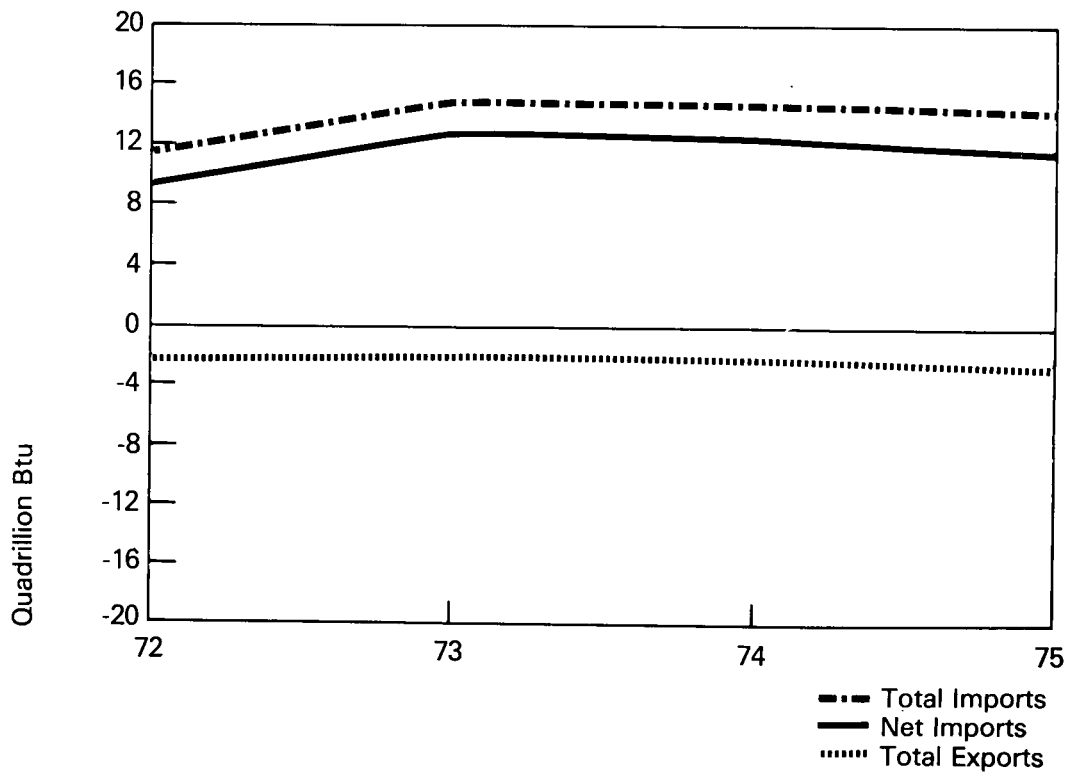
e=estimated.

Source: EIA calculations based on data reported elsewhere in this publication.

Net Imports (Monthly)



Net Imports (Yearly)



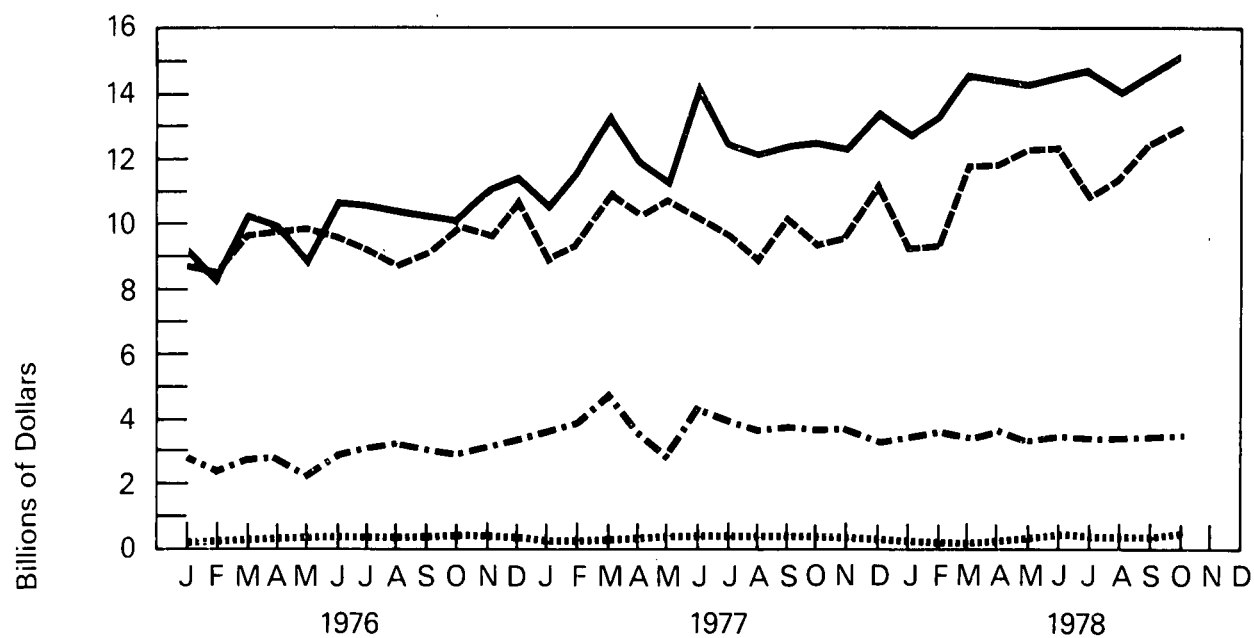
Summary of U.S. Merchandise Trade

		Exports				Imports			
		Energy	Manufactured Products	Agricultural, Chemical, and Other	Total	Energy	Manufactured Products	Agricultural, Chemical, and Other	Total
Millions of dollars									
1972	TOTAL	1,554	29,516	17,806	48,876	4,799	35,751	15,033	55,583
1973	TOTAL	1,671	38,954	29,598	70,223	8,101	42,352	18,668	69,121
1974	TOTAL	3,444	54,704	38,996	97,144	25,454	51,205	23,592	100,251
1975	TOTAL	4,470	62,260	39,372	106,102	26,476	47,384	22,256	96,116
1976	January	268	4,951	3,443	8,662	2,791	4,259	1,959	9,009
	February	280	5,270	3,083	8,633	2,302	4,004	1,805	8,111
	March	302	5,947	3,423	9,672	2,748	5,197	2,257	10,202
	April	412	5,742	3,552	9,706	2,797	4,948	2,150	9,895
	May	373	5,976	3,502	9,851	2,135	4,768	2,041	8,944
	June	404	5,913	3,410	9,727	2,836	5,361	2,383	10,580
	July	347	5,406	3,426	9,179	3,037	5,204	2,323	10,564
	August	305	5,126	3,329	8,760	3,165	5,061	2,227	10,453
	September	388	5,309	3,368	9,065	2,960	5,126	2,299	10,385
	October	407	5,696	3,826	9,929	2,823	4,976	2,224	10,023
	November	379	5,517	3,643	9,539	3,070	5,562	2,430	11,062
	December	361	6,429	3,806	10,596	3,333	5,539	2,578	11,450
	TOTAL	4,226	67,282	41,811	113,319	33,997	60,005	26,676	120,678
1977	January	218	5,191	3,570	8,979	3,521	4,868	2,255	10,644
	February	268	5,330	3,744	9,342	3,857	5,261	2,475	11,593
	March	292	6,491	4,079	10,862	4,775	5,681	2,686	13,142
	April	398	5,998	3,940	10,336	3,512	5,609	2,814	11,935
	May	432	6,249	4,102	10,783	2,793	5,789	2,676	11,258
	June	398	5,935	3,735	10,068	4,306	6,687	3,053	14,046
	July	398	5,337	3,846	9,581	3,911	6,041	2,479	12,431
	August	334	5,105	3,370	8,809	3,651	5,856	2,538	12,045
	September	402	6,021	3,734	10,157	3,721	6,142	2,589	12,452
	October	367	5,571	3,426	9,364	3,635	6,512	2,350	12,497
	November	362	5,583	3,578	9,523	3,703	6,072	2,495	12,270
	December	315	6,488	4,398	11,201	3,153	7,066	3,153	13,372
	TOTAL	4,184	69,299	45,522	119,005	44,538	71,584	31,563	147,685
1978	January	189	5,348	3,680	9,217	3,422	6,604	2,692	12,718
	February	141	5,480	3,721	9,342	3,502	7,062	2,722	13,286
	March	165	7,091	4,580	11,836	3,431	7,896	3,220	14,547
	April	285	6,942	4,633	11,860	3,514	7,908	3,064	14,486
	May	364	7,141	4,745	12,250	3,234	7,840	3,125	14,199
	June	424	7,025	4,823	12,272	3,472	8,085	2,958	14,515
	July	322	6,204	4,254	10,780	3,380	8,309	3,015	14,704
	August	335	6,480	4,614	11,429	3,677	7,554	2,793	14,024
	September	348	7,166	4,992	12,506	3,699	7,799	2,919	14,417
	October	422	7,661	4,843	12,926	3,492	8,466	3,160	15,118
	TOTAL	2,995	66,538	44,885	114,418	34,823	77,523	29,668	142,014
	(Year to date)								

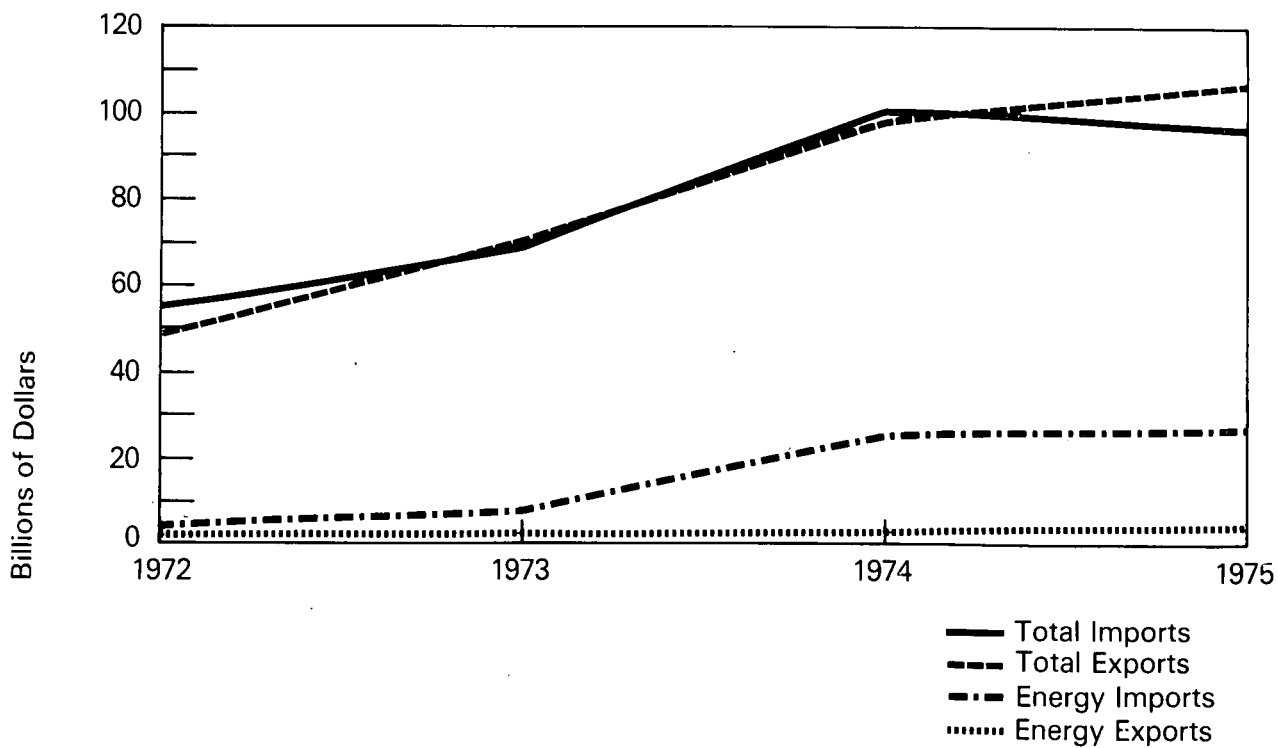
Source: U.S. Department of Commerce, Bureau of the Census (BOC) publication FT 900.

Note: Data presented is free alongside ship (f.a.s.) basis and is unadjusted for seasonality and working days. This data includes 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).

Total and Energy (by Month)



Total and Energy (by Year)



Energy Consumption

Domestic energy consumption in September 1978 was 5.9 quadrillion Btu, 0.7 percent less than in September 1977, and 5.2 percent more than in September 1976. Domestic energy consumption during the first 9 months of 1978 totaled 57.8 quadrillion Btu, 2.4 percent more than over the same period of 1977.

In September 1978 the combined residential/commercial sector consumed 2.0 quadrillion Btu, 2.2 percent more than in September 1977. Industrial energy consumption for September 1978 was 2.3 quadrillion Btu, 4.3 percent less than in September 1977. Transportation consumption in September 1978 was 1.6 quadrillion Btu, up 1.1 percent from the September 1977 level.

Heating Degree-Days

National average cumulative heating degree-days for the period July 1 through December 2, 1978 were 0.6 percent above normal and 4.5 percent above the level accumulated during the similar period of 1977.

Energy Consumption

Domestic Energy Consumption by Primary Energy Type

		Coal ¹	Natural Gas (dry)	Petroleum	Hydro-electric Power ²	Nuclear Electric Power	Geothermal Power and Other ³	Total ⁴	Cumulative Total ⁴
Quadrillion (10 ¹⁵) Btu									
1972	TOTAL	R12.461	22.699	32.966	R2.929	R0.577	R0.011	R71.643	
1973	TOTAL	R13.315	22.512	34.852	R3.010	R0.890	R0.042	R74.620	
1974	TOTAL	R12.895	21.732	33.468	3.309	1.215	R0.117	R72.736	
1975	TOTAL	R12.842	19.948	32.742	3.219	1.839	R0.089	R70.678	
1976	January	R1.216	2.337	3.177	0.282	0.172	R0.006	7.189	7.189
	February	R1.076	1.977	2.791	0.266	0.153	R0.006	R6.268	R13.457
	March	R1.117	1.755	2.948	0.287	0.149	R0.006	R6.262	R19.719
	April	R1.067	1.538	2.749	0.262	0.117	R0.004	5.737	R25.456
	May	R1.073	1.463	2.722	0.276	0.127	R0.004	R5.665	R31.121
	June	R1.112	1.362	2.774	0.276	0.168	R0.005	5.697	R36.818
	July	1.185	1.399	2.829	0.281	0.189	0.007	5.891	R42.710
	August	R1.194	1.343	2.835	0.258	0.196	R0.009	R5.836	R48.545
	September	R1.095	1.328	2.776	R0.221	0.184	R0.008	R5.613	R54.158
	October	R1.132	1.653	2.912	0.229	0.185	R0.013	R6.124	R60.282
	November	R1.191	1.912	3.107	0.216	0.172	R0.008	6.607	R66.889
	December	R1.290	2.277	3.503	0.221	0.225	R0.010	R7.524	R74.413
	TOTAL	R13.749	20.345	35.123	3.075	2.037	R0.084	R74.413	
1977	January	R1.287	R2.458	3.489	0.233	0.236	R0.006	R7.710	R7.710
	February	R1.141	R1.854	3.143	0.176	0.209	R0.007	R6.530	R14.240
	March	1.144	R1.751	3.076	0.224	0.220	R0.006	R6.422	R20.662
	April	R1.057	R1.469	2.897	0.212	0.212	R0.005	R5.852	R26.514
	May	1.120	R1.408	2.890	0.213	0.220	R0.008	R5.858	R32.372
	June	R1.178	R1.361	2.976	0.197	0.229	R0.007	R5.949	R38.321
	July	R1.277	R1.353	2.990	0.193	0.233	R0.009	R6.054	R44.374
	August	R1.248	R1.393	3.068	0.192	0.243	R0.008	R6.151	R50.525
	September	R1.153	R1.457	2.924	0.189	0.209	R0.015	R5.947	R56.472
	October	R1.144	R1.550	3.038	0.197	0.203	R0.012	R6.144	R62.616
	November	R1.157	R1.725	3.040	0.231	0.207	R0.008	R6.369	R68.985
	December	R1.226	R2.152	3.415	0.255	0.253	R0.013	R7.314	R76.299
	TOTAL	R14.133	R19.931	36.947	R2.511	2.674	R0.103	R76.299	
1978	January	R1.238	R2.435	3.355	0.279	0.275	R0.009	R7.592	R7.592
	February	R1.049	R2.160	3.212	0.251	0.233	R0.008	R6.913	R14.505
	March	R1.002	R1.929	3.344	0.275	0.239	R0.011	R6.800	R21.305
	April	R1.040	R1.545	2.921	0.282	0.187	R0.017	R5.991	R27.296
	May	R1.114	R1.381	3.089	0.318	0.218	R0.021	R6.142	R33.437
	June	R1.184	R1.248	3.012	0.281	0.236	R0.014	R5.976	R39.413
	July	R1.263	R1.335	R3.004	0.273	0.267	R0.020	R6.162	R45.576
	August ⁵	R1.306	R1.256	3.248	R0.249	0.273	R0.020	R6.352	R51.928
	September ⁵	1.232	1.235	2.946	0.239	0.237	0.019	5.907	57.835
	TOTAL (Year to date)	10.429	14.525	28.131	2.447	2.165	0.139	57.835	

¹ Includes bituminous coal, lignite, and anthracite coal.

² Includes utility production, industrial production, and net imports of electricity.

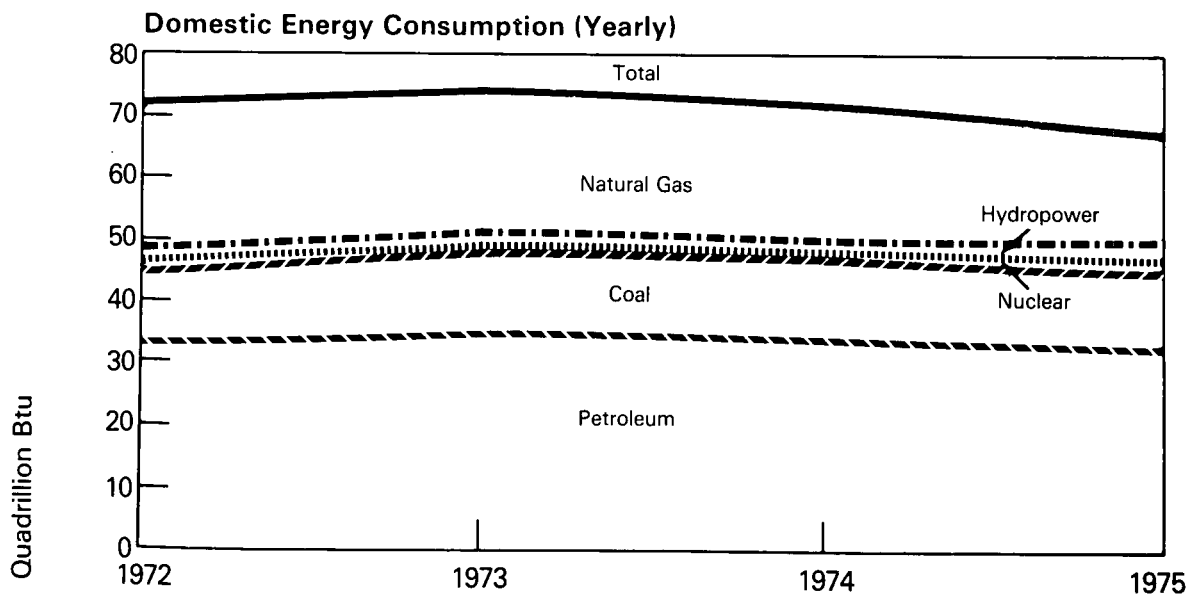
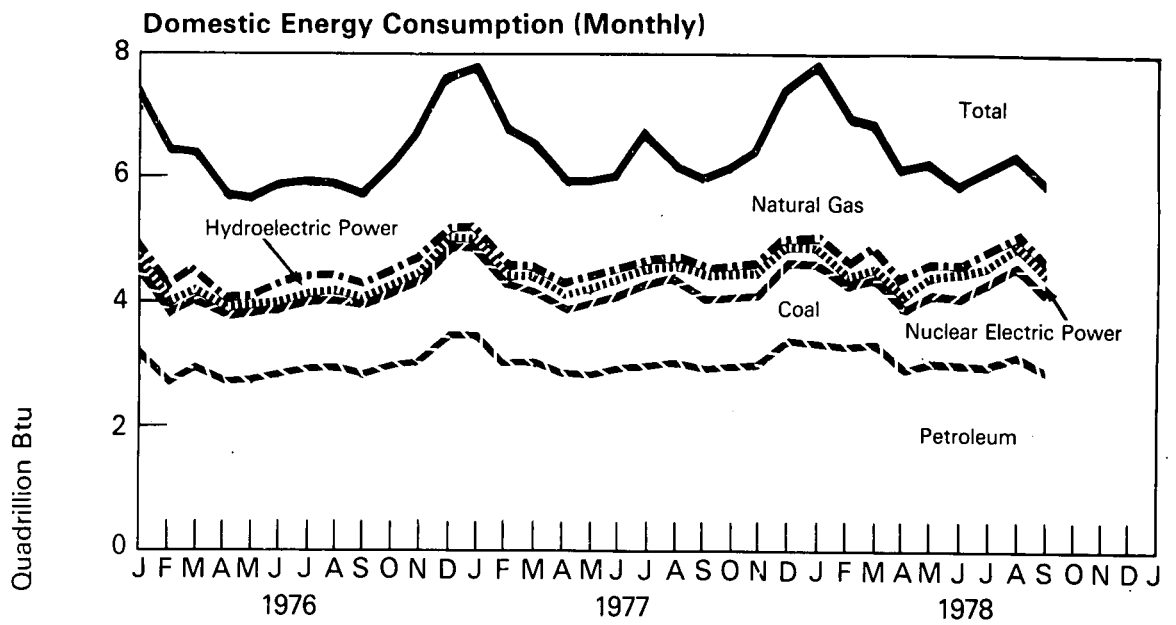
³ Geothermal power, electricity produced from wood and waste, and net imports of coke.

⁴ Totals may not equal sum of components due to independent rounding.

⁵ Preliminary data.

R=Revised.

Source: EIA calculations based on data appearing elsewhere in this publication.



Domestic Energy Consumption by Economic Sector*

		Residential/ Commercial	Industrial	Transportation	Total**
Quadrillion (10 ¹⁵) Btu					
1973	TOTAL	R26.579	R29.171	R18.870	R74.620
1974	TOTAL	R25.939	R28.543	R18.255	R72.736
1975	TOTAL	R26.202	R26.117	18.359	R70.678
1976	January	R3.124	R2.436	R1.630	7.189
	February	R2.691	R2.114	1.463	R6.268
	March	R2.433	R2.203	1.626	R6.262
	April	R2.087	R2.070	1.580	5.737
	May	R1.919	R2.193	1.553	R5.665
	June	R1.866	R2.232	1.599	5.697
	July	1.975	R2.279	1.637	5.891
	August	R1.983	R2.260	1.592	R5.836
	September	1.844	2.211	1.558	R5.613
	October	R1.958	R2.566	1.600	R6.124
	November	2.377	2.588	1.642	6.607
	December	R3.012	R2.718	1.794	R7.524
	TOTAL	R27.270	R27.871	R19.272	R74.413
1977	January	R3.433	R2.554	R1.722	R7.710
	February	R2.980	R1.970	1.580	R6.530
	March	R2.507	R2.262	1.652	R6.422
	April	2.105	R2.122	1.625	R5.852
	May	R1.932	R2.318	1.608	R5.858
	June	R1.977	R2.323	1.649	R5.949
	July	R2.123	2.261	R1.670	R6.054
	August	R2.121	R2.341	1.689	R6.151
	September	R1.969	R2.364	1.614	R5.947
	October	R2.016	R2.478	1.650	R6.144
	November	R2.178	R2.546	1.645	R6.369
	December	R2.844	2.664	1.807	R7.314
	TOTAL	R28.185	R28.202	R19.913	R76.299
1978	January	R3.294	R2.597	R1.701	R7.592
	February	R3.150	R2.151	1.612	R6.913
	March	R2.873	R2.152	1.775	R6.800
	April	R2.253	R2.122	R1.617	R5.991
	May	R2.122	R2.283	R1.737	R6.142
	June	R2.037	R2.234	R1.704	R5.976
	July	R2.171	R2.307	R1.684	R6.162
	August***	2.224	2.360	1.768	6.352
	September***	2.012	2.263	1.632	5.907
	TOTAL (Year to date)	22.136	20.469	15.230	57.835

*See Explanatory Note 5 for definitions of the Residential/Commercial, Industrial, and Transportation sectors. The methodology used for sector calculations is provided in the footnotes of the next table.

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

***Preliminary data.

R=Revised data.

Energy Consumption by Economic Sector and Primary Source—September 1978 [Quadrillion (10¹⁵) Btu]

Sector ¹	Primary Energy Source						Primary Energy Consumption	Electricity Distributed ⁷	Net Energy Consumption	Electrical Energy Loss Distributed ⁸	Ultimate Energy Disposition
	Coal ²	Natural Gas (dry) ³	Petroleum ⁴	Hydroelectric ⁵	Nuclear ⁶	Geothermal					
Residential and Commercial	0.015	0.254	0.548	—	—	—	0.817	0.362	1.179	0.833	2.012
Industrial	0.289	0.641	0.533	0.003	—	—	1.465	0.242	1.706	0.556	2.263
Transportation	negl.	0.033	1.581	—	negl.	—	1.614	0.005	1.620	0.012	1.632
Electric Utilities	0.928	0.307	0.285	0.236	0.237	0.019	2.011	—	—	—	—
TOTAL	1.232	1.235	2.946	0.239	0.237	0.019	5.907	0.609	4.505	1.402	5.907

¹ See Explanatory Note 5 for definitions of the Residential and Commercial, Industrial, Transportation, and Electric Utilities Sectors.

² Data are from the Energy Information Administration. Includes anthracite, bituminous coal and lignite, and net coke imports.

³ Aggregate data and data on utility consumption are from the Energy Information Administration. Data from the American Gas Association are used for the Residential and Commercial Sector, which includes 100 percent of the AGA "Other" category. Natural gas used in transportation, mostly for pipeline use, is estimated to be 3.6 percent of total natural gas consumption less electric utilities. This percentage is derived from 1974, 1975, and 1976 Bureau of Mines data on consumption. The Industrial Sector is then the difference between the total and the sum of the other sectors.

⁴ Aggregate petroleum data and data on oil consumed by electric utilities are from the Energy Infor-

mation Administration. Petroleum consumed in transportation was calculated based on Department of Transportation data as follows: Motor gasoline—100 percent; naphtha jet fuel—100 percent; kerosene jet fuel—97 percent; distillate fuel oil—30.3 percent; residual fuel oil—11.2 percent; all other products—4.7 percent. The remainder is distributed to economic sectors using the following percentage shares, derived from 1974, 1975, and 1976 Bureau of Mines data on consumption: Residential and Commercial—50.7 percent; Industrial—49.3 percent.

⁵ EIA hydroelectric power production plus net imports of electricity. These imports are assumed to be from hydroelectric power sources and are estimated at 0.011 quadrillion Btu per month in 1974, 0.005 quadrillion Btu per month for 1975, and 0.007 quadrillion Btu per month for 1976 and 0.015 quadrillion Btu per month for 1977 and 1978.

⁶ EIA nuclear power production.

⁷ Electricity was distributed using EIA data on kilowatt-hour sales to ultimate customers. Electrical energy consumed by railroads and for street and highway lighting was distributed to the Transportation Sector. All "Other" sales, largely for use in government buildings, were distributed to the Residential and Commercial Sector.

⁸ 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., ultimate energy disposition), the electricity losses are allocated to the final end-use sectors in proportion to their direct kilowatt-hour usage.

Energy Consumption (Continued)

Energy Consumption by the Residential and Commercial Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum ²	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu								
1973	TOTAL	0.295	7.577	7.077	3.445	R8.184	R26.579	
1974	TOTAL	0.297	7.427	6.484	3.424	R8.307	R25.939	
1975	TOTAL	0.253	7.688	R6.138	R3.536	R8.588	R26.202	
1976	January	0.031	1.254	R0.659	0.340	R0.839	R3.124	R3.124
	February	0.019	1.090	R0.580	0.315	R0.686	R2.691	R5.814
	March	0.018	0.856	0.571	0.286	R0.702	R2.433	R8.248
	April	0.020	0.671	0.500	0.271	R0.625	R2.087	R10.335
	May	0.016	0.488	R0.505	0.265	R0.645	R1.919	R12.254
	July	0.015	0.333	0.488	0.285	R0.746	R1.866	R14.120
	July	0.011	0.281	0.486	0.333	R0.864	1.975	R16.095
	August	0.015	0.259	R0.505	0.347	R0.857	R1.983	R18.078
	September	0.016	0.272	0.518	0.331	R0.707	1.844	R19.922
	October	0.020	0.395	0.569	0.286	R0.668	R1.958	R21.881
	November	0.025	0.723	0.622	0.288	R0.719	2.377	R24.258
	December	0.036	1.083	0.730	0.330	R0.834	R3.012	R27.270
	TOTAL	0.243	7.706	R6.734	3.676	R8.911	R27.270	
1977	January	0.035	1.376	R0.713	0.367	R0.942	R3.433	R3.433
	February	0.024	1.216	0.674	0.347	R0.719	R2.980	R6.413
	March	0.019	0.845	R0.607	0.306	R0.730	R2.507	8.920
	April	0.020	0.623	0.538	0.278	R0.646	2.105	11.025
	May	0.016	0.405	R0.528	0.273	R0.709	R1.932	R12.957
	June	0.015	0.315	R0.543	0.308	R0.796	R1.977	R14.934
	July	0.014	0.277	0.503	0.366	R0.962	R2.123	R17.057
	August	0.014	0.256	0.551	R0.372	R0.929	R2.121	R19.178
	September	0.015	0.264	R0.550	0.350	R0.790	R1.969	R21.147
	October	0.018	0.376	R0.611	0.306	R0.705	R2.016	R23.163
	November	0.025	0.552	R0.610	0.284	R0.707	R2.178	R25.341
	December	0.030	0.952	R0.684	0.326	R0.851	R2.844	R28.185
	TOTAL	0.246	7.456	R7.114	3.883	R9.486	R28.185	
1978	January	0.029	1.257	0.674	0.369	R0.964	R3.294	R3.294
	February	0.029	1.283	0.647	0.361	R0.829	R3.150	R6.444
	March	0.023	1.059	0.637	0.337	R0.816	R2.873	R9.316
	April	0.020	0.697	R0.560	0.287	R0.689	R2.253	R11.569
	May	0.018	0.493	R0.582	0.279	R0.750	R2.122	R13.691
	June	0.016	0.320	R0.544	0.319	R0.838	R2.037	R15.728
	July	0.015	0.269	R0.536	0.371	R0.979	R2.171	R17.900
	August ³	0.017	0.245	0.599	0.381	0.982	2.224	20.124
	September ³	0.015	0.254	0.548	0.362	0.833	2.012	22.136
	TOTAL (Year to date)	0.183	5.877	5.327	3.068	7.681	22.136	

(See footnotes on page 18)

Energy Consumption by the Industrial Economic Sector¹

		Coal	Natural Gas (dry)	Petroleum ⁴	Hydro-electric	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu									
1973	TOTAL	R4.377	R10.457	6.403	0.035	2.341	R5.559	R29.171	
1974	TOTAL	R4.069	R10.132	6.305	0.033	2.337	R5.667	R28.543	
1975	TOTAL	R3.799	R8.418	R5.968	0.032	R2.304	R5.596	R26.117	
1976	January	R0.316	R0.796	R0.641	0.003	0.196	R0.483	R2.436	R2.436
	February	R0.299	R0.619	R0.564	0.003	0.198	R0.431	R2.114	R4.550
	March	R0.317	R0.617	R0.555	0.003	0.206	R0.504	R2.203	R6.753
	April	R0.316	0.587	R0.486	0.003	0.205	R0.473	R2.070	R8.823
	May	R0.323	0.658	0.492	0.003	0.209	R0.508	R2.193	R11.016
	June	R0.308	R0.673	R0.474	0.003	0.214	R0.560	R2.232	R13.248
	July	0.306	R0.733	0.473	0.003	0.213	R0.552	R2.279	R15.527
	August	R0.300	0.709	R0.491	0.002	0.218	R0.539	R2.260	R17.788
	September	R0.299	R0.717	0.504	0.002	0.220	R0.470	2.211	R19.999
	October	R0.314	R0.952	R0.553	0.003	0.218	R0.526	R2.566	R22.565
	November	R0.323	0.905	0.605	0.003	0.215	R0.537	2.588	R25.153
	December	R0.353	0.900	0.710	0.003	0.214	R0.540	R2.718	R27.871
	TOTAL	3.775	R8.867	R6.548	0.033	2.525	R6.124	R27.871	
1977	January	R0.319	R0.790	0.693	0.003	0.210	R0.539	R2.554	R2.554
	February	0.305	R0.373	0.655	0.003	0.206	R0.428	R1.970	R4.524
	March	R0.325	R0.613	0.591	0.003	0.216	0.515	R2.262	R6.786
	April	R0.306	0.572	0.523	0.003	0.216	0.501	R2.122	R8.908
	May	0.303	R0.695	0.514	0.003	0.223	R0.579	R2.318	R11.226
	June	0.295	R0.689	R0.528	0.003	0.225	R0.582	R2.323	R13.548
	July	R0.286	0.683	0.489	0.003	0.220	R0.579	2.261	R15.810
	August	R0.274	R0.738	0.536	0.003	R0.226	R0.564	R2.341	R18.150
	September	R0.267	R0.819	R0.535	0.003	0.227	R0.513	R2.364	R20.514
	October	R0.298	R0.834	R0.594	0.003	0.227	R0.522	R2.478	R22.992
	November	R0.297	0.878	0.594	0.003	0.222	R0.553	R2.546	R25.538
	December	R0.303	R0.905	0.666	0.003	0.218	R0.569	2.664	R28.202
	TOTAL	R3.577	R8.590	R6.917	0.036	R2.636	R6.445	R28.202	
1978	January	R0.283	R0.863	R0.655	0.003	0.219	R0.572	R2.597	R2.597
	February	R0.244	R0.590	0.630	0.003	0.208	R0.477	R2.151	R4.748
	March	R0.243	0.569	0.619	0.003	0.210	R0.508	R2.152	R6.900
	April	R0.274	0.570	R0.544	0.003	0.215	R0.516	R2.122	R9.022
	May	R0.294	R0.579	R0.566	0.003	0.228	R0.613	R2.283	R11.304
	June	R0.284	R0.563	R0.529	0.003	0.236	R0.619	R2.234	R13.538
	July	R0.290	R0.657	R0.521	0.003	0.230	R0.606	R2.307	R15.846
	August ³	0.288	0.627	0.583	0.002	0.240	0.620	2.360	18.206
	September ³	0.289	0.641	0.533	0.003	0.242	0.556	2.263	20.469
	TOTAL	2.488	5.658	5.180	0.027	2.028	5.087	20.469	

(Year to date)

(See footnotes on page 18)

Energy Consumption (Continued)

Energy Consumption by the Transportation Economic Sector¹

		Coal	Natural Gas ⁵ (dry)	Petroleum	Electricity Distributed	Electrical Energy Loss Distributed	Total Energy Use	Cumulative Total Energy Use
Quadrillion (10 ¹⁵) Btu								
1973	TOTAL	R0.003	R0.732	17.940	0.058	R0.138	R18.870	
1974	TOTAL	R0.002	0.656	17.392	0.060	0.145	R18.255	
1975	TOTAL	0.001	R0.601	17.544	0.062	R0.151	18.359	
1976	January	negl.	R0.077	R1.533	0.006	0.015	R1.630	R1.630
	February	negl.	0.064	1.382	0.006	0.012	1.463	R3.093
	March	negl.	0.055	1.552	0.005	0.013	1.626	R4.718
	April	negl.	0.047	1.516	0.005	0.012	1.580	R6.298
	May	negl.	0.043	1.493	0.005	0.012	1.553	R7.851
	June	negl.	R0.038	1.545	0.005	0.012	1.599	R9.450
	July	negl.	0.038	1.581	0.005	0.013	1.637	R11.087
	August	negl.	0.036	1.538	0.005	0.013	1.592	R12.679
	September	negl.	0.037	1.504	0.005	0.011	1.558	R14.237
	October	negl.	0.050	1.531	0.006	0.013	1.600	R15.836
	November	negl.	0.061	1.561	0.006	0.014	1.642	R17.478
	December	negl.	0.074	1.699	0.006	0.015	1.794	R19.272
	TOTAL	negl.	0.619	R18.434	0.064	0.155	R19.272	
1977	January	negl.	0.081	1.620	0.006	0.016	R1.722	R1.722
	February	negl.	0.059	1.503	0.006	0.012	1.580	3.303
	March	negl.	0.054	1.580	0.005	0.012	1.652	R4.955
	April	negl.	0.045	1.564	0.005	0.012	1.625	6.581
	May	negl.	0.041	1.549	0.005	0.013	1.608	8.189
	June	negl.	0.037	1.594	0.005	0.012	1.649	9.838
	July	negl.	0.036	1.616	0.005	0.013	R1.670	R11.508
	August	negl.	0.037	1.635	0.005	0.012	1.689	R13.197
	September	negl.	0.040	1.557	0.005	0.011	1.614	R14.811
	October	negl.	0.045	1.587	0.005	0.012	1.650	R16.461
	November	negl.	0.053	1.571	0.006	0.014	1.645	R18.105
	December	negl.	0.069	R1.716	0.006	0.015	1.807	R19.913
	TOTAL	negl.	0.599	19.094	0.064	R0.156	R19.913	
1978	January	negl.	R0.079	1.600	0.006	0.016	R1.701	R1.701
	February	negl.	0.070	1.524	0.006	0.013	1.612	R3.313
	March	negl.	0.061	1.696	0.005	0.013	1.775	R5.089
	April	negl.	0.047	R1.552	0.005	0.012	R1.617	R6.705
	May	negl.	0.040	R1.679	0.005	0.013	R1.737	R8.442
	June	negl.	0.033	1.653	0.005	0.013	1.704	R10.147
	July	negl.	0.035	R1.631	0.005	0.013	R1.684	11.830
	August ³	negl.	0.033	1.717	0.005	0.013	1.768	13.598
	September ³	negl.	0.033	1.581	0.005	0.012	1.632	15.230
	TOTAL (Year to date)	negl.	0.431	14.632	0.048	0.120	15.230	

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 footnotes of a previous table. Printed totals may differ slightly from the sum of their row/column components due to independent rounding.

