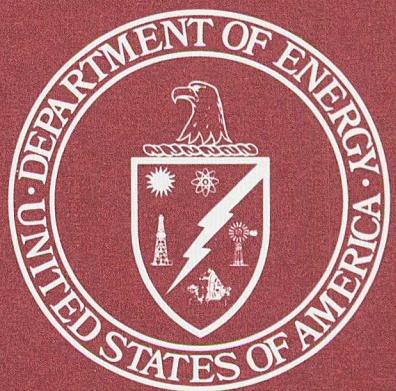


*Fischman*

DOE/EIA-0035(81/03)

March 1981

# Monthly Energy Review



**U.S. Department of Energy**  
Energy Information Administration

The *Monthly Energy Review* is prepared by the Office of Energy Data Operations, Energy Information Administration, U.S. Department of Energy, under the direct supervision of Sam O. Wood, Jr.

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U.S. Coal Resources and Reserves — July 1975

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The Department of Energy Disclosure Policy for Individually Identifiable Information Maintained by the Energy Information Administration — December 1980

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## Overview

### Production

Energy production for 1980 totaled 64.8 quadrillion Btu, a 1.4 percent increase compared to production for 1979. This increase amounted to 1.2 percent when measured as a daily rate (a measure which removes the influence of leap year). Increases in production occurred for petroleum and coal. Petroleum production was up 0.3 percent and coal 6.7 percent (all measured as daily rates). Natural gas production decreased by 2.1 percent. All other forms of energy production combined were down by 1.3 percent, primarily due to a decline in electricity production by nuclear plants.

### Consumption

Energy consumption in 1980 totaled 76.3 quadrillion Btu, a 3.4 percent decrease

compared to consumption for 1979, or 3.7 percent lower when average daily rates are compared. Decreases in the daily consumption rates of petroleum (8.0 percent) and natural gas (1.4 percent) contributed to the overall decline in energy consumption during this period. The average daily rate of coal consumption was up 3.5 percent over the 1979 level.

### Imports

Net imports of energy for 1980 totaled 12.0 quadrillion Btu, 28.3 percent below the 1979 level. This decrease amounted to 28.5 percent when measured as a daily rate. By energy source, the decreases in net imports were petroleum, 21.8 percent; natural gas 21.7 percent; and electricity and coal coke combined, 37.1 percent (daily rates). Net exports of coal for 1980 were 41.0 percent higher than the level for 1979.

## ENERGY SUMMARY (Quadrillion (10<sup>16</sup>) Btu)

	December			Cumulative January through December				
	1980	1979	Percent Change	1980	1980 Daily Rate	1979	1979 Daily Rate	Percent Change*
<b>Total Production</b>	<b>R5.556</b>	<b>R5.380</b>	<b>R +3.3</b>	<b>R64.821</b>	<b>0.177</b>	<b>R63.907</b>	<b>0.175</b>	<b>R +1.2</b>
Petroleum <sup>1</sup>	R1.729	R1.748	R -1.1	R20.512	0.056	R20.390	0.056	+0.3
Natural Gas	R1.705	R1.788	R -4.6	R19.700	0.054	R20.076	0.055	R -2.1
Coal	R1.638	R1.373	R +19.3	R18.877	R0.052	R17.651	R0.048	+6.7
Other <sup>2</sup>	R0.484	0.471	R +2.7	R5.732	0.016	R5.791	0.016	R -1.3
<b>Total Consumption</b>	<b>R7.256</b>	<b>R7.189</b>	<b>R +0.9</b>	<b>R76.267</b>	<b>0.208</b>	<b>R78.968</b>	<b>R0.216</b>	<b>R -3.7</b>
Petroleum <sup>3</sup>	R3.197	R3.223	R -0.8	R34.249	0.094	R37.123	0.102	R -8.0
Natural Gas	R2.144	R2.116	R +1.4	R20.437	0.056	R20.666	0.057	-1.4
Coal	R1.415	R1.360	R +4.0	R15.674	0.043	R15.109	0.041	R +3.5
Other <sup>4</sup>	R0.501	0.491	R +2.0	R5.907	0.016	R6.069	0.017	R -2.9
<b>Net Imports</b>	<b>R0.979</b>	<b>R1.433</b>	<b>R -31.7</b>	<b>R11.990</b>	<b>0.033</b>	<b>R16.723</b>	<b>0.046</b>	<b>R -28.5</b>
Petroleum <sup>5</sup>	R1.090	R1.469	R -25.8	R13.283	0.036	R16.931	R0.046	R -21.8
Natural Gas	R0.092	R0.110	R -16.0	R0.975	0.003	R1.243	0.003	-21.7
Coal	R(0.220)	(0.166)	R(+33.1)	R(2.444)	(0.007)	(1.729)	(0.005)	R(+41.0)
Other <sup>6</sup>	R0.017	R0.020	R -14.5	R0.175	0.000	R0.278	0.001	R -37.1

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

Executive Summary

# Executive Summary

## Energy Summary

		Energy Production <sup>1</sup>	Energy Consumption <sup>2</sup>	Energy Imports <sup>3</sup>	Energy Exports <sup>4</sup>
Quadrillion (10 <sup>15</sup> ) Btu					
1973	TOTAL	62.433	74.609	14.732	2.073
1974	TOTAL	61.229	72.759	14.417	R2.241
1975	TOTAL	60.059	70.707	14.113	2.389
1976	TOTAL	R60.091	R74.510	16.838	2.213
1977	TOTAL	R60.293	R76.332	20.092	2.097
1978	TOTAL	R61.204	R78.150	19.262	1.951
1979	January	R5.325	R7.934	R1.783	R0.177
	February	R4.930	R7.263	R1.528	R0.162
	March	R5.510	R6.993	R1.722	R0.245
	April	R5.257	R6.143	R1.517	R0.238
	May	R5.466	R6.194	R1.602	R0.254
	June	R5.306	R5.983	R1.595	R0.255
	July	R5.008	R6.117	R1.684	R0.270
	August	R5.498	R6.330	R1.689	R0.263
	September	R5.173	R5.896	R1.536	R0.223
	October	R5.641	R6.390	R1.707	R0.287
	November	R5.413	R6.535	R1.564	R0.265
	December	R5.380	R7.189	R1.695	R0.262
	TOTAL	R63.907	R78.968	R19.622	R2.900
1980	January	R5.569	R7.425	R1.653	R0.226
	February	R5.227	R7.020	R1.462	0.206
	March	R5.620	R6.907	R1.488	R0.266
	April	R5.412	R6.021	R1.334	R0.298
	May	R5.518	R5.831	R1.277	R0.349
	June	R5.346	R5.709	R1.289	R0.367
	July	R5.183	R5.957	R1.177	R0.331
	August	R5.327	R5.851	R1.188	R0.321
	September	R5.322	R5.801	R1.158	R0.334
	October	R5.525	R6.182	R1.208	R0.374
	November	R5.217	R6.306	R1.195	R0.347
	December	R5.556	R7.256	R1.321	R0.342
	TOTAL	R64.821	R76.267	R15.752	R3.762

Revisions result from updates to 1979 and 1980 Btu conversion factors and changes in rounding procedures to achieve compatibility among EIA's summary publications.

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>See Explanatory Note 1.

<sup>2</sup>See Explanatory Note 2.

<sup>3</sup>See Explanatory Note 3.

<sup>4</sup>See Explanatory Note 4.

R=Revised data.

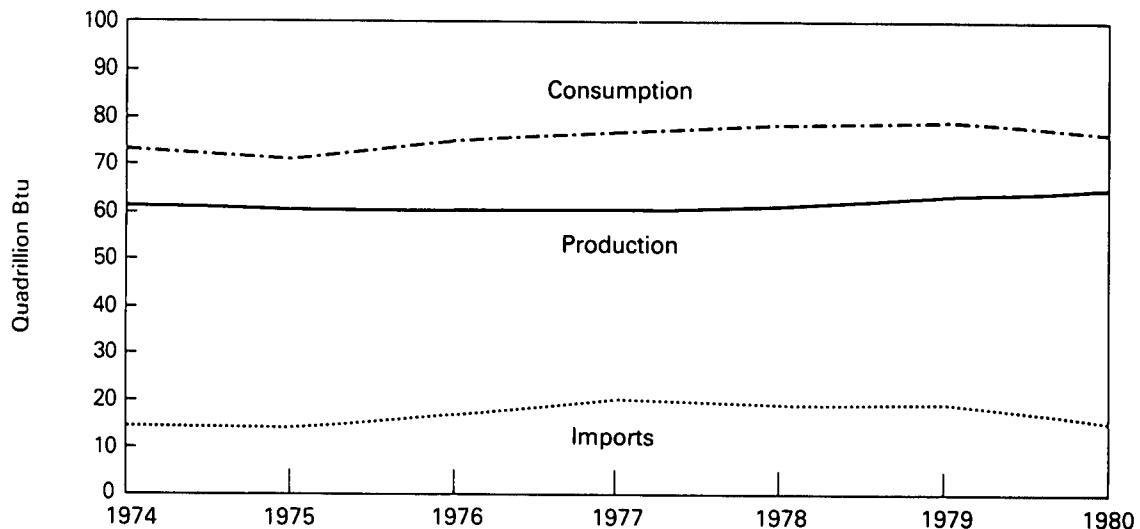
Note: The sum of domestic energy production and net imports of energy does not equal domestic energy consumption. The difference is attributed to stock changes; losses and gains in conversion, transportation and distribution; the addition of blending compounds; shipments of anthracite to U.S. Armed Forces in Europe; and adjustments to account for discrepancies between reporting systems.

Source: •Energy Information Administration calculations based on data appearing elsewhere in this publication.

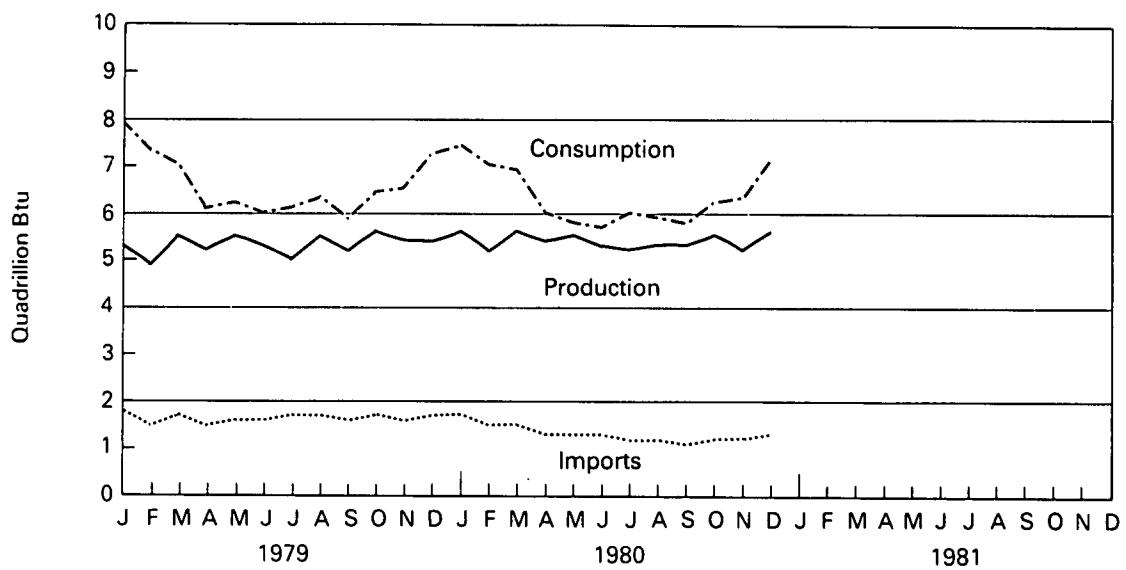
## Executive Summary

### Energy Summary

Yearly



Monthly



# Executive Summary

## Production of Energy by Type

		Crude Oil <sup>1</sup>	Natural Gas (Dry) <sup>2</sup>	Hydro- electric Power <sup>4</sup>	Nuclear Electric Power	Other <sup>5</sup>	Total Energy Produced	Yearly Cumulative Energy Produced		
Quadrillion (10 <sup>15</sup> ) Btu										
1973	TOTAL	14.366	19.493	2.569	22.187	2.861	0.910	0.046	62.433	
1974	TOTAL	14.468	18.575	2.471	21.210	3.177	1.272	0.056	61.229	
1975	TOTAL	15.189	17.729	2.374	19.640	3.155	1.900	0.072	60.059	
1976	TOTAL	15.853	17.262	2.327	19.480	2.976	2.111	0.081	R60.091	
1977	TOTAL	15.829	17.454	2.327	19.565	R2.333	2.702	0.082	R60.293	
1978	TOTAL	15.037	18.434	2.245	19.485	R2.958	2.977	0.068	R61.204	
1979	January	R1.306	1.524	R0.188	R1.738	0.264	0.299	0.007	R5.325	R5.325
	February	R1.238	1.385	R0.173	R1.624	0.225	0.279	0.006	R4.930	R10.255
	March	R1.509	1.546	R0.190	R1.721	0.274	0.262	0.008	R5.510	R15.765
	April	R1.445	1.488	R0.191	R1.659	0.268	0.198	0.007	R5.257	R21.021
	May	R1.570	1.546	R0.192	R1.683	R0.306	0.162	0.007	R5.466	R26.487
	June	R1.597	1.467	R0.186	R1.611	0.264	0.173	0.007	R5.306	R31.793
	July	R1.211	1.504	R0.192	R1.630	R0.240	0.224	0.007	R5.008	R36.802
	August	R1.618	1.537	R0.193	R1.656	R0.224	0.261	0.008	R5.498	R42.299
	September	R1.459	1.483	R0.186	R1.603	R0.200	0.235	0.007	R5.173	R47.473
	October	R1.775	1.550	R0.197	R1.672	0.213	0.225	0.008	R5.641	R53.114
	November	R1.548	1.524	R0.199	R1.691	R0.236	0.207	0.008	R5.413	R58.527
	December	R1.373	1.549	R0.199	R1.788	0.240	0.222	0.009	R5.380	R63.907
	TOTAL	R17.651	18.104	R2.286	R20.076	R2.954	2.748	0.089	R63.907	
1980	January	R1.543	1.555	R0.202	R1.782	0.267	0.213	0.008	R5.569	R5.569
	February	R1.461	1.463	R0.189	R1.672	0.226	0.208	0.008	R5.227	R10.795
	March	R1.589	1.566	R0.192	R1.791	0.257	0.216	0.008	R5.620	R16.415
	April	R1.590	1.512	R0.193	R1.635	0.272	0.202	0.008	R5.412	R21.827
	May	R1.602	1.553	R0.191	R1.659	0.305	0.198	0.010	R5.518	R27.345
	June	R1.624	1.487	R0.185	R1.552	0.292	0.197	0.009	R5.346	R32.691
	July	R1.384	1.538	R0.186	R1.582	0.258	0.226	0.010	R5.183	R37.874
	August	R1.597	1.514	R0.186	R1.542	R0.216	0.262	0.011	R5.327	R43.202
	September	R1.637	R1.500	R0.179	R1.547	R0.195	0.254	0.010	R5.322	R48.523
	October	R1.722	1.541	R0.183	R1.615	0.189	0.264	0.011	R5.525	R54.048
	November	R1.490	1.479	R0.189	R1.619	R0.203	0.226	0.011	R5.217	R59.265
	December	R1.638	R1.537	0.192	R1.705	R0.235	R0.238	R0.011	R5.556	R64.821
	TOTAL	R18.877	R18.246	R2.266	R19.700	R2.913	R2.704	R0.114	R64.821	

Geographic coverage: the 50 United States and District of Columbia.  
 Totals may not equal sum of components due to independent rounding.

<sup>1</sup>Includes bituminous coal, lignite, and anthracite.

<sup>2</sup>Includes lease condensate.

<sup>3</sup>Natural gas plant liquids.

<sup>4</sup>Includes industrial and utility production of hydropower.

<sup>5</sup>Includes geothermal power and electricity produced from wood and waste.

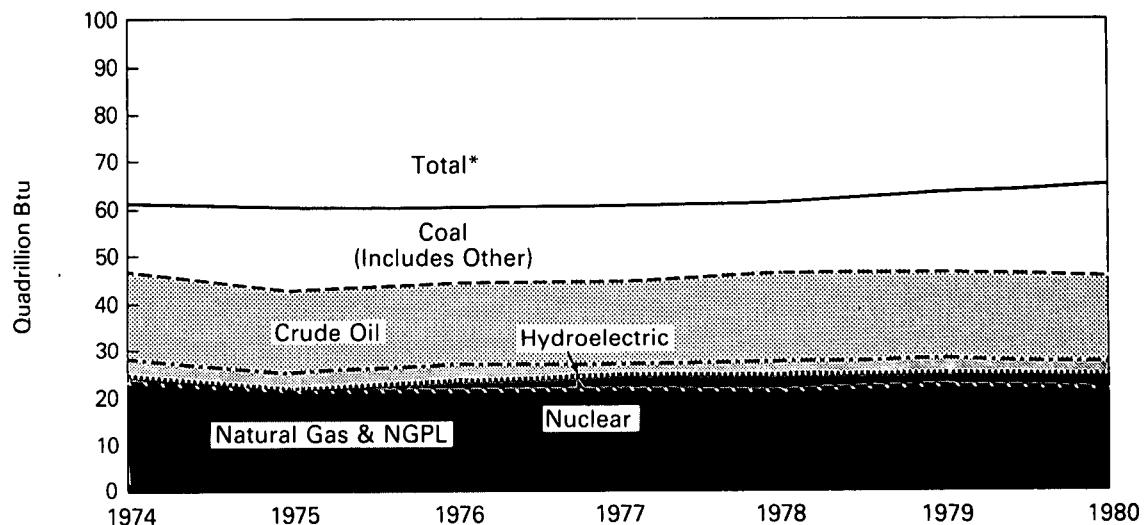
R=Revised data.

Source: •Energy Information Administration calculations based on data reported elsewhere in this publication.

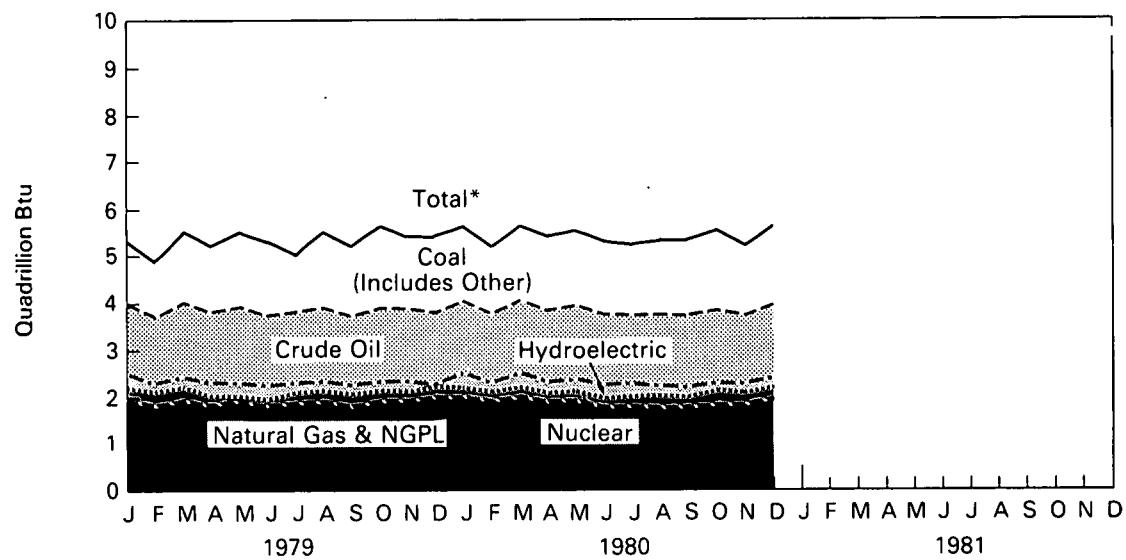
## Executive Summary

### Production of Energy by Type

Yearly



Monthly



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

# Executive Summary

## Consumption of Energy by Type

		Coal <sup>1</sup>	Natural Gas (Dry)	Petro-leum	Hydro-electric Power <sup>2</sup>	Nuclear Electric Power	Net Imports of Coal Coke <sup>3</sup>	Other <sup>4</sup>	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>15</sup> ) Btu										
1973	TOTAL	13.300	22.512	34.840	3.010	0.910	(0.008)	0.046	74.609	
1974	TOTAL	12.876	21.732	33.455	3.309	1.272	0.059	0.056	72.759	
1975	TOTAL	12.823	19.948	32.731	3.219	1.900	0.014	0.072	70.707	
1976	TOTAL	R13.733	20.345	35.175	3.066	2.111	0.000	0.081	R74.510	
1977	TOTAL	13.965	19.931	R37.122	R2.515	2.702	0.015	0.082	R76.332	
1978	TOTAL	13.846	20.000	37.965	R3.164	2.977	0.131	0.068	R78.150	
1979	January	R1.359	R2.477	R3.506	R0.282	0.299	0.004	0.007	R7.934	R7.934
	February	R1.209	R2.250	R3.275	0.241	0.279	0.003	0.006	R7.263	R15.197
	March	R1.218	R1.921	R3.291	R0.292	0.262	0.002	0.008	R6.993	R22.190
	April	R1.146	R1.627	R2.873	0.285	0.198	0.005	0.007	R6.143	R28.332
	May	R1.200	R1.459	R3.032	R0.324	0.162	0.011	0.007	R6.194	R34.527
	June	R1.244	R1.336	R2.931	0.281	0.173	0.010	0.007	R5.983	R40.509
	July	R1.341	R1.358	R2.920	0.258	0.224	0.008	0.007	R6.117	R46.626
	August	R1.349	R1.370	R3.091	0.242	0.261	0.009	0.008	R6.330	R52.956
	September	R1.204	R1.357	R2.868	0.218	0.235	0.008	0.007	R5.896	R58.853
	October	R1.237	R1.590	R3.096	0.231	0.225	0.004	0.008	R6.390	R65.243
	November	R1.243	R1.805	R3.018	R0.254	0.207	0.000	0.008	R6.535	R71.779
	December	R1.360	R2.116	R3.223	0.258	0.222	0.002	0.009	R7.189	R78.968
	TOTAL	R15.109	R20.666	R37.123	R3.166	2.748	0.066	0.089	R78.968	
1980	January	R1.412	R2.327	R3.177	R0.285	0.213	0.003	0.008	R7.425	R7.425
	February	R1.327	R2.238	R2.998	0.242	0.208	(0.001)	0.008	R7.020	R14.445
	March	R1.308	R2.143	R2.961	0.275	0.216	(0.003)	0.008	R6.907	R21.352
	April	R1.169	R1.601	R2.756	0.289	0.202	(0.005)	0.008	R6.021	R27.374
	May	R1.173	R1.383	R2.749	R0.323	0.198	(0.006)	0.010	R5.831	R33.205
	June	R1.246	R1.279	R2.672	0.309	0.197	(0.004)	0.009	R5.709	R38.914
	July	R1.403	R1.328	R2.719	R0.276	0.226	(0.004)	0.010	R5.957	R44.871
	August	R1.396	R1.272	R2.679	0.234	0.262	(0.003)	0.011	R5.851	R50.722
	September	R1.275	R1.326	R2.727	0.213	0.254	(0.004)	0.010	R5.801	R56.523
	October	R1.270	R1.574	R2.862	0.207	0.264	(0.006)	0.011	R6.182	R62.704
	November	R1.279	R1.820	R2.752	R0.220	0.226	(0.002)	0.011	R6.306	R69.011
	December	R1.415	R2.144	R3.197	R0.253	R0.238	(0.001)	R0.011	R7.256	R76.267
	TOTAL	R15.674	R20.437	R34.249	R3.126	R2.704	(0.037)	R0.114	R76.267	

Geographic coverage: the 50 United States and District of Columbia.  
 Totals may not equal sum of components due to independent rounding.

<sup>1</sup>Includes bituminous coal, lignite, and anthracite.

<sup>2</sup>Includes industrial and utility production, and net imports of electricity.

<sup>3</sup>Parentheses indicate exports are greater than imports.

<sup>4</sup>Includes geothermal power and electricity produced from wood and waste.

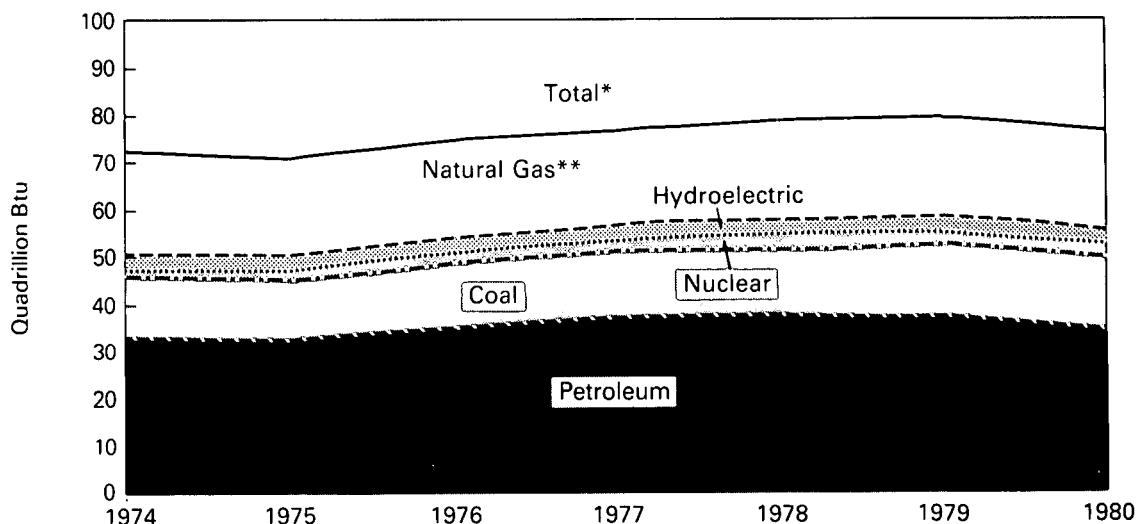
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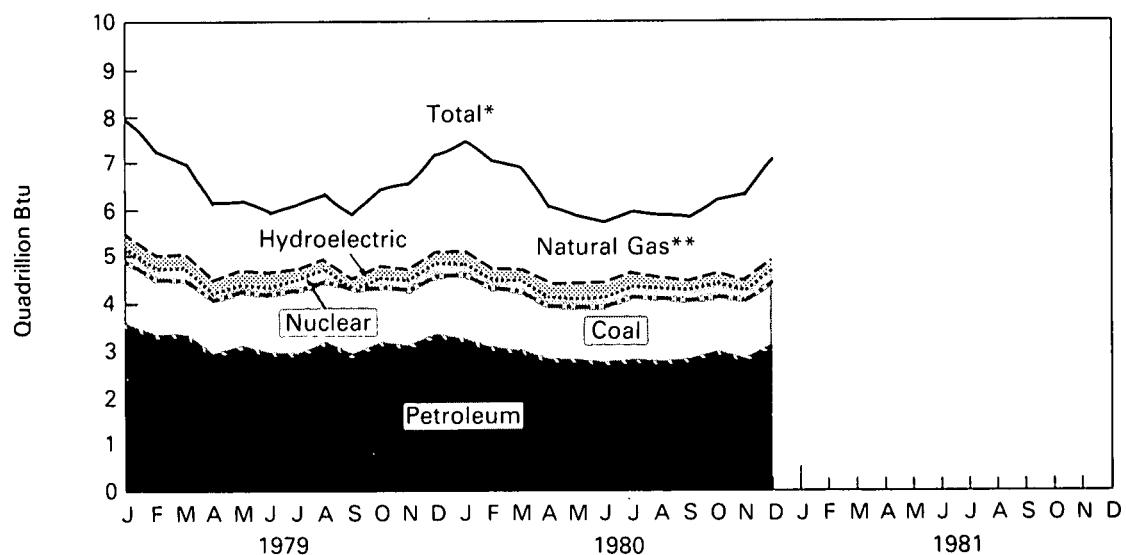
## **Executive Summary**

## **Consumption of Energy by Type**

Yearly



## Monthly



\*Btu equivalents for all fuels were cumulated to create total.

**\*\*Includes net imports of coal coke and other.**

# Executive Summary

## Net Imports of Energy by Type<sup>1</sup>

		Coal <sup>2</sup>	Crude Oil <sup>3</sup>	Refined Petroleum Products <sup>4</sup>	Natural Gas (Dry)	Electricity <sup>5</sup>	Coal Coke	Net Imports	Yearly Cumulative Net Imports of Energy
Quadrillion (10 <sup>15</sup> ) Btu									
1973	TOTAL	(1.442)	6.883	6.097	0.981	0.148	(0.008)	12.659	
1974	TOTAL	R(1.585)	7.389	5.273	0.907	0.133	0.059	R12.175	
1975	TOTAL	(1.766)	8.708	3.800	0.904	0.064	0.014	11.725	
1976	TOTAL	(1.590)	11.221	3.982	0.922	0.089	0.000	14.625	
1977	TOTAL	(1.424)	13.921	4.321	0.981	0.182	0.015	17.995	
1978	TOTAL	(1.023)	13.125	3.932	0.941	0.206	0.131	17.311	
1979	January	(0.093)	R1.215	R0.361	R0.100	R0.018	0.004	R1.606	R1.606
	February	(0.067)	R1.014	R0.304	R0.096	0.016	0.003	R1.366	R2.972
	March	(0.122)	R1.082	R0.386	R0.112	R0.018	0.002	R1.478	R4.450
	April	(0.138)	R1.037	R0.252	R0.105	0.017	0.005	R1.279	R5.729
	May	(0.165)	R1.097	R0.283	R0.103	R0.018	0.011	R1.347	R7.076
	June	(0.156)	R1.118	R0.252	R0.100	0.017	0.010	R1.340	R8.416
	July	(0.168)	R1.145	R0.308	R0.102	R0.018	0.008	R1.414	R9.830
	August	(0.160)	R1.182	R0.281	R0.097	R0.018	0.009	R1.426	R11.256
	September	(0.134)	R1.090	R0.236	R0.097	0.017	0.008	R1.314	R12.570
	October	(0.197)	R1.209	R0.279	R0.108	R0.018	0.004	R1.420	R13.990
	November	(0.163)	R1.040	R0.290	R0.115	0.017	0.000	R1.299	R15.290
	December	(0.166)	R1.099	R0.370	R0.110	R0.018	0.002	R1.433	R16.723
	TOTAL	(1.729)	R13.328	R3.603	R1.243	R0.212	0.066	R16.723	
1980	January	(0.117)	R1.089	R0.316	0.118	R0.018	0.003	R1.428	R1.428
	February	(0.104)	R0.948	R0.284	R0.112	R0.017	(0.001)	R1.256	R2.683
	March	(0.150)	R0.984	R0.266	R0.107	R0.018	(0.003)	R1.222	R3.906
	April	(0.202)	R0.931	R0.207	0.088	0.017	(0.005)	R1.036	R4.941
	May	(0.227)	R0.858	R0.218	R0.067	R0.018	(0.006)	R0.928	R5.870
	June	(0.237)	R0.892	R0.196	0.059	0.017	(0.004)	R0.922	R6.792
	July	(0.221)	R0.794	R0.199	0.060	R0.018	(0.008)	R0.845	R7.637
	August	(0.246)	R0.837	R0.205	0.057	R0.018	(0.003)	R0.868	R8.505
	September	(0.226)	R0.765	R0.216	0.056	0.017	(0.004)	R0.824	R9.329
	October	(0.251)	R0.779	R0.222	R0.073	R0.018b	R0.834		R10.163
	November	(0.242)	R0.745	R0.245	0.085	0.017	(0.002)	R0.848	R11.011
	December	R(0.220)	R0.835	R0.255	R0.092	R0.018	(0.001)	R0.979	R11.990
	TOTAL	R(2.444)	R10.456	R2.828	R0.975	R0.212	(0.037)	R11.990	

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Net imports = imports minus exports. Parentheses indicate exports are greater than imports.

<sup>2</sup>Includes bituminous coal, lignite, and anthracite.

<sup>3</sup>Includes crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

<sup>4</sup>Includes refined petroleum products, unfinished oils, natural gasoline, and plant condensate.

<sup>5</sup>Only yearly totals are available for electricity imports and exports of data. Figures shown are estimates derived by dividing the yearly net import total by the number of days in the year and multiplying by the number of days in the month. Annual data for 1979 are used in estimating 1980 data until actual annual data become available for 1980.

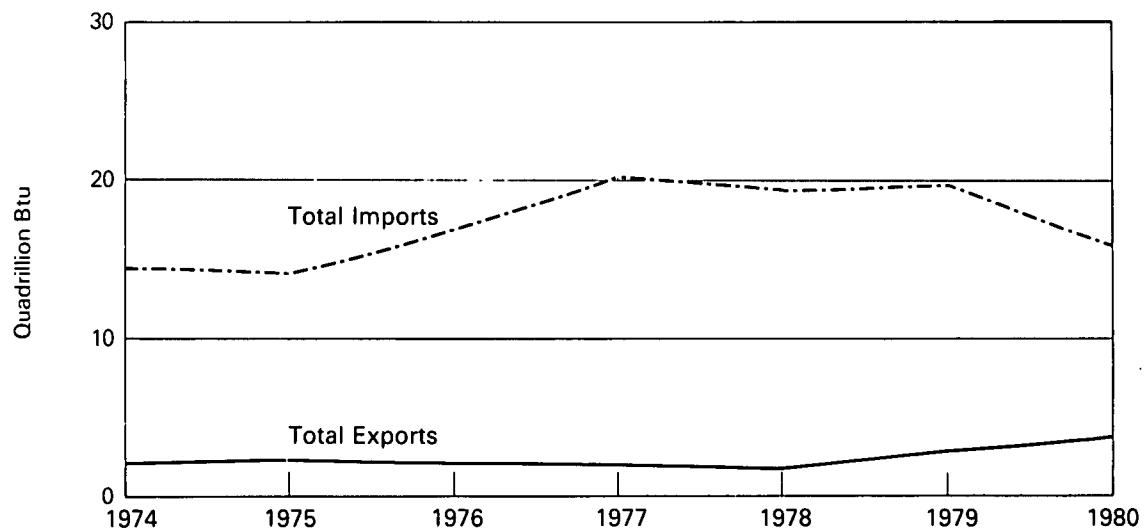
R = Revised data.

Source: \*Energy Information Administration calculations based on data reported elsewhere in this publication.

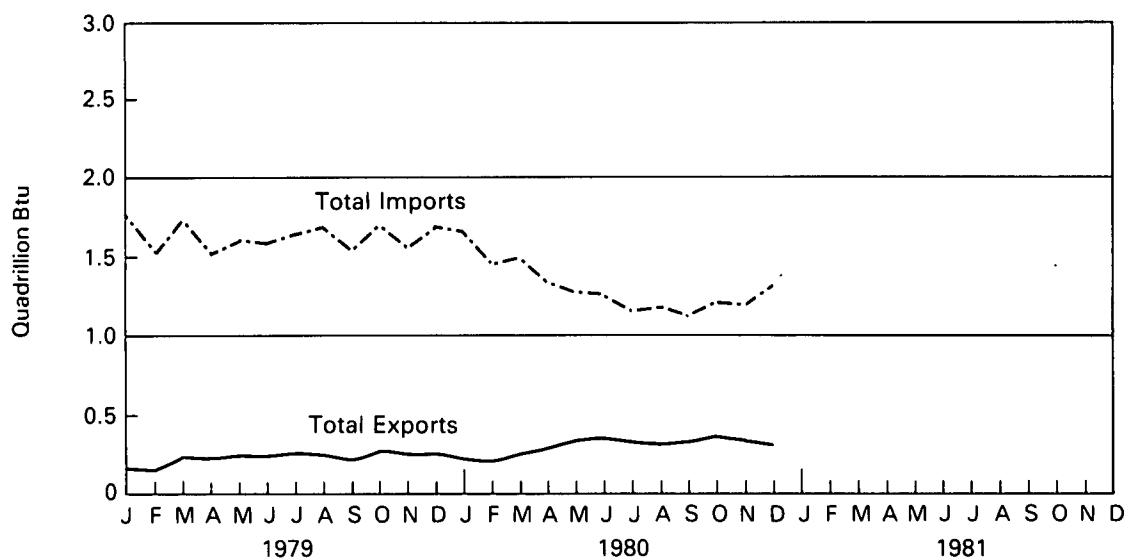
## **Executive Summary**

### **Energy Imports and Exports**

Yearly



Monthly



## Executive Summary

### Merchandise Trade Value<sup>1</sup>

	Exports				Imports			
	Energy	Manufactured Products	Agricultural, Chemical, and Other	Total	Energy	Manufactured Products	Agricultural, Chemical, and Other	Total
Million dollars								
<b>1973 TOTAL</b>	<b>1,671</b>	<b>38,982</b>	<b>29,643</b>	<b>70,296</b>	<b>8,173</b>	<b>42,537</b>	<b>19,122</b>	<b>69,832</b>
<b>1974 TOTAL</b>	<b>3,444</b>	<b>54,704</b>	<b>39,085</b>	<b>97,233</b>	<b>25,454</b>	<b>51,205</b>	<b>23,989</b>	<b>100,648</b>
<b>1975 TOTAL</b>	<b>4,470</b>	<b>62,260</b>	<b>39,832</b>	<b>106,562</b>	<b>26,476</b>	<b>47,384</b>	<b>22,714</b>	<b>96,574</b>
<b>1976 TOTAL</b>	<b>4,226</b>	<b>67,282</b>	<b>42,159</b>	<b>113,667</b>	<b>33,996</b>	<b>60,004</b>	<b>27,010</b>	<b>121,010</b>
<b>1977 TOTAL</b>	<b>4,184</b>	<b>69,339</b>	<b>45,484</b>	<b>119,007</b>	<b>44,537</b>	<b>71,583</b>	<b>31,550</b>	<b>147,670</b>
<b>1978 TOTAL</b>	<b>3,881</b>	<b>81,850</b>	<b>55,310</b>	<b>141,041</b>	<b>42,096</b>	<b>93,887</b>	<b>35,996</b>	<b>171,979</b>
<b>1979</b>								
January	350	7,035	4,964	12,349	4,228	8,392	3,227	15,847
February	292	7,446	4,966	12,705	3,527	7,480	2,772	13,779
March	436	8,843	6,020	15,299	3,948	8,432	3,385	15,765
April	467	8,038	5,506	14,011	4,241	8,550	3,381	16,172
May	471	8,474	5,584	14,530	4,165	8,690	3,655	16,510
June	500	8,527	6,056	15,083	4,528	9,247	3,655	17,429
July	534	7,880	6,078	14,492	5,074	8,778	3,261	17,113
August	501	7,981	6,236	14,718	5,460	8,988	3,482	17,931
September	438	8,086	6,144	14,669	6,084	8,539	3,455	18,078
October	567	9,070	7,353	16,991	6,549	9,253	3,430	19,233
November	522	8,849	7,578	16,948	5,409	9,363	3,883	18,656
December	543	9,050	7,039	16,632	6,783	9,037	3,924	19,744
<b>TOTAL</b>	<b>5,621</b>	<b>99,279</b>	<b>73,527</b>	<b>178,426</b>	<b>59,998</b>	<b>104,748</b>	<b>41,510</b>	<b>206,256</b>
<b>1980</b>								
January	481	8,837	6,696	16,015	6,559	9,772	3,801	20,132
February	436	9,684	6,556	16,675	7,742	9,226	3,671	20,639
March	567	10,870	7,865	19,302	7,392	9,801	3,848	21,041
April	631	10,481	7,691	18,803	6,346	9,543	3,737	19,626
May	737	10,574	7,079	18,390	6,895	9,791	3,818	20,503
June	730	10,570	7,000	18,300	6,938	9,745	3,837	20,520
July	707	9,669	6,491	16,867	5,792	9,797	3,736	19,324
August	703	9,974	6,947	17,623	6,236	9,195	3,428	18,859
September	710	10,158	6,632	17,500	5,831	9,442	3,806	19,079
October	755	11,271	7,483	19,509	6,231	10,067	3,970	20,268
November	785	10,415	7,044	18,244	5,880	9,862	3,792	19,533
December	741	10,649	7,820	19,210	7,218	10,208	3,886	21,312
<b>TOTAL</b>	<b>7,982</b>	<b>123,151</b>	<b>85,303</b>	<b>216,436</b>	<b>79,058</b>	<b>116,447</b>	<b>45,330</b>	<b>240,834</b>
<b>1981 January</b>	<b>620</b>	<b>9,431</b>	<b>7,546</b>	<b>17,596</b>	<b>8,014</b>	<b>10,539</b>	<b>4,024</b>	<b>22,577</b>

Note: The U.S. trade statistics include the 50 States, the District of Columbia, and Puerto Rico, except data on shipments between the United States, Puerto Rico, and U.S. possessions, between U.S. possessions and foreign countries, shipments to U.S. Armed Forces and diplomatic missions abroad for their own use and American goods returned to the United States by its Armed Forces, in transit shipments, etc. Beginning with January 1981 statistics, data on the U.S. Virgin Islands' trade with foreign countries are included.

