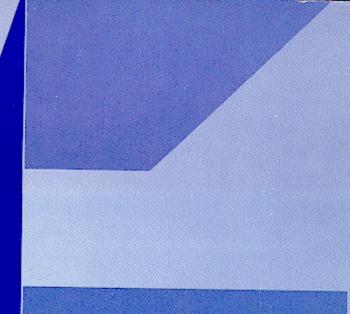
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# Monthly Energy Review



# Monthly Energy Review

The *Monthly Energy Review (MER)* presents an overview of the Energy Information Administration's recent monthly energy statistics. The statistics cover the major activities of U.S. production, consumption, trade, stocks, and prices for petroleum, natural gas, coal, electricity, and nuclear energy. Also included are international energy and thermal and metric conversion factors.

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# **Monthly Energy Review**

# January 1996

**Energy Information Administration** 

Office of Energy Markets and End Use U.S. Department of Energy Washington, DC 20585

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# Section 1. Energy Overview

Energy production during October 1995 totaled 5.6 quadrillion Btu, a 1.6-percent increase from the level of production during October 1994. Crude oil and natural gas plant liquids decreased 2.7 percent, coal production increased 2.4 percent, and production of natural gas decreased 0.5 percent. All other forms of energy production combined were up 12.6 percent from the level of production during October 1994.

Energy consumption during October 1995 totaled 6.9 quadrillion Btu, 1.9 percent above the level of consumption during October 1994. Consumption of coal was up 3.3 percent, petroleum products consumption fell 0.5 percent, and consumption of natural gas increased 0.4 percent. Consumption of all other forms of energy combined increased 11.3 percent from the level 1 year earlier.

Net imports of energy during October 1995 totaled 1.4 quadrillion Btu, 4.9 percent below the level of net imports 1 year earlier. Net imports of petroleum decreased 2.2 percent, and net imports of natural gas were up 0.4 percent. Net exports of coal rose 26.5 percent from the level in October 1994.

# Table 1.1 Energy Summary for October 1995

(Quadrillion Btu)

		October			Cumulative	January Thro	ugh October	
	1995	1994	Percent Change <sup>a</sup>	1995	1995 Daily Rate	1994	1994 Daily Rate	Percent Change <sup>a</sup>
Production <sup>b</sup>	5.626	5.537	1.6	56.393	0.186	55.995	0.184	0.7
Coal	1.871	1.827	2.4	18.257	.060	18.331	.060	4
Natural Gas (Dry)	1.574	1.581	5	15.987	.053	16.082	.053	6
Crude Oil <sup>c</sup> and Natural Gas Plant Liquids	1.364	1.403	-2.7	13.548	.045	13.706	.045	-1.2
Other <sup>d</sup>	.817	.726	12.6	8.601	.028	7.876	.026	9.2
Consumption <sup>b</sup>	6.901	6.772	1.9	72.019	.237	71.015	.234	1.4
Coal	1.602	1.551	3.3	16.389	.054	16.396	.054	.0
Natural Gas <sup>e</sup>	1.515	1.509	.4	17.924	.059	17.437	.057	2.8
Petroleum Products <sup>f</sup>	2.935	2.950	5	28,749	.095	28.895	.095	5
Other <sup>g</sup>	.849	.763	11.3	8.956	.029	8.287	.027	8.1
Net Imports	1.447	1.522	-4.9	14.938	.049	15.599	.051	-4.2
Coal <sup>h</sup>	190	150	26.5	-1.748	006	-1.390	005	25.8
Natural Gas	.214	.214	.4	2.175	.007	2.074	.007	4.9
Petroleum <sup>i</sup>	1.391	1.421	-2.2	14.155	.047	14.504	.048	-2.4
Other <sup>j</sup>	.031	.037	-14.3	.356	.001	.411	.001	-13.5

<sup>a</sup> Based on daily rates prior to rounding.

<sup>b</sup> Due to a lack of consistent historical data, some renewable energy sources are not included. For example, in 1992, 3.0 quadrillion Btu of renewable energy consumed by U.S. electric utilities to generate electricity for distribution is included, but an estimated 3.0 quadrillion Btu of renewable energy used by other sectors is not included.

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

<sup>d</sup> "Other" is hydroelectric and nuclear electric power, and electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

<sup>e</sup> Includes supplemental gaseous fuels.

<sup>f</sup> Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.

<sup>g</sup> "Other" is hydroelectric and nuclear electric power; electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy; and net imports of electricity and coal coke.

<sup>h</sup> Minus sign indicates exports are greater than imports.

<sup>i</sup> Crude oil, lease condensate, petroleum products, pentanes plus, unfinished oils, gasoline blending components, and imports of crude oil for the Strategic Petroleum Reserve.

<sup>j</sup> "Other" is net imports of electricity and coal coke.

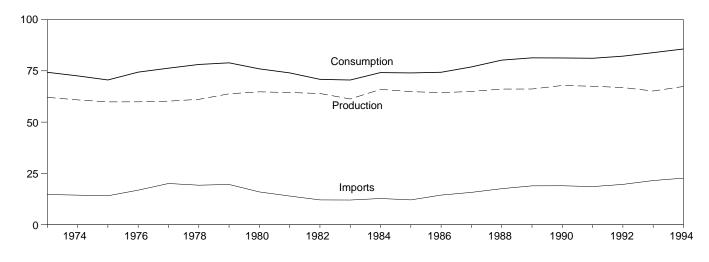
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Sources: Tables 1.3, 1.4, and 1.5.

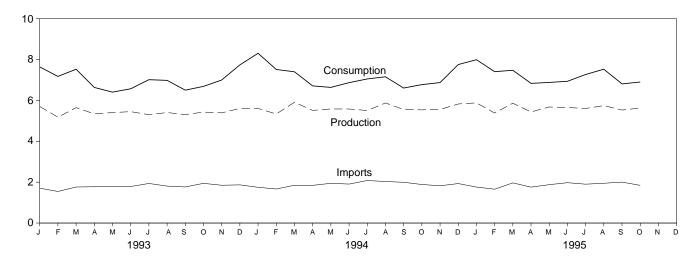
## Figure 1.1 Energy Overview

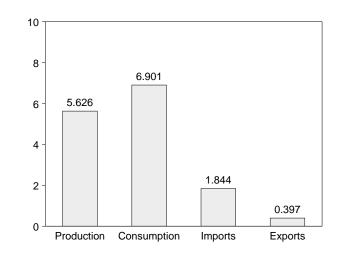
(Quadrillion Btu)

Consumption, Production, and Imports, 1973-1994



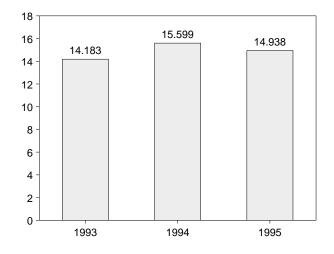
### Consumption, Production, and Imports, Monthly





#### Overview, October 1995

Net Imports, January-October



Note: Because vertical scales differ, graphs should not be compared. Source: Table 1.2.

## Table 1.2 Energy Overview

(Quadrillion Btu)

	Productiona	Consumption <sup>a,b</sup>	Imports	Exports	Net Imports	
173 Total	62.060	74.282	14.731	2.051	12.680	
74 Total	60.835	72.543	14.413	2.223	12.000	
75 Total	59.860	70.546	14.111	2.359	11.752	
76 Total	59.892	74.362	16.837	2.188	14.648	
77 Total	60.219	76.288	20.090	2.071	18.019	
78 Total	61.103	78.089	19.254	1.931	17.323	
79 Total	63.801	78.898	19.616	2.870	16.746	
80 Total	64.761	75.955	15.971	3.723	12.247	
81 Total	64.421	73.990	13.975	4.329	9.646	
82 Total	63.962	70.848	12.092	4.633	7.460	
83 Total	61.279	70.524	12.027	3.717	8.310	
84 Total	65.962	74.144	12.767	3.804	8.963	
85 Total	64.871	73.981	12.103	4.231	7.872	
86 Total	64.350	74.297	14.438	4.055	10.382	
87 Total	64.952	76.894	15.764	3.853	11.911	
		80.218		4.415		
88 Total	66.105		17.564		13.149	
89 Total	66.129	81.325	18.947	4.765	14.181	
90 Total	67.853	81.265	18.987	4.910	14.077	
91 Total	67.484	81.116	18.577	5.220	13.357	
92 Total	66.853	82.144	19.650	5.017	14.633	
<b>93</b> January	5.703	7.639	1.707	.399	1.308	
February	5.180	7.174	1.545	.364	1.181	
March	5.645	7.525	1.762	.347	1.414	
April	5.342	6.635	1.775	.345	1.430	
Мау	5.404	6.405	1.791	.382	1.408	
June	5.450	6.568	1.786	.411	1.375	
July	5.301	7.014	1.936	.376	1.560	
August	5.406	6.980	1.807	.320	1.486	
September	5.308	6.502	1.765	.339	1.426	
	5.428	6.686	1.941	.347	1.595	
October						
November	5.391	6.998	1.849	.324	1.524	
December	5.607	7.737	1.867	.395	1.472	
Total	65.163	83.862	21.530	4.350	17.180	
<b>94</b> January	5.606	8.306	1.748	.307	1.441	
February	5.335	7.512	1.666	.275	1.391	
March	5.910	7.400	1.848	.349	1.498	
April	5.512	6.709	1.845	.296	1.549	
May	5.581	6.636	1.943	.326	1.617	
June	5.579	6.869	1.906	.374	1.532	
July	5.505	7.050	2.079	.329	1.751	
August	5.875	7.155	2.032	.360	1.672	
September	5.555	6.605	1.993	.366	1.627	
October	5.537	6.772	1.885	.363	1.522	
November	5.557	6.872	1.823	.362	1.461	
December	5.825	7.754	1.931	.418	1.513	
Total	67.378	85.641	22.697	4.125	18.573	
<b>95</b> January	<sup>R</sup> 5.879	<sup>R</sup> 7.991	1.760	<sup>R</sup> .361	<sup>R</sup> 1.399	
February	<sup>R</sup> 5.381	<sup>R</sup> 7.405	1.656	<sup>R</sup> .347	<sup>R</sup> 1.310	
March	<sup>R</sup> 5.862	<sup>R</sup> 7.474	1.964	<sup>R</sup> .381	<sup>R</sup> 1.583	
•				R.383	4 0 - 0	
April	<sup>R</sup> 5.435	<sup>R</sup> 6.833	1.757	.303 R 200	1.373 B 4 495	
May	<sup>R</sup> 5.678	<sup>R</sup> 6.880	1.877	R.392	<sup>R</sup> 1.485	
June	<sup>R</sup> 5.652	<sup>R</sup> 6.934	1.974	R.396	<sup>R</sup> 1.578	
July	<sup>R</sup> 5.606	<sup>R</sup> 7.268	1.901	<sup>R</sup> .357	<sup>R</sup> 1.545	
August	<sup>R</sup> 5.744	<sup>R</sup> 7.525	<sup>R</sup> 1.946	<sup>R</sup> .363	<sup>R</sup> 1.582	
September	<sup>R</sup> 5.529	<sup>R</sup> 6.808	<sup>R</sup> 2.003	R.367	<sup>R</sup> 1.636	
October 10-Month Total	5.626 <b>56.393</b>	6.901 <b>72.019</b>	1.844 <b>18.682</b>	.397 <b>3.744</b>	1.447 <b>14.938</b>	
94 10-Month Total	55.995	71.015	18.944	3.345	15.599	

<sup>a</sup> Due to a lack of consistent historical data, some renewable energy sources are not included. For example, in 1992, 3.0 quadrillion Btu of renewable energy consumed by U.S. electric utilities to generate electricity for distribution is included, but an estimated 3.0 quadrillion Btu of renewable energy used by other sectors is not included.

energy used by other sectors is not included. <sup>b</sup> 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.

R=Revised data.

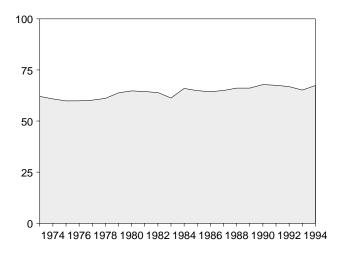
Notes: • For definitions, see Notes 1 through 4 at end of section.
Totals may not equal sum of components due to independent rounding.
Geographic coverage is the 50 States and the District of Columbia.

Sources: • Production: Table 1.3. • Consumption: Table 1.4. • Imports and Exports: Tables 3.1b, 4.2, 6.1, A2-A8, and Section 2, "Energy Consumption Notes and Sources," Notes 8 and 9. • Net Imports: Table 1.5.

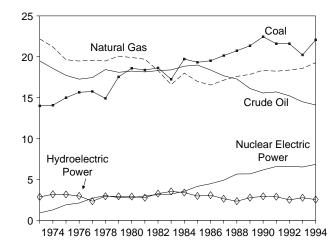
# Figure 1.2 Energy Production

(Quadrillion Btu)

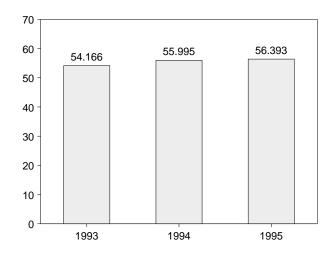
#### Total, 1973-1994



#### By Major Sources, 1973-1994

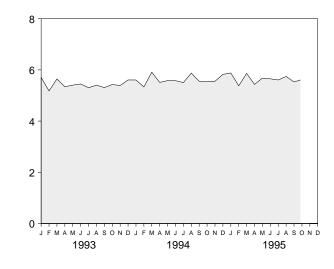


## Total, January-October

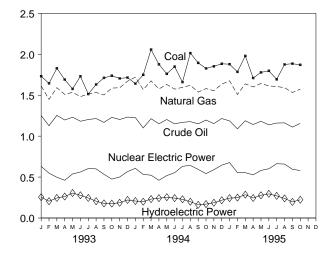


Note: Because vertical scales differ, graphs should not be compared. Source: Table 1.3.

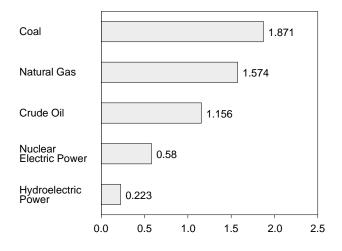
#### Total, Monthly



By Major Sources, Monthly



By Major Sources, October 1995



#### Table 1.3 Energy Production by Source

(Quadrillion Btu)

	Natural Gas Coal (Drv)		Gas Crude Gas				Nuclear Electric	Hydro- electric	Geothermal	<b>Other</b>	<b>–</b> d
	Coal	(Dry)	Oil <sup>a</sup>	Liquids	Power	Powerb	Energy	Other <sup>c</sup>	Total		
73 Total	13.993	22.187	19.493	2.569	0.910	2.861	0.043	0.003	62.060		
74 Total	14.074	21.210	18.575	2.471	1.272	3.177	.053	.003	60.835		
75 Total	14.990	19.640	17.729	2.374	1.900	3.155	.070	.002	59.860		
6 Total	15.654	19.480	17.262	2.327	2.111	2.976	.078	.003	59.892		
7 Total	15.755	19.565	17.454	2.327	2.702	2.333	.077	.005	60.219		
78 Total	14.910	19.485	18.434	2.245	3.024	2.937	.064	.003	61.103		
79 Total	17.539	20.076	18.104	2.286	2.776	2.931	.084	.005	63.80		
		19.908		2.250		2.900		.005			
30 Total	18.597		18.249		2.739		.110		64.76		
31 Total	18.376	19.699	18.146	2.307	3.008	2.758	.123	.004	64.42		
32 Total	18.639	18.319	18.309	2.191	3.131	3.266	.105	.003	63.96		
33 Total	17.246	16.593	18.392	2.184	3.203	3.527	.129	.004	61.279		
84 Total	19.719	18.008	18.848	2.274	3.553	3.386	.165	.009	65.962		
35 Total	19.325	16.980	18.992	2.241	4.149	2.970	.198	.015	64.87 <sup>-</sup>		
36 Total	19.510	16.541	18.376	2.149	4.471	3.071	.219	.012	64.35		
37 Total	20.142	17.136	17.675	2.215	4.906	2.635	.229	.016	64.952		
38 Total	20.737	17.599	17.279	2.260	5.661	2.334	.217	.017	66.10		
39 Total	21.345	17.847	16.117	2.158	5.677	2.767	.197	.020	66.12		
90 Total	22.456	18.362	15.571	2.175	6.161	2.926	.181	.021	67.85		
91 Total	21.594	18.229	15.701	2.306	6.579	2.885	.170	.021	67.484		
2 Total	21.593	18.375	15.223	2.363	6.607	2.501	.170	.022	66.85		
3 January	1.732	1.613	1.252	.205	.631	.254	.014	.002	5.70		
February	1.645	1.450	1.127	.189	.548	.205	.013	.002	5.18		
March	1.829	1.592	1.254	.211	.498	.245	.014	.002	5.64		
April	1.691	1.510	1.197	.205	.461	.243	.014	.002	5.34		
May	1.577	1.535	1.231	.204	.538	.305	.012	.001	5.404		
June	1.731	1.483	1.182	.200	.562	.277	.012	.001	5.45		
July	1.514	1.515	1.203	.205	.604	.245	.013	.001	5.30		
August	1.631	1.534	1.215	.206	.600	.205	.014	.002	5.40		
September	1.712	1.503	1.168	.198	.534	.178	.013	.002	5.30		
October	1.738	1.587	1.230	.208	.475	.176	.013	.002	5.428		
November	1.705	1.591	1.203	.190	.501	.186	.013	.002	5.391		
December	1.715	1.671	1.233	.186	.567	.220	.013	.002	5.607		
Total	20.221	18.584	14.494	2.408	6.519	2.757	.158	.021	65.163		
94 January	1.642	1.720	1.226	.190	.607	.207	.013	.002	5.606		
February	1.749	1.568	1.100	.174	.532	.199	.012	.002	5.33		
March	2.058	1.675	1.213	.196	.523	.231	.012	.002	5.910		
April	1.877	1.577	1.151	.191	.461	.242	.012	.002	5.512		
	1.761	1.631	1.203	.201	.518	.254	.012	.002	5.58		
June	1.849	1.574	1.150	.197	.553	.243	.012	.002	5.57		
July	1.660	1.596	1.169	.206	.632	.248	.012	.002	5.50		
	2.014	1.621	1.109	.200	.642	.199	.012	.002	5.87		
August September											
	1.895	1.538	1.150	.204	.594	.161	.012	.002	5.55		
October	1.827	1.581	1.197	.206	.542	.170	.012	.002	5.53		
November	1.853	1.555	1.153	.207	.590	.186	.012	.002	5.55		
December	1.884	1.635	1.215	.213	.646	.217	.012	.002	5.82		
Total	22.068	19.272	14.103	2.391	6.841	2.538	.145	.020	67.37		
5 January	<sup>R</sup> 1.879	1.676	1.186	.209	.677	.243	.009	.001	<sup>R</sup> 5.87		
February	<sup>R</sup> 1.785	1.509	1.089	.188	.554	.249	.006	.001	<sup>R</sup> 5.38		
March	<sup>R</sup> 1.980	1.639	1.188	.209	.554	.285	.007	.001	<sup>R</sup> 5.86		
April	<sup>R</sup> 1.710	1.601	1.142	.204	.527	.244	.006	.002	<sup>R</sup> 5.43		
May	<sup>R</sup> 1.779	1.644	1.182	.210	.581	.277	.005	.001	<sup>R</sup> 5.67		
June	<sup>R</sup> 1.798	1.613	1.138	.198	.602	.295	.006	.001	<sup>R</sup> 5.65		
July	<sup>R</sup> 1.694	1.607	1.160	.206	.663	.270	.006	.002	<sup>R</sup> 5.606		
August	<sup>R</sup> 1.876	1.592	1.162	.203	.659	.239	.011	.002	<sup>R</sup> 5.744		
September	<sup>R</sup> 1.885	<sup>R</sup> 1.533	1.110	.203	.595	.196	.008	.002	<sup>R</sup> 5.529		
October	1.871	1.574	1.156	.202	.580	.223	.013	.002	5.62		
10-Month Total	18.257	15.987	<b>11.511</b>	2.037	5.991	2.519	.013 .077	.002 .014	56.39		
94 10-Month Total	18.331	16.082	11.734	1.972	5.604	2.134	.121	.017	55.995		
3 10-Month Total	16.801	15.322	12.059	2.032	0.004	2.351			30.33		

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

<sup>b</sup> Electric utility and industrial generation.

 <sup>b</sup> Electric utility and industrial generation.
 <sup>c</sup> "Other" production is electricity generated for distribution from wood, waste, wind, photovoltaic, and solar thermal energy.
 <sup>d</sup> Due to a lack of consistent historical data, some renewable energy sources are not included. For example, in 1992, 3.0 quadrillion Btu of renewable energy consumed by U.S. electric utilities to generate electricity for distribution is included, but an estimated 3.0 quadrillion Btu of renewable energy used by other sectors is not included.

R=Revised data.

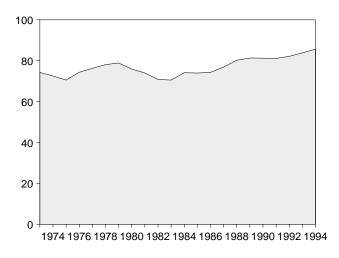
Notes: • See Note 1 at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • Coal: Tables 6.1 and A5-A7. • Natural Gas (Dry): Tables 4.1 and A4. • Crude Oil and Natural Gas Plant Liquids: Tables 3.1a and A2. • Nuclear Electric Power: Tables 7.1 and A8. • Hydroelectric Power: Table 7.1; Section 2, "Energy Consumption Notes and Sources," Note 8; and Table A8. • Geothermal Energy and Other: Section 2, "Energy Consumption Notes and Sources," Note 7, and Table A8.

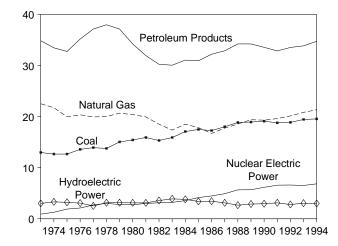
# Figure 1.3 Energy Consumption

(Quadrillion Btu)

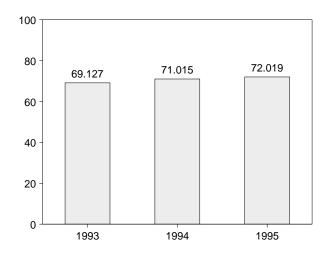
#### Total, 1973-1994



## By Major Sources, 1973-1994

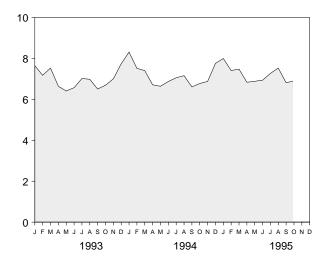


## Total, January-October

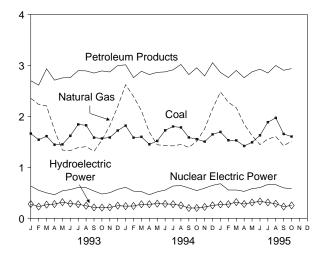


Note: Because vertical scales differ, graphs should not be compared. Source: Table 1.4.

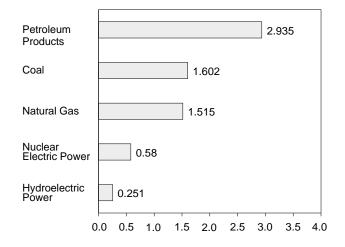
## Total, Monthly



By Major Sources, Monthly



By Major Sources, October 1995



#### Table 1.4 Energy Consumption by Source

(Quadrillion Btu)

	Coal	Natural Gas <sup>a</sup>	Petroleum Products <sup>b</sup>	Nuclear Electric Power	Hydro- electric Power <sup>c</sup>	Geothermal Energy	Otherd	Total <sup>e</sup>
			1 1			1		
73 Total	12.971	22.512	34.840	0.910	3.010	0.043	-0.004	74.282
74 Total	12.663	21.732	33.455	1.272	3.309	.053	.059	72.543
75 Total	12.663	19.948	32.731	1.900	3.219	.070	.016	70.546
76 Total	13.584	20.345	35.175	2.111	3.066	.078	.003	74.362
77 Total	13.922	19.931	37.122	2.702	2.515	.077	.020	76.288
78 Total	13.765	20.000	37.965	3.024	3.141	.064	.128	78.089
79 Total	15.039	20.666	37.123	2.776	3.141	.084	.068	78.898
80 Total	15.423	20.394	34.202	2.739	3.118	.110	031	75.955
B1 Total	15.907	19.928	31.931	3.008	3.105	.123	012	73.990
82 Total	15.322	18.505	30.231	3.131	3.572	.105	018	70.848
B3 Total	15.894	17.357	30.054	3.203	3.899	.129	012	70.524
84 Total	17.071	18.507	31.051	3.553	3.800	.165	002	74.144
85 Total	17.478	17.834	30.922	4.149	3.398	.198	.001	73.981
86 Total	17.261	16.708	32.196	4.471	3.446	.219	004	74.297
87 Total	18.008	17.744	32.865	4.906	3.117	.229	.024	76.894
	18.846	18.552	34.222	5.661	2.662	.217	.024	80.218
B8 Total								
B9 Total	18.925	19.384	34.211	5.677	2.881	.197	.051	81.325
90 Total	19.101	19.296	33.553	6.161	2.946	.181	.026	81.265
91 Total	18.770	19.606	32.845	6.579	3.115	.170	.030	81.116
92 Total	18.868	20.131	33.527	6.607	2.793	.170	.049	82.144
<b>93</b> January	1.660	2.353	2.697	.631	.278	.014	.006	7.639
February	1.540	2.232	2.611	.548	.229	.013	.001	7.174
March	1.609	2.203	2.931	.498	.266	.014	.005	7.525
	1.442	1.729	2.708	.461	.278	.014	.004	6.635
April								
May	1.448	1.337	2.753	.538	.314	.012	.004	6.405
June	1.618	1.327	2.759	.562	.287	.012	.004	6.568
July	1.840	1.386	2.894	.604	.275	.013	.001	7.014
August	1.823	1.404	2.890	.600	.245	.014	.004	6.980
September	1.580	1.314	2.848	.534	.212	.013	.001	6.502
October	1.566	1.533	2.889	.475	.208	.013	.003	6.686
November	1.584	1.817	2.869	.501	.213	.013	.002	6.998
December	1.720	2.191	2.994	.567	.247	.013	.004	7.737
Total	19.430	20.826	33.841	6.519	3.050	.158	.004 .038	83.862
<b>N</b> ( 1999)	4.040	0.040	0.000	007	007	040	000	0.000
<b>94</b> January	1.816	2.618	3.009	.607	.237	.013	.006	8.306
February	1.580	2.390	2.758	.532	.240	.012	.001	7.512
March	1.596	2.109	2.883	.523	.274	.012	.003	7.400
April	1.450	1.688	2.818	.461	.275	.012	.004	6.709
May	1.515	1.441	2.861	.518	.286	.012	.003	6.636
June	1.724	1.425	2.871	.553	.281	.011	.004	6.869
July	1.799	1.419	2.911	.632	.275	.012	.004	7.050
August	1.781	1.447	3.016	.642	.252	.013	.003	7.155
September	1.584	1.392	2.818	.594	.201	.012	.004	6.605
October	1.551	1.509	2.950	.542	.202	.012	.007	6.772
November	1.503	1.754	2.790	.590	.221	.012	.001	6.872
December	1.645	2.144	3.050	.646	.252	.012	.004	7.754
Total	19.544	21.335	34.735	6.841	2.997	.145	.044	85.641
95 January	<sup>R</sup> 1.693	2.479	2.858	.677	.270	.009	.005	<sup>R</sup> 7.991
February	<sup>R</sup> 1.530	2.275	2.760	.554	.276	.005	.003	<sup>R</sup> 7.405
March	<sup>R</sup> 1.527		2.898	.554	.316	.000	.003	<sup>R</sup> 7.474
		2.168						7.4/4 R o ooo
April	<sup>R</sup> 1.417	1.846	2.756	.527	.279	.006	.003	<sup>R</sup> 6.833
Мау	<sup>R</sup> 1.489	1.619	2.871	.581	.309	.005	.006	<sup>R</sup> 6.880
June	<sup>R</sup> 1.626	1.445	2.924	.602	.329	.006	.002	<sup>R</sup> 6.934
July	<sup>R</sup> 1.884	1.553	2.849	.663	.309	.006	.003	<sup>R</sup> 7.268
August	<sup>R</sup> 1.968	1.604	2.996	.659	.285	.011	.003	R 7.525
September	<sup>R</sup> 1.653	1.420	2.902	.595	.228	.008	.004	R 6.808
October								
10-Month Total	1.602 <b>16.389</b>	1.515 <b>17.924</b>	2.935 <b>28.749</b>	.580 <b>5.991</b>	.251 <b>2.852</b>	.013 <b>.077</b>	.004 <b>.037</b>	6.901 <b>72.019</b>
94 10-Month Total 93 10-Month Total	16.396 16.126	17.437 16.817	28.895 27.979	5.604 5.451	2.523 2.590	.121 .132	.039 .032	71.015 69.127

<sup>a</sup> Includes supplemental gaseous fuels.