² The percentage share used in calculating Residential and Commercial consumption of petroleum was 52.5 percent for 1973 and 50.7 percent for 1974, 1975, 1976, 1977, and 1978.

³ Preliminary data.

⁴ The percentage share used in calculating Industrial consumption of petroleum was 47.5 percent for 1973 and 49.3 percent for 1974, 1975, 1976, 1977, and 1978.

⁵ The percentage share used in calculating Transportation consumption of natural gas was 3.9 percent for 1973 and 3.6 percent for 1974, 1975, 1976, 1977, and 1978. This percentage share is applied to total natural gas minus electric utility consumption.

R=Revised data.

Heating Degree-Days*

Petroleum Administration For Defense (PAD) Districts	July 1, 1978-December 2, 1978				
	1978	1977**		Normal (1941-70)**	
PAD District I	906.9	849.7	(6.7)	864.5	(4.9)
New England	1,460.9	1,122.8	(30.1)	1,203.8	(21.4)
Conn., Maine, Mass., N.H., R.I., Vt.					
Middle Atlantic	1,102.7	1,039.3	(6.1)	1,021.1	(8.0)
Del., Md., N.J., N.Y., Pa.					
Lower Atlantic	369.7	444.6	(-16.9)	480.0	(-23.0)
Fla., Ga., N.C., S.C., Va., W. Va.					
PAD District II	1,225.4	1,216.7	(0.7)	1,219.0	(0.5)
Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, Okla., S. Dak., Tenn., Wisc.					
PAD District III	286.6	334.2	(-14.2)	399.2	(-28.2)
Ala., Ark., La., Miss., N. Mex., Tex.					
PAD District IV	1,566.7	1,373.2	(14.1)	1,472.5	(6.4)
Colo., Idaho, Mont., Utah, Wyo.					
PAD District V	608.5	503.3	(20.9)	628.1	(-3.1)
Ariz., Calif., Nev., Oreg., Wash.					
U.S. AVERAGE	912.0	872.6	(4.5)	907.0	(0.6)

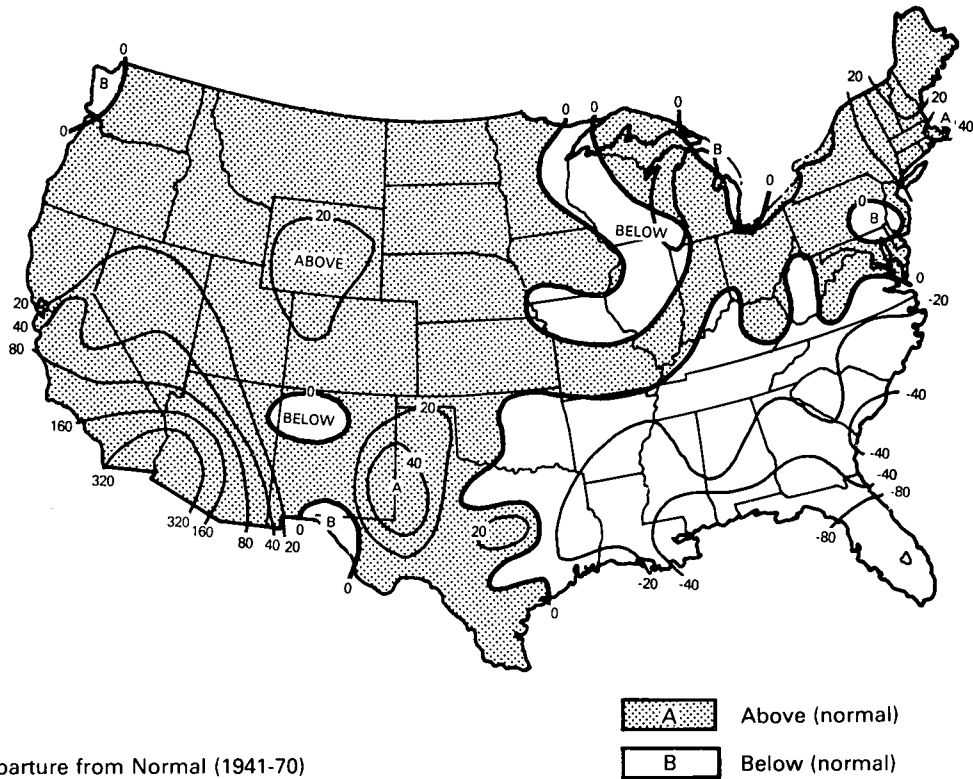
*See Explanatory Note 6 for explanation of degree-days.

**Percentage change in parentheses.

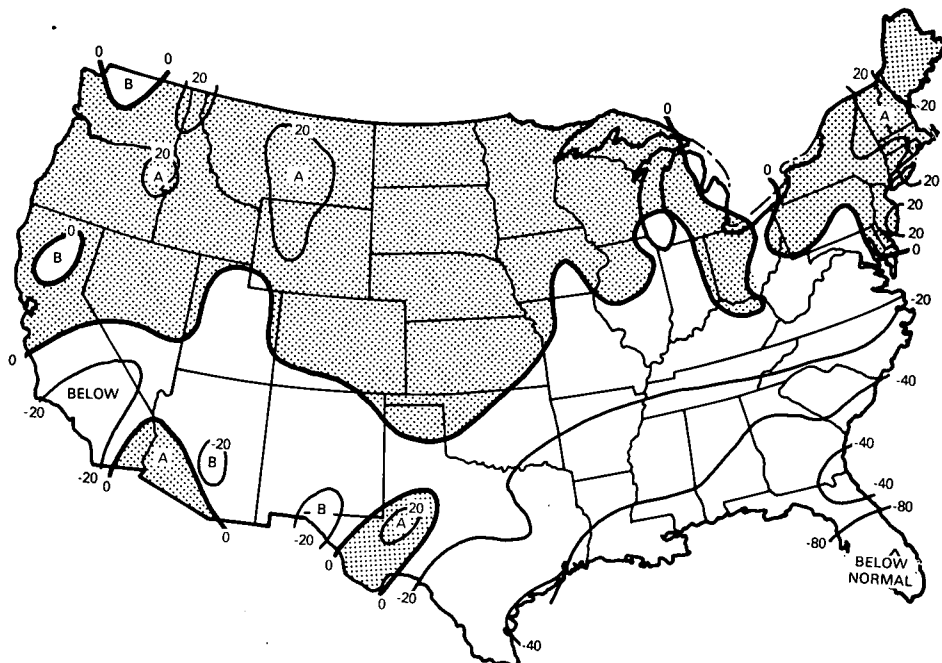
Heating Degree-Days (Continued)

Heating Degree-Days Accumulated from July 1, 1978 through December 2, 1978

Percent Departure from 1977



Percent Departure from Normal (1941-70)



Note: Above normal heating degree-days correspond to below normal temperatures.

Source: Department of Commerce—NOAA.

Part 3 Crude Oil and Refined Petroleum Products

Crude Oil and Refined Petroleum Products

Total petroleum imports (excluding imports for the Strategic Petroleum Reserve) averaged 8.5 million barrels per day in October 1978, 4.0 percent more than the October 1977 rate. Imports* averaged 8.0 million barrels per day over the first 10 months of 1978.

Total domestic demand for petroleum products averaged 18.7 million barrels per day in October, 5.1 percent above the rate in October 1977. The major components of domestic demand in October were: motor gasoline (39.3 percent), distillate fuel oil (18.0 percent), and residual fuel oil (14.3 percent). Total domestic demand averaged 18.7 million barrels per day over the first 10 months of 1978.

Preliminary statistics indicate that motor gasoline demand averaged 7.4 million barrels per day in October 1978, 3.4 percent above the rate of last October. The January through October average was 7.4 million barrels per day.

Residual fuel oil demand averaged 2.7 million barrels per day in October, 0.8 percent less than a year ago. The average over the January through October period of 1978 was 3.0 million barrels per day. Residual fuel oil stocks measured 81.3 million barrels at the end of October, 15.2 percent below a year ago.

Distillate fuel oil demand averaged 3.4 million barrels per day in October, 11.3 percent higher than a year ago. The average for the January through October period of 1978 was 3.4 million barrels per day. Distillate fuel oil stocks stood at 217.1 million barrels at the end of October, 18.8 percent below the stock level 1 year ago.

Domestic crude oil production averaged 8.8 million barrels per day in October**, 3.7

percent higher than in October 1977. The average for the first 10 months of 1978 was 8.7 million barrels per day.

*Exclude crude petroleum imported for the Strategic Petroleum Reserve.

**October 1978 estimates are based on preliminary data from the American Petroleum Institute and will be revised to conform with data from the EIA Petroleum Reporting System as available.

Crude Oil

		Crude Input to Refineries	Domestic Production ¹	Crude Oil Imports ^{1,2}	Strategic Petroleum Reserve (SPR) Imports	Exports	Crude Oil Stocks ^{1,3}	Strategic Petroleum Reserve (SPR) Stocks
		Thousands of barrels per day				Thousands of barrels		
1972	AVERAGE	11,696	9,441	2,216		1	4246,395	
1973	AVERAGE	12,431	9,208	3,244		2	4242,478	
1974	AVERAGE	12,133	8,774	3,477		3	4265,020	
1975	AVERAGE	12,442	8,375	4,105		6	4271,354	
1976	January	12,560	8,232	4,594		0	289,296	
	February	12,834	8,231	4,208		0	277,414	
	March	12,877	8,232	4,738		1	283,112	
	April	12,727	8,077	4,790		0	286,628	
	May	12,920	8,125	4,669		0	283,982	
	June	13,799	8,094	5,628		0	281,715	
	July	13,901	8,127	5,792		0	282,599	
	August	13,888	8,111	5,556		12	277,272	
	September	13,716	8,150	5,875		0	284,357	
	October	13,319	8,063	5,689		18	297,683	
	November	14,101	8,080	5,946		30	298,836	
	December	14,333	8,061	5,925		34	285,471	
	AVERAGE	13,416	8,132	5,287		8		
1977	January	14,140	7,790	6,288		13	294,037	
	February	14,740	8,067	6,652		59	291,387	
	March	14,270	8,022	6,633		32	299,464	
	April	14,185	8,079	6,785		17	318,588	
	May	14,605	8,009	6,821		89	328,559	
	June	14,867	8,039	6,997		10	333,635	
	July	14,884	8,040	7,021		53	335,193	
	August	14,645	8,244	6,416		37	338,300	
	September	14,930	8,416	6,429		91	334,180	
	October	14,658	8,508	6,270	93	38	340,517	2,646
	November	14,636	8,513	6,230	73	45	345,098	5,084
	December	14,749	8,423	6,049	79	69	339,813	7,826
	AVERAGE	14,608	8,179	6,548	21	50		
1978	January	14,139	8,347	5,974	114	98	340,082	11,106
	February	13,959	8,373	5,551	109	8	335,794	14,276
	March	14,141	8,807	5,981	132	60	345,333	18,437
	April	13,872	8,708	5,331	108	92	343,201	21,826
	May	14,982	8,801	5,452	133	124	329,020	25,629
	June	14,685	8,822	6,227	146	195	333,247	30,140
	July	R14,903	R8,747	R6,036	154	138	R332,691	35,248
	August	15,262	8,595	5,934	184	NA	308,235	40,968
	September	R15,124	R8,578	R6,659	225	NA	R311,703	NA
	October	15,165	8,823	6,718	NA	NA	327,670	NA
	AVERAGE (Year to date)	14,630	8,663	5,990	145	103		

¹See Definitions.

²Excludes SPR imports.

³Excludes SPR stocks.

⁴Total as of December 31.

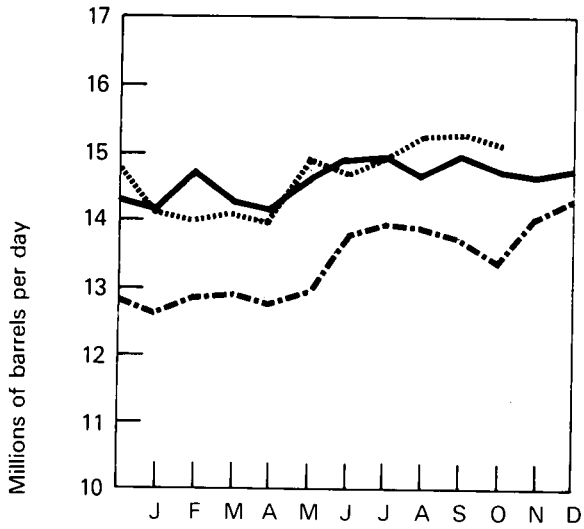
R=Revised data.

NA = Not available.

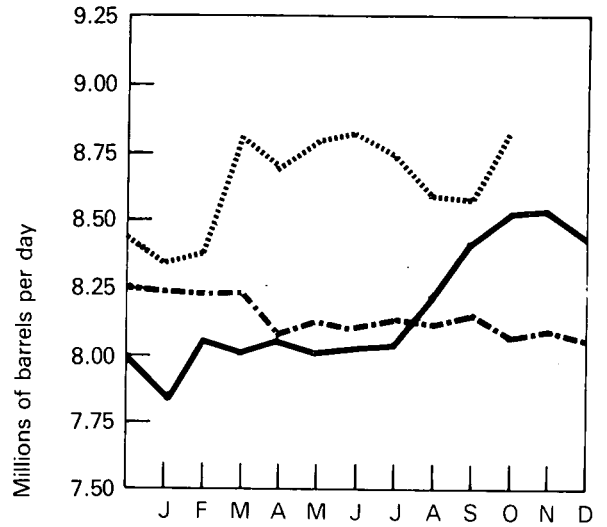
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through July 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" August 1978 and September 1978: EIA "Monthly Petroleum Statistics Report;" October 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Crude Oil

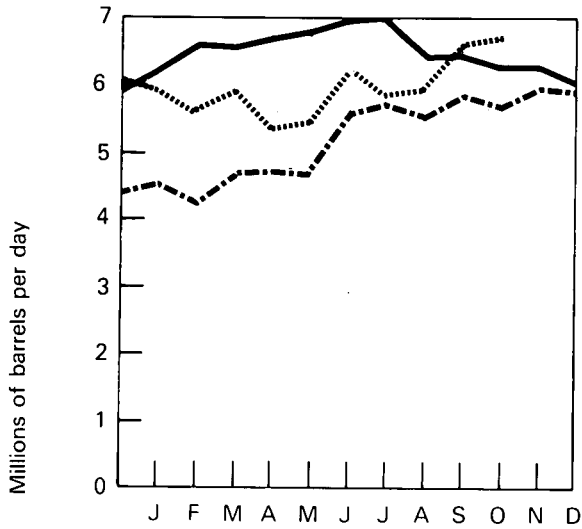
Crude Input to Refineries



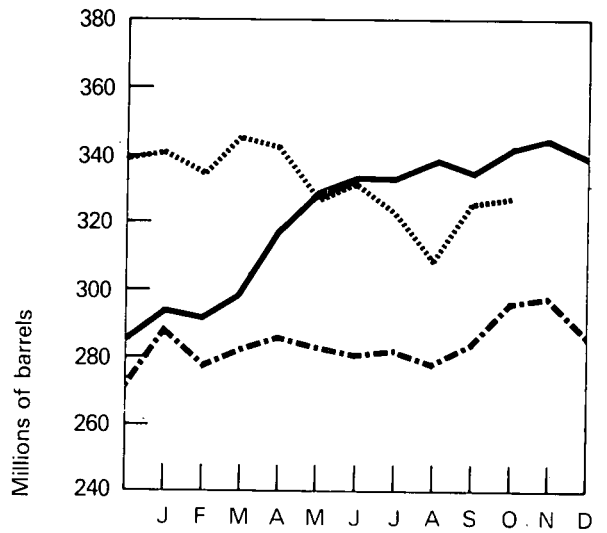
Domestic Production



Imports (Excluding Imports for SPR)



Stocks (Excluding SPR)



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Total Refined Petroleum Products

Total Petroleum Imports (Crude Oil and Refined Products)

		Domestic Demand	Imports*	Exports	Total Imports (Excluding SPR)	SPR Imports	Total Imports (Including SPR)
		Thousands of barrels per day			Thousands of barrels per day		
1972	AVERAGE	16,367	2,525	222	4,741		
1973	AVERAGE	17,308	3,012	229	6,256		
1974	AVERAGE	16,653	2,635	218	6,112		
1975	AVERAGE	16,322	1,951	204	6,056		
1976	January	18,647	2,119	156	6,714		
	February	17,509	2,504	241	6,712		
	March	17,302	1,949	183	6,687		
	April	16,672	1,806	222	6,595		
	May	15,977	1,654	179	6,323		
	June	16,825	1,847	213	7,474		
	July	16,607	2,092	242	7,884		
	August	16,642	1,827	208	7,382		
	September	16,837	2,050	196	7,924		
	October	17,090	1,847	180	7,536		
	November	18,847	2,115	318	8,060		
	December	20,560	2,522	246	8,447		
	AVERAGE	17,461	2,026	215	7,313		
1977	January	20,481	2,594	179	8,882		
	February	20,427	3,278	175	9,930		
	March	18,056	2,610	175	9,243		
	April	17,570	1,886	207	8,671		
	May	16,960	1,753	199	8,574		
	June	18,048	1,872	215	8,869		
	July	17,549	2,021	201	9,042		
	August	18,009	2,175	193	8,591		
	September	17,733	2,136	203	8,565		
	October	17,831	1,862	170	8,132	93	8,225
	November	18,440	1,814	190	8,044	73	8,117
	December	20,046	2,183	206	8,232	79	8,311
	AVERAGE	18,418	2,176	193	8,724	21	8,744
1978	January	19,691	2,065	158	8,040	114	8,154
	February	20,874	2,337	200	7,887	109	7,996
	March	19,627	2,323	209	8,304	132	8,436
	April	17,714	2,100	245	7,431	108	7,539
	May	18,133	1,762	189	7,215	133	7,348
	June	R18,270	1,624	204	7,851	146	7,997
	July	R17,631	R1,948	192	R7,984	154	R8,138
	August	19,062	1,869	NA	7,803	184	7,987
	September	R17,867	R2,024	NA	R8,683	225	R8,908
	October	18,742	1,739	NA	8,457	NA	NA
	AVERAGE (Year to date)	18,748	1,976	199	7,966	145	8,056

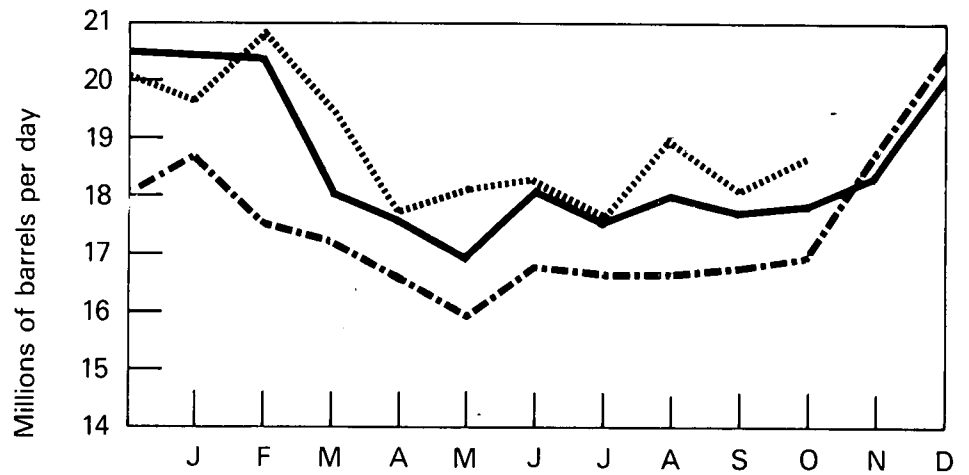
*See Definitions.

R=Revised data.

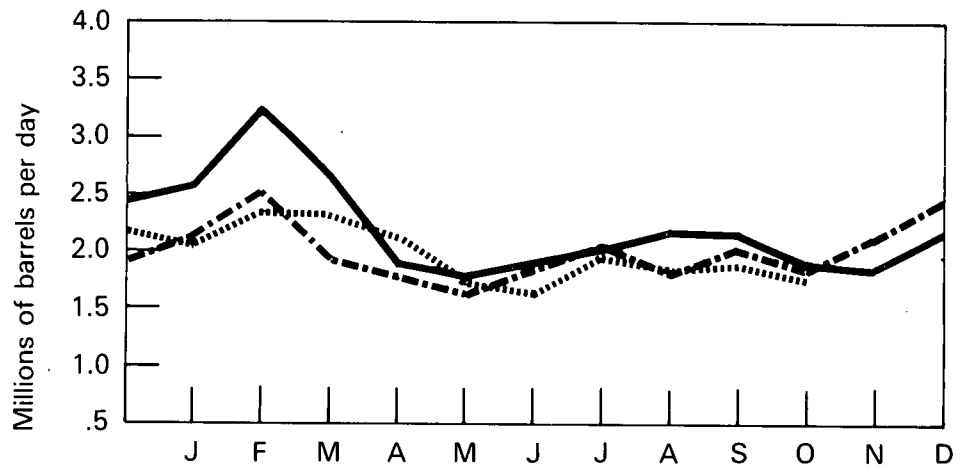
NA=Not available.

Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through July 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" August 1978 and September 1978: EIA "Monthly Petroleum Statistics Report;" October 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

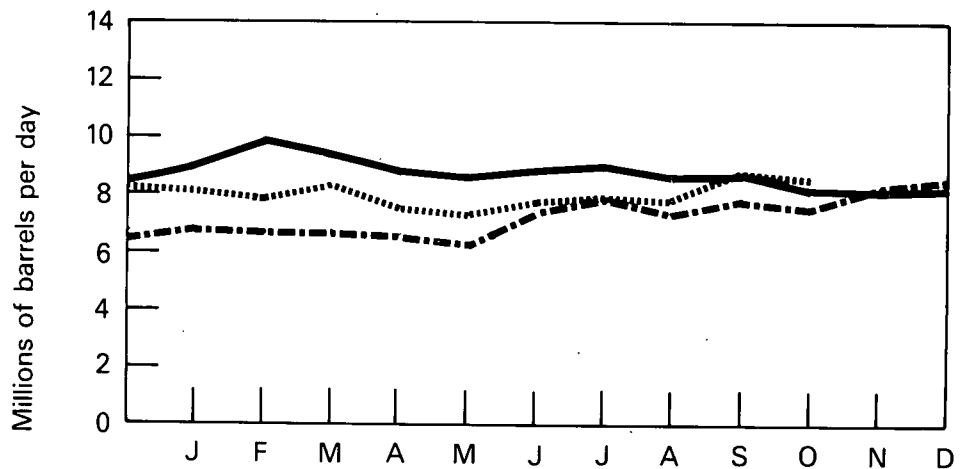
Total Refined Product Domestic Demand



Refined Product Imports



Total Petroleum Imports (Excluding Imports for SPR)



- - - 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Direct U.S. Petroleum Imports from OPEC Countries

	Algeria	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	United Arab Emirates	Venezuela	Other OPEC*	Total OPEC	Arab Members of OPEC
Thousands of barrels per day											
1973	134.2	212.7	222.7	164.3	458.9	487.3	70.6	1,124.7	106.5	2,981.9	914.4
1974	190.2	300.1	468.8	4.4	697.6	460.6	70.5	979.3	88.3	3,259.8	748.5
1975	281.5	388.4	280.4	232.0	761.5	715.0	116.7	697.6	116.1	3,589.2	1,381.3
1976	428.3	537.4	298.5	453.3	1,025.2	1,229.8	255.2	699.2	134.0	5,060.9	2,421.0
1977											
January	493.0	619.2	396.8	627.0	1,285.8	1,328.0	319.5	841.8	324.2	6,236.0	3,000.0
February	666.1	570.3	412.4	638.0	1,265.1	1,441.8	316.7	920.6	241.0	6,472.0	3,141.1
March	459.8	567.0	735.0	701.2	1,300.0	1,371.6	369.5	664.3	184.3	6,352.7	3,022.1
April	660.7	523.9	517.2	782.9	1,242.4	1,437.4	323.5	663.3	250.5	6,401.8	3,363.2
May	392.8	512.7	539.3	784.1	1,072.3	1,724.1	237.1	534.4	435.9	6,232.7	3,451.3
June	436.6	671.6	553.0	827.1	1,190.8	1,432.7	438.6	668.7	343.5	6,562.6	3,374.1
July	573.9	519.0	857.3	763.4	1,194.7	1,369.8	286.1	652.8	350.8	6,567.8	3,232.1
August	632.2	552.8	500.1	640.0	960.5	1,449.4	308.6	744.4	276.9	6,064.9	3,169.8
September	550.8	391.0	448.9	679.2	1,084.8	1,487.4	348.4	744.8	201.0	5,936.3	3,215.1
October	626.2	461.0	413.0	690.5	1,104.2	1,303.3	246.9	586.7	272.0	5,703.9	2,998.1
November	590.6	514.6	422.7	840.1	943.0	1,119.2	420.1	515.1	285.0	5,650.4	3,162.5
December	553.0	492.7	549.0	604.4	987.2	1,064.8	390.5	724.2	289.1	5,654.9	2,835.4
TOTAL	552.0	532.8	530.2	714.7	1,135.1	1,377.0	333.4	687.0	288.3	6,150.5	3,162.7
1978											
January	682.3	462.7	681.5	559.9	822.9	1,198.2	348.7	628.4	227.9	5,612.5	2,925.1
February	635.9	393.5	526.2	575.8	758.4	982.4	485.8	750.5	242.3	5,350.8	2,792.3
March	709.5	579.4	547.3	589.9	944.8	1,125.6	296.2	893.6	240.6	5,926.9	2,884.0
April	597.6	504.7	408.6	601.8	584.3	986.6	435.0	641.9	220.2	4,980.7	2,732.1
May	667.1	508.5	730.4	498.7	790.2	786.3	404.5	527.6	84.5	4,997.8	2,396.8
June	756.6	637.1	508.5	630.3	851.7	1,111.3	342.7	481.1	235.4	5,554.7	3,004.8
July	R662.5	R617.8	532.5	R622.2	R945.0	R1,028.8	R289.4	R531.9	R286.9	R5,517.0	R2,784.6
August	453.5	532.7	559.4	776.4	861.5	1,088.4	404.2	488.6	206.6	5,371.3	2,842.2
September	609.9	566.3	574.2	756.4	1,029.6	1,231.1	374.8	651.2	256.8	6,050.3	3,163.5
TOTAL	641.6	534.8	564.3	623.6	844.3	1,060.2	374.4	620.6	221.9	5,485.7	2,832.2
(Year to date)											

*Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

R=Revised data.

Sources: Direct Imports—Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly" and "PAD District Supply/Demand, Monthly" through April 1977; EIA *Energy Data Reports*, "PAD Districts Supply/Demand, Monthly" for May 1977 through July 1978; EIA "Monthly Petroleum Statistics Report" for August 1978 and September 1978.

U.S. Petroleum Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Puerto Rico	Trinidad and Tobago	Virgin Islands	Other	Total
Thousands of barrels per day									
1973	170.8	1,312.9	15.2	573.6	99.3	250.6	329.2	523.5	3,274.2
1974	159.3	1,067.6	8.4	509.6	90.4	241.2	391.7	384.2	2,852.4
1975	152.0	845.2	71.4	323.6	89.7	240.9	406.5	306.1	2,435.4
1976									
January	134.1	681.7	58.7	291.7	71.0	343.2	468.4	321.5	2,370.3
February	127.6	644.9	70.0	262.4	122.2	326.3	462.3	251.7	2,267.4
March	90.4	590.2	108.0	328.7	114.0	315.6	424.5	367.5	2,338.9
April	131.9	578.4	112.0	274.9	68.5	291.9	341.2	404.5	2,203.3
May	95.2	614.9	89.3	214.1	70.6	257.5	388.5	316.4	2,046.5
June	104.2	653.3	79.5	190.4	54.3	319.3	427.5	373.5	2,202.0
July	112.8	581.7	79.4	259.1	77.9	279.2	386.5	434.0	2,210.6
August	98.5	580.9	88.1	268.7	81.5	163.6	437.2	428.5	2,147.0
September	143.1	564.8	84.8	273.3	104.1	182.6	408.5	453.1	2,214.3
October	78.3	562.0	79.2	239.0	92.2	215.2	460.5	422.8	2,149.2
November	140.4	561.8	132.1	267.6	104.1	254.3	454.4	333.2	2,247.9
December	141.5	578.3	65.5	400.3	98.5	324.2	408.4	405.0	2,421.3
TOTAL	116.5	599.3	87.1	274.6	88.1	272.6	422.3	373.5	2,234.0
1977									
January	170.0	505.9	97.9	304.1	82.5	316.2	619.6	549.8	2,646.0
February	289.5	605.1	168.1	406.6	86.3	406.3	548.8	947.8	3,458.5
March	200.4	561.7	171.5	257.3	97.4	286.5	505.5	810.4	2,890.7
April	130.7	506.1	155.2	110.1	85.3	210.5	409.0	662.4	2,269.3
May	138.5	437.8	173.6	153.7	105.8	308.1	376.2	647.6	2,341.3
June	137.7	493.0	180.7	196.2	89.4	271.1	322.0	616.0	2,306.1
July	169.8	482.9	158.7	239.0	129.7	275.8	477.7	540.1	2,473.7
August	168.8	501.5	213.6	224.5	88.4	281.2	461.6	586.9	2,526.5
September	140.2	528.5	167.6	201.1	156.7	250.9	433.9	750.1	2,629.0
October	122.3	487.0	246.6	197.4	114.1	288.4	451.9	612.9	2,520.6
November	184.4	504.6	230.7	93.3	98.7	237.2	462.8	654.7	2,466.4
December	159.8	580.1	186.5	191.9	97.8	305.5	555.6	579.2	2,656.4
TOTAL	166.9	515.5	179.3	213.7	105.3	286.0	466.2	660.7	2,593.6
1978									
January	167.5	479.7	236.4	215.2	98.0	295.0	466.0	583.3	2,541.1
February	217.6	507.5	221.9	225.2	99.6	295.8	490.6	587.2	2,645.4
March	211.5	436.9	230.9	238.1	63.6	274.2	492.8	560.8	2,508.8
April	140.9	392.4	231.4	258.3	95.0	302.1	371.9	766.7	2,558.7
May	194.3	396.0	257.6	230.6	73.6	189.0	304.0	704.6	2,349.7
June	144.6	472.6	287.1	213.3	117.6	199.3	324.5	683.7	2,442.7
July	R166.0	R531.0	319.5	201.6	93.8	R281.7	402.2	R625.4	R2,621.2
August	R187.7	440.4	366.5	284.4	82.3	220.6	431.0	R602.8	R2,615.7
September	116.8	441.8	460.6	214.1	95.2	262.0	431.6	835.6	2,857.7
TOTAL (Year to date)	171.8	455.0	290.6	231.3	90.7	257.4	412.3	660.8	2,569.9

R=Revised data.

Source: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly" and "PAD Districts Supply/Demand, Monthly," through April 1977; EIA *Energy Data Reports*, "PAD Districts Supply/Demand Monthly" for May 1977 through July 1978; and EIA "Monthly Petroleum Statistics Report" for August 1978 and September 1978.

Motor Gasoline

Domestic Demand

		Total	Unleaded	Unleaded Percent of Total	Production*	Imports	Exports	Stocks*
		Thousands of barrels per day						Thousands of barrels
1972	AVERAGE	6,376	NA	NA	6,281	68	1	**212,770
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	January	6,398	NA	NA	6,483	92	0	240,464
	February	6,263	1,117	17.8	6,473	84	6	248,854
	March	6,890	1,456	21.1	6,455	123	6	239,049
	April	7,159	1,312	18.3	6,562	99	8	223,965
	May	6,853	1,393	20.3	6,775	112	1	225,037
	June	7,482	1,549	20.7	7,303	188	0	225,365
	July	7,315	1,594	21.8	7,174	190	1	226,922
	August	7,168	1,553	21.7	7,149	141	7	230,578
	September	7,079	1,628	23.0	6,878	171	0	229,751
	October	6,929	1,552	22.4	6,678	138	0	226,300
	November	7,038	1,604	22.8	6,938	146	1	227,742
	December	7,138	1,797	25.2	7,176	84	7	231,387
	AVERAGE	6,978	1,508	21.6	6,838	131	3	
1977	January	6,466	1,549	24.0	6,934	222	8	252,608
	February	6,897	1,773	25.7	6,817	184	2	255,519
	March	6,899	1,657	24.0	6,864	245	0	262,118
	April	7,348	1,863	25.4	6,968	269	1	258,831
	May	7,034	1,803	25.6	6,950	202	2	262,498
	June	7,595	2,142	28.2	7,145	246	1	256,389
	July	7,441	2,146	28.8	7,248	248	1	258,152
	August	7,419	2,096	28.3	7,191	187	1	256,904
	September	7,317	2,080	28.4	7,062	220	1	255,859
	October	7,132	2,135	29.9	6,932	179	1	255,194
	November	7,191	2,060	28.6	7,123	179	2	258,537
	December	7,373	2,400	32.6	7,146	196	1	257,578
	AVERAGE	7,176	1,976	27.5	7,033	215	2	
1978	January	6,670	2,097	31.4	6,932	211	1	272,287
	February	6,884	2,162	31.4	6,630	210	1	271,077
	March	7,256	2,425	33.4	6,750	142	1	259,801
	April	7,206	2,391	33.2	6,668	180	1	249,079
	May	R7,731	2,343	30.3	7,059	174	2	233,612
	June	7,917	2,697	34.1	7,213	238	1	219,660
	July	R7,579	2,629	34.7	R7,264	R212	2	R216,488
	August	7,850	2,834	36.1	7,425	165	NA	208,529
	September	R7,431	2,607	R35.1	R7,390	R254	NA	R215,592
	October	7,372	NA	NA	7,057	158	NA	215,423
	AVERAGE	7,393	2,467	33.3	7,042	194	1	
	(Year to date)							

*See Definitions.

**Total as of December 31.

R=Revised data.