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

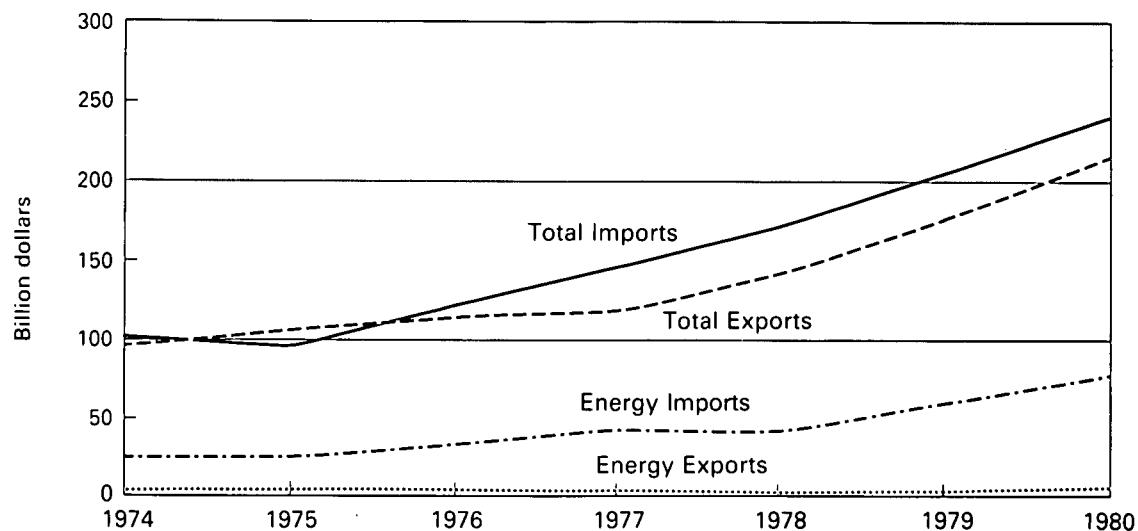
<sup>1</sup>Data presented are free alongside ship (f.a.s.) basis and are unadjusted for seasonality and working days. Beginning January 1979, the data excludes U.S. Department of Defense Military Assistance Program Grant-Aid Shipments. Commodity categories shown above include groups of BOC sections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

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

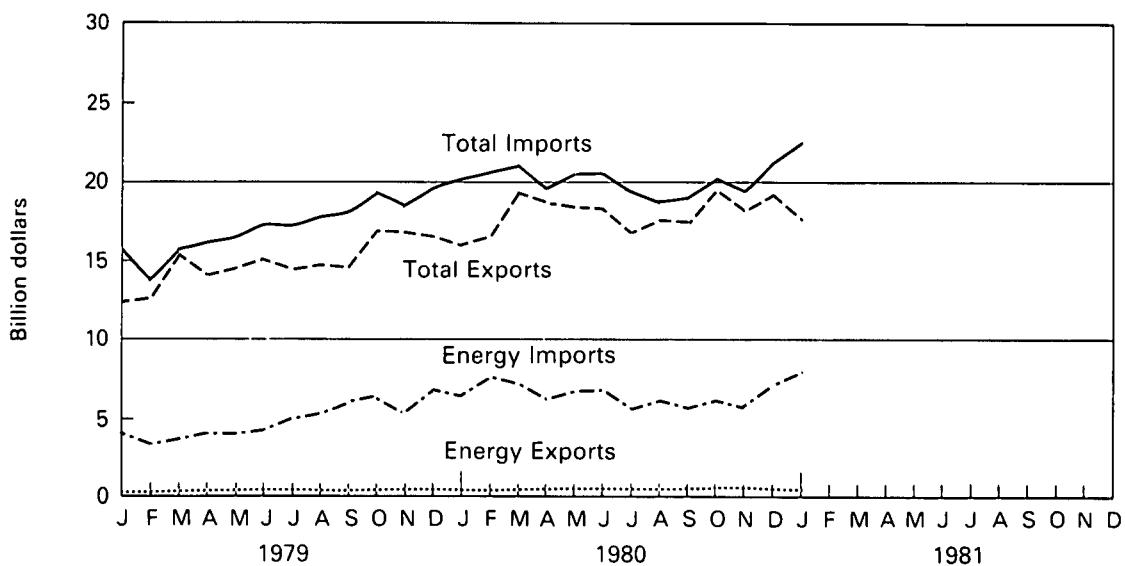
## Executive Summary

### Merchandise Trade Value

Yearly



Monthly



# Executive Summary

## Heating Degree-Days<sup>1</sup>

Petroleum Administration For Defense (PAD) Districts	January 26 through February 22					Cumulative July 1 through February 22				
	1981	1980 <sup>2</sup>	Normal (1941-70) <sup>2</sup>			1980-81	1979-80 <sup>2</sup>	Normal (1941-70) <sup>2</sup>		
PAD District I New England Conn., Maine, Mass., N.H., R.I., Vt.	738 892	921 1,118	(-19.9) (-20.3)	821 1,061	(-10.1) (-16.0)	3,547 4,632	3,141 4,083	(12.9) (13.5)	3,236 4,241	(9.6) (9.2)
Middle Atlantic Del., Md., N.J., N.Y., Pa.	863	1,060	(-18.6)	966	(-10.7)	4,140	3,662	(13.0)	3,792	(9.2)
Lower Atlantic Fla., Ga., N.C., S.C., Va., W. Va.	484	626	(-22.7)	499	(-3.0)	2,180	1,943	(12.2)	1,960	(11.2)
PAD District II Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, Okla., S. Dak., Tenn., Wisc.	1,008	1,221	(-17.4)	1,047	(-3.7)	4,388	4,268	(2.8)	4,311	(1.8)
Pad District III Ala., Ark., La., Miss., N. Mex., Tex.	455	551	(-17.5)	452	(0.5)	1,924	1,829	(5.2)	1,791	(7.4)
PAD District IV Colo., Idaho, Mont., Utah, Wyo.	888	1,050	(-15.5)	967	(-8.2)	3,829	4,285	(-10.6)	4,423	(-13.4)
PAD District V Ariz., Calif., Nev., Oreg., Wash.	316	339	(-6.8)	417	(-24.1)	1,443	1,503	(-4.0)	1,927	(-25.1)
<b>U.S. AVERAGE<sup>3</sup></b>	<b>737</b>	<b>896</b>	<b>(-17.8)</b>	<b>798</b>	<b>(-7.6)</b>	<b>3,339</b>	<b>3,151</b>	<b>(6.0)</b>	<b>3,260</b>	<b>(2.4)</b>

<sup>1</sup>See Explanatory Note 6 for explanation of degree-days.

<sup>2</sup>Percentage change in parentheses.

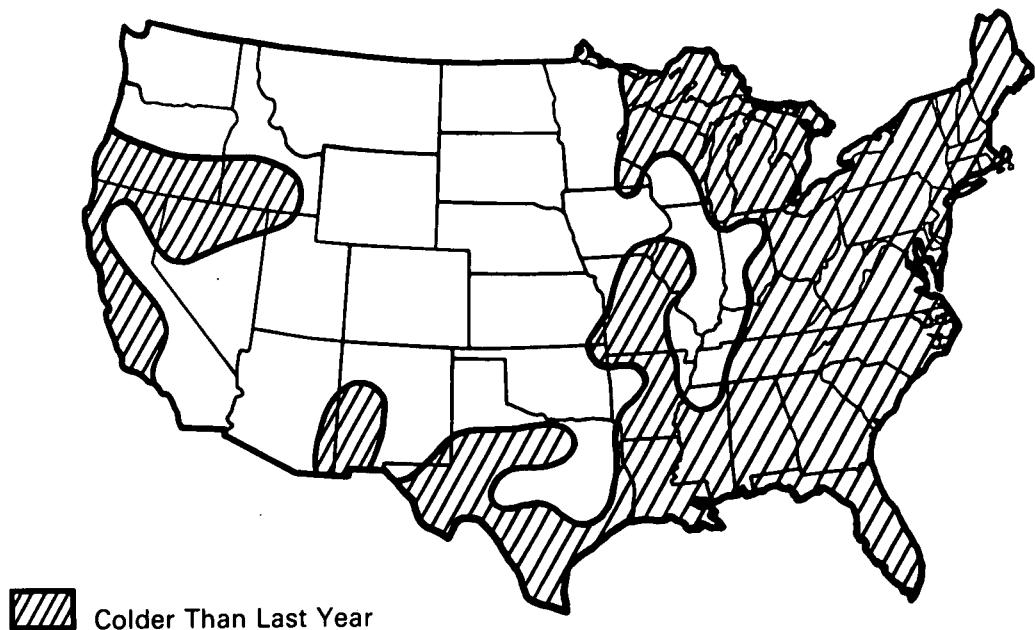
<sup>3</sup>Excludes Alaska and Hawaii.

## **Executive Summary**

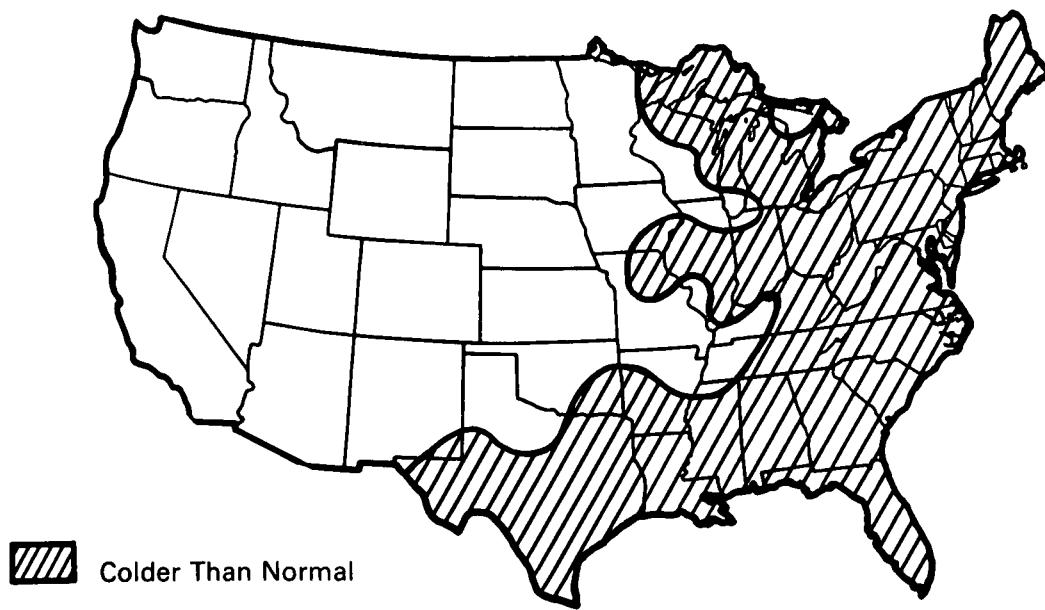
### **Heating Degree-Days**

#### **Heating Degree-Days Accumulated from July 1 through February 22**

##### Departure from Last Year



##### Departure from Normal



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Source: • Department of Commerce — NOAA.

# Executive Summary

## Energy Indicators—

Energy Consumption per GNP Dollar						U.S. Dependence on Petroleum Imports <sup>3</sup>					
		Energy Consumption per GNP Dollar <sup>1</sup>	Yearly Rate of Energy Consumption	Gross National Product (Annual rate)		Direct Imports			Domestic Petroleum Products Supplied		
ANNUAL RATE				Current Dollars	1972 Dollars <sup>2</sup>	From Arab/OPEC Countries	From OPEC Countries	Total All Countries			
Quadrillion Btu						Million barrels per day					
1973	AVERAGE	R59.4	74.609	R1.326	R1.255	R0.92	2.99	6.26	17.31		
1974	AVERAGE	R58.3	72.759	R1.434	R1.248	0.75	3.28	6.11	16.65		
1975	AVERAGE	R57.3	70.707	R1.549	R1.234	1.38	3.60	6.06	16.32		
1976	AVERAGE	R57.3	R74.510	R1.718	R1.300	2.42	5.07	7.31	17.46		
1977	AVERAGE	R55.6	R76.332	R1.918	R1.372	3.19	6.19	8.81	18.43		
1978	AVERAGE	R54.4	R78.150	R2.156	R1.437	2.96	5.75	8.36	18.85		
1979	1st Qtr	R60.8	R89.993	R2.341	R1.480	R3.26	R5.88	R8.84	R20.37		
	2nd Qtr	R49.9	R73.477	R2.375	R1.473	R3.17	R5.45	R8.10	R17.68		
	3rd Qtr	R48.9	R72.778	R2.444	R1.488	R2.99	R5.74	R8.39	R17.57		
	4th Qtr	R53.5	R79.804	R2.496	R1.491	R2.81	R5.48	R8.49	R18.47		
	AVERAGE	R53.2	R78.968	R2.414	R1.483	R3.06	R5.64	R8.46	R18.51		
1980	1st Qtr	R57.2	R85.877	R2.572	R1.502	3.00	4.97	7.90	R18.27		
	2nd Qtr	R48.3	R70.630	R2.565	R1.463	2.59	4.28	6.81	R16.36		
	3rd Qtr	R47.6	R70.053	R2.637	R1.472	R2.26	R3.74	R6.11	R16.07		
	4th Qtr	52.7	78.547	2.741	1.490	2.25	3.95	6.36	17.43		
	AVERAGE	51.5	76.267	2.629	1.482	2.52	4.23	6.79	17.03		

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Thousand Btu per 1972 constant dollar.

<sup>2</sup>Current dollars converted to 1972 constant dollars by the formula:

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

The Gross National Product deflators (1972 = 100) were determined by the Department of Commerce, Bureau of Economic Analysis. GNP rates are from the Business Conditions Digest published by the Bureau of Economic Analysis.

<sup>3</sup>Beginning in October 1977 Strategic Petroleum Reserve imports are included.

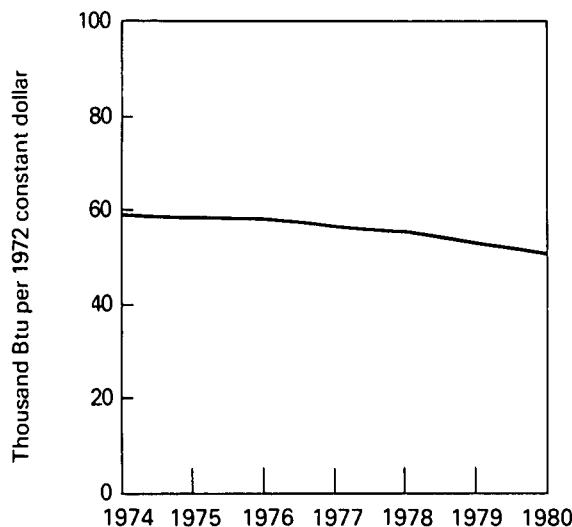
R = Revised data.

Note: This page is updated every quarter, during the months of March, June, September, and December. In other months, data appearing elsewhere in this publication are more current.

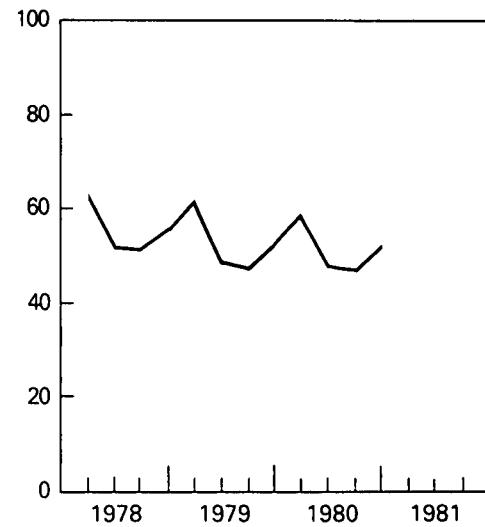
## Executive Summary

### Energy Consumption per GNP Dollar

Yearly

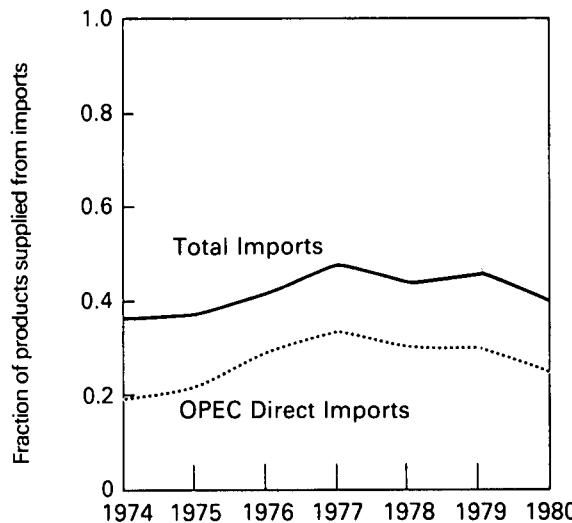


Quarterly

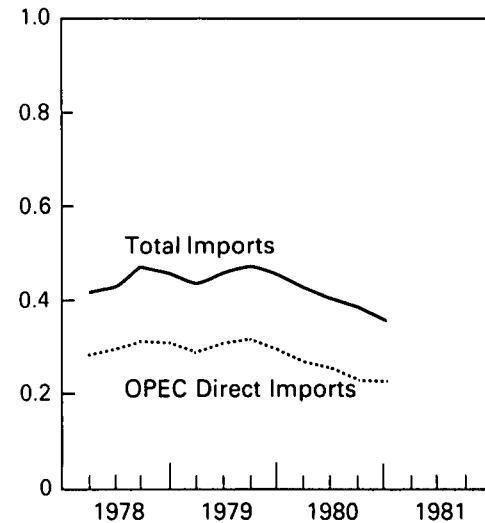


### U.S. Dependence on Petroleum Imports

Yearly



Quarterly

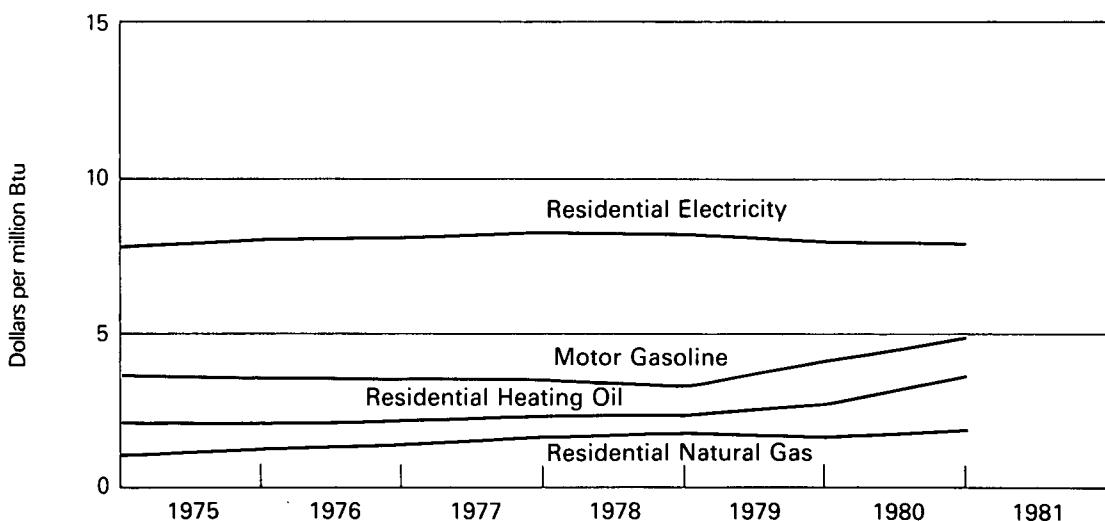


## Executive Summary

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

		Leaded Regular Motor Gasoline		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
		cent/gal	\$/MMBtu	cent/gal	\$/MMBtu	cent/Mcf	\$/MMBtu	cent/kWh	\$/MMBtu
1973	AVERAGE	NA	NA	NA	NA	121.2	1.19	2.39	7.00
1974	AVERAGE	45.1	3.61	29.4	2.12	121.4	1.19	2.63	7.71
1975	AVERAGE	44.1	3.53	29.3	2.11	132.8	1.30	2.73	8.00
1976	AVERAGE	43.4	3.47	R29.8	R2.15	145.4	1.43	2.74	8.03
1977	AVERAGE	42.9	3.43	R31.8	R2.29	162.2	1.59	2.80	R8.21
1978	AVERAGE	40.1	3.21	31.7	2.29	164.4	1.62	2.76	R8.09
1979	AVERAGE	R49.4	R3.95	R37.8	R2.73	R171.5	R1.68	R2.67	R7.83
1980	1st Qtr	R60.9	R4.87	49.8	3.59	R190.9	1.88	2.53	7.42
	2nd Qtr	R62.1	R4.97	49.8	3.59	R197.2	1.94	2.75	8.06
	3rd Qtr	60.6	4.85	49.2	3.55	R207.6	2.04	2.86	8.38
	4th Qtr	58.2	4.65	50.5	3.64	198.9	1.95	2.73	8.00
	AVERAGE	60.5	4.84	49.6	3.58	198.8	1.95	2.72	7.97

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



Geographic coverage: the 50 United States and District of Columbia.

NA = Not available. R = Revised data.

Note: This page is updated every quarter, during the months of March, June, September, and December. In other months, data appearing elsewhere in this publication are more current.

Sources: • Motor Gasoline—Bureau of Labor Statistics.

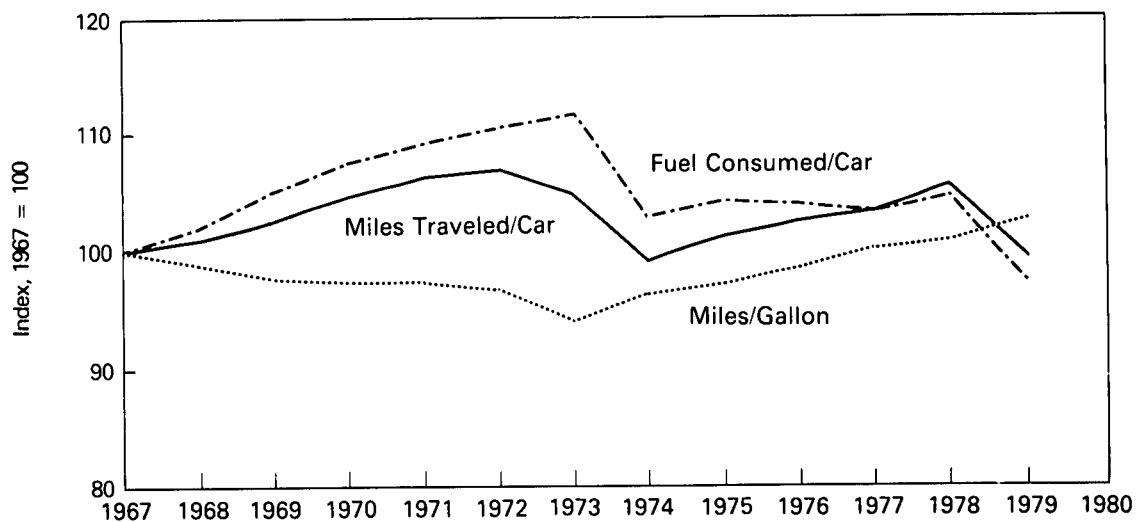
- Heating Oil—1974 and 1975, Form CLC-92, "No. 2 Heating Oil Monthly Price Adjustment Report," and 1976 forward, FEA Form P112-M-1, and EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."
- Natural Gas—1973 through 1979 annual numbers, Bureau of Mines and Energy Information Administration Form 1340-A, "Supply and Disposition of Natural Gas to Non-Producing Distributors;" and Form 1341-A, "Supply and Disposition of Natural Gas to Producers and Pipelines;" 1980 quarterly and annual numbers, Bureau of Labor Statistics.
- Electricity—1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: FERC Form 5, "Electric Utility Company Monthly Statement."
- Deflator—The Consumer Price Index.

## Executive Summary

### Energy Indicator — U.S. Passenger Car Efficiency

	Average Fuel Consumed per Car		Average Miles Traveled per Car		Average Miles Traveled per Gallon of Fuel Consumed	
	Gallons	Index	Miles	Index	Miles	Index
1967	684	100.0	9,531	100.0	13.93	100.0
1968	698	102.0	9,627	101.0	13.79	99.0
1969	718	105.0	9,782	102.6	13.63	97.8
1970	735	107.5	9,978	104.7	13.57	97.4
1971	746	109.1	10,121	106.2	13.57	97.4
1972	755	110.4	10,184	106.9	13.49	96.8
1973	763	111.5	9,992	104.8	13.10	94.0
1974	704	102.9	9,448	99.1	13.43	96.4
1975	712	104.1	9,634	101.1	13.53	97.1
1976	711	103.9	9,763	102.4	13.72	98.5
1977	706	103.2	9,839	103.2	13.94	100.1
1978	715	104.5	10,046	105.4	14.06	100.9
1979	664	97.1	9,485	99.5	14.29	102.6

U.S. Passenger Car Efficiency Index



Geographic coverage: the 50 United States and District of Columbia.

Source: • U.S. Department of Transportation, Federal Highway Administration, Federal Highway Statistics Division, "Highway Statistics", Table VM-1.



# Part 2

# Consumption

## Energy Consumption

Total U.S. energy consumption in 1980 dropped to 76.3 quadrillion Btu, 3.4 percent below 1979 and a 2.4 percent decrease from the 1978 consumption level.

The Residential and Commercial Sector consumption was 27.3 quadrillion Btu in 1980, a 0.5 percent decrease from the amount consumed last year and a 2.9 percent decrease from the amount consumed in 1978. The Residential and Commercial Sector consumed 35.8 percent of the total consumption for 1980, up from the sector's 34.8 percent share in 1979.

The Industrial Sector consumption was 30.3 quadrillion Btu in 1980, down 4.0 percent from 1979, but up 3.2 percent from the consumption level in 1978. The Industrial Sector consumed 39.7 percent of the 1980

total, as compared to the 40.0 percent share in 1979.

The Transportation Sector consumption was 18.6 quadrillion Btu in 1980, down 6.6 percent from 1979 and down 9.6 percent from the consumption level in 1978. This sector consumed 24.4 percent of the 1980 total, as compared to a 25.3 percent share in 1979.

The Electric Utilities consumption was an estimated 24.8 quadrillion Btu of energy in 1980, 2.5 percent higher than in the previous year, and 6.0 percent higher than the energy consumed in 1978. Coal contributed 48.8 percent of the energy consumed by Electric Utilities in 1980, while natural gas contributed 15.3 percent, hydroelectric power 12.5 percent, petroleum 12.1 percent, nuclear power 10.9 percent, and geothermal, wood and waste 0.5 percent.

Revisions in end-use consumption estimates result from (a) improvements to procedures for estimating liquified petroleum gas end-use (see page 26 for details), (b) updates to 1979 and 1980 Btu conversion factors, and (c) changes in rounding procedures to achieve compatibility among EIA's summary publications.

## Consumption

### Energy Consumption Summary for December 1980 Quadrillion (10<sup>16</sup>) Btu

Primary Energy Source	Sector				
	Residential and Commercial	Industrial	Transportation	Electric Utilities	TOTAL
Coal	0.030	0.294	0.000	1.091	1.415
Natural Gas (dry)	1.025	0.815	0.063	0.240	2.144
Petroleum	0.405	0.926	1.583	0.283	3.197
Hydroelectric	0.000	0.002	0.000	0.251	0.253
Nuclear	0.000	0.000	0.000	0.238	0.238
Net Coke Imports	0.000	(0.001)	0.000	0.000	(0.001)
Other	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.011</u>	<u>0.011</u>
<b>TOTAL PRIMARY ENERGY</b>	<b>1.460</b>	<b>2.036</b>	<b>1.646</b>	<b>2.114</b>	<b>7.256</b>
Electricity Sales	<u>0.364</u>	<u>0.234</u>	<u>0.001</u>	(0.599)	
Net Energy Consumption	1.824	2.270	1.647		5.742
Electrical Energy Losses	<u>0.921</u>	<u>0.591</u>	<u>0.002</u>	(1.514)	<u>1.514</u>
<b>TOTAL ENERGY CONSUMED</b>	<b>2.745</b>	<b>2.861</b>	<b>1.650</b>		<b>7.256</b>

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

Notes and sources for this table and all other tables in this section are provided on the last page of this section.

# Consumption

## Consumption of Energy by the End-Use Sector<sup>1</sup>

		Residential and Commercial	Industrial	Transportation	Total Energy Consumed
Quadrillion (10 <sup>15</sup> ) Btu					
1973	TOTAL	R26.613	R29.474	R18.519	74.609
1974	TOTAL	R25.974	R28.755	R18.026	72.759
1975	TOTAL	R26.014	R26.512	R18.177	70.707
1976	TOTAL	R27.213	R28.230	R19.063	R74.510
1977	TOTAL	R27.569	R29.024	R19.735	R76.332
1978	TOTAL	R28.159	R29.373	R20.612	R78.150
1979	January	R3.212	R2.930	R1.791	R7.934
	February	R3.064	R2.495	R1.703	R7.263
	March	R2.678	R2.542	R1.772	R6.993
	April	R2.150	R2.395	R1.598	R6.143
	May	R1.934	R2.589	R1.672	R6.194
	June	R1.866	R2.509	R1.608	R5.983
	July	R1.953	R2.560	R1.604	R6.117
	August	R2.043	R2.598	R1.689	R6.330
	September	R1.848	R2.489	R1.559	R5.896
	October	R1.949	R2.777	R1.663	R6.390
	November	R2.138	R2.796	R1.601	R6.535
	December	R2.627	R2.872	R1.690	R7.189
	TOTAL	R27.462	R31.551	R19.950	R78.968
1980	January	R2.890	R2.902	R1.633	R7.425
	February	R2.848	R2.602	R1.569	R7.020
	March	R2.663	R2.647	R1.597	R6.907
	April	R2.124	R2.348	R1.548	R6.021
	May	R1.880	R2.409	R1.542	R5.831
	June	R1.906	R2.317	R1.486	R5.709
	July	R2.107	R2.304	R1.546	R5.957
	August	R2.096	R2.241	R1.513	R5.851
	September	R1.958	R2.359	R1.483	R5.801
	October	R1.975	R2.631	R1.575	R6.182
	November	R2.144	R2.678	R1.484	R6.306
	December	R2.745	R2.861	R1.650	R7.256
	TOTAL	R27.337	R30.300	R18.625	R76.267

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>See Explanatory Note 5 for definitions of the Residential and Commercial, Industrial, and Transportation Sectors. The methodology used for sector calculations is provided in the Notes and Sources on the last page of this section.

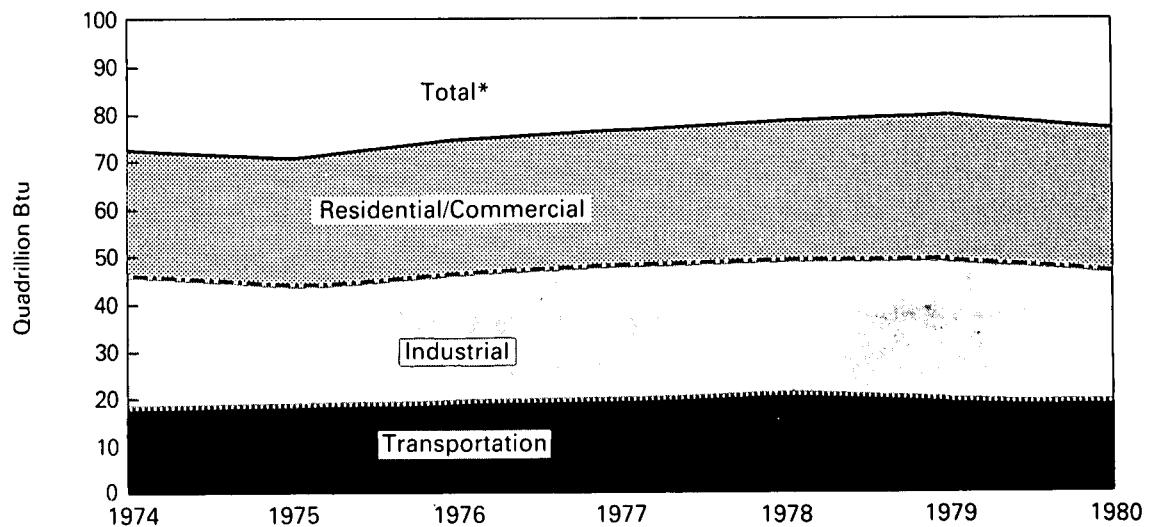
R=Revised data.

Source: \*See Notes and Sources on the last page of this section.

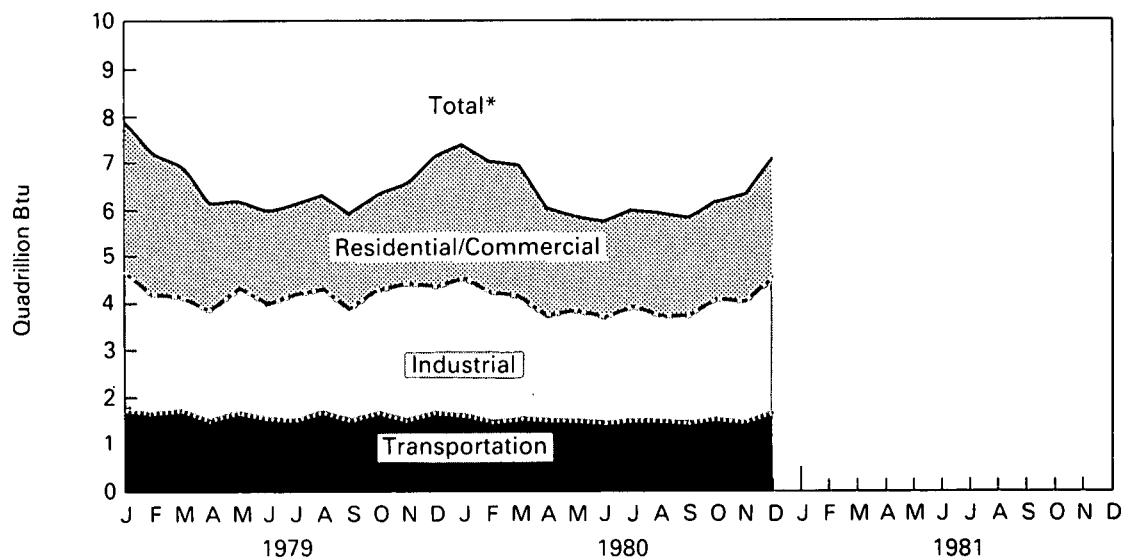
# Consumption

## Consumption of Energy by End-Use Sector

Yearly



Monthly



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

## Consumption

### Consumption of Energy by the Residential and Commercial Sector<sup>1</sup>

		Coal	Natural Gas (Dry)	Petroleum	Electricity Sales	Electrical Energy Losses <sup>2</sup>	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>15</sup> ) Btu								
1973	TOTAL	0.291	7.626	R6.741	3.495	8.460	R26.613	
1974	TOTAL	0.293	7.518	R6.141	3.475	8.548	R25.974	
1975	TOTAL	0.239	7.581	R5.792	3.588	8.814	R26.014	
1976	TOTAL	0.227	7.866	R6.302	3.729	9.089	R27.213	
1977	TOTAL	0.225	7.461	R6.245	3.936	9.702	R27.569	
1978	TOTAL	0.250	7.624	R6.268	4.100	9.918	R28.159	
1979	January	R0.032	R1.308	R0.490	R0.398	R0.985	R3.212	R3.212
	February	0.020	R1.347	R0.455	0.388	R0.855	R3.064	R6.276
	March	0.015	R1.027	R0.411	0.352	R0.873	R2.678	R8.955
	April	0.013	R0.737	R0.356	0.312	R0.731	R2.150	R11.104
	May	0.012	R0.466	R0.401	0.299	R0.756	R1.934	R13.038
	June	0.013	R0.326	R0.400	0.323	R0.804	R1.866	R14.904
	July	0.012	R0.263	R0.402	R0.365	R0.911	R1.953	R16.857
	August	0.011	R0.246	R0.438	0.393	R0.956	R2.043	R18.900
	September	0.014	R0.252	R0.398	0.370	R0.815	R1.848	R20.748
	October	R0.020	R0.367	R0.443	R0.321	R0.798	R1.949	R22.697
	November	0.023	R0.613	R0.406	0.315	R0.781	R2.138	R24.836
	December	0.025	R0.940	R0.428	0.348	R0.885	R2.627	R27.462
	TOTAL	<b>R0.210</b>	<b>R7.891</b>	<b>R5.027</b>	<b>R4.184</b>	<b>R10.150</b>	<b>R27.462</b>	
1980	January	0.025	1.113	R0.410	0.381	R0.960	R2.890	R2.890
	February	0.022	1.191	R0.384	0.375	R0.876	R2.848	R5.738
	March	R0.016	1.053	R0.359	R0.358	R0.876	R2.663	R8.401
	April	0.014	0.716	R0.312	0.319	R0.763	R2.124	R10.526
	May	0.009	0.450	R0.331	0.298	R0.793	R1.880	R12.406
	June	0.007	0.329	R0.343	0.334	R0.893	R1.906	R14.311
	July	0.009	R0.259	R0.355	0.410	R1.074	R2.107	R16.418
	August	0.008	0.240	R0.350	0.439	R1.059	R2.096	R18.514
	September	0.011	0.252	R0.370	R0.410	R0.915	R1.958	R20.472
	October	0.021	0.370	R0.407	0.343	R0.835	R1.975	R22.447
	November	R0.023	0.639	R0.362	0.322	R0.798	R2.144	R24.591
	December	R0.030	R1.025	R0.405	0.364	R0.921	R2.745	R27.337
	TOTAL	<b>R0.194</b>	<b>R7.637</b>	<b>R4.389</b>	<b>4.354</b>	<b>R10.762</b>	<b>R27.337</b>	

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>The Residential and Commercial Sector consists of housing units, non-manufacturing business establishments (e.g., wholesale and retail businesses), health and educational institutions, and government office buildings. Notes on the methodology used for sector calculations are provided in the Notes and Sources on the last page of this section.