<sup>b</sup> Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.

 <sup>c</sup> Electric utility and industrial generation and net imports of electricity.
 <sup>d</sup> "Other" consumption is net imports of coal coke and electricity generated for distribution from wood, waste, wind, photovoltaic, and solar thermal

<sup>e</sup> Due to a lack of consistent historical data, some renewable energy sources are not included. For example, in 1992, 3.0 quadrillion Btu of renewable energy consumed by U.S. electric utilities to generate electricity for distribution is included, but an estimated 3.0 quadrillion Btu of renewable energy used by other sectors is not included. R=Revised data.

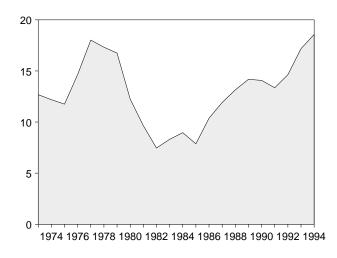
Notes: • See Note 2 at end of section. • Totals may not equal sum of components due to independent rounding. . Geographic coverage is the 50 States and the District of Columbia.

Sources: • Coal: Tables 6.1 and A5-A7. • Natural Gas: Tables 4.2 and A4. • Petroleum: Tables 3.1a and A3. • Nuclear Electric Power: Tables 7.1 and A8. • Hydroelectric Power: Table 7.1; Section 2, "Energy Consumption Notes and Sources," Note 8; and Table A8. • Geothermal Energy and Other: Section 2, "Energy Consumption Notes and Sources," Note 7, and Table A8.

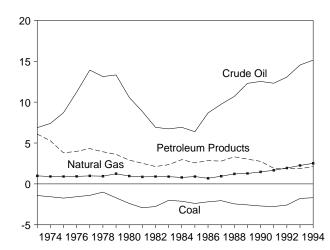
# Figure 1.4 Energy Net Imports

(Quadrillion Btu, Except as Noted)

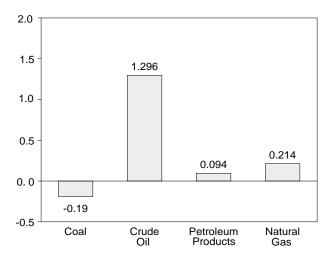
#### Total, 1973-1994



### By Major Sources, 1973-1994

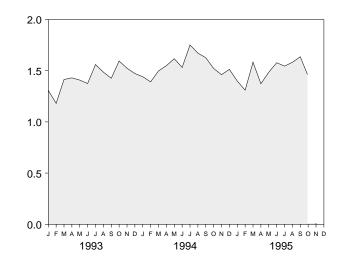


# By Major Sources, October 1995

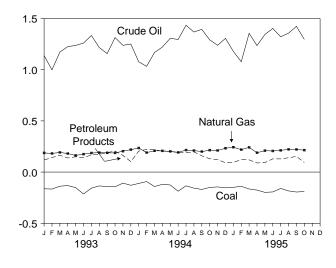


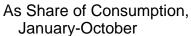
Note: Because vertical scales differ, graphs should not be compared. Sources: Tables 1.4 and 1.5.

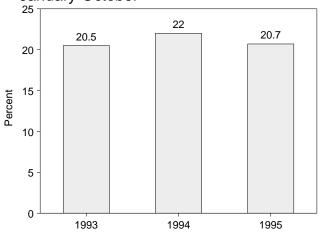
### Total, Monthly



## By Major Sources, Monthly







#### Table 1.5 Energy Net Imports by Source

(Quadrillion Btu)

	Coal	Natural Gas	Crude Oil <sup>a</sup>	Petroleum Products <sup>b</sup>	Electricity <sup>c</sup>	Coal Coke	Total
73 Total	-1.422	0.981	6.883	6.097	0.148	-0.007	12.680
974 Total	-1.568	.907	7.389	5.273	.133	.056	12.190
975 Total	-1.738	.904	8.708	3.800	.064	.014	11.752
976 Total	-1.567	.922	11.221	3.982	.089	(s)	14.648
977 Total	-1.401	.981	13.921	4.321	.182	.015	18.019
978 Total	-1.004	.941	13.125	3.932	.204	.125	17.323
979 Total	-1.702	1.243	13.328	3.603	.211	.063	16.746
980 Total	-2.391	.957	10.586	2.912	.217	035	12.247
981 Total	-2.918	.857	8.854	2.522	.347	016	9.646
982 Total	-2.768	.898	6.917	2.128	.306	022	7.460
983 Total	-2.013	.885	6.731	2.351	.372	016	8.310
984 Total	-2.119	.792	6.918	2.970	.414	011	8.963
985 Total	-2.389	.896	6.381	2.570	.428	013	7.872
986 Total	-2.193	.686	8.676	2.855	.375	017	10.382
987 Total	-2.049	.937	9.748	2.784	.483	.009	11.911
					.328		
988 Total	-2.446	1.221	10.698	3.308		.040	13.149
989 Total	-2.566	1.278	12.296	3.029	.113	.030	14.181
990 Total	-2.705	1.464	12.536	2.757	.020	.005	14.077
991 Total	-2.769	1.666	12.308	1.912	.231	.009	13.357
92 Total	-2.587	1.941	13.065	1.895	.292	.027	14.633
93 January	163	.187	1.138	.118	.023	.004	1.308
February	166	.182	.999	.142	.023	(s)	1.181
March	138	.192	1.172	.164	.021	.003	1.414
April	132	.181	1.225	.138	.016	.002	1.430
May	152	.163	1.237	.149	.009	.002	1.408
	214	.175	1.260		.010	.002	1.400
June				.140			
July	157	.186	1.334	.168	.030	(s)	1.560
August	135	.190	1.216	.173	.040	.002	1.486
September	142	.188	1.157	.191	.034	001	1.426
October	144	.187	1.314	.204	.032	.001	1.595
November	108	.204	1.238	.163	.027	(s)	1.524
December	129	.219	1.251	.102	.028	.002	1.472
Total	-1.780	2.255	14.542	1.854	.292	.017	17.180
94 January	111	.235	1.077	.205	.030	.004	1.441
	093	.190	1.033	.205	.041	004	1.391
February							
March	141	.208	1.168	.218	.044	.002	1.498
April	120	.207	1.221	.205	.033	.003	1.549
May	126	.202	1.307	.201	.032	.002	1.617
June	187	.192	1.295	.192	.037	.003	1.532
July	134	.215	1.434	.188	.047	(s)	1.751
August	157	.210	1.368	.197	.053	.002	1.672
September	170	.200	1.394	.159	.040	.002	1.627
October	150	.214	1.292	.130	.032	.005	1.522
November	145	.211	1.238	.122	.035	001	1.461
December	154	.233	1.306	.091	.035	.002	1.513
Total	-1.689	2.518	15.133	2.128	.459	.024	18.573
95 January	<sup>R</sup> 149	.243	1.179	.094	E.028	.004	<sup>R</sup> 1.399
February	<sup>R</sup> 139	.219	1.078	.122	E.027	.002	<sup>R</sup> 1.310
March	<sup>R</sup> 165	.241	1.355	.119	E.031	.003	<sup>R</sup> 1.583
April	<sup>R</sup> 176	.189	1.236	.089	E.035	.001	1.373
	<sup>R</sup> 198				E.032		<sup>R</sup> 1.485
May	198 B	.209	1.344	.093	.U32	.004	R 4 5
June	<sup>R</sup> 194	.206	1.403	.129	E.034	.001	<sup>R</sup> 1.578
July	160	<sup>R</sup> .212	1.322	.129	E.039	.002	<sup>R</sup> 1.545
August	<sup>R</sup> 184	<sup>R</sup> .222	1.357	.140	<sup>E</sup> .046	.001	<sup>R</sup> 1.582
September	<sup>R</sup> 195	<sup>R</sup> .221	1.423	.153	E.032	.002	<sup>R</sup> 1.636
October	190	.214	1.296	.094	E.029	.003	1.447
10-Month Total	<b>-1.748</b>	2.175	12.992	1.163	E.333	.022	14.938
994 10-Month Total	-1.390	2.074	12.589	1.914	.389	.022	15.599
993 10-Month Total							
333 IU-INIOIILII IOTAI	-1.543	1.832	12.053	1.589	.238	.016	14.183

<sup>a</sup> Crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve. <sup>b</sup> Petroleum products, unfinished oils, pentanes plus, and gasoline

blending components.

<sup>c</sup> Assumed to be hydroelectricity and estimated at the average input heat rate for fossil-fuel steam-electric power plant generation, which has ranged from 10.2 thousand Btu to 10.5 thousand Btu per kilowatthour since 1973. Actual heat rates applied in converting kilowatthours to Btu are listed by year in Table A8.

R=Revised data. E=Estimate. (s)=Less than +0.5 trillion Btu and greater

than -0.5 trillion Btu.

Notes: • See Notes 3 and 4 at end of section. • Net imports equal imports minus exports. Minus sign indicates exports are greater than imports. Totals may not equal sum of components due to independent rounding. ٠

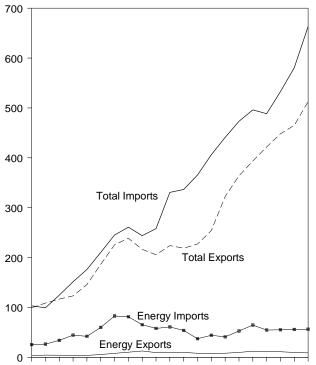
· Geographic coverage is the 50 States and the District of Columbia. Sources: • Coal: Tables 6.1 and A5-A7. • Natural Gas: Tables 4.2

and A4. • Crude Oil and Petroleum Products: Tables 3.1b and A2. Electricity: Section 2, "Energy Consumption Notes and Sources," Note 8, and Table A8. 
 Coal Coke: Section 2, "Energy Consumption Notes and Sources," Note 9, and Table A7.

## Figure 1.5 Merchandise Trade Value

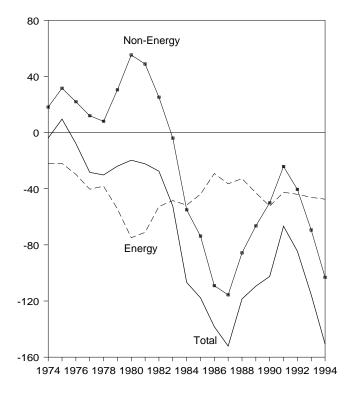
(Billion Dollars)

#### Imports and Exports, 1974-1994



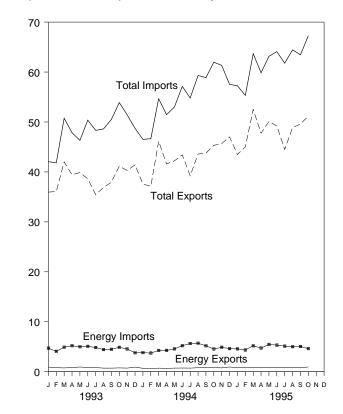
1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994

### Trade Balance, 1974-1994

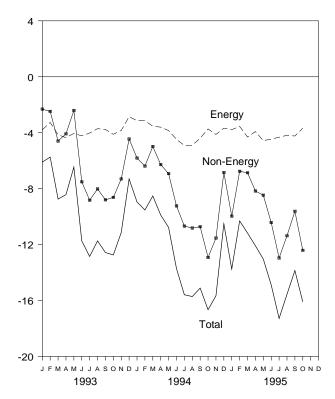


Note: Because vertical scales differ, graphs should not be compared. Source: Table 1.6.

Imports and Exports, Monthly



Trade Balance, Monthly



#### Table 1.6 Merchandise Trade Value

(Million Dollars)

		Petroleur	n		Energy		_Non-	Total Merchandise			
	Exports	Imports	Balance	Exports	Imports	Balance	Energy Balance	Exports	Imports	Balance	
074 7-4-1	700	04.000	00.070	2 4 4 4	05 45 4	00.040	40.400	00 407	400.004	2 00 4	
974 Total		24,668	-23,876	3,444	25,454	-22,010	18,126	99,437	103,321	-3,884	
975 Total		25,197	-24,289	4,470	26,476	-22,006	31,557	108,856	99,305	9,551	
976 Total		32,226	-31,228	4,226	33,996	-29,770	21,950	116,794	124,614	-7,820	
977 Total	. 1,276	42,368	-41,093	4,184	44,537	-40,354	12,001	123,182	151,534	-28,353	
978 Total	. 1,561	39,526	-37,965	3,881	42,096	-38,215	8,010	145,847	176,052	-30,205	
979 Total		56,715	-54,801	5,621	59,998	-54,377	30,455	186,363	210,285	-23,922	
980 Total		78,637	-75,803	7,982	82,924	-74,942	55,246	225,566	245,262	-19,696	
981 Total		76,659	-72,963	10,279	81,360	-71,081	48,814	238,715	260,982	-22,267	
						,	,	216,442	,		
982 Total		60,458	-54,511	12,729	65,409	-52,680	25,170		243,952	-27,510	
983 Total		53,217	-48,659	9,500	57,952	-48,452	-3,957	205,639	258,048	-52,409	
984 Total		56,924	-52,454	9,311	60,980	-51,669	-55,033	223,976	330,678	-106,703	
985 Total		50,475	-45,768	9,971	53,917	-43,946	-73,765	218,815	336,526	-117,712	
986 Total	. 3,640	35,142	-31,503	8,115	37,310	-29,195	-109,084	227,159	365,438	-138,279	
987 Total	. 3,922	42,285	-38,363	7,713	44,220	-36,506	-115,613	254,122	406,241	-152,119	
988 Total		38,787	-35,094	8,235	41,042	-32,806	-85,720	322,426	440,952	-118,526	
989 Total		49,704	-44,683	9,869	52,779	-42,910	-66,490	363,812	473,211	-109,399	
		,									
990 Total		61,583	-54,682	12,233	64,661	-52,428	-50,068	393,592	496,088	-102,496	
991 Total		51,350	-44,396	12,081	54,629	-42,548	-24,175	421,730	488,453	-66,723	
992 Total	. 6,412	51,217	-44,805	11,254	55,256	-44,002	-40,500	448,164	532,665	-84,501	
<b>993</b> January	. 601	4,282	-3,681	923	4,711	-3,788	-2,313	35,958	42,058	-6,101	
February		3,718	-3,241	807	4,075	-3,268	-2,478	36,070	41,817	-5,746	
March		4,498	-4,028	753	4,904	-4,151	-4,596	41,999	50,745	-8,747	
April		4,814	-4,225	844	5,194	-4,350	-4,081	39,421	47,851	-8,431	
May		4,619	-3,978	939	4,990	-4,051	-2,410	39,870	46,331	-6,461	
June		4,714	-4,272	843	5,069	-4,226	-7,513	38,624	50,362	-11,738	
July	. 514	4,464	-3,950	819	4,845	-4,026	-8,826	35,465	48,317	-12,852	
August	. 453	4,000	-3,547	714	4,426	-3,712	-8,022	36,876	48,611	-11,735	
September	. 422	4,056	-3,634	712	4,480	-3,769	-8,802	37,956	50,526	-12,570	
October		4,449	-3,982	761	4,876	-4,115	-8,626	41,148	53,889	-12,742	
November		4,084	-3,605	720	4,553	-3,833	-7,307	40,294	51,434	-11,140	
December		3,348	-2,690	922	3,778	-2,856	-4,452	41,412	48,719	-7,307	
Total		51,046	-44,831	9,756	<b>55,900</b>	-46,144	-69,425	465,091	580,659	-115,568	
	. 450	3,272	-2,822	674	3.815	-3 1/1	-5,813	37,561	16 511	-8,954	
994 January		,			,	-3,141	,		46,514	,	
February		3,243	-2,862	594	3,735	-3,141	-6,387	37,126	46,654	-9,528	
March		3,695	-3,255	710	4,249	-3,539	-4,985	46,139	54,663	-8,524	
April	. 426	3,790	-3,364	659	4,263	-3,604	-6,281	41,587	51,472	-9,885	
May	. 483	4,115	-3,632	717	4,562	-3,845	-6,927	42,215	52,987	-10,772	
June		4,794	-4,381	736	5,213	-4,477	-9,237	43,425	57,139	-13,714	
July		5,168	-4,718	718	5,629	-4,911	-10,678	39,218	54,807	-15,589	
August		5,225	-4,726	793	5,691	-4,898	-10,817	43,589	59,304	-15,715	
September		4,773	-4,301	792	5,185	-4,393	-10,721	43,766	58,880	-15,114	
October		4,153	-3,623	809	4,543	-3,734	-12,923	45,314	61,970	-16,657	
November		4,475	-3,997	764	4,890	-4,126	-11,534	45,674	61,334	-15,660	
December		4,135	-3,498	944	4,615	-3,671	-6,847	47,013	57,531	-10,518	
Total	. 5,659	50,835	-45,176	8,911	56,391	-47,480	-103,149	512,626	663,256	-150,629	
<b>995</b> January	. 488	4,129	-3,641	783	4,568	-3,785	-9,967	43,496	57,249	-13,752	
February	. 528	3,909	-3,381	798	4,345	-3,547	-6,761	45,010	55,318	-10,308	
March		4,712	-4,159	879	5,188	-4,309	-6,867	52,503	63,679	-11,176	
April		4,337	-3,839	814	4,732	-3,918	-8,170	47,761	59,848	-12,088	
May		5,060	-4,520	886	5,453	-4,567	-8,470	50,099	63,136	-13,037	
									,		
June		4,957	-4,444	863	5,322	-4,459	-10,427	49,210	64,096	-14,886	
July		4,724	-4,248	794	5,116	-4,322	-12,959	44,495	61,776	-17,281	
August	. 469	4,588	-4,119	816	5,003	-4,187	_11,368	_ 48,888	្ត 64,443	r15,555	
September	. 441	4,661	-4,220	806	5,041	-4,235	<sup>R</sup> -9,622	<sup>R</sup> 49,584	<sup>R</sup> 63,441	<sup>R</sup> -13,857	
October		4,263	-3,676	941	4,622	-3,681	-12,414	51,181	67,276	-16,095	
10-Month Total		45,337	-40,245	8,381	49,390	-41,009	-97,025	482,227	620,261	-138,034	
994 10-Month Total	4,544	42,228	-37,684	7,202	46,885	-39,683	-84,769	419,940	544,390	-124,452	
	5,078	43,615	-38,536	- ,	47,569	-39,455	-57,666	··-,•·•	,	,	

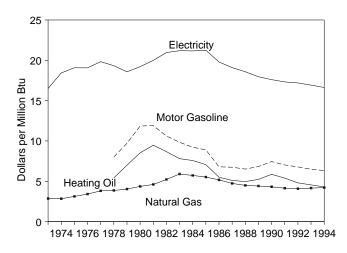
R=Revised data.

Notes: • Monthly data are not adjusted for seasonal variations. • See Note 5 at end of section. • Totals may not equal sum of components due to independent rounding. • The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the

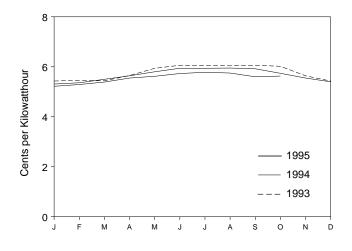
U.S. customs territory, which comprises the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands.
Sources: • U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division. For details, see "Sources for Table 1.6" at the end of this section.

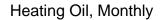
## Figure 1.6 Cost of Fuels to End-Users in Constant (1982-1984) Dollars

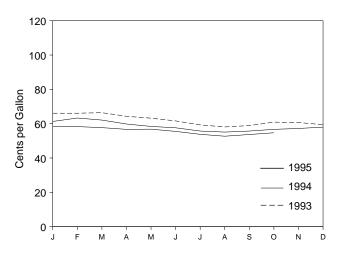
#### Costs, 1973-1994



#### Electricity, Monthly

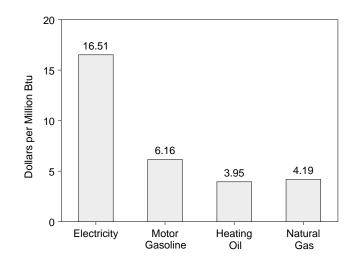




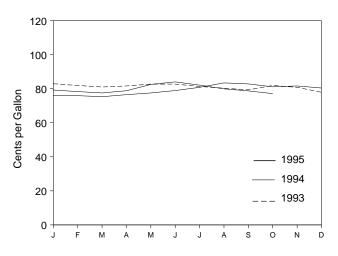


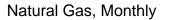
Source: Table 1.7.

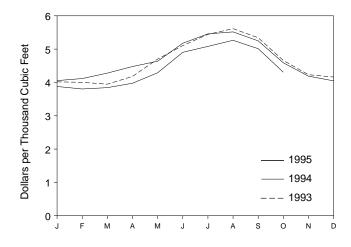
Costs, October 1995



Motor Gasoline, Monthly







	Consumer Price Index (Urban) <sup>a</sup>		Gasoline Types)		lential ng Oil		ential al Gas	Resid Elect	
	Index 1982-1984=100	Cents per Gallon	Dollars per Million Btu	Cents per Gallon	Dollars per Million Btu	Cents per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatthour	Dollars per Million Btu
1973 Average	44.4	NA	NA	NA	NA	290.5	2.85	5.6	16.50
1974 Average	49.3	NA	NA	NA	NA	290.1	2.83	6.3	18.43
1975 Average	53.8	NA	NA	NA	NA	317.8	3.12	6.5	19.07
1976 Average	56.9	NA	NA	NA	NA	348.0	3.41	6.5	19.06
1977 Average	60.6	NA	NA	NA	NA	387.8	3.81	6.8	19.83
1978 Average	65.2	100.0	8.00	75.2	5.42	392.6	3.86	6.6	19.33
1979 Average	72.6	121.5	9.71	97.0	6.99	410.5	4.03	6.3	18.57
1980 Average	82.4	148.2	11.85	118.2	8.52	446.6	4.36	6.6	19.21
981 Average	90.9	148.8	11.90	131.4	9.47	471.9	4.60	6.8	19.99
982 Average	96.5	132.7	10.61	120.2	8.67	535.8	5.22	7.2	20.96
1983 Average	99.6	123.0	9.83	108.2	7.80	608.4	5.90	7.2	21.19
1984 Average	103.9	115.3	9.22	105.0	7.57	589.0	5.72	7.2	21.16
1985 Average	107.6	111.2	8.89	97.9	7.06	568.8	5.52	7.2	21.25
986 Average	109.6	84.9	6.79	76.3	5.50	531.9	5.17	6.8	19.79
1987 Average	113.6	84.2	6.74	70.7	5.10	487.7	4.73	6.5	19.09
1988 Average	118.3	81.4	6.51	68.7	4.96	462.4	4.49	6.3	18.58
1989 Average	124.0	85.5	6.83	72.6	5.23	454.8	4.41	6.1	17.96
1990 Average	130.7	93.1	7.44	81.3	5.86	443.8	4.31	6.01	17.60
1991 Average 1992 Average	136.2 140.3	87.8 84.8	7.02 6.78	74.8 66.6	5.39 4.80	427.3 419.8	4.14 4.07	5.91 5.87	17.32 17.19
1992 Average	140.5	04.0	0.70	00.0	4.00	415.0	4.07	5.67	17.15
993 January	142.6	82.9	6.63	66.1	4.77	401.8	3.91	5.43	15.93
February	143.1	81.9	6.55	66.1	4.77	400.4	3.90	5.46	16.00
March	143.6	81.0	6.48	66.4	4.79	394.8	3.84	5.44	15.94
April	144.0	81.6	6.52	64.3	4.64	418.1	4.07	5.65	16.57
Мау	144.2	82.7	6.61	63.2	4.56	470.2	4.57	5.94	17.42
June	144.4	82.7	6.61	61.6	4.44	510.4	4.96	6.06	17.76
July	144.4	81.3	6.50	59.3	4.27	544.3	5.29	6.05	17.74
August	144.8	80.3	6.42	58.1	4.19	561.5	5.46	6.04	17.69
September	145.1	79.3	6.34	58.9	4.25	534.1	5.20	6.06	17.77
October	145.7	81.9	6.55	60.9	4.39	466.0	4.53	6.02	17.64
November	145.8	80.8	6.46	60.7	4.38	423.2	4.12	5.64	16.52
December	145.8	77.9	6.23	59.4	4.28	416.3	4.05	5.43	15.92
Average	144.5	81.2	6.49	63.0	4.55	426.3	4.15	5.77	16.92
994 January	146.2	75.9	6.06	61.3	4.42	405.6	3.94	5.31	15.56
February	146.7	75.9	6.07	63.3	4.57	411.7	4.00	5.36	15.70
March	147.2	75.3	6.02	62.1	4.48	428.0	4.16	5.50	16.13
April	147.4	76.5	6.12	59.8	4.31	447.8	4.35	5.64	16.54
May	147.5	77.5	6.20	58.4	4.21	463.7	4.51	5.80	16.99
June	148.0	78.9	6.30	57.6	4.15	517.6	5.03	5.94	17.41
July	148.4	80.8	6.46	55.7	4.02	545.8	5.30	5.94	17.42
August	149.0	83.4	6.67	55.1	3.97	551.7	5.36	5.95	17.45
September	149.4	82.8	6.62	55.7	4.02	524.8	5.10	5.92	17.36
October	149.5	81.1	6.48	56.7	4.09	458.9	4.46	5.74	16.82
November	149.7	81.6	6.53	57.2	4.13	418.8	4.07	5.55	16.27
December	149.7 <b>148.2</b>	80.4 <b>79.2</b>	6.43 <b>6.33</b>	58.0 <b>59.6</b>	4.18 <b>4.30</b>	404.8 <b>432.5</b>	3.93 <b>4.21</b>	5.40 <b>5.67</b>	15.82 <b>16.63</b>
Average	140.2	13.2	0.35	33.0	7.30	752.5	7.21	5.07	10.05
995 January	150.3	79.2	6.33	58.2	4.19	387.9	3.77	5.22	15.31
February	150.9	78.3	6.26	58.3	4.20	380.4	3.70	5.29	15.50
March	151.4	77.5	6.19	57.7	4.16	384.4	3.74	5.39	15.80
April	151.9	78.8	6.30	56.7	4.09	397.6	3.87	5.55	16.27
May	152.2	82.5	6.60	56.8	4.09	429.0	4.17	5.62	16.46
June	152.5	84.0	6.72	55.5	4.00	490.5	4.77	5.73	16.80
July	152.5	82.1	6.56	53.8	3.88	508.2	4.94	5.78	16.93
August	152.9	79.9	6.39	52.7	3.80	526.5	5.12	5.75	16.85
September	153.2	78.7	6.29	53.7	3.87	501.3	4.87	5.60	16.41
October	153.7	77.1	6.16	54.7	3.95	430.7	4.19	5.63	16.51

 Table 1.7
 Cost of Fuels to End Users in Constant (1982-84) Dollars

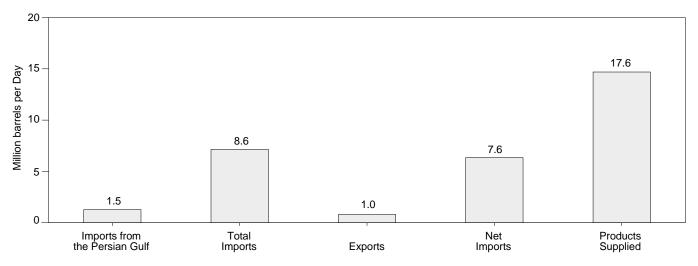
 $^{\rm a}$  Consumer Price Index, All Urban Consumers, All Items, 1982-1984 = 100.0.

NA=Not available.

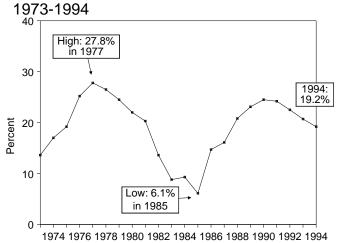
Notes: • Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. • Annual averages may not equal average of months due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia. Sources: • Annual Data: Annual prices in Tables 9.4 (All Types), 9.8c, 9.11, and 9.9 (Monthly Series), adjusted by the CPI. • Monthly Data: Monthly prices in Tables 9.4 (All Types), 9.8c, 9.11, and 9.9 (Monthly Series), adjusted by the CPI. • CPI: 1973-1993—*Economic Report of the President,* February 1995, Table B-59. 1994 forward—Council of Economic Advisers, *Economic Indicators,* December 1995, "Consumer Prices - All Urban Consumers." • Conversion Factors: Tables A1, A4, and A8.