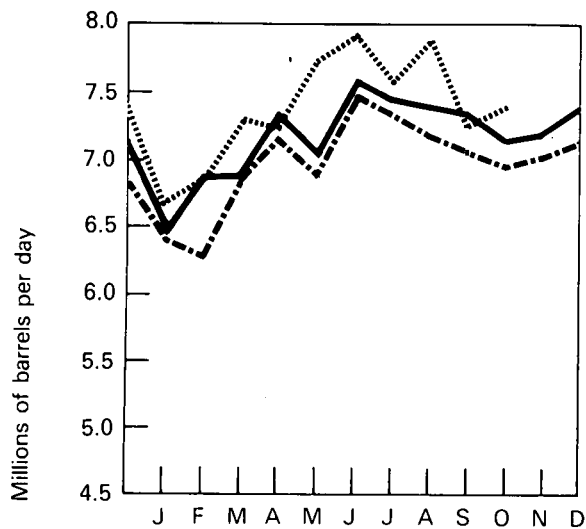
NA=Not available.

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.

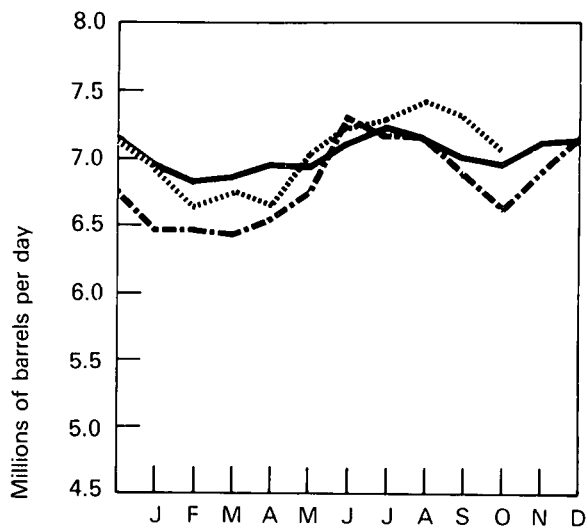
Sources: Data other than unleaded—1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum, Statement, Monthly;" May 1977 through July 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" August 1978 and September 1978: "Monthly Petroleum Statistics Report;" October 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin." Unleaded data—EIA Petroleum Reporting System.

Motor Gasoline

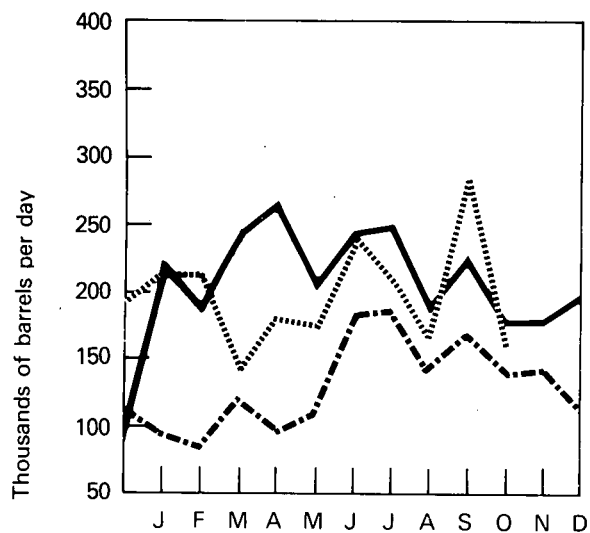
Domestic Demand



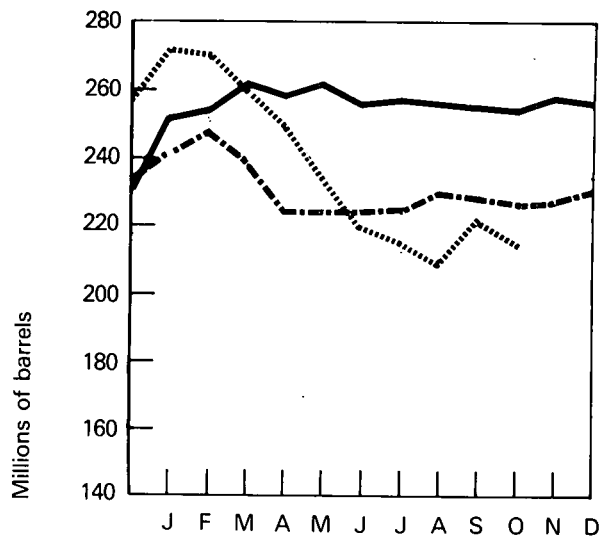
Production



Imports



Stocks



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Jet Fuel

		Domestic Demand	Production	Imports	Exports	Stocks
		Thousands of barrels per day				Thousands of barrels
1972	AVERAGE	1,045	847	194	3	*25,493
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	January	948	889	69	3	30,618
	February	965	918	71	4	31,180
	March	965	927	86	2	32,619
	April	1,010	927	108	2	33,332
	May	960	899	106	1	34,664
	June	972	879	68	1	33,879
	July	1,099	933	130	2	32,732
	August	965	942	38	2	33,121
	September	1,048	990	63	2	33,204
	October	911	890	50	2	34,032
	November	978	920	56	3	33,859
	December	1,027	900	72	2	32,085
	AVERAGE	987	918	76	2	
1977	January	1,054	917	77	2	30,170
	February	1,036	974	74	2	30,455
	March	1,041	954	98	2	30,739
	April	1,019	991	86	4	32,355
	May	993	979	57	2	33,644
	June	989	996	30	1	34,707
	July	1,043	969	85	1	35,048
	August	1,113	1,009	71	1	33,986
	September	1,050	1,004	53	2	34,159
	October	1,016	973	67	2	34,861
	November	1,038	950	107	1	35,409
	December	1,089	978	85	2	34,568
	AVERAGE	1,040	974	74	2	
1978	January	980	922	60	1	34,603
	February	1,107	994	69	2	33,332
	March	1,112	972	98	2	32,003
	April	1,014	983	119	1	34,626
	May	995	1,014	108	2	38,514
	June	1,055	960	59	2	37,408
	July	R1,012	928	R105	2	R38,014
	August	1,130	969	85	NA	35,527
	September	R1,096	R991	78	NA	R34,880
	October	1,066	937	88	NA	33,337
	AVERAGE (Year to date)	1,056	967	87	2	

*Total as of December 31.

R=Revised data.

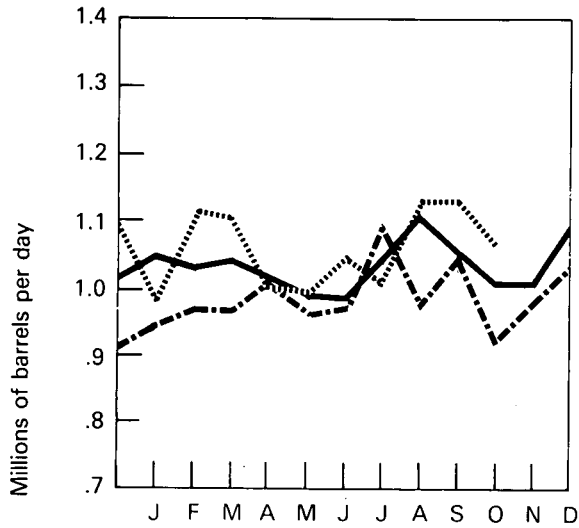
NA=Not available.

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.

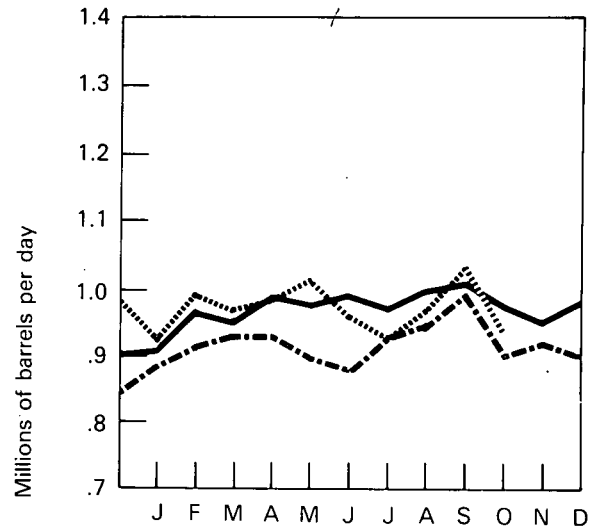
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through July 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" August 1978 and September 1978: EIA "Monthly Petroleum Statistics Report;" October 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Jet Fuel

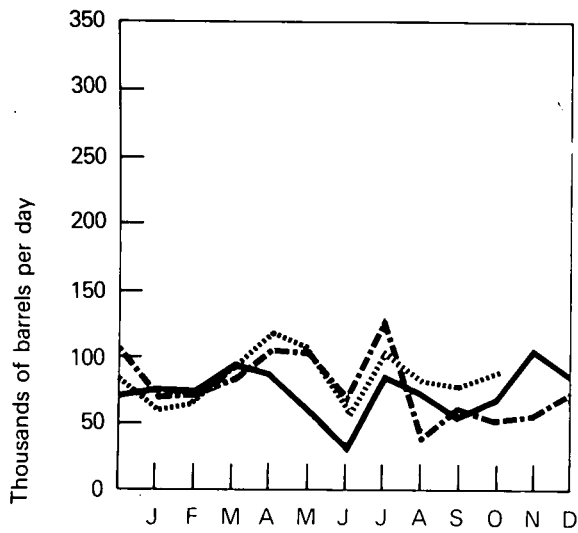
Domestic Demand



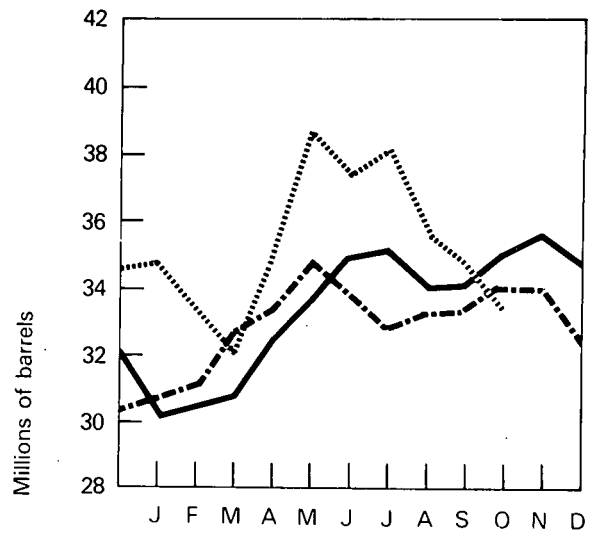
Production



Imports



Stocks



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Distillate Fuel Oil

		Domestic Demand	Production*	Imports	Exports	Stocks*
		Thousands of barrels per day				Thousands of barrels
1972	AVERAGE	2,913	2,630	182	3	**154,284
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	January	4,297	2,734	163	0	165,428
	February	3,697	2,961	218	1	150,439
	March	3,339	2,793	153	1	138,306
	April	2,788	2,655	96	1	137,249
	May	2,519	2,738	97	1	147,057
	June	2,436	2,885	151	1	165,064
	July	2,255	2,959	126	0	190,861
	August	2,237	2,982	131	4	217,930
	September	2,620	2,947	149	1	232,230
	October	3,031	2,995	144	1	235,599
	November	3,714	3,180	135	1	223,648
	December	4,667	3,255	196	1	185,948
	AVERAGE	3,133	2,924	146	1	
1977	January	5,111	3,375	350	1	142,989
	February	4,714	3,702	664	1	133,261
	March	3,421	3,179	519	1	141,882
	April	2,942	3,001	153	3	148,246
	May	2,777	3,124	99	0	162,123
	June	2,776	3,198	135	0	178,842
	July	2,545	3,192	192	0	204,899
	August	2,635	3,274	161	0	229,757
	September	2,717	3,314	169	1	252,783
	October	3,038	3,363	150	5	267,392
	November	3,420	3,339	188	3	270,571
	December	4,205	3,324	226	2	250,280
	AVERAGE	3,352	3,279	248	1	
1978	January	4,439	3,054	194	1	213,411
	February	4,831	2,937	209	16	165,830
	March	4,089	2,999	187	0	137,877
	April	3,092	2,941	100	6	136,240
	May	3,044	3,208	119	1	145,046
	June	2,837	3,105	146	0	157,515
	July	R2,514	R3,110	R149	4	R180,513
	August	2,755	3,252	147	NA	200,253
	September	R2,747	3,219	R168	NA	R219,535
	October	3,381	3,353	165	NA	217,059
	AVERAGE	3,363	3,120	158	4	
	(Year to date)					

*See Definitions.

**Total as of December 31.

R=Revised data.

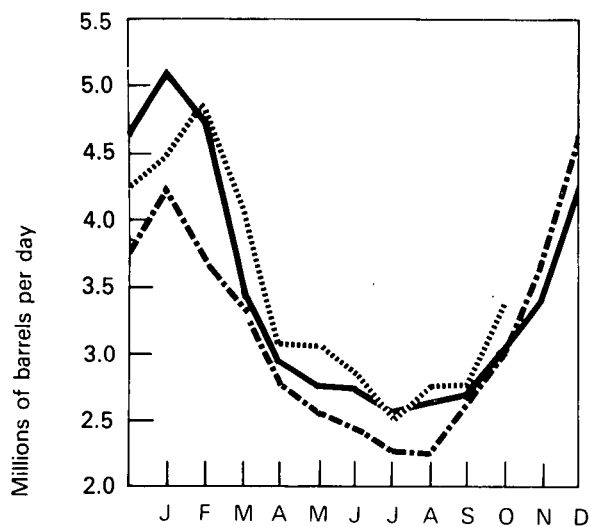
NA=Not available.

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.

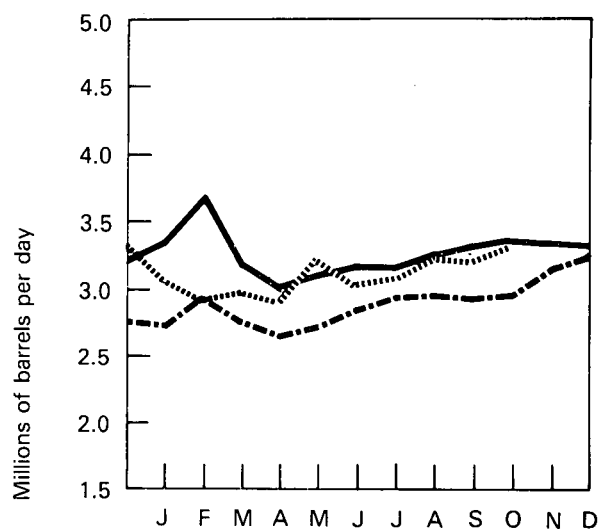
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through July 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" August 1978 and September 1978: EIA "Monthly Petroleum Statistics Report;" October 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Distillate Fuel Oil

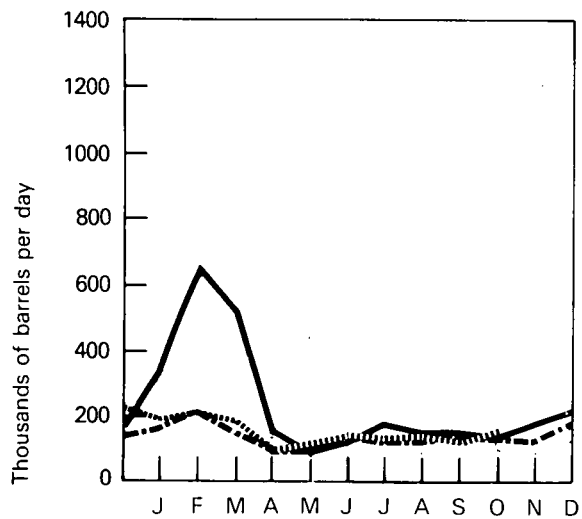
Domestic Demand



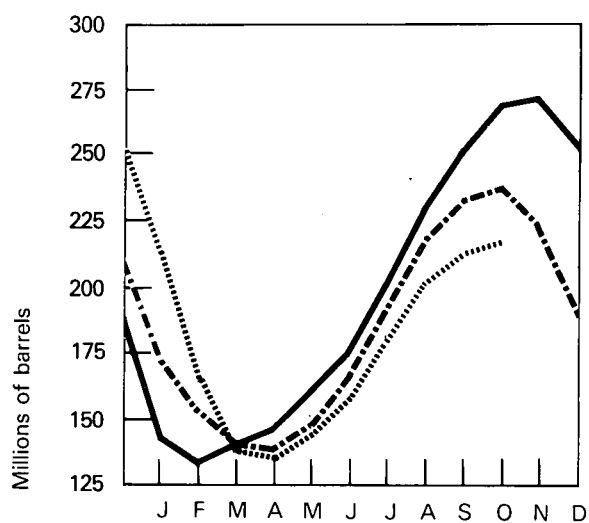
Production



Imports



Stocks



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Residual Fuel Oil

		Domestic Demand	Production	Imports	Exports	Stocks
		Thousands of barrels per day				Thousands of barrels
1972	AVERAGE	2,529	799	1,742	33	*55,216
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	January	3,118	1,415	1,455	13	66,592
	February	3,077	1,394	1,774	30	68,859
	March	2,779	1,311	1,342	10	65,132
	April	2,496	1,283	1,258	18	66,458
	May	2,439	1,257	1,134	10	65,147
	June	2,509	1,241	1,229	7	64,272
	July	2,548	1,266	1,455	11	69,812
	August	2,678	1,321	1,307	8	68,490
	September	2,526	1,330	1,452	8	76,436
	October	2,547	1,351	1,270	5	79,117
	November	3,253	1,581	1,474	16	73,284
	December	3,645	1,772	1,828	4	72,344
	AVERAGE	2,801	1,377	1,413	12	
1977	January	3,741	1,889	1,596	2	64,749
	February	3,662	1,951	1,943	8	71,414
	March	3,150	1,715	1,417	3	71,186
	April	2,855	1,687	1,125	3	70,165
	May	2,719	1,671	1,145	5	73,376
	June	2,954	1,714	1,181	2	71,924
	July	2,805	1,729	1,271	18	77,770
	August	3,046	1,634	1,441	9	78,762
	September	2,926	1,750	1,458	3	87,522
	October	2,707	1,749	1,218	2	95,896
	November	2,819	1,695	1,094	7	95,155
	December	3,364	1,839	1,348	12	89,673
	AVERAGE	3,059	1,751	1,350	6	
1978	January	3,496	1,872	1,358	13	81,434
	February	3,964	1,801	1,565	10	64,852
	March	3,536	1,758	1,700	22	62,187
	April	2,992	1,554	1,565	7	66,229
	May	2,667	1,646	1,221	16	72,359
	June	2,618	1,582	1,012	4	71,916
	July	R2,780	R1,593	R1,296	10	R75,346
	August	2,941	R1,626	1,264	NA	73,952
	September	R2,721	R1,669	R1,301	NA	R81,167
	October	2,685	1,606	1,187	NA	81,345
	AVERAGE (Year to date)	3,033	1,670	1,345	12	

*Total as of December 31.

R=Revised data.

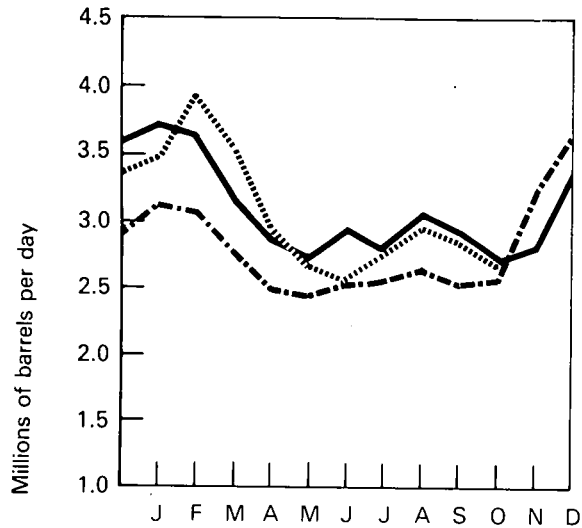
NA=Not available.

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.

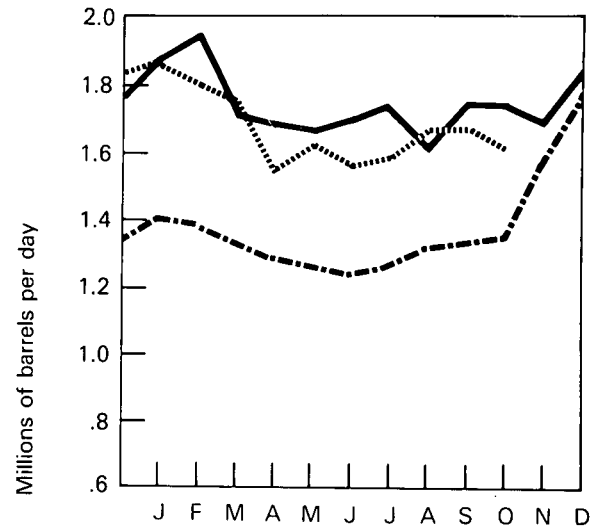
Sources: 1972 through 1976: Bureau of Mines (BOM) *Mineral Industry Surveys*, "Petroleum Statement, Annual;" January 1977 through April 1977: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" May 1977 through July 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" August and September 1978: EIA "Monthly Petroleum Statistics Report;" October 1978 data are EIA estimates based on data from the American Petroleum Institute (API) "Weekly Statistical Bulletin."

Residual Fuel Oil

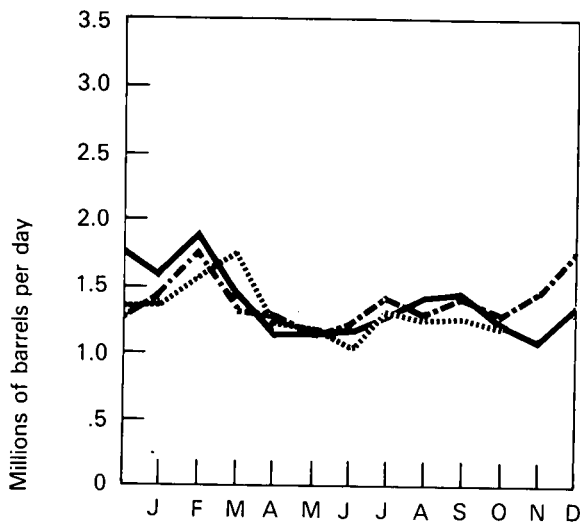
Domestic Demand



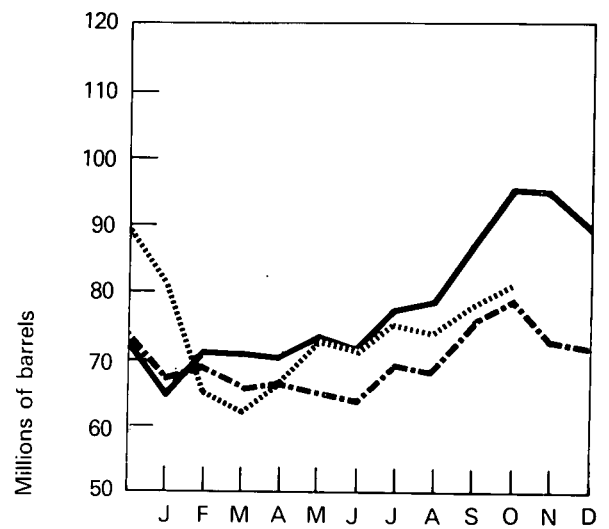
Production



Imports



Stocks



- - - 1976 BOM
 — 1977 BOM, EIA
 1978 EIA, API

Natural Gas Plant Liquids, Including Liquefied Refinery Gases

		Domestic Demand*	Production*		Used at Refineries*	Imports	Stocks*
			At processing plants	At refineries			
		Thousands of barrels per day					Thousands of barrels
1972	AVERAGE	1,420	1,744	365	826	174	**92,024
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	January	1,885	1,585	305	728	240	116,707
	February	1,518	1,640	316	793	270	113,373
	March	1,303	1,615	333	674	194	117,486
	April	1,201	1,616	349	716	171	123,100
	May	1,138	1,581	376	673	144	131,421
	June	1,110	1,606	356	718	163	139,291
	July	1,103	1,592	354	710	147	147,034
	August	1,213	1,596	362	695	160	152,704
	September	1,243	1,602	352	713	152	156,436
	October	1,497	1,601	309	709	203	152,666
	November	1,747	1,615	331	726	244	143,422
	December	1,921	1,589	341	853	269	124,518
	AVERAGE	1,407	1,603	340	725	196	
1977	January	2,018	1,549	323	730	331	106,524
	February	1,887	1,589	336	693	238	94,128
	March	1,354	1,687	331	688	239	100,025
	April	1,228	1,664	337	672	198	108,235
	May	1,167	1,620	397	614	165	120,018
	June	1,235	1,616	364	622	203	129,315
	July	1,133	1,609	381	594	157	141,631
	August	1,181	1,593	360	659	204	150,830
	September	1,220	1,585	355	654	148	156,726
	October	1,242	1,632	355	710	168	162,440
	November	1,765	1,627	352	700	187	152,971
	December	1,760	1,637	345	727	254	144,617
	AVERAGE	1,430	1,618	353	672	208	
1978	January	1,867	1,557	327	645	201	130,797
	February	1,802	1,562	338	659	207	120,274
	March	1,429	1,590	362	601	132	121,317
	April	1,161	1,619	349	599	100	130,002
	May	1,170	1,530	363	498	109	139,581
	June	1,126	1,583	368	649	109	147,540
	July	R1,125	R1,558	R348	R562	R122	R157,525
	August***	1,414	1,568	368	582	180	155,400
	September***	1,353	1,574	358	573	155	159,700
	October***	1,363	1,564	350	615	165	162,200
	AVERAGE (Year to date)	1,378	1,570	353	598	148	

*See Explanatory Note 7.

**Total as of December 31.

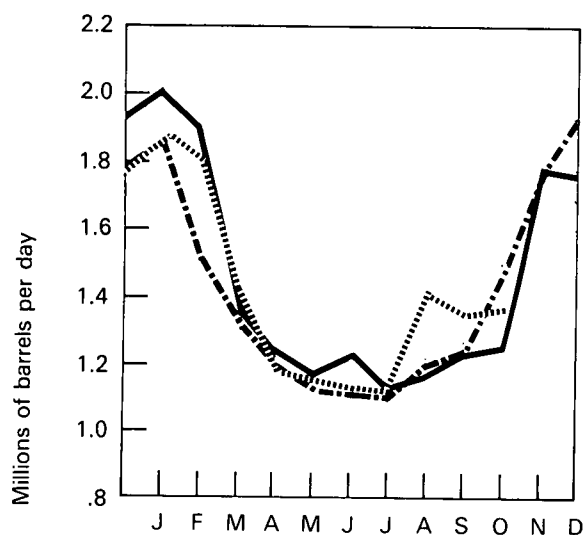
***Estimated.

R=Revised data.

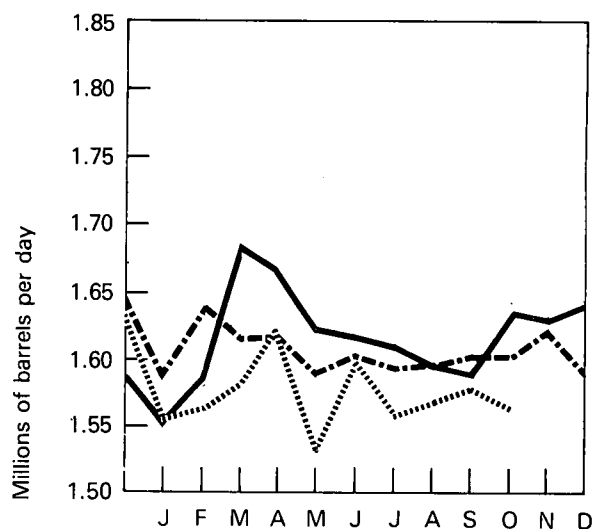
Source: Bureau of Mines *Mineral Industry Surveys*, "Petroleum Statement, Monthly" through April 1977; EIA *Energy Data Reports*, "Petroleum Statement, Monthly" for May 1977 through July 1978.

Natural Gas Plant Liquids

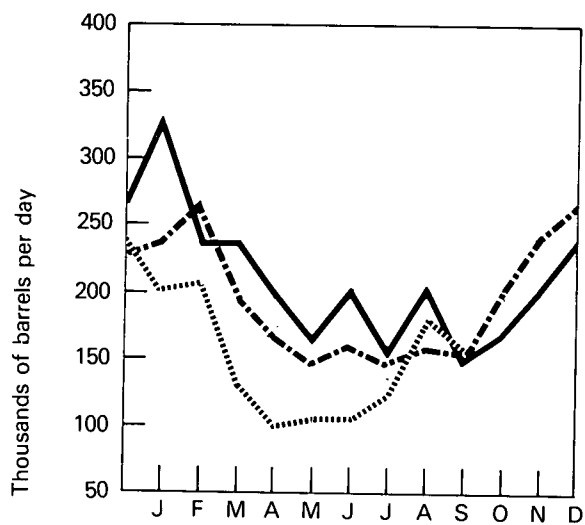
Domestic Demand



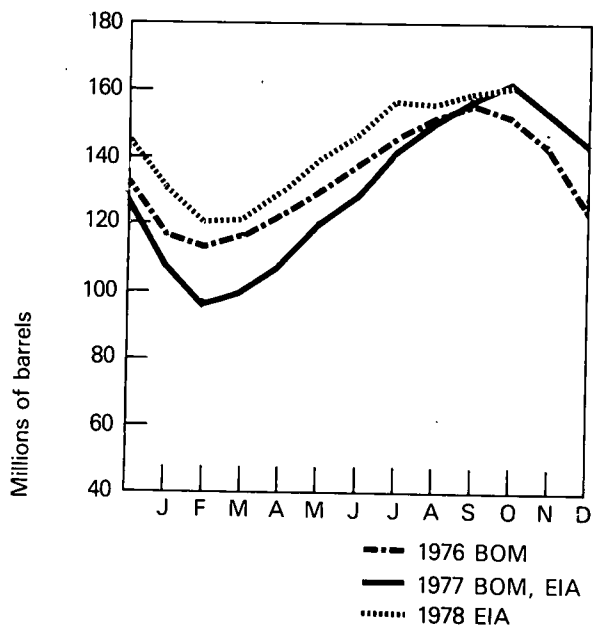
Production at Processing Plants



Imports



Stocks



--- 1976 BOM
 — 1977 BOM, EIA
 1978 EIA

U.S. Petroleum Supply and Demand

1977
Actual

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Year
Thousands of barrels per day					
Supply					
Crude oil and lease condensate production	7,956	8,042	8,231	8,481	8,179
Natural gas plant liquids production	1,609	1,633	1,596	1,632	1,618
Other hydrocarbon supply	43	54	52	52	50
Crude oil imports ¹	6,520	6,867	6,624	6,182	6,548
Refined products imports ²	2,813	1,836	2,110	1,955	2,176
Total new supply	18,941	18,432	18,613	18,302	18,571
Processing gain	521	450	543	569	521
Stock change—all oils ³	-278	+1,190	+1,177	+12	+528
Total net supply	19,740	17,692	17,979	18,859	18,564
Unaccounted for crude oil ⁴	+114	+88	+59	+172	+113
Demand					
Crude oil and refined products exports	210	245	259	255	243
Crude oil losses	15	15	16	16	16
Domestic demand for refined products ⁵	19,629	17,520	17,764	18,776	18,418
Total demand	19,854	17,780	18,039	19,047	18,677

1978
Actual

	1st Qtr.	2nd Qtr.	3rd Qtr.	1978 First Three Quarters	1977 First Three Quarters
Thousand of barrels per day					
Supply					
Crude oil and lease condensate production	8,514	8,777	R8,641	R8,645	8,077
Natural gas plant liquids production	1,570	1,577	R1,567	R1,574	1,613
Other hydrocarbon supply	56	48	R55	R53	50
Crude oil imports ¹	5,845	5,668	R6,205	R5,907	6,671
Refined products imports ²	2,238	1,828	R1,946	R2,003	2,250
Total new supply	18,223	17,898	R18,414	R18,182	18,661
Processing gain	489	463	R492	R481	505
Stock change—all oils ³	-1,712	+63	R+570	R-351	+702
Total net supply	20,424	18,298	R18,336	R19,014	18,464
Unaccounted for crude oil ⁴	-126	+107	+148	+42	+87
Demand					
Crude oil and refined products exports	246	349	R*294	R*307	238
Crude oil losses	15	16	NA	NA	15
Domestic demand for refined products ⁵	20,037	18,040	R18,190	R18,749	18,298
Total demand	20,298	18,405	R18,484	R19,056	18,551

¹Excludes crude oil imported for the Strategic Petroleum Reserve.

²Includes plant condensate and unfinished oils.

³Excludes petroleum stored in the Strategic Petroleum Reserve.

⁴Balancing item resulting from statistical inconsistencies.

⁵Includes international bunkers.

*Estimated data.

R=Revised Data

Note: 1978 data are preliminary.

Sources: 1st Quarter 1977—BOM *Mineral Industry Surveys*, "Petroleum Statement, Monthly;" 2nd, 3rd, and 4th Quarters 1977 and 1st and 2nd Quarters 1978—Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" 3rd Quarter 1978—July 1978: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly;" August and September 1978: EIA "Monthly Petroleum Statistics Report."

Natural Gas

Domestic consumption of natural gas in October 1978 was an estimated 8.4 percent lower than in October 1977. Estimated consumption during the first 10 months of 1978, however, was only slightly less than that during the period January through October 1977.

Production of dry natural gas in October was an estimated 2.4 percent less than in October 1977, and output during the period January through October 1978 was an estimated 1.9 percent lower than during the comparable 1977 period.

Imports of natural gas in October 1978 were an estimated 2.4 percent less than in the previous October, and estimated imports during the first 10 months of 1978 were 8.3 percent below those for the comparable 1977 period. Receipts of foreign natural gas during the period January through October 1978 included Algerian liquefied natural gas (LNG) equivalent to approximately 40 billion cubic feet shipped to the large-scale LNG receiving terminals at Cove Point, Maryland and Elba Island, Georgia.

Working gas* stocks in underground natural gas storage reservoirs at the end of October 1978 were 32 billion cubic feet higher than those available a year earlier, according to preliminary data. Net injections into storage during October 1978 were 74.3 percent higher than in the previous October.

Domestic producer sales of natural gas to major interstate pipeline companies in August 1978 were 4.5 percent higher than during August 1977. Sales during the first 8 months of 1978, however, were 0.8 percent below those for the same period in 1977.

*Gas available for withdrawal.

Natural Gas

		Production*			Domestic Producer Sales to Major Interstate Pipelines	Imports	Exports
		Domestic Consumption*	Marketed	Dry			
Billion cubic feet							
1972	TOTAL	22,102	22,532	21,624	12,429	1,019	78
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	January	2,291	1,751	1,675	894	84	5
	February	1,938	1,647	1,577	850	78	5
	March	1,721	1,714	1,641	894	85	6
	April	1,508	1,623	1,554	849	86	6
	May	1,434	1,673	1,602	860	82	5
	June	1,335	1,640	1,570	815	76	5
	July	1,372	1,676	1,604	822	73	6
	August	1,317	1,636	1,566	810	77	6
	September	1,302	1,565	1,498	793	74	6
	October	1,621	1,639	1,569	840	85	5
	November	1,875	1,635	1,565	841	81	5
	December	2,232	1,753	1,677	872	83	5
		TOTAL	19,946	19,952	19,098	10,140	964
1977	January	2,407	1,740	1,665	848	87	5
	February	1,816	1,674	1,602	807	92	4
	March	1,715	1,751	1,675	910	101	4
	April	1,439	1,644	1,573	830	84	3
	May	1,379	1,692	1,619	830	86	3
	June	1,333	1,648	1,577	789	76	5
	July	1,325	1,674	1,602	801	73	7
	August	1,364	1,645	1,574	784	76	5
	September	1,427	1,598	1,529	741	75	5
	October	1,518	1,628	1,558	831	85	5
	November	1,690	1,606	1,537	830	86	5
	December	2,108	1,725	1,652	882	90	5
		TOTAL	19,521	20,025	19,163	9,883	1,011
1978	January	R2,385	R1,739	1,672	862	87	5
	February	2,116	1,618	1,555	756	77	4
	March	1,889	1,714	1,644	861	86	4
	April	1,513	1,636	1,571	836	78	3
	May	1,353	1,629	1,564	819	76	4
	June	1,222	1,597	1,529	768	67	5
	July	R1,308	R1,668	1,599	821	70	6
	August	1,230	**1,600	**1,540	821	R71	5
	September	1,210	**1,540	**1,470	NA	**71	5
	October	1,390	**1,590	**1,520	NA	**83	4
	TOTAL (Year to date)	15,616	16,331	15,664	6,544 (8 months)	766	45

*See Explanatory Note 8.