<sup>2</sup>Proportion of total electrical energy losses incurred in the generation and transmission of electricity plus plant use and unaccounted for that are attributed to this sector.

R=Revised data.

Source: • See Notes and Sources on the last page of this section.

## Consumption

### Consumption of Energy by the Industrial Sector<sup>1</sup>

		Coal	Natural Gas (Dry)	Petro- leum	Hydro- electric	Net Coke Imports <sup>2</sup>	Electricity Sales	Electrical Energy Losses <sup>3</sup>	Total Energy Con- sumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>18</sup> ) Btu										
1973	TOTAL	4.350	10.397	R6.683	0.035	(0.008)	2.341	5.676	R29.474	
1974	TOTAL	4.057	10.012	R6.506	0.033	0.059	2.337	5.751	R28.755	
1975	TOTAL	3.801	8.531	R6.160	0.032	0.014	2.304	5.669	R26.512	
1976	TOTAL	R3.792	8.768	R6.951	0.033	0.000	2.525	6.162	R28.230	
1977	TOTAL	3.494	8.642	R7.692	R0.033	0.015	2.635	6.513	R29.024	
1978	TOTAL	3.462	8.540	R7.840	R0.032	0.131	2.732	6.637	R29.373	
1979	January	R0.319	R0.860	R0.935	0.003	0.004	0.233	R0.576	R2.930	R2.930
	February	R0.298	R0.602	R0.850	0.003	0.003	0.231	R0.509	R2.495	R5.425
	March	R0.303	R0.567	R0.838	0.003	0.002	0.238	R0.590	R2.542	R7.967
	April	R0.292	R0.573	R0.723	0.003	0.005	0.239	R0.560	R2.395	R10.362
	May	R0.293	R0.664	R0.751	R0.004	0.011	0.245	R0.621	R2.589	R12.950
	June	R0.285	R0.641	R0.714	0.003	0.010	0.245	R0.611	R2.509	R15.459
	July	R0.322	R0.674	R0.708	0.003	0.008	0.242	R0.604	R2.560	R18.019
	August	R0.301	R0.694	R0.748	0.003	0.009	0.246	R0.598	R2.598	R20.617
	September	R0.289	R0.714	R0.699	R0.002	0.008	0.242	R0.534	R2.489	R23.106
	October	R0.300	R0.841	R0.780	R0.002	0.004	0.244	R0.605	R2.777	R25.883
	November	R0.304	R0.869	R0.792	0.003	0.000	0.238	R0.591	R2.796	R28.679
	December	R0.334	R0.856	R0.863	0.003	0.002	0.230	R0.584	R2.872	R31.551
	TOTAL	R3.641	R8.554	R9.401	R0.034	0.066	2.873	R6.983	R31.551	
1980	January	R0.315	R0.858	R0.911	0.003	0.003	0.231	R0.581	R2.902	R2.902
	February	R0.295	R0.708	R0.819	0.003	(0.001)	0.233	R0.545	R2.602	R5.504
	March	R0.300	R0.733	R0.802	0.003	(0.003)	0.236	R0.576	R2.647	R8.151
	April	R0.281	R0.573	R0.709	0.003	(0.005)	0.232	R0.556	R2.348	R10.499
	May	R0.275	R0.602	R0.695	0.003	(0.006)	0.229	R0.610	R2.409	R12.908
	June	R0.259	R0.564	R0.658	0.003	(0.004)	0.228	R0.608	R2.317	R15.225
	July	R0.271	R0.595	R0.629	0.003	(0.004)	0.224	R0.586	R2.304	R17.530
	August	R0.255	R0.574	R0.627	R0.002	(0.003)	0.230	R0.555	R2.241	R19.771
	September	R0.243	R0.666	R0.685	R0.002	(0.004)	0.237	R0.529	R2.359	R22.130
	October	R0.283	R0.846	R0.693	R0.002	(0.006)	0.237	R0.577	R2.631	R24.761
	November	R0.282	R0.872	R0.722	R0.002	(0.002)	0.231	R0.572	R2.678	R27.440
	December	R0.294	R0.815	R0.926	R0.002	(0.001)	R0.234	R0.591	R2.861	R30.300
	TOTAL	R3.354	R8.407	R8.876	R0.033	(0.037)	R2.781	R6.886	R30.300	

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>The Industrial Sector is made up of construction, manufacturing, agriculture, and mining establishments. Notes on the methodology used for sector calculations are provided in the Notes and Sources on the last page of this section.

<sup>2</sup>Net imports=imports minus exports. Parentheses indicate exports are greater than imports.

<sup>3</sup>Proportion of total electrical energy losses incurred in the generation and transmission of electricity plus plant use and unaccounted for that are attributed to this sector.

R=Revised data.

Source: •See Notes and Sources on the last page of this section.

# Consumption

## Consumption of Energy by the Transportation Sector<sup>1</sup>

		Coal	Natural Gas (Dry)	Petroleum	Electricity Sales	Electrical Energy Losses <sup>2</sup>	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>15</sup> ) Btu								
1973	TOTAL	0.003	0.743	R17.745	0.009	0.020	R18.519	
1974	TOTAL	0.002	0.685	R17.309	0.009	0.021	R18.026	
1975	TOTAL	0.001	0.595	R17.547	0.010	0.024	R18.177	
1976	TOTAL	( <sup>3</sup> )	0.559	R18.469	0.010	0.025	R19.063	
1977	TOTAL	( <sup>3</sup> )	0.543	R19.157	0.010	0.024	R19.735	
1978	TOTAL	( <sup>3</sup> )	0.539	R20.044	0.009	0.020	R20.612	
1979	January	( <sup>3</sup> )	0.073	R1.715	0.001	0.002	R1.791	R1.791
	February	( <sup>3</sup> )	R0.067	R1.634	0.001	0.002	R1.703	R3.494
	March	( <sup>3</sup> )	0.057	R1.712	0.001	0.002	R1.772	R5.267
	April	( <sup>3</sup> )	0.048	R1.547	0.001	0.002	R1.598	R6.864
	May	( <sup>3</sup> )	0.043	R1.626	0.001	0.002	R1.672	R8.536
	June	( <sup>3</sup> )	R0.040	R1.566	0.001	0.002	R1.608	R10.144
	July	( <sup>3</sup> )	0.040	R1.561	0.001	0.002	R1.604	R11.748
	August	( <sup>3</sup> )	R0.041	R1.645	0.001	0.002	R1.689	R13.437
	September	( <sup>3</sup> )	0.040	R1.516	0.001	0.002	R1.559	R14.996
	October	( <sup>3</sup> )	0.047	R1.613	0.001	0.002	R1.663	R16.659
	November	( <sup>3</sup> )	0.053	R1.544	0.001	0.002	R1.601	R18.260
	December	( <sup>3</sup> )	0.063	R1.624	0.001	0.002	R1.690	R19.950
	TOTAL	( <sup>3</sup> )	R0.612	R19.303	R0.010	R0.024	R19.950	
1980	January	( <sup>3</sup> )	0.069	R1.561	0.001	0.002	R1.633	R1.633
	February	( <sup>3</sup> )	0.066	R1.500	0.001	0.002	R1.569	R3.202
	March	( <sup>3</sup> )	0.063	R1.531	0.001	0.002	R1.597	R4.799
	April	( <sup>3</sup> )	0.047	R1.498	0.001	0.002	R1.548	R6.347
	May	( <sup>3</sup> )	0.041	R1.498	0.001	0.002	R1.542	R7.889
	June	( <sup>3</sup> )	0.038	R1.445	0.001	0.002	R1.486	R9.375
	July	( <sup>3</sup> )	0.039	R1.503	0.001	0.002	R1.546	R10.921
	August	( <sup>3</sup> )	0.038	R1.472	0.001	0.002	R1.513	R12.434
	September	( <sup>3</sup> )	0.039	R1.441	0.001	0.002	R1.483	R13.917
	October	( <sup>3</sup> )	0.047	R1.525	0.001	0.002	R1.575	R15.492
	November	( <sup>3</sup> )	R0.054	R1.427	0.001	0.002	R1.484	R16.975
	December	( <sup>3</sup> )	R0.063	R1.583	0.001	0.002	R1.650	R18.625
	TOTAL	( <sup>3</sup> )	R0.605	R17.985	R0.011	R0.025	R18.625	

Geographic coverage: the 50 United States and District of Columbia.  
 Totals may not equal sum of components due to independent rounding.

<sup>1</sup>The Transportation Sector consists of both private and public passenger and freight transportation, as well as government transportation, including military operations. Notes on the methodology used for sector calculations are provided in the Notes and Sources on the last page of this section.

<sup>2</sup>Proportion of total electrical energy losses incurred in the generation and transmission of electricity plus plant use and unaccounted for that are attributed to this sector.

<sup>3</sup>Since 1976 the amount of coal consumed by the Transportation Sector has been negligible.

R=Revised data.

Source: •See Notes and Sources on the last page of this section.

# Consumption

## Consumption of Energy by the Electric Utilities

	Coal <sup>1</sup>	Natural Gas (Dry)	Petro-leum	Hydro-electric power <sup>2</sup>	Nuclear Electric Power	Other <sup>3</sup>	Total Energy Consumed	Yearly Cumulative Energy Consumed
Quadrillion (10 <sup>12</sup> ) Btu								
1973 TOTAL	8.655	3.746	3.671	2.975	0.910	0.046	20.004	
1974 TOTAL	8.524	3.518	3.499	3.276	1.272	0.056	20.144	
1975 TOTAL	8.783	3.241	3.231	3.187	1.900	0.072	20.414	
1976 TOTAL	9.714	3.153	3.454	3.032	2.111	0.081	21.544	
1977 TOTAL	10.245	3.285	4.028	2.482	2.702	0.082	22.825	
1978 TOTAL	10.134	3.297	3.813	3.132	2.977	0.068	23.421	
1979 January	1.009	0.236	R0.367	0.279	0.299	0.007	R2.196	R2.196
February	0.892	0.235	R0.336	0.238	0.279	0.006	R1.985	R4.181
March	0.900	0.270	R0.329	R0.289	0.262	0.008	R2.057	R6.239
April	0.840	0.270	R0.247	0.282	0.198	0.007	R1.844	R8.083
May	0.894	0.286	R0.255	R0.320	0.162	0.007	R1.924	R10.006
June	0.946	0.331	R0.253	0.278	0.173	0.007	R1.987	R11.994
July	1.007	0.382	R0.249	R0.256	0.224	0.007	R2.125	R14.119
August	1.037	0.390	R0.259	R0.240	0.261	0.008	R2.195	R16.314
September	0.901	0.350	R0.255	0.215	0.235	0.007	R1.964	R18.278
October	0.917	0.334	R0.259	0.228	0.225	0.008	R1.972	R20.250
November	0.916	0.270	R0.276	R0.251	0.207	0.008	R1.928	R22.178
December	1.000	0.257	R0.307	0.255	0.222	0.009	R2.051	R24.229
TOTAL	11.258	3.610	R3.392	R3.132	2.748	0.089	R24.229	
1980 January	1.073	0.286	R0.295	R0.282	0.213	0.008	R2.156	R2.156
February	1.010	0.272	R0.295	R0.240	0.208	0.008	R2.033	R4.189
March	0.992	0.293	R0.269	R0.272	0.216	0.008	R2.050	R6.239
April	0.874	0.265	R0.237	0.286	0.202	0.008	R1.873	R8.112
May	0.890	0.291	R0.225	0.319	0.198	0.010	R1.933	R10.045
June	0.979	0.349	R0.226	0.306	0.197	0.009	R2.066	R12.112
July	1.122	0.435	R0.230	R0.273	0.226	0.010	R2.297	R14.408
August	1.133	0.420	R0.229	R0.232	0.262	0.011	R2.286	R16.694
September	1.021	0.369	R0.231	0.210	0.254	0.010	R2.095	R18.789
October	0.966	0.312	R0.237	0.204	0.264	0.011	R1.995	R20.784
November	R0.975	R0.256	R0.240	R0.218	0.226	0.011	R1.926	R22.710
December	R1.091	R0.240	R0.283	R0.251	R0.238	R0.011	R2.114	R24.823
TOTAL	R12.125	R3.789	R2.998	R3.093	R2.704	R0.114	R24.823	

Geographic coverage: the 50 United States and District of Columbia.  
 Totals may not equal sum of components due to independent rounding.

<sup>1</sup>Includes bituminous coal, lignite, and anthracite.

<sup>2</sup>Includes net imports of electricity.

<sup>3</sup>Includes geothermal power and electricity produced from wood and waste.

R = Revised data.

Source: •See Notes and Sources on the last page of this section.

# Notes and Sources for the Consumption Section

1. See Explanatory Note 5 in the Explanatory Notes Section located at the end of this publication for definitions of the Residential and Commercial, Industrial, Transportation, and Electric Utilities Sectors.

2. **Coal:** Coal is anthracite, bituminous coal, and lignite.

**Sources:** • Anthracite—1973 through 1976: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*, "Coal—Pennsylvania Anthracite, Annual."

1977 forward: U.S. Department of Energy (DOE), Energy Information Administration, (EIA) *Energy Data Reports*, "Weekly Coal Report."

• Bituminous coal and lignite—1973 through 1975, U.S. DOI, BOM, *Minerals Yearbook*, "Bituminous Coal and Lignite, Annual," Federal Power Commission (FPC), Form 4, "Monthly Power Plant Report." 1976 forward: DOE, EIA, *Energy Data Reports*, "Weekly Coal Report."

• Electric Utility consumption of coal sources: same as Note 6 below.

3. **Natural Gas:** Total natural gas consumption is estimated monthly based on a supply/disposition balance calculation. Residential and Commercial Sector monthly consumption is estimated by allocating the EIA annual Residential and Commercial Sector consumption to the months in proportion to the American Gas Association (AGA) monthly sales to the Residential and Commercial Sectors. For incomplete years, the AGA monthly sales data are used temporarily. Monthly Transportation Sector consumption (which is natural gas for pipeline use) for complete years is estimated by allocating the EIA annual Transportation total to the months based on each month's total natural gas consumption as a share of the annual total natural gas consumption. For incomplete years, each month's Transportation total is estimated by applying the percentage of total natural gas accounted for by the Transportation Sector in the same month a year ago to the current month's total natural gas consumption. The Electric Utility consumption of natural gas is available monthly from Form 4, "Monthly Power Plant Report." Each month's Industrial Sector consumption is estimated by subtracting the Residential and Commercial, Transportation, and Electric Utilities Sectors consumption from the total natural gas consumption.

**Sources:** • 1973 through 1975: DOI, BOM, *Minerals Yearbook*, "Natural Gas" chapter.

• 1976 forward: DOE, *Energy Data Reports*, "Natural Gas Monthly Production and Consumption."

• Electric Utilities consumption: 1973 through 1976, FPC, Form 4, "Monthly Power Plant Report." 1977 forward: DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."

• American Gas Association, "Monthly Gas Utility Statistical Report."

4. **Petroleum:** Petroleum consumption by end-use is the sum of all individual petroleum products consumed in each end-use. First, total consumption by product is determined. Petroleum consumption in this section of the *Monthly Energy Review* uses the series called "products supplied" in the Petroleum Section.

**Sources** for petroleum products supplied by individual products are:

• 1973 through 1975: DOI, BOM, *Mineral Industry Surveys*, "Petroleum Statement, Annual."

• 1976 through 1979: DOE, EIA, *Energy Data Reports*, "Petroleum Statement, Annual."

• 1980 forward: DOE, EIA, *Energy Data Reports*, "Petroleum Statement, Monthly,"

DOE, EIA, "Monthly Petroleum Statistics Report," and

DOE, EIA, estimates for current months where above sources are not yet available.

Each product's total is allocated to end-use sectors as follows:

• Aviation gasoline—All to the Transportation Sector.

• Asphalt and road oil—All to the Commercial Sector for use by government in road maintenance.

• Distillate fuel—Allocated to the major end-use sectors in proportion to the sales of distillate fuel sold to each sector as reported for 1973 through 1976 in the DOI, BOM, *Mineral Industry Surveys*, "Fuel Oil Sales, Annual," and for 1976 through 1979 in the DOE, EIA, *Energy Data Reports*, "Fuel Oil Sales, Annual." In summary, the sectors' proportions are created from sales groupings as follows:

—Residential and Commercial is sales for heating;

—Industrial is sales for industrial use, oil company use, and for miscellaneous use except for that part of the miscellaneous use which is diesel used on the highway and is part of the Transportation Sector;

—Transportation is sales for vessel bunkering, military, railroads, and diesel used on the highway (from the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, since 1979); and

—Electric Utility is the sales to the electric utilities (except since 1979 when it is deliveries to the electric utilities from the FPC Form 423).

The 1979 shares are used as estimates for succeeding periods until sales after 1979 are developed.

• Jet fuel—small amounts in 1975 through 1977 are used in industrial and small amounts in all months are consumed by the electric utilities. All remaining jet fuel is allocated to the Transportation Sector.

• Kerosene—Allocated to the major end-use sectors in proportion to the sales of kerosene sold to the Residential and Commercial Sector and the Industrial Sector as reported for 1973 through 1975 in the DOI, BOM, *Mineral Industry Surveys*, "Fuel Oil Sales, Annual," and for 1976 through 1979 in the DOE, EIA, *Energy Data Reports*, "Fuel Oil Sales, Annual":

—Residential and Commercial is sales for heating in the "Fuel Oil Sales, Annual."

—Industrial is sales for "All Other Uses" in the "Fuel Oil Sales, Annual."

The 1979 shares are used as estimates for succeeding periods until sales after 1979 are developed.

• Liquefied petroleum gases (LPG)—Allocated to the major end-use sectors in proportion to the sales of LPG sold to each sector as reported for 1973 through 1975 in the DOI, BOM, *Mineral Industry Surveys*, "Fuel Oil Sales, Annual," and for 1976 through 1979 in the DOE, EIA, *Energy Data Reports*, "Fuel Oil Sales, Annual." In summary, the sectors' proportions are created from sales groupings as follows:

—Residential and Commercial is sales for residential and commercial use;

—Industrial is sales for industrial use, for miscellaneous uses, to utility gas companies, to chemical plants, and 84 percent of LPG sold for use as internal combustion engine fuel use; and

—Transportation is the remaining 16 percent of LPG sold for use as internal combustion fuel use.

The 1979 shares are used as estimates for the succeeding periods until sales after 1979 are developed.

• Lubricants—Allocated to the Industrial Sector and Transportation Sector for all months according to proportions of sales to those sectors from U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, "Sales of Lubricating and Industrial Oils and Greases." The 1973 shares are applied to 1973 and 1974; the 1975 shares are applied to 1975 and 1976; and the 1977 shares are applied from 1977 forward.

• Motor gasoline—the DOE motor gasoline consumption data are allocated to end-use according to shares derived from the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Tables MF-21, MF-24 and MF-25. In summary, the sectors' proportions are created from sales groupings as follows:

—Residential and Commercial is sales for construction use, for miscellaneous use, for public non-highway use, and for unclassified use;

—Industrial is sales for agriculture and industrial and commercial use as classified in the *Highway Statistics*; and

—Transportation is sales for highway use (minus the sales of special fuels which is primarily diesel fuel and is accounted for in the Transportation Sector of distillate fuel) and sales for marine use.

• Petroleum coke consumed by the Electric Utilities—FPC, Form 4, "Monthly Power Plant Report." All other petroleum coke is allocated to the Industrial Sector.

• All other products are allocated to the Industrial Sector.

5. **Hydroelectric:** Includes electricity generated by hydropower at electric utilities, small amounts in the Industrial Sector, and net imports of electricity, which are assumed to be generated by hydropower and are included in the hydroelectricity in the Electric Utility Sector.

**Sources for Electric Utility Sector:**

• 1973 through 1976, FPC, Form 4, "Monthly Power Plant Report."

• 1977 forward: DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."

**Sources for Industrial Sector:**

• 1973 through 1978: FPC Forms 4 and 12-C.

• 1979: FPC Form 4 and EIA estimates.

Note: For 1977 forward, monthly data are not available from above sources and were estimated by seasonalizing the annual numbers in proportion to each month's hydroelectricity generation in the Electric Utility Sector.

**Sources for Imports and Exports of Electricity:** Annual Data from DOE, Economic Regulatory Administration, "Report on Electric Energy Exchanges with Canada and Mexico." Monthly estimates are derived from annual data by dividing by the number of days in the year and multiplying by the number of days in the month. 1979 estimates are used for succeeding periods until later estimates are developed.

6. **Nuclear:** **Sources:** • 1973 through 1976: FPC, Form 4, "Monthly Power Plant Report."

• 1977 forward: DOE, EIA, FPC, Form 4, "Monthly Power Plant Report."

7. **Net Coke Imports:** Net coke imports is coke made from coal.

**Sources:** • 1973 through 1975, DOI, BOM, *Minerals Yearbook*, "Coke and Coal Chemicals, Annual."

• 1976 forward: DOE, EIA, *Energy Data Reports*, "Coke and Coal Chemicals, Monthly."

8. **Other Energy:** "Other" is electricity produced from geothermal power and from wood and waste. **Sources:** same as Note 6 above, for Nuclear.

9. **Electricity Sales:** The total energy consumed by electric utilities to generate and transmit electricity to the end-users, including all losses, is allocated to the major end-users in proportion to the sales of electricity to the end-use sectors. "Other" sales, largely for use in government buildings, is allocated to the Residential and Commercial Sector, and a small portion of "Other" is for railroad usage and is counted in the Transportation Sector.

**Source of sales data:** 1973 through February 1980: FPC, Form 5, "Monthly Statement of Electric Operating Revenue and Income."

March 1980 forward: FERC Form 5, "Electric Utility Company Monthly Statement."

10. **Electrical Energy Losses:** In generating electricity with nuclear or fossil fuels, approximately 65 percent of the energy is lost in the form of heat. Transmission and distribution losses consume about an additional 3 percent of the energy inputs of the utility industry. In order to fully account for all energy consumed both directly and indirectly (i.e., utilities energy disposition), the electricity losses are allocated to the final end-use sectors in proportion to their direct kilowatt-hour usage, i.e., sales.

# Part 3

## Petroleum

### Crude Oil and Refined Petroleum Products\*

Domestic crude oil production during January 1981 is estimated at 8.6 million barrels per day. This production rate was 1.1 percent below the rate in January 1980 and relatively unchanged from the level in December 1980.

Total petroleum imports averaged 6.3 million barrels per day in January 1981, 25.1 percent less than the January 1980 rate and 3.5 percent less than the level in December 1980.

In January 1981, 18.3 million barrels per day of petroleum products were supplied for domestic use. Motor gasoline accounted for 34.3 percent of the total, distillate fuel oil 22.1 percent, and residual fuel oil 15.0 percent.

Motor gasoline supplied during January 1981 averaged 6.3 million barrels per day, 1.1 percent less than the amount supplied in January 1980 and 5.3 percent less than in December 1980.

In January 1981, 4.0 million barrels of distillate fuel oil were supplied per day, 8.2 percent higher than the amount supplied a year ago and 11.4 percent higher than in December 1980. Distillate fuel oil stocks were 181.6 million barrels at the end of January 1981, 14.4 percent below the stock level 1 year ago and 11.5 percent lower than the previous month's level.

Residual fuel oil supplied in January 1981 averaged 2.7 million barrels per day, 4.6 percent lower than in January 1980. Residual fuel oil stocks measured 79.0 million barrels at the end of January 1981, 18.7 percent below the level a year ago and 12.5 percent lower than the previous month's level.

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

# Petroleum

## Crude Oil

		Crude Input to Refineries	Total Domestic Production <sup>1,2</sup>	Alaskan Production	Crude Oil Imports <sup>3</sup>	Strategic Petroleum Reserve (SPR) Imports	Crude Oil Exports	Primary Crude Oil Stocks <sup>1,3</sup>	Strategic Petroleum Reserve (SPR) Stocks <sup>3</sup>
Thousand barrels per day									
1973	AVERAGE	12,431	9,208	198	3,244		2	\$242,478	
1974	AVERAGE	12,133	8,774	193	3,477		3	\$265,020	
1975	AVERAGE	12,442	8,375	191	4,105		6	\$271,354	
1976	AVERAGE	13,416	8,132	173	5,287		8	\$285,471	
1977	AVERAGE	14,602	8,245	464	6,594	21	50	\$339,857	\$7,826
1978	AVERAGE	14,739	8,707	1,229	6,195	161	158	\$309,421	\$66,860
1979	January	14,840	8,475	1,351	6,721	204	177	302,059	73,142
	February	14,314	8,525	1,266	6,344	179	288	302,374	78,166
	March	14,260	8,601	1,355	6,252	122	370	316,690	82,501
	April	14,571	8,553	1,346	6,145	66	260	319,075	83,867
	May	14,450	8,601	1,349	6,163	97	171	316,322	86,880
	June	14,806	8,432	1,246	6,582	65	235	325,860	88,567
	July	15,098	8,364	1,405	6,561	41	244	312,946	90,101
	August	14,967	8,548	1,433	6,774	35	245	320,965	91,189
	September	14,594	8,523	1,436	6,426	0	175	323,939	91,189
	October	14,423	8,621	1,480	6,890	0	179	344,854	*91,191
	November	14,537	8,761	1,613	6,228	0	264	347,415	91,191
	December	14,877	8,615	1,519	6,318	0	215	339,074	91,191
	AVERAGE	14,648	8,552	1,401	6,452	67	235		
1980	January	14,298	8,648	1,634	6,359	0	311	353,611	91,191
	February	14,189	8,696	1,630	5,936	0	310	361,648	91,191
	March	13,709	8,712	1,647	5,785	0	323	361,742	91,191
	April	13,484	8,688	1,649	5,555	0	216	379,352	91,191
	May	13,326	8,640	1,628	5,071	0	308	383,902	91,191
	June	13,705	8,547	1,626	5,480	0	365	382,035	91,191
	July	13,251	8,555	1,612	4,645	0	238	379,280	91,191
	August	13,011	8,422	1,612	4,723	0	78	387,605	91,191
	September	R13,312	R8,619	R1,610	R4,653	54	322	R375,989	92,824
	October†	12,753	8,570	1,641	4,503	131	309	378,472	96,645
	November†	13,113	8,500	1,558	4,422	142	289	372,248	102,320
	December†	R13,636	R8,551	R1,597	R4,779	198	343	R356,782	107,800
	AVERAGE	R13,479	R8,595	1,621	R5,157	44	284		
1981	January	13,640	8,550	1,611	4,652	NA	NA	374,555	NA

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Includes lease condensate.

<sup>2</sup>Includes Alaskan production.

<sup>3</sup>Excludes SPR. Strategic Petroleum Reserve storage began in October 1977.

\*Indicates an adjustment in reported barrels in storage.

Estimated data in italics. These are likely to be revised next month.

†Total as of December 31.

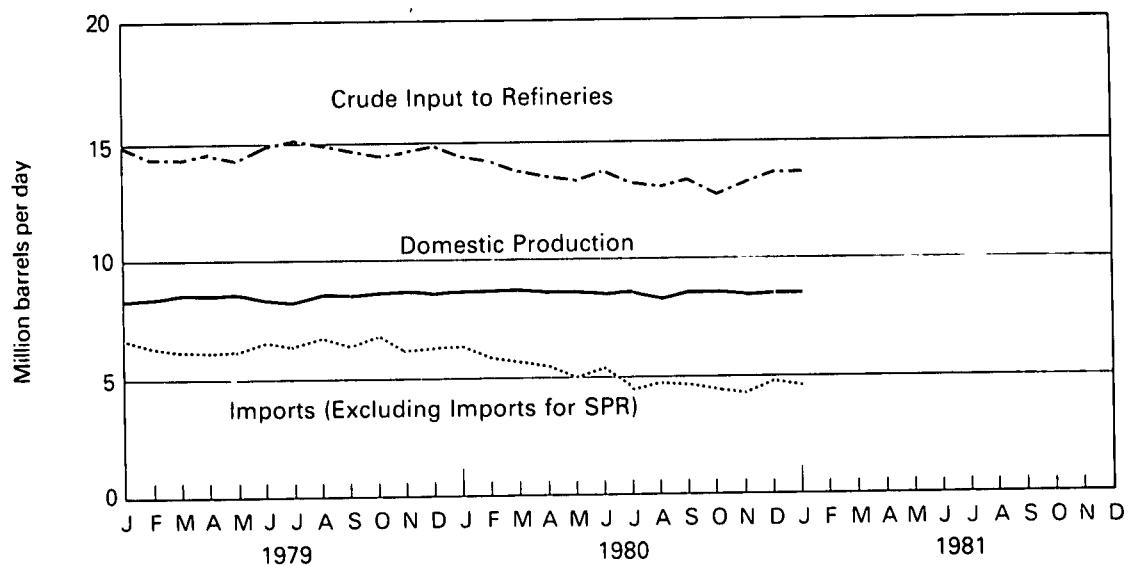
†Preliminary data. R=Revised data. NA=Not available.

Sources: •See Sources on the last page of this section.

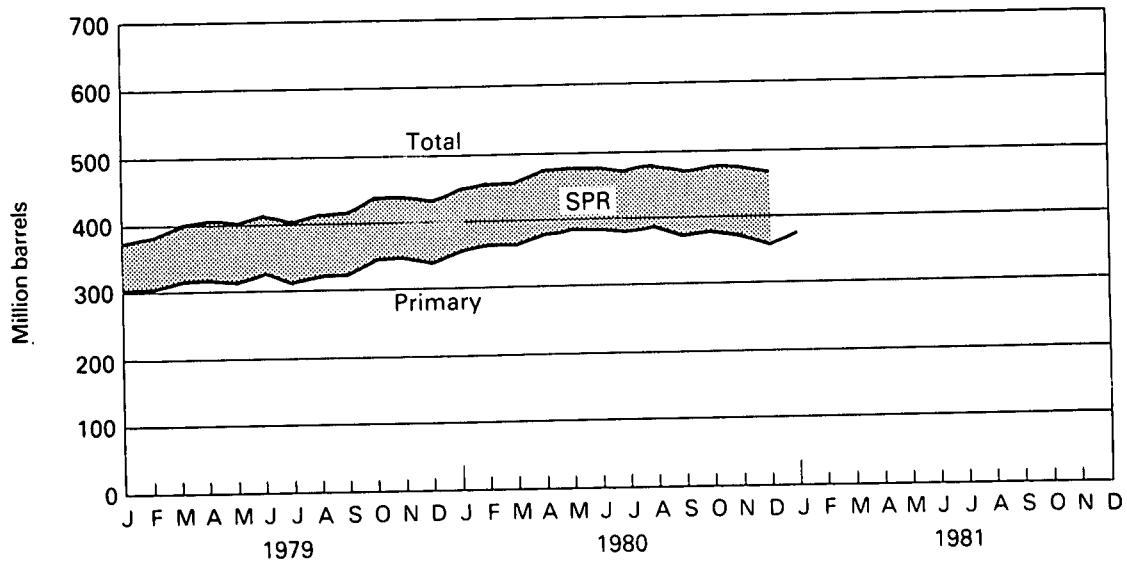
# Petroleum

## Crude Oil

### Production, Refinery Input and Imports



## Stocks



## Petroleum

	Total Petroleum Products <sup>1</sup>			Total Crude Oil and Petroleum Products Trade					
	Products Supplied <sup>1</sup>	Product Imports <sup>2</sup>	Product Exports	Total Imports (Excluding SPR)	SPR Imports <sup>3</sup>	Total Imports (Including SPR) <sup>3</sup>	Total Exports	Net Imports	
Thousand barrels per day									
1973 AVERAGE	17,308	3,012	229	6,256			231	6,025	
1974 AVERAGE	16,653	2,635	218	6,112			221	5,892	
1975 AVERAGE	16,322	1,951	204	6,056			209	5,846	
1976 AVERAGE	17,461	2,026	215	7,313			223	7,090	
1977 AVERAGE	18,431	2,193	193	8,787	21	8,807	243	8,565	
1978 AVERAGE	18,847	2,008	204	8,202	161	8,363	362	8,002	
1979	January	20,586	2,223	215	8,944	204	9,148	392	8,756
	February	21,288	2,069	198	8,413	179	8,591	486	8,105
	March	19,322	2,386	241	8,638	122	8,760	611	8,150
	April	17,434	1,682	234	7,828	66	7,893	493	7,400
	May	17,801	1,830	257	7,993	97	8,091	429	7,662
	June	17,786	1,680	233	8,262	65	8,327	468	7,859
	July	17,144	1,956	242	8,517	41	8,559	486	8,072
	August	18,149	1,781	221	8,555	35	8,590	466	8,124
	September	17,400	1,597	239	8,023	0	8,023	414	7,609
	October	18,176	1,798	246	8,688	0	8,688	425	8,263
	November	R18,313	R1,913	246	R8,141	0	R8,141	510	R7,631
	December	18,922	2,310	256	8,628	0	8,628	471	8,157
	AVERAGE	R18,513	R1,937	236	R8,389	67	R8,456	471	R7,985
1980	January	18,656	1,983	228	8,342	0	8,342	539	7,803
	February	18,815	1,911	227	7,847	0	7,847	536	7,311
	March	17,385	1,724	243	7,509	0	7,509	566	6,943
	April	16,724	1,430	241	6,985	0	6,985	457	6,528
	May	16,143	1,478	266	6,549	0	6,549	573	5,975
	June	16,214	1,413	288	6,893	0	6,893	654	6,239
	July	15,962	1,401	292	6,046	0	6,046	530	5,516
	August	15,727	1,379	241	6,102	0	6,102	319	5,784
	September	R16,548	R1,475	235	R6,129	54	R6,183	557	R5,626
	October†	16,802	1,522	288	6,024	131	6,155	598	5,557
	November†	16,696	1,668	260	6,090	142	6,232	549	5,683
	December†	R18,773	R1,699	279	R6,477	198	6,675	622	6,053
	AVERAGE	R17,033	R1,589	258	R6,746	44	6,790	542	6,248
1981	January	18,280	1,600	NA	6,252	NA	NA	NA	NA

Geographic coverage: the 50 United States and the District of Columbia.  
 Totals may not equal sum of components due to independent rounding.

<sup>1</sup>See Definitions.

<sup>2</sup>Includes plant condensate, natural gasoline and unfinished oils.

<sup>3</sup>Strategic Petroleum Reserve storage began in October 1977.

Estimated data in italics. These are likely to be revised next month.

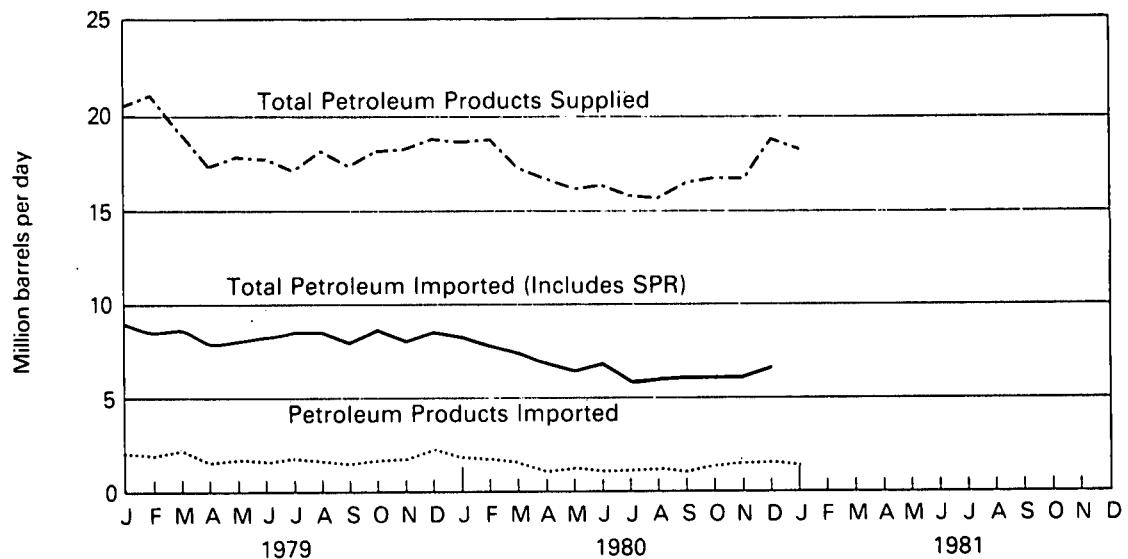
†Preliminary data. R=Revised data. NA=Not available.

Sources: •See Sources on the last page of this section.

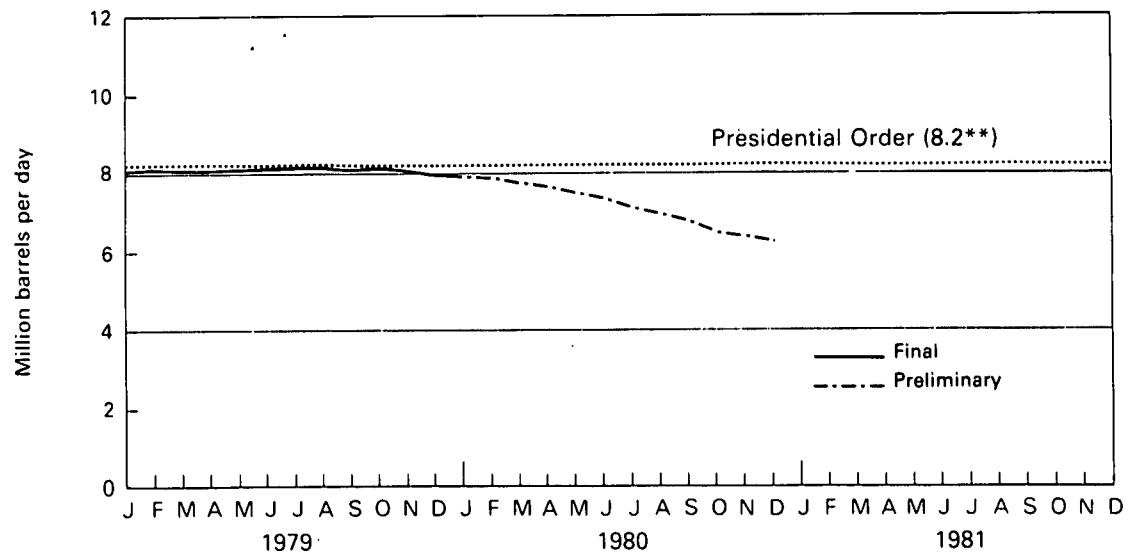
## Petroleum

### Products Supplied and Imports

#### Products Supplied and Imports



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



\* Includes SPR.