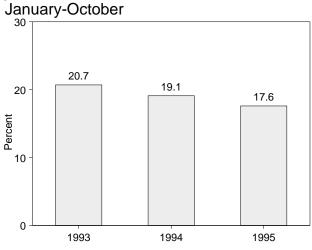
# Figure 1.7 Overview of U.S. Petroleum Trade (Quadrillion Btu)

Overview, October 1995

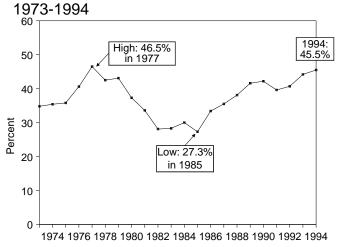


Imports from the Persian Gulf as a Share of Total Imports

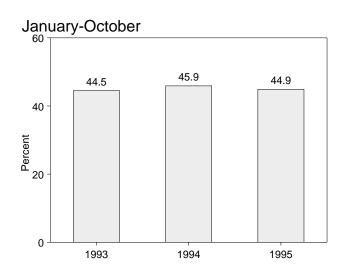




# Net Imports as Share of Product Supplied



Note: Because vertical scales differ, graphs should not be compared. Source: Table 1.8.



	Imports					As Share of P	roducts Sup	plied	Imports from	
	from the Persian Gulf <sup>a</sup>	Total Imports	Exports	Net Imports	Products Supplied	Imports from the Persian Gulf <sup>a</sup>	Total Imports	Net Imports	the Persian Gulf as a Share of Total Imports	
		Thousa	and Barrels p	er Day		Percent				
	848	6,256	224	6,025	17 209	4.9	36.1	34.8	13.6	
973 Average	040 1,039	6,256 6,112	231 221	6,025 5,892	17,308 16,653	4.9 6.2	36.7	34.8 35.4	13.6	
974 Average				,		7.1	30.7	35.8		
975 Average	1,165	6,056	209	5,846	16,322				19.2	
976 Average	1,840	7,313	223	7,090	17,461	10.5	41.9	40.6	25.2	
977 Average	2,448	8,807	243	8,565	18,431	13.3	47.8	46.5	27.8	
978 Average	2,219	8,363	362	8,002	18,847	11.8	44.4	42.5	26.5	
979 Average	2,069	8,456	471	7,985	18,513	11.2	45.7	43.1	24.5	
980 Average	1,519	6,909	544	6,365	17,056	8.9	40.5	37.3	22.0	
981 Average	1,219	5,996	595	5,401	16,058	7.6	37.3	33.6	20.3	
982 Average	696	5,113	815	4,298	15,296	4.5	33.4	28.1	13.6	
983 Average	442	5,051	739	4,312	15,231	2.9	33.2	28.3	8.8	
984 Average	506	5,437	722	4,715	15,726	3.2	34.6	30.0	9.3	
985 Average	311	5,067	781	4,286	15,726	2.0	32.2	27.3	6.1	
986 Average	912	6,224	785	5,439	16,281	5.6	38.2	33.4	14.7	
987 Average	1,077	6,678	764	5,914	16,665	6.5	40.1	35.5	14.7	
	1,541					8.9	40.1	35.5	20.8	
988 Average	,	7,402	815	6,587	17,283					
989 Average	1,861	8,061	859	7,202	17,325	10.7	46.5	41.6	23.1	
990 Average	1,966	8,018	857	7,161	16,988	11.6	47.2	42.2	24.5	
991 Average	1,845	7,627	1,001	6,626	16,714	11.0	45.6	39.6	24.2	
992 Average	1,778	7,888	950	6,938	17,033	10.4	46.3	40.7	22.5	
993 January	1,831	8,004	1,135	6,869	16,173	11.3	49.5	42.5	22.9	
February	1,877	7,948	1,033	6,915	17,334	10.8	45.9	39.9	23.6	
March	1,811	8,285	970	7,315	17,575	10.3	47.1	41.6	21.9	
April	1,940	8,768	1,067	7,701	16,781	11.6	52.3	45.9	22.1	
May	1,805	8,663	1,082	7,581	16,508	10.9	52.5	45.9	20.8	
June	1,841	8,805	900	7,905	17,096	10.8	51.5	46.2	20.9	
	,					9.6	53.1			
July	1,671	9,219	1,001	8,218	17,357			47.3	18.1	
August	1,619	8,429	829	7,600	17,332	9.3	48.6	43.9	19.2	
September	1,774	8,531	902	7,629	17,650	10.1	48.3	43.2	20.8	
October	1,644	9,197	881	8,316	17,323	9.5	53.1	48.0	17.9	
November	1,767	8,903	980	7,923	17,780	9.9	50.1	44.6	19.9	
December	1,814	8,645	1,250	7,394	17,953	10.1	48.2	41.2	21.0	
Average	1,782	8,620	1,003	7,618	17,237	10.3	50.0	44.2	20.7	
994 January	1,630	7,993	927	7,066	18,072	9.0	44.2	39.1	20.4	
February	1,493	8,539	882	7,657	18,337	8.1	46.6	41.8	17.5	
March	1,617	8,574	936	7,638	17,313	9.3	49.5	44.1	18.9	
April	1,851	8,968	868	8,100	17,489	10.6	51.3	46.3	20.6	
May	1,800	9,213	929	8,284	17,181	10.5	53.6	48.2	19.5	
June	1,650	9,305	867	8,438	17,815	9.3	52.2	47.4	17.7	
July	1,812	9,779	877	8,902	17,485	10.4	55.9	50.9	18.5	
	1,669	9,779 9,510	913	8,902 8,597	18,117	9.2	52.5	47.5	17.5	
August										
September	1,887	9,693	891	8,802	17,490	10.8	55.4	50.3	19.5	
October	1,804	8,788	997	7,791	17,719	10.2	49.6	44.0	20.5	
November	1,726	8,707	1,000	7,707	17,315	10.0	50.3	44.5	19.8	
December	1,781	8,863	1,208	7,655	18,319	9.7	48.4	41.8	20.1	
Average	1,728	8,996	942	8,054	17,718	9.8	50.8	45.5	19.2	
995 January	1,459	7,955	978	6,977	17,167	8.5	46.3	40.6	18.3	
February	1,550	8,358	1,062	7,296	18,355	8.4	45.5	39.8	18.5	
March	1,788	9,020	948	8,073	17,403	10.3	51.8	46.4	19.8	
April	1,547	8,486	998	7,488	17,102	9.0	49.6	43.8	18.2	
May	1,490	8,736	876	7,860	17,241	8.6	50.7	45.6	17.1	
June	1,558	9,585	919	8,666	18,149	8.6	52.8	43.0	16.3	
July	1,460	8,845	894	7,950	17,113	8.5	51.7	46.5	16.5	
August	1,530	9,024	821	8,203	17,993	8.5	50.2	45.6	17.0	
September	1,680	9,726	805	8,921	18,011	9.3	54.0	49.5	17.3	
October	1,524	8,576	962	7,614	17,626	8.6	48.7	43.2	17.8	
10-Month Average	1,558	8,832	925	7,906	17,607	8.9	50.2	44.9	17.6	
994 10-Month Average	1,723	9,038	909	8,129	17,697	9.7	51.1	45.9	19.1	
993 10-Month Average	1,780	8,590	980	7,610	17,110	10.4	50.2	44.5	20.7	

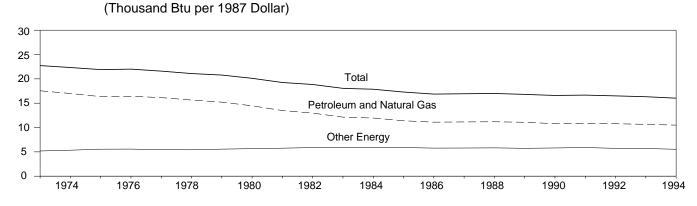
#### Table 1.8 Overview of U.S. Petroleum Trade

<sup>a</sup> Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates.

Notes: • Readers of Table 1.8 may be interested in a feature article, "Measuring Dependence on Imported Oil," that was published in the August 1995 *Monthly Energy Review.* • Petroleum is crude oil, lease condensate, unfinished oils, petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products. • Beginning in October 1977, petroleum imported for the Strategic Petroleum Reserves is included. • Annual averages may not equal average of months due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

Sources: • Column 1: Table 3.3b. • Columns 2 - 4: Table 3.1b. • Column 5: Table 3.1a. • Column 6: Column 1 divided by column 5 times 100. • Column 7: Column 2 divided by column 5 times 100. • Column 8: Column 4 divided by column 5 times 100. • Column 9: Column 1 divided by column 2 times 100.

## Figure 1.8 Energy Consumption per Dollar of Gross Domestic Product



Source: Table 1.8.

#### Table 1.9 Energy Consumption per Dollar of Gross Domestic Product

	Ene	rgy Consumption	า		Energy Consumption per Dollar of GDP			
	Petroleum and Natural Gas	Other Energy	Total <sup>a</sup>	Gross Domestic Product (GDP)	Petroleum and Natural Gas	Other Energy	Total	
		Quadrillion Btu		Billion 1987 Dollars	Thousa	nd Btu per 1987 D	Oollar	
973 Year	57.352	16.930	74.282	3.268.6	17.55	5.18	22.73	
973 Year 974 Year	57.352	17.356	74.282	3,268.6	16.99	5.18	22.73	
974 Year 975 Year	52.678	17.867		3,246.1	16.35	5.55	22.33	
			70.546					
976 Year	55.520	18.842	74.362	3,380.8	16.42	5.57	22.00	
977 Year	57.053	19.236	76.288	3,533.3	16.15	5.44	21.59	
978 Year	57.966	20.123	78.089	3,703.5	15.65	5.43	21.09	
979 Year	57.789	21.108	78.898	3,796.8	15.22	5.56	20.78	
980 Year	54.596	21.359	75.955	3,776.3	14.46	5.66	20.11	
981 Year	51.859	22.131	73.990	3,843.1	13.49	5.76	19.25	
982 Year	48.736	22.111	70.848	3,760.3	12.96	5.88	18.84	
983 Year	47.411	23.114	70.524	3,906.6	12.14	5.92	18.05	
984 Year	49.558	24.586	74.144	4,148.5	11.95	5.93	17.87	
985 Year	48.756	25.225	73.981	4,279.8	11.39	5.89	17.29	
986 Year	48.904	25.393	74.297	4,404.5	11.10	5.77	16.87	
987 Year	50.609	26.285	76.894	4,539.9	11.15	5.79	16.94	
988 Year	52.774	27.443	80.218	4,718.6	11.18	5.82	17.00	
989 Year	53.595	27.731	81.325	4,838.0	11.08	5.73	16.81	
990 Year	52.849	28.416	81.265	4,897.3	10.79	5.80	16.59	
991 Year	52.452	28.665	81.116	4,867.6	10.78	5.89	16.66	
992 Year	53.657	28.487	82.144	4,979.3	10.78	5.72	16.50	
993 1 <sup>st</sup> Quarter	55.300	29.275	84.575	5,075.3	10.90	5.77	16.66	
2 <sup>nd</sup> Quarter	53.653	29.581	83.235	5,105.4	10.51	5.79	16.30	
3 <sup>rd</sup> Quarter	54.487	29.094	83.581	5,139.4	10.60	5.66	16.26	
4 <sup>th</sup> Quarter	55.231	28.835	84.066	5,218.0	10.58	5.53	16.11	
Year	54.667	29.195	83.862	5,134.5	10.65	5.69	16.33	
994 1 <sup>st</sup> Quarter	57.846	29.905	87.752	5,261.1	11.00	5.68	16.68	
2 <sup>nd</sup> Quarter	55.871	30.025	85.896	5,314.1	10.51	5.65	16.16	
3 <sup>rd</sup> Quarter	55.709	29.239	84.948	5,367.0	10.38	5.45	15.83	
4 <sup>th</sup> Quarter	54.889	29.126	84.016	5,433.8	10.10	5.36	15.46	
Year	56.070	29.571	85.641	5,344.0	10.49	5.53	16.03	
995 1 <sup>st</sup> Quarter	56.636	<sup>R</sup> 29.845	<sup>R</sup> 86.481	5,470.1	10.35	<sup>R</sup> 5.46	<sup>R</sup> 15.81	
2 <sup>nd</sup> Quarter	ຼ 57.405	R 30.379	<sup>R</sup> 87.785	5,487.8	10.46	<sup>R</sup> 5.54	<sup>R</sup> 16.00	
3 <sup>rd</sup> Quarter	<sup>R</sup> 57.056	<sup>R</sup> 31.058	<sup>R</sup> 88.114	5,544.6	10.29	<sup>R</sup> 5.60	<sup>R</sup> 15.89	

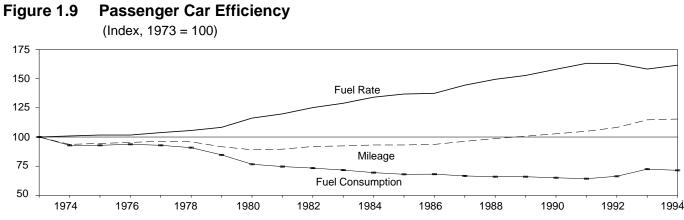
(Seasonally Adjusted at Annual Rates)

<sup>a</sup> Excludes wood, waste, geothermal, wind, photovoltaic, and solar thermal energy, except for small amounts used by electric utilities to generate electricity for distribution. R=Revised data.

components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Notes: • Quarterly data are seasonally adjusted and shown at annual rates. • Yearly data may not equal average of quarters due to seasonality adjustments and independent rounding. • Totals may not equal sum of

Sources: • Energy Consumption: Table 1.4. • Gross Domestic Product: 1973-1992—U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, September 1994, Table 2. 1993 forward—U.S. Department of Commerce, Bureau of Economic Analysis, *United States Department of Commerce News*, October 27, 1995, Table 2.



#### Source: Table 1.9.

#### Table 1.10 Passenger Car Efficiency

_	Mil	eage	Fuel Cor	sumption	Fuel Rate		
	Miles per Car	Index 1973=100.0	Gallons per Car	Index 1973=100.0	Miles per Gallon	Index 1973=100.0	
973	10,256	100.0	771	100.0	13.30	100.0	
974	9,606	93.7	716	92.9	13.42	100.9	
975	9,690	94.5	716	92.9	13.52	101.7	
976	9.785	95.4	723	93.8	13.53	101.7	
977	9,879	96.3	716	92.9	13.80	103.8	
978	9,835	95.9	701	90.9	14.04	105.6	
979	9,403	91.7	653	84.7	14.41	108.3	
980	9,141	89.1	591	76.7	15.46	116.2	
981	9,186	89.6	576	74.7	15.94	119.8	
982	9,428	91.9	566	73.4	16.65	125.2	
983	9,475	92.4	553	71.7	17.14	128.9	
984	9,558	93.2	536	69.5	17.83	134.1	
985	9,560	93.2	525	68.1	18.20	136.8	
986	9,608	93.7	526	68.2	18.27	137.4	
987	9,878	96.3	514	66.7	19.20	144.4	
988	10,121	98.7	509	66.0	19.87	149.4	
989	10,332	100.7	509	66.0	20.31	152.7	
990	10,548	102.8	502	65.1	21.02	158.0	
991	10,757	104.9	496	64.3	21.69	163.1	
992	11,100	108.2	512	66.4	21.68	163.0	
993	11,760	114.7	559	72.5	21.04	158.2	
<b>994</b> <sup>a</sup>	11,839	115.4	551	71.5	21.48	161.5	

<sup>a</sup> Preliminary data.

Note: Geographic coverage is the 50 States and the District of Columbia. Sources: Indices are prepared from statistics published by the U.S. Department of Transportation, Federal Highway Administration, Federal Highway Statistics Division. • **1973-1985**: *Highway Statistics Summary to 1985*, Table VM-201A. • **1986 forward:** *Highway Statistics,* annual, Table VM-1.

		December '	ecember 31	Cumulative July 1 through December 31						
Census				Percent	Change				Percent	Change
Divisions	Normal <sup>a</sup>	1994	1995	Normal to 1995	1994 to 1995	Normal <sup>a</sup>	1994	1995	Normal to 1995	1994 to 1995
New England Connecticut, Maine, Massachusetts, New Hampshire, Bhada Japad Varmant	1 110	952	1 4 9 4	6.7	24.4	2.420	2 226	2,601		16.8
Rhode Island, Vermont	1,110	952	1,184	0.7	24.4	2,439	2,226	2,601	6.6	16.8
Middle Atlantic New Jersey, New York, Pennsylvania	1,012	845	1,112	9.9	31.6	2,131	1,875	2,258	6.0	20.4
East North Central Illinois, Indiana, Michigan, Ohio,										
Wisconsin	1,143	939	1,210	5.9	28.9	2,402	2,067	2,668	11.1	29.1
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	1,247	1,073	1,224	-1.8	14.1	2,596	2,270	2,747	5.8	21.0
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia,	571	453	648	13.5	43.0	1,084	899	1,252	15.5	39.3
West Virginia	571	455	040	13.5	43.0	1,004	099	1,252	15.5	39.3
East South Central Alabama, Kentucky, Mississippi, Tennessee	718	587	766	6.7	30.5	1,380	1,140	1,588	15.1	39.3
West South Central Arkansas, Louisiana, Oklahoma, Texas	523	425	498	-4.8	17.2	877	734	895	2.1	21.9
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	950	862	846	-10.9	-1.9	2,145	2,103	1.956	-8.8	-7.0
	000	502	0-0		1.0	2,140	2,700	1,000	0.0	
Pacific <sup>b</sup> California, Oregon, Washington	564	567	488	-13.5	-13.9	1,227	1,369	1,077	-12.2	-21.3
U.S. Average <sup>b</sup>	836	711	862	3.1	21.2	1,724	1,550	1,819	5.5	17.4

#### Table 1.11 Heating Degree-Days by Census Division

 $^{a}\,$  "Normal" is based on calculations of data from 1961 through 1990.  $^{b}\,$  Excludes Alaska and Hawaii.

Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. Heating degree-days are the number of degrees that the daily average temperature falls below 65° F. Cooling degree-days are the number of degrees that the daily average temperature rises above 65° F. The daily average temperature

is the mean of the maximum and minimum temperatures in a 24-hour period. For example, a weather station recording an average daily temperature of 40° F would report 25 heating degree-days for that day (and 0 cooling degree-days). If a weather station recorded an average daily temperature of 78° F, cooling degree-days for that station would be 13 (and 0 heating degree days).

Sources: See end of section.

		December	1 through D	ecember 31			January 1	Cumulative through De		
Census				Percent	Change				Percent	Change
Divisions	Normal <sup>a</sup>	1994	1995	Normal to 1995	1994 to 1995	Normal <sup>a</sup>	1994	1995	Normal to 1995	1994 to 1995
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	0	0	0	(°)	(°)	420	545	540	28.6	-0.9
Middle Atlantic New Jersey, New York, Pennsylvania	0	0	0	(°)	(°)	675	777	842	24.7	8.4
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	0	0	0	(°)	( <sup>c</sup> )	736	723	942	28.0	30.3
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	0	0	0	(°)	(°)	981	897	1,022	4.2	13.9
Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	30	34	27	(°)	(°)	1,926	2,017	2,103	9.2	4.3
East South Central Alabama, Kentucky, Mississippi, Tennessee	3	0	0	(°)	(°)	1,564	1,452	1,664	6.4	14.6
West South Central Arkansas, Louisiana, Oklahoma, Texas	10	1	11	(°)	(°)	2,459	2,450	2,418	-1.7	-1.3
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	0	0	0	(°)	(°)	1,173	1,319	1,134	-3.3	-14.0
Pacific <sup>b</sup> California, Oregon, Washington	0	0	0	(°)	( <sup>c</sup> )	694	719	629	-9.4	-12.5
U.S. Average <sup>b</sup>	7	6	6	(°)	(°)	1,192	1,226	1,283	7.6	4.6

#### Table 1.12 Cooling Degree-Days by Census Division

<sup>a</sup> "Normal" is based on calculations of data from 1961 through 1990.

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

<sup>c</sup> Percent change is not meaningful: normal is less than 100 or ratio is incalculable.

Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. Cooling degree-days are the number of degrees that the daily average temperature rises above 65° F. Heating degree-days are the number of degrees that the

daily average temperature falls below 65° F. The daily average temperature is the mean of the maximum and minimum temperatures in a 24-hour period. For example, if a weather station recorded an average daily temperature of 78° F, cooling degree-days for that station would be 13 (and 0 heating degree-days). A weather station recording an average daily temperature of 40° F would report 25 heating degree-days for that day (and 0 cooling degree-days).

Sources: See end of section.

# **Energy Summary Notes**

**1. Energy Production:** Production of energy includes production of coal, crude oil and lease condensate, natural gas plant liquids, natural gas (dry), electric utility and industrial production of hydroelectric power, and electricity generated from nuclear power. Production also includes electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy but excludes other energy obtained from those sources because consistent historical data are not available. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A.

2. Energy Consumption: Consumption of energy includes consumption of coal, natural gas (including supplemental gaseous fuels), petroleum products supplied, electric utility and industrial production of hydroelectric power, net imports of electricity (assumed to be hydroelectricity), net imports of coal coke, and electricity generated from nuclear power. Consumption also includes electricity generated for distribution from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy but excludes other energy obtained from those sources because consistent historical data are not available. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A.

**3. Energy Imports:** Energy imports include imports of coal, crude oil (including crude oil imported for the Strategic Petroleum Reserve), petroleum products, natural gas, electricity (assumed to be hydroelectricity), and coal coke. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. For further information on electricity, see "Note for imports and exports of electricity" under Note 8 of Section 2, Energy Consumption Section Notes and Sources.

**4. Energy Exports:** Energy exports include coal, crude oil, petroleum products, natural gas, electricity produced from hydroelectric power, and coal coke. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. For more information on electricity, see "Note for imports and exports of electricity" under Note 8 of Section 2, Energy Consumption Section Notes and Sources.

**5. Merchandise Trade Value:** Import data presented are based on the customs value. That value does not include insurance and freight and is consequently lower than the cost, insurance, and freight (CIF) value, which is also reported by the Bureau of the Census. All export data, and import data prior to 1981, are on a free along-side ship (f.a.s.) basis.

"Balance" is exports minus imports; a positive balance indicates a surplus trade value and a negative balance indicates a deficit trade value. "Energy" includes mineral fuels, lubricants, and related material. "Non-Energy Balance" and "Total Merchandise" include foreign exports (i.e., re-exports) and nonmonetary gold and Department of Defense Grant-Aid shipments. The "Non-Energy Balance" is calculated by subtracting the "Energy" from the "Total Merchandise Balance."

"Imports" consist of government and nongovernment shipments of merchandise into the 50 States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and the U.S. Foreign Trade Zones. They reflect the total arrival from foreign countries of merchandise that immediately entered consumption channels, warehouses, the Foreign Trade Zones, or the Strategic Petroleum Reserve. They exclude shipments between the United States, Puerto Rico, and U.S. possessions, shipments to U.S. Armed Forces and diplomatic missions abroad for their own use, U.S. goods returned to the United States by its Armed Forces, and in-transit shipments.

#### Sources for Table 1.6

U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division:

#### Petroleum Exports

**1974-1987:** "U.S. Exports," FT410, December issues. **1988:** "Report on U.S. Merchandise Trade, 1988 Final Revisions."

**1989:** "Report on U.S. Merchandise Trade, 1989 Revisions."

1990: "U.S. Merchandise Trade, 1990 Final Report."

**1991:** "U.S. Merchandise Trade, 1991 Final Report," May 13, 1992.

**1992:** "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.

**1993:** "U.S. International Trade in Goods and Services, Annual Revision for 1993."

**1994:** "U.S. International Trade in Goods and Services, Annual Revision for 1994."

**1995:** "U.S. International Trade in Goods and Services," FT900, monthly.

#### **Petroleum Imports**

**1974-1987:** "U.S. Merchandise Trade," FT900, December issues, 1975-1988.

**1988:** "Report on U.S. Merchandise Trade, 1988 Final Revisions."

**1989:** "Report on U.S. Merchandise Trade, 1989 Revisions."

**1990:** "U.S. Merchandise Trade, 1990 Final Report." **1991:** "U.S. Merchandise Trade, 1991 Final Report," May 13, 1992, and "U.S. Merchandise Trade, October 1992," December 17, 1992, page 3.

**1992:** "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.

**1993:** "U.S. International Trade in Goods and Services, Annual Revision for 1993."

**1994:** "U.S. International Trade in Goods and Services, Annual Revision for 1994."

**1995:** "U.S. International Trade in Goods and Services," FT900, monthly.

#### **Energy Exports and Imports**

**1974-1987**: U.S. merchandise trade press releases and database printouts for adjustments.

**1988:** January-July, monthly FT900 supplement, 1989 issues. August-December, monthly FT900, 1989 issues. **1989:** Monthly FT900, 1990 issues.

**1990:** "U.S. Merchandise Trade, 1990 Final Report." **1991:** "U.S. Merchandise Trade, 1991 Final Report," May 13, 1992, and "U.S. Merchandise Trade, October 1992," December 17, 1992, page 3.

**1992:** "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.

**1993:** "U.S. International Trade in Goods and Services, Annual Revision for 1993."

**1994:** "U.S. International Trade in Goods and Services, Annual Revision for 1994."

**1995:** "U.S. International Trade in Goods and Services," FT900, monthly.

#### **Total Merchandise**

**1974-1987:** U.S. merchandise trade press releases and database printouts for adjustments.

**1988:** "Report on U.S. Merchandise Trade, 1988 Final Revisions," August 18, 1989.

**1989:** "Report on U.S. Merchandise Trade, 1989 Revisions," July 10, 1990.

**1990:** "U.S. Merchandise Trade, 1990 Final Report," May 10, 1991, and "U.S. Merchandise Trade, December 1992," February 18, 1993, page 3.

1991: "U.S. Merchandise Trade, 1992 Final Report,"

May 12, 1993.

1992-1994: "U.S. International Trade in Goods and Services, Annual Revision for 1994."1995: "U.S. International Trade in Goods and Services," FT900, monthly.

#### Petroleum Balance, Energy Balance, and Non-Energy Balance

Calculated by the Energy Information Administration.

#### Sources for Tables 1.11 and 1.12

There are several degree-day databases maintained by the National Oceanic and Atmospheric Administration. The information published here is developed by the National Weather Service Climate Analysis Center, Camp Springs, MD. The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at those weather stations is used to calculate statewide degree-day averages based on population.

The State figures are then aggregated into Census Divisions and into the national average. The population weights currently used represent resident State population data estimated for 1990 by the U.S. Department of Commerce, Bureau of the Census. The data provided here are available sooner than the Historical Climatology Series 5-1 (heating degree-days) and 5-2 (cooling degree-days) developed by the National Climatic Center, Asheville, NC, which compiles data from some 8,000 weather stations.

# Section 2. Energy Consumption

U.S. total energy consumption in October 1995 was 6.9 quadrillion Btu. Petroleum products accounted for 43 percent<sup>1</sup> of the energy consumed in October 1995, while coal accounted for 23 percent, and natural gas accounted for 22 percent.

Residential and commercial sector consumption was 2.2 quadrillion Btu in October 1995, up 4 percent from the October 1994 level. The sector accounted for 31 percent of October 1995 total consumption, about the same share as in October 1994.

Industrial sector consumption was 2.7 quadrillion Btu in October 1995, up slightly from the October 1994 level. The industrial sector accounted for 39 percent of October 1995 total consumption, down 1 percentage point from its 40-percent share in October 1994.

Transportation sector consumption of energy was 2.0 quadrillion Btu in October 1995, up 2 percent from the October 1994 level. The sector accounted for 29 percent of October 1995 total consumption, about the same share as in October 1994.

Electric utility consumption of energy totaled 2.5 quadrillion Btu in October 1995, up 3 percent from the October 1994 level. Coal contributed 55 percent of the energy consumed by electric utilities in October 1995, while nuclear electric power contributed 23 percent; hydroelectric and natural gas 10 percent, each; petroleum 1 percent; and geothermal, wood, waste, wind, photovoltaic, and solar thermal energy, less than 1 percent.

# Table 2.1 Energy Consumption Summary for October 1995

Q	ua	ari	IIIIO	nв	stu)	
( œ	uu	un			nu)	

		End-Us				
Energy Source	Residential and Commercial	Industrial	Transportation	Total <sup>a</sup>	Electric Utilities	Total
Coal	0.026	0.220	( <sup>b</sup> )	0.242	1.360	1.602
Natural Gas <sup>c</sup>	.396	.824	.050	1.270	.245	1.515
Petroleum Products <sup>d</sup>	.148	.785	1.965	2.897	.037	2.935
Nuclear Electric Power	-	-	-	-	.580	.580
Hydroelectric Power <sup>e</sup>	-	.002	-	.002	.249	.251
Geothermal	-	-	-	-	.013	.013
Net Imports of Coal Coke	-	.003	-	.003	-	.003
Other <sup>f</sup>	-	-	-	-	.002	.002
Primary Consumption	.571	1.833	2.015	4.415	2.486	6.901
Electricity	.527	.293	.001	.821	_	-
Net Consumption	1.098	2.126	2.016	5.236	_	-
Electrical System Energy Losses	1.068	.594	.002	1.665	_	-
Total Consumption <sup>g</sup>	2.166	2.720	2.018	6.901	-	-

<sup>a</sup> Totals for coal and natural gas may not equal sum of sectors due to the use of sector-specific conversion factors.
 <sup>b</sup> Small amounts of coal consumed for transportation are reported as

<sup>o</sup> Small amounts of coal consumed for transportation are reported as industrial sector consumption.