**Estimated data.

R=Revised data.

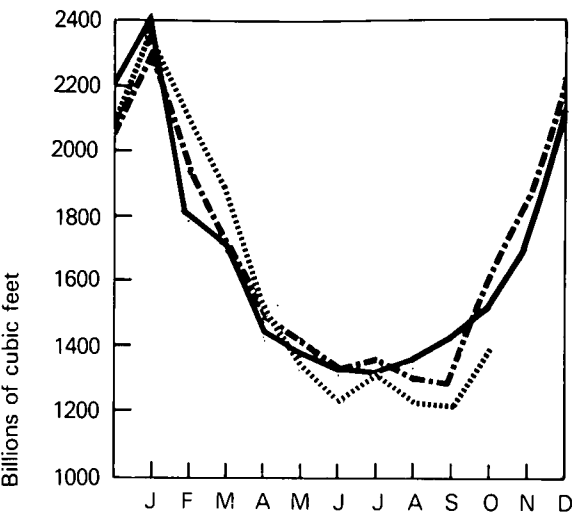
NA=Not available.

Note: All monthly Domestic Consumption and 1978 Exports data are estimated.

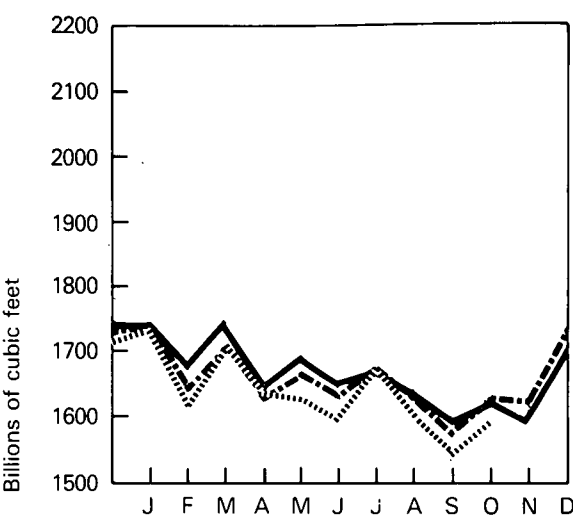
Sources: Domestic Consumption—EIA estimates; Marketed Production, Imports, and Exports—Bureau of Mines *Mineral Industry Surveys*, "Natural Gas, Monthly" through June 1977 and EIA *Energy Data Reports*, "Natural Gas, Monthly" for July 1977 forward; Domestic Producer Sales—Federal Power Commission Form 11, "Monthly Statement of Gas Operating Revenues, Sales."

Natural Gas

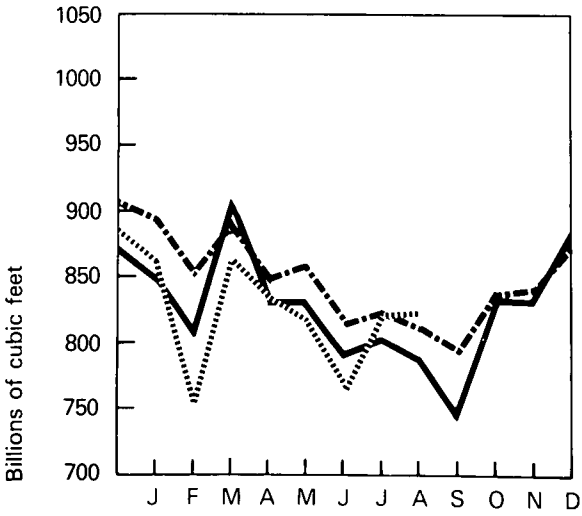
Domestic Consumption



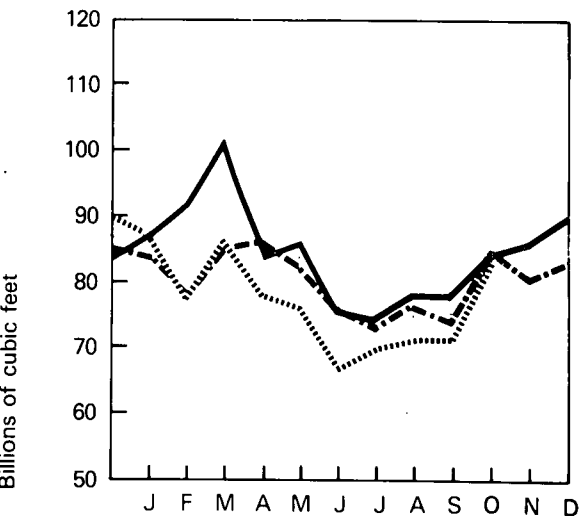
Marketed Production



Domestic Producer Sales to Major Interstate Pipelines



Imports



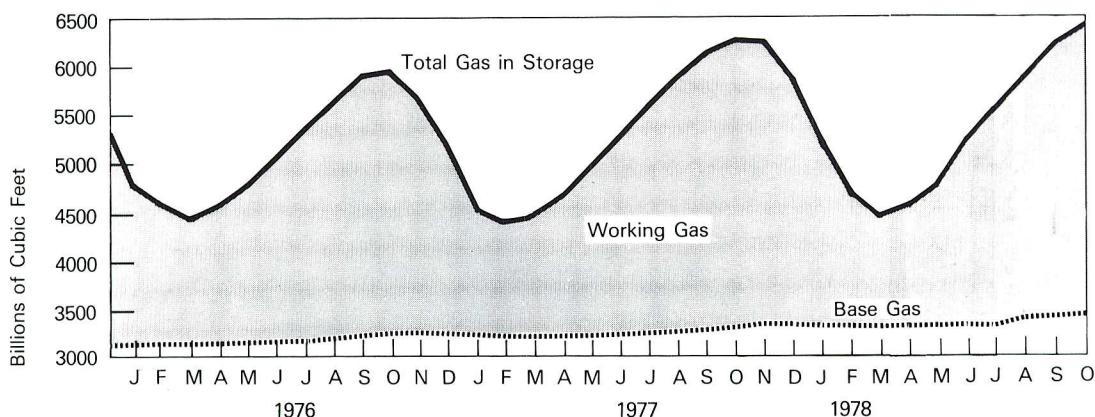
--- 1976
— 1977
..... 1978

Natural Gas (Continued)

Natural Gas in Underground Storage*

		Total Gas in Storage	Base Gas	Working Gas	Storage Injections	Storage Withdrawals	Net Storage Injections
		Billion cubic feet					
1975	September	5,553	3,085	2,468	220	31	189
	October	5,706	3,107	2,599	190	51	139
	November	5,691	3,150	2,541	98	146	-48
	December	5,358	3,150	2,208	38	371	-333
1976	January	4,817	3,169	1,648	17	526	-509
	February	4,617	3,173	1,444	66	265	-199
	March	4,496	3,170	1,326	79	200	-121
	April	4,607	3,184	1,423	185	75	110
	May	4,827	3,190	1,637	245	24	221
	June	5,116	3,208	1,908	304	27	277
	July	5,412	3,220	2,192	301	6	295
	August	5,698	3,251	2,447	298	17	281
	September	5,946	3,296	2,650	259	22	237
	October	5,966	3,302	2,664	135	116	19
	November	5,713	3,305	2,408	40	291	-251
	December	5,231	3,310	1,921	23	505	-482
1977	January	4,580	3,293	1,287	18	670	-652
	February	4,446	3,283	1,163	101	235	-134
	March	4,501	3,286	1,215	187	132	55
	April	4,713	3,286	1,427	256	43	213
	May	5,024	3,293	1,731	329	17	312
	June	5,330	3,300	2,030	317	12	305
	July	5,665	3,317	2,348	348	15	333
	August	5,945	3,346	2,599	290	21	269
	September	6,188	3,364	2,824	262	2	260
	October	6,302	3,373	2,929	157	44	113
	November	6,224	3,403	2,821	84	160	-76
	December	5,844	3,377	2,467	41	416	-375
1978	January	5,193	3,374	1,819	21	668	-647
	February	4,683	3,373	1,310	21	530	-509
	March	4,497	3,374	1,123	92	278	-186
	April	4,608	3,377	1,231	179	68	111
	May	4,870	3,378	1,491	291	30	261
	June	5,217	3,381	1,836	365	18	347
	July	5,550	3,386	2,164	349	16	333
	August	5,904	3,403	2,501	359	12	347
	September	6,224	3,411	2,813	329	9	320
	October†	6,405	3,444	2,961	224	27	197

Gas in Storage



*See Explanatory Note 9.

†Preliminary data.

Sources: Federal Energy Administration Form G318-M-O and Federal Power Commission Form 8 "Underground Gas Storage Report."

Part 5

Oil and Gas Exploration and Development

The rotary rig count climbed to 2,346 in October 1978, the highest October count since 1957.

Well completions dropped in October 1978 to 3,939. For the January through October 1978 period, the number of wells drilled was up 7 percent from the number drilled during the corresponding period in 1977. Compared to the first 10 months of 1977, oil well completions in 1978 were down 4.2 percent, while gas wells were up 14.2 percent and dry holes were up 12.7 percent. Total footage drilled rose 9.9 percent during the period.

Resource Development

Oil and Gas Exploration and Development

		Rotary Rigs in Operation	Exploratory and Development Wells Drilled*					Total Footage of Wells Drilled*
		Monthly Average		Oil	Gas	Dry	Total	Thousands of feet
1972	AVERAGE	1,107	TOTAL	11,306	4,928	11,057	27,291	134,602
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	January	1,710		1,465	772	1,055	3,292	14,517
	February	1,594		1,341	652	1,159	3,152	14,888
	March	1,540		1,726	821	1,301	3,848	18,126
	April	1,480		1,237	672	994	2,903	13,765
	May	1,496		1,501	658	1,104	3,263	14,196
	June	1,546		1,500	709	1,123	3,332	14,780
	July	1,597		1,312	730	916	2,958	13,716
	August	1,691		1,265	711	1,140	3,116	14,697
	September	1,744		1,474	909	1,199	3,582	16,777
	October	1,794		1,396	750	1,123	3,269	14,542
	November	1,840		1,291	698	1,222	3,211	14,642
	December	1,860		1,512	926	1,414	3,852	17,093
		AVERAGE	1,656	TOTAL **	17,059	9,085	13,621	39,765
1977	January	1,850		1,391	732	1,096	3,219	14,517
	February	1,856		1,321	705	999	3,025	14,443
	March	1,887		1,817	958	1,297	4,072	19,400
	April	1,907		1,405	818	1,059	3,282	15,523
	May	1,982		1,382	877	1,150	3,409	16,702
	June	2,008		1,720	952	1,270	3,942	18,767
	July	2,023		1,304	724	1,022	3,050	14,529
	August	2,066		1,400	961	1,179	3,540	16,838
	September	2,084		1,924	1,105	1,288	4,317	19,333
	October	2,101		1,562	1,024	1,254	3,840	18,000
	November	2,113		1,785	1,091	1,447	4,323	19,537
	December	2,141		1,875	1,387	1,569	4,831	21,365
		AVERAGE	2,001	TOTAL **	18,912	11,378	14,692	44,982
1978	January	2,128		1,184	783	1,233	3,200	15,394
	February	2,135		1,486	851	1,239	3,576	16,933
	March	2,158		1,499	1,247	1,420	4,166	20,392
	April	2,198		1,369	971	1,112	3,452	17,559
	May	2,249		1,209	1,004	1,166	3,379	17,189
	June	2,286		1,812	1,071	1,489	4,372	21,115
	July	2,307		1,503	985	1,191	3,679	17,258
	August	2,325		1,516	1,085	1,290	3,891	18,440
	September	2,332		1,619	1,227	1,511	4,357	21,234
	October	2,346		1,395	1,102	1,441	3,938	19,109
		AVERAGE	2,246	TOTAL **	14,600	10,329	13,104	38,033
(Year to date)			(Year to date)					

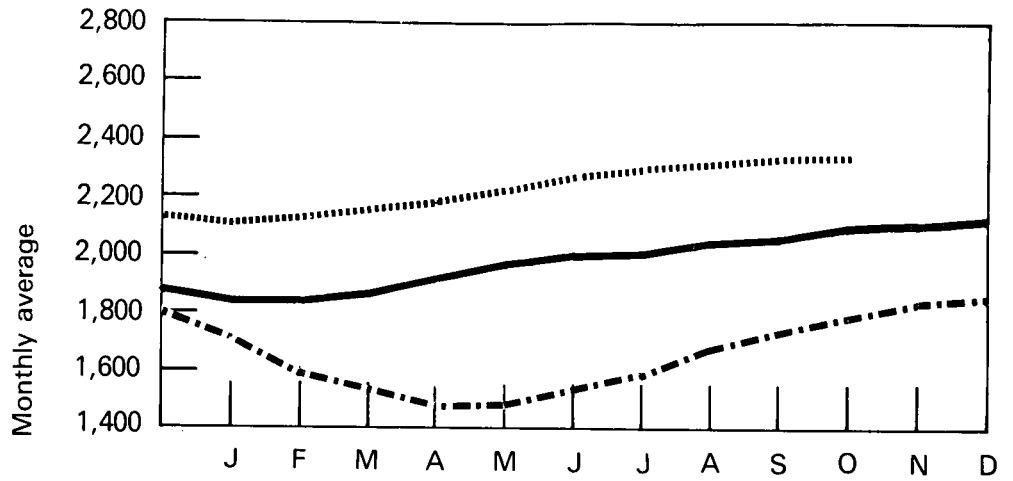
*Excludes service wells and stratigraphic and core tests.

**Totals reflect subsequent data revisions and therefore may not agree with cumulative monthly data.

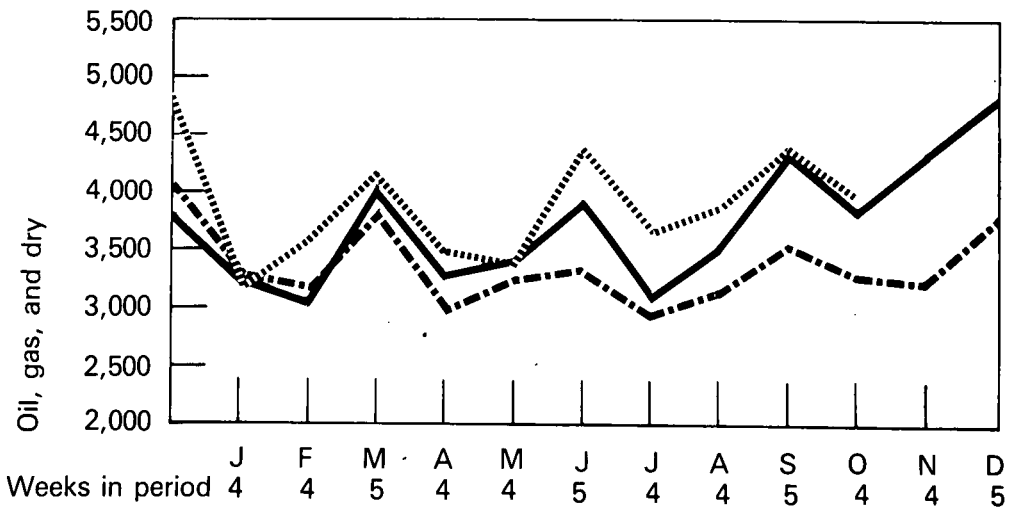
NA=Not available.

Sources: Rotary Rigs: Hughes Tool Company "Rotary Rigs Running - By State;" Wells: American Petroleum Institute "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States."

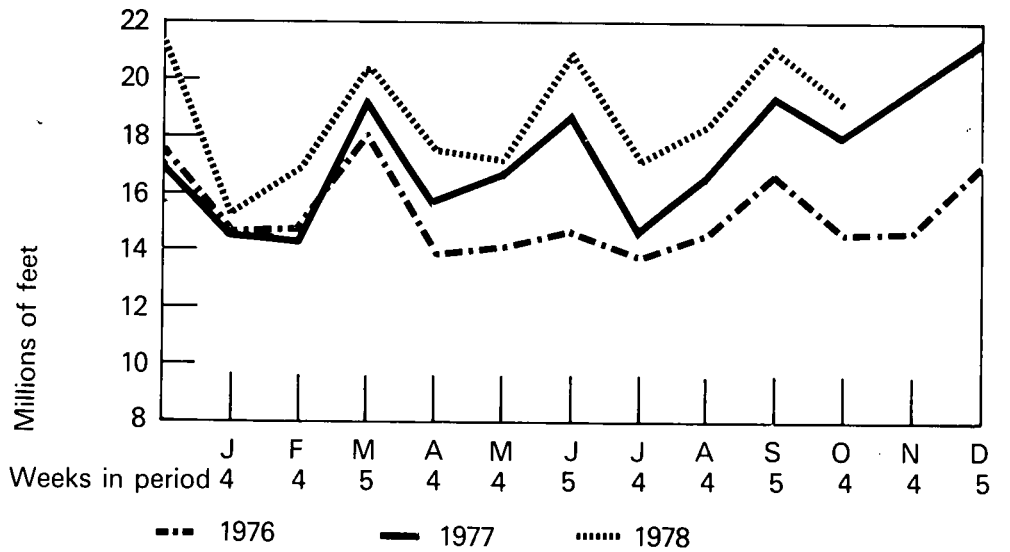
Rotary Rigs in Operation



Total Wells Drilled



Total Footage of Wells Drilled



Oil and Gas Exploration and Development (Continued)

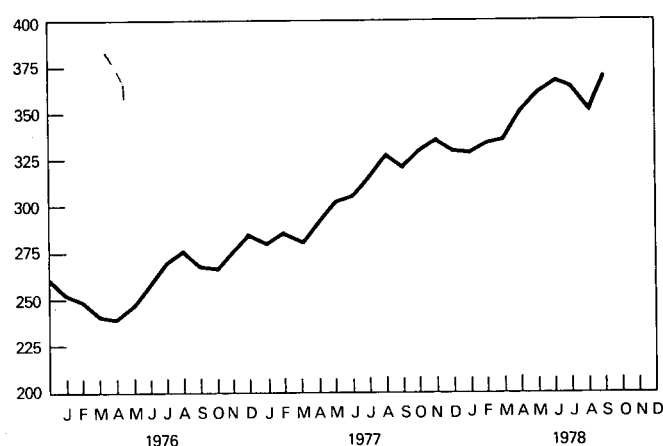
		Crews Engaged in Seismic Exploration			Line Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore	Onshore	Total
		Monthly average			Monthly average		
1972	Year	12	239	251	10,306	9,333	19,639
1973	Year	23	227	250	21,579	10,597	32,175
1974	Year	31	274	305	28,482	13,219	41,701
1975	Year	30	254	284	25,773	12,558	38,331
1976	Year	25	237	262	18,859	11,910	30,769
1977	Year	27	281	308	NA	NA	NA

1976	January	20	232	252
	February	17	232	249
	March	18	222	240
	April	17	221	238
	May	21	226	247
	June	29	229	258
	July	30	240	270
	August	33	242	275
	September	28	240	268
	October	21	246	267
	November	25	250	275
	December	27	259	286

1977	January	26	254	280
	February	27	259	286
	March	22	260	282
	April	26	266	292
	May	29	272	301
	June	31	274	305
	July	30	285	315
	August	31	295	326
	September	29	291	320
	October	28	302	330
	November	26	309	335
	December	26	303	329

1978	January	26	302	328
	February	23	305	328
	March	20	314	334
	April	21	315	336
	May	21	330	351
	June	26	336	362
	July	26	341	367
	August	27	338	365
	September	21	333	354
	October	29	342	371
AVERAGE		24	326	350
(Year to date)				

Total Seismic Crews



NA=Not available.

Source: Society of Exploration Geophysicists "Monthly Seismic Crew Count" and annual reports published in *Geophysics*.

Coal

Coal production increased from 54.7 million tons in September 1978 to 70.4 million tons in October. Production through the first 10 months of 1978 totaled 523.0 million tons, 71.1 million tons or 12.0 percent below the production level for the same period in 1977. The lower production levels in 1978 include losses due to the United Mine Workers' strike during the first quarter of 1978 and the 9-week strike against the Norfolk and Western Railway in the third quarter.

Domestic consumption of coal totaled 54.5 million tons in September 1978, up 6.8 percent from the amount consumed during September 1977. In the third quarter of 1978, coal consumption totaled 168.2 million tons, up 5.4 million tons or 3.3 percent from the amount consumed during the third quarter of 1977. Electric utility coal consumption* was 132.9 million tons in the third quarter of 1978 compared with 129.3 million tons in the third quarter of 1977. Utilities consumed 358.0 million tons of coal in the first 9 months of 1978, 0.7 million tons less than the amount consumed for the same period a year earlier. Coke plants, the second largest coal consuming sector, used 19.1 million tons in the third quarter of 1978, an increase of 0.3 million over the amount consumed in the same period a year earlier. In the first 9 months of 1978, coke plants consumed 50.9 million tons, 8.3 million tons below the amount consumed in the first 9 months of 1977. Total coal consumption by general industry including shipments to retail dealers totaled 52.6 million tons during the first 9 months of 1978, 1.2 million tons more than the amount consumed in the first 9-month period of 1977.

Total stocks of bituminous coal and lignite held by consumers increased from 122.6 million tons at the end of the second quarter of 1978 to 125.7 million tons at the end of the third quarter. Total coal inventories on September 30, 1978 were 26.6 million tons below the stock level at the beginning of the

year. Electric utility stockpiles* during the third quarter increased from 108.5 million tons to 112.8 million tons. Bituminous coal stocks held by coke plants declined during the third quarter from 8.2 million tons to 6.4 million tons. Bituminous coal and lignite stocks held by general industry increased from 5.5 million tons at the end of June 1978 to 6.2 million tons at the end of September.

Total imports through the first 9 months of 1978 totaled 2.3 million tons, more than double the amount imported during the first 9 months of 1977. Australia and South Africa provided 75 percent of total U.S. coal imports. United States exports of coal during the third quarter of 1978 totaled 10.7 million tons, a decline of 1.9 million tons from the amount exported during the second quarter of the year. The extremely low level of first quarter exports was due to the coal strike that idled most mines in coal-fields where export tonnage originates.

*Includes bituminous, lignite, and anthracite stocks, does not include petroleum coke consumption/stocks.

Coal

Bituminous, Lignite, and Anthracite

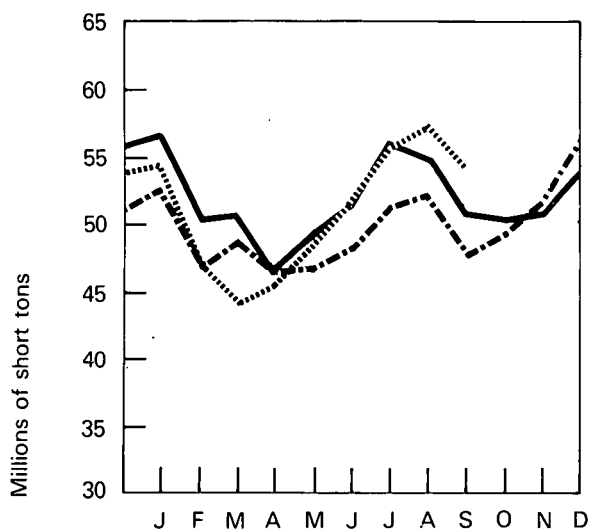
		Production	Domestic Consumption	Imports	Exports
Thousands of short tons					
1972	Total	602,492	524,263	47	56,740
1973	Total	598,568	562,583	127	53,587
1974	Total	610,023	558,402	2,080	60,661
1975	Total	654,641	562,643	940	66,309
1976	January	53,093	53,392	103	3,711
	February	54,213	R47,263	114	3,074
	March	61,443	R49,043	40	4,000
	April	59,665	46,850	132	5,846
	May	58,489	47,121	90	5,747
	June	60,290	48,845	192	6,644
	July	44,808	52,067	39	4,927
	August	54,212	52,457	90	4,270
	September	61,149	48,089	65	5,734
	October	59,389	49,767	94	5,913
	November	59,273	52,277	149	5,507
	December	58,889	56,619	95	4,648
	TOTAL	684,913	603,790	1,203	60,021
1977	January	44,930	57,001	123	2,180
	February	49,480	R50,494	75	3,121
	March	67,045	R50,682	31	3,449
	April	60,780	R46,799	170	5,655
	May	62,770	R49,597	94	5,757
	June	63,385	R52,148	92	6,045
	July	49,825	R56,543	112	5,222
	August	58,165	R55,234	100	4,334
	September	69,750	R51,062	175	5,131
	October	67,970	R50,665	274	4,931
	November	69,315	R51,208	326	4,566
	December	31,360	R54,258	231	3,921
	TOTAL	694,775	R625,691	1,803	54,312
1978	January	23,545	R54,815	139	894
	February	23,860	R46,443	159	588
	March	39,375	R44,329	231	377
	April	60,105	R46,031	417	2,613
	May	69,410	R49,312	323	4,473
	June	66,160	R52,424	291	5,429
	July	52,720	R55,923	313	3,574
	August	62,685	R57,805	227	3,634
	September	54,725	54,520	196	3,454
	October	70,410	NA	NA	NA
	TOTAL (Year to date)	522,995	461,602	2,296	25,036

NA=Not available.

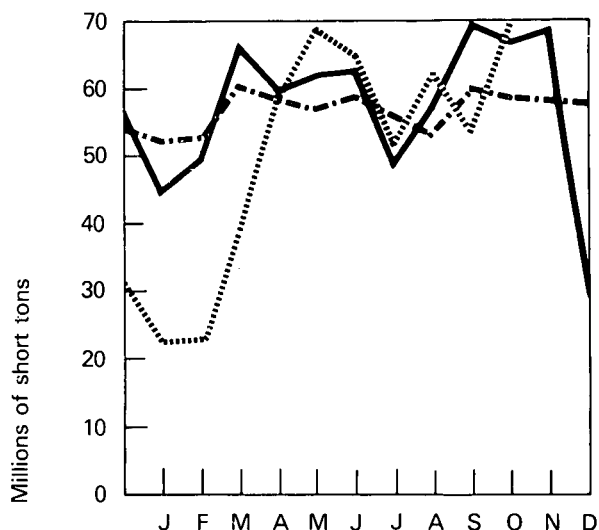
Source: Exports and Imports—U.S. Department of Commerce, Bureau of the Census; remaining data—Bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report" through September 1977; and EIA *Energy Data Reports*, "Weekly Coal Report" for October 1977 forward.

Bituminous, Lignite, and Anthracite

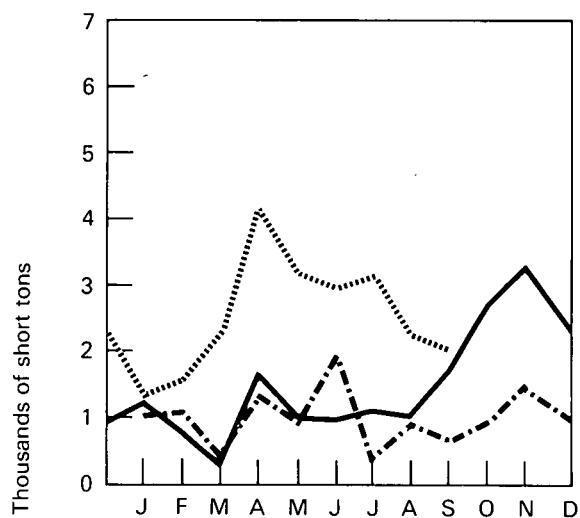
Domestic Consumption



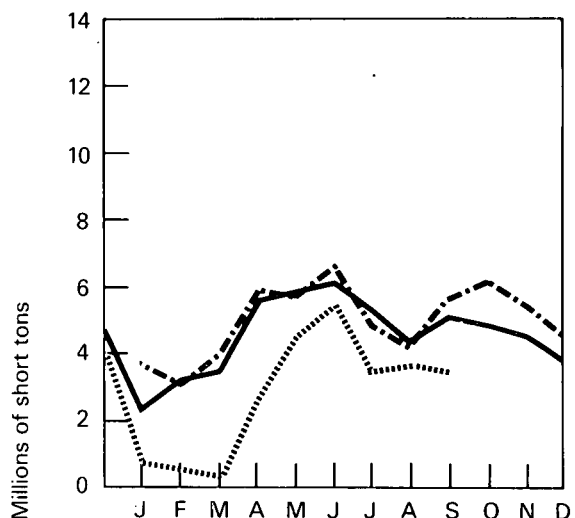
Production



Imports



Exports



--- 1976
 — 1977
 1978

Bituminous and Lignite

		Production*	Domestic Consumption*	Imports	Exports	Stocks**
Thousands of short tons						
1972	TOTAL	595,386	518,348	47	55,997	115,748
1973	TOTAL	591,738	556,912	127	52,870	103,412
1974	TOTAL	603,406	552,954	2,080	59,926	95,477
1975	TOTAL	648,438	557,535	940	65,669	127,150
1976	January	52,568	52,932	103	3,697	119,220
	February	53,773	R46,833	114	3,050	119,004
	March	60,918	R48,623	40	3,979	123,471
	April	59,145	46,415	132	5,780	128,393
	May	57,934	46,681	90	5,667	136,013
	June	59,680	48,445	192	6,569	140,144
	July	44,318	51,717	39	4,880	129,661
	August	53,622	52,082	90	4,223	123,853
	September	60,634	47,689	65	5,614	129,878
	October	58,899	49,312	94	5,871	133,624
	November	58,780	51,877	149	5,451	135,019
	December	58,414	56,144	95	4,625	133,555
	TOTAL	678,685	598,750	1,203	59,406	
1977	January	44,525	56,561	123	2,143	118,116
	February	49,045	R50,044	75	3,079	R114,408
	March	66,445	R50,212	31	3,390	R122,592
	April	60,280	R46,349	170	5,637	R129,877
	May	62,220	R49,157	94	5,673	R137,733
	June	62,810	R51,728	92	6,019	R145,375
	July	49,425	R56,183	112	5,158	R137,593
	August	57,560	R54,834	100	4,279	R137,071
	September	69,200	R50,632	175	5,037	R145,253
	October	67,420	R50,230	274	4,871	R158,322
	November	68,715	R50,738	326	4,491	R173,251
	December	30,930	R53,808	231	3,910	R152,264
	TOTAL	688,575	R620,476	1,803	53,687	
1978	January	23,115	R54,415	139	870	R118,264
	February	23,520	R46,018	159	555	R93,126
	March	38,765	R43,789	231	325	R83,879
	April	59,530	R45,491	417	2,594	R96,572
	May	68,760	R48,752	323	4,411	R110,887
	June	65,565	R51,934	291	5,398	R122,617
	July	52,150	R55,423	313	3,531	R119,796
	August	62,005	R57,215	227	3,568	R122,607
	September	54,150	54,040	196	3,338	125,704
	October	69,860	NA	NA	NA	NA
	TOTAL (Year to date)	517,420	457,077	2,296	24,590	

*See Explanatory Note 10.

**Total stocks held by utilities, industrial consumers, and retail dealers at end of year or month.

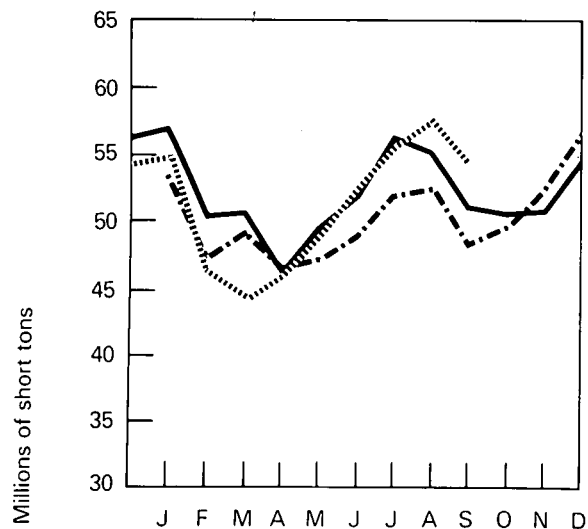
R=Revised data.

NA=Not available.

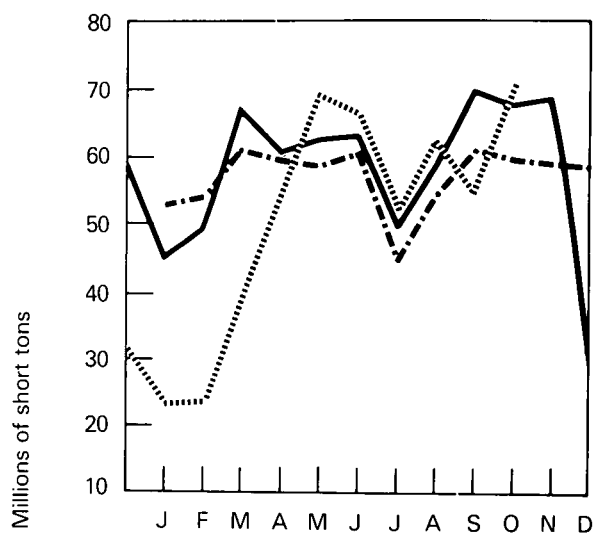
Source: Exports and Imports—U.S. Department of Commerce, Bureau of the Census; remaining data—Bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report" through September 1977; and EIA *Energy Data Reports*, "Weekly Coal Report" for October 1977 forward.