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

# Petroleum

## Petroleum Imports from OPEC Sources

	Algeria	Indonesia	Iran	Libya	Nigeria	Saudi Arabia	United Arab Emirates	Venezuela	Other OPEC <sup>1</sup>	Total OPEC	Arab Members of OPEC <sup>2</sup>
	Thousand barrels per day										
<b>1973</b>											
AVERAGE	136	213	223	164	459	486	71	1,135	106	2,993	915
<b>1974</b>											
AVERAGE	190	300	469	4	713	461	74	979	88	3,280	752
<b>1975</b>											
AVERAGE	282	390	280	232	762	715	117	702	122	3,601	1,383
<b>1976</b>											
AVERAGE	432	539	298	453	1,025	1,230	254	700	134	5,066	2,424
<b>1977</b>											
AVERAGE	559	541	535	723	1,143	1,380	335	690	287	6,193	3,185
<b>1978</b>											
AVERAGE	649	573	555	654	919	1,144	385	645	226	5,751	2,963
<b>1979</b>											
January	669	503	187	754	1,159	1,563	341	661	229	6,066	3,425
February	746	521	86	614	984	1,628	310	749	171	5,810	3,404
March	579	419	22	598	1,403	1,310	298	851	272	5,754	2,950
April	687	376	52	771	989	1,484	285	619	130	5,392	3,311
May	755	343	197	651	1,118	1,273	292	671	147	5,447	3,024
June	587	391	318	765	932	1,258	282	609	364	5,507	3,185
July	591	427	425	666	1,000	1,443	272	674	183	5,682	3,083
August	669	499	516	657	1,183	1,332	247	731	261	6,097	3,052
September	510	359	373	621	1,103	1,281	270	726	200	5,443	2,843
October	615	452	496	762	988	1,271	234	617	304	5,738	3,086
November	R621	351	549	476	1,007	1,163	307	R693	R146	R5,312	R2,589
December	603	403	414	559	1,080	1,279	242	680	130	5,390	2,743
AVERAGE	636	420	304	658	1,080	1,356	281	R690	212	R5,637	R3,056
<b>1980</b>											
January	484	433	80	617	1,054	1,562	202	583	179	5,195	3,001
February	639	317	9	603	1,013	1,399	304	543	140	4,967	3,016
March	472	405	0	654	924	1,390	370	352	175	4,742	2,979
April	556	374	0	683	722	1,294	150	339	228	4,346	2,866
May	441	360	0	468	955	1,149	172	405	132	4,083	2,314
June	497	331	0	561	998	1,327	178	409	105	4,408	2,598
July	537	308	0	492	721	1,179	158	411	55	3,861	2,378
August	432	289	0	431	770	1,136	142	397	98	3,695	2,205
September	R375	R299	0	R505	R735	R1,112	107	R425	R111	R3,670	R2,185
October†	463	326	0	476	716	1,019	182	464	52	3,698	2,154
November†	468	328	0	484	595	1,186	105	593	71	3,829	2,275
December†	417	270	0	625	950	1,282	83	597	101	4,324	2,425
AVERAGE	481	337	8	550	846	1,252	179	460	121	4,233	2,523

Geographic coverage: the 50 United States and District of Columbia.

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

Beginning in October 1977 Strategic Petroleum Reserve imports are included.

<sup>1</sup>Includes Ecuador, Gabon, Iraq, Kuwait and Qatar.

<sup>2</sup>Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait and Qatar.

†Preliminary data. R=Revised data.

Sources: • See Sources on the last page of this section.

## Petroleum

### Petroleum Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Puerto Rico	Trinidad and Tobago	Virgin Islands	Other <sup>1</sup>	Total
Thousand barrels per day									
<b>1973</b>									
<b>AVERAGE</b>	174	1,325	16	585	99	255	329	480	3,263
<b>1974</b>									
<b>AVERAGE</b>	164	1,070	8	511	90	251	391	347	2,832
<b>1975</b>									
<b>AVERAGE</b>	152	846	71	332	90	242	406	314	2,454
<b>1976</b>									
<b>AVERAGE</b>	118	599	87	275	88	274	422	382	2,247
<b>1977</b>									
<b>AVERAGE</b>	171	517	179	211	105	289	466	676	2,614
<b>1978</b>									
<b>AVERAGE</b>	160	467	318	229	94	253	429	663	2,613
<b>1979</b>									
January	159	565	595	238	109	151	477	787	3,082
February	106	561	415	255	68	191	421	764	2,782
March	94	616	397	314	64	215	562	746	3,007
April	129	578	302	179	65	156	475	619	2,502
May	135	558	403	191	102	216	382	658	2,644
June	138	469	458	172	106	169	414	895	2,820
July	193	490	R407	209	117	168	451	R840	2,877
August	157	464	439	246	92	238	357	499	2,493
September	149	464	431	276	86	166	286	722	2,580
October	151	486	531	242	60	200	403	876	2,950
November	R169	583	429	196	110	161	438	743	R2,829
December	178	619	454	257	120	240	508	862	3,238
<b>AVERAGE</b>	R147	538	R439	231	92	190	431	R751	R2,819
<b>1980</b>									
January	175	569	545	289	56	239	467	806	3,147
February	111	540	463	205	95	192	522	752	2,880
March	124	460	460	184	81	189	443	827	2,767
April	56	411	546	231	63	143	418	771	2,639
May	77	419	576	184	88	221	303	597	2,466
June	77	405	627	196	91	160	319	611	2,485
July	43	378	434	242	90	180	365	454	2,185
August	62	319	646	255	85	159	254	627	2,407
September	58	R403	R549	R213	52	R205	R343	R690	R2,513
Octobert	70	423	591	217	90	111	359	596	2,457
Novembert	22	444	431	263	101	158	391	593	2,403
Decembert	54	449	392	212	109	149	424	562	2,351
<b>AVERAGE</b>	78	435	522	224	83	176	384	656	2,557

Geographic coverage: the 50 United States and District of Columbia.

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

Beginning in October 1977 Strategic Petroleum Reserve imports are included.

<sup>1</sup>Includes Non-OPEC Arab, Western Europe, Angola, U.S.S.R., Rumania, other Western Hemisphere and other Eastern Hemisphere.

<sup>†</sup>Preliminary data. R=Revised data.

Sources: •See Sources on the last page of this section.

# Petroleum

## Motor Gasoline

### Product Supplied

			Total	Unleaded	Unleaded Percent of Total	Refinery Production <sup>1</sup>	Imports	Exports	Stocks <sup>1</sup>
Thousand barrels per day									
<i>365</i>	1973	AVERAGE	6,674	NA	NA	6,527	134	4	\$209,395
<i>365</i>	1974	AVERAGE	6,537	NA	NA	6,358	204	2	\$218,346
<i>365</i>	1975	AVERAGE	6,675	NA	NA	6,518	184	2	\$234,925
<i>366</i>	1976	AVERAGE	6,978	NA	NA	6,838	131	3	\$231,387
<i>365</i>	1977	AVERAGE	7,177	1,976	27.5	7,031	217	2	\$257,578
<i>365</i>	1978	AVERAGE	7,412	2,521	34.0	7,167	190	1	\$237,956
<i>365</i>	1979	January	6,830	2,609	38.2	7,246	179	1	256,894
		February	7,254	2,715	37.4	6,924	160	1	252,478
		March	7,229	2,733	37.8	6,654	168	(s)	240,007
		April	7,055	2,786	39.5	6,770	156	1	236,600
		May	7,213	2,751	38.1	6,792	145	(s)	228,515
		June	7,191	2,787	38.8	7,001	261	(s)	231,014
		July	6,902	2,789	40.4	7,002	222	(s)	241,469
		August	7,330	2,970	40.5	6,882	148	1	232,734
		September	6,881	2,815	40.9	6,626	135	(s)	229,542
		October	7,020	2,802	39.9	6,483	150	(s)	218,065
		November	6,791	2,928	43.1	6,673	182	1	220,472
		December	6,730	2,890	42.9	6,988	263	(s)	237,082
		AVERAGE	7,034	2,798	39.8	6,837	181	(s)	
<i>366</i>	1980	January	6,335	2,718	42.9	6,977	141	1	262,134
		February	6,594	2,969	45.0	6,851	153	(s)	274,422
		March	6,411	3,032	47.3	6,512	154	(s)	282,688
		April	6,799	3,021	44.5	6,268	152	1	271,729
		May	6,726	2,980	44.3	6,294	132	1	262,938
		June	6,661	3,099	46.5	6,552	148	1	264,583
		July	6,735	3,131	46.5	6,446	149	3	260,711
		August	6,646	3,135	47.2	6,437	141	1	259,013
		September	R6,511	3,054	46.9	R6,369	106	7	R258,135
		October†	6,621	3,110	47.0	6,123	150	1	247,171
		November†	6,344	3,123	49.2	6,458	126	(s)	256,538
		December†	R6,610	3,421	51.8	R6,624	R121	1	R261,113
		AVERAGE	R6,583	3,067	46.6	R6,492	R139	1	
<i>365</i>	1981	January	6,264	NA	NA	6,562	97	NA	272,259

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Definitions.

Estimated data in italics. These are likely to be revised next month.

†Total as of December 31.

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

(s)=Less than 500 barrels per day.

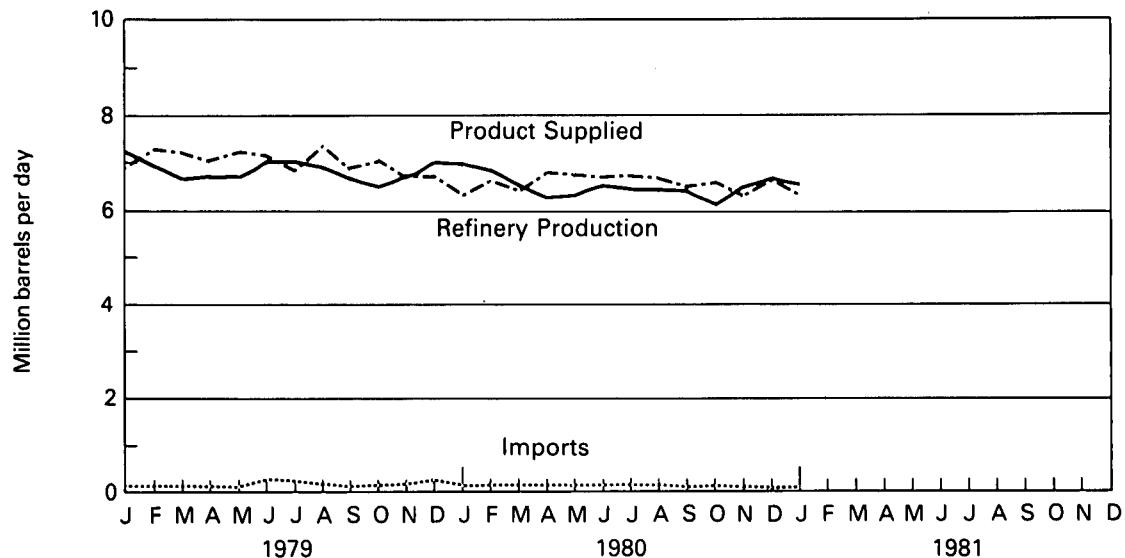
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

Sources: •See Sources on the last page of this section.

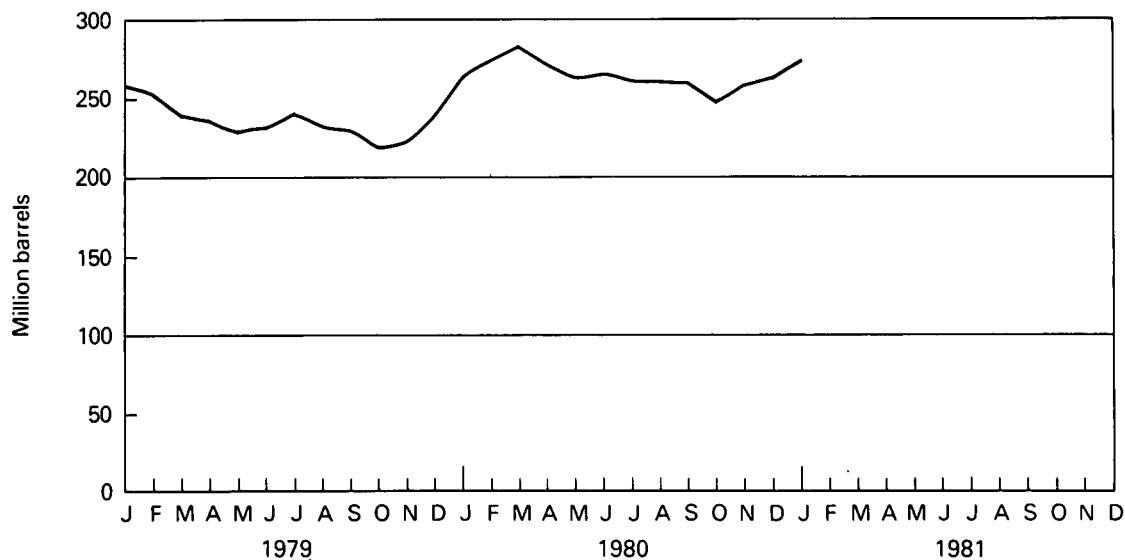
## Petroleum

### Motor Gasoline

#### Product Supplied, Refinery Production and Imports



#### Stocks



# Petroleum

## Jet Fuel

		Product Supplied	Refinery Production	Imports	Exports	Stocks
Thousand barrels per day						
1973	AVERAGE	1,059	859	212	4	‡28,544
1974	AVERAGE	993	836	163	3	‡29,435
1975	AVERAGE	1,001	871	133	2	‡30,380
1976	AVERAGE	987	918	76	2	‡32,085
1977	AVERAGE	1,039	973	75	2	‡34,548
1978	AVERAGE	1,057	970	86	1	‡33,665
365 1979	January	1,096	950	97	1	32,114
	February	1,149	998	94	1	30,475
	March	1,101	1,098	61	1	32,267
	April	980	1,043	49	1	35,581
	May	989	980	78	1	37,698
	June	1,095	958	57	1	35,301
	July	1,094	965	90	1	34,063
	August	1,085	1,040	49	1	34,136
	September	1,099	958	84	1	32,420
	October	1,055	1,046	90	(s)	34,920
	November	1,070	1,029	83	1	36,161
	December	1,103	1,072	108	1	38,520
	AVERAGE	1,076	1,012	78	1	
366 1980	January	1,101	1,004	95	1	38,412
	February	1,072	1,026	43	2	38,258
	March	1,116	1,031	99	2	38,661
	April	1,105	1,023	107	3	39,339
	May	1,015	1,001	79	2	41,310
	June	1,057	1,004	86	1	42,283
	July	1,110	974	93	2	40,902
	August	1,043	959	67	1	40,331
	September	R1,056	R1,041	R77	1	R42,159
	Octobert	1,013	970	75	1	43,130
	Novembert	1,010	987	49	1	43,916
	Decembert	R1,076	R970	R49	1	R42,137
	AVERAGE	R1,064	R999	R77	1	
1981	January	1,145	1,009	17	NA	39,584

Geographic coverage: the 50 United States and District of Columbia.  
Estimated data in italics. These are likely to be revised next month.

†Total as of December 31.

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

(s) = Less than 500 barrels per day.

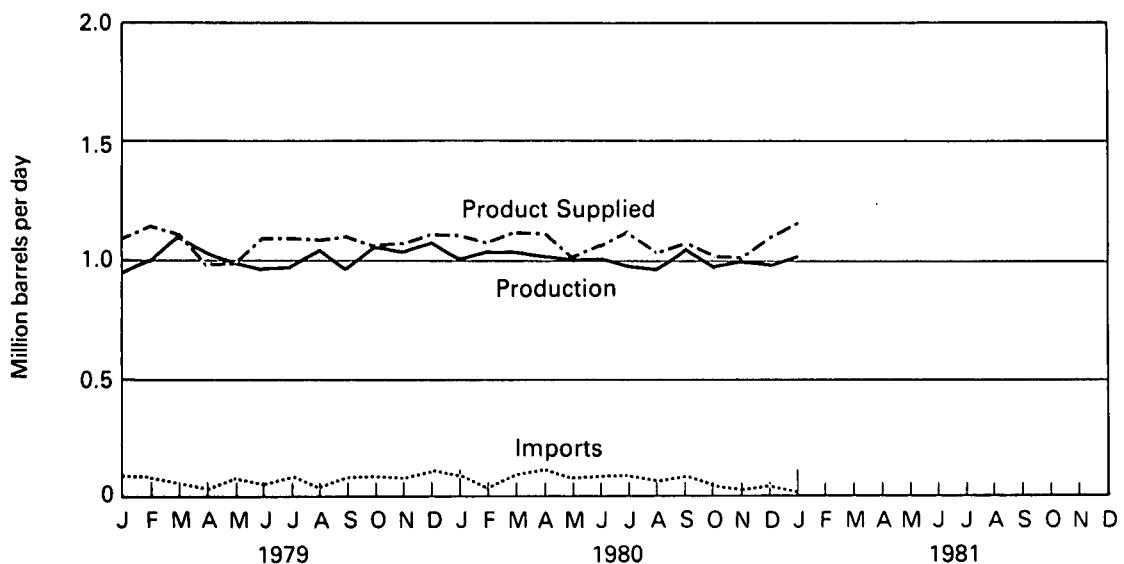
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

Sources: \*See Sources on the last page of this section.

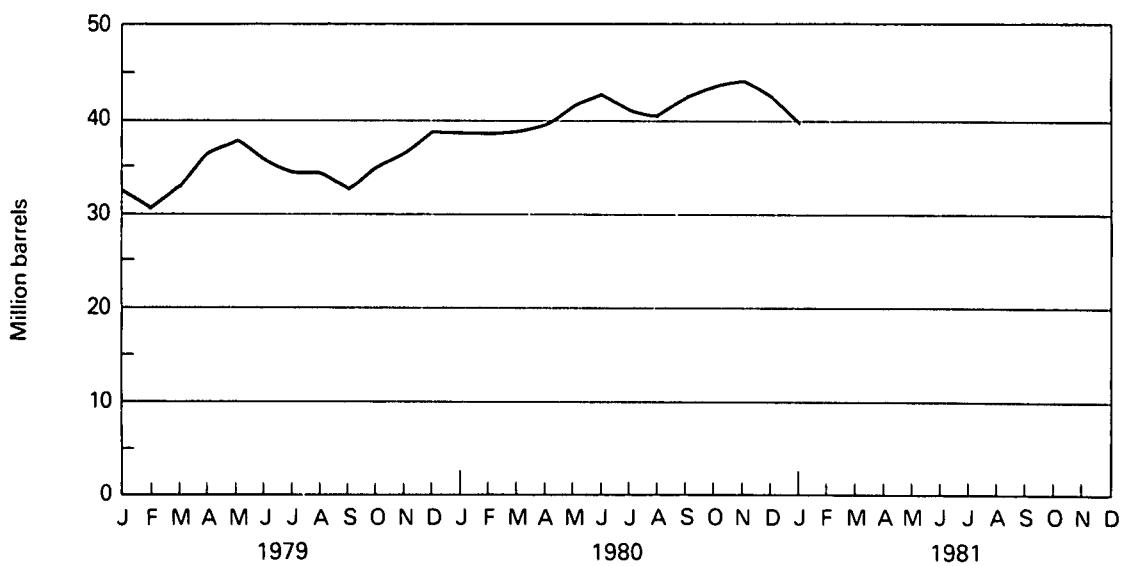
## Petroleum

### Jet Fuel

#### Product Supplied, Refinery Production and Imports



### Stocks



# Petroleum

## Distillate Fuel Oil

		Product Supplied	Refinery Production <sup>1</sup>	Imports	Exports	Stocks <sup>1</sup>
			Thousand barrels per day			Thousand barrels
1973	AVERAGE	3,092	2,820	392	9	‡196,421
1974	AVERAGE	2,948	2,668	289	2	‡200,029
1975	AVERAGE	2,851	2,653	155	1	‡208,787
1976	AVERAGE	3,133	2,924	146	1	‡185,948
1977	AVERAGE	3,352	3,277	250	1	‡250,260
1978	AVERAGE	3,432	3,167	173	3	‡216,439
1979	January	4,581	3,043	226	1	175,823
	February	4,812	2,888	196	7	127,275
	March	3,664	3,019	176	1	112,275
	April	3,016	2,945	150	2	115,124
	May	2,998	3,066	185	(s)	123,042
	June	2,708	3,153	180	15	141,367
	July	2,563	3,305	225	7	171,203
	August	2,761	3,321	218	(s)	195,365
	September	2,647	3,354	126	2	220,377
	October	3,119	3,251	211	1	231,056
	November	R3,247	3,239	R193	(s)	236,641
	December	3,708	3,221	229	(s)	228,712
	AVERAGE	R3,311	3,152	R193	3	
1980	January	3,732	3,023	179	7	212,126
	February	3,706	2,778	221	8	191,464
	March	3,171	2,564	179	19	177,659
	April	2,630	2,462	147	2	177,006
	May	2,402	2,471	126	1	183,072
	June	2,331	2,645	108	(s)	195,790
	July	2,225	2,688	117	3	213,756
	August	2,136	2,462	77	(s)	226,305
	September	R2,590	R2,687	R101	(s)	R232,310
	October†	2,983	2,646	125	(s)	225,864
	November†	2,894	2,676	125	(s)	223,143
	December†	R3,629	R2,881	R164	(s)	R205,081
	AVERAGE	R2,867	R2,683	R139	3	
1981	January	4,038	3,140	224	NA	181,593

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Definitions.

Estimated data in italics. These are likely to be revised next month.

†Total as of December 31.

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

(s)=Less than 500 barrels per day.

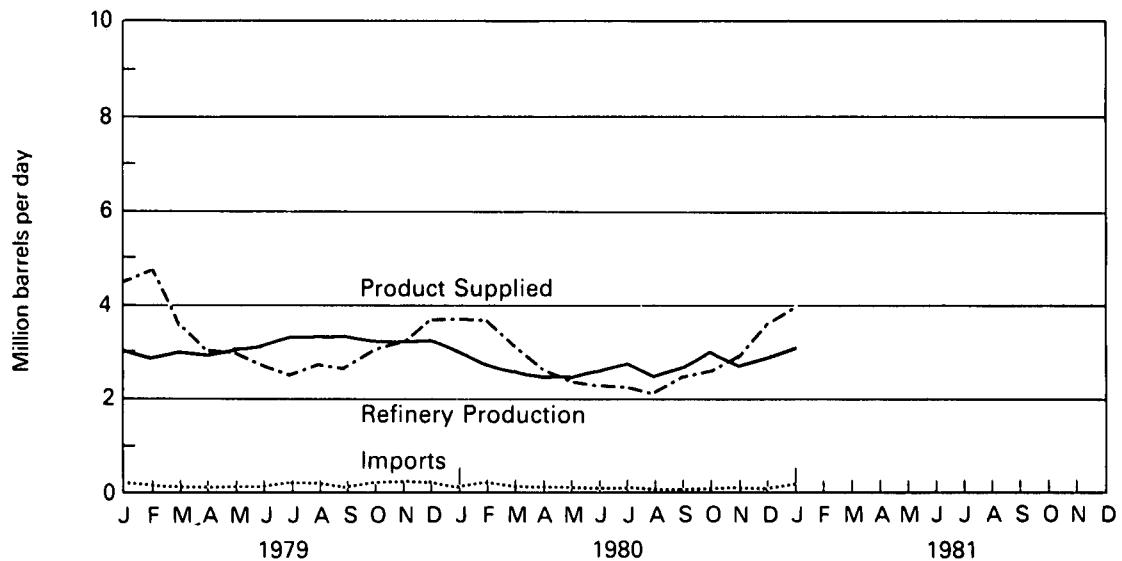
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

Sources: \*See Sources on the last page of this section.

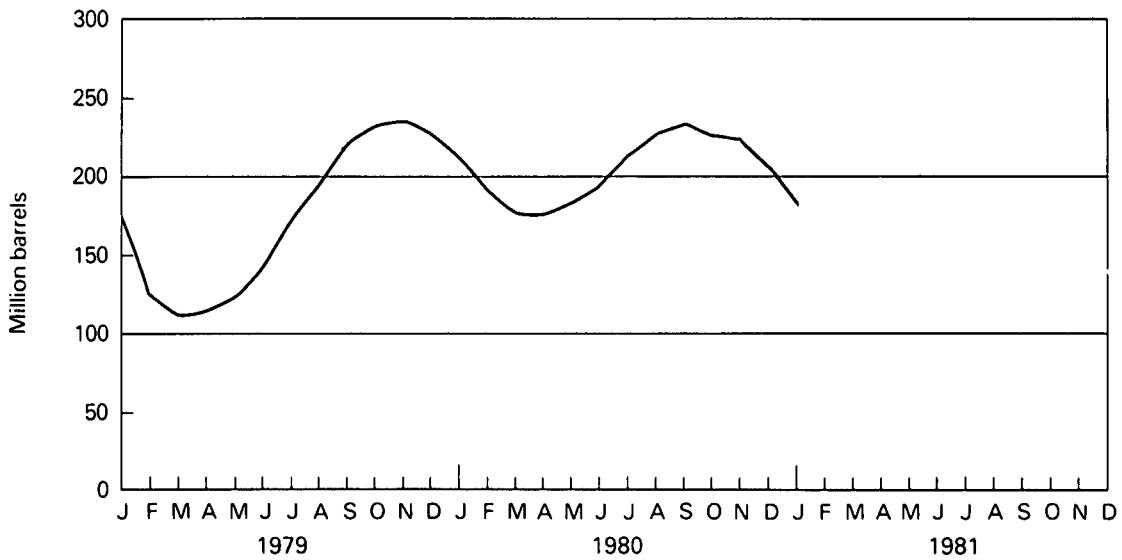
## Petroleum

### Distillate Fuel Oil

#### Product Supplied, Refinery Production and Imports



#### Stocks



# Petroleum

## Residual Fuel Oil

		Product Supplied	Refinery Production	Imports	Exports	Stocks
		Thousand barrels per day				
1973	AVERAGE	2,822	971	1,853	23	‡53,480
1974	AVERAGE	2,639	1,070	1,587	14	‡59,694
1975	AVERAGE	2,462	1,235	1,223	15	‡74,126
1976	AVERAGE	2,801	1,377	1,413	12	‡72,344
1977	AVERAGE	3,071	1,754	1,359	6	‡89,993
1978	AVERAGE	3,023	1,667	1,355	13	‡90,194
1979	January	3,560	1,912	1,371	6	81,853
	February	3,595	1,792	1,300	10	67,899
	March	3,239	1,719	1,642	14	71,652
	April	2,507	1,639	1,134	2	79,959
	May	2,503	1,586	1,051	8	84,261
	June	2,583	1,548	880	8	79,816
	July	2,451	1,575	1,065	5	85,907
	August	2,550	1,584	1,023	14	87,622
	September	2,609	1,627	979	2	87,789
	October	2,540	1,629	1,042	18	91,611
	November	2,815	1,736	1,046	5	90,799
	December	3,013	1,894	1,278	14	95,598
	AVERAGE	2,826	1,687	1,151	9	
1980	January	2,865	1,766	1,132	5	97,153
	February	3,099	1,770	1,119	17	90,959
	March	2,650	1,581	971	2	88,269
	April	2,434	1,591	769	40	85,219
	May	2,234	1,507	812	20	87,639
	June	2,324	1,575	749	14	87,657
	July	2,287	1,480	787	60	85,605
	August	2,287	1,444	875	2	86,949
	September	R2,360	R1,497	R906	21	R87,876
	October†	2,320	1,544	860	70	90,754
	November†	2,425	1,564	1,017	88	93,282
	December†	R2,721	R1,656	R1,015	62	R90,295
	AVERAGE	R2,498	R1,580	R917	33	
1981	January	2,734	1,627	1,020	NA	78,965

Geographic coverage: the 50 United States and District of Columbia.

\*Beginning in April 1980, residual fuel oil exports increased due to shipments of high sulfur fuel to a Caribbean refinery to be desulfurized and returned to the United States.

Estimated data in italics. These are likely to be revised next month.

†Total as of December 31.

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

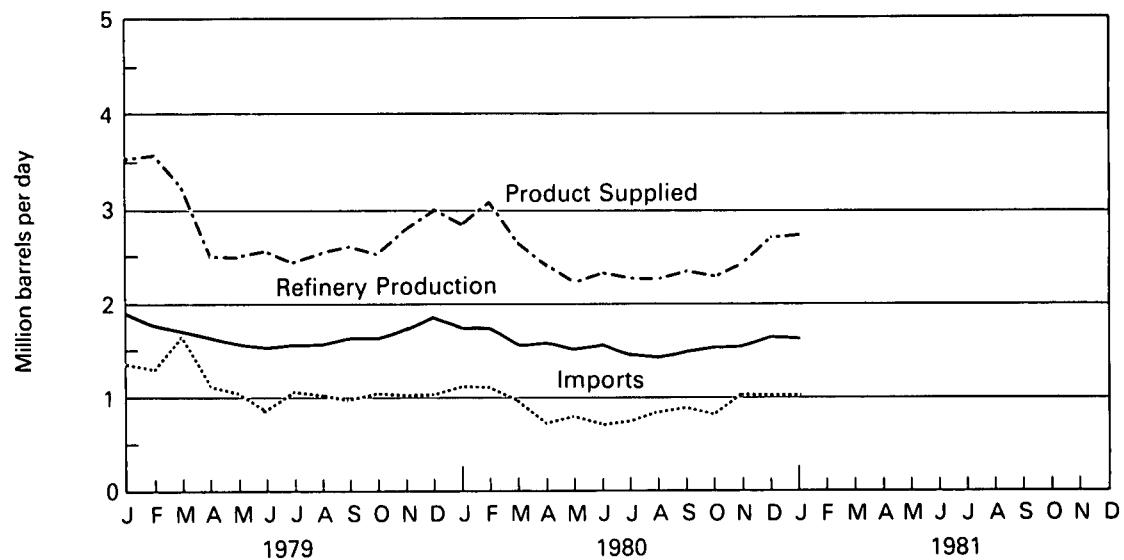
Note: Bureau of Mines' stock coverage was expanded at the end of 1974 to include an additional 100 bulk terminal operators; the new coverage begins here with 1975.

Sources: \*See Sources on the last page of this section.

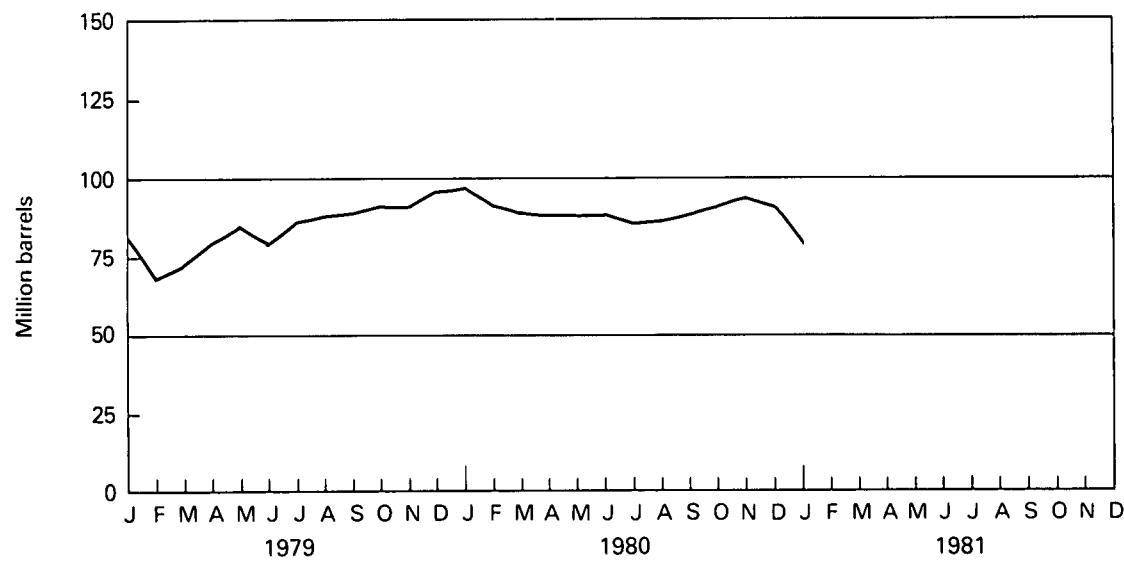
## Petroleum

### Residual Fuel Oil

#### Product Supplied, Refinery Production and Imports



#### Stocks



# Petroleum

## Natural Gas Plant Liquids, Including Liquefied Refinery Gases

	Products Supplied <sup>1</sup>	Production <sup>1</sup>		Used at Refineries <sup>1</sup>	Imports	Stocks <sup>1</sup>			
		At processing plants							
		At refineries	Thousand barrels per day						
1973	AVERAGE	1,454	1,738	375	815	239			
1974	AVERAGE	1,422	1,688	338	746	212			
1975	AVERAGE	1,352	1,633	311	710	185			
1976	AVERAGE	1,407	1,603	340	725	196			
1977	AVERAGE	1,427	1,618	352	673	203			
1978	AVERAGE	1,416	1,567	355	639	139			
1979	January	2,158	1,530	335	597	256			
	February	2,101	1,561	316	572	252			
	March	1,788	1,548	322	538	257			
	April	1,522	1,611	341	469	160			
	May	1,471	1,570	373	476	255			
	June	1,379	1,571	356	455	175			
	July	1,408	1,564	361	444	240			
	August	1,501	1,575	363	461	236			
	September	1,529	1,565	323	450	194			
	October	1,701	1,607	321	506	193			
	November	1,880	1,676	323	586	268			
	December	1,930	1,626	343	572	273			
	AVERAGE	1,695	1,584	340	504	230			
1980	January	2,021	1,647	338	698	282			
	February	1,843	1,651	354	572	265			
	March	1,573	1,569	342	518	224			
	April	1,212	1,626	328	507	149			
	May	1,376	1,555	325	428	187			
	June	1,385	1,559	335	386	93			
	July	1,218	1,513	325	455	178			
	August	1,244	1,514	323	417	166			
	September	R1,463	R1,510	R314	R463	R168			
	October†	1,338	1,492	296	501	140			
	November†	1,623	1,596	315	528	109			
	December†	1,746	1,563	338	534	112			
	AVERAGE	1,502	1,566	328	501	181			

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Explanatory Note 7 and Definitions.

<sup>a</sup>EIA natural gas plant coverage was expanded in January 1979 to include approximately 80 more plants. Calculated on the new basis, December 1978 closing stocks of natural gas plant liquids totaled 147,548 thousand barrels.

†Total as of December 31.

†Preliminary data. R=Revised data.

Sources: • 1973 through August 1980 are shown on last page of this section.

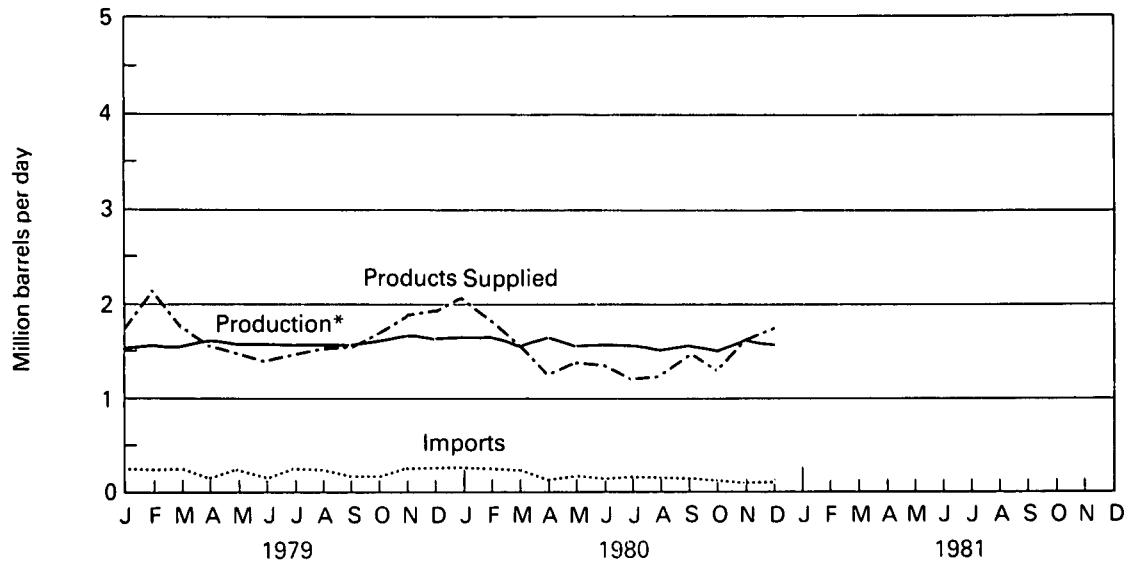
• October 1980: EIA estimates based on historical analyses.

• November 1980 through December 1980: EIA "Monthly Petroleum Statistics Report."

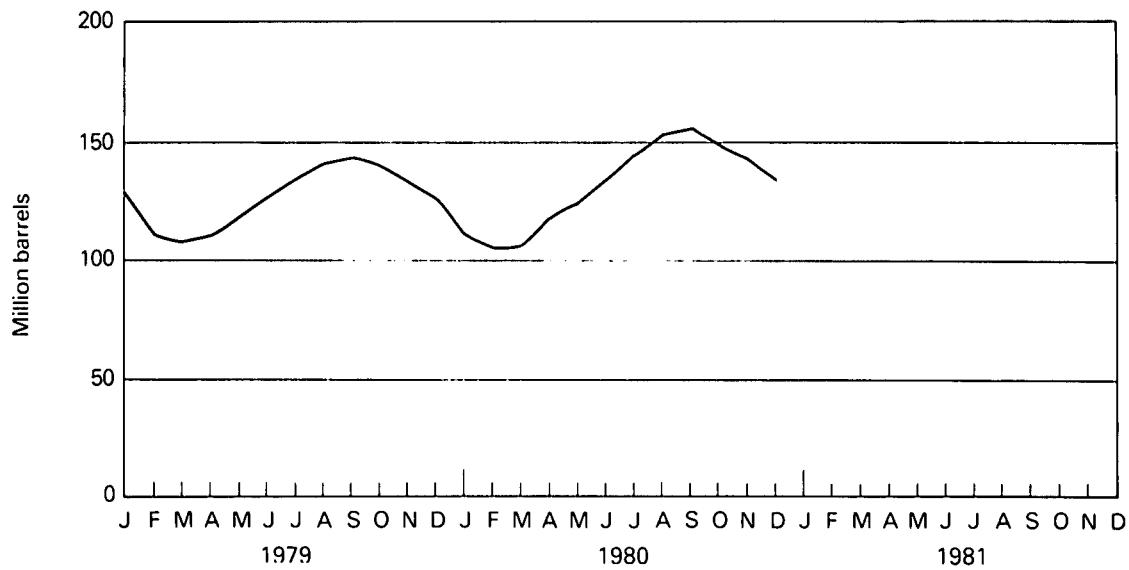
• Sources for the *Energy Data Reports* are shown on the last page of this section.

## Petroleum

### Natural Gas Plant Liquids Products Supplied, Production and Imports



### Stocks



\*At processing plants.