 $^{\rm c}$  Includes supplemental gaseous fuels. Transportation sector is pipeline fuel only.

<sup>d</sup> Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.

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

f "Other" is electricity generated for distribution from wood, waste, wind, photovoltaic, and solar thermal energy.

<sup>g</sup> Due to a lack of consistent historical data, some renewable energy sources are not included. For example, in 1992, 3.0 quadrillion Btu of renewable energy consumed by U.S. electric utilities to generate electricity for distribution is included, but an estimated 3.0 quadrillion Btu of renewable energy used by other sectors is not included.

– =Not applicable.

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

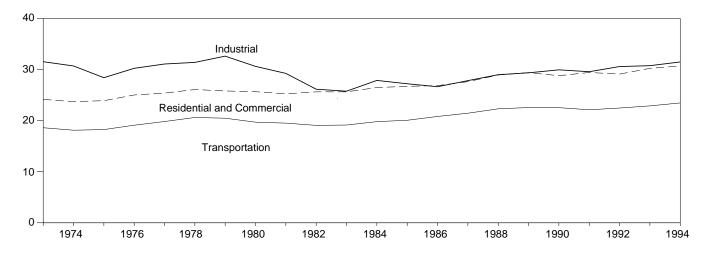
Additional Notes and Sources: See Tables 2.2-2.6 and end of section.

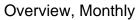
<sup>1</sup>Percentage changes are based on numbers in the following tables.

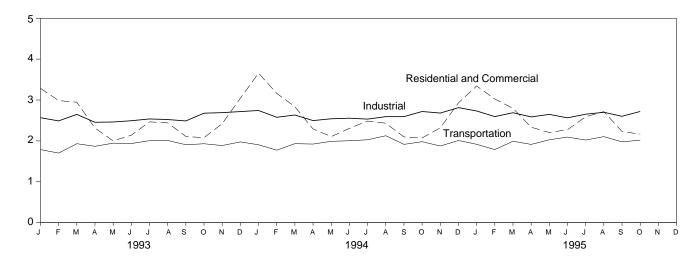
# Figure 2.1 Energy Consumption by End-Use Sector

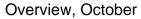
(Quadrillion Btu)

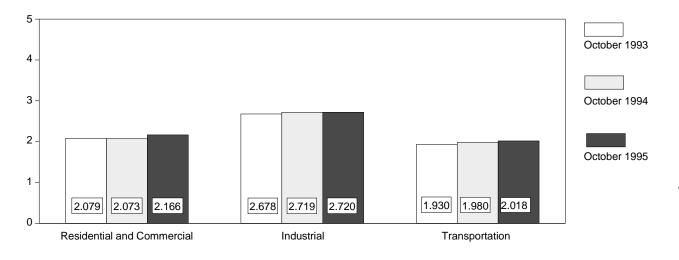
Overview, 1973-1994











Note: Because vertical scales differ, graphs should not be compared. Source: Table 2.2.

#### Table 2.2 Energy Consumption by End-Use Sector

(Quadrillion Btu)

	Residential and Commercial		Indu	Istrial	Transp	ortation		
	Net	Total	Net	Total	Net	Total	Net	Totala
973 Total	15.766	24.143	25.917	31.528	18.584	18.605	60.274	74.282
974 Total	15.246	23.725	24.994	30.694	18.095	18.117	58.341	74.202
75 Total	15.200	23.899	22.737	28.402	18.219	18.244	56.157	70.546
76 Total	15.997	25.018	24.038	30.236	19.076	19.101	59.119	74.362
077 Total	15.828	25.384	24.593	31.077	19.794	19.819	60.223	76.288
78 Total	16.023	26.084	24.637	31.392	20.589	20.611	61.251	78.089
79 Total	15.709	25.808	25.679	32.616	20.447	20.472	61.836	78.898
80 Total	15.075	25.655	23.854	30.606	19.669	19.695	58.597	75.955
81 Total	14.541	25.241	22.533	29.240	19.480	19.507	56.556	73.990
82 Total	14.629	25.629	20.020	26.145	19.043	19.069	53.697	70.848
83 Total	14.395	25.627	19.401	25.759	19.109	19.135	52.907	70.524
84 Total	14.964	26.474	21.184	27.867	19.773	19.801	55.923	74.144
85 Total	14.839	26.704	20.520	27.214	20.036	20.067	55.391	73.981
86 Total	14.791	26.852	20.101	26.630	20.781	20.812	55.676	74.297
87 Total	15.146	27.623	21.116	27.826	21.419	21.448	57.678	76.894
88 Total	16.004	28.925	22.085	28.986	22.274	22.305	60.366	80.218
89 Total	16.261	29.404	22.272	29.353	22.530	22.561	61.070	81.325
90 Total	15.568	28.786	22.841	29.936	22.504	22.535	60.921	81.265
91 Total	15.986	29.424	22.549	29.570	22.090	22.120	60.626	81.116
92 Total	16.090	29.100	23.498	30.577	22.432	22.461	62.025	82.144
93 January	2.081	3.285	2.006	2.567	1.785	1.787	5.870	7.639
	1.946	2.986	1.964	2.489	1.700	1.702	5.608	7.174
February								
March	1.859	2.947	2.084	2.649	1.928	1.931	5.869	7.525
April	1.380	2.315	1.915	2.455	1.866	1.868	5.158	6.635
Мау	1.012	2.000	1.857	2.463	1.943	1.945	4.809	6.405
June	.982	2.140	1.854	2.493	1.933	1.935	4.770	6.568
July	1.058	2.466	1.892	2.537	2.003	2.006	4.959	7.014
August	1.058	2.441	1.886	2.523	2.008	2.011	4.957	6.980
September	1.013	2.108	1.949	2.488	1.903	1.906	4.866	6.502
October	1.078	2.079	2.106	2.678	1.928	1.930	5.110	6.686
November	1.398	2.422	2.104	2.691	1.884	1.886	5.385	6.998
December	1.871	3.044	2.123	2.717	1.974	1.976	5.966	7.737
Total	16.732	30.229	23.743	30.753	22.856	22.883	63.326	83.862
94 January	2.354	3.657	2.168	2.744	1.902	1.905	6.425	8.306
February	2.095	3.163	2.068	2.578	1.771	1.773	5.932	7.512
March	1.749	2.837	2.060	2.633	1.930	1.932	5.738	7.400
April	1.319	2.291	1.941	2.497	1.920	1.922	5.178	6.709
May	1.068	2.106	1.923	2.541	1.988	1.990	4.977	6.636
	1.036	2.306	1.920	2.555	2.002	2.004	4.941	6.869
June								
July	1.089	2.486	1.908	2.533	2.025	2.027	5.026	7.050
August	1.086	2.432	1.943	2.593	2.124	2.126	5.156	7.155
September	.997	2.097	2.026	2.593	1.912	1.915	4.936	6.605
October	1.053	2.073	2.130	2.719	1.978	1.980	5.160	6.772
November	1.297	2.319	2.089	2.681	1.872	1.875	5.256	6.872
December	1.770	2.931	2.220	2.814	2.008	2.010	5.996	7.754
Total	16.912	30.698	24.374	31.482	23.433	23.461	64.720	85.641
95 January	2.123	<sup>R</sup> 3.343	<sup>R</sup> 2.155	<sup>R</sup> 2.732	1.915	1.917	6.192	<sup>R</sup> 7.991
February	1.973	<sup>R</sup> 3.026	<sup>R</sup> 2.069	<sup>R</sup> 2.594	1.784	1.786	<sup>R</sup> 5.824	<sup>R</sup> 7.405
March	1.721	<sup>R</sup> 2.797	<sup>R</sup> 2.106	<sup>R</sup> 2.689	1.989	1.991	<sup>R</sup> 5.813	<sup>R</sup> 7.474
		<sup>R</sup> 2.335	<sup>R</sup> 2.019	<sup>R</sup> 2.587			<sup>R</sup> 5.295	<sup>R</sup> 6.833
April	1.367	∠.335 R o cor		∠.587 R o o to	1.912	1.914		6.833 B 0.000
May	1.134	<sup>R</sup> 2.205	<sup>R</sup> 2.015	<sup>R</sup> 2.648	2.025	2.027	<sup>R</sup> 5.172	<sup>R</sup> 6.880
June	_ 1.068	<sup>R</sup> 2.274	<sup>R</sup> 1.930	<sup>R</sup> 2.564	2.092	2.094	_ 5.092	<sup>R</sup> 6.934
July	<sup>R</sup> 1.110	<sup>R</sup> 2.590	<sup>R</sup> 1.992	<sup>R</sup> 2.653	2.018	2.021	<sup>R</sup> 5.124	<sup>R</sup> 7.268
August	<sup>R</sup> 1.171	<sup>R</sup> 2.716	<sup>R</sup> 2.028	<sup>R</sup> 2.700	2.101	2.104	<sup>R</sup> 5.306	<sup>R</sup> 7.525
September	<sup>R</sup> 1.080	<sup>R</sup> 2.230	<sup>R</sup> 2.050	<sup>R</sup> 2.602	1.975	1.977	<sup>R</sup> 5.104	<sup>R</sup> 6.808
October	1.098	2.166	2.126	2.720	2.016	2.018	5.236	6.901
10-Month Total	13.843	<b>25.682</b>	20.490	<b>26.488</b>	19.827	19.850	54.158	72.019
	13.846	25.447	20.065	25.987	19.552	19.576	53.468	71.015
94 10-Month Total								

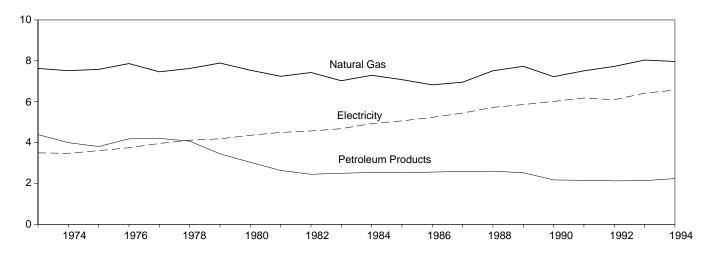
<sup>a</sup> Due to a lack of consistent historical data, some renewable energy sources are not included. For example, in 1992, 3.0 quadrillion Btu of renewable energy consumed by U.S. electric utilities to generate electricity for distribution is included, but an estimated 3.0 quadrillion Btu of renewable energy used by other sectors is not included.

R=Revised data.

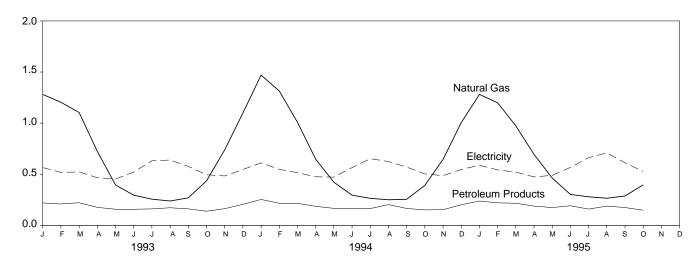
Notes: • Totals may not equal sum of components due to independent rounding and the use of sector-specific conversion factors for natural gas and coal. • Geographic coverage is the 50 States and the District of Columbia. Additional Notes and Sources: See end of section.

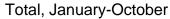
#### Figure 2.2 Residential and Commercial Energy Consumption (Quadrillion Btu)

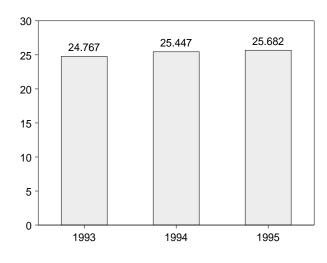
By Major Sources, 1973-1994



## By Major Sources, Monthly

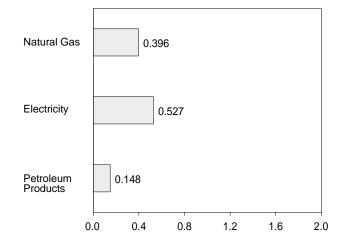






Note: Because vertical scales differ, graphs should not be compared. Source: Table 2.3.

By Major Sources, October 1995



#### Table 2.3 Residential and Commercial Energy Consumption

(Quadrillion Btu)

1975 Total         1976 Total         1977 Total         1978 Total         1979 Total         1979 Total         1979 Total         1980 Total         1980 Total         1981 Total         1982 Total         1983 Total         1984 Total         1985 Total         1985 Total         1986 Total         1987 Total         1988 Total         1988 Total         1989 Total         1990 Total         1991 Total         1992 Total	0.254 .257 .209 .203 .205 .214 .145 .167 .187 .192 .209 .176 .176 .162 .168 .146 .156 .141 .142	7.626 7.518 7.581 7.866 7.461 7.624 7.624 7.540 7.243 7.427 7.024 7.024 7.029 7.079 6.825 6.954 7.513 7.731 7.225	4.391 3.996 3.805 4.181 4.206 4.070 3.448 3.035 2.634 2.449 2.498 2.535 2.522 2.555 2.587	12.270 11.771 11.595 12.250 11.873 11.908 11.525 10.721 10.043 10.063 9.715 10.036 9.777	3.495 3.475 3.604 3.747 3.955 4.116 4.184 4.355 4.497 4.566 4.680	15.766 15.246 15.200 15.997 15.828 16.023 15.709 15.075 14.541 14.629 14.395	8.377 8.480 8.700 9.021 9.556 10.061 10.100 10.580 10.700 11.000	24.143 23.725 23.899 25.018 25.384 26.084 25.808 25.655 25.241
1974 Total         1975 Total         1976 Total         1977 Total         1977 Total         1978 Total         1979 Total         1979 Total         1980 Total         1981 Total         1982 Total         1983 Total         1984 Total         1985 Total         1985 Total         1986 Total         1987 Total         1987 Total         1988 Total         1989 Total         1990 Total         1991 Total         1992 Total         1993 January	.257 .209 .203 .214 .187 .145 .167 .187 .192 .209 .176 .176 .176 .162 .168 .146 .156 .141	7.518 7.581 7.866 7.461 7.624 7.540 7.243 7.427 7.024 7.292 7.079 6.825 6.954 7.513 7.731	3.996 3.805 4.181 4.206 4.070 3.448 3.035 2.634 2.449 2.498 2.535 2.522 2.555	11.771 11.595 12.250 11.873 11.908 11.525 10.721 10.043 9.715 10.036	3.475 3.604 3.747 3.955 4.116 4.184 4.355 4.497 4.566 4.680	15.246 15.200 15.997 15.828 16.023 15.709 15.075 14.541 14.629	8.480 8.700 9.021 9.556 10.061 10.100 10.580 10.700 11.000	23.725 23.899 25.018 25.384 26.084 25.808 25.655 25.241
1975 Total         1976 Total         1977 Total         1977 Total         1978 Total         1979 Total         1979 Total         1980 Total         1981 Total         1982 Total         1983 Total         1984 Total         1985 Total         1985 Total         1986 Total         1987 Total         1988 Total         1988 Total         1989 Total         1999 Total         1990 Total         1991 Total         1992 Total         1993 January	.209 .203 .205 .214 .187 .145 .167 .187 .192 .209 .176 .176 .162 .168 .146 .156 .141	7.581 7.866 7.461 7.624 7.891 7.540 7.243 7.427 7.024 7.292 7.079 6.825 6.954 7.513 7.731	3.805 4.181 4.206 4.070 3.448 3.035 2.634 2.449 2.498 2.535 2.522 2.525	11.595 12.250 11.873 11.908 11.525 10.721 10.043 9.715 10.036	3.604 3.747 3.955 4.116 4.184 4.355 4.497 4.566 4.680	15.200 15.997 15.828 16.023 15.709 15.075 14.541 14.629	8.700 9.021 9.556 10.061 10.100 10.580 10.700 11.000	23.899 25.018 25.384 26.084 25.808 25.655 25.241
1976 Total         1977 Total         1978 Total         1978 Total         1978 Total         1980 Total         1981 Total         1982 Total         1983 Total         1984 Total         1985 Total         1986 Total         1987 Total         1985 Total         1986 Total         1987 Total         1988 Total         1989 Total         1990 Total         1991 Total         1992 Total         1993 January	.203 .205 .214 .145 .145 .167 .187 .192 .209 .176 .162 .168 .146 .156 .141	7.866 7.461 7.624 7.891 7.540 7.243 7.427 7.024 7.024 7.079 6.825 6.954 7.513 7.731	4.181 4.206 4.070 3.448 3.035 2.634 2.449 2.498 2.535 2.522 2.555	12.250 11.873 11.908 11.525 10.721 10.043 9.715 10.036	3.747 3.955 4.116 4.184 4.355 4.497 4.566 4.680	15.997 15.828 16.023 15.709 15.075 14.541 14.629	9.021 9.556 10.061 10.100 10.580 10.700 11.000	25.018 25.384 26.084 25.808 25.655 25.241
1977 Total         1978 Total         1978 Total         1979 Total         1980 Total         1981 Total         1982 Total         1983 Total         1984 Total         1985 Total         1986 Total         1986 Total         1987 Total         1988 Total         1988 Total         1989 Total         1989 Total         1990 Total         1990 Total         1991 Total         1992 Total         1993 January	.205 .214 .187 .167 .187 .192 .209 .176 .162 .168 .168 .168 .156 .141	7.461 7.624 7.891 7.540 7.243 7.427 7.024 7.024 7.079 6.825 6.954 7.513 7.731	4.206 4.070 3.448 3.035 2.634 2.449 2.498 2.535 2.522 2.555	11.873 11.908 11.525 10.721 10.043 10.063 9.715 10.036	3.955 4.116 4.184 4.355 4.497 4.566 4.680	15.828 16.023 15.709 15.075 14.541 14.629	9.556 10.061 10.100 10.580 10.700 11.000	25.384 26.084 25.808 25.655 25.241
1978 Total         1979 Total         1979 Total         1980 Total         1981 Total         1982 Total         1983 Total         1984 Total         1985 Total         1985 Total         1986 Total         1987 Total         1988 Total         1987 Total         1988 Total         1989 Total         1990 Total         1990 Total         1991 Total         1992 Total         1993 January	.187 .145 .167 .187 .209 .176 .176 .162 .168 .168 .156 .141	7.891 7.540 7.243 7.427 7.024 7.292 7.079 6.825 6.954 7.513 7.731	3.448 3.035 2.634 2.449 2.498 2.535 2.522 2.555	11.525 10.721 10.043 10.063 9.715 10.036	4.184 4.355 4.497 4.566 4.680	15.709 15.075 14.541 14.629	10.100 10.580 10.700 11.000	26.084 25.808 25.655 25.241
1979 Total         1980 Total         1981 Total         1982 Total         1983 Total         1984 Total         1985 Total         1987 Total         1987 Total         1989 Total         1990 Total         1990 Total         1991 Total         1992 Total         1993 January	.145 .167 .187 .192 .209 .176 .176 .162 .168 .146 .156 .141	7.540 7.243 7.427 7.024 7.292 7.079 6.825 6.954 7.513 7.731	3.035 2.634 2.449 2.498 2.535 2.522 2.555	10.721 10.043 10.063 9.715 10.036	4.355 4.497 4.566 4.680	15.075 14.541 14.629	10.580 10.700 11.000	25.655 25.241
1980 Total         1981 Total         1982 Total         1983 Total         1984 Total         1985 Total         1985 Total         1986 Total         1987 Total         1987 Total         1988 Total         1989 Total         1989 Total         1990 Total         1991 Total         1992 Total         1993 January	.145 .167 .187 .192 .209 .176 .176 .162 .168 .146 .156 .141	7.540 7.243 7.427 7.024 7.292 7.079 6.825 6.954 7.513 7.731	3.035 2.634 2.449 2.498 2.535 2.522 2.555	10.721 10.043 10.063 9.715 10.036	4.355 4.497 4.566 4.680	15.075 14.541 14.629	10.580 10.700 11.000	25.655 25.241
1981 Total         1982 Total         1983 Total         1984 Total         1985 Total         1986 Total         1987 Total         1988 Total         1987 Total         1988 Total         1989 Total         1989 Total         1990 Total         1990 Total         1991 Total         1992 Total         1993 January	.167 .187 .192 .209 .176 .176 .162 .168 .146 .156 .141	7.243 7.427 7.024 7.292 7.079 6.825 6.954 7.513 7.731	2.634 2.449 2.498 2.535 2.522 2.555	10.043 10.063 9.715 10.036	4.497 4.566 4.680	14.541 14.629	10.700 11.000	25.241
1982 Total         1983 Total         1984 Total         1985 Total         1986 Total         1987 Total         1988 Total         1988 Total         1989 Total         1989 Total         1990 Total         1991 Total         1992 Total         1993 January	.187 .192 .209 .176 .176 .162 .168 .146 .156 .141	7.427 7.024 7.292 7.079 6.825 6.954 7.513 7.731	2.449 2.498 2.535 2.522 2.555	10.063 9.715 10.036	4.566 4.680	14.629	11.000	
1983 Total         1984 Total         1985 Total         1986 Total         1987 Total         1988 Total         1989 Total         1989 Total         1990 Total         1991 Total         1992 Total         1993 January	.192 .209 .176 .176 .162 .168 .146 .156 .141	7.024 7.292 7.079 6.825 6.954 7.513 7.731	2.498 2.535 2.522 2.555	9.715 10.036	4.680			25.629
1984 Total         1985 Total         1986 Total         1987 Total         1988 Total         1988 Total         1989 Total         1990 Total         1991 Total         1992 Total         1993 January	.209 .176 .176 .162 .168 .146 .156 .141	7.292 7.079 6.825 6.954 7.513 7.731	2.535 2.522 2.555	10.036			11.232	25.627
1985 Total         1986 Total         1987 Total         1988 Total         1989 Total         1990 Total         1991 Total         1992 Total         1992 Total         1993 January	.176 .176 .162 .168 .146 .156 .141	7.079 6.825 6.954 7.513 7.731	2.522 2.555		4.928	14.964	11.510	26.474
1986 Total         1987 Total         1988 Total         1989 Total         1990 Total         1991 Total         1992 Total         1993 January	.176 .162 .168 .146 .156 .141	6.825 6.954 7.513 7.731	2.555	5.777	5.061	14.839	11.865	26.704
1987 Total         1988 Total         1989 Total         1990 Total         1991 Total         1992 Total         1993 January	.162 .168 .146 .156 .141	6.954 7.513 7.731		9.556	5.235	14.791	12.061	26.852
1988 Total         1989 Total         1990 Total         1991 Total         1992 Total         1993 January	.168 .146 .156 .141	7.513 7.731	2.007	9.703	5.443	15.146	12.477	27.623
1989 Total           1990 Total           1991 Total           1992 Total           1993 January	.146 .156 .141	7.731	2.600	10.280	5.724	16.004	12.920	28.925
1990 Total 1991 Total 1992 Total 1993 January	.156 .141		2.600		5.859			28.925
1991 Total 1992 Total 1993 January	.141	1,223		10.402	5.859 6.015	16.261 15.568	13.143	
1992 Total		7.510	2.173 2.154	9.553 9.805	6.015	15.568	13.218 13.439	28.786 29.424
		7.726	2.134	9.993	6.096	16.090	13.439	29.424
	.015	1.281	.219	1.516	.565	2.081	1.204	3.285
	.015	1.204	.209	1.428	.518	1.946	1.040	2.986
March	.012	1.104	.221	1.337	.522	1.859	1.088	2.947
April	.014	.724	.176	.914	.466	1.380	.935	2.315
May	.007	.395	.157	.559	.453	1.012	.987	2.000
June	.010	.295	.157	.461	.521	.982	1.157	2.140
July	.010	.256	.161	.427	.632	1.058	1.408	2.466
August	.009	.238	.172	.419	.639	1.058	1.384	2.441
September	.007	.269	.161	.436	.577	1.013	1.095	2.108
October	.009	.435	.138	.582	.495	1.078	1.002	2.079
November	.015	.738	.163	.916	.483	1.398	1.024	2.422
December	.021	1.098	.205	1.325	.546	1.871	1.174	3.044
Total	.143	8.037	2.136	10.316	6.416	16.732	13.497	30.229
1994 January	.020	1.470	.253	1.743	.611	2.354	1.303	3.657
February	.015	1.315	.216	1.547	.548	2.095	1.068	3.163
March	.011	1.008	.215	1.235	.515	1.749	1.087	2.837
April	.011	.647	.186	.844	.475	1.319	.972	2.291
May	.008	.422	.166	.596	.472	1.068	1.038	2.106
June	.009	.295	.167	.471	.565	1.036	1.270	2.306
July	.011	.264	.164	.438	.652	1.089	1.396	2.486
August	.009	.250	.203	.462	.624	1.086	1.346	2.432
September	.007	.255	.165	.426	.570	.997	1.100	2.097
October	.008	.391	.151	.550	.503	1.053	1.021	2.037
November	.008	.645	.153	.811	.486	1.297	1.022	2.319
December	.012	1.005	.201	1.224	.546	1.770	1.161	2.931
Total	.139	7.967	2.239	10.346	6.567	16.912	13.786	30.698
1995 January	.015	1.281	.238	1.535	.588	2.123	<sup>R</sup> 1.220	<sup>R</sup> 3.343
February	.013	1.199	.220	1.432	.542	1.973	<sup>R</sup> 1.053	<sup>R</sup> 3.026
March	.010	.974	.216	1.200	.521	1.721	<sup>R</sup> 1.076	<sup>R</sup> 2.797
April	.010	.694	.188	.892	.474	1.367	<sup>R</sup> .968	<sup>R</sup> 2.335
May	.007	.463	.174	.645	.489	1.134	<sup>R</sup> 1.072	<sup>R</sup> 2.205
June	.007	.302	.191	.500	.567	1.068	<sup>R</sup> 1.206	<sup>R</sup> 2.274
July	R.009	.279	.159	<sup>R</sup> .448	.662	<sup>R</sup> 1.110	<sup>R</sup> 1.480	R 2.590
August	R.009	.265	.188	<sup>R</sup> .462	.709	<sup>R</sup> 1.171	<sup>R</sup> 1.545	<sup>R</sup> 2.716
September	R .006	.287	.174	R.468	.612	<sup>R</sup> 1.080	<sup>R</sup> 1.150	<sup>R</sup> 2.230
October	.026	.396	.148	.571	.527	1.098	1.068	2.166
10-Month Total	.113	6.142	1.897	8.151	5.692	13.843	11.839	25.682
1994 10-Month Total 1993 10-Month Total	.108 .107	6.317	1.886	8.311	5.535			

 $^{a}$  Includes supplemental gaseous fuels.  $^{b}$  Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.

sources are not included. For example, in 1992, an estimated 0.7 quadrillion Btu of renewable energy consumed by the U.S. residential and commercial

sectors (primarily the residential sector) is not included.

R=Revised data.

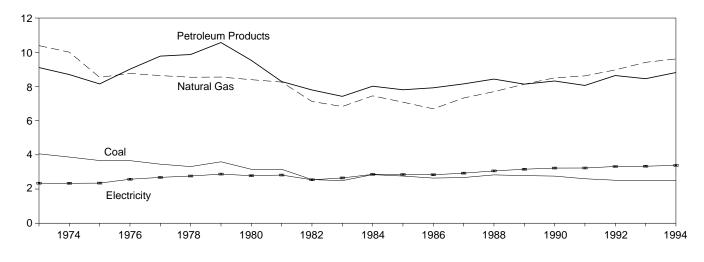
Notes: • Totals may not equal sum of components due to independent bunding. • Geographic coverage is the 50 States and the District of rounding. • Columbia.

Additional Notes and Sources: See end of section.