Bituminous and Lignite

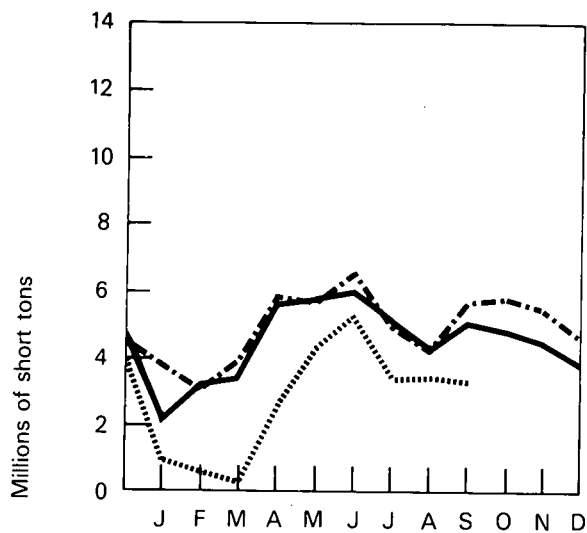
Domestic Consumption



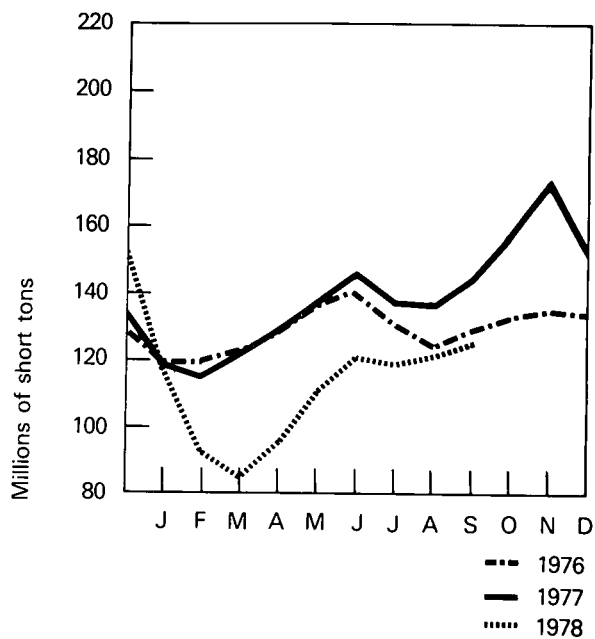
Production



Exports



Stocks



--- 1976
 — 1977
 1978

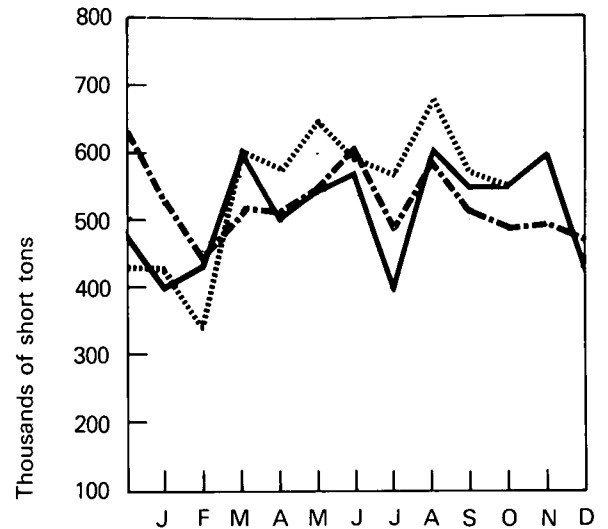
Anthracite

Domestic
Production* Consumption* Imports Exports

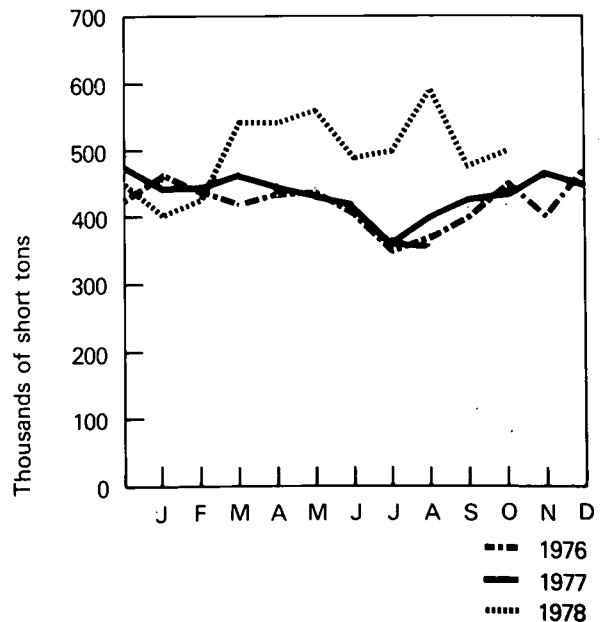
Thousands of short tons

1972 Total	7,106	5,915	NA	743
1973 Total	6,830	5,671	NA	717
1974 Total	6,617	5,448	NA	735
1975 Total	6,203	5,108	NA	640
1976				
January	525	460	NA	14
February	440	430	NA	24
March	525	420	NA	21
April	520	435	NA	66
May	555	440	NA	80
June	610	400	NA	75
July	490	350	NA	47
August	590	375	NA	47
September	515	400	NA	120
October	490	455	NA	42
November	493	400	NA	56
December	475	475	NA	23
TOTAL	6,228	5,040	NA	615
1977				
January	405	440	NA	37
February	R435	450	NA	42
March	R600	470	NA	59
April	R500	450	NA	18
May	R550	440	NA	84
June	R575	420	NA	26
July	R400	360	NA	64
August	R605	400	NA	55
September	R550	430	NA	94
October	550	435	NA	60
November	R600	470	NA	75
December	R430	450	NA	11
TOTAL	6,200	5,215	NA	625
1978				
January	430	400	NA	24
February	340	425	NA	33
March	610	540	NA	52
April	575	540	NA	19
May	650	560	NA	62
June	595	490	NA	31
July	570	500	NA	43
August	680	590	NA	66
September	575	480	NA	116
October	550	500	NA	NA
TOTAL	5,575	5,025	NA	446
(Year to date)				

Production



Apparent Domestic Consumption



*Does not include shipments of anthracite to U.S. Armed Forces in Europe.

R=Revised data

NA=Not available.

Source: Exports and Imports—U.S. Department of Commerce, Bureau of the Census; remaining data—Bureau of Mines *Mineral Industry Surveys*, "Weekly Coal Report" through September 1977; and EIA *Energy Data Reports*, "Weekly Coal Report" for October 1977 forward.

Electric Utilities

September 1978 production of electricity by utilities was 185.6 billion kilowatt-hours, an increase of 5.3 percent over the September 1977 production level. Coal-fired production increased 5.6 percent above the September 1977 level. This increase represents only the third time during 1978 that coal-fired production surpassed the 1977 monthly output level. Oil-fired, nuclear, and hydroelectric production increased 0.4, 13.0, and 29.4 percent, respectively, above the September 1977 output levels, while gas-fired production declined 9.0 percent below September 1977. Total production during the first 9 months of 1978 reached 1.7 trillion kilowatt-hours, 3.5 percent above the level for the same months of 1977. Edison Electric Institute preliminarily estimated production of electricity during October 1978 to be 178.0 billion kilowatt-hours.

Sales of electricity to ultimate consumers by all electric utilities in the United States in September totaled 180.9 billion kilowatt-hours, an increase of 5.9 percent over September 1977. Sales to residential consumers during September were 61.6 billion kilowatt-hours, an increase of 7.5 percent over sales for the corresponding month in 1977. Commercial sales were 42.7 billion kilowatt-hours, 3.9 percent higher than in September 1977. Sales to industrial consumers totaled 70.1 billion kilowatt-hours in September, an increase of 5.7 percent over September 1977. Other sales during September totaled 6.4 billion kilowatt-hours, or 8.1 percent more than the same month of the previous year.

Electric utility oil consumption during September 1978 was 0.6 percent above September 1977. Total oil consumption for the first 9 months of 1978 was 486.5 million barrels, 0.6 percent above the 1977 level. Coal consumption for September 1978 was 42.8 million tons, 6.5 percent above the 1977 rate. The total consumption of coal for the first 9 months of 1978 dropped to 358.1

million tons, 0.2 percent below the 1977 level. During September 1978 consumption of natural gas by electric utilities was 296.5 billion cubic feet, representing an 8.6 percent decline from the September 1977 consumption level. The total gas consumption for the first 9 months of 1978 increased 0.9 percent above the 1977 consumption rate.

On September 30, 1978 installed nameplate capacity reached 571.1 million kilowatts, 4.3 percent above the capacity level for September 1977. Conventional steam, steam nuclear, hydroelectric, gas turbine, and internal combustion capacity has increased 16.4, 4.1, 1.4, 1.2, and 0.3 million kilowatts, respectively, since September 30, 1977.

On September 30, 1978 coal stocks reached 115.0 million tons, 2.5 percent above the previous month's stockpile level and 11.7 percent below the stockpile level of a year earlier. Petroleum stocks on September 30, 1978 declined 3.3 percent below the level for the same month of 1977.

Electric Utilities

Net Electricity Production by Primary Energy Source

		Coal*†	Petroleum**†	Gas	Nuclear	Hydro- electric	Other***	Total
Millions of kilowatt hours								
1971	TOTAL	713,102	220,226	R374,031	38,105	R266,311	859	R1,612,633
1972	TOTAL	771,131	274,296	R375,748	54,091	R272,613	1,783	R1,749,662
1973	TOTAL	847,651	314,343	R340,858	R83,479	R272,083	2,294	R1,860,710
1974	TOTAL	828,433	300,930	R320,065	113,976	301,032	R2,703	R1,867,140
1975	TOTAL	852,786	289,095	R299,778	172,505	300,047	3,437	R1,917,649
1976	TOTAL	944,391	319,988	R294,624	R191,104	R283,707	R3,883	R2,037,696
1977	January	89,829	43,378	19,953	22,152	20,700	359	196,372
	February	78,735	29,446	19,481	19,601	15,150	322	162,734
	March	77,492	28,368	22,467	20,672	19,801	356	R169,157
	April	70,866	25,862	21,297	19,867	18,642	319	R156,854
	May	77,049	27,964	24,701	20,599	18,677	341	R169,332
	June	83,117	28,971	R29,621	21,517	17,226	335	R180,787
	July	92,373	34,893	R32,713	21,825	16,799	328	R198,930
	August	90,730	32,326	R33,291	22,750	16,712	317	R196,126
	September	82,565	26,365	R30,938	19,630	R16,425	342	R176,265
	October	79,382	23,074	R27,356	19,041	R17,189	360	R166,402
	November	79,468	24,863	R22,566	19,458	R20,398	347	R167,099
	December	83,612	32,667	R21,123	23,771	R22,756	337	R184,267
	TOTAL	985,219	358,179	R305,505	250,883	R220,475	4,063	R2,124,323
1978	January	85,002	39,255	22,302	25,833	25,067	357	197,815
	February	70,563	38,202	20,362	21,833	22,399	309	173,667
	March	66,618	36,976	22,261	22,449	24,662	264	R173,229
	April	70,324	24,972	R21,311	17,580	25,327	208	R159,722
	May	76,429	24,361	R25,057	20,416	R28,780	187	R175,230
	June	84,028	26,124	R30,583	22,185	25,245	225	R188,391
	July	89,602	29,100	R34,200	25,007	R24,556	250	R202,715
	August	93,437	32,294	R32,556	25,599	R22,231	318	R206,436
	September	87,191	26,474	28,165	22,189	21,259	318	185,597
	TOTAL	723,194	277,758	236,797	203,091	219,526	2,436	1,662,802
	(Year to date)							

*Includes Anthracite, Bituminous, and Lignite.

**Includes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.

***Includes Geothermal, Refuse, and Wood.

†In the previous issues of the MER, petroleum coke was included in the totals for coal generation, consumption, and stocks.

Beginning with this issue, petroleum coke will be reported in the petroleum column instead of the coal column.

Note: Sum of components may not equal totals due to independent rounding.

Source: Federal Power Commission Form 4, "Monthly Power Plant Report".

Electric Utilities (Continued)

Electricity Sales*

		Residential	Commercial	Industrial	Other**	Total
		Millions of kilowatt hours				
1972	TOTAL	538,609	359,265	640,978	56,309	1,595,161
1973	TOTAL	579,231	388,266	686,085	59,326	R1,712,909
1974	TOTAL	578,184	384,826	684,875	58,039	1,705,924
1975	TOTAL	R584,712	R401,674	R675,271	68,153	R1,729,810
1976	January	60,126	34,955	57,463	6,359	158,903
	February	54,264	33,809	58,064	5,855	151,992
	March	47,041	32,520	60,322	5,967	145,850
	April	43,563	31,813	59,967	5,386	140,729
	May	41,044	32,538	61,133	5,473	140,188
	June	44,131	35,325	62,654	5,371	147,481
	July	53,702	39,489	62,388	5,856	161,435
	August	57,349	39,933	63,921	5,829	167,032
	September	53,459	38,817	64,382	6,125	162,783
	October	44,751	34,981	64,028	5,649	149,409
	November	46,682	33,622	63,002	5,802	149,108
	December	56,751	35,838	62,640	5,886	161,115
	TOTAL	602,863	423,640	739,964	69,558	1,836,025
1977	January	65,332	37,598	61,481	6,274	170,685
	February	61,423	36,105	60,439	5,770	163,737
	March	50,859	34,248	63,294	6,158	154,559
	April	44,414	33,180	63,278	5,425	146,297
	May	41,568	34,291	65,418	5,613	146,890
	June	48,419	37,658	66,064	5,601	157,742
	July	60,969	41,863	64,622	5,931	173,385
	August	R62,282	R42,483	R66,300	R5,831	R176,896
	September	R57,248	R41,062	R66,362	R5,948	R170,620
	October	48,696	36,547	66,442	5,979	157,664
	November	44,962	33,979	64,959	5,866	149,766
	December	55,101	36,047	63,809	6,083	161,040
	TOTAL	R641,273	R445,061	R772,468	R70,479	R1,929,281
1978	January	65,547	37,942	64,300	6,584	174,373
	February	63,936	37,286	60,817	6,252	168,291
	March	58,194	36,201	61,524	6,032	161,951
	April	46,928	33,484	63,129	5,342	148,883
	May	43,637	33,896	66,745	5,636	149,914
	June	50,577	38,624	69,098	5,821	164,120
	July	61,401	42,607	67,397	6,322	177,727
	August	63,483	43,499	70,419	6,139	183,540
	September	61,585	42,666	70,170	6,432	180,853
TOTAL (Year to date)		515,288	346,205	593,599	54,560	1,509,652

*Electricity sales to ultimate consumers.

**Includes street lighting and transportation uses.

R=Revised.

Source: Federal Power Commission Form 5, "Monthly Statement of Electric Operating Revenue and Income."

Electric Utilities (Continued)

Primary Energy Resources Consumed to Produce Electricity

		Coal†				Petroleum			
		Anthracite	Bituminous	Lignite	Total	Steam	Gas Turb./ Int. Comb.	Coke†	Gas
		Thousands of barrels				Thousands of barrels		Thousands of short tons	Millions of cubic feet
1971	TOTAL	1,646	320,007	5,647	327,301	R362,187	R34,283	605	R3,976,018
1972	TOTAL	1,584	342,268	7,916	351,768	R440,294	R53,465	627	R3,976,913
1973	TOTAL	1,443	376,975	10,794	389,212	R513,190	R47,058	507	R3,660,172
1974	TOTAL	1,498	378,643	11,670	391,811	R483,146	R53,128	625	R3,443,428
1975	TOTAL	1,480	388,523	15,960	405,962	R467,221	R38,907	70	R3,157,669
1976	TOTAL	1,350	425,205	21,817	448,371	R514,077	R41,843	68	R3,080,868
1977	January	127	41,205	1,918	43,250	66,379	9,518	5	205,074
	February	114	35,828	1,718	37,660	47,659	3,150	5	200,413
	March	100	35,390	1,718	37,208	R46,171	R2,494	9	231,826
	April	120	32,117	1,802	34,039	42,218	2,213	12	223,081
	May	127	34,859	2,165	37,151	44,779	3,846	8	R259,798
	June	129	37,626	2,384	40,139	46,249	R4,300	9	R310,669
	July	123	42,592	2,247	44,962	54,664	R7,738	12	R346,639
	August	125	41,678	2,354	44,158	51,950	R4,641	11	R350,718
	September	137	37,872	2,146	40,155	43,297	R2,517	8	R324,549
	October	108	36,160	2,099	38,367	38,071	R1,895	6	R284,788
	November	109	36,624	1,976	38,709	R40,653	R2,464	6	R234,006
	December	106	39,069	2,123	41,298	52,780	R4,061	7	R219,639
	TOTAL	1,425	451,021	24,650	477,096	R574,869	R48,837	98	R3,191,200
1978	January	101	40,503	2,101	42,705	61,263	8,245	10	229,083
	February	88	33,552	2,189	35,829	59,630	7,696	55	211,097
	March	100	31,273	2,629	34,001	58,770	R5,465	64	R232,083
	April	83	32,127	2,406	34,616	R40,876	R2,143	39	R222,825
	May	73	34,899	2,224	37,197	R40,242	R2,280	28	R260,513
	June	91	38,248	2,453	40,791	R42,729	R3,560	31	R321,001
	July	85	40,903	3,127	44,115	47,548	R3,542	32	R361,613
	August	100	42,655	3,297	46,053	R52,662	R3,750	31	R339,941
	September	86	39,966	2,722	42,774	42,826	3,276	28	296,530
	TOTAL	807	334,126	23,148	358,081	446,546	39,957	318	2,474,686
	(Year to date)								

†In the previous issues of the MER, petroleum coke was included in the totals for coal generation, consumption, and stocks. Beginning with this issue, petroleum coke will be reported in the petroleum column instead of the coal column.

Note: Sum of the components may not equal totals due to independent rounding.

Source: Federal Power Commission, Form 4, "Monthly Power Plant Report."

Electric Utilities (Continued)

End-of-Month Coal and Petroleum Stocks

		Coal†				Petroleum		
		Anthracite	Bituminous	Lignite	Total	Steam*	Gas Turb./ Int. Comb.**	Coke†
		Thousands of short tons				Thousands of barrels		Thousands of short tons
1971	TOTAL***	1,123	75,923	732	77,778	46,451	3,194	291
1972	TOTAL***	895	98,121	706	99,722	52,575	R5,081	287
1973	TOTAL***	1,066	84,941	961	86,967	79,121	10,095	312
1974	TOTAL***	930	81,712	867	83,509	R97,718	R15,199	35
1975	TOTAL***	982	107,927	1,815	110,724	R108,825	R16,432	31
1976	TOTAL***	1,000	114,130	2,306	117,436	R106,993	14,703	32
1977	January	2,232	101,730	2,189	106,151	90,104	12,740	32
	February	2,190	98,923	2,162	103,275	95,934	14,098	32
	March	2,207	105,216	2,166	109,589	R98,147	R15,478	29
	April	2,209	111,326	2,352	115,888	R101,631	R15,817	25
	May	2,230	118,084	2,489	122,803	R103,884	R15,826	25
	June	2,258	124,081	2,424	128,763	R107,715	R15,615	30
	July	2,169	118,763	2,419	123,352	R113,033	R15,998	37
	August	2,310	119,018	2,470	123,798	R119,381	R17,062	41
	September	2,290	125,358	2,665	130,313	R124,865	R17,832	42
	October	2,310	134,422	2,901	139,633	R127,957	R19,096	44
	November	2,325	144,365	2,966	149,656	R129,206	R19,079	46
	December	2,321	128,210	2,688	133,219	R124,750	R19,281	44
1978	January	2,280	100,587	2,418	105,285	114,049	16,237	40
	February	2,112	80,084	2,349	84,546	111,144	R17,040	197
	March	2,091	72,362	2,556	77,009	112,333	17,247	182
	April	2,083	83,280	2,612	87,975	R116,057	R17,349	164
	May	2,145	95,691	2,782	100,618	R118,886	R16,935	167
	June	2,215	105,604	2,923	110,742	R120,140	R17,533	167
	July	2,241	104,599	2,849	109,690	121,459	R17,501	176
	August	2,208	106,866	3,140	112,214	R119,235	R17,161	173
	September	2,224	109,609	3,188	115,021	120,461	17,524	181

*Primarily residual fuel oil.

**Primarily middle distillates.

***As of December 31.

†In the previous issues of the MER, petroleum coke was included in the totals for coal generation, consumption, and stocks. Beginning with this issue, petroleum coke will be reported in the petroleum column instead of the coal column.

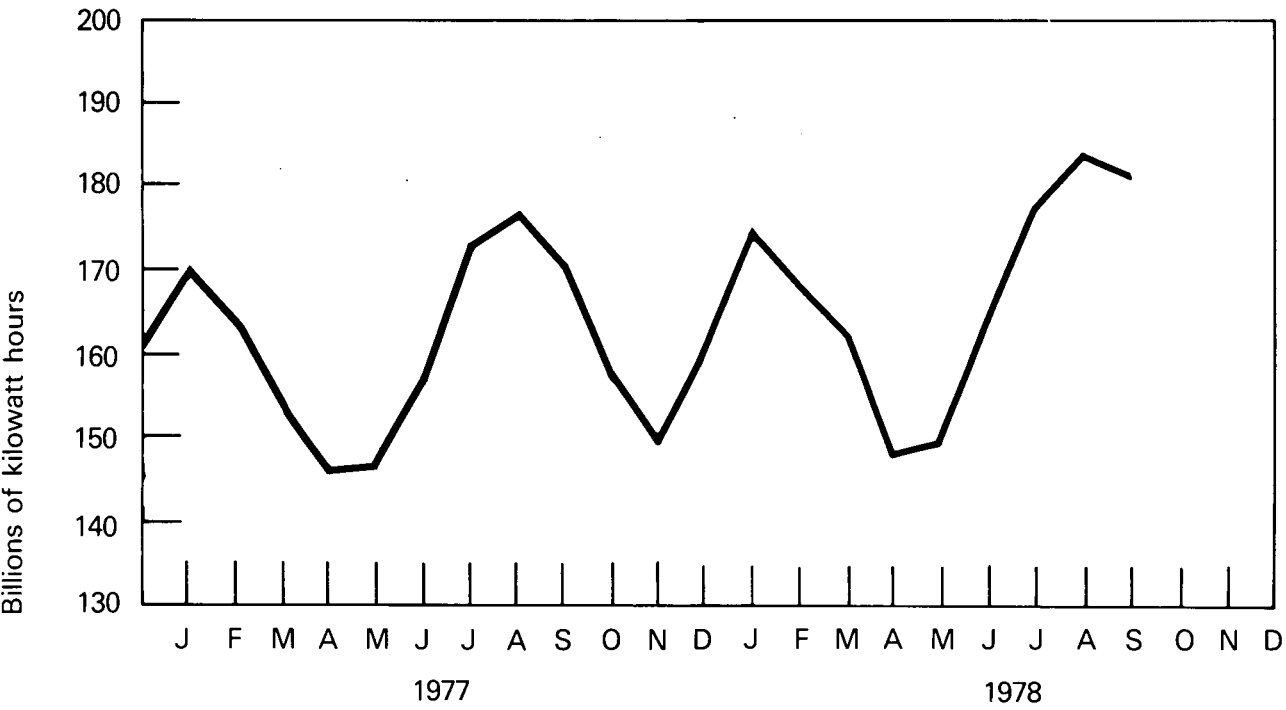
R=Revised.

Note: Sum of the components may not equal totals due to independent rounding.

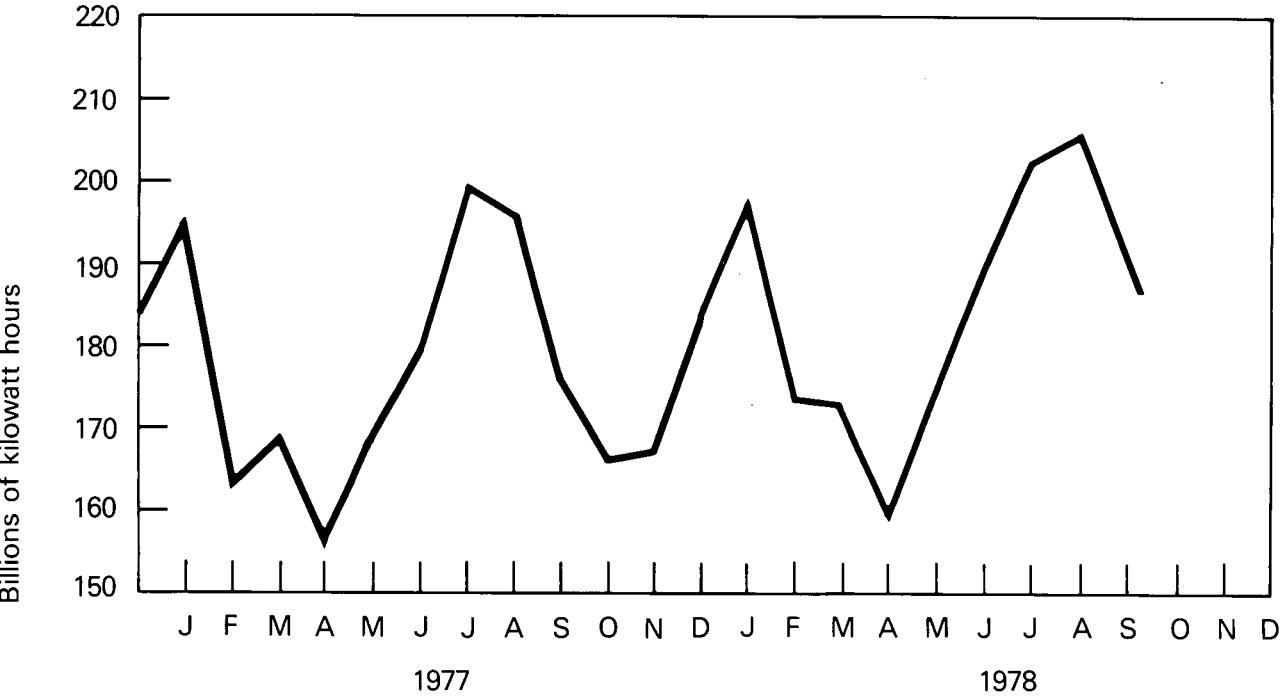
Source: Federal Power Commission Form 4, "Monthly Power Plant Report."

Electric Utilities

Total Electricity Sales

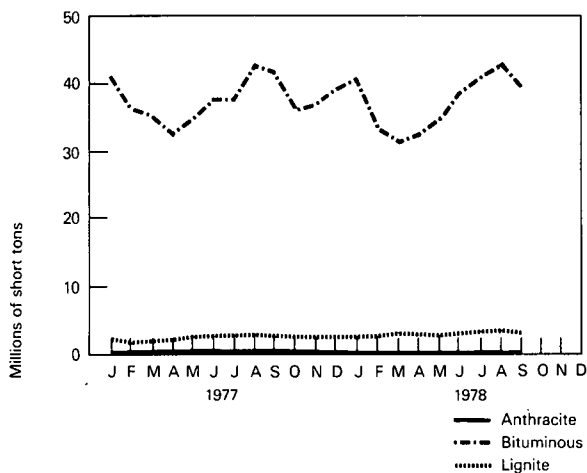


Total Net Electricity Production

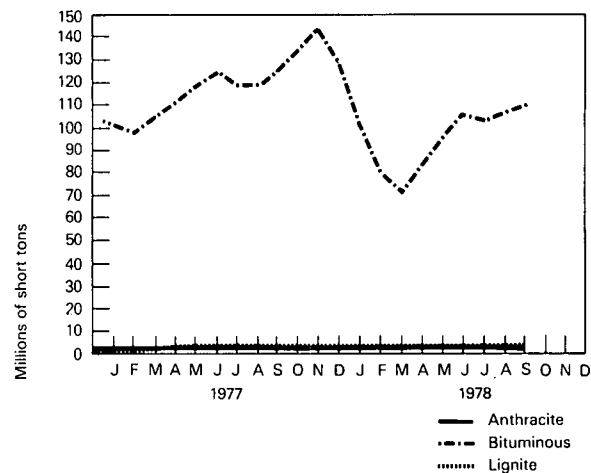


Electric Utilities

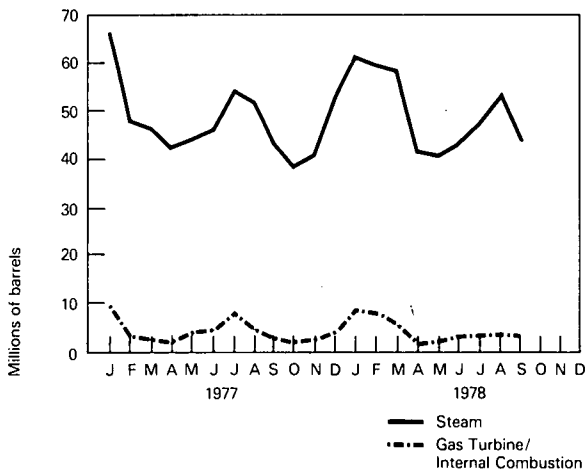
Coal Consumption



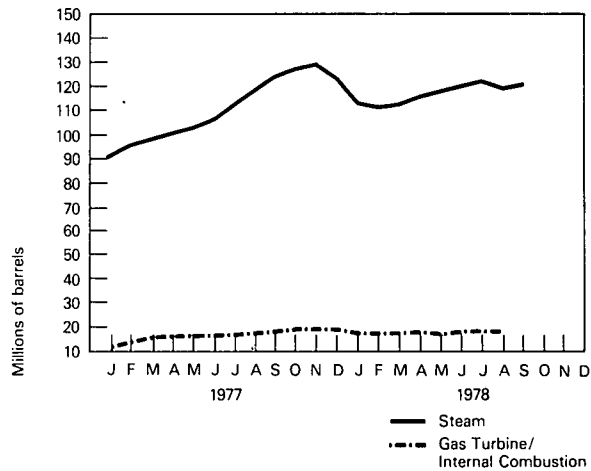
Coal Stocks



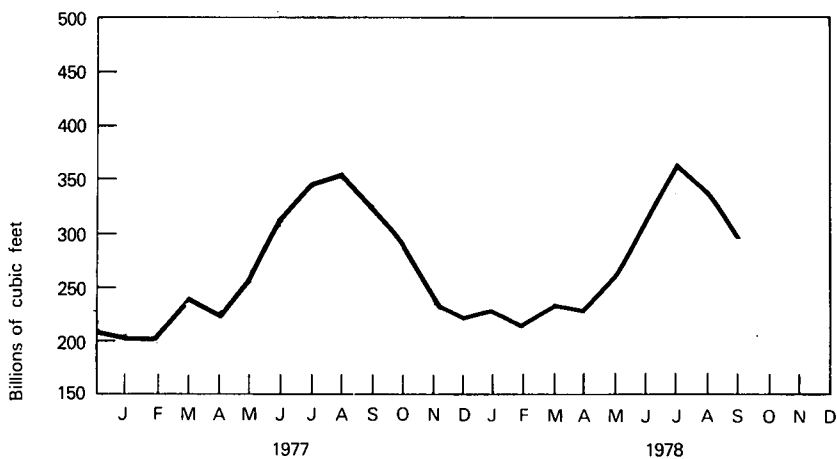
Petroleum Consumption



Petroleum Stocks



Gas Consumption



Electric Utilities

Imports and Exports of Electricity

		Imports		Exports		Net Imported to United States
		from Mexico	from Canada	to Mexico	to Canada	
Millions of kilowatts-hours						
1973	TOTAL	35	16,812	450	2,120	14,278
1974	TOTAL	39	15,381	412	2,314	12,694
1975	TOTAL	89	11,179	446	4,637	6,185
1976	TOTAL	127	10,862	388	1,990	8,610
1977	TOTAL	52	20,108	119	2,624	17,416

Installed Nameplate Capacity

		Conventional Steam*	Nuclear	Gas Turbine	Internal Combustion	Hydro	Total
Megawatts							
1971	TOTAL	278,008	8,688	21,873	4,466	55,893	368,927
1972	TOTAL	294,406	15,301	27,670	4,845	56,365	398,586
1973	TOTAL	321,023	21,019	33,385	4,965	62,047	442,438
1974	TOTAL	337,692	31,623	39,635	5,025	63,643	477,617
1975	TOTAL	353,417	39,754	44,106	5,051	65,925	508,252
1976	TOTAL	368,478	42,919	46,576	5,296	67,729	530,999
1977	TOTAL	385,699	49,882	47,846	5,281	68,305	557,012
1978	TOTAL**	395,134	52,194	48,685	5,518	69,550	571,081

*Includes Geothermal, Refuse, and Wood.

**As of September 30, 1978.

Note: Sum of components may not equal totals due to independent rounding.

Source: Federal Power Commission, Form 12, "Power System Statement," (Imports and Exports of Electricity) and Federal Power Commission, Form 4, "Monthly Power Plant Report," (Installed Nameplate Capacity).

Nuclear Power

During October, nuclear powerplants generated 23.3 billion* net kilowatt-hours, or approximately 13.1 percent* of total net domestic electricity production. During the first 10 months of the year, nuclear power contributed 12.3 percent of total electricity production, compared with 11.6 percent for the first 10 months of 1977. The 67 fully operational domestic reactors** performed at 65 percent of maximum dependable capacity during the month.

The United States produced 54 percent of total gross nuclear power generation in non-Communist countries, followed by 8 percent by Japan, and 7 percent by France. The United States, having by far the largest nuclear power program in the world, has 53 percent of nuclear generating capacity in the non-Communist world, and 70 of the 178 operating reactors.

*Preliminary data.

**Does not include 3 recently completed reactors in start-up testing prior to full commercial operation.

U.S. Nuclear Powerplant Operations

		Maximum Dependable Capacity*	Average Power			
		Thousands of net kilowatts				
		All Plants**	Fully Operable Plants***	All Plants**	Fully Operable Plants***	Percent of Total Domestic Electricity Generation
1972	AVERAGE	7,726	NA	6,174	NA	3.1
1973	AVERAGE	13,850	NA	8,760	NA	4.5
1974	AVERAGE	29,921	NA	13,011	NA	6.1
1975	AVERAGE	35,671	NA	19,692	NA	9.0
1976	January	36,750	34,176	21,638	21,131	9.0
	February	36,879	34,470	20,657	20,657	9.2
	March	38,072	35,009	18,808	18,808	8.5
	April	39,763	36,552	R15,274	15,274	7.2
	May	39,902	35,557	16,034	15,680	7.6
	June	39,781	35,658	21,885	21,394	9.1
	July	40,168	35,984	23,802	23,339	9.5
	August	42,067	35,946	24,681	24,108	9.8
	September	42,896	36,829	24,014	23,686	10.5
	October	42,877	37,662	23,327	22,976	10.6
	November	43,673	37,662	22,408	21,696	9.5
	December	42,877	38,466	28,380	27,355	11.5
		AVERAGE	40,642	36,170	21,756	21,356
1977	January	44,316	39,371	29,774	27,858	11.3
	February	44,282	39,320	29,168	27,072	12.0
	March	44,289	42,006	27,785	26,632	12.2
	April	45,131	42,882	27,631	27,062	12.7
	May	45,222	42,818	27,687	27,059	12.2
	June	45,991	43,908	29,885	29,885	11.9
	July	45,984	43,901	R29,334	29,334	11.0
	August	45,982	43,898	30,578	30,560	11.6
	September	46,051	43,898	27,264	26,863	11.1
	October	46,088	44,935	25,593	25,298	11.4
	November	46,088	44,793	27,025	26,440	11.6
	December	47,133	45,710	31,350	31,649	12.9
		AVERAGE	45,554	43,054	28,640	27,988
1978	January	47,167	45,727	34,722	34,681	13.1
	February	48,080	45,744	R32,489	32,489	12.6
	March	48,062	45,744	30,173	30,166	13.0
	April	48,926	45,746	24,451	24,106	11.0
	May	48,924	45,744	27,441	26,736	11.6
	June	49,714	46,627	30,813	30,164	11.8
	July	49,719	47,714	33,612	33,496	12.3
	August	49,815	47,810	R34,408	34,396	12.4
	September	49,815	47,810	R30,818	30,757	12.0
	October****	49,815	47,810	31,338	30,925	13.1
	AVERAGE (Year to date)	49,008	46,656	31,036	30,800	12.3

*See definitions.

**Includes all units authorized to generate commercial electricity, including 3 units in start-up testing (see definitions) and those owned by the Government.

***Units in start-up testing are not included.

****Preliminary data.

R=Revised data.

Sources: Capacity data for units in commercial operation or start-up testing from Nuclear Regulatory Commission. Average power for October 1978 computed from data reported in *Nucleonics Week* magazine. Remaining data from FPC Form 4, "Monthly Powerplant Report."

Status of Nuclear Powerplants—October 31, 1978

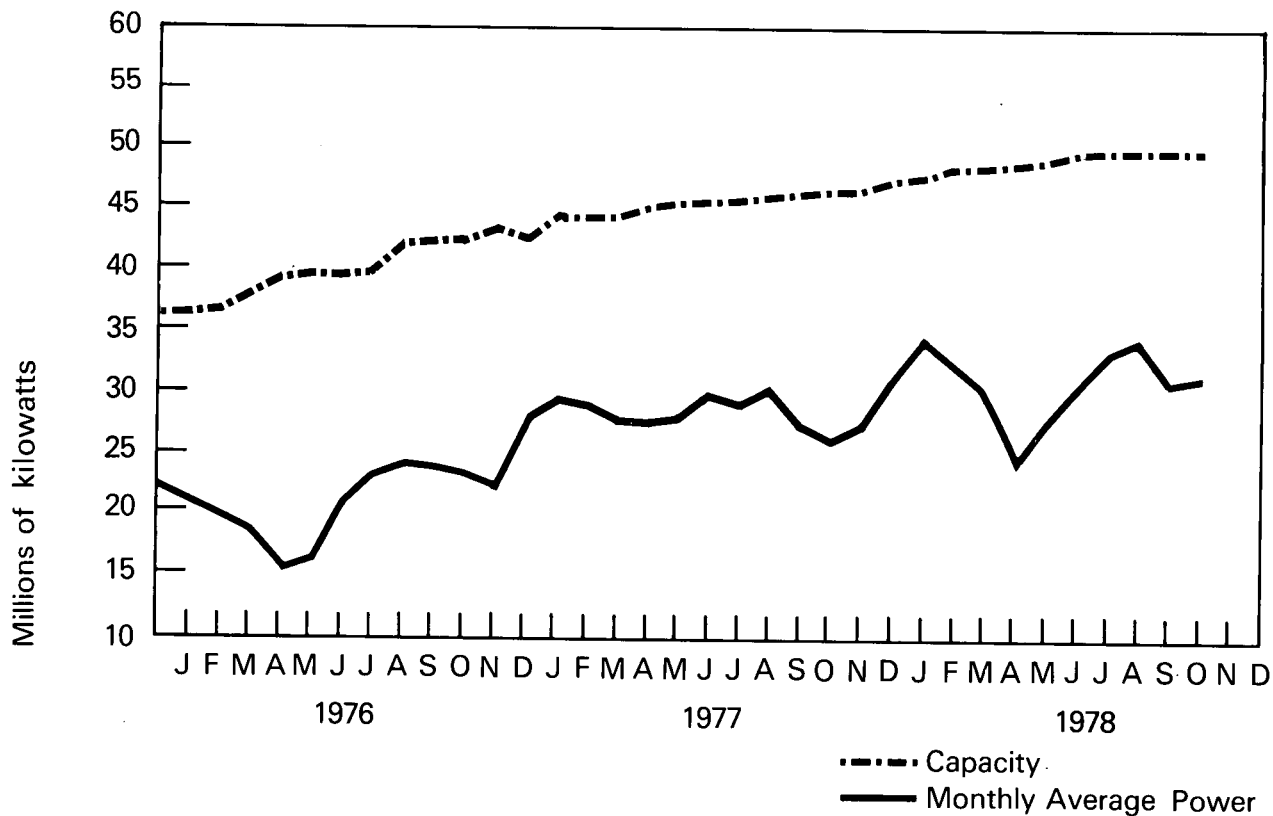
Status	Number of Plants				Design Capacity	
	Boiling Water Reactors	High Temperature Gas Reactors	Pressurized Water Reactors	Other**	Total	Net Electrical Megawatts
In operation or startup testing*	26	1	41	2	70	51,000
Construction permit granted	28	0	61	0	89	97,000
Construction permit pending	8	0	26	3	37	42,000
Orders placed for plant	2	0	7	0	9	11,000
Publicly announced	—	—	—	6	6	7,000
TOTAL	64	1	135	11	211	***209,000

*Does not include the Indian Point 1 reactor which is in indefinite shutdown status.