# Petroleum

## Petroleum Primary Supply Balance

	1979				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Year
Thousands barrels per day					
<b>Primary Supply</b>					
Crude oil and lease condensate production	8,534	8,529	8,478	8,664	8,552
Natural gas plant liquids production	1,546	1,584	1,568	1,636	1,584
Other hydrocarbon supply	33	39	48	56	44
Crude oil imported <sup>1</sup>	6,610	6,372	6,614	6,481	6,519
Petroleum products imported <sup>2</sup>	<u>2,231</u>	<u>1,732</u>	<u>1,780</u>	<u>R2,008</u>	<u>R1,937</u>
Total new primary supply	18,955	18,256	18,489	R18,846	R18,635
Processing gain	444	513	569	581	527
Stock change—all oils <sup>3</sup>	<u>-1,586</u>	<u>+740</u>	<u>+1,077</u>	<u>+348</u>	<u>+153</u>
Total net primary supply	20,985	18,029	17,981	R19,078	R19,010
Unaccounted for crude oil <sup>4</sup>	-104	+125	+57	-122	-11
<b>Disposition</b>					
Crude oil and petroleum products exported	497	463	456	468	471
Crude oil losses	15	16	16	16	16
Total products supplied <sup>5</sup>	<u>20,369</u>	<u>17,675</u>	<u>17,566</u>	<u>R18,472</u>	<u>R18,513</u>
Total disposition	20,881	18,153	18,038	R18,956	R18,999
	1980				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr. <sup>†</sup>	Year†
<b>Primary Supply</b>					
Crude oil and lease condensate production	8,685	8,625	R8,531	8,541	8,595
Natural gas plant liquids production	1,622	1,580	R1,513	1,550	1,566
Other hydrocarbon supply	56	49	44	42	48
Crude oil imported <sup>1</sup>	6,029	5,366	R4,692	4,726	5,200
Petroleum products imported <sup>2</sup>	<u>1,872</u>	<u>1,440</u>	<u>R1,418</u>	<u>1,629</u>	<u>1,589</u>
Total new primary supply	18,263	17,059	R16,197	16,488	16,998
Processing gain	629	567	R593	590	595
Stock change—all oils <sup>3</sup>	<u>R-1</u>	<u>+753</u>	<u>R+393</u>	<u>-764</u>	<u>+94</u>
Total net primary supply	R18,893	16,873	R16,398	17,843	17,500
Unaccounted for crude oil <sup>4</sup>	-57	+61	R+158	+192	+89
<b>Disposition</b>					
Crude oil and petroleum products exported	547	562	468	590	542
Crude oil losses	15	R14	14	14	14
Total products supplied <sup>5</sup>	<u>18,274</u>	<u>16,358</u>	<u>R16,074</u>	<u>17,430</u>	<u>17,032</u>
Total disposition	R18,836	16,934	R16,556	18,034	17,588

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Includes crude oil imported for the Strategic Petroleum Reserve.

<sup>2</sup>Includes plant condensate, natural gasoline and unfinished oils.

<sup>3</sup>Includes petroleum stored in the Strategic Petroleum Reserve.

<sup>4</sup>Balancing item resulting from statistical inconsistencies.

<sup>5</sup>Includes international bunkers.

<sup>†</sup>Preliminary data. R=Revised data.

Sources: • 1979: Energy Information Administration (EIA) *Energy Data Report*, "Petroleum Statement, Annual".

• January 1980 through September 1980: Energy Information Administration (EIA) *Energy Data Reports*, "Petroleum Statement, Monthly."

• October 1980 through December 1980: EIA, "Monthly Petroleum Statistics Report" (except exports).

• Exports for October 1980 are preliminary data based on the EIA-87 and the Bureau of the Census tapes EM 522 and EM 594.

• Sources for the *Energy Data Reports* and the "Monthly Petroleum Statistics Report" are shown on the last page of this section.

## Sources for the Petroleum Section

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



# Part 4

## Natural Gas

### Natural Gas

Consumption of natural gas in the United States during January 1981 was an estimated 2.3 trillion cubic feet (Tcf). This was 8.1 percent higher than in December 1980 but virtually the same level as in January 1980.

Production of dry natural gas in January 1981 was an estimated 1.7 Tcf, 1.2 percent higher than in December 1980 but 3.2 percent lower than in January 1980.

Imports of natural gas in January 1981 were an estimated 95 billion cubic feet (Bcf), 20.2 percent less than in the previous January. There were no receipts of liquefied natural gas (LNG) from Algeria during January 1981.

Domestic producer sales to major interstate pipelines in December 1980 totaled 963 Bcf, slightly higher than sales for the previous December. Total sales during 1980 were 10.6 Tcf, 1.0 percent higher than those for 1979.

Stocks of working gas\* in underground natural gas storage reservoirs at the end of January 1981 totaled 2.1 Tcf, according to preliminary data. This was 8.4 percent below stocks available a year earlier. Net withdrawals from storage during January 1981 were 509 Bcf, 14.6 percent higher than during the previous January.

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\*Gas available for withdrawal.

## Natural Gas

		Production		Domestic Producer Sales to Major Interstate Pipelines			Imports	Exports		
		Domestic Consumption	Marketed	Dry	Billion cubic feet					
1973	TOTAL	22,049	22,648	21,731	12,067	1,033	77			
1974	TOTAL	21,223	21,601	20,714	11,462	959	77			
1975	TOTAL	19,538	20,109	19,237	10,652	953	73			
1976	TOTAL	19,946	19,952	19,098	10,140	964	65			
1977	TOTAL	19,521	20,025	19,163	9,883	1,011	56			
1978	TOTAL	19,627	19,974	19,122	9,911	966	53			
1979	January	2,426	1,771	1,702	890	102	6			
	February	2,204	1,656	1,591	819	97	5			
	March	1,881	1,755	1,686	907	113	5			
	April	1,594	1,692	1,625	871	106	5			
	May	1,429	1,716	1,648	877	104	5			
	June	1,309	1,643	1,578	812	101	5			
	July	1,330	1,662	1,596	851	104	6			
	August	1,342	1,689	1,622	880	97	4			
	September	1,329	1,635	1,570	820	98	5			
	October	1,557	1,705	1,638	888	107	3			
	November	1,768	1,724	1,656	921	114	3			
	December	2,072	1,823	1,751	960	110	4			
	TOTAL	20,241	20,471	19,663	10,496	1,253	56			
1980	January	2,279	1,817	1,745	981	119	5			
	February	2,192	1,705	1,638	898	111	3			
	March	2,099	1,827	1,754	960	108	5			
	April	1,568	1,667	1,601	897	91	6			
	May	1,355	1,692	1,625	859	70	6			
	June	1,253	1,583	1,520	794	62	5			
	July	1,301	1,613	1,549	825	64	6			
	August	1,246	1,572	1,510	828	60	5			
	September	1,299	1,577	1,515	800	58	4			
	October	1,542	1,647	1,582	894	73	3			
	November	R1,783	R1,651	R1,586	906	85	3			
	December	R2,100	R1,740	R1,670	963	R93	4			
	TOTAL	R20,017	R20,091	R19,295	10,605	R994	55			
1981	January	2,270	1,760	1,690	NA	95	5			

Geographic coverage: the 50 United States and District of Columbia.

R = Revised data. NA = Not available.

Sources: • Domestic Consumption — 1973 through 1975: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Natural Gas" chapter; 1976 through 1979: Energy Information Administration (EIA) *Energy Data Report*, "Natural Gas Production and Consumption"; January 1980 forward: EIA estimates based on a supply/disposition balance calculation.

• Production — State reports to the Interstate Oil Compact Commission, data from the United States Geological Survey and EIA estimates for states that do not report monthly data on a regular or timely basis.

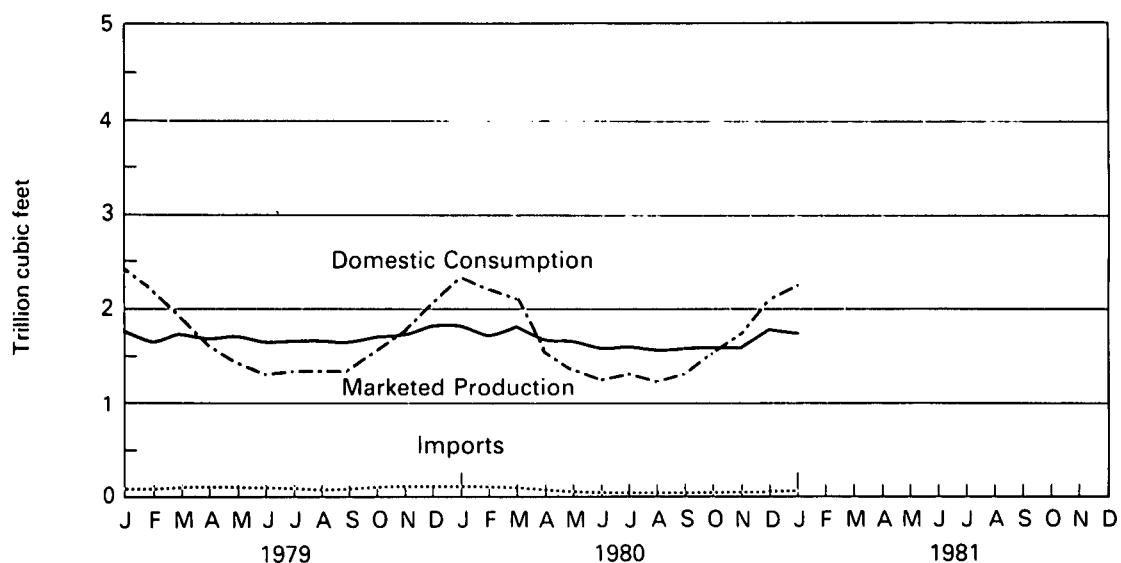
• Domestic Producer Sales — Federal Power Commission (FPC) Form 11, "Natural Gas Pipeline Company Monthly Statement."

• Imports — 1973 through 1979: FPC Form 14, "Imports and Exports of Natural Gas"; January 1980 forward: EIA estimates based on import data from FPC Form 11.

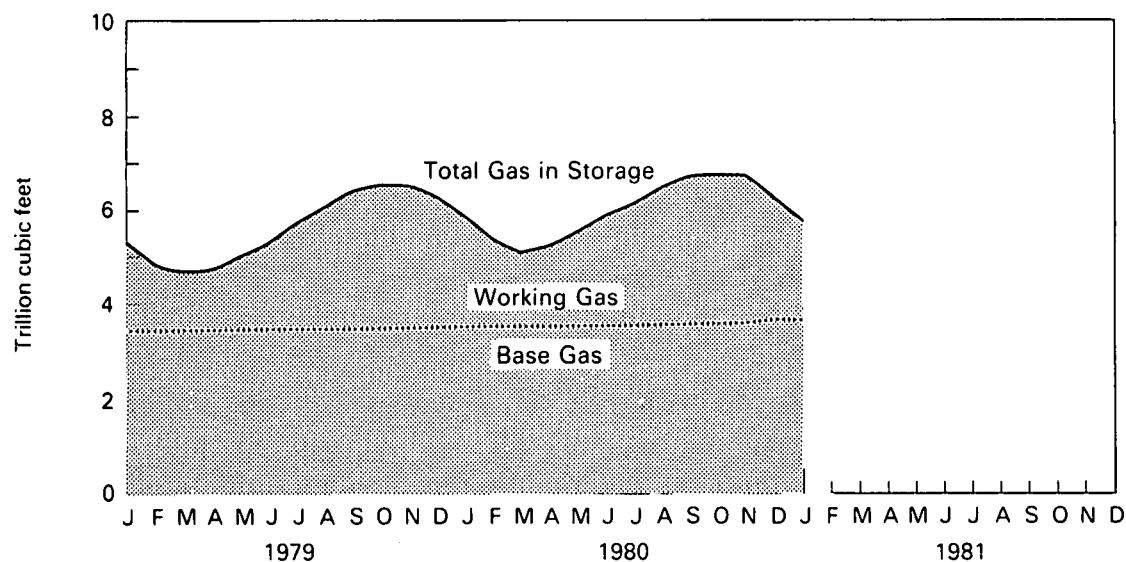
• Exports — 1973 through 1979: FPC Form 14; January 1980 forward: EIA estimates based primarily on historical data reported on FPC Form 14.

## Natural Gas

Domestic Consumption, Marketed Production and Imports



## Gas in Storage



# Natural Gas

## Natural Gas in Underground Storage<sup>1</sup>

	Total Gas in Storage <sup>2</sup>	Base Gas	Working Gas	Storage Injections	Storage Withdrawals	Net Storage Injections <sup>3</sup>	
Billion cubic feet							
1975	\$5,358	\$3,150	\$2,208	NA	NA	NA	
1976	\$5,231	\$3,310	\$1,922	1,952	2,074	(122)	
1977	\$5,844	\$3,377	\$2,466	2,390	1,767	623	
1978	\$5,999	\$3,459	\$2,540	2,330	2,176	154	
1979	January February March April May June July August September October November December	5,348 4,806 4,695 4,762 5,057 5,399 5,743 6,095 6,401 6,563 6,541 6,297	3,458 3,457 3,459 3,427 3,438 3,449 3,459 3,467 3,481 3,484 3,496 3,537	1,890 1,349 1,236 1,335 1,619 1,950 2,284 2,628 2,920 3,079 3,045 2,761	21 23 94 182 308 350 361 362 326 196 108 53	673 566 205 73 13 8 19 12 14 34 132 292	(652) (543) (111) 109 295 342 342 350 312 162 (24) (239)
1980	January February March April May June July August September October November December	5,865 5,397 5,131 5,227 5,538 5,841 6,127 6,444 6,692 6,782 6,639 6,272	3,535 3,536 3,542 3,547 3,553 3,560 3,564 3,594 3,596 3,598 3,620 3,628	2,330 1,861 1,589 1,680 1,985 2,281 2,563 2,850 3,096 3,184 3,019 2,643	21 24 41 174 319 316 302 328 260 141 66 34	465 493 307 78 8 13 18 30 11 53 203 402	(444) (469) (266) 96 311 303 284 298 249 88 (137) (368)
1981	January	5,763	3,629	2,134	28	537	
						(509)	

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Explanatory Note 9.

<sup>2</sup>Base Gas and Working Gas may not add to Total Gas in Storage due to independent rounding.

<sup>3</sup>Net Storage Injections = storage injection minus storage withdrawal. Parentheses indicate withdrawal greater than injection.

†Total as of December 31.

NA = Not available.

Source: • Energy Information Administration Form 191 and Federal Power Commission Form 8, "Underground Gas Storage Report."

# Part 5

## Oil and Gas Resource Development

### Oil and Gas Resource Development

The January rotary rig count of 3,386 is the highest in U.S. drilling history. The count surpassed the previous record of 3,286 rigs the month before. This represents a 31.7 percent increase over the January 1980 count of 2,571 rotary rigs.

Well completions reported in January 1981 totaled 4,120. This is a 19.1 percent increase from the number reported during January 1980.

Oil well completions reported in January 1981 (1,789 reported) were up 24.6 percent from January 1980 (1,436 reported). In January 1981, 971 gas well completions were reported, 24.2 percent above the January 1980 level. Dry hole completions reported increased 9.7 percent (1,360 as compared to 1,240 during the previous January). Total reported footage drilled increased 22.6 percent (20.2 million feet as compared to 16.5 million feet the year before).

There were 38 crews engaged in seismic exploratory work offshore in January 1981. This is a 31.0 percent increase from the January 1980 level. January 1981 onshore seismic activity attained a new high of 553 crews, 26.0 percent higher than activity during January 1980.

## Oil and Gas Resource Development

		Rotary Rigs In Operation	Exploratory and Development Wells Completed <sup>1,2</sup>				Total Footage of Wells Completed <sup>1</sup>	
			Oil	Gas	Dry	Total		
		Monthly average					Thousand feet	
1973	AVERAGE	1,194	TOTAL	9,902	6,385	10,305	26,592	136,391
1974	AVERAGE	1,475	TOTAL	12,784	7,240	11,674	31,698	150,551
1975	AVERAGE	1,660	TOTAL	16,408	7,580	13,247	37,235	174,434
1976	AVERAGE	1,656	TOTAL	17,059	9,085	13,621	39,765	181,780
1977	AVERAGE	2,001	TOTAL	18,912	11,378	14,692	44,982	210,848
1978	AVERAGE	2,259	TOTAL	17,775	13,064	16,218	47,057	227,110
1979	January	2,199		1,372	996	1,278	3,646	17,963
	February	2,064		1,463	1,139	1,076	3,678	18,017
	March	1,971		1,544	1,343	1,372	4,259	21,175
	April	1,943		1,135	1,085	926	3,146	16,019
	May	1,960		1,335	1,024	1,166	3,525	17,451
	June	1,999		1,696	1,199	1,252	4,147	19,520
	July	2,094		1,535	1,090	1,131	3,756	16,910
	August	2,222		1,529	1,245	1,366	4,140	19,555
	September	2,284		1,831	1,382	1,423	4,636	22,676
	October	2,380		1,647	1,138	1,313	4,098	19,216
	November	2,460		1,869	1,270	1,505	4,644	21,843
	December	2,552		2,390	1,736	1,891	6,017	27,098
	AVERAGE	2,177	TOTAL	19,383	14,681	15,752	49,816	238,659
1980	January	2,571		R1,436	R782	R1,240	R3,458	R16,475
	February	2,613		1,632	1,007	1,311	3,950	18,988
	March	2,658		2,383	1,839	1,547	5,769	27,665
	April	2,682		1,836	1,120	1,168	4,124	18,884
	May	2,797		2,061	1,080	1,202	4,343	20,034
	June	2,850		2,232	1,296	1,463	4,991	24,640
	July	2,953		2,068	1,037	1,333	4,438	21,649
	August	3,045		2,340	1,270	1,537	5,147	24,037
	September	3,099		2,636	1,721	1,761	6,118	28,168
	October	3,148		2,409	1,191	1,692	5,292	24,554
	November	3,220		2,239	1,498	1,598	5,335	25,273
	December	3,286		3,675	1,903	2,237	7,815	33,806
	AVERAGE	2,910	TOTAL	26,985	15,737	18,087	60,809	284,259
1981	January	3,386		1,789	971	1,360	4,120	20,195

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>These data are for well completions reported to the American Petroleum Institute during the reporting period. Excludes service wells and stratigraphic and core tests.

<sup>2</sup>Data reported for the first 2 months of each quarter cover 4 weeks of drilling activity, and data for the last month of the quarter cover 5 weeks of drilling activity.

R = Revised data.

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

Sources: • Rotary Rigs: Hughes Tool Company, "Rotary Rigs Running—By State."

• Wells: American Petroleum Institute (API), "Monthly Drilling Report" and "Quarterly Review of Drilling Statistics for the United States."

## Oil and Gas Resource Development

		Crews Engaged in Seismic Exploration			Line-Miles of Seismic Exploration		
		Offshore	Onshore	Total	Offshore <sup>1</sup>	Onshore <sup>1</sup>	Total <sup>1</sup>
		Monthly average			Annual total		
1973	AVERAGE	23	227	250	258,944	127,160	386,104
1974	AVERAGE	31	274	305	341,784	158,629	500,413
1975	AVERAGE	30	254	284	309,283	150,694	459,977
1976	AVERAGE	25	237	262	226,303	142,926	369,229
1977	AVERAGE	27	281	308	124,676	120,072	244,748
1978	AVERAGE	25	327	352	174,607	135,899	310,506
1979	January	28	327	355			
	February	29	321	350			
	March	32	332	364			
	April	30	330	360			
	May	28	355	383			
	June	32	372	404			
	July	31	376	407			
	August	31	393	424			
	September	30	403	433			
	October	29	407	436			
	November	31	408	439			
	December	31	419	450			
	AVERAGE	30	370	400	193,212	163,929	357,141
1980	January	29	439	468			
	February	29	440	469			
	March	29	448	477			
	April	31	465	496			
	May	34	468	502			
	June	39	496	535			
	July	42	514	556			
	August	44	521	565			
	September	44	523	567			
	October	41	530	571			
	November	41	531	572			
	December	40	540	580			
	AVERAGE	37	493	530			
1981	January	38	553	591			

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Monthly data not available.

Sources: • Society of Exploration Geophysicists, "Monthly Seismic Crew Count" and annual reports published in their bulletin, *Geophysics*.



# Part 6

## Coal

### Coal

The United States produced a record 835.4 million tons of coal in 1980, an increase of 6.9 percent from the 781.1 million tons produced in 1979. The 1980 output was comprised of 830.0 million tons of bituminous coal and lignite and 5.4 million tons of Pennsylvania anthracite. In 1979, bituminous coal and lignite production totaled 776.3 million tons and anthracite output totaled 4.8 million tons.

Imports of coal in 1980 totaled 1.2 million tons, 0.9 million tons below the amount imported during 1979. Exports of coal in 1980 were at a record level of 91.7 million tons, 39.0 percent above the 66.0 million tons exported in 1979. Metallurgical and steam coal exports both totaled over 12 million tons above shipments a year earlier.

Electric utility coal consumption in 1980 totaled 569.2 million tons, 42.1 million tons more than consumption in 1979. Coke plants, the second largest coal consuming sector, used 66.7 million tons in 1980, 13.8 percent below the amount consumed in 1979.

Electric utility stockpiles increased from 159.7 million tons at the end of December 1979 to 183.0 million tons at the end of December 1980. Coal stocks held by coke plants declined from 10.2 million tons at the end of December 1979 to 9.1 million tons at the end of December 1980.

# Coal

## Bituminous Coal, Lignite, and Anthracite

		Production	Domestic Consumption	Imports <sup>1</sup>	Exports <sup>2,3</sup>	Stocks <sup>4</sup>
Thousand short tons						
1973	TOTAL	598,568	562,584	127	53,587	104,335
1974	TOTAL	610,023	558,402	2,080	60,661	96,323
1975	TOTAL	654,641	562,641	940	66,309	128,050
1976	TOTAL	684,913	603,790	1,203	60,021	134,438
1977	TOTAL	697,205	625,291	1,647	54,312	157,098
1978	TOTAL	670,164	625,225	2,953	40,691	145,551
1979	January	57,794	61,199	186	3,605	136,425
	February	54,810	54,463	252	2,726	129,042
	March	66,775	54,864	123	4,642	134,044
	April	63,937	51,601	161	5,268	142,328
	May	69,488	54,026	112	6,215	151,269
	June	70,698	56,025	209	5,975	155,406
	July	53,595	60,397	88	6,297	148,265
	August	71,616	60,750	320	6,248	152,787
	September	64,590	54,219	180	5,146	158,016
	October	78,563	55,719	152	7,446	169,633
	November	68,506	55,997	130	6,170	177,722
	December	60,762	61,263	146	6,278	181,646
	TOTAL	781,134	680,524	2,059	66,016	
1980	January	68,276	R63,614	121	4,460	179,424
	February	64,678	59,761	193	4,041	176,772
	March	70,326	58,904	93	5,633	176,637
	April	70,381	52,641	63	7,563	R184,010
	May	70,899	52,842	207	8,597	R193,855
	June	71,850	56,107	104	8,899	199,204
	July	61,225	63,182	32	8,247	185,884
	August	70,665	62,889	166	9,270	190,635
	September	72,460	57,434	2	8,364	R194,333
	October	76,210	57,217	139	9,454	201,658
	November	65,930	57,625	3	8,987	203,904
	December	72,500	63,728	70	8,228	203,242
	TOTAL	835,400	705,943	1,194	91,742	

Geographic coverage: the 50 United States and District of Columbia.

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

See Explanatory Note 10 for methodology used to calculate domestic consumption from 1978 forward.

<sup>1</sup>Bituminous coal is the only type of coal imported during the years shown above.

<sup>2</sup>Data include bituminous coal and anthracite only from 1973 through 1979. 1980 includes lignite.

<sup>3</sup>Excludes shipments of anthracite to U.S. Armed Forces overseas (340,000 tons in 1980).

<sup>4</sup>Stocks held by electric utilities, coke plants, and the other Industrial Sector at the end of period. Excludes stocks at retail dealers (which are consumed by the Residential and Commercial Sectors).

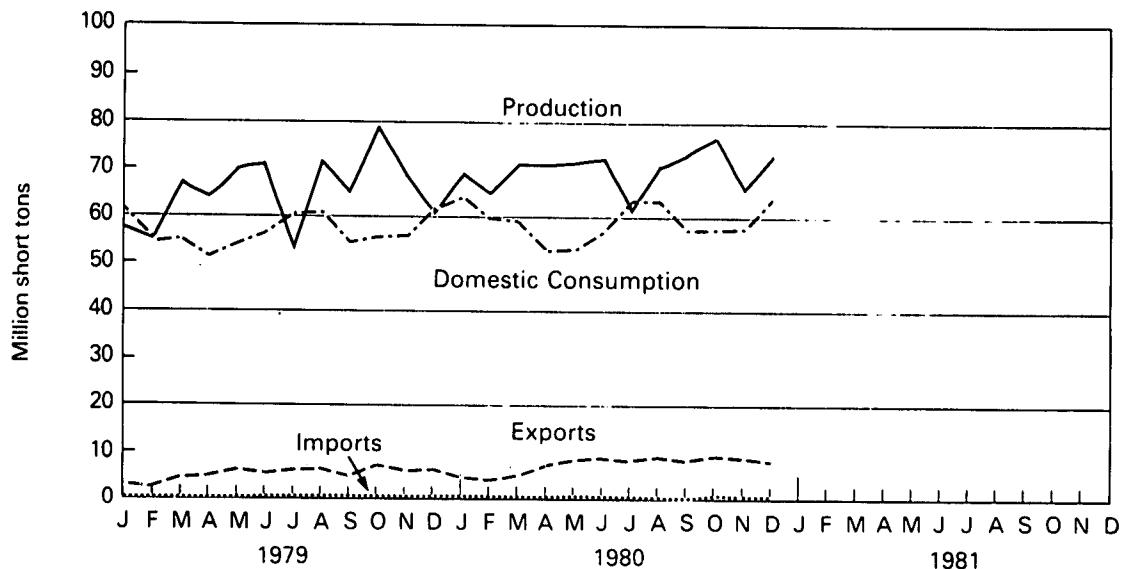
R = Revised data.

Sources: • See Sources on the last page of this section.

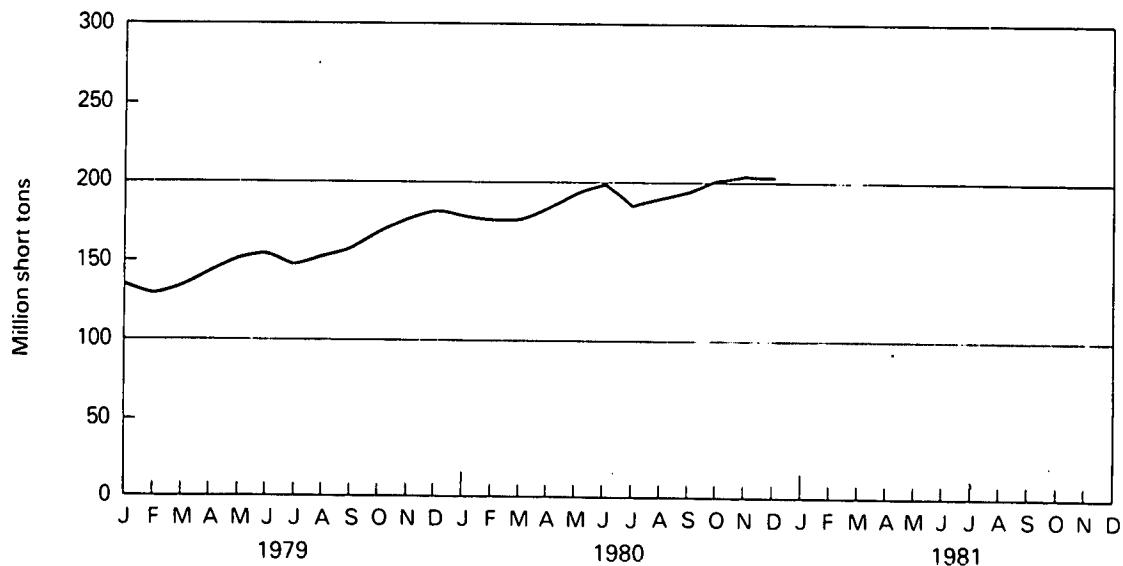
# Coal

Bituminous Coal, Lignite, and Anthracite

Production, Consumption, Imports, and Exports



## Stocks



# Coal

## Consumption — Bituminous Coal, Lignite, and Anthracite

		Industrial				
		Electric Utilities	Coke Plants <sup>1</sup>	Other Industrial <sup>2</sup> Including Transportation	Residential and Commercial	Total
Thousand short tons						
1973	TOTAL	389,212	94,101	68,154	11,117	562,584
1974	TOTAL	391,811	90,191	64,983	11,417	558,402
1975	TOTAL	405,962	83,598	63,670	9,410	562,641
1976	TOTAL	448,371	84,704	61,799	8,916	603,790
1977	TOTAL	477,126	77,739	61,472	8,954	625,291
1978	TOTAL	481,235	71,394	63,085	9,511	625,225
1979	January	46,902	6,578	6,428	1,291	61,199
	February	41,891	5,954	5,836	782	54,463
	March	41,781	6,850	5,617	616	54,864
	April	38,979	6,558	5,511	553	51,601
	May	41,532	6,725	5,269	500	54,026
	June	44,008	6,470	5,034	513	56,025
	July	48,216	6,513	5,223	445	60,397
	August	48,549	6,417	5,363	421	60,750
	September	42,167	6,334	5,159	559	54,219
	October	42,970	6,404	5,565	780	55,719
	November	42,980	6,138	5,946	933	55,997
	December	47,075	6,427	6,766	995	61,263
	TOTAL	527,051	77,368	67,717	8,388	680,524
1980	January	50,369	R6,342	R5,923	980	R63,614
	February	47,513	6,010	5,380	858	59,761
	March	46,685	6,428	5,179	612	58,904
	April	40,692	6,247	5,132	570	52,641
	May	41,464	6,127	4,907	344	52,842
	June	45,821	5,326	4,688	272	56,107
	July	53,582	4,903	4,369	328	63,182
	August	53,214	4,878	4,487	310	62,889
	September	47,913	4,794	4,315	412	57,434
	October	45,085	5,107	6,175	850	57,217
	November	45,698	5,152	5,875	900	57,625
	December	51,157	5,346	6,075	1,150	63,728
	TOTAL	569,192	R66,660	62,505	7,586	705,943

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Bituminous coal and anthracite only. Lignite is not used at coke plants.

<sup>2</sup>See Explanatory Note 10.

R = Revised data.

Sources: • See Sources on the last page of this section.

## Coal

### Stocks<sup>1</sup> — Bituminous Coal, Lignite, and Anthracite

		Industrial			
		Electric Utilities	Coke Plants <sup>2</sup>	Other Industrial	Total <sup>3</sup>
Thousand short tons					
<b>1973</b>		<b>86,967</b>	<b>6,998</b>	<b>10,370</b>	<b>104,335</b>
<b>1974</b>		<b>83,509</b>	<b>6,209</b>	<b>6,605</b>	<b>96,323</b>
<b>1975</b>		<b>110,724</b>	<b>8,797</b>	<b>8,529</b>	<b>128,050</b>
<b>1976</b>		<b>117,436</b>	<b>9,902</b>	<b>7,100</b>	<b>134,438</b>
<b>1977</b>		<b>133,219</b>	<b>12,816</b>	<b>11,063</b>	<b>157,098</b>
<b>1978</b>		<b>128,225</b>	<b>8,278</b>	<b>9,048</b>	<b>145,551</b>
<b>1979</b>	January	119,948	7,647	8,830	136,425
	February	114,394	6,763	7,885	129,042
	March	118,542	7,561	7,941	134,044
	April	125,776	8,482	8,070	142,328
	May	133,793	9,228	8,248	151,269
	June	136,627	10,051	8,728	155,406
	July	131,095	8,306	8,864	148,265
	August	134,257	9,021	9,509	152,787
	September	139,129	9,036	9,851	158,016
	October	149,949	9,724	9,960	169,633
	November	157,737	9,983	10,002	177,722
	December	159,714	10,155	11,777	181,646
<b>1980</b>	January	158,707	9,634	11,083	179,424
	February	157,120	9,263	10,389	176,772
	March	157,625	9,317	9,695	176,637
	April	164,524	9,579	9,907	184,010
	May	174,044	9,692	10,119	193,855
	June	178,959	9,913	10,332	199,204
	July	166,852	8,427	10,605	185,884
	August	171,891	7,866	10,878	190,635
	September	175,067	8,213	11,052	R194,333
	October	182,045	8,488	11,025	201,658
	November	184,133	8,606	11,165	203,904
	December	183,010	9,067	11,165	203,242

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Stocks held by utilities, coke plants, and general industry at end of period.

<sup>2</sup>Bituminous coal and anthracite only. Lignite is not used at coke plants.

<sup>3</sup>Total excludes stocks at retail dealers (which are consumed by the Residential and Commercial Sectors).

R = Revised data.

Sources: • See Sources on the last page of this section.

## Sources for the Coal Section

- 1973 through September 1977: Bureau of Mines, *Minerals Yearbook and Mineral Industry Surveys*.
- October 1977 forward: Production: Association of American Railroads, Statement CS54A; Commonwealth of Pennsylvania, Department of Environmental Resources, "Anthracite Mines—Monthly Tonnage, Manhour and Accident Report" and "Annual Report on Mining, Oil and Gas, and Land Reclamation and Conservation Activities"; Energy Information Administration (EIA) "Weekly Coal Report," "Bituminous Coal and Lignite Quarterly Distribution Report" (Form EIA-6), "Bituminous Coal and Lignite, Production and Mine Operation—Annual Report" (Form EIA-7), and Bureau of Mines Form 6-1385A, "Pennsylvania Anthracite Production, Mines Without Preparation Plants," BOM Form 6-1387A, "Pennsylvania Anthracite Production, Contractor's Report," BOM Form 6-1388A, "Pennsylvania Anthracite Production, River Coal Report"; and Various States, Annual Coal Mining Reports.
- October 1977 forward: Domestic Consumption and Stocks: EIA, "Monthly Power Plant Report" (FPC Form 4), "Monthly Fuel Consumption Report—Manufacturing Plants" (Form EIA-3), "Coke and Coal Chemicals—Monthly/Annual" (Form EIA-5/5A), "Bituminous Coal and Lignite—Quarterly Distribution Report" (Form EIA-6) and "Monthly Coal Report, Retail Dealers and Upper Lakes Docks" (Form EIA-2).
- October 1977 forward: Imports/Exports: Bureau of the Census, Monthly Reports IM 145 (Imports) and EM 522 (Exports).

# Part 7

## Electric Utilities

### Electric Utilities

December 1980 production of electricity by utilities was 195.4 billion kilowatt-hours, 3.6 percent above the December 1979 production level. Coal-fired production totaled 104.3 billion kilowatt-hours and nuclear production totaled 22.1 billion kilowatt-hours. These figures reflect increases of 8.4 and 7.5 percent, respectively, above the December 1979 output levels. Petroleum-fired production totaled 23.4 billion kilowatt-hours, natural gas-fired production totaled 22.8 billion kilowatt-hours, and hydroelectric production totaled 22.3 billion kilowatt-hours, 7.3, 3.0 and 1.9 percent, respectively, below the December 1979 levels.

Sales of electricity to all ultimate consumers in the United States in December 1980 totaled 175.6 billion kilowatt-hours, an increase of 8.3 percent from sales of the month before and 3.6 percent above December 1979 sales. Sales to residential consumers during December 1980 were 60.8 billion kilowatt-hours, 4.6 percent above sales for the corresponding month in 1979. Commercial sales were 39.8 billion kilowatt-hours, 5.0 percent more than the

amount for December 1979. Sales to industrial consumers totaled 68.5 billion kilowatt-hours in December 1980, about 1.8 percent more than the December 1979 figure. In December 1980 other sales totaled 6.5 billion kilowatt-hours, 5.8 percent above the December 1979 level.

Electric utility petroleum consumption (excluding petroleum coke) during December 1980 was 39.7 million barrels, a 8.8 percent drop from the December 1979 level. Coal consumption for December 1980 was 51.2 million tons, 8.7 percent above the December 1979 rate. During December 1980, consumption of natural gas by electric utilities was 240.2 billion cubic feet, 3.6 percent below the December 1979 consumption level.

On December 31, 1980, utility stocks of anthracite, bituminous coal, and lignite totaled 183.0 million tons. Stockpiles were 14.6 percent above the levels of December 1979.

Petroleum stocks (excluding petroleum coke) on December 31, 1980, totaled 135.1 million barrels, 2.8 percent above the levels for the same month of 1979.

# Electric Utilities

## Net Electricity Production by Primary Energy Source

		Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural Gas	Nuclear	Hydro	Other <sup>3</sup>	Total
Million kilowatt-hours								
1973	TOTAL	847,651	314,343	340,858	83,479	272,083	2,294	1,860,710
1974	TOTAL	828,433	300,931	320,065	113,976	301,032	2,703	1,867,140
1975	TOTAL	852,786	289,095	299,778	172,505	300,047	3,437	1,917,649
1976	TOTAL	944,391	319,988	294,624	191,104	283,707	3,883	2,037,696
1977	TOTAL	985,219	358,179	305,505	250,883	220,475	4,063	2,124,323
1978	TOTAL	975,742	365,060	305,391	276,403	280,419	3,315	2,206,331
1979	January	94,986	39,474	22,093	27,792	25,021	326	209,692
	February	84,748	32,274	21,844	25,911	21,275	285	186,337
	March	85,220	22,076	24,916	24,335	25,921	382	182,849
	April	80,450	20,599	24,763	18,418	25,389	342	169,962
	May	86,149	21,470	26,135	15,025	28,939	350	178,069
	June	90,817	24,367	30,107	16,065	24,979	347	186,682
	July	97,879	25,750	34,676	20,825	22,761	364	202,255
	August	97,910	26,123	34,949	24,204	21,260	405	204,850
	September	85,664	22,509	31,442	21,804	18,978	354	180,751
	October	87,528	20,279	30,419	20,934	20,167	389	179,716
	November	87,456	23,380	24,661	19,255	22,367	387	177,506
	December	96,230	25,223	23,481	20,586	22,727	456	188,703
	TOTAL	1,075,037	303,525	329,485	255,155	279,783	4,387	2,247,372
1980	January	103,147	25,099	26,350	19,746	25,297	388	200,027
	February	98,148	24,784	24,748	19,277	21,378	373	188,708
	March	95,387	20,419	26,964	20,039	24,332	401	187,542
	April	83,534	16,064	24,015	18,794	25,745	410	168,562
	May	84,882	16,560	26,573	18,385	28,866	468	175,733
	June	93,690	18,034	31,282	18,322	27,656	445	189,430
	July	107,891	23,293	39,060	21,024	24,418	475	216,160
	August	107,580	24,889	37,640	24,333	20,476	517	215,435
	September	97,556	17,816	33,572	23,578	18,491	469	191,483
	October	91,147	15,893	28,592	24,510	17,866	533	178,541
	November	93,501	19,988	24,343	20,984	19,217	519	178,552
	December	104,340	23,386	22,776	22,130	22,284	504	195,420
	TOTAL	1,160,802	246,226	345,914	251,122	276,026	5,503	2,285,593

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Includes bituminous coal, lignite, and anthracite.

<sup>2</sup>Includes fuel oil No. 2, No. 4, No. 5, No. 6, crude oil, kerosene, and petroleum coke.

<sup>3</sup>Includes geothermal, wood and waste.