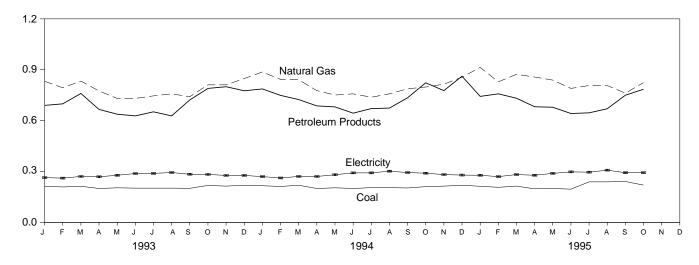
# Figure 2.3 Industrial Energy Consumption

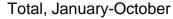
(Quadrillion Btu)

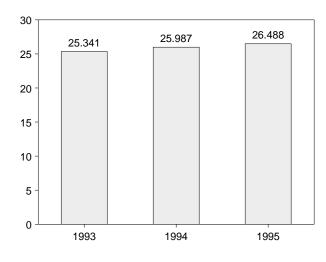
By Major Sources, 1973-1994



## By Major Sources, Monthly

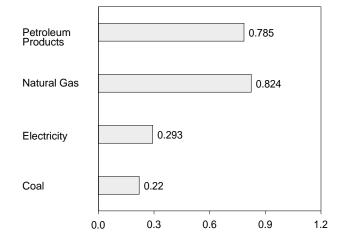






Note: Because vertical scales differ, graphs should not be compared. Source: Table 2.4.

By Major Sources, October 1995



### Table 2.4 Industrial Energy Consumption

(Quadrillion Btu)

	Coal	Natural Gas <sup>a</sup>	Petroleum Products <sup>b</sup>	Hydro- electric Power	Net Imports of Coal Coke	Primary Consumption	Electricity	Net Consumption	Electrical System Energy Losses	Total Consumption <sup>c</sup>
						•				
1973 Total	4.057	10.388	9.104	0.035	-0.007	23.576	2.341	25.917	5.611	31.528
1974 Total	3.870	10.004	8.694	.033	.056	22.657	2.337	24.994	5.700	30.694
1975 Total	3.667	8.532	8.146	.032	.014	20.391	2.346	22.737	5.665	28.402
1976 Total	3.661	8.762	9.010	.033	(s)	21.465	2.573	24.038	6.198	30.236
1977 Total 1978 Total	3.454 3.314	8.635 8.539	9.774 9.867	.033 .032	.015 .125	21.911 21.876	2.682 2.761	24.593 24.637	6.484 6.755	31.077 31.392
1979 Total	3.593	8.549	10.568	.032	.063	22.807	2.873	25.679	6.936	32.616
1980 Total	3.155	8.395	9.525	.034	035	21.073	2.781	23.854	6.752	30.606
1981 Total	3.155	8.257	8.285	.033	016	19.715	2.817	22.533	6.707	29.240
1982 Total	2.552	7.121	7.794	.033	022	17.479	2.542	20.020	6.125	26.145
1983 Total	2.490	6.826	7.420	.033	016	16.753	2.648	19.401	6.359	25.759
1984 Total	2.842	7.448	8.014	.033	011	18.325	2.859	21.184	6.683	27.867
1985 Total	2.760	7.080	7.805	.033	013	17.665	2.855	20.520	6.694	27.214
1986 Total	2.640	6.690	7.920	.033	017	17.267	2.834	20.101	6.529	26.630
1987 Total	2.673	7.323	8.150	.033	.009	18.188	2.928	21.116	6.710	27.826
1988 Total	2.828	7.696	8.430	.033	.040	19.026	3.059	22.085	6.901	28.986
1989 Total	2.787	8.131	8.133	.033	.030	19.113	3.158	22.272	7.082	29.353
1990 Total	2.756	8.502	8.319	.033	.005	19.615	3.226	22.841	7.095	29.936
1991 Total	2.601	8.619	8.057	.033	.009	19.319	3.230	22.549	7.021	29.570
1992 Total	2.515	8.967	8.638	.033	.027	20.180	3.319	23.498	7.079	30.577
1993 January	.213	.832	.690	.003	.004	1.742	.264	2.006	.562	2.567
February	.209	.794	.699	.003	(s)	1.703	.261	1.964	.524	2.489
March	.213	.833	.760	.003	.003	1.812	.271	2.084	.566	2.649
April	.200	.775	.666	.003	.002	1.646	.269	1.915	.540	2.455
May	.204	.731	.638	.003	.002	1.578	.278	1.857	.606	2.463
June	.202	.731	.628	.003	.003	1.566	.288	1.854	.639	2.493
July	.202	.746	.652	.003	(s)	1.603	.289	1.892	.645	2.537
August	.202	.758	.628	.002	.002	1.592	.294	1.886	.637	2.523
September	.201	.741	.722	.002	001	1.665	.284	1.949	.539	2.488
October November	.218 .214	.811 .811	.790 .800	.002 .002	.001	1.823 1.827	.283 .277	2.106 2.104	.572 .587	2.678 2.691
December	.214	.848	.800	.002	(s) .002	1.846	.277	2.104	.587	2.091
Total	2.496	9.410	8.453	.032	.002	20.409	3.334	23.743	7.010	30.753
1994 January	.216	.887	.787	.003	.004	1.897	.270	2.168	.576	2.744
February	.210	.843	.749	.003	004	1.806	.262	2.068	.510	2.578
March	.212	.841	.724	.003	.002	1.789	.202	2.060	.573	2.633
April	.200	.777	.687	.003	.002	1.670	.271	1.941	.556	2.497
May	.200	.751	.681	.003	.002	1.642	.281	1.923	.619	2.541
June	.200	.758	.644	.003	.003	1.608	.292	1.900	.656	2.555
July	.205	.738	.671	.003	(S)	1.616	.292	1.908	.625	2.533
August	.205	.758	.674	.002	.002	1.641	.302	1.943	.650	2.593
September	.203	.788	.735	.002	.003	1.731	.294	2.026	.568	2.593
October	.211	.798	.823	.002	.005	1.840	.290	2.130	.589	2.719
November	.214	.815	.777	.002	001	1.807	.282	2.089	.592	2.681
December	.219	.856	.862	.002	.002	1.941	.279	2.220	.594	2.814
Total	2.510	9.609	8.813	.032	.024	20.988	3.386	24.374	7.108	31.482
1995 January	<sup>R</sup> .213	.914	.743	.003	.004	<sup>R</sup> 1.877	.278	<sup>R</sup> 2.155	<sup>R</sup> .577	<sup>R</sup> 2.732
February	<sup>R</sup> .207	.829	.758	.003	.002	<sup>R</sup> 1.798	.270	<sup>R</sup> 2.069	<sup>R</sup> .525	<sup>R</sup> 2.594
March	<sup>R</sup> .214	.873	.732	.003	.003	<sup>R</sup> 1.824	.282	<sup>R</sup> 2.106	<sup>R</sup> .583	<sup>R</sup> 2.689
April	.198	.857	.682	.003	.001	<sup>R</sup> 1.741	.278	<sup>R</sup> 2.019	<sup>R</sup> .568	<sup>R</sup> 2.587
May	.200	.839	.679	.003	.004	<sup>R</sup> 1.725	.289	<sup>R</sup> 2.015	<sup>R</sup> .634	<sup>R</sup> 2.648
June	.196 <sup>R</sup> .239	.790	.642	.003	.001	<sup>R</sup> 1.632	.298	<sup>R</sup> 1.930	<sup>R</sup> .634	<sup>R</sup> 2.564
July	° .239	.807	.646	.003	.002	<sup>R</sup> 1.696	.296	<sup>R</sup> 1.992	<sup>R</sup> .661	<sup>R</sup> 2.653
August	R.239	.807	.670	.002	.001	<sup>R</sup> 1.720	.308	<sup>R</sup> 2.028	<sup>R</sup> .671	<sup>R</sup> 2.700
September	<sup>R</sup> .241	<sup>R</sup> .762	.750	.002	.002	<sup>R</sup> 1.757	.293	<sup>R</sup> 2.050	<sup>R</sup> .552	<sup>R</sup> 2.602
October 10-Month Total	.220 <b>2.166</b>	.824 <b>8.303</b>	.785 <b>7.086</b>	.002 <b>.028</b>	.003 <b>.022</b>	1.833 <b>17.604</b>	.293 <b>2.886</b>	2.126 <b>20.490</b>	.594 <b>5.998</b>	2.720 <b>26.488</b>
1994 10-Month Total	2.076	7.939	7.174	.028	.022	17.240	2.825	20.065	5.922	25.987

<sup>a</sup> Includes supplemental gaseous fuels.

<sup>b</sup> Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.
 <sup>c</sup> Due to a lack of consistent historical data, some renewable energy

<sup>c</sup> Due to a lack of consistent historical data, some renewable energy sources are not included. For example, in 1992, an estimated 2.3 quadrillion Btu of renewable energy consumed by the U.S. industrial sector (primarily the pulp and paper industry) is not included.

R=Revised data. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.

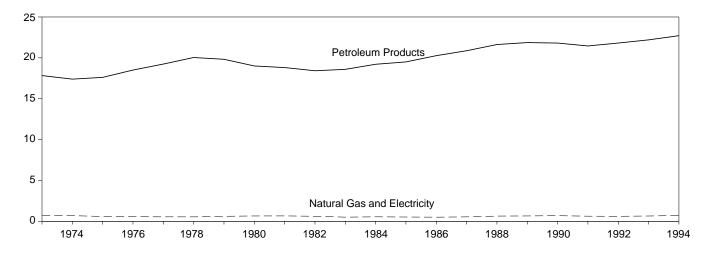
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Additional Notes and Sources: See end of section.

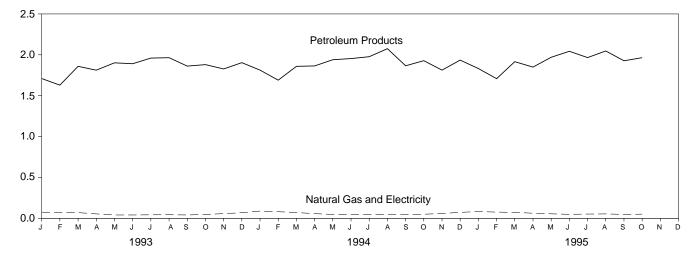
# Figure 2.4 Transportation Energy Consumption

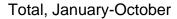
(Quadrillion Btu)

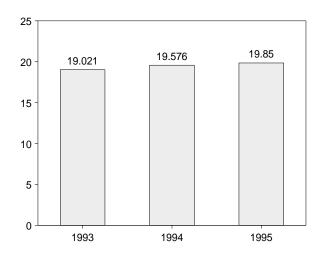
By Major Sources, 1973-1994



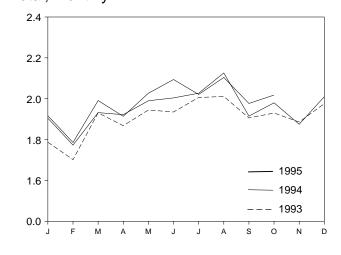
# By Major Sources, Monthly







Total, Monthly



Note: Because vertical scales differ, graphs should not be compared. Source: Table 2.5.

### Table 2.5 Transportation Energy Consumption

(Quadrillion Btu)

	Coal	Natural Gas <sup>a</sup>	Petroleum Products <sup>b</sup>	Primary Consumption	Electricity	Net Consumption	Electrical System Energy Losses	Total Consumption <sup>6</sup>
973 Total	0.003	0.743	17.831	18.576	0.008	18.584	0.020	18.605
974 Total	.002	.685	17.399	18.086	.009	18.095	.022	18.117
975 Total	.001	.595	17.614	18.209	.010	18.219	.025	18.244
976 Total	(s)	.559	18.506	19.065	.010	19.076	.025	19.101
977 Total	(s) ( <sup>d</sup> )	.543	19.241	19.784	.010	19.794	.025	19.819
978 Total		.539	20.041	20.580	.009	20.589	.022	20.611
979 Total	(ď)	.612	19.825	20.436	.010	20.447	.025	20.472
980 Total	(d)	.650	19.008	19.658	.011	19.669	.026	19.695
981 Total	( <sup>d</sup> )	.658	18.811	19.469	.011	19.480	.026	19.507
982 Total	(d)	.612	18.420	19.032	.011	19.043	.026	19.069
983 Total	( <sup>d</sup> )	.505	18.593	19.098	.011	19.109	.026	19.135
984 Total		.545	19.216	19.761	.012	19.773	.028	19.801
985 Total	(°)	.519	19.504	20.024	.013	20.036	.030	20.067
986 Total	(d)	.499	20.269	20.768	.013	20.781	.031	20.812
987 Total	(d)	.535	20.871	21.406	.013	21.419	.029	21.448
988 Total		.632	21.629	22.260	.014	22.274	.031	22.305
989 Total		.649	21.868	22.517	.014	22.530	.031	22.561
990 Total		.680	21.810	22.490	.014	22.504 22.090	.031	22.535 22.120
991 Total 992 Total	( <sup>d</sup> )	.620	21.456	22.076	.014 .014	22.090	.030	22.120 22.461
992 10tal	(-)	.606	21.812	22.418	.014	22.432	.029	22.401
993 January	( <sup>d</sup> )	.074	1.710	1.784	.001	1.785	.002	1.787
February	(d)	.070	1.629	1.699	.001	1.700	.002	1.702
March	()	.069	1.859	1.927	.001	1.928	.002	1.931
April	(d)	.053	1.812	1.865	.001	1.866	.002	1.868
May	(b)	.040	1.902	1.942	.001	1.943	.002	1.945
June	(ˈb)	.040	1.891	1.931	.001	1.933	.002	1.935
July	(d)	.042	1.960	2.002	.001	2.003	.003	2.006
August	(d)	.043	1.965	2.007	.001	2.008	.003	2.011
September	(d)	.040	1.862	1.902	.001	1.903	.002	1.906
October	(d)	.047	1.880	1.927	.001	1.928	.002	1.930
November	(ˈb)	.056	1.827	1.883	.001	1.884	.002	1.886
December	(d)	.068	1.904	1.973	.001	1.974	.002	1.976
Total	( <sup>d</sup> )	.642	22.201	22.842	.013	22.856	.028	22.883
994 January	( <sup>d</sup> )	.088	1.813	1.901	.001	1.902	.002	1.905
February	(d)	.080	1.690	1.770	.001	1.771	.002	1.773
March	(d)	.070	1.859	1.929	.001	1.930	.002	1.932
April	(d)	.056	1.864	1.919	.001	1.920	.002	1.922
May	(d)	.047	1.940	1.987	.001	1.988	.002	1.990
June	(d)	.047	1.954	2.001	.001	2.002	.003	2.004
July	(d)	.046	1.977	2.024	.001	2.025	.003	2.027
August	(ˈb)	.047	2.075	2.123	.001	2.124	.003	2.126
September	(d)	.045	1.866	1.911	.001	1.912	.002	1.915
October	(d)	.049	1.928	1.977	.001	1.978	.002	1.980
November	(d)	.058	1.813	1.871	.001	1.872	.002	1.875
December	(d)	.072	1.935	2.007	.001	2.008	.002	2.010
Total	(ď)	.705	22.714	23.420	.013	23.433	.028	23.461
995 January	( <sup>d</sup> )	.082	1.832	1.913	.001	1.915	.002	1.917
February	(d)	.075	1.708	1.783	.001	1.784	.002	1.786
March	(d)	.072	1.916	1.988	.001	1.989	.002	1.991
April	(d)	.061	1.850	1.911	.001	1.912	.002	1.914
May	(d)	.054	1.970	2.024	.001	2.025	.002	2.027
June	(d)	.048	2.043	2.091	.001	2.092	.002	2.094
July	(d)	.051	1.966	2.017	.001	2.018	.003	2.021
August	(b)	.053	2.047	2.100	.001	2.101	.003	2.104
September	(b)	.047	1.927	1.974	.001	1.975	.002	1.977
October	(d)	.050	1.965	2.015	.001	2.016	.002	2.018
10-Month Total	(d)	.592	19.223	19.815	.011	19.827	.023	19.850
994 10-Month Total	( <sup>d</sup> ) ( <sup>d</sup> )	.576	18.966	19.541	.011	19.552	.023	19.576
	1 ~ 1	5/6	18 966					

<sup>a</sup> Pipeline fuel only, including supplemental gaseous fuels.
 <sup>b</sup> Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.
 <sup>c</sup> Due to a lack of consistent historical data, some renewable energy sources are not included. For example, in 1992, an estimated 0.1 quadrillion Btu of renewable energy consumed by the U.S. transportation sector is not included.

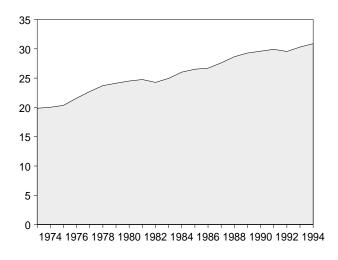
 $^{\rm d}$  Since 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption. R=Revised data. (s)=Less than 0.5 trillion Btu.

Notes: • Totals may not equal sum of components due to independent bunding. • Geographic coverage is the 50 States and the District of Columbia. Geographic coverage is the 50 Stat Columbia. Additional Notes and Sources: See end of section.

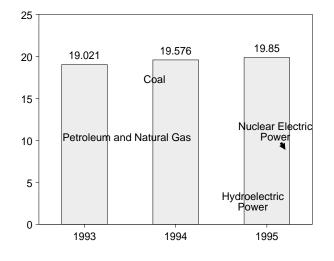
# Figure 2.5 Energy Input at Electric Utilities

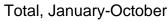
(Quadrillion Btu)

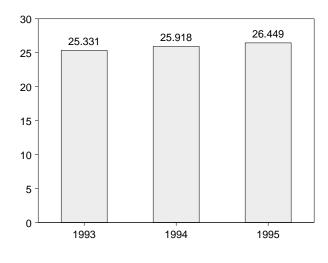
Total, 1973-1994



# By Major Sources, 1973-1994

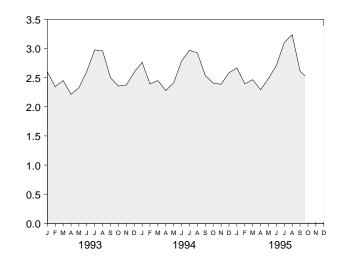




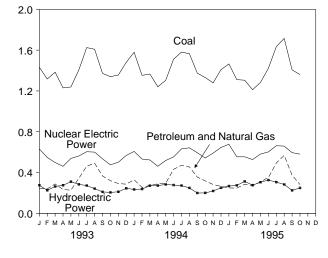


Note: Because vertical scales differ, graphs should not be compared. Source: Table 2.6.

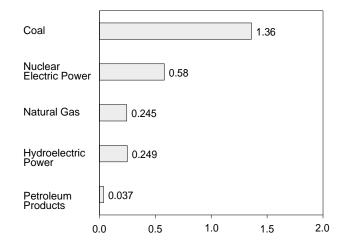
Total, Monthly



By Major Sources, Monthly



By Major Sources, October 1995



### Table 2.6 Energy Input at Electric Utilities

(Quadrillion Btu)

	Cool	Natural Gas <sup>a</sup>	Petroleum Products <sup>b</sup>	Nuclear Electric Power	Hydro- electric Power <sup>c</sup>	Geothermal	Otherd	Tatal
	Coal	Gasa	Products	Power	Power	Energy	Other	Total
73 Total	8.658	3.748	3.515	0.910	2.975	0.043	0.003	19.852
74 Total	8.534	3.519	3.365	1.272	3.276	.053	.003	20.022
75 Total	8.786	3.240	3.166	1.900	3.187	.070	.002	20.350
76 Total	9.720	3.152	3.477	2.111	3.032	.078	.003	21.574
77 Total	10.262	3.284	3.901	2.702	2.482	.077	.005	22.713
78 Total	10.238	3.297	3.987	3.024	3.110	.064	.003	23.724
79 Total	11.260	3.613	3.283	2.776	3.107	.084	.005	24.128
30 Total	12.123	3.810	2.634	2.739	3.085	.110	.005	24.505
31 Total	12.583	3.768	2.202	3.008	3.072	.123	.003	24.760
82 Total	12.582	3.342	1.568	3.131	3.539	.105	.003	24.270
33 Total	13.213	2.998	1.544	3.203	3.866	.129	.003	24.956
	14.020	3.220	1.286	3.553	3.767	.165	.004	24.930
84 Total	14.542	3.160	1.090	4.149	3.365	.198	.009	
85 Total								26.519
36 Total	14.444	2.691	1.452	4.471	3.413	.219	.012	26.703
37 Total	15.173	2.935	1.257	4.906	3.084	.229	.016	27.600
38 Total	15.850	2.709	1.563	5.661	2.630	.217	.017	28.648
39 Total	15.988	2.871	1.685	5.677	2.848	.197	.020	29.286
90 Total	16.189	2.882	1.250	6.161	2.914	.181	.021	29.599
91 Total	16.028	2.856	1.178	6.579	3.083	.170	.021	29.915
92 Total	16.211	2.826	.951	6.607	2.760	.170	.022	29.547
<b>33</b> January	1.432	.168	.077	.631	.275	.014	.002	2.599
February	1.317	.165	.074	.548	.226	.013	.002	2.346
March	1.384	.198	.090	.498	.263	.014	.002	2.450
April	1.230	.178	.055	.461	.275	.014	.002	2.214
May	1.239	.171	.056	.538	.310	.012	.001	2.328
June	1.406	.260	.083	.562	.284	.012	.001	2.608
July	1.625	.341	.121	.604	.272	.013	.001	2.977
August	1.609	.365	.126	.600	.242	.014	.002	2.957
September	1.372	.264	.102	.534	.210	.013	.002	2.497
October	1.340	.240	.080	.475	.205	.013	.002	2.355
November	1.356	.213	.079	.501	.211	.013	.002	2.374
December	1.480	.178	.108	.567	.245	.013	.002	2.594
Total	16.790	2.741	1.052	6.519	3.017	.158	.021	30.299
94 January	1.579	.174	.155	.607	.234	.013	.002	2.764
February	1.353	.152	.103	.532	.238	.012	.002	2.392
March	1.366	.190	.084	.523	.230	.012	.002	2.392
April	1.241	.208	.084	.525	.271	.012	.002	2.449
•	1.304	.208	.074	.518	.272			
May						.012	.002	2.413
June	1.512	.326	.106	.553	.277	.011	.002	2.786
July	1.581	.370	.100	.632	.272	.012	.002	2.969
August	1.565	.391	.064	.642	.249	.013	.002	2.925
September	1.374	.302	.053	.594	.199	.012	.002	2.535
October	1.332	.270	.048	.542	.200	.012	.002	2.406
November	1.279	.236	.047	.590	.219	.012	.002	2.386
December	1.409	.212	.052	.646	.250	.012	.002	2.584
Total	16.895	3.053	.968	6.841	2.964	.145	.020	30.887
<b>95</b> January	<sup>R</sup> 1.465	.203	.046	.677	.267	.009	.001	<sup>R</sup> 2.667
February	<sup>R</sup> 1.311	.172	.075	.554	.274	.006	.001	<sup>R</sup> 2.393
March	<sup>R</sup> 1.305	.251	.034	.554	.313	.007	.001	<sup>R</sup> 2.465
April	<sup>R</sup> 1.212	.234	.036	.527	.276	.006	.002	<sup>R</sup> 2.292
May	<sup>R</sup> 1.284	.263	.047	.581	.305	.005	.001	<sup>R</sup> 2.487
June	<sup>R</sup> 1.422	.303	.048	.602	.326	.006	.001	<sup>R</sup> 2.709
July	<sup>R</sup> 1.634	.414	.079	.663	.306	.006	.002	<sup>R</sup> 3.103
August	<sup>R</sup> 1.715	.477	.091	.659	.283	.011	.002	<sup>R</sup> 3.237
September	<sup>R</sup> 1.407	.323	.051	.595	.205	.008	.002	<sup>R</sup> 2.610
October	1.360	.323	.037	.580	.225	.008	.002	2.610
10-Month Total	14.114	2.885	.544	5.991	2.824 2.824	.013	.002 .014	2.400 26.449
4 10-Month Total 3 10-Month Total	14.207	2.604	.869	5.604	2.495	.121	.017	25.918

<sup>a</sup> Includes supplemental gaseous fuels.
 <sup>b</sup> Includes residual and distillate fuel oils, petroleum coke, and small amounts of kerosene and jet fuel.
 <sup>c</sup> Includes net imports of electricity.
 <sup>d</sup> "Other" is electricity generated for distribution from wood, waste, wind, photovoltaic, and solar thermal energy.

R=Revised data.

Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia. Additional Notes and Sources: See end of section.

# Energy Consumption Notes and Sources

The data in this section of the Monthly Energy Review (MER) are obtained initially from a group of energy-related surveys, typically called "supply surveys," conducted by the Energy Information Administration (EIA). Supply surveys are those surveys directed to suppliers and marketers of specific energy sources. They measure the quantities of specific energy sources produced, or the quantities supplied to the market, or both. The data obtained from the EIA's supply surveys are integrated to yield the summary consumption statistics published in this section (and in Section 1) of the MER. Users of the EIA's energy consumption statistics should be aware of a second group of energy-related surveys, typically called "consumption surveys." Consumption surveys gather information on the types of energy consumed by end users of energy, along with the characteristics of those end users that can be associated with energy use. For example, the Manufacturing Energy Consumption Survey belongs to the consumption survey group because it collects information directly from end users (the manufacturing establishments). There are important differences between the supply and consumption surveys that need to be taken into account in any analysis that uses both data sources. For information on those differences, see Energy Consumption by End-Use Sector, A Comparison of Measures by Consumption and Supply Surveys, DOE/EIA-0533, Energy Information Administration, Washington, DC, April 6, 1990. The numbered notes that follow elaborate on essential information in Section 2.

**1. Total Energy Consumed:** Total energy consumed includes coal, natural gas (including supplemental gaseous fuels), petroleum products supplied, electric utility and industrial generation of hydroelectric power, net imports of electricity generated from hydroelectric power, and electricity generated from nuclear power. Total energy consumed also includes electricity generated from geothermal, wood, waste, wind, photovoltaic, and solar thermal energy but excludes other energy obtained from those sources because consistent historical data are not available.

**2. Economic Sectors:** Energy use is assigned to the major economic sectors according to the following guidelines as closely as possible:

- Residential—All private residences, whether occupied or vacant, owned or rented, including single-family homes, multifamily housing units, and mobile homes. Secondary homes, such as summer homes, are also included. Institutional housing, such as school dormitories, hospitals, and military barracks, generally are not included in the residential sector; they are included in the commercial sector.
- Commercial—Business establishments that are not engaged in transportation or in manufacturing or

other types of industrial activity (agriculture, mining, or construction). Commercial establishments include hotels, motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; religious and nonprofit organizations; health, social, and educational institutions; and Federal, State, and local governments. Street lights, pumps, bridges, and public services are also included if the establishment operating them is considered commercial.

- Industrial—Manufacturing industries, which make up the largest part of the sector, along with mining, construction, agriculture, fisheries, and forestry. Establishments in this sector range from steel mills to small farms to companies assembling electronic components.
- Transportation—Private and public vehicles that move people and commodities. Included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges, and natural gas pipelines.
- Electric Utility—Privately and publicly owned establishments that generate, transmit, distribute, and sell electricity primarily for use by the public and meet the definition of an electric utility. Nonutility power producers are not included in the electric utility sector.

Although the end-use allocations are made according to these aggregations as closely as possible, some data are collected by using different classifications. For example, data on agricultural use of natural gas are collected and reported in the commercial sector, rather than in the industrial sector. Since agricultural use of natural gas cannot be identified separately, it is included in the commercial sector in this report. Another example is master-metered condominiums and apartments, and buildings with a combination of residential and commercial units. In many cases, the metering and billing practices cause residential energy usage of electricity, natural gas, or fuel oil to be included in the commercial sector. No adjustments for these discrepancies were made.

**3. Conversion Factors:** See the conversion factors listed in Appendix A.

**4. Coal:** Coal is anthracite, bituminous coal (including subbituminous coal), and lignite. Sources:

- 1973-October 1977: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook* and *Minerals Industry Surveys*.
- Electric Utilities—October 1977 forward: Energy Information Administration (EIA), Form EIA-759 (formerly Federal Power Commission (FPC) Form FPC-4), "Monthly Power Plant Report."
- Other Industrial—October 1977-December 1979: EIA, Form EIA-3, "Monthly Coal Consumption Report -Manufacturing Plants"; January 1980 for-

ward: EIA, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants," and Form EIA-6, "Coal Distribution Report," quarterly.

- Coke Plants—October 1977-December 1980: EIA, Form EIA-5/5A, "Coke and Coal Chemicals - Monthly/Annual"; January 1981-December 1984: EIA, Form EIA-5/5A, "Coke Plant Report - Quarterly/Annual Supplement"; January 1985 forward: EIA, Form EIA-5/5A, "Coke Plant Report - Quarterly."
- Residential and Commercial—October 1977-December 1979: EIA, Form EIA-2, "Monthly Coal Report, Retail Dealers - Upper Lake Docks"; January 1980 forward: EIA, Form EIA-6, "Coal Distribution Report," quarterly.