**Includes two dual-purpose Department of Energy-owned reactors, both operating. Also includes 1 Liquid Metal Fast Breeder Reactor and 6 announced intentions to order for which a reactor type has not been chosen.

***Total may not equal sum of components due to independent rounding.

U.S. Nuclear Powerplants



U.S. Uranium Enrichment—October 1978

	Domestic Customers	Foreign Customers	Total
Separative work performed (in metric tons of separative work units)	484.394	518.508	1,002.903
Cost (in millions of dollars)	39.684	40.654	80.338
Product quantity (in metric tons of uranium)	118.289	137.954	256.243
Feed requirement (in metric tons of uranium)	622.053	686.697	1,308.751

Source: U.S. Department of Energy.

Nuclear Power Generation by Non-Communist Countries—October 1978

Country	Number of Reactors*	Capacity* Thousands of gross electrical kilowatts	Electricity Generation Millions of gross kilowatt hours	Generation of Electricity Percent of Design Capacity Used			
				October		Year**	
				1978	1975	1976	1977
Asia							
Japan	16	9,560	3,527	50	46	57	41
India	3	620	298	65	46	58	51
Pakistan	1	140	24	24	46	41	28
South Korea	1	590	237	54	—	—	—
Taiwan	1	640	211	45	—	—	—
Europe							
Belgium	3	1,740	1,237	95	83	65	78
England***	31	8,130	2,617	48	57	62	55
Finland	1	460	318	92	—	—	92
France	14	6,840	3,083	61	68	59	52
Germany (FR)	10	6,410	2,097	44	72	57	64
Italy	4	1,490	309	28	69	69	61
Netherlands	2	520	147	38	73	84	81
Spain	3	1,120	742	89	77	77	67
Sweden	6	3,850	2,316	81	44	55	59
Switzerland	3	1,060	799	101	84	85	87
North America							
Canada†	†8	4,790	2,759	69	64	80	76
United States	70	53,183	24,576	62	56	55	64
South America							
Argentina	1	370	271	99	85	86	55
Total or Average	178	101,520	****45,570	60	58	59	62

*Includes fully operational units and those in startup testing which generated electricity during, or prior to, the current month. Capacity and generation figures are shown as gross values, as opposed to net values shown in previous tables of this chapter.

**Averages are computed for those units in operation, including startup units beginning with first month of electricity generation.

***October figures for 21 units are based on a 4-week period; figures for remaining units are for 31 days.

****Total may not equal sum of components due to independent rounding.

†September figures are based on 5-week period.

Source: *Nucleonics Week* magazine.

Summary of Monthly Fuel Cycle—September 1978

Fuel Cycle Activity	Product	Processed Material ¹	Percent Utilization of Industry Capacity	Energy Content of Processed Material ²	Energy Consumed in Fuel Cycle Activity ³	Cost Contribution to Electric Power ⁴
		MTU except where noted		Billion Btu		Mills per kilowatt hour
Milling	Yellowcake (U ₃ O ₈) Deliveries	882	84	320,000	485	1.27
Conversion	Uranium Hexafluoride (UF ₆) Deliveries	803	⁵ 56	301,000	132	0.16
Enrichment	Enriched UF ₆ Deliveries	484 (1,865 MT-SWU)	(⁶)	991,000	4,409	1.53
Fabrication	Finished Fuel Assemblies Shipped	85	NA	173,000	24	0.47
Powerplant Operation	Electricity Generated	22,189 (million kWh)	72	237,000	1,187 (million kWh)	10.93
Spent Fuel	Stored at Reactor Site	310	—	—	—	
	Stored at Non-Reactor Sites	0	—	—	—	⁷ 1.57

¹ Units of measure are discussed in Explanatory Notes 11 and 12.

² Assumes 25,000 MWD/MTU for heat content of enriched uranium and a 6.1 feed to product ratio at the enrichment plant.

³ Energy requirements for processing are obtained from U.S.A.E.C. Report No. WASH 1248.

⁴ Cost contribution is computed from unit prices paid for current month's production and requirement for a model 1000 MWe reactor operating at 65 percent capacity factor. Because of the long lead time required for nuclear fuel processing, the sum of numbers in this column does not necessarily reflect the fuel cost of current electricity production.

⁵ Figure for conversion utilization represents material shipped.

⁶ ERDA's enrichment plants are presently operating at maximum utilization of available electric power, with the excess production being placed in the "preproduction stockpile" in anticipation of high demand for enriched uranium in the 1980's.

⁷ Figure represents current industry estimate for cost of spent fuel shipment, reprocessing, and waste disposition, exclusive of cost credits for recovered uranium and plutonium.

NA=Not available.

Source: DOE.

Price

Crude Oil

Due to the initiation of a new data collection system no refiners' acquisition cost of crude oil is yet available for July, August, or September of this year.

The average price paid by first purchasers for lower tier crude oil was \$5.55 per barrel in September, up 35 cents from the price a year ago. The price of upper tier crude oil was \$12.35 per barrel in September, up \$1.15 per barrel from the price 1 year earlier. The stripper crude oil price during September was \$13.94 per barrel and has remained stable during the past year. The September Alaskan North Slope crude oil price stabilized to \$5.12 per barrel. The average price paid for all first purchases of domestic crude oil in September was \$9.12 per barrel, up 49 cents from the price 1 year earlier.

Motor Gasoline

Preliminary data for September from the U.S. Department of Energy retail motor gasoline survey indicate that, nationally, leaded regular gasoline at full serve pumps sold for an average of 65.8 cents per gallon, which is 0.4 cent above the revised price in August. The price of unleaded regular gasoline at full serve pumps increased 0.4 cent to 70.2 cents per gallon, which was 4.4 cents above the price for leaded regular gasoline at full serve pumps. Self serve leaded and unleaded regular gasoline prices were 61.8 and 67.0 cents per gallon, respectively.

On a regional basis (Table 2), average selling prices for leaded regular gasoline at full serve pumps ranged from 64.3 cents in Region 2 (0.1 cent above the revised August price) to 71.3 cents in Region 9 (0.8 cent above the revised August price). At self serve pumps, leaded regular gasoline prices ranged from 58.4 cents in Region 6 (0.7 cent higher than the August price) to 66.2 cents in Region 10 (0.7 cent higher than the revised August price). The average price for unleaded regular gasoline at full serve pumps ranged from 67.9 cents in Region 6 (0.3 cent higher than the revised Au-

gust price) to 75.4 cents in Region 9 (0.7 cent higher than the revised August price). At self serve pumps, average prices ranged from 63.0 cents in Region 6 (0.9 cent higher than the revised August price) to 70.3 cents in Region 9 (0.8 cent higher than the revised August price).

Banked Costs

The preliminary estimates of banked costs or unrecovered costs for motor gasoline during July, August, and September 1978, indicate that available banks are lower this year than during the same period 1 year earlier. The preliminary estimate of the total unrecovered costs during September was \$1.08 billion, a decrease of \$.59 billion from September 1977.

Residual Fuel Oil

The September average retail price of all grades of No. 6 residual fuel oil was \$12.43 per barrel, 9 cents above the price in August and 51 cents below September 1977's price. The September average wholesale price for all grades of No. 6 residual fuel oil was \$11.26 per barrel, 56 cents above the price in August and 77 cents below the September 1977 price.

Aviation Fuels

The average retail price of kerosene-type aviation fuel remained unchanged in September at 39.3 cents per gallon.

Liquefied Petroleum Gases

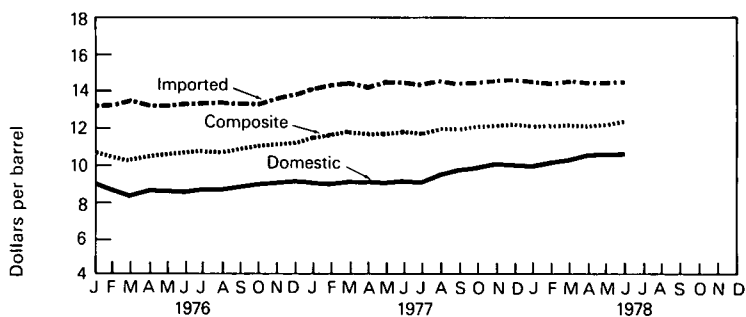
The average price of propane sold in September was 22.6 cents per gallon, 3.3 cents below the September 1977 price. Butane remained unchanged during September at 21.8 cents per gallon.

Crude Oil

Refiner Acquisition Cost*

		Domestic	Imported	Composite
		Dollars per barrel		
1974	AVERAGE	7.18	12.52	9.07
1975	AVERAGE	8.39	13.93	10.38
1976	January	9.14	13.27	10.76
	February	8.67	13.26	10.54
	March	8.48	13.51	10.44
	April	8.66	13.39	10.63
	May	8.62	13.41	10.66
	June	8.60	13.48	10.88
	July	8.72	13.51	10.97
	August	8.65	13.58	10.78
	September	8.95	13.47	11.08
	October	9.13	13.49	11.20
	November	9.23	13.58	11.26
	December	9.25	13.71	11.32
	AVERAGE	8.84	13.48	10.89
1977	January	9.23	14.11	11.64
	February	9.24	14.50	11.80
	March	9.32	14.54	11.88
	April	9.21	14.36	11.75
	May	9.21	14.62	11.87
	June	9.34	14.63	11.98
	July	9.32	14.44	11.90
	August	9.54	14.68	12.01
	September	9.75	14.50	12.01
	October	9.95	14.56	12.12
	November	10.17	14.61	12.18
	December	10.15	14.76	12.27
	AVERAGE	9.55	14.53	11.96
1978	January	10.14	14.52	12.13
	February	10.25	14.41	12.19
	March	10.46	14.57	12.23
	April	10.55	14.40	12.20
	May	10.60	14.51	12.35
	June	10.60	14.54	12.48

Crude Oil Refiner Acquisition Cost



*See Explanatory Note 13.

**Preliminary data.

Sources: 1974 through January 1976—Form FEO-96 "Monthly Cost Allocation Report;" February 1976 forward—FEA Form P110-M-1 "Refiners' Monthly Cost Allocation Report." Data provided by the Economic Regulatory Administration.

Crude Oil (Continued)

Domestic Prices at the Wellhead¹

								Actual		Imputed			
								Lower	Upper	Actual	Actual	Domestic	Domestic
								Tier²	Tier²	Stripper³	Domestic	Domestic	
										Average⁴	Average⁴		

Crude Oil (Continued)

Percentages of Domestic Production Sold at the Wellhead

		Old Oil	New Oil	Released	Stripper		
1975	January*	58	19	10	12		
	February*	61	17	9	12		
	March	60	18	10	12		
	April	61	17	9	12		
	May	62	17	8	13		
	June	63	16	8	13		
	July	62	16	8	14		
	August	63	16	7	14		
	September*	63	15	7	14		
	October	63	16	7	14		
	November	64	15	7	14		
	December	63	16	7	14		
	AVERAGE	62	16	8	13		
1976	January	54	21	10	15		
		Lower Tier		Upper Tier			
	February	56	30	—	14		
	March	57	29	—	14		
	April	57	29	—	14		
	May	57	29	—	14		
	June	56	29	—	15		
	July	56	30	—	14		
	August	56	30	—	14		
		Lower Tier	Upper Tier		Stripper		
	September	53.4	33.7		12.9		
	October	52.4	34.7		12.9		
	November	49.9	36.6		13.4		
	December	50.1	36.4		13.6		
	AVERAGE	54.4	31.5		14.1		
1977	January	50.6	36.7		12.7		
	February	49.5	37.2		13.3		
	March	49.2	37.2		13.6		
	April	49.5	36.9		13.6		
	May	48.4	37.6		14.0		
	June	48.8	37.0		14.2		
		Lower Tier	Upper Tier		Stripper	Alaskan North Slope**	Naval Petroleum Reserve**
	July	46.75	36.59		13.30	2.58	0.75
	August	43.31	36.65		13.32	5.79	0.91
	September	42.78	34.07		13.14	9.06	0.91
	October	42.23	34.58		12.92	9.09	1.15
	November	41.41	34.67		13.00	9.84	1.05
	December	40.42	34.61		13.00	10.92	1.03
	AVERAGE	45.92	36.11		13.32	4.14	0.51
1978	January	41.73	34.19		12.69	10.17	1.19
	February	40.78	34.35		13.68	9.94	1.23
	March	39.24	34.06		13.98	11.76	0.92
	April	37.94	34.04		13.72	13.26	1.02
	May	38.16	34.03		13.76	13.05	.97
	June	36.79	35.01		13.89	13.45	.84
	July	R37.61	R34.39		R13.55	R13.46	R.97
	August	R36.49	R34.45		R14.42	R13.66	.95
	September***	36.20	34.70		14.09	13.80	1.18

*Totals do not add to 100 due to rounding.

**See footnotes 5 and 6 of previous table.

***Preliminary.

R=Revised data.

Sources: January 1975 through January 1976—Form FEA-90 "Crude Petroleum Production Monthly Report;" February 1976 through August 1976—FEA Form P124-M-0 "Domestic Crude Oil Purchasers Report" for Lower Tier percentages and EIA estimates for Upper Tier percentages; September 1976 forward—FEA Form P124-M-0 "Domestic Crude Oil Purchasers Report." Data provided by the Economic Regulatory Administration.

Crude Oil (Continued)

Estimated FOB Cost of Imports from Selected Countries*

		Algeria	Canada	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	U.A. Emirates	Venezuela
Dollars per barrel										
1976	January	12.96	NA	12.77	11.61	12.34	12.85	11.67	11.91	11.15
	February	12.89	NA	12.77	11.48	12.34	12.85	11.64	11.93	11.61
	March	12.93	NA	12.78	11.45	12.34	12.94	11.71	11.91	11.26
	April	12.98	NA	12.74	11.58	12.39	12.95	11.72	11.94	11.38
	May	13.01	NA	12.76	11.58	12.45	12.97	11.61	11.85	11.10
	June	13.02	NA	12.74	11.62	12.40	12.97	11.64	11.92	11.03
	July	13.06	NA	12.79	11.64	12.64	13.11	11.58	11.89	10.87
	August	13.06	NA	12.75	11.61	12.52	13.08	11.58	11.92	11.19
	September	13.12	NA	12.73	11.66	12.66	13.06	11.55	11.97	11.53
	October	13.09	NA	12.79	11.63	12.70	13.25	11.65	11.92	11.41
	November	13.12	NA	12.71	11.62	12.74	13.25	11.62	11.96	11.58
	December	13.21	NA	12.82	11.78	12.83	13.36	11.65	12.16	11.77
1977	January	14.03	NA	13.41	12.03	13.64	14.11	11.92	12.53	12.91
	February	14.31	NA	13.43	12.36	13.89	14.24	12.04	12.33	13.30
	March	14.29	NA	13.58	12.79	13.87	14.32	12.24	12.51	12.98
	April	14.34	NA	13.55	12.79	13.98	14.51	12.23	12.53	12.62
	May	14.31	NA	13.57	12.78	13.93	14.56	12.23	12.56	12.60
	June	14.35	NA	13.55	12.68	13.94	14.55	12.21	12.44	12.53
	July	14.43	NA	13.61	12.78	13.99	14.52	12.40	12.70	12.48
	August	14.48	NA	13.63	12.80	13.95	14.54	12.56	13.15	12.37
	September	14.43	NA	13.64	12.73	13.99	14.56	12.72	13.20	12.55
	October	14.43	NA	13.65	12.79	13.93	14.48	12.70	13.22	12.72
	November	14.37	NA	13.65	12.75	13.88	14.53	12.73	13.33	12.71
	December	14.44	NA	13.61	12.71	13.85	14.45	12.77	13.27	12.56
1978	January	14.29	NA	13.67	12.62	13.77	14.18	12.70	13.23	12.73
	February	14.21	NA	13.62	12.68	13.91	14.18	12.78	13.18	12.61
	March	14.19	NA	13.62	12.68	13.75	14.13	12.80	13.20	12.86
	April	14.09	NA	13.61	12.68	13.62	13.91	12.74	13.23	12.54
	May	13.99	NA	13.51	12.65	13.59	13.90	12.71	13.05	12.13
	June	14.06	NA	13.63	12.58	13.59	13.90	12.67	13.28	12.32
	July	14.06	NA	13.63	12.70	13.67	13.89	12.65	13.26	12.66
	August	14.05	NA	13.63	12.63	13.66	13.86	12.66	13.27	12.23
	September	14.05	NA	13.69	12.63	13.66	13.97	12.76	13.27	12.38

NA= Not available.

*The FOB cost excludes all costs related to insurance and transportation. See Explanatory Note 15.

Source: FEA Form F701-M-0 "Transfer Pricing Report." Data provided by the Economic Regulatory Administration.

Crude Oil (Continued)

Estimated Landed Cost of Imports From Selected Countries*

		Algeria	Canada	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	U.A. Emirates	Venezuela
		Dollars per barrel								
1975	AVERAGE	12.72	12.72	13.79	12.21	12.35	12.62	12.30	12.87	11.65
1976	January	13.56	12.95	13.89	13.01	13.52	13.61	13.18	13.50	11.60
	February	13.57	13.24	13.94	12.87	13.45	13.52	13.21	13.36	12.09
	March	13.83	13.30	13.94	12.77	13.36	13.62	13.18	13.37	11.71
	April	13.73	13.61	13.78	12.91	13.38	13.60	13.11	13.18	11.95
	May	13.47	13.62	13.84	12.82	13.59	13.62	13.05	13.39	11.61
	June	13.75	14.19	13.84	13.00	13.38	13.78	13.14	13.09	11.55
	July	13.77	13.79	13.80	12.76	13.53	13.81	13.02	13.45	11.44
	August	13.91	13.78	13.78	13.09	13.51	13.87	13.03	13.23	11.77
	September	14.03	13.70	13.80	12.78	13.72	13.82	12.87	13.44	11.98
	October	13.81	13.71	13.84	12.73	13.83	13.99	12.87	13.22	11.84
	November	13.84	13.59	13.77	12.58	13.73	13.95	13.01	13.18	12.01
	December	14.14	13.52	13.75	12.69	13.79	14.11	13.02	13.29	12.19
	AVERAGE	13.81	13.57	13.82	12.82	13.58	13.80	13.04	13.30	11.80
1977	January	14.80	13.92	14.42	13.16	14.64	14.97	13.22	13.56	13.29
	February	15.18	13.74	14.57	13.56	15.12	15.12	13.32	13.46	13.76
	March	15.08	14.34	14.64	13.94	14.88	15.13	13.50	13.80	13.41
	April	15.21	14.02	14.70	13.95	15.12	15.37	13.41	13.78	13.19
	May	15.20	14.94	14.59	13.94	14.91	15.40	13.49	13.85	13.10
	June	15.34	14.49	14.63	13.81	14.92	15.37	13.39	13.72	13.06
	July	15.29	13.91	14.75	13.84	14.88	15.39	13.64	14.20	13.02
	August	15.24	14.24	14.65	13.99	14.70	15.25	13.72	14.36	12.82
	September	15.29	14.14	14.62	13.77	14.99	15.34	14.01	14.41	13.08
	October	15.41	14.00	14.67	13.83	14.81	15.31	13.85	14.56	13.16
	November	15.05	14.52	14.73	13.88	14.73	15.23	13.94	14.19	13.11
	December	15.25	14.27	14.58	13.95	14.81	15.21	13.99	14.48	12.99
	AVERAGE	15.20	14.21	14.63	13.80	14.87	15.25	13.61	14.04	13.13
1978	January	15.01	14.37	14.60	13.91	14.63	14.88	13.93	14.40	13.00
	February	14.91	14.31	14.53	13.75	14.85	14.90	13.96	14.07	12.93
	March	14.74	13.56	14.56	14.06	14.62	14.89	14.07	14.44	13.22
	April	14.91	13.50	14.61	13.90	14.43	14.63	13.85	14.42	12.89
	May	14.70	14.39	14.50	13.94	14.56	14.72	13.86	14.20	12.49
	June	14.80	15.07	14.58	13.92	14.45	14.61	13.86	14.48	12.72
	July	14.83	14.64	14.73	13.93	14.65	14.64	13.81	14.29	12.41
	August	14.83	14.78	14.66	13.76	14.64	14.59	13.84	14.49	12.70
	September	14.74	13.92	14.73	13.83	14.62	14.78	14.03	14.36	12.94

*See Explanatory Note 16.

Source: FEA Form F701-M-O "Transfer Pricing Report." Data provided by the Economic Regulatory Administration.

Crude Oil (Continued)

		Entitlement Price* (Dollars)	National Old Oil (or Domestic Crude Oil) Supply Ratio*	Crude Oil Entitlement Benefit* (Dollars)
1976	January	8.09	.309	2.50
	February	7.85	.352	2.76
	March	7.89	.358	2.82
	April	7.85	.356	2.79
	May	7.82	.356	2.78
	June	7.91	.328	2.59
	July	7.80	.314	2.45
	August	8.02	.319	2.56
	September	7.80	.296	2.31
	October	7.84	.293	2.30
	November	7.90	.273	2.16
	December	7.97	.263	2.10
1977	January	8.30	.266	2.21
	February	8.53	.267	2.28
	March	8.71	.273	2.38
	April	8.69	.285	2.48
	May	8.77	.280	2.46
	June	8.65	.273	2.36
	July	8.68	.258	2.24
	August	8.75	.266	2.33
	September	8.75	.250	2.19
	October	8.78	.250	2.20
	November	8.61	.239	2.06
	December	8.65	.233	2.02
1978	January	8.61	.240	2.07
	February	8.48	.230	1.95
	March	8.47	.225	1.91
	April	8.35	.218	1.82
	May	8.26	.197	1.63
	June	8.19	.191	1.56
	July	8.16	.184	1.50
	August	8.06	.165	1.33
	September	8.13	.174	1.41

*See Definitions.

Source: FEA-P102-M-1 "Domestic Crude Oil Entitlements Program Refiners Monthly Report." Data provided by the Economic Regulatory Administration.

Unrecouped Costs for Refined Products for 30 Largest Refiners¹

		Distillate ²	Motor Gasoline	Aviation Jet Fuel ³	Other Products	Total
		Millions of dollars				
1975	January	254	431	—	672	1,357
	February	300	418	—	790	1,508
	March	282	452	—	966	1,700
	April	302	485	—	807	1,594
	May	292	370	—	771	1,433
	June	284	266	—	785	1,334
	July	233	219	—	624	1,075
	August	280	344	—	583	1,208
	September	347	335	—	661	1,342
	October	338	245	—	673	1,255
	November	426	275	—	796	1,497
	December	446	211	—	826	1,483
1976	January	336	242	131	515	1,224
	February	279	336	145	456	1,216
	March	263	316	163	456	1,198
	April	237	398	180	524	1,339
	May	264	632	161	446	1,503
	June	—	628	135	349	1,112
	July	—	587	129	384	1,100
	August	—	679	125	352	1,156
	September	—	619	134	340	1,093
	October	—	733	151	372	1,256
	November	—	796	168	368	1,332
	December	—	723	139	317	1,179
1977	January	—	901	166	325	1,392
	February	—	1,038	187	303	1,528
	March	—	956	180	287	1,423
	April	—	1,029	194	343	1,566
	May	—	967	224	351	1,542
	June	—	957	234	344	1,535
	July	—	869	210	391	1,470
	August	—	764	279	455	1,498
	September	—	784	186	500	1,470
	October	—	879	248	511	1,638
	November	—	904	218	538	1,660
	December	—	818	185	470	1,473
1978	January	—	1,055	191	420	1,666
	February	—	1,265	198	435	1,898
	March	—	1,065	175	378	1,618
	April	—	1,013	170	400	1,583
	May	—	849	186	500	1,535
	June	—	718	180	562	1,460
	July ⁴	—	730	139	517	1,386
	August ⁴	—	R512	R101	R526	R1,139
	September ⁴	—	459	92	529	1,080

R=Revised data.

¹Beginning with February 1977, data for only 29 refiners are included in this table due to the merger between Skelly Oil Company and Getty Oil Company.

²Includes No. 2 heating oil and No. 2 diesel fuel only. After May 1976, reporting of the distillate bank is no longer required due to decontrol of middle distillates.

³Prior to January 1976 refiners were not required to maintain separate banks for aviation jet fuel.

⁴Preliminary.

Source: January 1975 through January 1976—Form FEO-96 "Monthly Cost Allocation Report;" February 1976 forward—FEA Form P110-M-1 "Refiners' Monthly Cost Allocation Report;" July 1978 forward EIA 14 "Refiners' Monthly Cost Allocation Report." Data provided by the Economic Regulatory Administration.

Motor Gasoline

Leaded Regular Gasoline—Full Serve

Leaded Regular Gasoline—Self Serve

		Average Retail Dealer Selling Price	Average Retail Dealer Margin		
		Cents per gallon, including tax			
1975	January	52.4	9.0	NA	NA
	February	52.5	9.0	NA	NA
	March	52.6	8.8	NA	NA
	April	53.5	8.6	NA	NA
	May	54.3	8.3	NA	NA
	June	55.6	8.1	NA	NA
	July	58.7	8.4	NA	NA
	August	59.2	8.4	NA	NA
	September	59.3	8.2	NA	NA
	October	58.9	8.2	NA	NA
	November	58.4	8.2	55.4	5.5
	December	58.0	8.1	54.9	5.3
	AVERAGE	56.2	8.4	55.1	5.4
1976	January	57.7	8.1	54.7	5.4
	February	57.1	8.3	53.8	5.4
	March	56.6	8.3	53.2	5.3
	April	56.6	8.0	53.2	4.9
	May	57.4	7.4	54.4	4.5
	June	59.0	7.4	56.3	4.8
	July	59.6	7.4	56.6	4.6
	August	60.1	7.4	56.7	4.4
	September	60.2	7.6	56.5	4.3
	October	60.2	7.6	56.5	4.4
	November	60.0	7.8	56.4	4.5
	December	59.9	7.9	56.1	4.5
	AVERAGE	58.7	7.8	55.4	4.8
1977	January	59.9	7.9	56.2	4.5
	February	60.7	7.9	57.1	4.4
	March	61.3	7.8	57.7	4.4
	April	62.2	8.1	58.4	4.4
	May	62.9	7.9	58.9	4.2
	June	63.4	8.1	59.3	4.3
	July	63.4	8.3	59.2	4.4
	August	63.4	8.4	58.8	4.2
	September	63.3	8.6	58.5	4.2
	October	63.2	8.8	58.2	4.2
	November	63.1	8.7	58.1	4.0
	December	63.3	9.0	58.2	4.2
	AVERAGE	62.6	8.3	58.2	4.3
1978	January	61.7	NA	57.2	NA
	February	61.6	NA	57.1	NA
	March	61.7	NA	57.0	NA
	April	61.9	NA	57.2	NA
	May	62.5	NA	58.2	NA
	June	63.4	NA	59.0	NA
	July	64.6	NA	60.6	NA
	August	R65.4	NA	61.2	NA
	September*	65.8	NA	61.8	NA

*Preliminary data.

NA = Not available.

Sources: Lundberg Survey, Inc. for 1975 through 1977; EIA-8, "Retail Motor Fuels Service Station Survey" for January 1978 through June 1978; EIA-79, "Monthly Motor Gasoline Service Station Survey" for July 1978 forward.

Motor Gasoline (Continued)

Unleaded Regular Gasoline—Full Serve

Unleaded Regular Gasoline —Self Serve

		Average Retail Dealer Selling Price	Average Retail Dealer Margin	Average Retail Dealer Selling Price	Average Retail Dealer Margin
		Cents per gallon, including tax		Cents per gallon, including tax	
1975	January	NA	NA	NA	NA
	February	56.1	NA	NA	NA
	March	56.2	NA	NA	NA
	April	57.1	NA	NA	NA
	May	57.9	NA	NA	NA
	June	58.8	NA	NA	NA
	July	61.5	NA	NA	NA
	August	62.0	NA	NA	NA
	September	62.1	NA	NA	NA
	October	62.1	NA	NA	NA
	November	62.0	NA	NA	NA
	December	61.4	NA	NA	NA
	AVERAGE	59.8	NA	NA	NA
1976	January	61.2	NA	NA	NA
	February	60.6	NA	NA	NA
	March	60.1	NA	NA	NA
	April	60.4	NA	NA	NA
	May	61.1	NA	NA	NA
	June	62.9	NA	NA	NA
	July	63.2	NA	NA	NA
	August	63.9	NA	NA	NA
	September	64.0	NA	NA	NA
	October	64.0	NA	NA	NA
	November	63.9	NA	NA	NA
	December	63.9	NA	NA	NA
	AVERAGE	62.5	NA	NA	NA
1977	January	64.0	NA	NA	NA
	February	65.0	NA	NA	NA
	March	65.4	NA	NA	NA
	April	66.1	NA	NA	NA
	May	66.7	NA	NA	NA
	June	67.2	NA	NA	NA
	July	67.3	NA	NA	NA
	August	67.0	9.5	63.7	6.5
	September	67.0	9.5	63.7	6.5
	October	67.0	9.7	63.6	6.6
	November	67.0	9.6	63.4	6.4
	December	67.2	9.9	63.6	6.7
	AVERAGE	66.4	9.6	63.6	6.5
1978	January	65.8	NA	61.6	NA
	February	65.7	NA	61.8	NA
	March	65.8	NA	61.8	NA
	April	66.1	NA	62.0	NA
	May	66.9	NA	62.9	NA
	June	67.8	NA	64.0	NA
	July	68.8	NA	65.6	NA
	August	69.8	NA	R66.2	NA
	September*	70.2	NA	67.0	NA

*Preliminary data.

NA = Not available.

R=Revised data.

Sources: Lundberg Survey, Inc. for 1975 through 1977; EIA-8, "Retail Motor Fuels Service Station Survey" for January 1978 through June 1978; EIA-79, "Monthly Motor Gasoline Service Station Survey" for July 1978 forward.

Leaded Premium Gasoline—Full Serve

Leaded Premium Gasoline —Self Serve

		Average Retail Dealer Selling Price	Average Retail Dealer Margin		
		Cents per gallon, including tax			
1975	January	57.1	NA	NA	NA
	February	57.3	NA	NA	NA
	March	57.5	NA	NA	NA
	April	58.2	NA	NA	NA
	May	59.0	NA	NA	NA
	June	60.3	NA	NA	NA
	July	63.1	NA	NA	NA
	August	63.6	NA	NA	NA
	September	63.8	NA	NA	NA
	October	63.4	NA	NA	NA
	November	63.2	NA	NA	NA
	December	62.9	NA	NA	NA
AVERAGE		60.9	NA	NA	NA
1976	January	62.7	NA	59.6	NA
	February	62.1	NA	58.9	NA
	March	61.6	NA	58.4	NA
	April	61.6	NA	58.5	NA
	May	62.4	NA	59.6	NA
	June	63.9	NA	61.4	NA
	July	64.6	NA	61.8	NA
	August	65.2	NA	62.0	NA
	September	65.3	NA	61.9	NA
	October	65.2	NA	61.9	NA
	November	65.2	NA	61.9	NA
	December	65.0	NA	61.6	NA
AVERAGE		63.8	NA	60.7	NA
1977	January	65.2	NA	61.7	NA
	February	66.1	NA	62.7	NA
	March	66.8	NA	63.3	NA
	April	67.6	NA	64.1	NA
	May	68.4	NA	64.8	NA
	June	68.9	NA	65.2	NA
	July	68.9	NA	65.2	NA
	August	68.9	9.9	65.8	7.2
	September	68.9	10.0	65.8	7.3
	October	68.9	10.1	65.7	7.3
	November	68.9	10.1	65.6	7.3
	December	69.1	10.2	65.8	7.4
AVERAGE		68.1	10.1	64.7	7.3
1978	January	67.7	NA	63.5	NA
	February	67.7	NA	64.0	NA
	March	68.0	NA	63.9	NA
	April	68.3	NA	64.3	NA
	May	69.0	NA	65.3	NA
	June	70.0	NA	66.2	NA
	July	71.1	NA	68.2	NA
	August	72.0	NA	68.8	NA
	September	72.3*	NA	69.4*	NA

*Preliminary data.
NA = Not available.
R=Revised data.

Sources: Lundberg Survey, Inc. for 1975 through 1977; EIA-8, "Retail Motor Fuels Service Station Survey" for January 1978 through June 1978; EIA-79, "Monthly Motor Gasoline Service Station Survey" for July 1978 forward.

Motor Gasoline (Continued)

Average Retail Dealer Selling Prices for Major* and Nonmajor Retail Dealers—August and September 1978

Leaded Regular Gasoline—Full Serve

Cents per gallon, including tax

Selling Price

August September**

Major	R66.5	66.9
Nonmajor	R62.4	63.0
*National Average	R65.4	65.8

Unleaded Regular Gasoline—Full Serve

Cents per gallon, including tax

Selling Price

August September**

Major	70.6	71.1
Nonmajor	R66.0	66.6
National Average	69.8	70.2

Leaded Regular Gasoline—Self Serve

Selling Price

August September**

Major	62.0	62.6
Nonmajor	R59.9	60.8
National Average	61.2	61.8

Unleaded Regular Gasoline—Self Serve

Selling Price

August September**

Major	67.3	68.0
Nonmajor	R63.4	64.6
National Average	R66.2	67.0

Leaded Premium Gasoline—Full Serve

Selling Price

August September**

Major	73.0	73.4
Nonmajor	R67.5	68.2
National Average	72.0	72.3

Unleaded Premium Gasoline—Full Serve

Selling Price

August September**

Major	R74.5	75.6
Nonmajor	***	***
National Average	R74.4	75.5

Leaded Premium Gasoline—Self Serve

Selling Price

August September**

Major	R70.6	71.1
Nonmajor	R65.5	66.5
National Average	68.8	69.4

Unleaded Premium Gasoline—Self Serve

Selling Price

August September**

Major	R71.4	72.1
Nonmajor	***	***
National Average	R71.3	72.1

*See explanatory Note 17.

**Preliminary data.

***Insufficient data.

R = Revised data.

Source: EIA-79, "Monthly Motor Gasoline Service Station Survey."

Average Regional Retail Dealer Selling Prices for Full Serve Leaded Regular and Unleaded Regular Gasoline—August and September 1978

DOE Region**	Leaded Regular		Unleaded Regular	
	Cents per gallon, including tax		Cents per gallon, including tax	
	August	September*	August	September*
1	R64.9	65.1	68.9	69.1
2	R64.2	64.3	R68.9	69.2
3	65.1	65.2	R69.1	69.3
4	R64.3	64.7	69.1	69.5
5	R65.4	66.0	R69.7	70.3
6	R64.0	64.6	67.6	67.9
7	R64.6	65.2	R68.4	68.9
8	R68.2	68.7	R71.2	71.9
9	R70.5	71.3	R74.7	75.4
10	R68.7	69.0	72.9	73.1
National Average	R65.4	65.8	69.8	70.2

Average Regional Retail Dealer Selling Prices for Self Serve Leaded Regular and Unleaded Regular Gasoline—August and September 1978

DOE Region**	Leaded Regular		Unleaded Regular	
	Cents per gallon, including tax		Cents per gallon, including tax	
	August	September*	August	September*
1	R61.8	62.3	66.7	67.2
2	R63.7	64.1	R67.5	69.0
3	R61.0	61.5	R67.0	67.2
4	R59.6	60.3	64.9	65.8
5	R61.1	62.0	R65.6	66.7
6	57.7	58.4	R62.1	63.0
7	R61.3	61.1	R65.7	65.5
8	62.3	62.5	R65.7	65.9
9	R63.9	64.8	R69.5	70.3
10	R65.5	66.2	R69.3	69.7
National Average	61.2	61.8	R66.2	67.0

*Preliminary data.