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

# Electric Utilities

## Electricity Sales<sup>1</sup>

		Residential	Commercial	Industrial	Other <sup>2</sup>	Total
Million kilowatt-hours						
1973	TOTAL	579,231	388,266	686,085	59,326	1,712,909
1974	TOTAL	578,184	384,826	684,875	58,039	1,705,924
1975	TOTAL	584,712	401,674	675,271	68,153	1,729,810
1976	TOTAL	602,863	423,639	739,965	69,557	1,836,024
1977	TOTAL	641,134	444,931	772,291	70,489	1,928,845
1978	TOTAL	671,094	459,908	800,656	73,152	2,004,814
1979	January	69,939	40,362	68,324	6,762	185,387
	February	67,842	39,865	67,632	6,176	181,515
	March	59,314	38,123	69,783	6,029	173,249
	April	50,079	35,930	69,944	5,604	161,557
	May	45,730	36,398	71,798	5,625	159,551
	June	49,556	39,689	71,919	5,696	166,860
	July	58,606	42,773	70,984	5,976	178,339
	August	64,808	44,199	71,956	6,346	187,310
	September	59,703	42,498	71,014	6,425	179,641
	October	49,505	38,820	71,472	6,151	165,948
	November	49,617	36,711	69,780	6,163	162,271
	December	58,120	37,939	67,297	6,117	169,473
	TOTAL	682,819	473,307	841,903	73,070	2,071,101
1980	January	65,852	39,516	67,634	6,658	179,660
	February	64,503	39,600	68,384	6,171	178,658
	March	60,497	38,784	69,058	6,028	174,368
	April	51,749	36,436	68,007	5,510	161,703
	May	45,699	36,110	67,235	5,807	154,851
	June	52,267	40,129	66,739	5,737	164,872
	July	68,611	45,525	65,531	6,215	185,882
	August	74,893	47,679	67,377	6,255	196,205
	September	67,969	46,028	69,570	6,572	190,139
	October	54,012	40,478	69,414	6,174	170,078
	November	50,539	37,954	67,613	6,068	162,174
	December	60,775	39,846	68,517	6,469	175,607
	TOTAL	717,366	488,085	815,079	73,664	2,094,197

Geographic coverage: the 50 United States and District of Columbia.

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

<sup>1</sup>Electricity sales to all ultimate consumers.

<sup>2</sup>Includes street lighting and transportation uses.

Source: • 1973 through February 1980: FPC Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: Federal Energy Regulatory Commission Form 5, "Electric Utility Company Monthly Statement."

# Electric Utilities

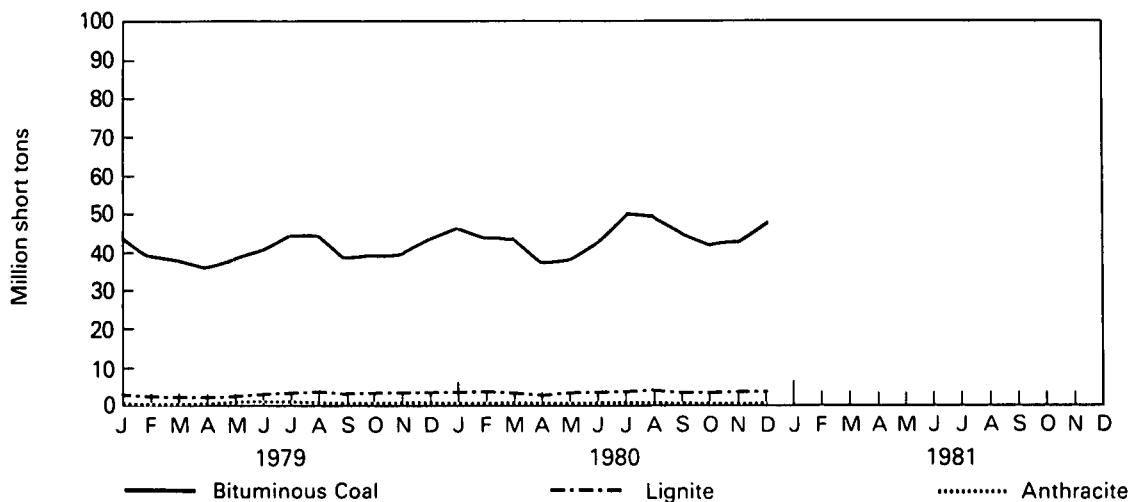
## Primary Energy Consumed to Produce Electricity

		Coal				Petroleum			Natural Gas
		Anthracite	Bituminous Coal	Lignite	Total	Steam	Gas Turb./Int. Comb.	Coke	
			Thousand short tons				Thousand barrels		Thousand short tons
									Million cubic feet
1973	TOTAL	1,443	376,975	10,794	389,212	513,190	47,058	507	3,660,172
1974	TOTAL	1,498	378,643	11,670	391,811	483,146	53,128	625	3,443,428
1975	TOTAL	1,480	388,523	15,960	405,962	467,221	38,907	70	3,157,669
1976	TOTAL	1,350	425,205	21,817	448,371	514,077	41,843	68	3,080,868
1977	TOTAL	1,425	451,051	24,650	477,126	574,869	48,837	98	3,191,200
1978	TOTAL	1,064	448,763	31,407	481,235	588,319	47,520	398	3,188,363
1979	January	89	43,791	3,021	46,902	62,226	6,244	33	228,479
	February	75	39,010	2,806	41,891	51,655	4,959	32	226,896
	March	65	38,865	2,852	41,781	36,371	1,872	22	260,351
	April	66	36,362	2,551	38,979	33,800	1,682	15	260,974
	May	106	38,669	2,757	41,532	35,285	2,053	23	277,318
	June	103	40,882	3,023	44,008	39,258	2,314	25	320,196
	July	96	44,391	3,730	48,216	41,895	2,413	23	369,318
	August	97	44,553	3,899	48,549	42,478	2,416	23	375,370
	September	86	38,920	3,162	42,167	36,768	1,747	17	338,308
	October	75	39,634	3,261	42,970	33,445	1,132	16	323,082
	November	92	39,571	3,317	42,980	37,822	1,954	18	260,982
	December	96	43,480	3,499	47,075	41,601	1,906	20	249,249
	TOTAL	1,046	488,129	37,876	527,051	492,606	30,691	268	3,490,523
1980	January	74	46,516	3,779	50,369	41,107	2,197	54	276,784
	February	72	43,969	3,471	47,513	40,238	1,920	21	263,709
	March	83	43,244	3,357	46,685	33,413	1,397	13	283,845
	April	71	37,971	2,651	40,692	27,030	673	7	256,606
	May	86	38,116	3,262	41,464	27,090	841	11	281,862
	June	89	42,073	3,658	45,821	29,635	1,139	11	336,894
	July	93	49,743	3,746	53,582	37,298	2,801	11	420,339
	August	80	49,077	4,057	53,214	40,165	2,832	15	405,292
	September	84	44,487	3,342	47,913	29,374	1,289	11	357,152
	October	73	41,811	3,200	45,085	26,353	689	8	301,343
	November	56	42,379	3,263	45,698	32,780	1,320	7	255,663
	December	89	47,212	3,856	51,157	38,390	1,284	9	240,248
	TOTAL	951	526,599	41,642	569,192	402,875	18,383	179	3,679,734

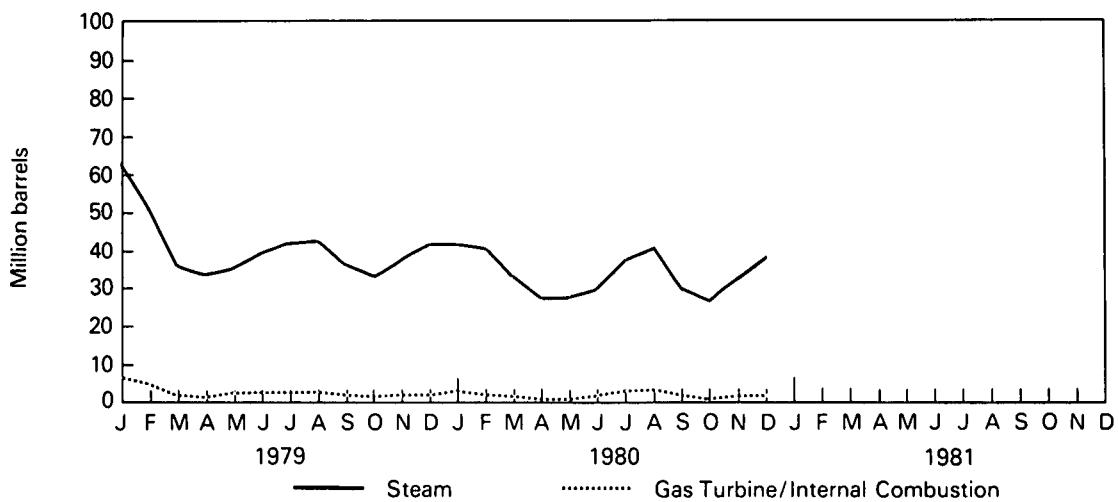
Geographic coverage: the 50 United States and District of Columbia.  
 Totals may not equal sum of components due to independent rounding.  
 Source: • Federal Power Commission Form 4, "Monthly Power Plant Report."

## Electric Utilities

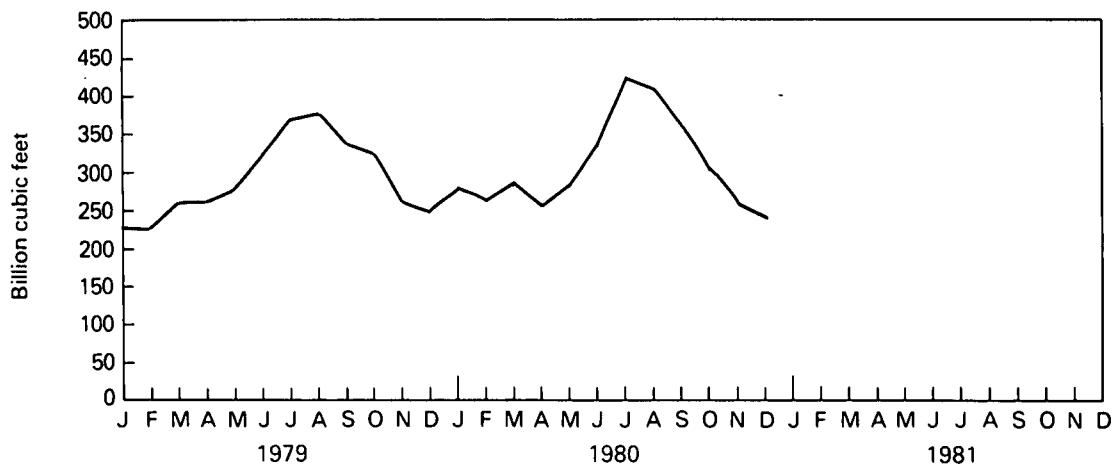
### Coal Consumption



### Petroleum Consumption



### Natural Gas Consumption



# Electric Utilities

## End-of-Month Coal and Petroleum Stocks

	Coal				Petroleum		
	Bituminous		Lignite	Total	Steam	Gas Turb./ Int. Comb.	Coke
	Anthracite	Coal					
	Thousand short tons				Thousand barrels		Thousand short tons
1973	\$1,066	\$84,941	\$961	\$86,967	\$79,121	\$10,095	\$312
1974	\$930	\$81,712	\$867	\$83,509	\$97,718	\$15,199	\$35
1975	\$982	\$107,927	\$1,815	\$110,724	\$108,825	\$16,432	\$31
1976	\$1,000	\$114,130	\$2,306	\$117,436	\$106,993	\$14,703	\$32
1977	\$2,321	\$128,210	\$2,688	\$133,219	\$124,750	\$19,281	\$44
1978	\$2,178	\$123,020	\$3,027	\$128,225	\$102,402	\$16,386	\$198
1979	January	2,154	114,980	2,814	119,948	89,583	15,635
	February	2,136	109,532	2,726	114,394	82,078	15,541
	March	2,170	113,669	2,704	118,542	96,033	16,386
	April	2,220	120,876	2,680	125,776	99,500	16,835
	May	2,231	128,962	2,600	133,793	106,017	16,974
	June	2,233	131,898	2,495	136,627	104,513	17,180
	July	2,290	126,328	2,478	131,095	104,170	17,578
	August	2,328	128,760	3,170	134,257	103,965	17,910
	September	2,385	133,605	3,139	139,129	104,857	18,733
	October	2,452	144,035	3,462	149,949	109,590	19,410
	November	2,496	151,848	3,393	157,737	111,072	19,714
	December	3,274	152,981	3,459	159,714	111,121	20,301
1980	January	3,371	151,881	3,455	158,707	114,007	19,607
	February	3,451	150,147	3,522	157,120	111,362	19,050
	March	3,488	151,022	3,116	157,625	116,291	18,909
	April	3,533	157,148	3,843	164,524	118,803	19,176
	May	3,725	166,339	3,980	174,044	122,832	19,463
	June	3,838	171,041	4,079	178,959	124,781	19,216
	July	3,955	159,205	3,691	166,852	121,622	20,490
	August	4,098	163,756	4,036	171,891	118,524	19,043
	September	4,291	166,515	4,262	175,067	122,235	17,818
	October	4,481	173,411	4,153	182,045	124,176	18,397
	November	4,661	175,489	3,983	184,133	119,802	17,998
	December	4,741	174,154	4,115	183,010	117,310	17,826

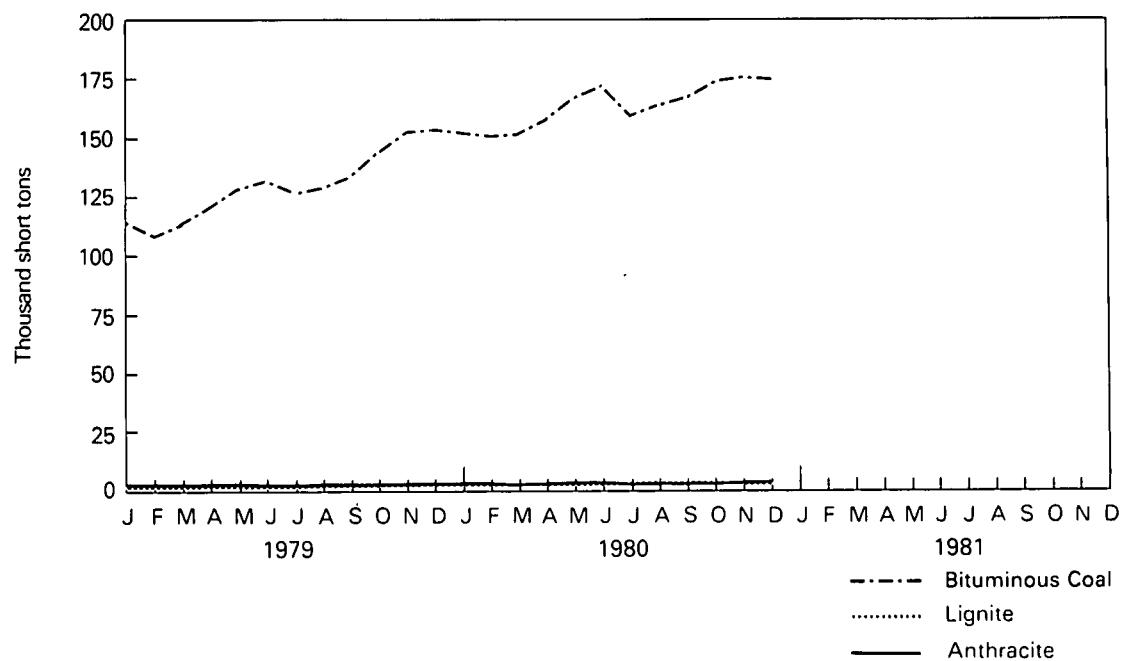
Geographic coverage: the 50 United States and District of Columbia.  
 Totals may not equal sum of components due to independent rounding.

†Total as of December 31.

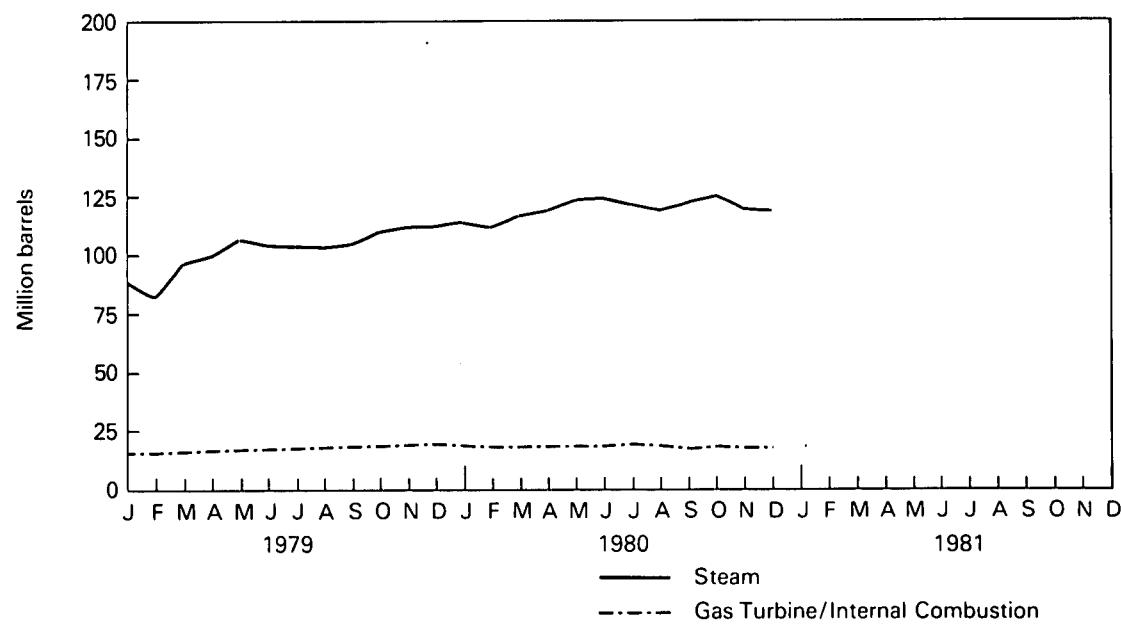
Source: • Federal Power Commission Form 4, "Monthly Power Plant Report."

## Electric Utilities

### Coal Stocks (Bituminous Coal, Lignite, and Anthracite)



### Petroleum Stocks





# Part 8

## Nuclear

### Nuclear

As of December 31, 1980, there were 75 domestic reactors licensed for commercial operation or for low-power testing. That total is unchanged from October. Three units (Dresden-1, Humboldt Bay, and Three Mile Island-2) are in indefinite suspension and 17 units (Big Rock Point-1, Browns Ferry-3, Farley-1, Hanford-1, Hatch-1, Indian Point-2, LaCrosse, Millstone-1, Oconee-3, Point Beach-1, Quad Cities-1, Salem-1, San Onofre-1, Three Mile Island-1, Turkey Point-4, and Vermont Yankee) were down during most or all of December; two units (Farley-2 and Salem-2) were in low-power testing, and Sequoyah-1 remained in power ascension. North Anna-2, which was in power ascension in November, received its "full power" operating license in December.

During December, nuclear power plants generated a total of 22.1 billion net kilowatt-hours of electricity. This was an increase of 5.5 percent over the November 1980 output and 7.5 percent over the December 1979 output. During 1980, nuclear electricity generation was 1.6 percent below the 1979 output.

As of December 31, 1980, the total number of domestic reactor units planned, under construction, or which have been licensed for start-up or for full-power commercial operation was 172, down 14 units (Davis Besse-2, -3, Erie-1, -2, Forked River, Greenwood-2, -3, Haven-1, Jamesport-1, -2, Montague-1, -2, North Anna-4 and Sterling) from the level at the end of 1979. In contrast, two units (Arkansas-2 and North Anna-2) went into commercial operation and 3 units (Farley-2, Salem-2, and Sequoyah-1) received low-power licenses in 1980. During 1980, projected capacity of all U.S. operating and planned power reactors fell by 15.5 million kilowatts to 164 million kilowatts.

# Nuclear

## Domestic Nuclear Powerplant Operations

		Reactors Licensed For Commercial Operations <sup>1</sup>	Nuclear-Based Electricity Generation <sup>2</sup>	Nuclear Portion of Domestic Electricity Generation	Maximum Dependable Capacity <sup>3</sup>	Capacity Factor <sup>4</sup>
			Million net kilowatt-hours	Percent	Million net kilowatts	Percent
1973	AVERAGE	40	83,479	4.5	13.850	63.2
1974	AVERAGE	53	113,976	6.1	29.921	43.5
1975	AVERAGE	56	172,505	9.0	35.671	55.2
1976	AVERAGE	62	191,104	9.4	40.642	53.5
1977	AVERAGE	67	250,883	11.8	45.554	62.9
1978	AVERAGE	71	276,403	12.5	49.385	63.9
1979	January	71	27,792	13.3	50.771	73.6
	February	71	25,911	13.9	50.720	76.0
	March	71	24,335	13.3	50.720	64.5
	April	71	18,418	10.8	50.705	50.5
	May	71	15,025	8.4	50.705	39.8
	June	71	16,065	8.6	50.705	44.0
	July	71	20,825	10.3	50.759	55.1
	August	71	24,204	11.8	50.732	64.1
	September	71	21,804	12.1	50.781	59.6
	October	71	20,934	11.6	50.814	55.7
	November	71	19,255	10.8	49.917	53.6
	December	71	20,586	11.0	49.937	55.4
	AVERAGE	71	255,155	11.4	50.604	57.6
1980	January	71	19,746	9.9	49.945	53.1
	February	72	19,277	10.2	51.055	54.3
	March	72	20,039	10.7	51.031	52.8
	April	74	18,794	11.1	53.040	49.3
	May	74	18,385	10.5	53.040	46.6
	June	74	18,322	9.7	53.040	48.0
	July	74	21,024	9.7	54.064	52.3
	August	74	24,333	11.3	53.957	60.6
	September	74	23,578	12.3	53.855	60.8
	October	75	24,510	13.7	54.724	60.1
	November	75	20,984	R11.8	54.737	53.2
	December	75	22,130	11.3	54.749	54.3
	AVERAGE	74	251,122	11.0	53.103	53.8

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>From Reactor Status Table.

<sup>2</sup>Electricity generation entries represent yearly or monthly totals rather than averages.

<sup>3</sup>See Explanatory Note 11.

<sup>4</sup>Average percentage of Maximum Dependable Capacity utilized yearly or monthly.

R = Revised data.

Sources: • Capacity data for units in commercial operation or start-up testing—Nuclear Regulatory Commission.

• Nuclear Regulatory Commission Report NUREG 0020, "Operating Units Status Report."

• Federal Power Commission Form 4, "Monthly Power Plant Report."

# Nuclear

## Status of Nuclear Reactor Units<sup>1</sup>

		Reactors Licensed For Commercial Operations <sup>2</sup>	Construction Permits Granted	Construction Permits Pending <sup>3</sup>	Reactor Units on Order	Reactor Units Announced	Total Reactor Units	Total Design Capacity (Million Net <sup>4</sup> Kilowatts)
1973		40	51	58	48	20	217	212
1974		53	58	80	28	16	235	234
1975		56	69	73	19	19	236	236
1976		62	72	66	16	19	235	236
1977		67	80	52	13	9	221	220
1978		71	90	32	9	4	206	204
1979	January	71	92	30	5	1	199	195
	February	71	92	28	5	1	197	193
	March	71	92	28	5	1	197	193
	April	71	92	27	5	0	195	190
	May	71	92	27	5	0	195	190
	June	71	92	27	5	0	195	190
	July	71	91	25	5	0	192	187
	August	71	91	25	5	0	192	187
	September	71	91	25	3	0	190	185
	October	71	91	25	3	0	190	185
	November	71	91	23	3	0	188	182
	December	71	91	21	3	0	186	180
1980	January	71	90	17	3	0	181	174
	February	72	89	16	3	0	180	173
	March	72	87	14	3	0	176	R169
	April	74	85	14	3	0	176	R169
	May	74	85	14	3	0	176	R169
	June	74	85	14	3	0	176	R169
	July	74	85	14	3	0	176	R169
	August	74	85	14	3	0	176	R169
	September	74	85	14	3	0	176	R169
	October	75	84	14	3	0	176	R169
	November	75	82	14	3	0	174	167
	December	75	82	12	3	0	172	164

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Monthly data are the status as of the last day of the month. Annual data are the status as of December 31 of each year.

<sup>2</sup>These figures include reactors in fuel-loading, power-testing, and power-ascension phases as well as reactors that have been licensed but which are shut down for indefinite periods, including: Dresden-1, which is undergoing major modifications; Humboldt Bay, which is shut down for seismic modifications and Three Mile Island-2, shut down due to an accident in March 1979. Also includes two Department of Energy, dual-purpose reactors (Shippingport and Hanford) which are licensed to generate electricity on a commercial basis. Does not include the Indian Point-1 reactor since it is soon to be decommissioned.

<sup>3</sup>Although New Haven-1, -2 and Jamesport-1, -2 still remain on the NRC docket as reactor units for which construction permits are pending, these 4 units have been dropped from the above table (in November 1979 and March 1980, respectively) when applications for their construction were rejected by New York State.

<sup>4</sup>See Explanatory Note 11.

R = Revised data.

Sources: • Compiled by the Energy Information Administration from various sources, but primarily from the Nuclear Regulatory Commission (NRC), Report NUREG 0380, "Program Summary Report."



# Part 6

# Price

## Price

### Crude Oil

The average price of domestic crude oil purchased at the wellhead was \$25.61 per barrel in December 1980. The Alaskan North Slope price increased to \$15.02 per barrel. Actual stripper price of \$35.13 per barrel was a 2.1 percent increase over the November 1980 price. The Naval Petroleum Reserve crude oil price of \$29.59 per barrel decreased 5.8 percent below the November 1980 level. The upper tier price of \$15.06 per barrel an increase of 0.9 percent above the previous month's figure, and the lower tier price of \$6.87 per barrel was 1.2 percent above the November 1980 price.

During December 1980, the composite refiner acquisition cost of crude oil was \$31.39 per barrel, \$1.60 per barrel (5.4 percent) above the previous month's price. The imported price increased \$0.54 per barrel from the November 1980 level to \$35.63 per barrel in December. This price was 1.5 percent above the previous month's level and 23.2 percent above the December 1979 level. The domestic price was \$28.55, an increase of \$2.04 per barrel (7.7 percent) above the November average.

### Residual Fuel Oil

The average price, excluding taxes, for No. 6 residual fuel oil sold to utilities, industry, and other ultimate consumers in November 1980 was \$30.16 per barrel, \$3.44 above the previous month's price (12.9 percent) and 32.0 percent over the November 1979 average. The average price, excluding taxes, for No. 6 residual fuel oil sold to resellers, bulk plants, jobbers, and other wholesale accounts was \$27.88 per barrel, \$3.97 above (16.6 percent) the October 1980 average and a 26.7 percent increase over the November 1979 average.

### Heating Oil

The national average price of heating oil sold to residential customers increased 4.8

cents in December 1980 to 105.9 cents per gallon. This was a 4.7 percent increase above the selling price in November 1980 and a 23.4 percent increase over the December 1979 price. The average residential distributor margin in December was 13.6 cents per gallon, 12.3 percent below the margin of December 1979. Refiners' national average selling price to resellers and retailers was 88.5 cents per gallon, 23.4 percent above the December 1979 average.

### Aviation Fuel

The average price, excluding taxes, for kerosene-type jet fuel sold to commercial airlines, Department of Defense, and other ultimate consumers in November 1980 was 90.0 cents per gallon, or 1.3 cents (1.5 percent) above the previous month's average and a 29.1 percent increase over the November 1979 average.

### Motor Gasoline

The national average retail price for all grades and all types of motor gasoline was 126.9 cents per gallon in January 1981. Leaded regular gasoline at all types of stations sold for an average of 123.8 cents per gallon in January, 4.1 cents higher (3.4 percent) than the price in December. The price for unleaded regular gasoline at all types of stations was 129.8 cents per gallon in January, 4.0 cents higher (3.2 percent) than the price in December.

### Liquefied Petroleum Gases

The average wholesale price for propane during November 1980, excluding taxes, was 45.1 cents per gallon, 1.9 cents above the previous month's level, or 4.4 percent, and 19.9 percent above the November 1979 level.

In November 1980, the average wholesale price for butane, excluding taxes, was 65.5 cents per gallon, 20.6 percent above the previous month's revised price and 14.9 percent above the November 1979 average.

# Price

## Petroleum Price Summary

	Actual Domestic Average Wellhead Price <sup>1</sup>	Refiner Acquisition Cost of Crude Oil <sup>2</sup>			No. 6 Residual Oil Price Average <sup>3</sup>	
		Domestic	Imported	Composite	Wholesale <sup>4</sup>	Retail <sup>4</sup>
Dollars per barrel						
<b>1976 AVERAGE</b>	<b>8.19</b>	<b>8.84</b>	<b>13.48</b>	<b>10.89</b>	<b>10.72</b>	<b>11.49</b>
<b>1977 AVERAGE</b>	<b>8.57</b>	<b>9.55</b>	<b>14.53</b>	<b>11.96</b>	<b>11.96</b>	<b>13.23</b>
<b>1978 AVERAGE</b>	<b>9.00</b>	<b>10.61</b>	<b>14.57</b>	<b>12.46</b>	<b>11.51</b>	<b>12.75</b>
<b>1979</b>						
January	9.46	11.02	15.50	13.11	12.78	14.13
February	9.69	11.34	15.88	13.42	13.72	14.68
March	9.83	11.45	16.41	13.70	14.82	15.95
April	10.33	12.06	17.58	14.52	15.51	16.61
May	10.71	12.41	19.00	15.40	15.71	17.18
June	11.70	13.24	21.03	17.00	17.81	17.97
July	13.39	14.61	23.09	18.58	19.18	19.89
August	14.00	15.73	23.98	19.75	19.00	20.33
September	14.57	16.05	25.06	20.14	19.62	20.90
October	15.11	16.93	25.05	20.68	20.88	21.59
November	15.52	17.65	27.02	22.04	22.00	22.84
December	17.03	18.84	28.91	23.63	23.55	24.44
<b>AVERAGE</b>	<b>12.64</b>	<b>14.27</b>	<b>21.67</b>	<b>17.72</b>	<b>17.66</b>	<b>18.67</b>
<b>1980</b>						
January	17.86	19.78	30.75	24.81	24.41	26.21
February	18.81	21.22	32.40	26.11	23.34	26.48
March	19.34	22.07	33.42	26.88	21.11	25.33
April	20.29	22.89	33.54	27.09	19.09	22.87
May	21.01	23.63	34.33	27.85	20.22	23.75
June	21.53	24.48	34.48	28.80	20.44	24.09
July	22.26	25.05	34.51	28.73	21.28	23.86
August	22.63	24.98	34.44	28.70	22.25	25.00
September	22.59	25.37	34.46	28.96	22.47	25.31
October	23.23	26.21	34.63	29.56	R23.91	R26.68
November	R23.92	26.51	35.09	29.79	†27.88	†30.16
December	†25.61	28.55	35.63	31.39	NA	NA
<b>AVERAGE</b>	<b>21.57</b>	<b>24.23</b>	<b>33.89</b>	<b>28.07</b>	<b>22.40</b>	<b>25.46</b>

Geographic coverage: Actual domestic average wellhead prices and No. 6 residual oil prices—the 50 United States and District of Columbia. Refiner acquisition cost of crude oil—the 50 United States, District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

<sup>1</sup>See Explanatory Note 12.

<sup>2</sup>See Explanatory Note 13. Crude oil costs and volumes reported on the Economic Regulatory Administration (ERA) Form 49 exclude unfinished oils but include Strategic Petroleum Reserve (SPR). Crude oil costs and volumes reported on the FEA Form P110-M-1 include unfinished oils but exclude SPR. Imported averages derived from ERA Form 49 exclude crude oil purchased for Strategic Petroleum Reserve (SPR), whereas, the composite averages derived from the ERA Form 49 include SPR.

<sup>3</sup>Wholesale refers to the price of residual fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and other residual dealers. Retail refers to the price at which residual fuel oil is sold to ultimate consumers such as utility, industrial, commercial and residential accounts.

<sup>4</sup>Excludes tax.

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

Sources: "Actual domestic average, January 1976: FEA Form 90, "Crude Petroleum Production Monthly Report." February 1976 forward: ERA Form 182, "Domestic Crude Oil First Purchase Report."

•Refiner acquisition cost, January 1976: Form FEO 96, "Monthly Cost Allocation Report." February 1976 through June 1978: FEA Form P110-M-1, "Refiners' Monthly Cost Allocation Report." July 1978 forward: ERA Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report."

•No.6 residual oil price, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

# Price

## Petroleum Price Summary (continued)

	No. 2 Diesel Price Average <sup>1</sup>		No. 2 Heating Oil Price Average		Gasoline Price Average All Grades <sup>2</sup>	Propane Price Average <sup>3</sup>	Butane Price Average <sup>3</sup>
	Wholesale <sup>4</sup>	Retail <sup>4</sup>	Wholesale	Retail	Retail	Wholesale <sup>4</sup>	Wholesale <sup>4</sup>
Cents per gallon							
<b>1976 AVERAGE</b>	<b>31.9</b>	<b>34.7</b>	<b>32.6</b>	<b>40.6</b>	<b>NA</b>	<b>20.6</b>	<b>21.9</b>
<b>1977 AVERAGE</b>	<b>36.1</b>	<b>39.3</b>	<b>36.9</b>	<b>46.0</b>	<b>NA</b>	<b>25.0</b>	<b>25.4</b>
<b>1978 AVERAGE</b>	<b>37.1</b>	<b>40.2</b>	<b>38.7</b>	<b>49.4</b>	<b>65.2</b>	<b>24.0</b>	<b>23.0</b>
<b>1979</b>	January	39.7	43.0	42.1	53.7	69.5	22.4
	February	41.8	46.1	44.5	56.3	70.7	21.8
	March	44.5	47.9	47.0	58.8	73.3	21.2
	April	47.7	50.6	49.3	61.1	78.0	22.0
	May	53.4	56.1	52.6	64.2	82.3	24.2
	June	58.7	65.0	56.9	69.1	88.0	27.9
	July	62.4	68.9	61.1	73.8	93.0	29.3
	August	66.0	72.3	64.6	78.4	96.7	30.8
	September	69.0	71.8	67.8	81.0	99.8	33.3
	October	71.1	74.8	68.1	82.3	100.6	35.2
	November	70.3	72.1	69.0	83.7	101.9	37.6
	December	73.0	80.7	70.8	85.8	104.2	40.4
	<b>AVERAGE</b>	<b>58.2</b>	<b>62.4</b>	<b>53.0</b>	<b>65.6</b>	<b>88.2</b>	<b>29.5</b>
<b>1980</b>	January	76.0	82.2	75.2	90.8	111.0	41.8
	February	78.3	85.0	79.0	95.3	118.6	42.7
	March	79.8	87.8	80.4	97.1	123.0	41.0
	April	80.4	88.0	81.0	97.4	124.2	41.2
	May	80.5	87.8	81.4	97.2	124.4	41.7
	June	81.7	88.6	82.5	97.9	124.6	41.2
	July	81.9	87.6	83.0	97.9	124.7	40.8
	August	81.6	86.9	82.9	97.9	124.3	40.6
	September	80.3	86.6	83.0	98.1	123.1	41.4
	October	81.5	R85.7	83.7	98.7	122.3	43.2
	November	†83.6	†88.9	86.1	101.1	122.2	45.1
	December	NA	NA	†91.1	†105.9	123.1	NA
	<b>AVERAGE</b>	<b>80.6</b>	<b>86.8</b>	<b>82.2</b>	<b>97.7</b>	<b>122.1</b>	<b>42.1</b>
<b>1981</b>	January	NA	NA	NA	NA	126.9	NA

Geographic coverage: the 50 United States and District of Columbia.

Note: The average year-to-date gasoline price for the current year is not yet available from the Bureau of Labor Statistics.

<sup>1</sup>Wholesale refers to the price of diesel fuel sold to other refiners and resellers, including branded jobbers, unbranded jobbers, and commercial accounts. Retail refers to the price at which company-owned and operated retail dealers sell to customers.

<sup>2</sup>See Explanatory Note 16.

<sup>3</sup>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.

<sup>4</sup>Excludes tax.

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

Sources: •No. 2 diesel price, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

•No. 2 heating oil price, FEA Form P112-M-1/EIA-9, "No. 2 Heating Oil Supply/Price Monitoring Report."

•Gasoline price average, Bureau of Labor Statistics.

•Propane and Butane prices, FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

## Price

## **Domestic Prices and Percentages of Crude Oil Purchased at the Wellhead<sup>1</sup>**

	Incremental Tertiary <sup>2</sup>		Newly Discovered <sup>2</sup>		Marginal Property <sup>2</sup>		Heavy Crude <sup>2</sup>		Other Decontrolled Oil <sup>2</sup>		Tertiary Incentive <sup>2</sup>	
	Dollars per barrel											
	Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price	Percent
1976 AVERAGE												
1977 AVERAGE												
1978 AVERAGE												
1979 January												
February												
March												
April												
May												
June	11.98	0.05	22.97	0.61	13.16	0.81						
July	15.09	0.02	26.60	1.12	13.28	1.13						
August	16.14	0.15	26.63	1.66	13.37	1.33						
September	17.89	0.06	30.38	2.38	13.67	3.08	16.77	2.82	12.54	NA	24.89	NA
October	14.21	(0.01)	31.92	3.04	13.55	3.39	17.12	3.46	13.08	NA	21.07	NA
November	26.17	NA	33.86	3.24	13.70	3.11	18.61	3.28	11.33	NA	NA	NA
December	15.80	(0.03)	37.59	3.61	13.83	3.05	23.62	4.04	10.05	NA	NA	NA
1980 January	31.14	0.01	39.04	3.86	14.01	3.16	26.43	4.24	33.37	2.15	28.18	NA
February	26.33	0.01	38.68	4.33	13.90	2.71	25.70	5.13	33.11	4.79	36.47	0.01
March	29.82	0.01	38.97	4.76	14.07	2.52	25.55	5.15	32.91	7.42	39.00	0.04
April	34.94	0.04	38.67	5.20	14.12	2.99	25.57	4.96	33.03	9.89	37.52	0.12
May	34.46	0.03	39.07	5.53	14.21	2.79	25.42	5.38	32.97	12.52	34.60	0.43
June	33.72	0.02	38.93	5.96	14.37	2.75	25.87	5.34	32.39	14.58	30.29	0.53
July	21.87	0.00	38.72	6.33	14.37	2.91	25.63	5.88	32.81	16.94	30.34	0.68
August	33.39	0.03	37.82	6.73	14.65	2.53	25.49	5.77	30.80	20.10	33.48	0.78
September	27.75	0.15	35.95	6.79	14.83	2.18	25.45	5.58	30.57	22.24	31.53	0.90
October	29.79	0.04	35.77	7.56	14.77	2.00	25.30	5.80	30.22	24.76	30.68	1.24
November	32.74	0.09	35.77	R8.54	14.87	1.88	R25.05	R5.86	R30.13	R27.82	R30.51	R1.39
December†	31.08	0.05	36.63	8.86	15.05	1.67	26.06	6.12	31.81	30.59	33.33	1.83
AVERAGE	30.90	0.04	37.58	6.19	14.37	2.51	25.61	5.43	31.44	16.06	31.97	0.66

**Geographic coverage:** the 50 United States and District of Columbia.

<sup>1</sup>See Explanatory Note 12.

<sup>2</sup>See Explanatory  
<sup>3</sup>See Definitions.

<sup>t</sup>Preliminary data. NA = Not available. R = Revised data.