**5. Natural Gas:** Natural gas consumption by end use is based on data presented in Table 4.4 of this report. For Section 2 calculations, lease and plant fuel consumption are added to industrial deliveries, and pipeline fuel represents transportation use of natural gas. Values in Btu are derived by using the conversion factors provided in Appendix A. Sources:

- 1973-1975: DOI, BOM, *Minerals Yearbook*, "Natural Gas" chapter.
- 1976-1978: EIA, *Energy Data Reports*, "Natural Gas, Annual."
- 1979: EIA, Natural Gas Production and Consumption 1979.
- 1980-1994: EIA, Natural Gas Annual.
- 1995: EIA, Natural Gas Monthly.
- Electric Utilities—1973-1976: Form FPC-4, "Monthly Power Plant Report"; 1977-1981: Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report"; 1982 forward: EIA, Form EIA-759, "Monthly Power Plant Report."
- American Gas Association, "Monthly Gas Utility Statistical Report," residential and commercial monthly sales data for 1973-1979, which are used to estimate monthly consumption values from EIA annual consumption values.

**6. Petroleum:** Petroleum consumption by end use is the sum of all individual petroleum products estimated to be consumed in each end-use sector. First, total consumption by product is determined. Petroleum consumption in this section of the *Monthly Energy Review (MER)* is the series called "petroleum products supplied" in Section 3. Sources for petroleum products supplied by individual products are:

- 1973-1975: DOI, BOM, *Mineral Industry Surveys*, "Petroleum Statement, Annual."
- 1976-1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual."
- 1981-1994: EIA, Petroleum Supply Annual.

• 1995: EIA, Petroleum Supply Monthly.

Specific petroleum products' end-use allocation procedures follow:

- Aviation Gasoline—All product supplied is assigned to the transportation sector.
- Asphalt—All product supplied is assigned to the industrial sector.
- **Distillate Fuel**—Product supplied is assigned to electric utilities and non-electric utilities as follows:

#### Electric Utilities, All Periods.

For 1973-1979, consumption of distillate fuel is assumed to be the amount of petroleum (minus small amounts of kerosene and kerosene-type jet fuel deliveries) consumed in gas turbine and internal combustion plants. For 1980 forward, consumption of distillate fuel is assumed to be the amount of light oil (minus small amounts of kerosene deliveries through 1982) consumed at electric utilities. (See Table 7.3)

Sources: 1973-September 1977: FPC, Form FPC-4, "Monthly Power Plant Report"; October 1977-1981: FERC, Form FPC-4, "Monthly Power Plant Report"; 1982 forward: EIA, Form EIA-759, "Monthly Power Plant Report."

# Sectors Other Than Electric Utilities, Annual Estimates Through 1993.

The aggregate non-electric utility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The non-electric utility annual consumption totals are allocated to the individual non-electric utility sectors (residential, commercial, industrial, and transportation) in proportion to the share of "adjusted sales" of each end-use sector, as reported in EIA's Fuel Oil and Kerosene Sales report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, previously Form EIA-172. "Adjusted sales" are sales that have been adjusted at the PAD district level to equal EIA volume estimates of petroleum products supplied in the U.S. market. Following are notes on the individual sector groupings:

- Since 1979, the residential sector adjusted sales total is directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares.

- Since 1979, the commercial sector adjusted sales total is directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus

industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares.

- Since 1979, the industrial sector adjusted sales total is the sum of the adjusted sales for industrial, farm, oil company, off-highway, diesel, and all other uses. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares, and this estimated industrial portion is added to oil company, off-highway diesel, and all other uses.

- The transportation sector adjusted sales total is the sum of the adjusted sales for railroad, vessel bunkering, on-highway diesel, and military uses for all years.

#### Sectors Other Than Electric Utilities, Monthly Estimates Through 1993.

- Residential and commercial monthly consumption is estimated by allocating the annual estimates, which are described above, into the months in proportion to each month's share of the year's sales of No. 2 heating oil. The years' sales totals are from the following sources: for 1973-1980, the Ethyl Corporation, *Monthly Report of Heating Oil Sales;* for 1981 and 1982, the American Petroleum Institute, *Monthly Report of Heating Oil Sales;* and for 1983-1992, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

- The transportation highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." The remaining transportation use of distillate fuel (i.e., for railroads, vessel bunkering, and military use) is evenly distributed over the months, adjusted for the number of days per month.

- Industrial monthly estimates are made by subtracting the residential and commercial, transportation, and electric utility sector estimates from each month's total distillate fuel supplied.

# Sectors Other Than Electric Utilities, 1994 and 1995.

Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1993.

• Jet Fuel—Through 1982, small amounts of kerosene-type jet fuel were consumed by electric utilities. Kerosene-type jet fuel deliveries to electric utilities as reported on the Form FERC-423 (formerly Form FPC-423) were used as estimates of this consumption. All remaining jet fuel (kerosene-type and naphtha-type) is consumed by the transportation sector.

• **Kerosene**—Total product supplied monthly is allocated to the major end-use sectors in proportion to annual sales grouped into end-use sectors from EIA's *Fuel Oil and Kerosene Sales* reports (based primarily on data collected by Form EIA-821, previously Form EIA-172), as follows:

- Residential deliveries are taken directly from the *Sales* reports for 1979-1993. Sales for 1993 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

- Commercial sales are directly from the *Sales* reports for 1979-1993. Sales for 1993 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

- Industrial sales are directly from the *Sales* reports for 1979-1993. Sales for 1993 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to all other uses.

• Liquefied Petroleum Gases (LPG)—The annual shares of LPG's total consumption that are estimated to be consumed by each end-use sector are applied to each month's total LPG consumption (i.e., product supplied) to create monthly end-use consumption estimates. The annual end-use shares are calculated in the following manner:

- Sales of LPG to the residential and commercial sector are converted from thousand gallons per year to thousand barrels per year and are assumed to be the annual consumption of LPG by the sector.

- The quantity of LPG sold each year for consumption in internal combustion engines is allocated between the transportation and industrial sectors on the basis of data for special fuels used on highways published by the U.S. Department of Transportation, Federal Highway Administration, in *Highway Statistics*. The allocations of LPG sold for internal combustion engine use to the transportation sector range from a high of 67 percent in 1981 to a low of 37 percent in 1987.

- LPG consumed annually by the industrial sector is estimated as the difference between LPG total supplied and the estimated consumption of LPG by the sum of the residential and commercial sector and the transportation sector. The industrial sector includes LPG used by chemical plants as raw materials or solvents and used in the production of synthetic rubber; refinery fuel use; use as synthetic natural gas feedstock and use in secondary recovery projects; all farm use; LPG sold to gas utility companies for distribution through the mains; and a portion of the use of LPG as an internal combustion engine fuel.

The sources of the annual sales data for creating annual end-use shares are:

- 1973-1982: EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174.

- 1983: End-use consumption estimates for 1983 are based on 1982 end-use consumption because the collection of data under Form EIA-174 was discontinued after data year 1982.

- 1984-1993: American Petroleum Institute (API), "Sales of Natural Gas Liquids and Liquefied Refinery Gases," which is based on an LPG sales survey jointly sponsored by API, the Gas Processors Association, and the National Liquefied Petroleum Gas Association.

- 1994 and 1995: The 1993 source is used to estimate succeeding periods.

• Lubricants—Total product supplied is allocated to the industrial and transportation sectors for all months according to proportions developed from annual sales of lubricants to the two 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 to 1977 forward.

• Motor Gasoline—Total product supplied monthly is allocated to the major end-use sectors in proportion to aggregations of annual sales categories created on the basis of the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Tables MF-21, MF-24, and MF-25, as follows:

- Commercial sales are the sum of sales for public non-highway use and miscellaneous and unclassified uses.

- Industrial sales are the sum of sales for agriculture, construction, and industrial and commercial use as classified in the *Highway Statistics*.

- Transportation sales are the sum of sales for highway use (minus the sales of special fuels, which are primarily diesel fuel and are accounted for in the transportation sector of distillate fuel) and sales for marine use.

- **Petroleum Coke**—The portion consumed by electric utilities is from Form EIA-759, "Monthly Power Plant Report" (formerly Form FPC-4). The remaining petroleum coke is assigned to the industrial sector.
- **Residual Fuel**—Product supplied is assigned to electric utilities and non-electric utilities as follows:

#### Electric Utilities, All Periods.

For 1973-1979, consumption of residual fuel is assumed to be the amount of petroleum consumed in steam-electric power plants. For 1980 forward, consumption of residual fuel is assumed to be the amount of heavy oil consumed at electric utilities. (See Table 7.3)

Sources: 1973-September 1977: Form FPC-4, "Monthly Power Plant Report"; October 1977-1981: FERC, Form FPC-4, "Monthly Power Plant Report"; 1982 forward: EIA, Form EIA-759, "Monthly Power Plant Report."

#### Sectors Other Than Electric Utilities, Annual Estimates Through 1993.

The aggregate non-electric utility use of residual fuel is total residual fuel supplied minus the electric utility consumption. The non-electric utility annual totals are allocated into the individual non-electric utility sectors in proportion to the amount of residual fuel sold to end users, grouped into sectors from EIA's *Fuel Oil and Kerosene Sales* reports (based primarily on data collected by Form EIA-821, previously Form EIA-172), as follows:

- Since 1979, commercial sales data are directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares.

- Since 1979, industrial sales data are the sum of sales for industrial, oil company, and all other uses. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares, and this estimated industrial portion is added to oil company and all other uses.

- Transportation sales are the sum of sales for railroad, vessel bunkering, and military uses for all years.

Sectors Other Than Electric Utilities, Monthly Estimates Through 1993. - Commercial monthly consumption is estimated by allocating the annual estimates, which are described above, into the months in proportion to each month's share of the year's sales of No. 2 heating oil. The years' sales totals are from the following sources: for 1973-1980, the Ethyl Corporation, *Monthly Report of Heating Oil Sales*; for 1981 and 1982, the American Petroleum Institute, *Monthly Report of Heating Oil Sales*; and for 1983-1992, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

- Transportation monthly estimates are made by evenly distributing the annual sector estimate over the months, adjusting for the number of days per month.

- Industrial monthly estimates are made by subtracting the commercial, transportation, and electric utility sector estimates from each month's total residual fuel supplied.

# Sectors Other Than Electric Utilities, 1994 and 1995.

Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1993.

- **Road Oil**—All product supplied is assigned to the industrial sector.
- All Other Petroleum Products—The product supplied of all remaining petroleum products is assigned to the industrial sector.

7. Nuclear Electric Power, Geothermal, and Wood, Waste, Wind, Photovoltaic, and Solar Thermal Energy Sources Connected to Electric Utility Distribution Systems: Sources:

- 1973-1976: FPC, Form FPC-4, "Monthly Power Plant Report."
- 1977-1981: FERC, Form FPC-4, "Monthly Power Plant Report."
- 1982 forward: EIA, Form EIA-759, "Monthly Power Plant Report."

**8. Hydroelectric Power:** Includes electricity generated by hydroelectric power at electric utilities, small amounts in the industrial sector, and net imports of electricity, which are assumed to be generated by hydroelectric power and are included in the electric utilities sector.

Sources for electric utilities sector:

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

- 1977-1981: FERC, Form FPC-4, "Monthly Power Plant Report."
- 1982 forward: EIA, Form EIA-759, "Monthly Power Plant Report."

Sources for industrial sector:

- 1973-1978: FPC, Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and FPC, Form FPC-12C, "Industrial Electric Generating Capacity," for all other plants.
- 1979: FPC, Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts and EIA estimates for all other plants.
- 1980 forward: Annual generation estimated by EIA as the average generation over the 6-year period of 1974-1979; monthly generation estimated to be in proportion to each month's hydroelectricity generation in the electric utility industry in 1980.

Sources for imports and exports of electricity:

- 1973-September 1977: Unpublished Federal Power Commission data.
- October 1977-1980: Unpublished Economic Regulatory Administration (ERA) data.
- 1981: DOE, Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982).
- 1982 and 1983: DOE, ERA, Electricity Exchanges Across International Borders.
- 1984-1986: DOE, ERA, Electricity Transactions Across International Borders.
- 1987 and 1988: DOE, ERA, Form ERA-781R, "Annual Report of International Electrical Export/Import Data."
- 1989-1992: DOE, Assistant Secretary for Fossil Energy, Form FE-781-R, "Annual Report of International Electrical Export/Import Data."
- 1993 forward: EIA estimates based on preliminary data from the National Energy Board of Canada and DOE, Assistant Secretary for Fossil Energy.

**9. Net Imports of Coal Coke:** Net imports means imports minus exports, and a minus sign indicates that exports are greater than imports. Sources:

- 1973-1975: DOI, BOM, *Minerals Yearbook*, "Coke and Coal Chemicals" chapter.
- 1976-1980: EIA, *Energy Data Report*, "Coke and Coal Chemicals" annual.

- 1981: EIA, *Energy Data Report*, "Coke Plant Report," quarterly.
- 1982 forward: EIA, Quarterly Coal Report.

**10. Electricity:** End-use consumption of electricity is based on Table 7.2 sales data. "Other," which is primarily for use in government buildings, is added to the commercial sector, except for approximately 4 percent used by railroads and railways and attributed to the transportation sector. For 1973-1983 and 1994, "Monthly Series" data are used directly. For 1984-1993, monthly estimates are created by dividing each month's "Monthly Series" value by the "Monthly Series" total for the year and multiplying by the "Annual Series" value for the year. Kilowatthours are converted to Btu at the rate of 3,412 Btu per kilowatthour. See Table 7.2 for sources of the electricity sales data.

**11. Electrical System Energy Losses:** Electrical system energy losses are calculated as the difference between total energy input at electric utilities and the total energy content of electricity sold to end-use consumers. Most of those losses occur at steam-electric

power plants (conventional and nuclear) in the conversion of heat energy into mechanical energy to turn electric generators. The loss is a thermodynamically necessary feature of the steam-electric cycle. Part of the energy input-to-output losses is a result of imputing fossil energy equivalent inputs for hydroelectric and other energy sources, since there is no generally accepted practice for measuring those thermal conversion rates. In addition to conversion losses, other losses include power plant use of electricity, transmission and distribution of electricity from power plants to end-use consumers (also called "line losses"), and unaccounted for electricity. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity sales. Overall, approximately 67 percent of total energy input is lost in conversion; of electricity generated, approximately 5 percent is lost in plant use and 9 percent is lost in transmission and distribution. Calculated electrical system energy losses may be less than actual losses, because primary consumption does not include the energy equivalent of utility purchases of electricity from non-electric utilities and from Canada and Mexico, although they are included in electricity sales.

# Section 3. Petroleum

Total petroleum imports<sup>2</sup> averaged 9.2 million barrels per day in November 1995, 7 percent higher than the previous month's rate and 5 percent<sup>3</sup> higher than the November 1994 rate.

In November 1995, 17.9 million barrels per day of petroleum products were supplied for domestic use, 3 percent higher than the November 1994 rate. Motor gasoline accounted for 44 percent of the total; distillate fuel oil, 18 percent; and residual fuel oil, 4 percent.

Motor gasoline supplied during November 1995 averaged 7.9 million barrels per day, 2 percent higher than the previous month's rate and 6 percent higher than the November 1994 rate. Total motor gasoline stocks were 197 million barrels at the end of November 1995, the same as the stock level in the previous month but 21 million barrels below the stock level 1 year earlier.

Distillate fuel oil supplied during November 1995 averaged 3.3 million barrels per day, 7 percent higher than the previous month's rate and 4 percent higher than the November 1994 rate. Distillate fuel oil ending stocks for November 1995 were 135 million barrels, 3 million barrels above the stock level in the previous month but 12 million barrels below the level 1 year earlier.

Residual fuel oil supplied in November 1995 averaged 0.7 million barrels per day, 11 percent lower than the previous month's rate and 17 percent lower than the November 1994 rate. Residual fuel oil stocks measured 37 million barrels at the end of November 1995, 1 million barrels below the stock level in the previous month and 7 million barrels below the stock level 1 year earlier.

Estimates (except of crude production) for the most current month are based on Energy Information Administration (EIA) weekly data and will be revised to conform with data from the EIA Petroleum Reporting System as available. For the most recent month, crude production is an EIA estimate based on historical and provisional data through August 1995.

<sup>&</sup>lt;sup>2</sup>Total import data include imports into the Strategic Petroleum Reserve. <sup>3</sup>Percentage changes are based on numbers shown in the following tables.

### Table 3.1a Petroleum Overview: Field Production, Stock Change, Petroleum Products Supplied, and Ending Stocks

		Field Production	ı	Stock	Change <sup>a</sup>		Ending Stocks
	Total Domestic <sup>c</sup>	Crude Oil	Natural Gas Plant Liquids	Crude Oil <sup>d</sup>	Petroleum Products	Petroleum Products Supplied	Crude Oil <sup>d</sup> and Petroleum Products
			Thousand Ba	arrels per Day	1	1	Million Barrels
973 Average	10,975	9,208	1,738	-11	146	17,308	1,008 <sup>e</sup> 1,074
974 Average	10,498	8,774	1,688	62 <sup>e</sup> 17	117 <sup>e</sup> 15	16,653	,
975 Average	10,045	8,375	1,633			16,322	1,133
976 Average	9,774	8,132	<sup>1</sup> 1,604	39	-96	17,461	1,112
977 Average	9,913	8,245	1,618	170	378	18,431	1,312
978 Average	10,328	8,707	1,567	78	-172	18,847	1,278
079 Average	10,179	8,552	1,584	148	25	18,513	1,341
980 Average	10,214	8,597	1,573	98	42	17,056	<sup>e</sup> 1,392
981 Average	10,230	8,572	1,609	<sup>e</sup> 290	<sup>e</sup> -130	16,058	1,484
982 Average	10,252	8,649	1,550	136	-283	15,296	<sup>e</sup> 1,430
983 Average	10,299	8,688	1,559	<sup>e</sup> 214	<sup>e</sup> -234	15,231	1,454
984 Average	10,554	8,879	1,630	199	81	15,726	1,556
985 Average	10,636	8,971	1,609	50	-153	15,726	1,519
986 Average	10,289	8,680	1,551	78	124	16,281	1,593
987 Average	10,008	8,349	1,595	128	-87	16,665	1,607
988 Average	9,818	8,140	1,625	1	-29	17,283	1,597
989 Average	9,219	7,613	1,546	86	-129	17,325	1,581
990 Average	8,994	7,355	1,559	-35	142	16,988	1,621
991 Average	9,168	7,333	1,659	-33	32	16,714	1,617
992 Average	8,996	7,171	1,697	-42	-68	17,033	<sup>e</sup> 1,592
	90.054	0.004	4 707	205	<sup>B</sup> FCO	40.470	4 640
<b>993</b> January	<sup>9</sup> 9,254	6,961	1,737	295	<sup>e</sup> 560	16,173	1,618
February	8,907	6,943	1,777	219	-796	17,334	1,602
March	8,987	6,974	1,793	212	-602	17,575	1,590
April	8,897	6,881	1,802	523	356	16,781	1,617
Мау	8,800	6,847	1,732	147	915	16,508	1,650
June	8,747	6,795	1,753	2	573	17,096	1,667
July	8,657	6,688	1,741	6	497	17,357	1,682
August	8,720	6,758	1,747	-505	299	17,332	1,676
September	8,652	6,712	1,732	-439	86	17,650	1,665
October	8,893	6,839	1,768	328	403	17,323	1,688
November	8,847	6,912	1,670	251	-320	17,780	1,686
December	8,668	6,858	1,579	-53	-1,198	17,953	1,647
Average	8,836	6,847	1,736	81	70	17,237	1,647
<b>994</b> January	8,694	6,817	1,615	90	-906	18,072	1,622
	8,611		1,633	-97	-1,190	18,337	1,586
February	,	6,770	,				,
March	8,675	6,746	1,668	324	-379	17,313	1,584
April	8,524	6,612	1,679	-68	284	17,489	1,591
May	8,614	6,688	1,711	-253	954	17,181	1,612
June	8,586	6,611	1,733	-104	497	17,815	1,624
July	8,550	6,501	1,753	148	824	17,485	1,654
August	8,526	6,544	1,760	-129	291	18,117	1,659
September	8,670	6,609	1,792	227	579	17,490	1,684
October	8,683	6,658	1,748	255	-607	17,719	1,673
November	8,758	6,628	1,815	102	380	17,315	1,687
December	8,842	6,760	1,807	-292	-813	18,319	1,653
Average	8,645	6,662	1,727	18	-2	17,718	1,653
<b>95</b> January	<sup>E</sup> 8,664	<sup>E</sup> 6,596	1,773	-279	-117	17,167	1,641
February	E 8,832	<sup>E</sup> 6,703	1,774	-48	-1,315	18,355	1,603
March	E 8,625	E 6,606	1,773	344	-484	17,403	1,599
April	<sup>E</sup> 8,680	<sup>E</sup> 6,561	1,789	-101	123	17,102	1,600
Аріїі Мау	<sup>E</sup> 8,663	<sup>E</sup> 6,572	1,785	-111	494	17,241	1,611
June	<sup>E</sup> 8,568	<sup>E</sup> 6,540	1,740	-135	494 39	18,149	1,609
	<sup>E</sup> 8,500	<sup>E</sup> 6,449		-415			
July		0,449 E 6,460	1,751		885	17,113	1,623
August	<sup>E</sup> 8,511	E 6,462	1,730	-247	-71	17,993	1,613
September	<sup>E</sup> 8,444	<sup>E</sup> 6,380	1,773	-62 R 112	222	18,011	1,618
October	<sup>RE</sup> 8,519	<sup>RE</sup> 6,429	<sup>R</sup> 1,771	<sup>R</sup> 112	<sup>R</sup> -534	<sup>R</sup> 17,626	_ 1,605
November	<sup>E</sup> 8,541	PE 6,489	<sup>E</sup> 1,739	<sup>E</sup> 396	<sup>E</sup> -426	<sup>E</sup> 17,909	<sup>E</sup> 1,604
11-Month Average	E 8,593	PE 6,525	<sup>E</sup> 1,763	<sup>E</sup> -50	<sup>E</sup> -98	<sup>E</sup> 17,635	<sup>E</sup> 1,604
94 11-Month Average	8,627	6,652	1,719	46	73	17,662	1,687
93 11-Month Average	8,851	6,846	1,750	94	188	17,170	1,686

<sup>a</sup> A negative number indicates a decrease in stocks and a positive number indicates an increase.

Stocks are totals as of end of period.

<sup>c</sup> Includes crude oil, natural gas plant liquids, and other liquids.

<sup>d</sup> Includes stocks located in the Strategic Petroleum Reserve.

<sup>e</sup> See Note 4 at end of section.

See Note 6 at end of section.

<sup>g</sup> Beginning in 1993, includes fuel ethanol blended into finished motor

gasoline and oxygenate production from merchant MTBE (methyl tertiary butyl ether) plants.

PE=Preliminary estimate. R=Revised data. E=Estimate.

Notes: • Crude oil includes lease condensate. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • 1973-1980: Energy Information Administration (EIA), Petroleum Supply Monthly, February 1993, Table S1. • 1981 forward: EIA, Petroleum Supply Monthly, December 1995, Table S1.

Table 3.1b	Petroleum Overview:	Imports, Exports, and Net Imports	

		Imports			Exports		
	Total	Crude Oil <sup>a</sup>	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports <sup>b</sup>
			The	ousand Barrels pe	er Day		
973 Average	6,256	3,244	3,012	231	2	229	6,025
974 Average	6,112	3,477	2,635	221	3	218	5,892
975 Average	6,056	4,105	1,951	209	6	204	5,846
976 Average	7,313	5,287	2,026	223	8	215	7,090
977 Average	8,807	6,615	2,193	243	50	193	8,565
978 Average	8,363	6,356	2,008	362	158	204	8,002
979 Average	8,456	6,519	1,937	° 471	235	° 236	<sup>c</sup> 7,985
980 Average	6,909	5,263	1,646	544	287	258	6,365
981 Average	5,996	4,396	1,599	595	228	367	5,401
	5,113	3,488	1,625	815	236	579	4,298
982 Average							
983 Average	5,051	3,329	1,722	739	164	575	4,312
984 Average	5,437	3,426	2,011	722	181	541	4,715
985 Average	5,067	3,201	1,866	781	204	577	4,286
986 Average	6,224	4,178	2,045	785	154	631	5,439
987 Average	6,678	4,674	2,004	764	151	613	5,914
988 Average	7,402	5,107	2,295	815	155	661	6,587
989 Average	8,061	5,843	2,217	859	142	717	7,202
990 Average	8,018	5,894	2,123	857	109	748	7,161
991 Average	7,627	5,782	1,844	1,001	116	885	6,626
992 Average	7,888	6,083	1,805	950	89	861	6,938
993 January	8,004	6,292	1,712	1,135	129	1,006	6,869
February	7,948	6,156	1,792	1,033	166	867	6,915
March	8,285	6,488	1,797	970	139	831	7,315
April	8,768	6,928	1,840	1,067	73	994	7,701
	8,663	6,809	1,854	1,082	112	970	7,581
June	8,805	7,201	1,604	900	150	750	7,905
July	9,219	7,289	1,930	1,001	62	938	8,218
August	8,429	6,641	1,789	829	55	774	7,600
	8,531	6,581	1,950	902	107	795	7,629
September	,	,	,	881	62	819	,
October	9,197	7,181	2,015				8,316
November	8,903	6,997	1,906	980	67	913	7,923
December	8,645	6,838	1,807	1,250	63	1,188	7,394
Average	8,620	6,787	1,833	1,003	98	904	7,618
<b>994</b> January	7,993	5,945	2,048	927	110	817	7,066
February	8,539	6,313	2,226	882	116	766	7,657
March	8,574	6,372	2,202	936	40	896	7,638
April	8,968	6,955	2,013	868	120	749	8,100
May	9,213	7,198	2,015	929	118	812	8,284
June	9,305	7,358	1,947	867	107	760	8,438
July	9,779	7,857	1,922	877	84	793	8,902
August	9,510	7,488	2,022	913	72	841	8,597
September	9,693	7,868	1,825	891	61	830	8,802
October	8,788	7,136	1,651	997	138	859	7,791
November	8,707	7,034	1,674	1,000	102	898	7,707
	,	,	,	,		1,090	,
December Average	8,863 <b>8,996</b>	7,193 <b>7,063</b>	1,670 <b>1,933</b>	1,208 <b>942</b>	118 <b>99</b>	843	7,655 <b>8,054</b>
-	-						-
995 January	7,955	6,503	1,452	978	113	865	6,977
February	8,358	6,565	1,793	1,062	95	967	7,296
March	9,020	7,409	1,612	948	68	880	8,073
April	8,486	7,073	1,413	998	155	842	7,488
May	8,736	7,354	1,382	876	73	803	7,860
June	9,585	7,957	1,629	919	101	818	8,666
July	8,845	7,265	1,579	894	103	792	7,950
August	9,024	7,415	1,609	821	61	759	8,203
September	9,726	8,041	1,685	805	75	731	8,921
October	<sup>R</sup> 8,576	<sup>R</sup> 7,075	<sup>R</sup> 1,501	<sup>R</sup> 962	<sup>R</sup> 50	<sup>R</sup> 912	<sup>R</sup> 7,614
	<sup>E</sup> 9,152	<sup>E</sup> 7,551	<sup>E</sup> 1,601	E 838	<sup>E</sup> 92	E747	<sup>E</sup> 8,314
November	<sup>E</sup> <b>8,860</b>	E <b>7,294</b>	<sup>E</sup> 1,567	<sup>E</sup> 917	= 92 = <b>89</b>	E 828	<sup>E</sup> 7,943
11-Month Average	0,000	1,294	1,007	917	03	020	1,943
994 11-Month Average	9,009	7,051	1,957	918	97	821	8,091
993 11-Month Average	8,618	6,782	1,836	980	101	878	7,638

<sup>a</sup> Includes crude oil for storage in the Strategic Petroleum Reserve.
 <sup>b</sup> Net imports equals imports minus exports.
 <sup>c</sup> See Note 6 at end of section.

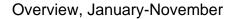
R=Revised data. E=Estimate.

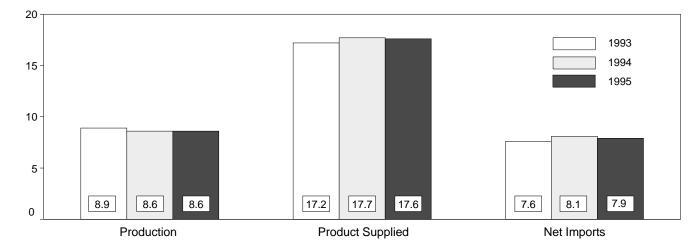
Notes: • Crude oil includes lease condensate. • Totals may not equal sum

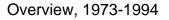
of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia. Sources: • **1973-1980**: Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S1. • **1981 forward:** EIA, *Petroleum Supply Monthly*, December 1995, Table S1.