**DOE regions are defined in Explanatory Note 18.

R = Revised data.

Source: EIA-79, "Monthly Motor Gasoline Service Station Survey."

Motor Gasoline (Continued)

Average Refiner Retail Gasoline Selling Prices*

		Regular	Premium	Unleaded
		Cents per gallon, including tax		
1975	July	55.7	NA	57.4
	August	55.9	59.8	58.0
	September	55.6	59.5	57.6
	October	55.0	59.1	57.1
	November	54.1	58.5	56.3
	December	53.7	58.1	56.0
1976	January	53.5	57.9	55.8
	February	53.4	57.8	55.9
	March	52.3	56.6	54.6
	April	52.7	56.8	55.0
	May	54.1	58.2	56.3
	June	55.7	60.1	57.9
	July	55.9	60.3	58.4
	August	55.7	60.3	58.5
	September	55.6	60.1	58.1
	October	55.4	59.9	58.1
	November	55.2	59.8	57.9
	December	55.0	59.6	57.8
1977	January	54.9	59.5	57.7
	February	55.5	60.2	58.9
	March	56.0	61.0	59.5
	April	57.1	61.9	60.6
	May	57.7	62.7	61.4
	June	58.0	62.7	61.8
	July	58.2	63.2	61.8
	August	57.9	63.1	61.8
	September	57.6	62.9	61.5
	October	57.2	62.7	61.2
	November	57.0	62.6	61.1
	December	56.9	62.7	61.0
1978	January	56.8	62.6	60.9
	February	56.5	62.4	60.7
	March	56.5	62.5	60.7
	April	56.8	62.8	61.0
	May	57.1	63.6	61.8
	June	R58.3	R64.5	R62.6
	July	59.3	65.6	63.8
	August**	60.5	66.7	64.9

NA = Not available.

*Retail refers to the price at which refiner-owned and operated retail stations sell gasoline to the consumer.

**Preliminary data.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

Aviation Fuels

AVIATION FUELS (Cents per gallon)

		Aviation Gasoline		Naphtha-Type*	Kerosene-Type	
		Wholesale	Retail	Retail	Wholesale	Retail
1975	July	40.6	40.6	31.4	29.8	29.2
	August	41.3	42.1	30.8	32.1	29.5
	September	41.2	39.9	30.3	31.5	29.6
	October	41.1	41.2	30.2	31.7	30.0
	November	39.7	42.1	30.6	31.6	30.2
	December	40.9	40.9	30.7	31.9	30.5
1976	January	41.4	41.2	31.0	30.6	31.3
	February	41.2	42.0	31.1	31.1	31.2
	March	41.1	41.9	30.9	31.2	30.7
	April	41.2	42.5	30.5	31.9	30.5
	May	42.1	43.1	30.6	33.0	30.2
	June	42.6	42.3	31.5	32.1	30.3
	July	43.6	44.2	31.3	32.9	30.8
	August	43.7	44.1	31.7	32.1	31.1
	September	43.6	44.7	32.1	32.5	31.4
	October	43.6	43.8	32.1	32.5	31.9
	November	43.4	43.9	32.8	33.4	32.4
	December	43.5	43.7	32.9	34.7	32.2
1977	January	43.4	44.1	33.4	34.6	33.2
	February	44.7	45.0	34.0	37.1	34.1
	March	45.0	45.7	34.5	35.9	34.6
	April	46.0	47.2	34.3	35.9	34.9
	May	46.6	47.8	34.3	36.3	35.1
	June	46.7	47.6	35.1	36.8	35.7
	July	47.0	48.7	35.6	37.1	35.8
	August	47.9	50.1	35.5	36.6	36.0
	September	47.9	49.1	35.6	37.1	37.0
	October	48.1	49.0	35.7	37.3	37.3
	November	48.3	47.8	35.8	37.9	37.5
	December	47.8	48.1	36.2	37.2	37.8
1978	January	47.8	49.1	36.9	37.9	38.5
	February	48.3	48.4	36.5	38.3	38.2
	March	49.1	49.4	36.9	37.8	38.4
	April	49.5	51.5	36.8	38.1	38.5
	May	50.1	50.0	37.3	38.3	38.6
	June	50.4	52.8	37.2	38.9	38.9
	July	51.4	52.4	37.6	39.0	38.9
	August	52.0	54.0	37.5	38.9	39.3
	September**	52.6	54.0	37.7	39.2	39.3

*Nearly all naphtha-type fuels are sold directly to the Defense Fuel Supply Center. Consequently, wholesale prices are not applicable.

**Preliminary data.

Note: Wholesale refers to the price of aviation fuel sold to 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.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

Heating Oil

Residential Heating Oil Prices*

		Average Selling Price**	Average Purchase Price**	Average Distributor Margin**
		Cents per gallon		
1974	AVERAGE	34.7	26.9	
1975	January	37.4	29.1	8.3
	February	37.0	28.7	8.3
	March	36.6	28.4	8.2
	April	36.1	29.3	6.8
	May	36.7	30.0	6.7
	June	37.1	30.3	6.8
	July	37.2	30.6	6.6
	August	38.0	31.2	6.8
	September	38.4	31.0	7.4
	October	39.3	31.8	7.5
	November	39.4	32.1	7.3
	December	40.1	32.4	7.7
	AVERAGE	37.7	31.2	
1976	January	40.2	32.0	8.8
	February	40.2	32.0	8.8
	March	39.4	31.5	9.2
	April	39.0	31.3	9.1
	May	39.0	31.4	8.6
	June	39.3	31.8	8.6
	July	39.3	32.3	8.0
	August	39.8	32.2	8.5
	September	40.2	32.6	8.7
	October	40.7	33.1	8.6
	November	41.9	33.4	9.1
	December	43.0	34.5	9.2
1977	January	44.4	35.8	9.3
	February	45.3	36.7	9.4
	March	45.8	37.0	9.5
	April	45.9	37.1	9.6
	May	45.7	37.1	9.5
	June	45.7	37.1	9.3
	July	45.8	37.2	9.3
	August	46.0	37.3	9.2
	September	46.2	37.4	9.4
	October	46.7	37.5	9.8
	November	47.6	37.3	10.2
	December	47.9	37.2	10.4
1978	January	48.5	38.1	10.5
	February	48.6	37.8	11.0
	March	48.6	37.6	11.1
	April	48.6	37.6	11.1
	May	48.3	37.6	11.0
	June	48.2	37.7	10.7
	July	48.2	37.7	10.7
	August	48.2	37.9	10.5
	September***	49.0	38.6	10.6

Refiners' Average Selling Prices to Resellers and Retailers

1976	January	31.1
	February	30.9
	March	30.4
	April	30.1
	May	30.3
	June	30.5
	July	30.9
	August	31.0
	September	31.2
	October	31.7
	November	32.5
	December	33.6
	ANNUAL	31.4
1977	January	34.7
	February	35.4
	March	35.9
	April	35.8
	May	35.7
	June	35.7
	July	35.8
	August	35.7
	September	35.5
	October	36.0
	November	36.3
	December	36.6
	ANNUAL	35.7
1978	January	36.8
	February	36.4
	March	36.2
	April	36.0
	May	36.2
	June	35.8
	July	35.9
	August	36.1
	September***	36.9

*See Explanatory Note 19.

**Average selling prices, purchase prices, and dealer margins represent sales for residential heating oil only.

***Preliminary data.

NA = Not available.

Sources: 1974 through December 1975—Form CLC-92 "No. 2 Heating Oil Monthly Price Adjustment Report;" January 1976 forward—FEA Form P112-M-1/EIA-9 "No. 2 Heating Oil Supply/Price Monitoring Report."

Residential Heating Oil Prices by Region

		Census Region									
		New England	Mid- Atlantic	South Atlantic	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific	
		Cents per gallon									
1976	January	41.5	40.0	39.6	38.3	37.8	38.2	35.0	41.2	41.6	
	February	41.4	40.3	39.4	38.0	37.7	38.3	34.4	41.0	42.1	
	March	41.5	39.8	39.2	37.0	36.7	37.6	34.5	40.4	41.9	
	April	41.2	40.0	38.9	37.1	35.9	37.3	34.6	40.3	40.8	
	May	41.1	39.7	38.2	37.1	35.6	37.3	34.0	40.4	42.1	
	June	40.9	41.1	39.1	37.7	37.2	37.3	34.3	40.3	42.8	
	July	40.7	39.8	39.1	37.9	36.9	37.3	34.4	40.1	45.0	
	August	41.5	40.3	39.5	38.2	37.2	37.7	34.3	39.7	44.7	
	September	41.9	40.8	37.5	38.3	38.0	38.8	34.8	41.1	46.0	
	October	42.3	41.4	40.4	39.0	38.5	38.7	35.1	42.1	46.0	
	November	43.3	42.4	42.1	40.1	39.8	39.5	36.3	42.8	46.5	
	December	44.4	43.6	42.9	41.5	41.0	41.9	36.3	42.7	43.8	
1977	January	45.8	44.9	44.2	43.2	43.1	43.0	36.9	43.4	44.6	
	February	46.6	45.8	45.7	43.9	43.4	44.0	38.8	44.2	45.2	
	March	47.1	46.3	45.5	44.4	43.8	44.6	40.2	44.7	45.9	
	April	47.2	46.5	45.5	44.8	43.3	44.2	40.8	44.8	46.4	
	May	47.0	46.4	45.6	44.7	43.7	43.7	40.7	44.8	46.5	
	June	47.1	46.4	45.7	44.7	44.0	43.3	41.2	45.8	46.8	
	July	47.1	46.4	45.7	44.7	44.2	44.2	41.2	44.2	47.9	
	August	47.4	46.6	45.6	44.7	43.7	44.5	41.0	44.9	48.2	
	September	47.7	46.7	45.8	45.0	44.2	44.9	41.1	44.9	47.2	
	October	48.0	47.3	46.4	45.3	43.9	45.4	41.1	45.4	47.4	
		DOE Region*									
		1	2	3	4	5	6	7	8	9	10
1978	November	48.5	48.1	47.0	46.1	45.7	NA	44.2	45.4	44.9	47.4
	December	48.9	48.6	47.5	46.6	46.1	NA	44.5	45.7	44.5	47.3
	January	49.4	49.2	48.1	47.5	46.4	NA	44.5	45.2	44.7	47.4
	February	49.5	49.3	48.4	47.6	46.4	NA	45.2	45.5	45.6	47.5
	March	49.4	49.3	48.4	47.7	46.5	NA	44.4	45.0	47.0	47.8
	April	49.3	49.2	48.2	47.1	46.4	NA	44.6	45.0	45.1	47.6
	May	49.3	49.1	47.7	46.7	46.3	NA	44.7	45.0	44.4	47.4
	June	49.2	49.1	47.8	46.8	46.0	NA	44.8	45.4	43.9	47.7
	July	49.1	49.0	47.6	46.7	46.4	NA	45.0	45.8	43.5	48.1
	August	49.1	49.0	47.6	47.4	46.3	NA	45.1	45.5	44.8	47.7
	September**	50.0	49.7	48.5	46.6	46.8	NA	45.6	46.3	45.0	

*DOE regions are defined in Explanatory Note 18.

**Preliminary Data.

NA=Not available. Data for Region 6 are based on a sample of less than four reporting firms.

Note: Average regional distributor purchase prices for heating oil for the period January 1975 through February 1976 are published on page 70 of the October 1977 issue of the *Monthly Energy Review*.

Source: FEA Form P112-M-1/EIA-9 "No. 2 Heating Oil Supply/Price Monitoring Report."

No. 1 Diesel Fuel Prices

		Wholesale**	Retail**
		Cents per gallon, excluding tax	
1975	July	30.1	37.7
	August	30.8	38.2
	September	31.5	36.9
	October	33.1	35.4
	November	33.3	35.0
	December	34.2	35.5
1976	January	33.8	37.1
	February	33.6	35.3
	March	33.9	34.8
	April	34.2	35.4
	May	34.5	37.5
	June	34.7	37.9
	July	35.0	38.1
	August	36.0	38.2
	September	35.3	37.7
	October	36.3	36.4
	November	35.7	37.0
	December	35.5	36.7
	AVERAGE	34.6	36.1
1977	January	37.1	37.8
	February	38.4	39.2
	March	39.0	39.6
	April	39.7	40.6
	May	39.5	41.7
	June	40.2	41.2
	July	40.3	41.3
	August	40.9	41.3
	September	39.0	41.1
	October	40.1	39.8
	November	40.9	40.4
	December	39.5	41.4
	AVERAGE	39.6	39.8
1978	January	39.8	41.3
	February	39.6	41.6
	March	39.6	41.0
	April	40.2	42.5
	May	40.3	42.3
	June	40.2	43.1
	July	39.7	43.4
	August	39.7	44.0
	September*	40.0	45.1

*Preliminary.

**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 consumers.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

Residual Fuel Oil

RESIDUAL FUEL OIL (Dollars per barrel)

		NO. 5		NO. 6								BUNKER "C"	
				0.0 to 0.3 percent sulfur		0.31 to 1.0 percent sulfur		Greater than 1.0 percent sulfur		Total			
		Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail	Whole- sale	Retail
1975	July	10.19	11.28	11.57	12.86	10.90	12.05	10.25	10.59	10.66	11.70	7.88	10.54
	August	10.19	11.04	11.53	13.22	10.85	12.34	9.72	10.53	10.49	11.89	8.76	10.43
	September	10.58	11.07	11.75	12.94	10.63	11.65	9.87	10.52	10.48	11.52	8.93	10.29
	October	10.15	11.12	11.50	12.98	10.37	12.09	9.75	10.38	10.30	11.69	8.88	10.31
	November	10.90	11.27	12.21	12.96	10.33	12.03	9.90	10.34	10.47	11.68	9.01	10.43
	December	10.83	11.64	11.89	12.87	10.37	11.83	9.65	10.06	10.24	11.42	9.07	10.15
1976	January	11.08	11.63	12.13	12.39	10.62	11.61	9.57	10.23	10.53	11.35	8.75	10.35
	February	10.55	11.57	12.42	12.78	10.87	11.84	9.70	10.35	10.73	11.52	8.53	10.27
	March	10.41	11.89	12.36	12.81	11.05	11.80	9.56	10.21	10.74	11.43	8.59	10.35
	April	10.21	11.58	11.44	12.34	10.86	11.77	9.53	10.28	10.38	11.43	8.66	10.12
	May	9.87	11.49	11.71	11.87	10.80	11.40	9.47	9.89	10.11	10.95	8.75	10.65
	June	9.91	11.23	11.71	12.24	10.33	11.36	9.73	10.03	10.12	11.04	8.57	10.10
	July	10.06	11.70	11.73	12.12	10.22	11.36	9.83	10.04	10.25	11.04	9.23	10.34
	August	9.78	11.48	11.85	12.29	10.45	11.46	9.61	10.22	10.20	11.20	8.93	9.98
	September	10.36	11.37	11.85	12.50	10.33	11.55	10.04	10.28	10.35	11.30	9.22	10.05
	October	10.40	11.86	11.96	12.85	11.08	11.99	10.00	10.73	10.75	11.82	9.57	10.81
	November	11.04	12.04	12.41	13.15	11.57	12.21	10.40	10.99	11.16	11.95	10.31	10.88
	December	11.49	12.64	13.18	13.29	11.80	12.76	11.04	11.48	11.87	12.44	9.95	11.24
1977	January	12.00	13.20	14.06	14.34	12.79	13.68	11.51	12.32	12.45	13.32	10.34	11.89
	February	12.28	13.63	14.00	14.60	12.91	14.06	12.04	12.74	12.69	13.71	10.24	12.00
	March	12.15	13.76	14.00	14.58	13.47	14.51	11.62	12.70	12.68	13.84	9.97	11.74
	April	11.62	13.26	12.88	14.63	13.05	14.10	11.27	12.50	12.04	13.61	10.14	11.75
	May	11.54	12.69	13.56	14.48	11.90	13.73	11.05	12.15	11.64	13.42	9.97	11.41
	June	11.25	13.10	13.12	14.28	11.88	13.27	11.10	11.93	11.72	13.02	10.30	11.39
	July	11.24	12.67	13.31	14.38	11.73	13.12	11.02	12.06	11.62	13.01	10.91	11.44
	August	11.61	12.75	13.32	14.15	11.83	13.08	11.89	12.01	12.06	13.00	11.08	11.58
	September	11.70	12.84	13.35	14.33	11.79	13.11	11.78	12.19	12.03	12.94	11.20	11.72
	October	11.52	13.14	13.38	14.30	11.69	13.15	11.71	12.33	12.10	13.15	10.98	11.87
	November	11.29	13.16	12.85	14.24	11.66	12.93	11.44	12.15	11.76	12.96	10.42	11.66
	December	11.64	13.53	12.87	13.95	11.38	12.60	10.77	11.95	11.28	12.70	11.27	11.37
1978	January	11.45	13.36	12.72	14.19	11.56	12.70	10.71	12.00	11.33	12.79	9.73	11.15
	February	11.75	13.35	12.20	14.05	11.64	12.42	10.58	11.75	11.25	12.53	9.66	10.84
	March	11.41	13.62	12.73	13.99	11.94	12.75	10.48	11.70	11.36	12.63	8.95	10.47
	April	11.01	13.44	12.72	14.51	12.26	12.95	10.84	11.85	11.57	12.87	8.76	10.28
	May	11.23	13.66	12.67	14.21	12.01	12.88	10.79	11.74	11.70	12.79	9.89	11.05
	June	10.77	12.98	12.37	13.99	11.83	12.58	10.82	11.60	11.41	12.50	9.90	10.91
	July	10.44	12.58	11.26	13.93	11.29	12.01	10.51	11.48	10.86	12.21	9.76	10.68
	August	R10.54	R13.19	R11.41	R14.09	R11.24	R11.97	10.46	R11.54	10.70	12.34	R 9.80	R11.26
	September*	11.13	13.42	12.31	14.22	11.51	12.34	10.72	11.39	11.26	12.43	9.93	10.73

*Preliminary.

R=Revised data.

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, institutional, commercial, and residential accounts.

Source: FEA Form P302-M-1 "Petroleum Industry Monthly Report for Product Prices."

Propane and Butane

Wholesale Propane and Butane Prices*

		Propane	Butane
		Cents per gallon	
1975	July	17.9	17.5
	August	18.8	18.2
	September	19.8	19.7
	October	19.9	20.4
	November	20.2	20.5
	December	20.6	20.2
	AVERAGE (6 months)	19.7	19.4
1976	January	21.2	20.6
	February	21.0	21.6
	March	20.1	21.3
	April	19.4	20.9
	May	19.0	21.6
	June	19.5	21.4
	July	19.9	22.2
	August	20.2	22.3
	September	20.6	22.0
	October	20.9	22.7
	November	21.4	22.4
	December	22.1	23.6
	AVERAGE	20.6	21.9
1977	January	22.9	23.0
	February	24.0	24.3
	March	23.7	24.9
	April	23.6	24.2
	May	24.5	25.8
	June	24.5	25.6
	July	24.9	26.2
	August	25.5	26.1
	September	25.9	27.4
	October	26.8	26.3
	November	26.5	25.8
	December	26.7	25.8
	AVERAGE	25.0	25.4
1978	January	27.0	25.9
	February	26.5	25.1
	March	25.6	24.9
	April	24.4	23.9
	May	23.7	22.8
	June	23.3	22.9
	July	23.0	22.1
	August	22.7	21.8
	September	22.6	21.8

*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.

Source: FEA Form P302-M-1, "Petroleum Industry Monthly Report for Product Prices."

Electric Utilities

Average Retail Electricity Prices*

		Residential	Commercial	Industrial	Other	Total
		Cents per kilowatt hour				
1971	TOTAL	2.32	2.20	1.10	1.91	1.77
1972	TOTAL	2.42	2.29	1.16	1.98	1.86
1973	TOTAL	2.54	2.41	1.25	2.10	1.96
1974	TOTAL	3.10	3.04	1.69	2.75	2.49
1975	TOTAL	3.51	3.45	2.07	3.08	2.92
1976	TOTAL	3.73	3.69	2.21	3.27	3.09
1977	January	3.62	3.78	2.35	3.36	3.20
	February	3.69	3.86	2.40	3.45	3.25
	March	3.95	4.00	2.44	3.40	3.33
	April	4.07	4.04	2.43	3.46	3.34
	May	4.19	4.09	2.45	3.64	3.38
	June	4.17	4.11	2.48	3.59	3.43
	July	4.20	4.12	2.58	3.59	3.56
	August	4.35	4.37	2.64	3.69	3.69
	September	4.26	4.21	2.60	3.59	3.58
	October	4.25	4.27	2.57	3.47	3.53
	November	4.18	4.22	2.55	3.56	3.46
	December	3.99	4.12	2.54	3.37	3.43
	TOTAL	4.07	4.10	2.50	3.51	3.43
1978	January	3.90	4.11	2.59	3.48	3.45
	February	3.93	4.15	2.70	3.49	3.52
	March	4.16	4.36	2.87	3.68	3.70
	April	4.34	4.41	2.81	3.75	3.69
	May	4.45	4.43	2.76	3.89	3.68
	June	4.54	4.49	2.80	3.76	3.77
	July	4.50	4.40	2.83	3.70	3.82
	August	4.51	4.40	2.81	NA	3.80
	September	4.48	4.41	2.79	3.72	3.78

*Prices are for Classes A and B privately owned electric utilities.

NA= Not available.

Source: Federal Power Commission, Form 5, "Monthly Statement of Electric Operating Revenue and Income."

Natural Gas

Natural Gas Prices Reported by Major Interstate Pipeline Companies

		PURCHASES			SALES	
		From Domestic Producers	From Canadian and Foreign Sources	Total Purchases	To Industrial Users*	Total Sales
		Cents per thousand cubic feet				
1975	January	30.4	104.0	35.8	67.8	71.2
	February	29.5	105.9	35.2	70.1	74.3
	March	33.5	102.5	38.8	70.4	77.8
	April	32.8	102.8	38.3	71.1	81.9
	May	34.7	100.6	39.8	71.1	82.8
	June	35.3	98.9	40.2	72.2	83.9
	July	36.7	101.1	41.7	73.9	83.6
	August	35.5	141.0	43.3	73.4	85.1
	September	36.5	141.1	44.4	72.8	84.7
	October	36.0	140.1	44.3	77.2	85.4
	November	36.5	162.5	46.7	77.8	86.4
	December	35.8	161.8	45.9	80.7	87.5
1976	January	38.3	164.0	48.7	88.2	90.6
	February	39.7	165.3	50.1	88.2	94.1
	March	39.4	164.5	49.9	86.8	92.2
	April	40.5	164.3	51.5	89.0	96.4
	May	42.2	165.0	52.7	87.4	98.5
	June	43.7	166.6	54.0	89.8	98.8
	July	43.8	168.4	53.8	94.6	102.0
	August	56.4	167.7	65.7	98.2	104.6
	September	68.6	183.7	77.9	103.9	94.7
	October	57.6	190.1	69.3	106.7	106.2
	November	52.6	182.4	63.6	113.5	107.5
	December	54.0	189.4	65.7	133.1	118.6
1977	January	59.4	201.8	71.6	143.2	125.4
	February	63.4	199.7	76.4	130.6	131.0
	March	69.8	200.4	83.4	129.3	132.5
	April	65.3	190.7	76.5	128.1	131.1
	May	69.1	191.3	80.5	128.1	133.5
	June	69.2	188.6	79.6	125.3	134.2
	July	72.1	187.7	81.8	134.3	135.7
	August	71.1	185.5	81.5	R133.5	R133.9
	September	71.8	194.7	84.0	131.8	135.4
	October	74.2	211.9	87.4	133.9	135.6
	November	74.3	214.2	87.1	134.9	141.5
	December	73.9	216.5	86.8	138.5	133.1
1978	January	74.0	211.1	86.4	150.4	139.2
	February	76.3	212.7	89.3	158.2	142.8
	March	79.3	212.5	90.1	149.7	145.7
	April	80.3	222.0	92.5	149.8	148.2
	May	81.2	218.5	92.4	149.0	150.0
	June	83.6	220.5	94.3	148.3	152.7
	July	84.2	226.7	95.1	149.5	155.0
	August	84.3	22.5	95.6	148.9	154.0

*Represents direct sales by pipeline companies to industrial users. Does not include sales to industrial users by resellers.

**Includes the cost of gas to the distributing utility at entrance of distribution system or point of receipt.

R=Revised data.

Source: Federal Power Commission Form 11, "Natural Gas Pipeline Company Monthly Statement."

Natural Gas (Continued)

Intrastate Natural Gas Prices for Selected States by Type of Contract*

	California		Kansas		Louisiana		Oklahoma		Texas	
	New Contracts	Renego- tiated or Amended	New Contracts	Renego- tiated or Amended	New Contracts	Renego- tiated or Amended	New Contracts	Renego- tiated or Amended	New Contracts	Renego- tiated or Amended
Cents per thousand cubic feet										
1975										
January	75.00	76.89	55.30	—	98.04	102.96	95.99	76.03	139.90	164.04
February	—	—	—	—	128.68	113.06	97.30	64.49	154.72	163.11
March	—	—	—	—	115.78	125.89	107.70	55.05	96.66	97.50
April	—	—	64.65	45.24	149.78	134.81	132.58	87.79	160.09	176.32
May	—	—	—	—	126.80	123.53	129.31	106.56	156.72	158.59
June	—	53.68	65.00	—	130.91	129.57	94.22	120.29	165.00	187.54
July	—	65.51	—	—	117.22	125.63	133.87	114.62	183.22	178.22
August	—	75.00	198.24	—	132.87	114.20	136.77	121.21	151.87	132.50
September	—	86.00	152.89	70.38	121.89	141.23	143.73	106.69	169.87	180.77
October	135.53	—	—	—	75.16	117.60	143.09	144.14	168.10	187.30
November	—	—	157.95	139.02	138.42	71.65	140.61	133.15	149.43	182.17
December	—	—	—	80.00	139.64	131.92	132.50	153.86	187.20	140.90
1976										
January	—	83.97	103.81	84.54	138.75	131.23	149.87	109.39	181.05	193.31
February	—	40.00	—	109.68	125.00	145.30	133.72	146.71	176.63	191.54
March	—	—	150.36	—	145.66	155.39	162.83	168.57	178.70	176.44
April	195.00	—	150.00	—	142.99	154.05	162.12	148.30	202.60	152.95
May	122.00	60.39	180.39	149.84	125.54	106.05	156.35	164.02	154.00	197.22
June	—	—	114.45	150.82	147.11	137.67	169.56	168.14	178.01	192.98
July	—	117.15	137.57	150.83	127.55	141.71	148.20	95.00	151.19	176.23
August	—	97.38	—	—	138.70	164.23	151.81	171.49	157.98	198.81
September	—	—	—	125.68	164.10	156.39	164.85	172.00	184.07	197.66
October	—	—	—	111.72	144.64	149.91	163.48	161.16	196.58	188.80
November	—	—	150.82	144.21	—	131.91	162.57	90.73	186.80	182.82
December	—	97.47	160.73	—	194.51	152.45	167.55	175.98	198.71	202.54
1977										
January	—	105.58	155.49	—	155.82	137.65	172.35	167.49	193.36	204.06
February	—	107.27	121.66	—	141.33	120.84	147.86	131.27	185.55	203.22
March	119.79	116.28	148.18	—	219.43	208.97	168.57	168.28	197.14	190.83
April	—	—	137.10	156.38	216.41	150.35	165.61	167.89	192.22	205.44
May	—	107.20	119.00	—	197.53	158.97	156.52	171.09	204.06	201.27
June	—	112.21	91.49	—	180.21	169.61	166.69	169.51	194.54	206.41
July	—	139.02	88.57	174.53	174.90	169.64	172.95	168.25	206.96	202.46
August	—	—	131.97	90.49	177.99	166.66	164.33	158.46	188.96	183.57
September	—	—	—	136.66	163.72	162.49	171.78	172.70	167.14	212.44
October	—	—	—	75.63	201.26	142.88	148.44	175.01	202.73	204.08
November	135.00	136.15	150.39	105.80	—	182.97	166.26	174.78	186.94	199.11
December	—	124.40	147.09	166.59	196.42	154.23	160.32	173.49	207.65	203.32
1978										
January	—	173.80	137.50	184.32	194.38	202.88	169.22	180.65	168.54	211.52
February	—	—	—	163.54	180.37	181.40	165.35	178.74	163.94	211.32
March	—	—	—	203.60	198.62	182.35	175.48	177.37	170.64	196.60
April	—	—	185.36	60.19	201.85	237.64	181.08	166.69	202.35	202.59
May	—	—	—	197.49	198.18	197.07	171.98	175.67	213.52	193.90
June	—	—	—	135.13	—	212.50	138.00	174.68	187.68	205.71

*Prices are for FERC jurisdictional natural gas companies selling more than 1 billion cubic feet per year in interstate commerce.
Source: Federal Power Commission Form 45, "Summary of Intrastate Natural Gas Prices."

Natural Gas (Continued)

Average Retail Prices for Natural Gas Use Sold to Residential Customers for Heating

		Cents per thousand cubic feet
1975	January	141.2
	February	144.7
	March	146.1
	April	150.6
	May	153.7
	June	155.7
	July	154.7
	August	155.4
	September	159.4
	October	160.6
	November	166.2
	December	170.2
1976	January	171.4
	February	175.2
	March	177.0
	April	178.4
	May	180.8
	June	183.2
	July	184.5
	August	185.8
	September	191.2
	October	195.0
	November	198.3
	December	208.3
1977	January	213.8
	February	217.0
	March	219.9
	April	223.7
	May	227.0
	June	227.3
	July	229.9
	August	230.1
	September	230.4
	October	235.1
	November	238.4
	December	237.3
1978	January	241.6
	February	243.0
	March	247.0
	April	248.7
	May	255.2
	June	254.2

Average Wellhead Value of Natural Gas Production**

		Cents per thousand cubic feet
1972	AVERAGE	18.6
1973	AVERAGE	21.6
1974	AVERAGE	30.4
1975	AVERAGE	44.5
1976	January	53.9
	February	54.0
	March	54.2
	April	54.5
	May	54.8
	June	57.8
	July	57.5
	August	60.1
	September	60.3
	October	61.7
	November	63.0
	December	64.4
	AVERAGE	58.0
1977	January	67.1
	February	71.0
	March	74.9
	April	77.2
	May	76.7
	June	82.3
	July	83.1
	August	82.3
	September	83.3
	October	84.0
	November	83.2
	December	84.4
	AVERAGE	79.1
1978	January	86.7
	February	87.5
	March	88.7

Source: Bureau of Labor Statistics.

**Sources: Annual data are from the appropriate agencies of the individual producing States; monthly data are estimated primarily on the basis of values reported by State agencies in New Mexico, Oklahoma, and Texas.

Utility Fossil Fuels

U.S. Average Delivered Prices of Coal at Utilities

		Contract	Spot
		Dollars per short ton	
1975	January	14.57	28.12
	February	15.71	25.93
	March	15.68	25.02
	April	15.88	24.52
	May	16.45	23.78
	June	16.40	23.36
	July	16.06	22.35
	August	16.65	22.39
	September	16.76	22.46
	October	16.72	22.52
	November	16.79	22.50
	December	16.90	22.40
1976	January	16.53	21.75
	February	17.04	21.23
	March	17.65	21.36
	April	17.76	21.43
	May	18.12	21.17
	June	18.05	20.88
	July	17.93	21.00
	August	18.19	21.35
	September	18.55	21.46
	October	18.49	21.28
	November	18.26	21.56
	December	18.15	21.49
1977	January	17.87	21.93
	February	18.28	22.71
	March	18.75	23.27
	April	18.82	22.41
	May	18.97	23.73
	June	19.03	24.62
	July	19.35	25.13
	August	18.95	24.73
	September	19.75	26.14
	October	20.31	26.83
	November	20.51	27.01
	December	20.49	28.01
1978	January	16.94	30.27
	February	16.50	30.50
	March	18.59	31.52
	April	21.43	30.42
	May	22.23	29.62
	May	22.23	29.62
	June	22.88	28.95
	July	22.08	28.94

Source: Federal Power Commission Form 423.

Utility Fossil Fuels (Continued)

COST OF FOSSIL FUELS DELIVERED TO STEAM ELECTRIC UTILITY PLANTS

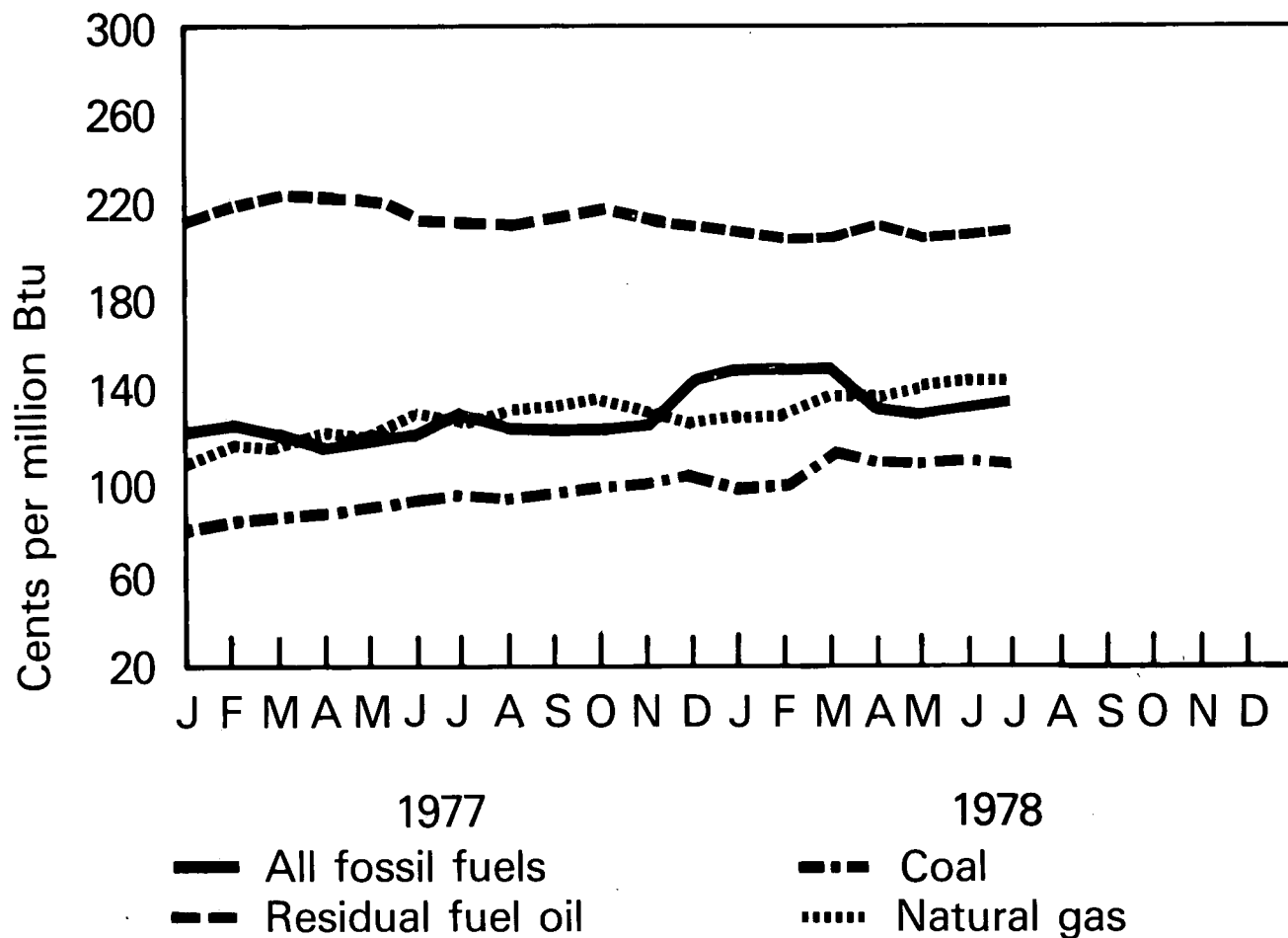
All Fossil Fuels*

Region	1977												1978	
	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY
Cents per million Btu														
New England	213.3	209.9	206.7	206.8	205.2	202.1	198.9	196.5	196.5	193.9	199.0	195.1	190.3	191.1
Middle Atlantic	152.1	167.9	158.8	151.3	144.8	142.5	180.2	203.6	199.5	182.0	153.2	150.9	157.4	157.9
East North Central	107.3	109.7	105.2	106.5	108.8	111.6	134.8	172.2	184.6	172.3	128.5	124.4	125.0	130.9
West North Central	84.0	87.9	86.2	86.5	89.2	87.4	99.1	102.4	110.9	106.1	95.4	91.1	97.0	102.0
South Atlantic	137.9	148.9	146.6	143.7	137.6	137.1	156.2	169.0	172.8	169.3	147.5	143.2	146.0	150.5
East South Central	104.5	110.4	106.6	109.9	112.0	113.0	125.5	140.6	147.1	145.2	126.6	120.0	123.8	128.6
West South Central	124.3	123.2	122.5	123.2	121.3	119.8	120.9	129.4	130.9	124.7	133.8	133.7	137.2	135.0
Mountain	69.9	71.8	72.6	73.7	74.7	68.4	73.3	67.6	64.8	67.1	66.0	72.5	74.5	74.9
Pacific	212.6	221.2	223.8	221.2	238.7	221.9	226.8	221.4	216.8	225.8	232.8	228.7	223.7	219.2
NATIONAL AVG.	125.1	133.2	129.4	128.6	127.5	125.6	144.0	153.4	154.3	151.6	135.4	132.8	136.0	138.2

*See Explanatory Note 20.