Note: Parentheses indicate negative adjustment to reclassify production as heavy oil.

**Source:** • Economic Regulatory Administration Form 182, "Domestic Crude Oil First Purchase Report."

## Price

### Domestic Prices and Percentages of Crude Oil Purchased at the Wellhead<sup>1</sup> (continued)

		Lower Tier <sup>2</sup>		Upper Tier <sup>2</sup>		Actual Stripper <sup>3</sup>		Alaskan North Slope <sup>4</sup>		Naval Petroleum Reserve <sup>5</sup>		Actual Domestic Average
		Dollars per barrel										
		Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price	Percent	Price
1976	AVERAGE	5.13	54.4	11.71	31.5	12.16	14.1	NA	NA	NA	NA	8.19
1977	AVERAGE	5.19	45.92	11.22	36.11	13.59	13.32	6.35	4.14	12.34	0.51	8.57
1978	AVERAGE	5.46	37.54	12.15	34.41	13.95	14.03	5.22	12.96	12.85	1.08	9.00
1979	January	5.75	35.51	12.66	34.25	14.55	14.14	5.79	14.88	13.10	1.20	9.46
	February	5.76	35.20	12.78	34.97	14.88	15.08	5.87	13.71	13.94	1.01	9.69
	March	5.82	34.59	12.84	34.56	14.88	14.95	6.66	14.58	13.97	1.29	9.83
	April	5.85	33.98	12.94	34.93	16.71	15.27	7.45	14.52	14.56	1.28	10.33
	May	5.91	33.55	13.02	34.77	17.53	15.62	8.47	14.71	15.85	1.32	10.71
	June	5.95	29.32	13.14	38.22	20.24	15.97	8.97	13.64	16.02	1.34	11.70
	July	5.98	26.96	13.25	37.49	24.76	16.01	13.35	15.86	20.13	1.38	13.39
	August	6.09	26.03	13.33	36.72	25.71	16.93	14.14	15.82	20.77	1.33	14.00
	September	6.09	23.52	13.53	33.89	27.09	16.55	13.09	16.08	20.85	1.57	14.57
	October	6.12	23.46	13.56	32.58	29.42	16.20	13.12	16.27	21.01	1.57	15.11
	November	6.09	23.11	13.68	32.76	30.64	15.35	13.48	17.49	26.48	1.61	15.52
	December	6.21	22.31	13.76	32.52	34.99	16.34	13.60	16.51	29.04	1.60	17.03
	AVERAGE	5.95	28.91	13.20	34.79	22.93	15.71	10.57	15.36	19.40	1.38	12.64
1980	January	6.24	21.19	13.86	31.12	36.02	15.61	13.77	17.06	28.94	1.54	17.86
	February	6.37	20.52	14.03	29.45	36.14	15.82	13.77	15.73	34.96	1.44	18.81
	March	6.35	19.83	13.99	28.22	36.26	15.18	13.77	15.30	34.67	1.55	19.34
	April	6.37	18.71	14.18	25.87	36.54	15.80	14.07	14.75	33.81	1.61	20.29
	May	6.47	17.62	14.29	25.21	36.11	15.43	14.36	13.48	34.16	1.56	21.01
	June	6.51	16.99	14.42	23.19	35.53	16.14	14.14	12.94	34.00	1.49	21.53
	July	6.55	16.39	14.57	21.88	36.26	16.02	14.26	11.35	33.27	1.58	22.26
	August	6.60	14.79	14.60	20.50	35.71	15.83	14.38	11.28	32.96	1.61	22.63
	September	6.66	14.76	14.79	19.57	33.94	15.89	14.51	10.37	32.45	1.50	22.59
	October	6.78	14.12	14.91	17.41	33.93	16.04	14.64	9.44	32.68	1.53	23.23
	November	R6.79	R13.25	14.92	R15.68	R34.42	R15.70	R14.53	R8.52	R31.40	1.21	R23.92
	December†	6.87	11.30	15.06	14.33	35.13	16.35	15.02	7.88	29.59	0.97	25.61
	AVERAGE	6.51	16.65	14.37	22.76	35.50	15.81	14.18	12.37	32.86	1.47	21.57

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Explanatory Note 12.

<sup>2</sup>See Definitions.

<sup>3</sup>Stripper oil was exempt from price controls beginning September 1, 1976. From February through August 1976 stripper oil was subject to upper tier price ceilings. Annual average is for 12 months (January through December 1976).

<sup>4</sup>Alaskan North Slope (ANS) crude oil prices are treated as Upper Tier for determining the applicable wellhead ceiling prices. ANS is included in the Actual Domestic Average price determination.

<sup>5</sup>The Naval Petroleum Reserves (NPR) are exempt from pricing regulations but have been reported here as Upper Tier prior to July 1977. NPR is included in the Actual Domestic Average price determination.

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

Sources: • January 1976: FEA Form 90, "Crude Petroleum Production Monthly Report."

• February 1976 forward: Economic Regulatory Administration Form 182, "Domestic Crude Oil First Purchase Report."

## Price

### FOB Cost of Crude Oil Imports from Selected Countries<sup>1</sup>

		Algeria	Indonesia	Iran	Libya	Mexico	Nigeria	Saudi Arabia	United Arab Emirates	United Kingdom	Venezuela
Dollars per barrel											
1976	AVERAGE	13.05	12.76	11.61	12.55	NA	13.08	11.69	11.94	NA	11.32
1977	AVERAGE	14.36	13.57	12.67	13.90	13.42	14.44	12.37	12.83	NA	12.68
1978	AVERAGE	14.10	13.64	12.65	13.75	13.24	14.04	12.70	13.24	13.82	12.45
1979	January	14.87	14.06	12.55	14.60	13.94	14.84	13.26	13.98	15.41	13.69
	February	14.89	14.18	12.56	15.15	14.17	14.98	13.47	14.28	15.33	13.26
	March	15.54	14.42	19.04	16.46	14.14	15.07	13.61	15.72	16.13	13.88
	April	16.80	15.98	17.96	17.40	17.02	18.18	14.77	16.24	17.40	14.58
	May	19.14	16.84	17.27	19.13	18.56	20.02	14.62	17.38	18.39	15.76
	June	21.04	18.59	19.95	20.87	17.43	22.11	17.98	18.91	20.88	16.01
	July	22.42	20.95	21.99	23.88	22.29	24.46	18.54	21.33	23.14	18.22
	August	23.44	21.65	21.40	24.93	22.56	25.43	18.32	21.45	23.88	18.66
	September	23.60	22.11	27.27	25.17	22.32	25.77	18.72	22.93	22.93	18.14
	October	24.40	24.39	31.80	27.39	24.43	26.33	21.44	21.85	25.09	22.36
	November	26.38	23.72	28.81	29.60	24.50	28.17	23.72	24.15	27.57	19.27
	December	28.67	25.29	35.13	31.86	24.50	29.82	22.99	27.90	25.89	20.62
	AVERAGE	20.65	19.35	23.71	22.43	20.29	21.80	17.63	19.58	21.20	17.37
1980	January	33.67	29.67	29.28	35.72	29.43	31.57	26.25	29.85	30.77	25.34
	February	34.03	31.11	NA	35.71	31.77	33.39	26.62	30.95	32.66	24.82
	March	36.74	31.54	NA	35.88	30.56	35.59	26.85	29.34	34.34	24.03
	April	36.93	32.22	NA	35.30	30.24	36.11	27.78	30.38	34.15	23.85
	May	37.10	32.40	NA	36.13	30.68	36.50	28.50	32.67	34.10	24.82
	June	37.61	32.90	NA	36.83	30.76	36.99	28.95	33.34	36.28	25.56
	July	38.40	33.19	NA	37.26	31.84	37.17	28.47	NA <sup>2</sup>	36.26	24.34
	August	37.53	33.01	NA	37.01	31.87	36.69	29.74	NA <sup>2</sup>	34.83	25.30
	September	37.21	33.13	NA	36.94	31.21	36.38	30.34	NA <sup>2</sup>	35.18	24.21
	October	37.60	32.31	NA	37.15	31.27	36.82	30.19	NA <sup>2</sup>	35.66	22.71
	November	37.05	32.94	NA	36.90	31.59	36.87	31.43	NA <sup>2</sup>	35.47	26.83
	December <sup>†</sup>	37.37	33.21	NA	37.58	32.33	36.79	32.01	NA <sup>2</sup>	35.00	26.66
	AVERAGE	36.57	32.37	29.28	36.41	31.11	35.82	28.53	31.09	34.58	24.78

Note: Prices shown for 1980 are for the month of loading; whereas prior to 1980 the prices are for the month of reporting.

<sup>1</sup>The FOB cost excludes all costs related to insurance and transportation. See Explanatory Note 14.

<sup>2</sup>FOB cost of crude oil imports from United Arab Emirates is not published this month due to insufficient response to survey questionnaire.

NA = Not available.

<sup>†</sup>Preliminary data.

Sources: 1976 through January 1979: FEA Form 701-M-0, "Transfer Pricing Report."

• February 1979 forward: Economic Regulatory Administration Form 51, "Transfer Pricing Report."

## Price

### Landed Cost of Crude Oil Imports from Selected Countries<sup>1</sup>

		Algeria	Canada	Indonesia	Iran	Libya	Mexico	Nigeria	Saudi Arabia	United Arab Emirates	United Kingdom	Venezuela
Dollars per barrel												
1975	AVERAGE	12.72	12.72	13.79	12.21	12.35	NA	12.62	12.30	12.87	NA	11.65
1976	AVERAGE	13.81	13.57	13.82	12.82	13.58	NA	13.80	13.04	13.30	NA	11.80
1977	AVERAGE	15.20	14.21	14.63	13.80	14.87	13.75	15.25	13.61	14.04	NA	13.13
1978	AVERAGE	14.91	14.50	14.64	13.88	14.72	13.54	14.86	13.92	14.39	NA	12.83
1979	January	15.88	16.19	15.29	13.76	15.81	14.51	15.88	14.73	15.53	16.29	14.16
	February	16.18	16.68	15.62	14.25	16.49	14.76	16.13	14.88	16.05	16.07	14.17
	March	16.61	17.18	15.68	19.54	17.56	14.81	16.20	15.28	17.10	15.91	14.61
	April	17.93	17.39	17.31	19.06	18.59	17.40	19.11	16.18	17.70	18.23	15.19
	May	20.22	20.22	17.92	18.56	20.16	18.82	21.06	16.29	18.65	19.26	16.74
	June	22.52	19.12	20.11	21.27	22.21	17.85	23.23	19.49	20.42	21.64	16.80
	July	23.54	20.22	22.50	23.35	25.48	22.74	25.79	20.06	22.84	23.96	18.95
	August	24.85	22.67	23.10	22.64	26.27	23.12	26.72	19.85	23.12	25.05	19.42
	September	25.09	25.64	23.72	28.36	26.54	23.23	27.03	20.36	24.59	24.18	18.99
	October	25.59	23.54	26.36	33.17	28.56	24.98	27.41	22.99	23.98	26.39	23.05
	November	27.95	26.01	25.37	30.44	30.38	25.12	29.41	25.19	25.95	29.10	20.13
	December	29.99	26.32	26.84	36.64	33.29	25.31	31.21	24.48	29.93	27.07	21.72
	AVERAGE	21.90	20.43	20.69	25.02	23.68	20.86	22.96	19.15	21.90	22.16	18.18
1980	January	35.32	27.73	31.03	30.37	37.10	30.18	33.03	27.85	32.35	32.14	26.25
	February	35.28	28.60	32.95	NA	36.98	32.38	35.25	28.15	32.71	34.07	25.91
	March	38.54	30.75	33.04	NA	37.18	31.17	36.93	28.26	30.96	35.73	24.97
	April	38.52	30.31	33.81	NA	36.57	30.77	37.41	29.14	32.29	35.34	25.10
	May	38.54	31.16	33.73	NA	37.36	31.22	37.53	30.30	34.06	35.82	25.93
	June	38.71	31.26	34.51	NA	38.09	31.43	38.15	30.16	34.96	37.41	26.42
	July	39.60	31.31	34.81	NA	38.39	32.60	38.23	30.04	NA <sup>2</sup>	37.25	25.47
	August	38.60	31.44	34.81	NA	38.38	32.62	37.77	31.24	NA <sup>2</sup>	36.20	26.37
	September	38.28	30.97	34.64	NA	38.30	31.93	37.60	31.86	NA <sup>2</sup>	36.35	25.47
	October	38.77	29.22	33.65	NA	38.53	31.96	37.75	31.73	NA <sup>2</sup>	36.82	23.92
	November	38.41	28.81	34.55	NA	38.22	32.42	37.97	32.86	NA <sup>2</sup>	36.62	27.75
	December	38.63	32.72	34.64	NA	39.04	33.76	38.11	33.40	NA <sup>2</sup>	36.31	27.66
	AVERAGE	37.90	30.47	33.92	30.37	37.72	31.80	37.05	30.02	32.89	35.88	25.86

Note: Prices shown for 1980 are for the month of loading; whereas prior to 1980 prices are for the month of reporting.

<sup>1</sup>See Explanatory Note 15.

<sup>2</sup>Landed cost of crude oil imports from United Arab Emirates is not published this month due to insufficient response to survey questionnaire.

NA = Not available. †Preliminary data.

Sources: • 1975 through January 1979: FEA Form F701-M-0, "Transfer Pricing Report." Data provided by the Economic Regulatory Administration.

• February 1979 forward: ERA 51, "Transfer Pricing Report."

## Price

Crude Oil Entitlements and Supply Ratio				Unrecouped Costs for Refined Products for 29 Largest Refiners		
	Entitlement Benefit <sup>1</sup>	Entitlement Price <sup>1</sup>	National Old Oil (or Domestic Crude Oil) Supply Ratio <sup>1</sup>	Motor Gasoline	Other Products <sup>2</sup>	Total
Dollars per barrel				Million Dollars		
<b>1979</b>	January	1.56	8.74	0.178	836	863
	February	1.67	9.03	0.185	1,110	878
	March	1.80	9.50	0.189	1,551	837
	April	2.06	10.53	0.196	2,067	1,649
	May	2.44	11.74	0.208	2,245	1,848
	June	3.01	13.70	0.220	2,507	1,973
	July	3.54	16.01	0.221	2,990	2,089
	August	3.78	17.26	0.218	2,856	2,347
	September	3.92	17.97	0.218	3,151	2,376
	October	4.00	18.27	0.219	3,094	2,295
	November	4.39	20.12	0.218	3,492	2,302
	December	4.71	21.91	0.215	3,724	1,171
<b>1980</b>	January	5.28	23.53	0.224	4,115	1,189
	February	5.14	24.70	0.208	5,362	1,167
	March	5.05	25.26	0.200	6,236	1,213
	April	5.10	25.74	0.198	6,202	1,391
	May	6.22	27.39	0.227	NA	NA
	June	5.44	27.32	0.199	NA	NA
	July	5.04	27.26	0.185	NA	NA
	August	4.75	26.86	0.177	NA	NA
	September	3.52	26.07	0.135	NA	NA
	October	3.13	26.08	0.120	NA	NA
	November	2.60	26.55	0.098	NA	NA
	December <sup>t</sup>	1.52	27.06	0.056	NA	NA

Geographic coverage: the 50 United States, District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

<sup>1</sup>See Definitions.

<sup>2</sup>Other includes propane, butane, natural gasoline, some natural gas liquids, and aviation jet fuel in January and February 1979 when aviation jet fuel was decontrolled. From March 1979 to December 1979, it includes butane, natural gasoline, propane and some natural gas liquids. Since January 1980, when butane and natural gasoline were decontrolled, only propane and some natural gas liquids are included in this category.

<sup>t</sup>Preliminary data. NA = Not available.

Sources: • Crude oil entitlements, Economic Regulatory Administration Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report."

• Unrecouped costs: EIA Form 14, "Refiners' Monthly Cost Allocation Report." Data provided by the Economic Regulatory Administration.

## Price

### U.S. City Average Retail Prices for Motor Gasoline<sup>1</sup>

		Leaded Regular	Unleaded Regular	Leaded Premium	Average for All Grades
Cents per gallon, including tax					
1974	AVERAGE	53.2	NA	56.9	NA
1975	AVERAGE	56.7	NA	60.9	NA
1976	AVERAGE	59.0	61.4	63.6	NA
1977	AVERAGE	62.2	65.6	67.4	NA
1978	AVERAGE	62.6	67.0	69.4	65.2
1979	January	66.8	71.6	73.7	69.5
	February	68.1	73.0	75.0	70.7
	March	70.6	75.5	77.4	73.3
	April	75.3	80.2	82.4	78.0
	May	79.7	84.4	86.7	82.3
	June	85.6	90.1	92.0	88.0
	July	90.8	94.9	96.5	93.0
	August	94.3	98.8	100.4	96.7
	September	97.3	102.0	103.6	99.8
	October	98.2	102.8	104.6	100.6
	November	99.4	104.1	105.6	101.9
	December	101.8	106.5	108.0	104.2
	AVERAGE	85.7	90.3	92.2	88.2
1980	January	108.6	113.1	114.9	111.0
	February	115.9	120.7	123.3	118.6
	March	120.2	125.2	127.7	123.0
	April	121.2	126.4	129.2	124.2
	May	121.5	126.6	129.5	124.4
	June	121.7	126.9	130.0	124.6
	July	121.6	127.1	130.7	124.7
	August	121.0	126.7	131.0	124.3
	September	119.7	125.7	130.4	123.1
	October	118.8	125.0	130.1	122.3
	November	118.8	125.0	129.9	122.2
	December	119.7	125.8	131.0	123.1
	AVERAGE	119.1	124.5	128.1	122.1
1981	January	123.8	129.8	133.8	126.9

Geographic coverage: 85 urban areas selected to represent all urban consumers—80 percent of the total U.S. population.

<sup>1</sup> See Explanatory Note 16.

Source: Bureau of Labor Statistics.

# Price

## Aviation Fuel

		Aviation Gasoline		Naphtha-Type <sup>1</sup>		Kerosene-Type	
		Wholesale <sup>2</sup>	Retail <sup>2</sup>	Retail <sup>2</sup>	Wholesale <sup>2</sup>	Retail <sup>2</sup>	
Cents per gallon, excluding tax							
<b>1976</b>	<b>AVERAGE</b>	<b>42.4</b>	<b>43.1</b>	<b>31.5</b>	<b>32.5</b>	<b>31.2</b>	
<b>1977</b>	<b>AVERAGE</b>	<b>46.7</b>	<b>47.7</b>	<b>35.0</b>	<b>36.7</b>	<b>35.8</b>	
<b>1978</b>	<b>AVERAGE</b>	<b>51.0</b>	<b>52.1</b>	<b>37.5</b>	<b>38.9</b>	<b>38.9</b>	
<b>1979</b>	January	54.1	53.9	38.6	42.2	40.1	
	February	54.6	55.1	39.1	44.3	40.2	
	March	56.6	56.8	40.7	54.8	41.3	
	April	58.2	59.1	43.2	60.1	45.4	
	May	60.6	61.2	44.1	58.1	48.4	
	June	64.8	66.8	49.5	59.9	50.9	
	July	70.0	71.8	50.4	67.1	58.2	
	August	74.2	75.6	55.0	71.4	60.8	
	September	78.2	79.0	60.2	73.1	65.9	
	October	79.8	80.4	64.6	80.6	68.4	
	November	81.3	80.6	66.4	83.4	69.7	
	December	84.1	83.4	73.3	83.2	72.3	
	<b>AVERAGE</b>	<b>68.5</b>	<b>69.5</b>	<b>52.3</b>	<b>66.5</b>	<b>55.1</b>	
<b>1980</b>	January	90.6	90.0	76.0	83.4	77.0	
	February	98.5	97.8	80.1	86.2	83.0	
	March	102.9	107.0	84.1	86.6	86.3	
	April	104.8	109.6	83.2	88.4	87.4	
	May	106.2	109.7	89.1	89.0	87.6	
	June	107.7	111.4	90.0	86.1	88.6	
	July	109.3	113.4	91.4	88.3	89.7	
	August	110.2	112.9	90.6	86.2	90.7	
	September	110.8	113.3	92.9	86.4	88.8	
	October	110.8	113.0	91.1	R87.6	R88.7	
	November <sup>†</sup>	112.4	113.0	92.5	89.9	90.0	
	<b>AVERAGE</b>	<b>106.6</b>	<b>108.7</b>	<b>87.4</b>	<b>87.2</b>	<b>87.0</b>	

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Nearly all naphtha-type fuels are sold directly to the Defense Fuel Supply Center. Consequently, wholesale prices are not applicable.

<sup>2</sup>Wholesale refers to the price of aviation fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and aviation fuel distributors. Retail refers to the price of aviation fuel sold to ultimate consumers, including commercial airline and military accounts.

<sup>†</sup>Preliminary data. R = Revised data.

Source: • FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

## Price

### National Average Heating Oil Prices<sup>1</sup>

		Refiners' Average Selling Price to Resellers and Retailers	Average Purchase Price Paid by Distributors for Heating Oil <sup>2</sup>	Average Distributor Margin on Residential Heating Oil <sup>2</sup>	Average Selling Price to Residential Customers <sup>2</sup>
Cents per gallon					
<b>1976</b>	<b>AVERAGE</b>	<b>31.4</b>	<b>32.6</b>	<b>NA</b>	<b>40.6</b>
<b>1977</b>	<b>AVERAGE</b>	<b>35.7</b>	<b>36.9</b>	<b>NA</b>	<b>46.0</b>
<b>1978</b>	<b>AVERAGE</b>	<b>37.2</b>	<b>38.7</b>	<b>11.0</b>	<b>49.4</b>
<b>1979</b>	January	40.9	42.1	11.8	53.7
	February	43.1	44.5	12.0	56.3
	March	45.8	47.0	12.0	58.8
	April	48.3	49.3	12.1	61.1
	May	53.2	52.6	12.1	64.2
	June	58.8	56.9	12.7	69.1
	July	62.5	61.1	13.0	73.8
	August	65.7	64.6	13.0	78.4
	September	69.0	67.8	13.7	81.0
	October	68.6	68.1	14.8	82.3
	November	70.0	69.0	15.1	83.7
	December	71.7	70.8	15.5	85.8
	<b>AVERAGE</b>	<b>55.9</b>	<b>53.0</b>	<b>12.8</b>	<b>65.6</b>
<b>1980</b>	January	75.0	75.2	16.2	90.8
	February	77.8	79.0	16.7	95.3
	March	78.8	80.4	17.1	97.1
	April	78.8	81.0	17.0	97.4
	May	79.3	81.4	16.3	97.2
	June	80.2	82.5	15.8	97.9
	July	79.2	83.0	15.3	97.9
	August	79.3	82.9	15.2	97.9
	September	79.3	83.0	15.4	98.1
	October	80.7	83.7	R15.3	98.7
	November	84.0	86.1	13.8	101.1
	December†	88.5	91.1	13.6	105.9
	<b>AVERAGE</b>	<b>80.0</b>	<b>82.2</b>	<b>15.7</b>	<b>97.7</b>

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>See Explanatory Note 17.

<sup>2</sup>Average selling prices, purchase prices, and dealer margins represent sales for residential heating oil only.

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

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

## Price

### Residential Heating Oil Prices by Region

		DOE Region <sup>1</sup>									
		Cents per gallon									
		1	2	3	4	5	6	7	8	9	10
1979	January	55.1	54.5	53.3	51.6	51.5	NA	49.6	50.4	47.6	50.8
	February	57.7	57.3	55.5	53.2	53.7	NA	51.3	51.4	49.4	52.9
	March	60.6	59.8	57.5	54.3	56.3	NA	54.7	55.3	50.8	55.3
	April	62.8	61.9	60.0	57.3	58.8	NA	58.2	58.4	53.8	57.8
	May	65.9	64.8	63.4	61.2	62.8	NA	62.0	62.7	56.2	60.8
	June	70.5	69.7	68.4	66.2	68.5	NA	68.9	67.8	62.2	66.4
	July	75.9	73.9	72.9	70.9	73.2	NA	72.0	72.5	68.4	72.3
	August	80.1	78.6	77.7	74.8	78.5	NA	76.4	77.1	71.7	77.2
	September	83.3	81.4	80.0	79.4	81.5	NA	79.5	80.1	76.8	81.4
	October	84.1	82.5	81.7	79.1	82.6	NA	80.2	81.3	81.2	82.6
	November	85.1	83.7	82.4	80.5	83.9	NA	82.2	84.0	80.4	82.3
	December	87.2	85.7	85.1	82.9	86.1	NA	85.3	86.3	82.6	84.6
1980	January	91.8	91.0	90.2	88.6	90.4	NA	90.0	90.2	89.6	91.0
	February	96.7	95.3	94.7	93.0	93.5	NA	93.6	93.5	95.8	95.7
	March	98.7	97.2	96.5	94.8	94.3	NA	95.1	95.9	93.9	97.6
	April	99.2	97.3	96.6	94.1	94.5	NA	95.3	99.5	94.7	99.0
	May	98.7	97.3	96.4	94.2	95.8	NA	95.2	97.7	95.5	98.6
	June	99.8	97.9	96.8	95.1	95.8	NA	95.3	98.4	96.0	99.8
	July	100.3	98.1	96.6	94.2	96.2	NA	93.1	97.0	96.7	100.2
	August	100.2	97.9	96.8	94.8	95.7	NA	95.4	92.1	99.7	100.4
	September	100.5	98.2	97.0	94.7	95.7	NA	93.7	93.0	97.2	100.6
	October	101.1	98.8	97.4	95.6	95.9	NA	94.7	94.1	98.6	100.4
	November	102.5	103.0	99.9	101.5	98.8	NA	95.2	98.5	101.0	103.1
	December†	108.3	108.3	105.1	106.5	103.5	NA	99.9	102.8	NA	NA

<sup>1</sup>DOE Regions are defined in Explanatory Note 18.

†Preliminary data. R = Revised data.

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

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

## Price

### Average No. 6 Residual Fuel Oil Prices

		0.0 to 0.3 percent sulfur		0.31 to 1.0 percent sulfur		Greater than 1.0 percent sulfur		Average	
		Whole-sale	Retail	Whole-sale	Retail	Whole-sale	Retail	Whole-	Retail
								sale	Retail
Dollars per barrel, excluding taxes									
<b>1976</b>	<b>AVERAGE</b>	<b>12.20</b>	<b>12.54</b>	<b>10.83</b>	<b>11.79</b>	<b>9.98</b>	<b>10.43</b>	<b>10.72</b>	<b>11.49</b>
<b>1977</b>	<b>AVERAGE</b>	<b>13.45</b>	<b>14.36</b>	<b>12.09</b>	<b>13.45</b>	<b>11.31</b>	<b>12.27</b>	<b>11.96</b>	<b>13.23</b>
<b>1978</b>	<b>AVERAGE</b>	<b>12.77</b>	<b>14.47</b>	<b>11.95</b>	<b>12.78</b>	<b>10.73</b>	<b>11.70</b>	<b>11.51</b>	<b>12.75</b>
<b>1979</b>	January	15.16	16.12	13.68	14.79	11.00	11.92	12.78	14.13
	February	16.12	17.28	15.01	15.30	11.31	12.28	13.72	14.68
	March	16.08	18.05	15.90	16.94	13.48	14.00	14.82	15.95
	April	17.79	19.09	16.34	17.44	13.70	14.59	15.51	16.61
	May	18.04	19.45	15.74	17.89	14.69	15.37	15.71	17.18
	June	20.92	19.79	18.08	18.51	15.95	16.40	17.81	17.97
	July	21.85	23.07	21.25	20.47	16.51	17.86	19.18	19.89
	August	21.05	22.63	19.49	21.28	17.51	18.32	19.00	20.33
	September	21.81	22.92	21.01	21.66	17.54	18.94	19.62	20.90
	October	23.80	23.29	22.99	22.33	18.31	19.53	20.88	21.59
	November	26.68	25.54	24.07	24.31	19.31	19.51	22.00	22.84
	December	27.09	27.78	25.83	25.01	20.67	21.05	23.55	24.44
	<b>AVERAGE</b>	<b>19.87</b>	<b>21.21</b>	<b>18.33</b>	<b>19.33</b>	<b>15.89</b>	<b>16.44</b>	<b>17.66</b>	<b>18.67</b>
<b>1980</b>	January	29.11	30.35	26.15	28.12	21.56	21.98	24.41	26.21
	February	27.07	30.32	25.82	28.15	20.21	22.22	23.34	26.48
	March	26.88	30.20	23.73	27.29	17.81	20.34	21.11	25.33
	April	25.16	28.69	20.38	24.78	16.41	18.36	19.09	22.87
	May	25.48	31.73	22.72	25.77	17.72	18.04	20.22	23.75
	June	23.14	31.37	22.35	25.44	17.72	19.27	20.44	24.09
	July	24.89	28.51	23.44	25.55	19.20	20.58	21.28	23.86
	August	23.20	30.93	24.98	26.11	20.42	21.45	22.25	25.00
	September	24.27	33.12	23.46	26.31	20.62	21.71	22.47	25.31
	October	R24.29	31.88	R25.86	28.00	R22.30	23.29	R23.91	26.72
	Novembert	27.38	33.70	29.40	30.90	27.08	27.50	27.88	30.16
	<b>AVERAGE</b>	<b>25.64</b>	<b>30.83</b>	<b>24.28</b>	<b>27.02</b>	<b>19.97</b>	<b>21.33</b>	<b>22.40</b>	<b>25.46</b>

Geographic coverage: the 50 United States and District of Columbia.

Note: Wholesale refers to the price of residual fuel sold to other refiners and resellers, including bulk plants, branded and unbranded jobbers, and other residual dealers. Retail refers to the price at which residual fuel oil is sold to ultimate consumers such as utility, industrial, commercial, and residential accounts.

† Preliminary data. R = Revised data.

Source: • FEA Form P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices."

# Price

## Natural Gas

		Average Wellhead Value	Delivered to Electric Plant <sup>1</sup>	Average Residential Heating
Cents per thousand cubic feet				
1973	AVERAGE	21.6	35.0	108.2
1974	AVERAGE	30.4	49.0	125.3
1975	AVERAGE	44.5	76.9	154.2
1976	AVERAGE	58.0	105.9	184.6
1977	AVERAGE	79.0	133.4	226.4
1978	AVERAGE	90.5	147.9	262.6
1979	January	102.0	154.7	292.9
	February	104.9	164.8	295.6
	March	109.5	168.6	300.6
	April	110.6	169.6	299.6
	May	115.0	182.2	314.9
	June	116.6	183.9	320.0
	July	119.6	184.0	328.4
	August	123.6	187.0	330.8
	September	123.5	189.4	341.4
	October	128.1	195.7	352.8
	November	128.7	186.9	347.6
	December	131.0	190.0	351.9
	AVERAGE	117.8	180.3	323.1
1980	January	134.4	201.1	354.9
	February	R139.5	210.5	357.9
	March	R141.3	214.7	368.1
	April	R143.4	210.4	367.8
	May	R145.2	218.1	393.9
	June	R145.8	216.4	394.8
	July	R152.8	237.3	410.6
	August	R152.2	245.6	413.1
	September	R155.7	245.6	417.0
	October	R158.5	253.4	420.6
	November	162.2	238.4	396.1
	December	160.9	NA	403.3
	AVERAGE	149.1	NA	391.5

Geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>Includes all electric utility generating plants with a combined capacity of 25 megawatts or greater. Small quantities of coke oven gas, refinery gas and blast furnace gas are included.

NA = Not available. R = Revised data.

Sources: • Annual data for wellhead values are from the appropriate agencies of the individual producing states and the U.S. Geological Survey; monthly data are estimated primarily on the basis of values reported by state agencies in New Mexico, Oklahoma, and Texas.

• Electric Plant data are from Federal Power Commission Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

• Average residential heating prices, Bureau of Labor Statistics.

# Price

## Electricity

**Cost of Fossil Fuels Delivered  
to Steam-Electric Utility Plants**

**Average Retail Electricity Prices<sup>1</sup>**

		Coal	Residual Oil <sup>2</sup>	Natural Gas <sup>3</sup>	All Fossil Fuels <sup>2</sup>	Cents per kilowatt-hour				
						Residential	Commercial	Industrial	Other	Total <sup>4</sup>
Cents per million Btu										
<b>1973</b>	<b>AVERAGE</b>	<b>40.5</b>	<b>78.8</b>	<b>33.8</b>	<b>47.5</b>	<b>2.54</b>	<b>2.41</b>	<b>1.25</b>	<b>2.10</b>	<b>1.96</b>
<b>1974</b>	<b>AVERAGE</b>	<b>71.0</b>	<b>191.0</b>	<b>48.1</b>	<b>90.9</b>	<b>3.10</b>	<b>3.04</b>	<b>1.69</b>	<b>2.75</b>	<b>2.49</b>
<b>1975</b>	<b>AVERAGE</b>	<b>81.4</b>	<b>201.4</b>	<b>75.4</b>	<b>103.0</b>	<b>3.51</b>	<b>3.45</b>	<b>2.07</b>	<b>3.08</b>	<b>2.92</b>
<b>1976</b>	<b>AVERAGE</b>	<b>84.8</b>	<b>195.9</b>	<b>103.4</b>	<b>110.4</b>	<b>3.73</b>	<b>3.69</b>	<b>2.21</b>	<b>3.27</b>	<b>3.09</b>
<b>1977</b>	<b>AVERAGE</b>	<b>94.7</b>	<b>220.4</b>	<b>130.0</b>	<b>127.7</b>	<b>4.05</b>	<b>4.09</b>	<b>2.50</b>	<b>3.51</b>	<b>3.42</b>
<b>1978</b>	<b>AVERAGE</b>	<b>111.6</b>	<b>212.3</b>	<b>143.8</b>	<b>139.3</b>	<b>4.31</b>	<b>4.36</b>	<b>2.79</b>	<b>3.62</b>	<b>3.69</b>
<b>1979</b>	January	115.8	228.1	150.2	150.4	4.07	4.28	2.81	3.55	3.64
	February	114.6	240.6	159.1	154.3	4.09	4.30	2.85	3.73	3.66
	March	116.8	258.8	163.0	152.3	4.28	4.44	2.91	3.87	3.76
	April	120.1	264.6	164.7	151.4	4.51	4.54	2.92	3.87	3.82
	May	121.1	274.1	177.5	158.0	4.69	4.65	2.98	3.98	3.91
	June	121.8	289.3	179.5	161.2	4.88	4.73	3.04	4.05	4.03
	July	122.2	311.8	178.9	168.7	4.92	4.77	3.13	4.22	4.15
	August	122.5	323.5	180.9	167.1	4.94	4.79	3.13	3.88	4.18
	September	125.3	333.5	183.5	167.9	4.96	4.84	3.15	4.07	4.19
	October	127.4	346.1	189.1	167.3	5.01	4.94	3.19	4.07	4.19
	November	127.7	363.1	180.3	171.5	4.84	4.92	3.19	4.14	4.14
	December	129.2	394.8	183.3	183.8	R4.72	4.90	3.27	4.19	4.18
	<b>AVERAGE</b>	<b>122.4</b>	<b>299.7</b>	<b>175.4</b>	<b>162.1</b>	<b>4.64</b>	<b>4.68</b>	<b>3.05</b>	<b>3.96</b>	<b>3.99</b>
<b>1980</b>	January	128.7	423.5	194.8	187.3	4.69	4.90	3.29	4.19	4.19
	February	129.9	429.7	203.9	189.8	4.74	4.96	3.31	4.64	4.24
	March	130.1	411.0	207.9	184.8	4.92	5.17	3.45	4.69	4.40
	April	133.8	394.9	204.0	178.2	5.14	5.28	3.49	4.71	4.48
	May	133.3	403.1	212.0	180.3	5.41	5.44	3.59	4.97	4.63
	June	135.1	392.7	209.3	178.8	5.60	5.61	3.79	4.58	4.85
	July	137.4	394.5	228.5	199.0	5.66	5.65	3.93	4.93	5.03
	August	139.5	404.9	237.2	196.2	5.72	5.64	3.94	4.81	5.07
	September	138.9	411.3	238.7	193.5	5.71	5.73	3.88	4.95	5.03
	October	138.1	452.2	245.7	192.2	5.68	5.84	3.84	4.88	4.95
	November	139.3	496.0	231.3	200.0	5.61	5.71	3.85	5.06	4.89
	December	NA	NA	NA	NA	5.49	5.69	3.88	4.82	4.90
	<b>AVERAGE</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>5.36</b>	<b>5.48</b>	<b>3.69</b>	<b>4.76</b>	<b>4.73</b>

**Geographic coverage:** Fossil Fuels—the lower 48 States and the District of Columbia. Electricity—the 50 United States and the District of Columbia.

<sup>1</sup>Prices are for Classes A and B privately owned electric utilities.

<sup>2</sup>See Explanatory Note 19.

<sup>3</sup>Includes small quantities of coke oven gas, refinery gas and blast furnace gas.

<sup>4</sup>Average price for total sales to ultimate consumers.

R = Revised data. NA = Not available.

**Sources:** • Cost of Fossil Fuels, Federal Power Commission Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

• Retail Price, January 1973 thru February 1980: Federal Power Commission, Form 5, "Monthly Statement of Electric Operating Revenue and Income"; March 1980 forward: Federal Energy Regulatory Commission, Form 5, "Electric Utility Company Monthly Statement."



## International

### Crude Oil Production

World crude oil production during November 1980 was 56.4 million barrels per day, up 0.4 million barrels per day from the October level.

OPEC output during November increased 0.8 million barrels per day from the October level. Average production from Arab members of OPEC increased 0.4 million barrels per day. In November, due to the Iran-Iraq conflict, both nations continued low output levels. Iran was producing at 0.8 million barrels per day and Iraq at 0.4 million barrels per day. These were increases relative to the October levels of 0.2 million barrels per day for each. Nigeria and Kuwait showed increases also at 0.2 and 0.1 million barrels per day, respectively. Other OPEC nations maintained production in November at about the same levels as the previous month's level.

Production by non-OPEC nations decreased to 32.3 million barrels per day in November. This drop of 0.4 million barrels per day resulted primarily due to storm damage which occurred in Mexico. Mexico's output was down 0.3 million barrels per day. Production levels in the United Kingdom were up 0.1 million barrels per day.

### Petroleum Consumption

Petroleum consumption by International Energy Agency (IEA) member nations was 32.1 million barrels per day during October 1980. This preliminary figure was an increase of 0.1 million barrels per day from the consumption rate during September 1980, and a 3.4 million barrels per day decrease from the October 1979 rate of 35.5 million barrels per day.

Preliminary consumption data for November 1980 were available for France, Italy, and the United States. The United States and Italy both showed consumption decreases during November of 0.1 million barrels per day. France remained at about the same level as October. January through October data, however, indicate a significant decline in the consumption rates for the group of IEA nations, as compared to the same period in 1979.

### Nuclear Electricity Production

As of December 1980, 18 non-Communist countries operated a total of 209 reactors which were authorized to generate commercial electricity. These units had a combined electricity generating capacity of 127.1 million gross kilowatts, of which 54.7 million gross kilowatts were attributable to the 75 U.S. licensed reactors. During December 1980, these 18 countries generated a total of 60.2 billion gross kilowatt-hours of electricity, 14.6 percent above the November output and 14.5 percent above the December 1979 output. Total 1980 nuclear electricity generation for these 18 countries was 618.0 billion gross kilowatt-hours, up 8.3 percent from their 1979 output.