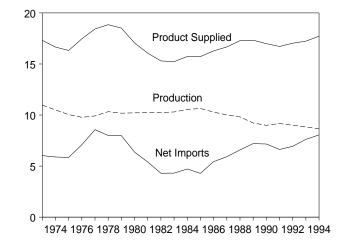
# Figure 3.1 Petroleum Overview

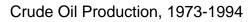
(Million Barrels per Day)

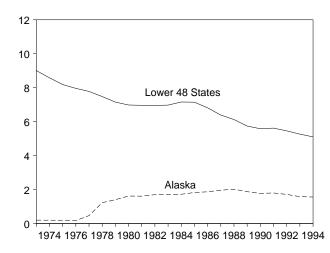






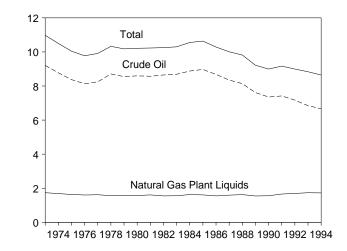




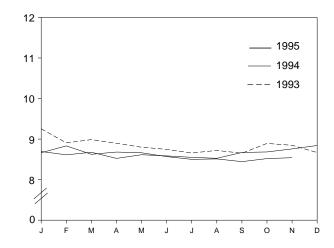


Note: Because vertical scales differ, graphs should not be compared. Sources: Tables 3.1a, 3.1b, and 3.2a.

### Production, 1973-1994



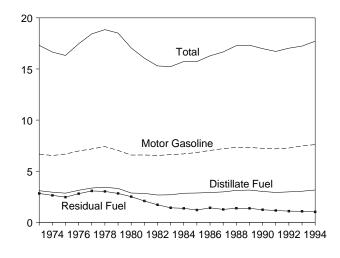
# Total Production, Monthly



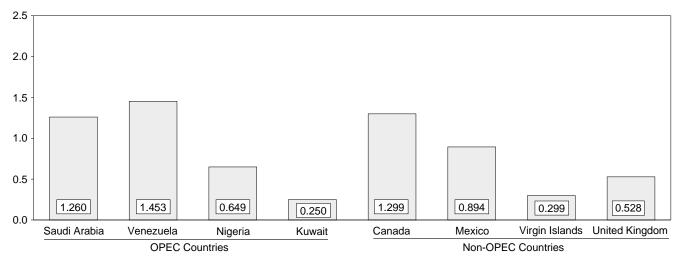
# Figure 3.1 Petroleum Overview (Continued)

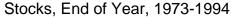
(Million Barrels per Day, Except as Noted)

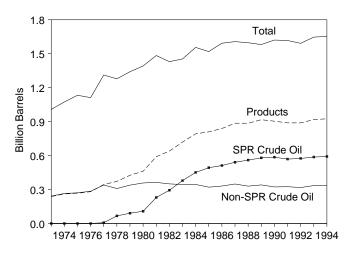
Product Supplied, 1973-1994



### Imports from Selected Countries, October 1995

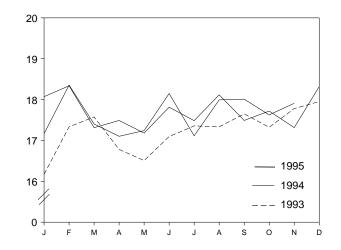




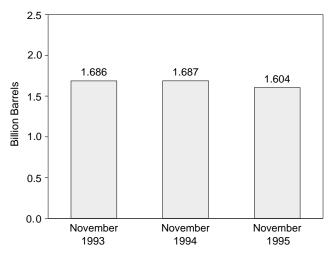


Notes: • OPEC = Organization of Petroleum Exporting Countries. • SPR = Strategic Petroleum Reserve. • Because vertical scales differ, graphs should not be compared.

Product Supplied, Monthly



Total Stocks, End of Month



Sources: Tables 3.1a, 3.2b, 3.3a, 3.3b, 3.3d-3.3h, 3.4, 3.5, and 3.6.

				Supply			
_	Field Pr	oduction		Imports		Unaccounted-	Crude Oil
	Total Domestic	Alaskan	Total	SPR <sup>a</sup>	Other	for Crude Oil <sup>b</sup>	Crude Oil Used Directly <sup>c</sup>
			The	ousand Barrels per	Day		
973 Average	9,208	198	3,244	_	3,244	3	-19
974 Average	8,774	193	3,477	-	3,477	-25	-15
975 Average	8,375	191	4,105	-	4,105	17	17
976 Average	8,132	173	5,287	-	5,287	77	<sup>d</sup> -19
977 Average	8,245	464	6,615	21	6,594	-6	-14
978 Average	8,707	1,229	6,356	d 161	6,195	-57	<sup>d</sup> -15
979 Average	8,552	1,401	6,519	67	6,452	-11	<sup>d</sup> -14
980 Average	8,597	1,617	5,263	44	5,219	34	<sup>d</sup> -14
981 Average	8,572	1,609	4,396	256	4,141	83	-58
982 Average	8,649	1,696	3,488	165	3,323	71	-59
983 Average	8,688	1,714	3,329	234	3,096	114	-
984 Average	8,879	1,722	3,426	197	3,229	185	_
985 Average	8,971	1,825	3,201	118	3,083	145	_
986 Average	8,680	1,867	4,178	48	4,130	139	_
	8,349	1,962	4,178	40 73	4,130	139	_
987 Average	,	,	,				-
988 Average	8,140	2,017	5,107	51	5,055	196	-
989 Average	7,613	1,874	5,843	56	5,787	200	-
990 Average	7,355	1,773	5,894	27	5,867	258	-
991 Average	7,417	1,798	5,782	0	5,782	195	-
992 Average	7,171	1,714	6,083	10	6,073	258	-
93 January	6,961	1,654	6,292	0	6,292	118	-
February	6,943	1,628	6,156	0	6,156	162	-
March	6,974	1,639	6,488	32	6,455	101	-
April	6,881	1,587	6,928	112	6,817	333	-
May	6,847	1,568	6,809	0	6,809	443	-
June	6,795	1,520	7,201	0	7,201	293	-
July	6,688	1,441	7,289	0	7,289	236	-
August	6,758	1,528	6,641	Ō	6,641	3	_
September	6,712	1,471	6,581	34	6,547	224	_
October	6,839	1,610	7,181	0	7,181	109	_
November	6,912	1,670	6,997	Ő	6,997	105	
		1,671		0	6,838	-98	-
December Average	6,858 <b>6,847</b>	1,582	6,838 <b>6,787</b>	15	6,772	-98 168	_
-		,	,				
94 January February	6,817 6,770	1,658 1,597	5,945 6,313	0 0	5,945 6,313	734 77	_
March	6,746	1,583	6,372	99	6,273	242	_
April	6,612	1,504	6,955	31	6,925	302	_
May	6,688	1,578	7,198	0	7,198	260	_
June	6,611	1,578	7,358	17	7,198	393	-
July	6,501	1,495	7,857	0	7,341 7,857	393 226	_
,	,	,	'	0	,	409	_
August	6,544	1,500	7,488		7,488		-
September	6,609	1,514	7,868	0	7,868	54	-
October	6,658	1,604	7,136	0	7,136	136	-
November	6,628	1,518	7,034	0	7,034	516	-
December	6,760	1,636	7,193	0	7,193	-165	-
Average	6,662	1,559	7,063	12	7,051	266	-
95 January	E 6,596	E 1,575	6,503	0	6,503	352	-
February	E 6,703	<sup>E</sup> 1,578	6,565	0	6,565	155	-
March	<sup>E</sup> 6,606	<sup>E</sup> 1,525	7,409	0	7,409	-117	-
April	<sup>E</sup> 6,561	<sup>E</sup> 1,511	7,073	0	7,073	243	-
May	<sup>E</sup> 6,572	<sup>E</sup> 1,518	7,354	0	7,354	343	-
June	<sup>E</sup> 6,540	<sup>E</sup> 1.484	7,957	0	7,957	42	_
July	<sup>E</sup> 6,449	<sup>E</sup> 1.401	7,265	0	7,265	360	-
August	<sup>E</sup> 6,462	<sup>E</sup> 1,432	7,415	Ő	7,415	189	_
September	E 6,380	E 1,377	8,041	Ő	8,041	(s)	_
October	<sup>RE</sup> 6,429	<sup>RE</sup> 1,475	<sup>R</sup> 7,075	0	<sup>R</sup> 7,075	<sup>R</sup> 291	_
November	PE 6,489	PE 1,483	<sup>E</sup> 7,551	EO	<sup>E</sup> 7,551	E 266	_
11-Month Average	PE <b>6,525</b>	PE <b>1,483</b>	E <b>7,294</b>	= <b>0</b>	E <b>7,294</b>	E <b>194</b>	-
94 11-Month Average	6,652	1,552	7,051	13	7,038	307	_
	-,	1,574	.,	16	- ,		

### Table 3.2a Crude Oil Supply and Disposition: Supply

 <sup>a</sup> Strategic Petroleum Reserve.
 <sup>b</sup> A balancing item.
 <sup>c</sup> Beginning in January 1983, crude oil used directly as fuel is shown as product supplied. <sup>d</sup> See Note 6 at end of section.

PE=Preliminary estimate. R=Revised data. - =Not applicable. E=Estimate.

Notes: • Crude oil includes lease condensate. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • 1973-1980: Energy Information Administration (EIA), Petroleum Supply Monthly, February 1993, Table S2. • 1981 forward: EIA, Petroleum Supply Monthly, December 1995, Table S2.

### Table 3.2b Crude Oil Supply and Disposition: Disposition and Ending Stocks

			Disp	osition		_	E	nding Stock	s <sup>a</sup>
	Crude Losses	Stock C	hange <sup>b</sup> Other	Refinery Inputs	Exports	Product Supplied <sup>d</sup>	Total	SPR <sup>c</sup>	Other Primary
_		••••		Barrels per Day	Liperte	Capping		Million Barrels	
1973 Average	13	_	-11	12,431	2	-	242	-	242
1974 Average	13	-	62	12,133	3	-	265	-	265
1975 Average	13	-	17	12,442	6	-	271	-	271
1976 Average	<sup>e</sup> 14	-	39	13,416	8	-	285	-	285
1977 Average	16	20	150	14,602	50	-	348	7	340
1978 Average	16	163	-84	14,739	158	-	376	67	309
1979 Average	_16	67	81	14,648	235	-	<sub>430</sub>	91	<sub>,</sub> 339
1980 Average	<sup>e</sup> 14	45	<u>52</u>	13,481	287	-	<sup>†</sup> 466	108	1358
1981 Average	5	336	<sup>f</sup> -46	12,470	228	-	594	230	363
1982 Average	3	174	-38	11,774	236	_	<sup>g</sup> 644	294	<sup>g</sup> 350
1983 Average	2	234	<sup>g</sup> -20	11,685	164	66	723	379	344
1984 Average	2	195	4	12,044	181	64	796	451	345
1985 Average	1	117	-67	12,002	204	60	814	493	321
1986 Average	(s)	50	28	12,716	154	49	843	512	331
1987 Average	(s)	80	49	12,854	151	34	890	541	349
1988 Average	(s)	52	-51	13,246	155	40	890	560	330
1989 Average	(s)	56	30	13,401	142	28	921	580	341
1990 Average	(s)	16	-51	13,409	109	24	908	586	323
1991 Average 1992 Average	(s) (s)	-47 17	5 -18	13,301 13,411	116 89	18 13	893 893	569 575	325 318
1992 Average	(3)		-10	13,411	09	15	095	575	510
993 January	(s)	19	276	12,938	129	10	902	575	327
February	(s)	18	201	12,865	166	10	908	576	332
March	0	58	154	13,200	139	11	915	578	337
April	(s)	136	387	13,538	73	9	930	582	349
May	0	13	134	13,829	112	10	935	582	353
June	0	21	-20	14,129	150	8	935	583	352
July	0	19	-13	14,136	62	9	935	583	352
August	0	24	-529	13,844	55	8	920	584	335
September	(s)	52	-491	13,841	107	8	906	586	321
October	0	19	309	13,729	62	10	917	586	330
November	0	18	233	13,686	67	10	924	587	337
December	0	9 <b>34</b>	-62 <b>47</b>	13,571 <b>13,613</b>	63 <b>98</b>	16 <b>10</b>	922 <b>922</b>	587 <b>587</b>	335 <b>335</b>
Average	(s)	34	47	13,013	90	10	922	201	335
994 January	0	4	87	13,286	110	10	925	587	338
February	0	(s)	-97	13,130	116	12	923	587	335
March	(s)	99	226	12,985	40	10	933	590	342
April	(s)	31	-98	13,809	120	9	931	591	339
May	0	(s)	-253	14,272	118	9	923	591	332
June	(s)	16	-120	14,351	107	7	920	592	328
July	0	(s)	148	14,344	84	8	924	592	333
August	0	(s)	-129	14,491	72	7	920	592	329
September	0	0	227	14,234	61	9	927	592	335
October	0	0	255	13,529	138	8	935	592	343
November	0	(s)	102	13,968	102	7	938	592	346
December	0	(S)	-292	13,951	118	10	929	592	337
Average	(s)	13	5	13,866	99	9	929	592	337
<b>995</b> January	0	(s)	-279	13,610	113	7	920	592	328
February	0	(s)	-48	13,367	95	8	919	592	327
March	(s)	(s)	344	13,478	68	7	929	592	338
April	0	(s)	-101	13,816	155	7	926	592	335
May	0	(s)	-110	14,299	73	7	923	592	331
June	(s)	(s)	-135	14,568	101	5	919	592	327
July	(s)	(s)	-415	14,380	103	7	906	592	314
August	(s)	(s)	-247	14,245	61	6	898	592	307
September	(s)	(s)	-62	14,402	75	6	897	592	305
October	<sup>R</sup> (s)	_ (s)	<sup>R</sup> 112	<sup>R</sup> 13,626	<sup>R</sup> 50	R8	<sup>R</sup> 900	_ 592	<sup>R</sup> 308
November	E 0	E (s)	E397	<sup>E</sup> 13,812	<sup>E</sup> 92	E6	<sup>E</sup> 908	<sup>E</sup> 592	<sup>E</sup> 317
11-Month Average	<sup>E</sup> (s)	<sup>E</sup> (s)	<sup>E</sup> -50	<sup>E</sup> 13,967	<sup>E</sup> 89	E <b>7</b>	<sup>E</sup> 908	<sup>E</sup> 592	<sup>E</sup> 317
994 11-Month Average	(s)	14	33	13,858	97	9	938	592	346
1993 11-Month Average	(s)	36	57	13,617	101	9	924	587	337

 <sup>a</sup> Stocks are totals as of end of period.
 <sup>b</sup> A negative number indicates a decrease in stocks and a positive number indicates an increase.

<sup>c</sup> Strategic Petroleum Reserve.

<sup>d</sup> Beginning in January 1983, crude oil used directly as fuel is shown as

 <sup>e</sup> See Note 6 at end of section.
 <sup>f</sup> Stocks of Alaskan crude oil in transit are included from January 1981 forward. See Note 5 at end of section.

<sup>g</sup> See Note 4 at end of section.

 See Note 4 at en of section.
 R=Revised data. – =Not applicable. E=Estimate. (s)=Less than +500 barrels per day and greater than -500 barrels per day.
 Notes: • Crude oil includes lease condensate. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • 1973-1980: Energy Information Administration (EIA), Petroleum Supply Monthly, February 1993, Table S2. • 1981 forward: EIA, Petroleum Supply Monthly, December 1995, Table S2.

#### Table 3.3a Petroleum Imports: Bahrain, Iran, Iraq, and Kuwait

(Thousand Barrels per Day)

				Persiar	Gulf <sup>a</sup>			
	Ba	hrain	li	ran	li	raq	Ku	wait <sup>b</sup>
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	11	0	223	216	4	4	47	42
1974 Average	12	0	469	463	ō	ō	5	5
1975 Average	16	Ő	280	278	2	2	16	4
1976 Average	3	ő	298	298	26	26	5	1
1977 Average	10	ő	535	530	74	74	48	42
1978 Average	3	õ	555	554	62	62	6	5
1979 Average	1	ő	304	297	88	88	8	5
1980 Average	(s)	ő	9	8	28	28	27	27
1981 Average	(3)	Ő	ŏ	ŏ	(s)	0	0	0
1982 Average	1	ő	35	35	3	3	5	2
1983 Average	2	0	48	48	10	10	14	7
1984 Average	1	0	10	10	12	10	36	24
1985 Average	4	0	27	27	46	46	21	4
	2	0	19	19	40 81	81	68	28
1986 Average	2	0	98	98	83	82	84	28 70
1987 Average	2	0			83 345	82 343	84 92	70 80
1988 Average	2	0	(3)	(3)	345 449	343 441		
1989 Average	-	0	0	0	449 518		157	155
1990 Average	1	-				514	86	79
1991 Average	2 0	0	32 0	32 0	0	0	6 51	6 39
1992 Average	U	U	U	U	U	0	51	39
1993 January	0	0	0	0	0	0	144	129
February	0	0	0	0	0	0	251	229
March	9	0	0	0	0	0	316	300
April	0	0	0	0	0	0	279	279
May	0	0	0	0	0	0	222	222
June	0	0	0	0	0	0	235	235
July	0	0	0	0	0	0	368	362
August	0	0	0	0	0	0	467	451
September	0	0	0	0	0	0	445	431
October	0	0	0	0	0	0	530	526
November	0	0	0	0	0	0	486	470
December	Õ	Õ	Õ	Õ	Õ	Õ	484	484
Average	1	ŏ	ŏ	ŏ	ŏ	ŏ	353	344
, trolago		Ū	U U	· ·	Ū	°,	000	011
1994 January	0	0	0	0	0	0	309	309
February	0	0	0	0	0	0	423	423
March	8	0	0	0	0	0	476	476
April	0	0	0	0	0	0	261	238
May	0	0	0	0	0	0	362	362
June	0	0	0	0	0	0	255	255
July	0	0	0	0	0	0	345	345
August	0	0	0	0	0	0	306	306
September	0	0	0	0	0	0	361	361
October	0	0	0	0	0	0	165	148
November	0	0	0	0	0	0	249	240
December	0	0	0	0	0	0	240	227
Average	1	0	0	0	0	0	312	307
1995 January	0	0	0	0	0	0	130	120
February	11	Ő	Ő	õ	Ő	ŏ	346	324
March	0	0	Ő	0	0	0	252	252
April	0	0	0	0	0	0	171	164
Арт	0	0	0	0	0	0	208	204
June	0	0	0	0	0	0	260	259
	0	0	0	0	0	0	195	195
July August	0	0	0	0	0	0	195	195
	0	0	0	0	0	0	187	175
September	0			0				
October 10-Month Average	1	0 0	0 0	0	0 0	0 0	250 <b>217</b>	244 <b>211</b>
IU-MUTHI AVELAYE	1	U	U	U	v	U	217	211
1994 10-Month Average	1	0	0	0	0	0	326	322
1993 10-Month Average	1	0	0	0	0	0	326	317

<sup>a</sup> Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products

29, 1987.

(s)=Less than 500 barrels per day. Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports

that were refined from crude oil produced by OPEC. <sup>b</sup> Imports from the Neutral Zone between Kuwait and Saudi Arabia are

included in Saudi Arabia. <sup>C</sup> A small amount of Iranian crude oil entered the United States in January

1988 from the Virgin Islands. The oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October

are included. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • Bahrain: Energy Information Administration (EIA), Form EIA-814, "Monthly Imports Report." • All Other Data: 1973-1980—EIA, Petroleum Supply Monthly, February 1993, Table S3. 1981 forward—EIA, Petroleum Supply Monthly, December 1995, Table S3.

# Table 3.3b Petroleum Imports: Qatar, Saudi Arabia, U.A.E., and Total Persian Gulf

				Persiar	n Gulf <sup>a</sup>			
	Q	atar	Saudi	Arabia <sup>b</sup>	United Ar	ab Emirates	т	otal <sup>a</sup>
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	7	7	486	462	71	71	848	802
1974 Average	17	17	461	438	74	69	1,039	992
1975 Average	18	18	715	701	117	117	1,165	1,121
1976 Average	24	24	1,230	1,222	254	254	1,840	1,825
1977 Average	67	67	1,380	1,373	335	333	2,448	2,418
1978 Average	64	64	1,144	1,142	385	385	2,219	2,212
1979 Average	31	31	1,356	1,347	281	281	2,069	2,049
1980 Average	22	22	1,261	1,250	172	172	1,519	1,508
1981 Average	7	7	1,129	1,112	81	77	1,219	1,196
1982 Average	7	7	552	530	92	81	696	659
1983 Average	(s)	0	337	321	30	18	442	405
1984 Average	5	4	325	309	117	90	506	450
1985 Average	(s)	0	168	132	45	35	311	244
1986 Average	13	12	685	618	44	38	912	796
1987 Average	0	0	751	642	61	56	1,077	949
1988 Average	0	0	1,073	911	29	23	1,541	1,357
1989 Average	2	2	1,224	1,116	28	21	1,861	1,734
1990 Average	4	4	1,339	1,195	17	9	1,966	1,801
1991 Average	0	0	1,802	1,703	3	2	1,845	1,743
1992 Average	1	0	1,720	1,597	6	0	1,778	1,636
1993 January	0	0	1,688	1,571	0	0	1,831	1,700
February	0	0	1,626	1,480	0	0	1,877	1,709
March	6	0	1,479	1,349	0	0	1,811	1,649
April	0	0	1,644	1,515	17	17	1,940	1,811
May	0	0	1,524	1,361	59	59	1,805	1,642
June	0	0	1,540	1,413	66	66	1,841	1,714
July	0	0	1,283	1,171	19	0	1,671	1,533
August	0	0	1,151	1,036	0	0	1,619	1,487
September	0	0	1,329	1,181	0	0	1,774	1,612
October	0	0	1,115	969	0	0	1,644	1,494
November	0	0	1,281	1,152	1	0	1,767	1,621
December	0	0	1,330	1,205	0	0	1,814	1,689
Average	1	0	1,414	1,282	14	12	1,782	1,637
1994 January	0	0	1,320	1,175	0	0	1,630	1,484
February	0	0	1,071	1,023	0	0	1,493	1,446
March	0	0	1,132	1,055	0	0	1,617	1,531
April	0	0	1,586	1,428	4	0	1,851	1,666
May	0	0	1,438	1,394	0	0	1,800	1,757
June	0	0	1,395	1,277	0	0	1,650	1,533
July	0 0	0	1,414	1,310	53 0	53 0	1,812	1,708
August September	0	0	1,363 1,486	1,271	0 40	0 40	1,669 1,887	1,577 1,766
September October	0	0	1,486	1,364 1,500	40 38	40 23	1,804	1,671
November	0	0	1,477	1,357	0	23	1,726	1,597
December	0	0	1,477	1,388	15	15	1,720	1,631
Average	0	0	1,320 1,402	1,297	13	11	1,728	1,615
1995 January	0	0	1,309	1,251	20	20	1,459	1,391
February	Ő	Ő	1,181	1,134	13	13	1,550	1,471
March	0 0	0 0	1,535	1,410	0	0	1,788	1,662
April	Ő	Ő	1,375	1,321	Ő	Ő	1,547	1,485
May	0	0	1,281	1,237	0	0	1,490	1,441
June	0	0	1,287	1,221	12	1	1,558	1,481
July	0	0	1,265	1,165	0	0	1,460	1,360
August	0	0	1,340	1,245	10	10	1,530	1,430
September	0	0	1,464	1,357	29	0	1,680	1,539
October	0	0	1,260	1,181	14	0	1,524	1,426
10-Month Average	Ō	Ō	1,331	1,253	10	4	1,558	1,468
1994 10-Month Average 1993 10-Month Average	0 1	0 0	1,383 1,435	1,282 1,302	14 16	12 14	1,723 1,780	1,615 1,634

(Thousand Barrels per Day)

<sup>a</sup> Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC. <sup>b</sup> Imports from the Neutral Zone between Kuwait and Saudi Arabia are

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

included in Saudi Arabia.

(s)=Less than 500 barrels per day.

1973-1980: Energy Information Administration (EIA), Sources: Petroleum Supply Monthly, February 1993, Table S3. • **1981 forward:** EIA, Petroleum Supply Monthly, December 1995, Table S3.

# Table 3.3c Petroleum Imports: Algeria, Ecuador, Gabon, Indonesia, and Libya

(Thousand Barrels per Day)

-		T			Other	OPEC <sup>a</sup>				
	Alg	geria	Ecu	ador <sup>b</sup>	Ga	ibon	Indo	onesia	Li	ibya
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	136	120	48	47	0	0	213	200	164	133
1974 Average	190	180	42	42	23	23	300	284	4	4
975 Average	282	264	57	57	27	27	390	379	232	223
976 Average	432	408	51	51	28	26	539	537	453	444
977 Average	559	544	57	55	42	35	541	507	723	704
1977 Average	649	634	54	38	42	38	573	533	654	638
	636	608	42	30	41	42	420	380	658	642
979 Average	488	456	42 27	30 17	42 26	42 25	348	314	554	548
980 Average										
981 Average	311	261	48	38	35	35	366	318	319	317
982 Average	170	90	42	32	40	40	248	226	26	23
983 Average	240	176	61	56	59	59	338	315	0	0
984 Average	323	194	55	47	58	57	343	304	1	0
985 Average	187	84	67	56	52	51	314	292	4	0
986 Average	271	78	77	64	26	25	318	297	0	0
987 Average	295	115	29	23	35	35	285	262	0	0
988 Average	300	58	47	33	16	15	205	186	0	0
989 Average	269	60	89	80	50	49	183	158	0	0
990 Average	280	63	49	38	64	64	114	98	ŏ	ŏ
991 Average	253	44	63	53	84	84	111	102	ŏ	ŏ
992 Average	196	24	65	62	124	123	78	70	ŏ	ő
1002 Average	150	24	00	02	124	125	10	10	Ū	v
1993 January	153	28	(b)	(b)	90	89	37	37	0	0
February	256	20	)b(	b (	88	88	52	51	0	0
		7	b'	b			67			0
March	185		( <u> </u>	(~) (b)	126	123		64	0	
April	258	26	(b)	(b)	127	127	76	76	0	0
May	228	3	(b)	(b)	169	169	82	82	0	0
June	169	32	(.)	(,)	107	107	97	67	0	0
July	246	6	(b)	(b)	168	166	55	55	0	0
August	241	28	(b)	(b)	152	152	95	80	0	0
September	192	0	(b)	(b)	211	211	51	40	0	0
October	317	80	(b)	(b)	242	242	131	82	0	0
November	222	52	(d)	(b)	143	136	74	34	0	0
December	169	25	ζbί	ζb j	191	191	156	114	Ō	0
Average	220	24	(b)	(b)	152	151	81	65	Ō	Ō
994 January	224	8	(b)	(b)	144	144	140	81	0	0
	224	20	b)	b)	212	208	140		0	0
February			(b)	(b)				59	-	-
March	278	0		(b)	91	91	112	50	0	0
April	245	30	(~) (b)	(~) (b)	288	288	88	88	0	0
May	261	0	(b)	(b)	187	187	94	76	0	0
June	178	2	(b) (b)	(b) (b)	223	223	155	155	0	0
July	301	38	(.)	(,)	216	216	178	178	0	0
August	282	39	(b)	(b)	142	142	119	112	0	0
September	237	20	(b)	(b)	194	194	61	61	0	0
October	217	38	(b)	(b)	235	235	96	89	0	0
November	203	20	(b)	(b)	254	254	71	56	0	0
December	259	39	(b)	(b)	154	154	113	95	0	0
Average	243	21	(b)	(b)	194	194	111	92	0	0
995 January	168	0	(b)	( <sup>b</sup> )	224	224	38	38	0	0
	358	64	)b)	b	186	186	129	87	0	0
February			(b)	(b)						
March	196	19	(b)	(b)	159	159	51	29	0	0
April	251	31	(b) (b)	(b) (b)	163	163	95	87	0	0
May	163	36	(b) (b)	(b) (b)	206	206	65	36	0	0
June	277	39	(.)	(,)	357	357	96	51	0	0
July	257	11	(b)	(b)	296	296	104	96	0	0
August	298	65	(b)	(b)	246	246	122	95	0	0
September	250	20	(b)	(b)	216	216	94	66	0	0
October	229	39	(b)	(b)	270	270	87	68	0	0
10-Month Average	243	32	(́ <sup>b</sup> )	(b)	233	233	88	65	Ő	Ő
994 10-Month Average	245	20	( <sup>b</sup> ) ( <sup>b</sup> )	( <sup>b</sup> <sub>b</sub> )	193	192	115	95	0	0
1993 10-Month Average	224	21	( <sup>a</sup> )	(b)	149	148	75	64	0	0

<sup>a</sup> Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

Notes:  $\bullet\,$  Beginning in October 1977, Strategic Petroleum Reserve imports are included.  $\bullet\,$  U.S. geographic coverage is the 50 States and the District of Columbia.

that were refined from crude oil produced by OPEC. <sup>b</sup> Ecuador withdrew from OPEC on December 31, 1992. As of January 1993, imports from Ecuador appear on Table 3.3f under "Non-OPEC." Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S3. • **1981 forward:** EIA, *Petroleum Supply Monthly,* December 1995, Table S3.