Source: Federal Power Commission Form 423.

National Average



Coal

Region	1977							1978						
	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY
Cents per million Btu														
New England	130.1	130.6	133.1	134.0	122.4	136.6	137.5	143.2	143.5	150.7	153.4	146.8	155.3	143.3
Middle Atlantic	107.4	111.7	107.0	106.0	104.6	105.0	127.1	122.4	116.2	124.3	116.4	118.7	125.0	117.9
East North Central	95.5	99.8	97.3	99.5	101.7	104.7	116.3	134.9	138.5	137.3	117.8	116.6	117.6	121.1
West North Central	77.0	77.9	77.4	78.5	84.3	81.2	88.7	88.5	94.0	93.5	87.6	86.6	91.6	92.2
South Atlantic	113.9	119.2	115.9	121.1	122.0	122.8	133.0	129.4	129.4	139.6	130.6	129.1	129.2	129.9
East South Central	95.0	99.9	98.4	103.1	104.3	107.8	114.0	118.3	131.5	136.0	123.1	116.2	118.3	119.0
West South Central	63.9	59.2	62.1	64.4	65.2	72.0	68.7	74.0	83.5	67.6	67.0	69.0	68.6	68.6
Mountain	47.4	43.0	50.1	47.5	51.4	48.8	47.9	42.2	45.6	46.4	48.1	51.3	50.3	50.3
Pacific	71.2	71.7	71.1	71.3	71.4	70.6	70.5	71.5	71.2	75.0	78.8	78.3	78.8	77.6
NATIONAL AVG.	93.3	96.2	94.3	98.0	100.5	101.7	106.8	99.6	102.1	113.4	110.9	110.6	112.0	110.2

Residual Fuel Oil*

Region	1977								1978						
	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	
	Cents per million Btu														
New England	216.2	212.5	211.3	210.2	210.8	206.8	202.3	199.0	193.5	195.3	201.0	R198.1	192.3	189.9	
Middle Atlantic	223.1	220.5	218.5	220.8	225.8	213.2	209.7	208.4	207.4	207.8	209.5	R208.8	206.4	202.8	
East North Central	248.6	247.1	241.6	264.7	256.5	247.5	248.3	256.4	254.1	262.0	260.0	R259.6	264.5	274.0	
West North Central	186.6	179.0	185.0	186.9	185.3	187.2	174.3	177.8	183.0	189.3	179.4	R188.7	191.8	184.1	
South Atlantic	210.1	207.2	199.2	211.0	211.4	209.3	205.1	203.6	198.7	198.4	198.2	R200.2	194.1	190.4	
East South Central	177.7	175.9	178.3	177.7	186.5	183.8	185.2	180.7	182.0	182.8	180.6	R173.4	182.8	181.9	
West South Central	194.3	187.6	188.5	184.2	192.6	192.2	191.6	184.7	183.2	182.0	187.7	R192.5	192.1	187.8	
Mountain	215.3	232.5	230.7	216.4	214.3	222.9	223.3	218.9	221.3	226.1	212.3	R202.8	205.2	207.8	
Pacific	235.7	240.0	240.1	240.6	241.6	241.3	242.2	243.4	242.7	250.6	256.5	R257.5	260.9	256.4	
NATIONAL AVG.	217.8	217.0	213.0	218.3	220.3	217.2	215.0	211.3	207.8	209.6	213.1	R213.7	209.9	205.0	

Natural Gas**

Region	1977								1978						
	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	
Cents per million Btu															
New England	193.9	185.8	187.2	188.1	185.3	187.9	198.2	222.1	222.1	182.1	184.2	184.3	185.8	200.9	
Middle Atlantic	144.2	165.5	162.4	165.1	162.6	154.0	155.0	153.9	159.8	159.3	161.5	162.5	171.5	169.9	
East North Central	177.3	183.5	185.9	183.7	182.3	168.4	176.2	168.4	269.3	338.6	190.6	191.7	200.0	200.8	
West North Central	104.8	106.7	106.8	109.0	103.8	110.3	117.3	109.4	119.4	122.6	118.0	118.5	118.8	121.1	
South Atlantic	74.4	91.1	100.9	91.7	94.2	102.5	94.6	93.9	98.4	97.9	102.9	112.3	105.2	110.7	
East South Central	134.3	148.5	149.9	135.7	138.6	156.0	145.9	139.1	150.1	158.4	150.2	155.2	150.5	159.9	
West South Central	122.1	122.5	123.7	123.7	122.5	120.1	120.2	129.0	128.5	124.9	137.7	135.8	140.1	140.1	
Mountain	132.9	133.3	130.7	149.8	136.9	155.5	159.2	133.8	139.2	146.5	127.5	150.2	153.7	145.8	
Pacific	200.5	211.0	218.8	217.9	219.7	220.6	225.4	212.4	208.6	220.5	220.1	220.4	213.4	213.5	
NATIONAL AVG.	130.5	131.7	135.4	138.4	139.4	134.9	130.6	133.3	135.1	140.2	140.2	143.5	149.3	149.8	

*See Explanatory Note 20.

**Includes small quantities of coke oven gas, refinery gas, and blast furnace gas.

R=Revised data.

Source: Federal Power Commission Form 423.

International

Petroleum Consumption

Petroleum consumption by the 19 member International Energy Agency (IEA) in July continued at record levels. Total IEA petroleum consumption of 32.8 million barrels per day in July was 3.1 percent higher than in July 1977. IEA cumulative consumption during the first 7 months of 1978 averaged 35.1 million barrels per day, 2.4 percent higher than the same period in 1977. During the period January through August, consumption in West Germany, Western Europe's major consumer, increased 5.3 percent over the period January through August 1977. During this time, consumption in Japan, IEA's second-highest consumer, increased only 0.4 percent, while consumption in France (not a member of IEA) increased 4.4 percent.

Crude Oil Production

Crude oil production by the Organization of Petroleum Exporting Countries (OPEC) in September rose a substantial 8.1 percent over August, reflecting the anticipation by crude oil purchasers of an OPEC crude oil price increase at year-end. The 32.0 million barrels per day produced in September was the highest rate since December 1977, when production increased for the same reason.

During September, Saudi Arabia, Kuwait, and Iraq had major production increases of 17.3 percent, 14.3 percent and 9.4 percent respectively. Mexican production continued an upward trend, reaching 1.3 million barrels per day in September. Reportedly, production increases have been constrained by port loading conditions.

Petroleum Consumption

Petroleum Consumption for Major Free World Industrialized Countries

		Total IEA*	Japan	West Germany	France**	United Kingdom	Canada	Italy***
Thousands of barrels per day								
1973	AVG.	33,600	5,000	2,693	2,219	1,974	1,597	1,525
1974	AVG.	32,390	4,872	2,408	2,094	1,857	1,630	1,521
1975	AVG.	31,235	4,568	2,319	1,925	1,633	1,595	1,468
1976	Jan	35,100	4,941	2,464	2,436	1,679	1,785	1,775
	Feb	34,400	5,246	2,497	2,486	1,865	1,754	1,743
	Mar	34,300	5,165	2,747	2,381	1,879	1,747	1,641
	Apr	31,500	4,526	2,339	2,100	1,716	1,518	1,423
	May	29,900	4,218	2,320	1,796	1,417	1,509	1,253
	June	31,300	4,429	2,393	1,593	1,416	1,560	1,236
	July	31,100	4,416	2,624	1,629	1,346	1,531	1,355
	Aug	31,100	4,461	2,515	1,668	1,296	1,585	1,372
	Sept	32,200	4,517	2,521	1,974	1,501	1,514	1,604
	Oct	32,300	4,523	2,391	1,904	1,568	1,560	1,464
	Nov	35,900	5,160	2,700	2,236	1,750	1,822	1,393
	Dec	39,100	5,846	2,571	2,712	1,869	2,008	1,779
	AVG.	33,180	4,786	2,507	2,075	1,627	1,658	1,503
1977	Jan	37,700	5,433	2,393	2,519	1,830	1,793	1,696
	Feb	38,600	6,025	2,446	2,386	1,844	1,912	1,823
	Mar	35,000	5,539	2,523	2,109	1,818	1,660	1,573
	Apr	32,800	4,714	2,431	2,043	1,670	1,523	1,326
	May	31,300	4,314	2,364	1,846	R1,546	1,520	1,268
	June	32,900	4,484	2,475	1,715	R1,453	1,598	1,340
	July	31,800	4,716	2,382	1,349	R1,300	1,499	1,251
	Aug	32,700	4,709	2,469	1,390	R1,349	1,689	1,140
	Sept	33,400	4,742	2,567	1,783	R1,554	1,522	1,502
	Oct	33,300	4,664	2,324	1,882	R1,545	1,628	1,405
	Nov	34,300	5,093	2,649	2,181	R1,894	1,720	1,605
	Dec	37,900	5,800	2,719	2,512	R1,872	1,943	1,817
	AVG.	34,300	5,015	2,478	1,973	R1,638	1,666	1,476
1978 (Year to date)	Jan	36,600	5,245	2,461	2,646	R1,822	1,797	R1,776
	Feb	R39,900	R5,966	3,013	2,601	R1,898	1,976	R1,915
	Mar	37,000	R5,621	2,610	2,237	R1,840	1,730	R1,601
	Apr	R33,400	R4,832	2,577	2,045	R1,790	1,564	1,328
	May	32,700	R4,428	2,340	2,134	R1,619	1,532	1,285
	June	R33,400	R4,626	2,611	R1,690	R1,500	R1,632	1,347
	July	32,800	4,675	2,692	1,365	1,413	NA	1,316
	August	NA	4,706	2,253	1,321	NA	NA	1,181
	AVG.	35,100	5,003	2,564	1,999	1,695	R1,702	1,464

*The 19 signatory nations of the International Energy Agency (IEA) are: Austria, Belgium, Canada, Denmark, Federal Republic of Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

**Not a member of IEA.

***Principal products only.

NA=Not available.

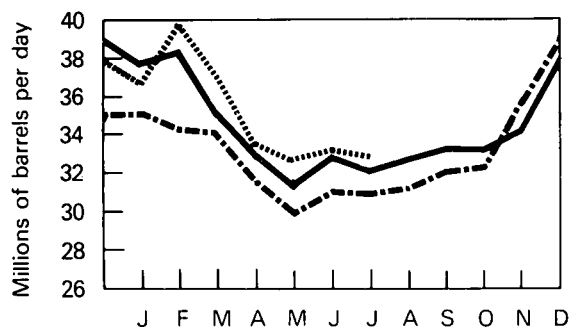
R=Revised data.

Note: Total IEA data represent domestic demand in the United States and sales of petroleum products for all other members. Sales exclude refinery fuel, refinery losses, and ocean bunkers. Experience has shown that this total IEA quantity is between 93 and 95 percent of total IEA consumption.

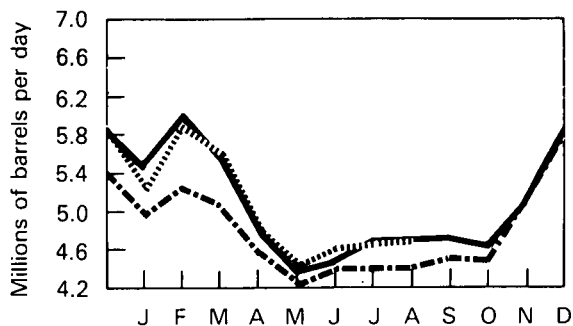
Source: Central Intelligence Agency, National Foreign Assessment Center, *International Energy Statistical Review*, 1 November 1978.

Petroleum Consumption

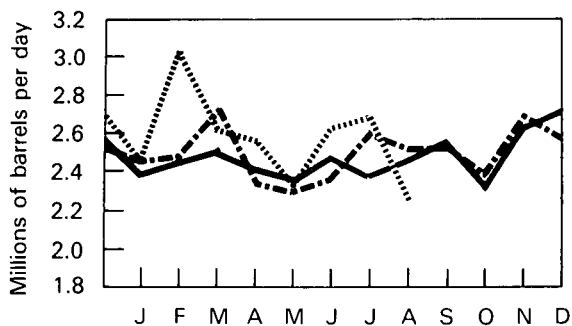
Total IEA



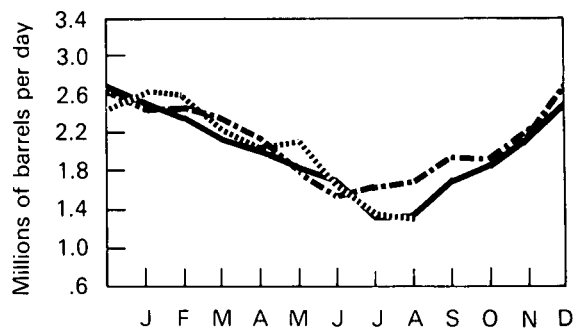
Japan*



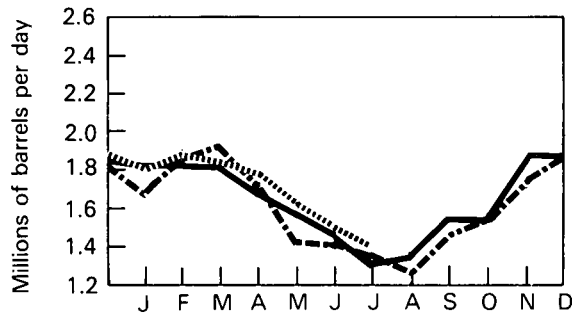
West Germany



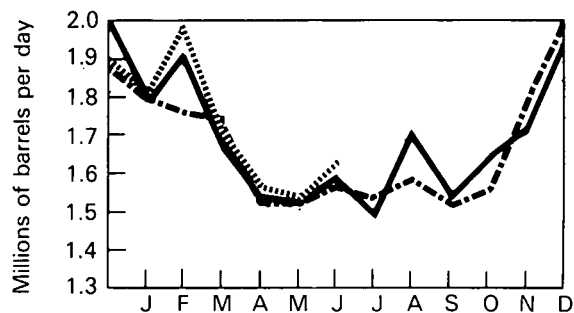
France**



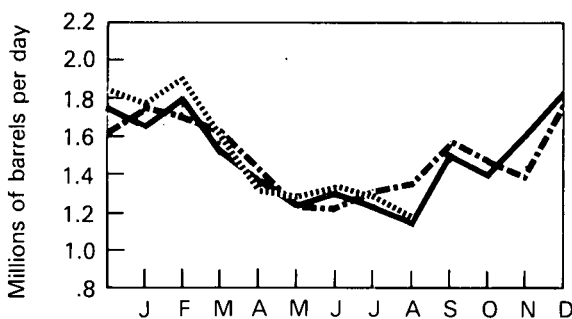
United Kingdom



Canada



Italy***



*Excludes liquefied petroleum gases and condensates.

**Not a member of IEA.

***Principal products only.

--- 1976
— 1977
..... 1978

Crude Oil Production

Crude Oil Production for Major Petroleum Exporting Countries—September 1978

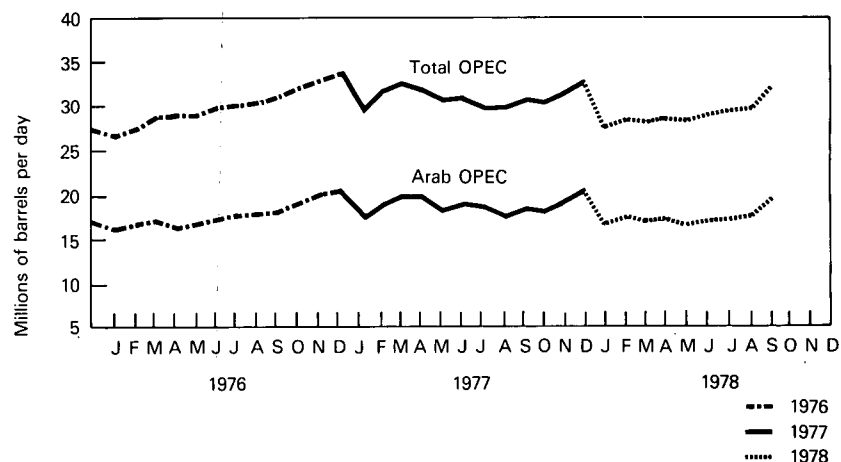
Country	Production							Maximum Sustainable Production Capacity	Production Shut in
	1972 Year	1973 Year	1974 Year	1975 Year	1976 Year	1977 Year	1978 Sept. **	1978 Sept.	1978 Sept.
	Thousands of barrels per day								Percent
Algeria	1,040	1,070	960	960	990	1,040	1,220	1,300	6.2
Iraq	1,465	2,020	1,970	2,260	2,415	2,330	2,900	3,000	3.3
Kuwait*	3,283	3,020	2,545	2,085	2,145	1,970	2,685	3,300	18.6
Libya	2,239	2,175	1,520	1,480	1,935	2,080	2,020	2,300	12.2
Qatar	482	570	520	440	495	430	510	600	15.0
Saudi Arabia*	6,016	7,595	8,480	7,075	8,575	9,200	8,385	10,700	21.6
United Arab Emirates	1,202	1,535	1,680	1,665	1,935	2,010	1,840	2,375	22.5
Subtotal: Arab OPEC	15,727	17,985	17,675	15,965	18,490	19,060	19,560	23,575	17.0
Ecuador	78	210	175	160	185	180	210	225	6.7
Gabon	125	150	200	225	225	230	225	225	—
Indonesia	1,080	1,340	1,375	1,305	1,505	1,690	1,540	1,700	6.5
Iran	5,023	5,860	6,020	5,350	5,885	5,660	6,050	6,500	6.9
Nigeria	1,815	2,055	2,255	1,785	2,070	2,100	2,120	2,300	7.8
Venezuela	3,219	3,365	2,975	2,345	2,295	2,240	2,250	2,600	13.5
Subtotal: Non-Arab OPEC	11,340	12,980	13,000	11,170	12,165	12,240	12,445	13,550	8.2
TOTAL OPEC	27,067	30,965	30,675	27,135	30,655	31,160	32,005	37,125	13.8
Canada	1,540	1,800	1,695	1,460	1,300	1,320	1,260	1,800	30.0
Mexico	440	465	580	720	850	980	1,270	1,500	15.3
TOTAL OPEC, Canada, Mexico	29,047	33,230	32,950	29,315	32,805	33,460	34,535	40,425	14.6
TOTAL WORLD	50,550	55,755	55,875	52,990	57,340	59,520	62,660		

*Includes about one-half of the former Kuwait-Saudi Arabia Neutral Zone. Production in September 1978 amounted to approximately 570,000 barrels per day.

**Estimated.

Sources: Central Intelligence Agency, National Foreign Assessment Center, *International Energy Statistical Review*, 1 November 1978, National Energy Board of Canada, and U.S. Department of Energy.

OPEC Countries Crude Oil Production



Definitions

Base Production Control Level

1. Prior to February 1, 1976: the total number of barrels of domestic crude oil produced and sold from a particular property in the same month of 1972. If domestic crude oil was not produced and sold from that property in every month of 1972, the total number of barrels of domestic crude oil produced and sold from that property in 1972, divided by 12.

2. Effective February 1, 1976: the total number of barrels of old crude oil produced and sold from the property during calendar year 1975, divided by 365, and multiplied by the number of days in the particular month during 1975. A producer may elect to use the total number of barrels of crude oil produced and sold from the property during calendar year 1972, divided by 366, and multiplied by the number of days in the particular month during 1972.

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.

Controlled Crude Oil

Crude oil that was domestically produced prior to February 1, 1976, subject to the ceiling price for crude oil. For a particular property which is not a stripper well lease, the volume of controlled oil equals the base production control level minus an amount of released oil equal to the new oil production from that property.

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 Imports

The volume of crude oil imported into the 50 States and the District of Columbia, including imports from U.S. territories, but excluding imports of crude oil into the Hawaiian Foreign Trade Zone.

Crude Oil Input to Refineries

Total crude oil input to crude oil distillation units and other units for processing.

Crude Oil Stocks

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

Cumulative Deficiency

A measure of the cumulative deficit of production below the base production control level after the first month in which new oil was produced and sold from a specific property.

Dealer Tankwagon (DTW) Price

The price at which a dealer purchases gasoline from a distributor or a jobber.

Distillate Fuel Oil

The lighter fuel oils distilled off during the refining process. Included are products known as ASTM grades Nos. 1 and 2 heating oils, diesel fuels, and No. 4 fuel oil. The major uses of distillate fuel oils include heating, fuel for on- and off-highway diesel engines, and railroad diesel fuel. Minor quantities of distillate fuel oils produced and/or held as stocks at natural gas processing plants are not included in this series.

Domestic Demand for Specific Refined Petroleum Products

A calculated value, computed as domestic production plus net imports (imports less exports), less the net increase in primary stocks. It, therefore, represents the total disappearance of refined products from primary supplies. (See definition for Domestic Demand for Total Refined Petroleum Products.)

Domestic Demand for Total Refined Petroleum Products

Total domestic demand for petroleum products is calculated as inputs to refineries, plus estimated refinery gain, plus hydrogen input, plus natural gas plant liquids production, plus direct use of crude as fuel, plus product imports, less product exports, plus or minus stock change of products. (See definition for Domestic Demand for Specific Refined Petroleum Products.)

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 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," less 21 cents.

Firm Natural Gas Service

High priority gas service in which the pipeline company is under contract to deliver a specified volume of gas to the customer on a non-interruptible basis. Residential and small commercial facilities usually fall into this category.

Full Serve

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

Full Service Station

A service station selling motor fuels and oils, tires, batteries and accessories (TBA), and performing motor vehicle repairs.

Interruptible Natural Gas Service

Low priority gas service in which the pipeline company has the contractual option to temporarily terminate deliveries to customers by reason of claim of firm service customers or higher priority users. Large commercial facilities, industrial users, and electric utilities usually fall into this category.

Jet Fuel

Includes both naphtha-type and kerosene-type fuels meeting standards for use in aircraft turbine engines. Although most jet fuel is used in aircraft, some is used for other purposes, such as for generating electricity in gas turbines.

Landed Cost

The cost of imported crude oil equal to actual cost of the crude oil at point of origin plus transportation cost to the United States.

Limited Work Authorization

A Limited Work Authorization (LWA) may be granted by the Atomic Safety and Licensing Board of the Nuclear Regulatory Commission to an applicant who wants to construct a nuclear powerplant providing that the project has been cleared for all requirements of the National Environmental Protection Act and that the geologic and topographic suitability of the reactor site has been found satisfactory. The LWA allows an applicant to proceed with site excavation, install temporary construction and service facilities, construct service roads, and erect structures and components not subject to normal quality assurance inspections. It may save a utility from 6 to 8 months in total construction time. However, because the ultimate approval of a construction permit is based on all evidence

revealed during the licensing hearings, the successful award of an LWA is no guarantee that a construction permit will also be granted.

Line Miles of Seismic Exploration

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

Lower Tier Crude Oil

Old crude oil.

Lower Tier Ceiling Price Determination

The lower tier ceiling price for a particular grade of domestic crude oil in a particular field is the sum of (1) the highest posted price at 6 a.m., local time, May 15, 1973, for transactions in that grade of crude oil in that field; or if there was no posted price in that field for that grade of domestic crude oil, the related price for that grade of domestic crude oil which is most similar in kind and quality in the nearest field for which prices were posted; and (2) the amount mandated in the Monthly Price Adjustment Schedules published by ERA in the *Federal Energy Guidelines* (Part 212.77-13847 Appendix).

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 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 Stocks

Primary motor gasoline stocks held by gasoline producers. Stocks at natural gas processing plants are not included.

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.

National Old Oil Supply Ratio

Old oil receipts, adjusted for small refiner bias and exemptions, divided by crude runs to stills adjusted for entitlements issued for imported refined products.

Natural Gas Liquids (NGL)

Products obtained from natural gasoline plants, cycling plants and fractionators after processing the natural gas. Included are ethane, liquefied petroleum (LP) gases (propane, butane, and propane-butane mixtures), natural gasoline, plant condensate, and minor quantities of finished products such as gasoline, special naphthas, jet fuel, kerosene, and distillate fuel oil.

New Crude Oil

1. Prior to February 1, 1976: the total number of barrels of domestic crude oil produced and sold in a specific month, less the base production control for that month and less 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 the property's base production control level for that month and less the current cumulative deficiency since February 1, 1976.

Nonbranded Independent Marketer

A firm which is engaged in the marketing or distribution of refined petroleum products, but which (1) is not a refiner, (2) is not a firm which controls, is controlled by, is under common control with, or is affiliated with a refiner (other than by means of a supply contract), and (3) is not a branded independent marketer.

Old Crude Oil

1. Prior to February 1, 1976: the total number of barrels of 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 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.

Primary Stocks of Refined Petroleum Products

Stocks held at refineries, bulk terminals, and pipelines. They do not include stocks held in secondary storage facilities, such as those held by jobbers, dealers, independent marketers, and consumers.

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 26, 1976, it was made effective retroactively to February 1, 1976. (F.R. 36171, August 26, 1976)

Refined Petroleum Products Imports

Imports (into the 50 States and the District of Columbia) of motor gasoline, naphtha-type jet fuel, kerosene type jet fuel, kerosene, distillate fuel oil, residual fuel oil, liquefied petroleum gases, petrochemical feedstocks, special naphtha, lubricants, waxes, asphalt, plant condensate, and unfinished oils. Included are imports of refined products for bonded and military use, and imports from U.S. territories and the Hawaiian Foreign Trade Zone.

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 costs and represents the amount of crude cost which refiners may pass on to their customers.

Released Crude Oil

An amount of crude oil produced from a property in a particular month prior to February 1, 1976, which is equal to the total number of barrels of new crude oil produced and sold from that property in that month. The amount of released crude oil for a property in a particular month shall not exceed the base production control level for that property in that month.

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 ASTM grades Nos. 5 and 6 oil, 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, for heating, and for various industrial purposes.

Rotary Rig

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.

Separative Work Unit (SWU)

The measure of work required to produce enriched uranium from natural uranium. Enrichment plants separate natural uranium feed material into two groups, an enriched product group with a higher percentage of U-235 than the feed material and a depleted tails group with a lower percentage of U-235 than the feed material. To produce 1 kilogram of enriched uranium containing 2.8 percent U-235, and a depleted tails assay containing 0.3 percent U-235, it requires 6 kilograms of natural uranium feed and 3 kilograms of separative work units (3 SWU).

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.

Stripper Well Property

A property whose average daily production of crude oil per well (excluding condensate recovered in nonassociated production) did not exceed 10 barrels per day during any preceding consecutive 12-month period beginning after December 31, 1972.

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.

Uncontrolled Crude Oil

That portion of domestic crude oil production including new, released, and stripper oil which, before February 1, 1976, could be sold at a price exceeding the ceiling price.

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

Effective February 1, 1976, upper tier crude oil included new crude oil and crude oil produced from a stripper well lease. Effective September 1, 1976, upper tier crude oil includes new crude oil only.

Upper Tier Ceiling Price Determination

The upper tier ceiling price for a particular grade of domestic crude oil in a particular field is (1) the highest posted price on September 30, 1975, for transactions in that grade of crude oil in that field in September 1975, or if there was no posted price in that field for that grade of domestic crude oil, the related price for that grade of domestic crude oil which is most similar in kind and quality in the nearest field for which prices were posted; less (2) the amount mandated in the Monthly Price Adjustment Schedules published by ERA in the *Federal Energy Guidelines* (Part 212.77 .13847 Appendix).

Well

A hole drilled for the purpose 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. This is a standard definition of the American Petroleum Institute.

Explanatory Notes

1. Domestic production of energy includes production of crude oil and lease condensate, natural gas plant liquids, natural gas (dry), coal (anthracite, bituminous, and lignite), electricity output from hydroelectric and nuclear powerplants and industrial hydroelectric power production as well as production of electricity from wood, refuse, and geothermal power. The volumetric data were converted to approximate heat contents (Btu-values) of the various energy sources using conversion factors listed in the Units of Measure.

2. Domestic consumption includes domestic demand for refined petroleum products, consumption of coal (anthracite, bituminous, and lignite) and natural gas (dry), electricity output from hydroelectric and nuclear powerplants, industrial hydroelectric power production, net imports of electric power, and production of geothermal power (includes wood, refuse, and net imports of coke made from coal). Approximate heat contents (Btu-values) were derived using conversion factors listed in the Units of Measure. Electricity net imports were converted using the Btu-content of hydroelectric power. 1978 electricity net imports were estimated on the basis of the net import level for 1977.

3. U.S. imports of fossil fuels include imports of crude oil, refined petroleum products, natural gas (dry), coal (bituminous and lignite), coke, and electricity. Does not include imports of petroleum for the Strategic Petroleum Reserve.

4. U.S. exports of fossil fuels include exports of coal (bituminous, lignite, and anthracite), coke, crude oil, refined petroleum products, natural gas (dry), and electricity.

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 demand for energy 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 demand figures for natural gas liquids (NGL) as reported by BOM and reproduced 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). NGL 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.

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 consumption is calculated by 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 a calculated value representing total disappearance from primary supplies.

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.

11. Quantities of uranium are measured by various units at different stages in the fuel cycle. At the mill, quantities are usually expressed as pounds or short tons of U_3O_8 . After the conversion stage, the units of measure are either metric tons (MT) of UF_6 or metric tons of uranium (MTU). The later designation expresses only the elemental uranium content of UF_6 .

Following the enrichment stage, the same units are used, but the U-235 content has been enhanced at the expense of loss of material. At the fabrication stage, UF_6 is changed to UO_2 , and the standard unit of measure is the MTU. We have chosen to present all uranium quantities as MTU; conversion factors to other units are given in the Units of Measure section.

12. 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 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 either as megawatt hours (MWh) or kilowatt hours (KWh). Tables in the nuclear section show generated electricity as average electrical power. This enables a more direct comparison to design capacity and to previous months' performances. To obtain the quantity of electricity generated during a given time period (in kilowatt hours), multiply the average power level (in kilowatts) by the number of hours during that period.

The energy extracted from uranium fuel is expressed as thermal megawatt days per metric ton of uranium (MWD/MTU). The production of plutonium in the fuel rods is expressed as kilograms of plutonium per metric ton of discharged uranium (kg/MTU).

13. The refiner acquisition cost of domestic crude oil is the price paid by refiners for domestic crude oil, unfinished oils, and natural gas 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. 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 oil leases, and were not derived from a statistically valid sample of old oil leases.

15. 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.

16. The estimated 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.

17. The major brand category includes those stations using the primary brand of a major refiner. Primary brands are the brand names or logos that are associated most commonly with the 15 integrated major refiners as defined in the Emergency Petroleum Allocation Act of 1973. These refiners are: Amoco, Atlantic Richfield, Chevron, Cities Service, Continental, Exxon, Getty, Gulf, Marathon, Mobil, Phillips, Shell, Sun, Texaco, and Union Oil of California. The nonmajor brand category includes all the other stations in the survey. Stations using secondary brands of major refiners are included in the nonmajor brand category, as these stations typically price their gasoline to compete with independent refiner and market-brand stations. Stations owned and operated directly by refiners are not included in this survey.

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. 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.

20. The weighted average utility fuel cost for the total United States includes distillate fuel oil delivered to utilities whereas the regional breakdown for residual fuel oil prices represents only No. 6 fuel oil prices.

Units of Measure

Weight

1 metric ton	<i>contains</i>	1,000 kilograms or 2,204.62 pounds
1 long ton	<i>contains</i>	2,240 pounds
1 short ton	<i>contains</i>	2,000 pounds

Conversion Factors for Crude Oil

1 barrel	<i>contains</i>	42 gallons
1 barrel	<i>weighs</i>	0.136 metric tons (0.150 short tons)
1 metric ton	<i>contains</i>	7.33 barrels
1 short ton	<i>contains</i>	6.65 barrels

Conversion Factors for Uranium

1 short ton (U ₃ O ₈)	<i>contains</i>	0.769 metric tons of uranium
1 short ton (UF ₆)	<i>contains</i>	0.613 metric tons of uranium
1 metric ton (UF ₆)	<i>contains</i>	0.676 metric tons of uranium

Approximate Heat Content of Various Fuels

	1972	1973	1974	1975	1976	1977-78
Bituminous coal and lignite						
Production Btu/short ton	24,050,000	24,010,000	23,730,000	23,200,000	23,150,000	22,900,000
Exports Btu/short ton	27,000,000	27,000,000	27,000,000	27,000,000	27,000,000	27,000,000
Imports Btu/short ton	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
Consumption Btu/short ton	23,750,000	23,650,000	23,070,000	22,800,000	22,750,000	22,565,000
Coke Btu/short ton	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000
Anthracite Btu/short ton	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000
Crude petroleum, production Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000
Petroleum products						
Consumption, average Btu/barrel	5,503,200	5,517,000	5,506,100	5,495,900	5,495,900	5,495,900
Imports Btu/barrel	6,028,349	6,001,364	5,975,463	5,938,220	5,975,452	5,903,100
Exports Btu/barrel	5,700,739	5,724,014	5,809,824	5,713,363	5,696,315	5,779,500
Natural gas liquids Btu/barrel	4,049,256	4,032,483	4,024,000	3,997,000	4,003,600	3,935,200
Natural gas, wet Btu/cubic foot	1,100	1,093	1,097	1,095	1,094	1,090
Natural gas, dry Btu/cubic foot	1,027	1,021	1,024	1,021	1,020	1,010
Hydropower Btu/kWh	10,379	10,389	10,442	10,406	10,406	10,406
Nuclear power Btu/kWh	10,660	10,660	10,660	10,660	10,660	10,660
Geothermal power Btu/kWh	21,690	21,690	21,690	21,690	21,690	21,690

Petroleum Products:	Btu/barrel
Natural gasoline	4,620,000
Liquefied gases	4,011,000
Gasoline (incl. aviation)	5,248,000
Special naphtha	5,248,000
Jet fuel, naphtha-type	5,355,000
Jet fuel, kerosene-type	5,670,000
Kerosene	5,670,000
Distillate fuel oil	5,825,000
Residual fuel oil	6,287,000
Still gas	6,000,000
Lubricants	6,065,000
Waxes	5,537,000
Petroleum coke	6,024,000
Asphalt and road oil	6,636,000

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
Springfield, VA 22161

OFFICIAL BUSINESS

PRINTED MATTER

An Equal Opportunity Employer

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211



11

Ms. Joan Heinkel
Rm 4445 - FED

CRN 780102-00530
DAR-M764/M(7812)

Monthly Energy Review