In December, three reactor units (Electricité de France's Gravelines-3 and Dampierre-2, and Sweden's Forsmark-1) went on line or "went critical" (i.e., sustained chain reactions). These three units had a combined capacity of 2.85 million gross kilowatts. In 1980 a total of 13 power reactor units went on line in the non-Communist world: Finland, 2; France, 6; India, 1; Sweden, 2; and United States, 2. With the addition of six units, nuclear generating capacity of France increased 76 percent to 15.41 million gross kilowatts, second only to the United States' in terms of "free world" capacity.

# International

## Crude Oil Production for Major Petroleum Exporting Countries

		Algeria	Iraq	Kuwait <sup>1</sup>	Libya	Qatar	Saudi Arabia <sup>1</sup>	United Arab Emirates	Arab Members of OPEC <sup>2</sup>	Indonesia	Iran
Thousand barrels per day											
1973	AVERAGE	1,070	2,018	3,020	2,175	570	7,596	1,533	17,982	1,339	5,860
1974	AVERAGE	960	1,971	2,546	1,521	518	8,480	1,679	17,675	1,375	6,022
1975	AVERAGE	960	2,262	2,084	1,480	438	7,075	1,664	15,963	1,307	5,350
1976	AVERAGE	1,020	2,415	2,145	1,933	497	8,577	1,936	18,523	1,504	5,863
1977	AVERAGE	1,100	2,350	1,980	2,065	445	9,210	2,000	19,150	1,685	5,665
1978	AVERAGE	1,160	2,560	2,135	1,985	485	8,300	1,830	18,455	1,635	5,240
1979	January	1,235	3,535	2,605	2,165	550	9,790	1,840	21,720	1,600	410
	February	1,235	3,535	2,695	2,150	555	9,780	1,835	21,785	1,615	760
	March	1,235	3,535	2,580	2,070	370	9,780	1,830	21,400	1,625	2,190
	April	1,235	3,535	2,535	2,060	550	8,790	1,755	20,460	1,605	3,800
	May	1,235	3,535	2,575	2,040	540	8,780	1,860	20,565	1,565	4,100
	June	1,235	3,535	2,575	2,015	455	8,780	1,870	20,465	1,610	3,950
	July	1,035	3,335	2,540	2,070	520	9,780	1,835	21,115	1,600	3,750
	August	1,035	3,335	2,515	2,080	535	9,770	1,835	21,105	1,595	3,600
	September	1,035	3,335	2,365	2,020	455	9,780	1,840	20,830	1,575	3,600
	October	1,035	3,335	2,365	2,030	490	9,725	1,785	20,765	1,570	3,930
	November	1,035	3,335	2,435	2,085	525	9,795	1,870	21,080	1,570	3,170
	December	1,035	3,335	2,240	2,090	545	9,775	1,875	20,895	1,565	3,000
	AVERAGE	1,154	3,477	2,500	2,092	508	9,532	1,831	21,094	1,591	3,168
1980	January	1,150	3,400	2,140	2,100	495	9,785	1,740	20,810	1,565	2,295
	February	1,150	3,400	2,335	2,100	460	9,780	1,740	20,965	1,550	2,500
	March	1,150	3,400	2,090	2,000	500	9,790	1,695	20,625	1,575	2,350
	April	1,000	3,300	1,570	1,750	500	9,765	1,705	19,590	1,580	2,200
	May	1,000	3,300	1,525	1,750	480	9,775	1,765	19,595	1,550	1,700
	June	1,000	3,300	1,575	1,700	440	9,775	1,750	19,540	1,545	1,500
	July	1,000	3,100	1,365	1,680	460	9,765	1,710	19,080	1,565	1,700
	August	1,000	3,100	1,465	1,690	465	9,765	1,665	19,150	1,565	1,600
	September	1,000	3,000	1,290	1,680	460	9,740	1,670	18,840	1,565	1,400
	October	1,000	150	1,355	1,665	440	10,255	1,675	16,540	1,575	600
	November	1,000	350	1,465	1,680	475	10,265	1,695	16,930	1,575	800

Note: Data for 1980 are preliminary.

<sup>1</sup>Includes about one-half of the production in the former Kuwait-Saudi Arabia Neutral Zone. In November 1980 total production in this region amounted to approximately 530,000 barrels per day.

<sup>2</sup>Arab members of OPEC include Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates. Additional footnotes on following page.

## International

### Crude Oil Production for Major Petroleum Exporting Countries (continued)

		Nigeria	Vene-zuela	Total OPEC <sup>3</sup>	Canada	Mexico	United Kingdom	United States	China	USSR	Other <sup>4</sup>	World
Thousand barrels per day												
1973	AVERAGE	2,054	3,366	30,961	1,800	450	8	9,208	1,140	8,420	3,843	55,830
1974	AVERAGE	2,255	2,976	30,683	1,695	580	9	8,774	1,310	9,020	3,805	55,875
1975	AVERAGE	1,783	2,346	27,134	1,420	720	20	8,375	1,490	9,630	4,201	52,990
1976	AVERAGE	2,067	2,294	30,711	1,300	800	245	8,132	1,735	10,170	4,302	57,395
1977	AVERAGE	2,085	2,240	31,230	1,320	980	770	8,245	1,875	10,700	4,490	59,610
1978	AVERAGE	1,895	2,165	29,800	1,315	1,215	1,080	8,707	2,080	11,215	4,698	60,190
1979	January	2,440	2,265	28,880	1,450	1,395	1,465	8,475	2,120	11,370	4,725	59,880
	February	2,430	2,345	29,380	1,575	1,400	1,505	8,525	2,120	11,370	4,595	60,470
	March	2,440	2,425	30,515	1,405	1,310	1,335	8,601	2,120	11,370	5,214	61,870
	April	2,420	2,385	31,095	1,510	1,400	1,460	8,553	2,120	11,510	4,862	62,510
	May	2,400	2,385	31,445	1,465	1,405	1,645	8,601	2,120	11,110	4,679	62,470
	June	2,420	2,245	31,115	1,465	1,440	1,745	8,432	2,120	11,460	4,743	62,520
	July	2,380	2,325	31,515	1,520	1,440	1,710	8,364	2,120	11,400	5,621	63,690
	August	2,185	2,325	31,230	1,450	1,460	1,640	8,548	2,120	11,560	5,322	63,330
	September	2,115	2,365	30,895	1,490	1,475	1,675	8,523	2,120	11,460	5,072	62,710
	October	2,135	2,370	31,180	1,545	1,515	1,615	8,621	2,120	11,630	5,099	63,325
	November	2,150	2,390	30,770	1,525	1,620	1,520	8,761	2,120	11,700	5,124	63,140
	December	2,150	2,410	30,430	1,545	1,660	1,545	8,615	2,120	11,700	5,005	62,620
	AVERAGE	2,302	2,356	30,928	1,495	1,460	1,570	8,552	2,120	11,470	4,824	62,400
1980	January	2,155	2,280	29,535	1,515	1,720	1,600	8,648	2,115	11,560	5,042	61,735
	February	2,160	2,200	29,805	1,475	1,725	1,660	8,696	2,115	11,550	5,189	62,215
	March	2,155	1,995	29,100	1,475	1,830	1,670	8,712	2,115	11,640	5,203	61,745
	April	2,100	2,045	27,965	1,390	1,885	1,510	8,688	2,120	11,630	5,352	60,540
	May	2,200	2,150	27,645	1,470	1,910	1,600	8,640	2,120	11,700	5,175	60,260
	June	2,110	2,050	27,175	1,535	1,905	1,625	8,547	2,120	11,630	5,203	59,740
	July	2,095	2,170	27,030	1,520	2,015	1,585	8,555	2,125	11,800	4,945	59,575
	August	2,050	2,210	27,010	1,440	2,000	1,535	8,422	2,130	11,800	5,158	59,495
	September	1,600	2,190	25,955	1,420	2,125	1,540	R8,619	2,110	11,800	R5,056	R58,625
	October	1,880	2,225	23,230	1,250	2,180	R1,631	8,570	R2,207	11,800	R5,062	R55,930
	November	2,055	2,230	24,015	1,200	1,900	1,745	8,500	2,093	11,824	5,073	56,350

United States geographic coverage: the 50 United States and District of Columbia.

<sup>3</sup>OPEC total includes production in Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, United Arab Emirates, Indonesia, Iran, Nigeria, Venezuela, Ecuador, and Gabon.

<sup>4</sup>Other is a calculated total derived from the difference between world production and the nations represented above.

R = Revised data.

Note: Monthly data may not average to annual data. Data for 1980 are preliminary.

Sources: • 1973–1978 annual data (except U.S.): Central Intelligence Agency, *International Energy Statistical Review*.

• 1979 annual data (except U.S. and OPEC nations): Central Intelligence Agency, *International Energy Statistical Review*.

• 1979 annual data for OPEC nations: *OPEC Annual Statistical Bulletin 1979*.

• 1979 monthly data (except U.S.) are EIA estimates based on CIA revisions to annual data.

• 1973–1980 United States data: See sources on the last page of the Petroleum Section.

• 1980 monthly data (except U.S.): Central Intelligence Agency, *International Energy Statistical Review*.

## International

### Petroleum Consumption for Major Free World Industrialized Countries<sup>1</sup>

		Canada	France <sup>2</sup>	Italy	Japan	United Kingdom	United States	West Germany	Other IEA <sup>3</sup>	Total IEA <sup>4</sup>
Thousand barrels per day										
1973	AVERAGE	1,597	2,219	1,525	5,000	1,958	17,308	2,693	4,069	34,150
1974	AVERAGE	1,630	2,094	1,521	4,872	1,829	16,653	2,408	4,047	32,960
1975	AVERAGE	1,595	1,925	1,468	4,568	1,633	16,322	2,319	3,905	31,810
1976	AVERAGE	1,647	2,075	1,503	4,786	1,601	17,461	2,507	4,265	33,770
1977	AVERAGE	1,661	1,973	1,476	5,015	1,655	18,431	2,478	4,214	34,930
1978	AVERAGE	1,701	2,077	1,551	5,115	1,683	18,847	2,596	4,387	35,880
1979	January	1,881	2,786	1,950	5,579	1,883	20,586	2,893	5,228	40,000
	February	2,019	2,731	1,912	6,009	2,067	21,288	2,708	5,097	41,100
	March	1,654	2,315	1,601	5,708	1,949	19,322	2,592	4,574	37,400
	April	1,605	2,150	1,447	5,009	1,703	17,434	2,590	4,212	34,000
	May	1,650	2,039	1,402	4,757	1,648	17,801	2,641	4,301	34,200
	June	1,737	1,663	1,312	4,709	1,517	17,786	2,613	4,026	33,700
	July	1,700	1,604	1,314	4,689	1,435	17,144	2,626	4,192	33,100
	August	1,775	1,553	1,311	4,894	1,488	18,149	2,617	4,566	34,800
	September	1,619	1,721	1,617	4,809	1,520	17,400	2,597	4,338	33,900
	October	1,852	2,007	1,807	4,771	1,652	18,176	2,846	4,396	35,500
	November	1,840	2,481	1,890	5,359	1,858	R18,313	2,763	R4,377	36,400
	December	1,877	2,278	1,744	5,800	1,606	18,922	2,489	4,862	37,300
	AVERAGE	1,766	2,107	1,607	5,173	1,690	R18,513	2,664	R4,487	35,900
1980	January	1,812	2,465	1,778	5,255	1,769	18,656	2,665	4,565	36,500
	February	R1,940	2,444	1,864	5,722	1,621	18,815	2,385	R4,753	37,100
	March	R1,725	1,982	1,657	5,433	1,585	17,385	2,405	R4,410	34,600
	April	R1,591	2,110	1,541	4,626	1,472	16,724	2,656	R4,290	32,900
	May	1,573	R1,853	1,448	4,376	1,348	16,143	2,203	4,009	31,100
	June	1,647	1,848	1,511	4,224	1,286	16,214	2,192	4,026	31,100
	July	1,662	R1,450	R1,537	4,250	1,217	15,962	2,404	R4,068	31,100
	August	1,630	1,220	1,310	3,910	1,120	15,727	2,130	3,873	29,700
	September	1,550	1,740	R1,650	R4,120	R1,270	R16,548	2,520	4,342	32,000
	October	1,700	R2,050	1,680	4,260	1,420	16,802	R2,210	4,028	32,100
	November	NA	2,040	1,530	NA	NA	16,696	NA	NA	NA

United States geographic coverage: the 50 United States and District of Columbia.

<sup>1</sup>These data represent inland consumption, i.e., sales of petroleum products excluding refinery fuel, refinery losses, and ocean bunkers except for the United States, where it represents domestic products supplied.

<sup>2</sup>Not a member of the International Energy Agency (IEA).

<sup>3</sup>Other is a calculated total derived from the difference between total IEA consumption and the IEA nations represented above.

<sup>4</sup>The 21 signatory nations of the International Energy Agency (IEA) are: Australia, Austria, Belgium, Canada, Denmark, West Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States. Australia and Portugal joined the IEA as new members in 1979 and 1980, respectively. In an effort to maintain comparability within this time series, consumption data for these two countries have been incorporated into the IEA total for all years. Data for 1979 and 1980 are rounded to the nearest hundred.

R = Revised data.

NA = Not available.

Note: Data for 1980 are preliminary.

Sources: • Central Intelligence Agency, "International Energy Statistical Review," 24 February 1981 (except United States).

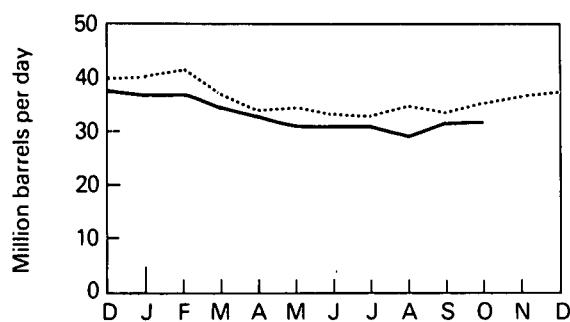
• 1973–1980 United States data: See sources on last page of the Petroleum Section.

• IEA totals for most recent months are EIA estimates.

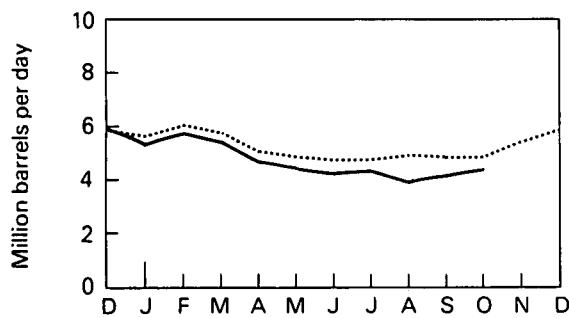
## International

### Petroleum Consumption

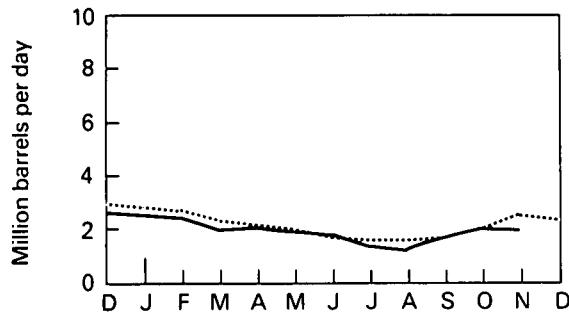
Total IEA



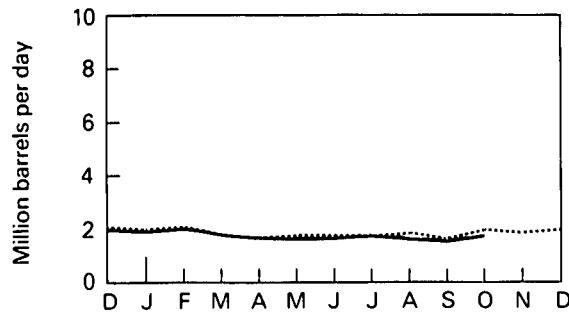
Japan\*



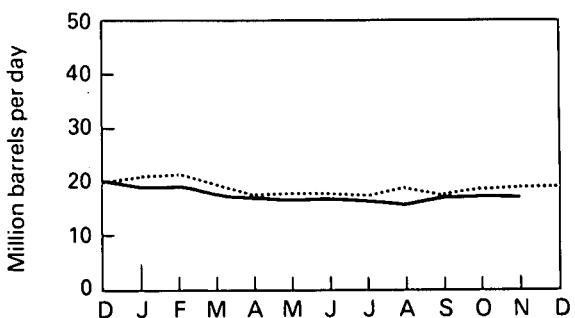
France\*\*



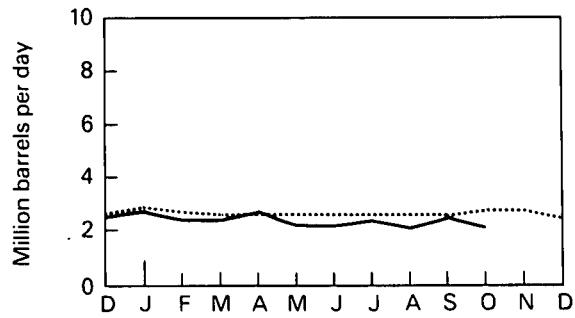
Canada



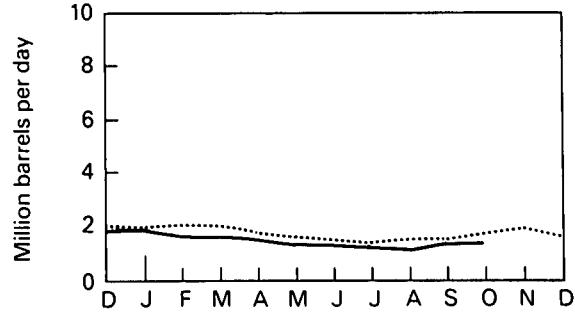
United States



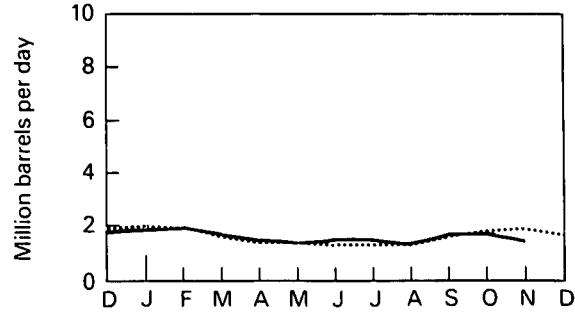
West Germany



United Kingdom



Italy\*\*\*



\*Excludes liquefied petroleum gases and condensates.

\*\*Not a member of IEA.

\*\*\*Principal products only.

..... 1979  
— 1980  
- - - 1981

# International

## Nuclear Electricity Generation by Non-Communist Countries<sup>1</sup>

		Argentina	Belgium	Canada	Finland	France	India	Italy	Japan	Nether- lands	Pakistan
		Billion gross kilowatt-hours									
1973	TOTAL	0	0	18.3	0	11.6	1.9	3.1	9.4	1.1	0.5
1974	TOTAL	1.0	.1	15.4	0	14.7	2.4	3.4	18.1	3.3	0.6
1975	TOTAL	2.5	6.8	13.2	0	18.3	2.5	3.8	22.2	3.3	0.6
1976	TOTAL	2.6	10.0	18.0	0	15.8	3.2	3.8	36.8	3.9	0.5
1977	TOTAL	1.6	11.9	26.8	2.7	17.9	2.8	3.4	28.1	3.7	0.3
1978	TOTAL	2.9	12.5	32.9	3.3	30.5	2.3	4.4	53.2	4.1	0.2
1979	January	0.3	0.8	3.8	0.5	3.8	0.4	0.4	5.7	0.4	(2)
	February	0.2	0.6	2.9	0.5	3.5	0.2	0.3	4.8	0.3	(2)
	March	0.2	0.8	2.9	0.5	3.2	0.2	0.2	4.3	0.4	(2)
	April	0.3	1.0	3.1	0.6	3.2	0.2	0.3	3.9	0.2	(2)
	May	0.3	1.3	2.7	0.5	3.3	0.2	0.2	3.6	0.3	(2)
	June	0.2	1.2	3.2	0.4	3.0	0.3	0.1	4.5	0.4	(2)
	July	0.2	1.0	3.8	0.5	2.6	0.3	0	5.9	0.4	(2)
	August	0.3	0.6	2.8	0.4	2.3	0.3	0.1	6.7	0.3	(2)
	September	0.1	0.8	3.0	0.7	3.1	0.2	0.2	5.3	0.4	(2)
	October	0.2	1.1	3.3	0.8	3.8	0.3	0.2	6.2	0.3	(2)
	November	0.3	1.0	2.9	0.6	3.6	0.3	0.2	5.4	0.3	(2)
	December	0.2	1.3	3.8	0.7	4.6	0.2	0.4	5.9	0.1	(2)
	TOTAL	2.7	11.4	38.4	6.7	39.9	3.2	2.6	62.0	3.5	(2)
1980	January	0.3	1.2	3.6	0.8	5.5	0.2	0.2	8.0	0.4	(2)
	February	0.1	1.0	3.5	0.8	5.3	0.1	0.4	7.4	0.4	(2)
	March	0	1.0	3.7	0.8	5.1	0.2	0.5	8.0	0.4	(2)
	April	0.1	0.5	3.2	0.8	5.0	0.3	0.4	5.6	0.3	(2)
	May	0.2	0.7	2.5	0.3	4.2	0.3	0.3	6.0	0.3	(2)
	June	0.3	1.1	3.1	0	4.1	0.2	0.1	6.6	0.3	(2)
	July	0.2	1.3	3.6	0.4	4.8	0.2	0.1	7.6	0.4	(2)
	August	0.3	1.3	3.9	0.4	3.2	0.3	0.1	8.3	0.4	(2)
	September	0.3	1.1	3.1	0.4	4.5	0.3	0.1	6.7	0.4	(2)
	October	0.3	0.9	3.3	0.5	5.1	0.2	0	5.7	0.3	(2)
	November	0.3	1.2	3.4	0.6	5.8	0.3	0	5.1	0.3	(2)
	December	0.3	1.2	3.5	1.2	8.5	0.2	0	6.0	0.3	(2)
	TOTAL	2.3	12.5	40.4	7.0	61.2	2.9	2.2	81.0	4.2	(2)

Note: In some cases, monthly figures are adjusted to reflect amended cumulative totals. Totals may not equal sum of components due to independent rounding.

<sup>1</sup>Figures are for gross electrical generation as opposed to net electrical generation. Net figures are generally less than gross figures by about 5 percent, which represents the energy consumed by the generating plants themselves.

<sup>2</sup>Less than 0.05 billion gross kilowatt-hours.

R = Revised data.

Source: • Nucleonics Week.

## International

### Nuclear Electricity Generation by Non-Communist Countries<sup>1</sup> (continued)

		South Korea	Spain	Sweden	Switzer-land	Taiwan	United Kingdom <sup>3</sup>	West Germany	Non-Communist World Excluding U.S.	United States	Total Non-Communist World
Billion gross kilowatt-hours											
1973	TOTAL	0	6.5	2.1	6.2	0	28.0	11.9	100.7	88.0	188.7
1974	TOTAL	0	7.2	1.6	7.0	0	34.0	12.0	121.1	104.5	225.6
1975	TOTAL	0	7.5	12.0	7.7	0	30.5	21.7	152.7	181.8	334.5
1976	TOTAL	0	7.6	16.0	7.9	0	36.8	24.5	187.3	201.6	388.9
1977	TOTAL	( <sup>2</sup> )	6.5	19.9	8.1	( <sup>2</sup> )	38.1	35.8	207.8	263.2	470.9
1978	TOTAL	2.3	7.6	23.8	8.3	2.7	36.7	35.9	263.6	292.7	556.3
1979	January	0.3	0.5	2.3	0.8	0.4	3.8	4.2	28.5	29.2	57.7
	February	0.4	0.6	2.0	0.7	0.3	3.8	3.4	24.5	27.3	51.8
	March	0.3	0.7	2.7	0.8	0.5	4.0	3.8	25.4	25.5	50.9
	April	0.3	0.6	1.4	0.8	0.6	3.2	3.8	23.5	19.3	42.8
	May	0.3	0.1	1.3	0.9	0.5	2.3	3.5	21.2	15.8	37.0
	June	0.3	0.3	1.0	0.7	0.6	3.1	3.3	22.6	17.1	39.7
	July	0.3	0.3	1.0	0.8	0.7	2.6	3.3	23.8	22.5	46.3
	August	0.4	0.7	1.1	0.7	0.6	2.4	2.9	22.6	26.2	48.7
	September	0.4	0.7	1.4	1.2	0.6	3.1	2.6	23.9	23.2	47.1
	October	0.3	0.7	2.0	1.4	0.5	2.8	3.7	27.6	22.3	49.9
	November	0	0.7	2.3	1.4	0.3	3.3	3.8	26.0	20.3	46.3
	December	0	0.7	2.5	1.5	0.6	4.1	4.1	30.6	21.9	52.5
	TOTAL	3.2	6.7	21.0	11.8	6.3	38.5	42.2	300.1	270.7	570.8
1980	January	0.1	0.7	2.5	1.5	0.9	3.7	4.7	34.2	21.1	55.3
	February	( <sup>2</sup> )	0.3	2.4	1.2	0.7	3.4	4.2	31.3	21.0	52.2
	March	0.4	0.4	2.3	1.3	0.8	4.2	3.4	32.4	21.0	53.4
	April	0.4	0.4	1.9	1.4	0.7	2.7	3.6	27.3	19.8	47.1
	May	0.4	0.4	1.6	1.4	0.4	2.6	3.5	25.1	19.6	44.7
	June	0.1	0.3	1.6	0.6	0.5	2.8	2.9	24.6	19.4	44.0
	July	0.4	0.3	1.3	0.6	0.8	2.0	3.0	27.0	22.4	49.4
	August	0.3	0.4	1.3	0.7	0.8	2.6	2.7	26.9	25.7	52.6
	September	0.4	0.4	2.1	1.3	0.8	3.1	3.2	28.1	24.8	52.9
	October	0.4	0.4	2.7	1.4	0.8	2.7	3.1	27.9	25.7	53.6
	November	0.4	0.5	3.4	1.4	0.6	3.2	4.1	30.5	22.0	52.5
	December	0.3	0.7	3.6	1.5	0.5	4.2	5.3	37.2	22.9	60.2
	TOTAL	3.5	5.2	26.7	14.3	8.2	37.2	43.7	352.6	265.3	618.0

United States geographic coverage: the 50 United States and District of Columbia.

Note: In some cases, monthly figures are adjusted to reflect amended cumulative totals. Totals may not equal sum of components due to independent rounding.

<sup>1</sup>Figures are for gross electrical generation, as opposed to net electrical generation. Net figures are generally less than gross figures by about 5 percent, which represents the energy consumed by the generating plants themselves.

<sup>2</sup>Less than 0.05 billion gross kilowatt-hours.

<sup>3</sup> The United Kingdom assesses generation at 4- or 5-week intervals, rather than by calendar month.

R = Revised data.

Source: • Nucleonics Week.

# Definitions

## Anthracite

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

## Average Retail Selling Price, Motor Gasoline

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

## Base Production Control Level

(See Crude Oil)

## Bituminous Coal

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

## Ceiling Price

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

## Coke (Coal)

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

## Crude Oil

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

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

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

**B. Upper Tier (New) Crude Oil:** With respect to a specific property, (1) prior to February 1, 1976, the total number of barrels of domestic crude oil produced and sold in a specified month, less (a) the base production control level for that month, and less (b) the current cumulative deficiency; (2) effective February 1, 1976, the total number of barrels of domestic crude oil produced and sold in a specific month less (a) the property's base production control level for that month and less (b) the current cumulative deficiency since February 1, 1976; and (3) that the total number of barrels of domestic crude oil shall not in either period include any number of barrels not certified as new crude oil pursuant to the provisions of 10 CFR 212.131(a)(2) within the consecutive 2-month period immediately succeeding the month in which the crude oil is produced and sold except where such recertification is explicitly required or permitted by DOE order, interpretation, or ruling.

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

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

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

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

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

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

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

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

#### **Crude Oil Domestic Production**

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

#### **Crude Oil Entitlement Value**

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

#### **Crude Oil Refinery Input**

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

#### **Crude Oil Stocks**

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

#### **Distillate Fuel Oil**

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

#### **Distillate Fuel Oil Production**

Total production of distillate fuel by refineries, measured at the refinery outlet. Relatively small

quantities of distillate fuel are produced at natural gas processing plants, but these quantities are not included.

#### **Electricity Production**

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

#### **Entitlement Position**

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

#### **Entitlement Price**

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

#### **Exploratory Well**

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

#### **Full Serve**

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

#### **Imports**

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

#### **Jet Fuel**

Includes both naphtha-type and kerosene-type jet fuel meeting standards for use in aircraft turbine engines or meeting ASTM Specification D1655. Although most jet

fuel is used in aircraft, some is used for other purposes, such as fuel for turbines to produce electricity.

#### **Landed Cost**

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

#### **Lease Condensate**

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

#### **Line Miles of Seismic Exploration**

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

#### **Lignite**

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

#### **Lower Tier Crude Oil**

(See Crude Oil, Part A.)

#### **Major Brand**

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

#### **Maximum Dependable Capacity, Net**

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

#### **Motor Gasoline**

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

#### **Motor Gasoline Production**

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

#### **Motor Gasoline, Regular Grade**

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

#### **Motor Gasoline, Premium Grade**

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

#### **National Domestic Crude Oil Supply Ratio**

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

#### **Natural Gas**

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

#### **Natural Gas Liquids**

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

#### **Natural Gas Plant Liquids**

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

#### **Natural Gas Production (Dry)**

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

#### **New Crude Oil**

(See Crude Oil, Part B.)

## **Old Crude Oil**

(See Crude Oil, Part A.)

## **Petroleum**

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

## **Petroleum Coke**

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

## **Petroleum Products**

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

## **Property**

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

## **Refined Petroleum Product Supplied**

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

## **Refiner Acquisition Cost**

The cost to the refiner, including transportation and fees, of crude oil. The composite cost is the average of domestic and imported crude oil costs, and represents

the amount of crude oil cost which refiners may pass on to their customers.

## **Residual Fuel Oil**

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

## **Rotary Rig**

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

## **Self Serve**

Motor vehicle services are not provided by attendants.

## **Strategic Petroleum Reserves**

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

## **Startup Test Phase of Nuclear Powerplant**

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

## **Stocks (Refined Petroleum Product)**

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

## **Synthetic Natural Gas (SNG)**

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

**Unaccounted for Crude Oil**

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

**Unrecouped Costs**

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

**Upper Tier Crude Oil**

(See Crude Oil, Part B.)

**Well**

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

## Explanatory Notes

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

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

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

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

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

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

There are two degree-day data bases maintained by the National Oceanic and Atmospheric Administration. Weekly degree-day information is based on mean daily temperatures recorded at about 200 major weather

stations around the country. Monthly data are based on readings at more than 8,000 weather stations. The temperature information recorded at these weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Petroleum Administration for Defense (PAD) Districts and into the national average, also using a population weighting method.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

where

$S_B$  = beginning stocks

$R$  = receipts

$S_E$  = ending stocks.

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

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

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

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

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

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

where

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

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

11. The units used to describe power generation at nuclear plants are based on the watt, a unit of power. (Power is energy produced per unit of time.) Nuclear power plants may have more than one type of power rating, including:

- (a). Design Capacity or Design Electrical Rating (DER)—The nominal net, electrical output of the unit specified by the utility and used for the purpose of plant design.
- (b). Maximum Dependable Capacity (MDC), GROSS—The gross electrical output as measured at the output terminals of the turbine generator during the most restrictive seasonal conditions (usually summer).
- (c). Maximum Dependable Capacity, NET—The gross maximum dependable capacity less the nominal station service load. (The nominal station service load for a nuclear plant is about 5 percent of its gross generation.)
- (d). Thermal Capacity—The rate of heat production by the reactor core. The Nuclear Regulatory Commission authorizes a maximum thermal power rating for U.S. reactors.

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

13. The refiner acquisition cost of domestic crude oil is the price paid by refiners for domestic crude oil and

natural gas plant liquids and includes transportation costs from the wellhead to the refinery. The refiner acquisition cost of imported crude oil is the average landed cost of imported crude oil to the refiner and represents the amount which may be passed on to the consumer. It incorporates transportation costs and fees (including the supplemental import fees) and any other costs incurred in purchasing and shipping crude oil to the United States

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

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

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

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

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

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

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

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## Conversion Factors

### Thermal Conversion Factors

Approximate Heat Content of Various Fuels		1973	1974	1975	1976	1977	1978	1979-80-81
<b>Anthracite</b>								
Production .....	Btu/short ton	23,170,000	22,560,000	23,390,000	22,770,000	23,180,000	23,520,000	23,590,000
Imports and Exports .....	Btu/short ton	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000	25,400,000
Consumption, average .....	Btu/short ton	22,710,000	21,950,000	21,740,000	22,150,000	22,710,000	22,970,000	22,700,000
Electric utility consumption .....	Btu/short ton	17,920,000	17,200,000	17,060,000	17,530,000	17,240,000	17,100,000	17,450,000
Non-utility consumption .....	Btu/short ton	24,340,000	23,750,000	23,650,000	23,840,000	24,990,000	25,170,000	25,200,000
<b>Bituminous coal and lignite</b>								
Production .....	Btu/short ton	24,010,000	23,730,000	23,200,000	23,150,000	22,700,000	22,430,000	22,590,000
Imports .....	Btu/short ton	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
Exports .....	Btu/short ton	27,000,000	27,000,000	27,000,000	27,000,000	27,000,000	27,000,000	27,000,000
Consumption, average .....	Btu/short ton	23,650,000	23,070,000	22,800,000	22,750,000	22,330,000	22,140,000	22,200,000
Electric utility consumption .....	Btu/short ton	22,260,000	21,800,000	21,660,000	21,690,000	21,480,000	21,280,000	21,380,000
Non-utility consumption .....	Btu/short ton	26,840,000	26,120,000	25,810,000	25,870,000	25,130,000	25,070,000	25,060,000
Coal Coke .....	Btu/short ton	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000
<b>Crude petroleum<sup>1</sup></b>								
Production .....	Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000
Imports .....	Btu/barrel	5,817,000	5,827,000	5,821,000	5,808,000	5,810,000	5,802,000	5,810,000
Exports .....	Btu/barrel	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000
<b>Crude petroleum and products</b>								
Imports, average .....	Btu/barrel	5,897,000	5,884,000	5,858,000	5,856,000	5,834,000	5,839,000	5,810,000
Exports, average .....	Btu/barrel	5,752,000	5,774,000	5,748,000	5,745,000	5,797,000	5,808,000	5,832,000
<b>Petroleum products</b>								
Consumption, average .....	Btu/barrel	5,515,000	5,504,000	5,494,000	5,504,000	5,518,000	5,519,000	5,494,000
Residential and Commercial .....	Btu/barrel	5,686,000	5,681,000	5,655,000	5,661,000	5,664,000	5,682,000	5,661,000
Industrial .....	Btu/barrel	5,328,000	5,307,000	5,307,000	5,339,000	5,371,000	5,371,000	5,340,000
Transportation .....	Btu/barrel	5,398,000	5,396,000	5,395,000	5,400,000	5,404,000	5,412,000	5,415,000
Electric Utility .....	Btu/barrel	6,223,000	6,215,000	6,229,000	6,235,000	6,231,000	6,227,000	6,245,000
Imports .....	Btu/barrel	5,983,000	5,959,000	5,935,000	5,980,000	5,908,000	5,955,000	5,811,000
Exports .....	Btu/barrel	5,752,000	5,773,000	5,747,000	5,743,000	5,796,000	5,814,000	5,864,000
<b>Natural gas plant liquid production</b> .....	Btu/barrel	4,049,000	4,011,000	3,984,000	3,964,000	3,941,000	3,925,000	3,955,000
<b>Natural gas, dry</b>								
Production and consumption ....	Btu/cubic foot	1,021	1,024	1,021	1,020	1,021	1,019	1,021
Electric utility consumption .....	Btu/cubic foot	1,024	1,022	1,026	1,023	1,029	1,034	1,034
Non-utility consumption .....	Btu/cubic foot	1,020	1,024	1,020	1,019	1,019	1,016	1,018
Imports .....	Btu/cubic foot	1,026	1,027	1,026	1,025	1,026	1,030	1,037
Exports .....	Btu/cubic foot	1,023	1,016	1,014	1,013	1,013	1,013	1,013
<b>Natural gas, wet</b>								
Production .....	Btu cubic foot	1,093	1,097	1,095	1,093	1,093	1,088	1,092
Hydropower <sup>2</sup> .....	Btu/kWh	10,389	10,442	10,406	10,373	10,435	10,435	10,435
Nuclear power <sup>2</sup> .....	Btu/kWh	10,903	11,161	11,013	11,047	10,769	10,769	10,769
Geothermal power <sup>2</sup> .....	Btu/kWh	21,674	21,674	21,611	21,611	21,611	21,611	21,611
Electricity consumption .....	Btu/kWh	3,412	3,412	3,412	3,412	3,412	3,412	3,412

Refined Petroleum Products:	Btu/barrel
Asphalt	6,636,000
Aviation gasoline	5,048,000
Butane	4,326,000
Butane-propane mixture <sup>3</sup>	4,130,000
Distillate fuel oil	5,825,000
Ethane	3,082,000
Ethane-propane mixture <sup>4</sup>	3,308,000
Isobutane	3,974,000
Jet fuel—kerosene type	5,670,000
Jet fuel—naphtha type	5,355,000
Kerosene	5,670,000
Lubricants	6,065,000
Motor gasoline	5,253,000
Natural gasoline	4,620,000
Petrochemical feedstocks	
Naphtha 40°	5,248,000
Other oils over 40°	5,825,000
Still gas	6,000,000
Petroleum coke	6,024,000
Plant condensate	5,418,000
Propane	3,836,000
Residual fuel oil	6,287,000
Road oil	6,636,000
Special naphtha	5,248,000
Still gas	6,000,000
Unfinished oils	5,825,000
Wax	5,537,000
Miscellaneous	5,796,000

### Units of Measure

#### Weight

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

#### Conversion Factors for Crude Oil (Average Gravity)

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

#### Conversion Factors for Uranium

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

<sup>1</sup>Includes lease condensate  
<sup>2</sup>There is no generally accepted practice for measuring hydropower thermal conversion rates. The hydropower factors on this page are the prevailing heat rate factors at fossil fuel steam electric powerplants. By using the heat rate factor, it is possible to evaluate fossil fuel requirements for replacing hydropower production during periods of drought. Furthermore, it allows for better comparisons with certain other countries such as Norway where hydropower is the principal means for producing electricity. Similarly, the nuclear power and geothermal power conversion factors represent the thermal conversion equivalent of the uranium and geothermal steam consumed at powerplants. The heat content of a kilowatt-hour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatt-hour. It is not possible to determine the hydroelectric powerplant efficiency by using these factors. The efficiency factor for hydroelectric powerplants is derived by multiplying generation efficiency by turbine efficiency. The average hydroelectric powerplant efficiency in the United States is 86 percent while average generation efficiency is 97 percent and average turbine efficiency is 89 percent.

<sup>3</sup> 60 percent butane and 40 percent propane.  
<sup>4</sup> 70 percent ethane and 30 percent propane.

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