# Table 3.3d Petroleum Imports: Nigeria, Venezuela, Total Other OPEC, and Total OPEC

(Thousand Barrels per Day)

_			Other	OPECa				
_	Nig	geria	Ven	ezuela	т	otal		otal PEC <sup>b</sup>
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oi
73 Average	459	448	1,135	344	2,156	1,293	2,993	2,095
74 Average	713	697	979	319	2,253	1,549	3,280	2,540
75 Average	762	746	702	395	2,452	2,091	3,601	3,211
	1,025	1,014	702	241	3,229	2,721	5,066	4,545
76 Average			690	250				
77 Average	1,143	1,130			3,754	3,225	6,193	5,643
78 Average	919	910	646	181	3,536	2,972	5,751	5,184
79 Average	1,080	1,069	690	293	3,569	3,063	5,637	5,112
80 Average	857	841	481	156	2,781	2,356	4,300	3,864
81 Average	620	611	406	147	2,106	1,726	3,323	2,922
82 Average	514	510	412	155	1,451	1,075	2,146	1,734
83 Average	302	301	422	164	1,422	1,072	1,862	1,477
84 Average	216	207	548	253	1,544	1,062	2,049	1,512
85 Average	293	280	605	306	1,522	1,069	1,830	1,312
86 Average	440	437	793	416	1,926	1,317	2,837	2,113
87 Average	535	529	804	488	1,983	1,451	3,060	2,400
88 Average	618	607	794	439	1,981	1,339	3,520	2,696
89 Average	815	800	873	495	2,279	1,642	4,140	3,376
	800	784	1,025	666	,	,	4,296	,
90 Average					2,332	1,713		3,514
91 Average 92 Average	703 681	683 665	1,035 1,170	668 826	2,249 2,313	1,634 1,770	4,092 4,092	3,377 3,406
-	700	700	-	4 000				
<b>93</b> January	729	729	1,397	1,038	2,407	1,920	4,238	3,620
February	927	913	1,296	925	2,619	1,976	4,496	3,685
March	928	892	1,173	835	2,480	1,921	4,282	3,570
April	892	871	1,314	1,023	2,667	2,122	4,608	3,934
May	760	741	1,264	992	2,504	1,988	4,309	3,630
June	848	827	1,292	999	2,512	2,032	4,353	3,746
July	893	888	1,384	1,068	2,746	2,183	4,417	3,715
August	562	549	1,383	1,135	2,432	1,943	4,051	3,431
September	514	496	1,273	1,050	2,240	1,796	4,014	3,408
October	603	593	1,276	993	2,568	1,989	4,213	3,484
	636	612	1,322	1,108	2,397	1,942	4,165	3,563
November					,	,	,	,
December Average	598 <b>740</b>	569 <b>722</b>	1,230 <b>1,300</b>	952 <b>1,010</b>	2,345 <b>2,493</b>	1,851 <b>1,972</b>	4,159 <b>4,273</b>	3,540 <b>3,609</b>
-				,	,			-
94 January	310	274	1,211	901	2,030	1,408	3,660	2,892
February	576	557	1,224	946	2,341	1,790	3,834	3,237
March	441	402	1,261	932	2,182	1,474	3,790	3,006
April	631	621	1,303	1,035	2,556	2,062	4,408	3,728
Мау	732	730	1,334	1,022	2,608	2,014	4,409	3,771
June	842	837	1,469	1,088	2,868	2,305	4,518	3,838
July	703	694	1,296	1,029	2,694	2,154	4,506	3,861
August	1,037	1,010	1,255	982	2,834	2,284	4,503	3,861
September	578	578	1,428	1,106	2,498	1,959	4,386	3,725
October	569	559	1,385	1,101	2,501	2,022	4,304	3,693
November	485	478	1,432	1,084	2,445	1,891	4,171	3,488
December	739	739	1,405	1,183	2,671	2,210	4,451	3,840
Average	637	624	1,334	1,034	2,520	1,965	4,247	3,580
5 January	500	E75	1 955	1 050	2 260	1 207	2 0 2 0	2 200
95 January	583	575	1,355	1,059	2,369	1,897	3,828	3,288
February	463	463	1,439	1,083	2,575	1,883	4,114	3,354
March	687	676	1,499	1,209	2,591	2,092	4,379	3,754
April	467	458	1,374	1,100	2,350	1,840	3,897	3,324
Мау	603	592	1,498	1,193	2,535	2,064	4,025	3,505
June	696	696	1,479	1,209	2,905	2,352	4,463	3,833
July	711	711	1,536	1,162	2,903	2,276	4,363	3,636
August	482	463	1,447	1,162	2,596	2,030	4,126	3,460
September	851	841	1,655	1,288	3,067	2,030	4,747	3,970
October	649	649	1,453	1,159	2,688	2,431	4,212	3,970
10-Month Average	620	613	1,455 1,474	<b>1,163</b>	2,000 <b>2,658</b>	2,104 <b>2,106</b>	4,212	3,610 3,574
-			-					
4 10-Month Average	642	626	1,317	1,014	2,512	1,947	4,234	3,562

are accounted for under "Other Non-OPEC" on Table 3.3h.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

<sup>a</sup> Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC. <sup>b</sup> OPEC includes the Persian Gulf nations that are displayed on Tables 3.3a and 3.3b except Bahrain, which is not a member of OPEC, and the nations displayed under "Other OPEC" on Tables 3.3c and 3.3d. Ecuador withdrew from OPEC on December 31, 1992; as of January 1993, imports from Ecuador appear on Table 3.3f under "Non-OPEC." Imports from Bahrain

Sources: • **1973-1980**: Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S3. • **1981 forward**: EIA, *Petroleum Supply Monthly*, December 1995, Table S3.

# Table 3.3ePetroleum Imports: Angola, Australia, Bahama Islands, Brazil,<br/>Canada, and China

(Thousand Barrels per Day)

						Non-O	PECa					
	A	ngola	Au	stralia		ihama lands	В	razil	Ca	anada		China
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	49	49	2	0	174	0	9	0	1,325	1,001	(s)	0
1974 Average	49	48	1	0	164	0	2	0	1,070	791	Ó	0
1975 Average	75	71	5	0	152	0	5	0	846	600	0	0
1976 Average	12	7	2	0	118	0	0	0	599	371	0	0
1977 Average	24	17	3	0	171	0	0	0	517	279	0	0
1978 Average	20	6	5	0	160	0	0	0	467	248	0	0
1979 Average	43	39	6	0	147	0	1	0	538	271	13	13
1980 Average	42	37	1	0	78	0	3	1	455	199	(s)	0
1981 Average	49	45	5	0	74	0	23	14	447	164	18	0
1982 Average	44 78	42 71	5 4	(s) 0	65 125	0 0	47 41	19 2	482 547	214 274	40 34	8 6
1983 Average	90	85	38	25	88	0	60	(s)	630	341	34 46	15
1984 Average	110	05 104	30	25	40	0	61	(5)	770	468	40 59	36
1985 Average	112	104	41	30	40 37	0	50	0	807	400 570	90	68
1986 Average 1987 Average	192	180	58	30 49	37	0	50 84	0	848	608	90 82	63
1988 Average	212	203	58 64	49 59	32	0	98	0	999	681	88	82
1989 Average	212	203	36	31	32 34	0	90 82	0	999 931	630	80	82 76
1990 Average	237	236	53	47	37	0 0	49	ő	934	643	80	70
1991 Average	254	254	26	21	35	0 0	22	ŏ	1,033	743	91	87
1992 Average	336	336	19	17	36	Ő	20	Ő	1,069	797	90	84
1993 January	354	354	(s)	0	18	0	3	0	1,052	778	60	60
February	348	348	Ó	0	26	0	22	0	1,095	782	44	44
March	408	408	0	0	38	0	27	0	1,033	770	79	73
April	344	344	0	0	16	0	56	0	1,052	783	0	0
May	299	299	13	13	8	0	41	0	1,128	874	40	40
June	209	209	34	34	7	0	19	0	1,117	911	48	46
July	402	402	40	40	31	0	48	0	1,264	991	24	24
August	258	258	33	27	41	0	32	0	1,247	966	38	38
September	282	282	0	0	37	0	59	0	1,319	1,023	91	89
October	440	440	53	47	53	0	15	0	1,370	1,030	61	61
November	307	307	0	0	29	0	61	0	1,236	917	68	68
December	379	379	53	53	30	0	10	0	1,255	964	61	61
Average	336	336	19	18	28	0	33	0	1,181	900	51	50
1994 January	338	338	12	0	28	0	11	0	1,242	905	81	78
February	295	282	0	0	79	0	12	0	1,374	994	44	44
March	291	265	11	11	52	0	10	0	1,326	987	112	104
April	284 354	284 331	0 32	0 32	39 58	0 0	42 96	0 0	1,194	930	70 80	67 80
May						0			1,160	905		
June	278 304	278 299	11 44	11 44	14 18	0	62 53	0 0	1,206 1,237	973 994	37 92	36 92
July August	304	299 347	13	13	20	0	38	0	1,237	1,059	92 64	92 64
September	455	448	35	35	17	0	21	0	1,300	1,039	63	63
October	286	286	22	22	15	0	18	0	1,238	982	18	18
November	328	328	22	22	8	0	0	0 0	1,251	988	79	79
December	402	380	0	0	6	0 0	8	8	1,388	1,054	40	40
Average	331	322	17	16	29	Ō	31	1	1,272	983	65	64
1995 January	273	262	21	21	6	0	0	0	1,349	1,009	64	62
February	348	335	22	22	8	0	0	0	1,310	965	21	21
March	427	416	0	0	7	0	Ō	Ō	1,206	891	54	54
April	412	402	33	33	0	0	Ō	0	1,240	999	65	65
May	419	407	21	21	0	0	0	0	1,405	1,167	35	35
June	371	358	10	10	0	0	0	0	1,418	1,169	26	26
July	295	287	42	42	0	0	8	0	1,269	1,028	80	80
August	367	355	0	0	0	0	9	0	1,348	1,062	40	40
September	444	444	0	0	8	0	27	0	1,283	993	73	73
October	366	366	15	15	0	0	9	0	1,299	1,057	40	40
10-Month Average	372	363	16	16	3	0	5	0	1,313	1,035	50	50
1994 10-Month Average	325	316	18	17	34	0	36	0	1,262	976	67	65
1993 10-Month Average	335	335	18	16	28	0	32	0	1,168	892	49	48

<sup>a</sup> Includes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

(s)=Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports

are included.  $\bullet\,$  U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S3. • **1981 forward:** EIA, *Petroleum Supply Monthly,* December 1995, Table S3.

# Table 3.3f Petroleum Imports: Colombia, Ecuador, Italy, Malaysia, Mexico, and Netherlands

(Thousand Barrels per Day)

						Non-OP	ECa					
	Col	lombia	Ecu	uador <sup>b</sup>	I	taly	Ma	alaysia	N	lexico	Netl	nerlands
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	9	2	_	_	125	0	12	1	16	1	53	0
1974 Average	5	Ō	_	-	74	Ō	12	1	8	2	43	Ō
1975 Average	9	0	-	-	27	0	8	5	71	70	19	4
1976 Average	21	6	-	-	39	0	18	16	87	87	8	0
1977 Average	17	0	-	-	51	0	66	55	179	177	31	4
1978 Average	20	0	-	-	38	0	42	37	318	316	5	2
1979 Average	18	0	-	-	30	0	66	52	439	437	23	7
1980 Average	4	0	-	-	4	0	70	61	533	507	2	(s)
1981 Average	1	0	-	-	11	0	36	33	522	469	30	(s)
1982 Average	5 10	0	_	-	18 18	(s)	20 4	18 3	685 826	645 766	35 65	(s) 3
1983 Average 1984 Average	8	0	_	_	45	(s)	4	0	748	659	65	3
1985 Average	23	0	_	_	45 60	(s) (s)	3	1	816	715	58	0
1986 Average	87	57	_	_	76	(3)	12	11	699	621	54	Ő
1987 Average	148	115	_	_	54	1	13	12	655	602	60	Ő
1988 Average	134	106	_	_	65	5	19	12	747	674	61	Ő
1989 Average	172	136	_	_	34	3	39	39	767	716	49	Ő
1990 Average	182	140	_	_	58	2	41	40	755	689	55	ŏ
1991 Average	163	123	_	_	47	3	24	24	807	759	29	ŏ
1992 Average	126	102	-	-	55	Ō	10	10	830	787	26	Ō
1993 January	188	167	76	70	56	0	0	0	858	820	11	0
February	148	137	14	14	34	0	0	0	807	748	18	0
March	161	129	59	59	43	0	11	10	844	798	10	0
April	178	165	74	62	14	0	8	8	832	796	0	0
May	147	90	56	56	26	0	21	10	917	846	10	0
June	176	143	75	75	25	0	0	0	987	959	10	0
July	204	184	96	96	25	0	11	11	943	878	21	0
August	131	101	121	121	50	0	14	14	862	809	17	0
September	224	170	49	49	32	0	28	28	929	867	22	0
October	192	182	146	135	40	0	14	10	1,013	951	0	0 0
November	164	143	115	106	30	0	0	0	1,116	1,041	(s)	0
December Average	134 <b>171</b>	85 141	84 <b>81</b>	84 <b>78</b>	0 <b>31</b>	0	28 11	28 <b>10</b>	909 <b>919</b>	837 <b>863</b>	6 10	0
1994 January	182	149	128	128	8	0	11	11	971	945	37	0
February	184	131	96	96	35	0	19	15	967	926	43	0
March	188	167	37	37	16	0	13	0	1,067	1,014	43	0
April	241	197	52	52	13	0	3	0	987	963	24	0
	105	75	85	85	19	0	0	0	975	934	79	0
June	112	101	72	72	12	0	10	10	1,040	974	38	0
July	127	127	144	144	35	0	36	36	926	889	35	0
August	181	181	115	115	52	0	13	7	894	852	33	0
September	144	144	63	63	34	0	9	0	1,043	963	34	0
October	215	215	110	110	21	0	0	0	940	881	18	0
November	134	134	97	97	17	0	0	0	1,037	981	1	0
December	124	124	96	96	9	0	6	0	963	944	4	0
Average	161	146	91	91	22	0	10	6	984	939	32	0
1995 January	191	181	130	130	4	0	21	21	942	909	0	0
February	158	148	107	107	1	0	0	0	919	888	17	0
March	257	238	104	104	8	0	0	0	1,006	961	29	0
April	193	193	146	146	13	0	7	0	993	963	3	0
May	171	153	128	128	0	0	0	0	1,118	1,063	24	0
June	243	220	149	149	13	0	7	0	1,138	1,076	37	0
July	223	223	87	87	4	0	0	0	1,188	1,166	0	0
August	330	311	116	104	0	0	0	0	1,185	1,156	21	0
September	252	236	61	61	0	0	14	14	1,305	1,238	0	0
October 10-Month Average	199 <b>222</b>	190 <b>210</b>	12 <b>104</b>	12 <b>103</b>	11 5	0 <b>0</b>	13 6	5 <b>4</b>	894 <b>1,070</b>	854 <b>1,028</b>	31 <b>16</b>	0 <b>0</b>
1994 10-Month Average	168	149	90	90	24	0	11	8	981	934	38	0
1993 10-Month Average	175	147	77	74	35	0	11	9	900	848	12	ŏ

<sup>a</sup> Includes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC. <sup>b</sup> Through 1992, Ecuador was a member of OPEC. See Table 3.3c.

- =Not applicable. (s)=Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • 1973-1980: Energy Information Administration (EIA), Petroleum Supply Monthly, February 1993, Table S3. • **1981 forward:** EIA, Petroleum Supply Monthly, December 1995, Table S3.

# Table 3.3gPetroleum Imports: Netherlands Antilles, Norway, Puerto Rico, Russia,<br/>Spain, and Trinidad and Tobago

(Thousand Barrels per Day)

						Non-	OPEC <sup>a</sup>					
		nerlands ntilles	N	orway	Pue	rto Rico	Rı	ıssia <sup>b</sup>	s	pain		inidad Tobago
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	585	0	1	0	99	0	26	0	26	0	255	60
1974 Average	511	ŏ	1	1	90	ŏ	20	0 0	12	0 0	251	63
1975 Average	332	ŏ	17	12	90	ŏ	14	ů	1	Ő	242	115
1976 Average	275	ŏ	36	35	88	ŏ	11	2	1	Ő	274	104
1977 Average	211	ŏ	50	48	105	ŏ	12	2	10	ŏ	289	134
1978 Average	229	ŏ	104	104	94	ŏ	8	1	3	ŏ	253	142
1979 Average	231	Ő	75	75	92	Õ	1	Ō	4	Õ	190	123
1980 Average	225	ŏ	144	144	88	ŏ	1	ŏ	1	ŏ	176	115
1981 Average	197	ŏ	119	114	62	ŏ	5	(s)	1	(s)	133	102
1982 Average	175	ŏ	102	102	50	ŏ	1	0	3	(s)	112	92
1983 Average	189	Ō	66	65	40	Ō	1	(s)	2	(s)	96	83
1984 Average	188	ŏ	114	112	42	ŏ	13	(s)	11	0	94	87
1985 Average	40	ŏ	32	31	28	ŏ	8	(s)	29	1	113	98
1986 Average	25	Ō	60	53	21	Ō	18	(s)	53	Ó	125	93
1987 Average	29	ŏ	80	70	21	ŏ	11	0	55	õ	106	75
1988 Average	36	ŏ	67	62	22	ŏ	29	Ő	68	õ	97	71
1989 Average	42	Ō	138	127	32	Ō	48	Ō	67	Ō	94	73
1990 Average	31	ŏ	102	96	32	ŏ	45	1	47	õ	96	76
1991 Average	81	Ó	82	74	27	Ó	29	1	33	Ó	88	72
1992 Average	65	0	127	119	26	0	18	5	32	0	95	70
1993 January	73	0	70	70	37	0	0	0	44	0	59	48
February	80	0	62	61	21	0	0	0	19	0	72	58
March	61	0	122	115	26	0	0	0	21	0	92	71
April	97	0	170	170	18	0	32	32	61	0	78	55
May	81	0	222	222	38	0	32	32	42	0	68	51
June	55	0	160	160	29	0	77	51	20	0	77	55
July	52	0	215	215	49	0	157	134	41	0	82	53
August	56	0	180	161	30	0	26	0	37	0	50	37
September	101	0	113	113	28	0	57	29	54	0	70	55
October	122	0	115	93	30	0	176	123	33	0	69	54
November	90	0	162	155	23	0	56	32	30	0	66	55
December	118	0	108	101	14	0	38	0	42	0	103	71
Average	82	0	142	137	29	0	55	36	37	0	74	55
1994 January	189	0	101	96	26	0	11	0	26	0	90	60
February	119	0	199	166	19	0	14	0	31	0	92	80
March	112	0	108	108	21	0	34	34	37	0	68	54
April	73	0	205	184	17	0	0	0	45	0	76	56
May	70	0	159	159	21	0	32	32	53	0	68	58
June	69	0	176	158	42	0	133	133	50	0	106	79
July	121	0	276	257	43	0	82	82	25	0	69	55
August	114	0	206	198	23	0	21	15	38	0	85	55
September	95	0	347	336	17	0	6	0	56	0	64	56
October	77	0	310	300	20	0	30	30	35	0	79	65 55
November	96	0	214	195	6	0	0	0	22	0	59	55
December	43	0	125	123	10	0	0	0	26	0	74	74
Average	98	0	202	190	22	0	30	27	37	0	77	62
1995 January	75	0	200	170	6	0	0	0	7	0	91	91
February	58	0	194	164	7	0	0	0	9	0	60	60
March	68	0	241	209	13	0	0	0	16	0	70	70
April	0	0	315	291	9	0	0	0	16	7	55	55
May	86	0	292	292	19	0	12	0	25	0	61	53
June	50	0	370	370	16	0	15	0	27	0	78	74
July	65	0	263	256	17	0	41	32	10	0	73	54
August	62	0	279	264	26	0	136	98	17	0	74	53
September	33	0	364	359	12	0	50	32	19	0	73	55
October 10-Month Average	48 55	0 <b>0</b>	163 <b>268</b>	163 <b>254</b>	15 <b>14</b>	0 <b>0</b>	0 <b>26</b>	0 16	6 15	0 1	86 <b>72</b>	70 <b>64</b>
-												
1994 10-Month Average 1993 10-Month Average	104 78	0 0	208 144	196 139	25 31	0	36 56	33 41	40 37	0 0	80 72	62 54
1000 IN-MONTH AVELAYE	10	U	144	133	51	U	50	41	51	U	12	J4

<sup>a</sup> Includes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

Notes:  $\bullet$  Beginning in October 1977, Strategic Petroleum Reserve imports are included.  $\bullet$  U.S. geographic coverage is the 50 States and the District of Columbia.

that were refined from crude oil produced by OPEC. <sup>b</sup> Imports from other States in the former U.S.S.R. may be included in imports from Russia for the years 1973 through 1992.

(s)=Less than 500 barrels per day.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S3. • **1981 forward:** EIA, *Petroleum Supply Monthly*, December 1995, Table S3.

# Table 3.3h Petroleum Imports: United Kingdom, Virgin Islands, Other Non-OPEC, **Total Non-OPEC, and Total Imports**

(Thousand Barrels per Day)

_				Non-O	PEC <sup>a</sup>					
		nited gdom	Virgin	Islands	O Non-	ther OPEC <sup>b</sup>	То	tal <sup>b,c</sup>		otal ports
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	15	0	329	0	153	36	3,263	1,149	6,256	3,244
1974 Average	8	Ō	391	Ō	122	30	2,832	937	6,112	3,477
1975 Average	14	(s)	406	õ	120	14	2,454	893	6,056	4,105
1976 Average	31	13	422	Ō	203	101	2,247	742	7,313	5,287
1977 Average	126	97	466	Ō	287	157	2,614	971	8,807	6,615
1978 Average	180	169	428	Ō	239	146	2,612	1,172	8,363	6,356
1979 Average	202	197	431	0	269	192	2,819	1,407	8,456	6,519
980 Average	176	173	388	0	219	162	2,609	1,399	6,909	5,263
1981 Average	375	369	327	0	236	163	2,672	1,474	5,996	4,396
1982 Average	456	441	316	0	306	174	2,968	1,754	5,113	3,488
1983 Average	382	365	282	0	378	215	3,189	1,853	5,051	3,329
1984 Average	402	378	294	0	411	210	3,388	1,914	5,437	3,426
1985 Average	310	278	247	0	394	137	3,237	1,888	5,067	3,201
986 Average	350	317	244	0	426	144	3,387	2,065	6,224	4,178
987 Average	352	304	272	0	459	196	3,617	2,274	6,678	4,674
988 Average	315	254	242	0	487	196	3,882	2,411	7,402	5,107
1989 Average	215	160	321	Ō	457	197	3,921	2,467	8,061	5,843
990 Average	189	155	282	0	417	180	3,721	2,381	8,018	5,894
1991 Average	138	106	243	0	282	137	3,535	2,405	7,627	5,782
992 Average	230	200	249	0	335	149	3,796	2,676	7,888	6,083
993 January	229	201	252	0	325	104	<sup>c</sup> 3,766	<sup>c</sup> 2,672	8,004	6,292
February	173	127	244	0	223	151	3,452	2,471	7,948	6,156
March	332	298	244	0	393	186	4,003	2,918	8,285	6,488
April	413	337	245	0	472	243	4,161	2,995	8,768	6,928
May	522	495	279	0	363	152	4,353	3,179	8,663	6,809
June	458	408	290	0	581	405	4,452	3,455	8,805	7,201
July	292	247	202	0	600	299	4,801	3,574	9,219	7,289
August	343	323	256	0	556	356	4,378	3,210	8,429	6,641
September	286	217	184	0	552	251	4,517	3,173	8,531	6,581
October	353	338	236	0	453	233	4,984	3,698	9,197	7,181
November	351	340	330	0	503	270	4,739	3,434	8,903	6,997
December	432	403	288	0	394	231	4,486	3,298	8,645	6,838
Average	350	312	254	0	452	240	4,347	3,178	8,620	6,787
994 January	205	161	276	0	361	181	4,333	3,053	7,993	5,945
February	290	232	351	0	441	111	4,705	3,077	8,539	6,313
March	459	394	325	0	453	191	4,784	3,366	8,574	6,372
April	377	282	325	0	496	212	4,561	3,227	8,968	6,955
Мау	404	345	312	0	643	390	4,805	3,427	9,213	7,198
June	537	485	361	0	423	209	4,787	3,520	9,305	7,358
July	678	578	294	0	635	400	5,273	3,996	9,779	7,857
August	514	473	356	0	513	249	5,007	3,627	9,510	7,488
September	736	717	360	0	409	287	5,307	4,143	9,693	7,868
October	370	323	313	0	350	212	4,484	3,444	8,788	7,136
November	618	507	292	0	257	159	4,536	3,545	8,707	7,034
December	305	255	369	0	414	254	4,411	3,352	8,863	7,193
Average	458	396	328	0	450	239	4,749	3,483	8,996	7,063
995 January	256	228	283	0	209	131	4,126	3,215	7,955	6,503
February	382	359	322	0	300	143	4,244	3,211	8,358	6,565
March	663	621	298	0	174	91	4,641	3,655	9,020	7,409
April	491	450	284	0	314	143	4,589	3,748	8,486	7,073
May	405	366	203	0	286	165	4,711	3,849	8,736	7,354
June	520	418	268	0	368	253	5,123	4,123	9,585	7,957
July	137	97	240	0	441	277	4,482	3,630	8,845	7,265
August	288	249	264	0	336	261	4,898	3,954	9,024	7,415
September	427	386	223	0	312	180	4,979	4,072	9,726	8,041
October	528	479	299	Ő	331	214	4,364	3,465	8,576	7,075
10-Month Average	409	365	268	Ō	307	186	4,617	3,694	8,832	7,268
994 10-Month Average	458	400	327	0	473	246	4,805	3,491	9,038	7,053
993 10-Month Average	341	301	243	ŏ	453	238	4,294	3,140	8,590	6,761

<sup>a</sup> Includes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC. <sup>b</sup> Includes Bahrain, which is shown on Table 3.3a. <sup>c</sup> As of January 1993, includes petroleum imported from Ecuador, which

withdrew from OPEC on December 31, 1992.

(s)=Less than 500 barrels per day.

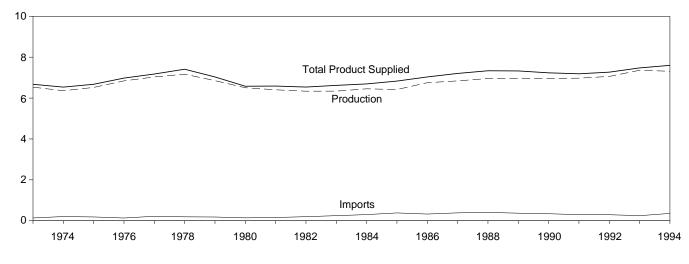
Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

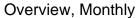
Sources: • 1973-1980: Energy Information Administration (EIA), Petroleum Supply Monthly, February 1993, Table S3. • 1981 forward: EIA, Petroleum Supply Monthly, December 1995, Table S3.

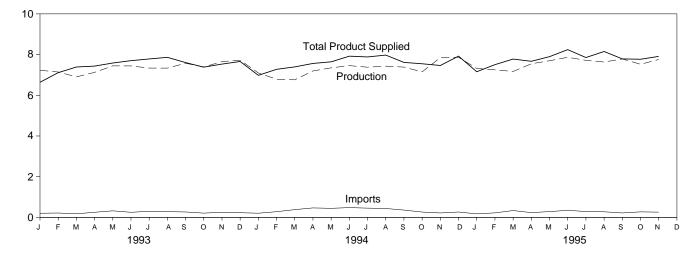
### Figure 3.2 Finished Motor Gasoline

(Million Barrels per Day, Except as Noted)

Overview, 1973-1994

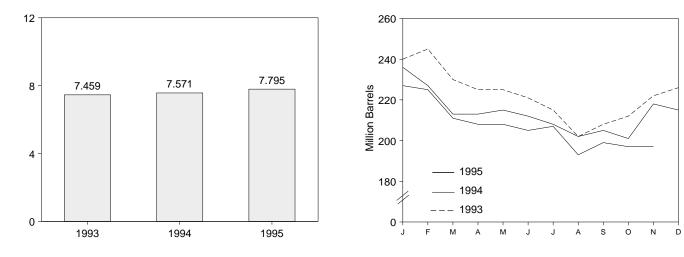






Product Supplied, January-November

Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared. Source: Table 3.4.

	Sup	ply		Disposition			Gasoline   Stocks <sup>a</sup>	Oxygenates		
	Total Production	Imports <sup>b</sup>	Stock Change <sup>b,c</sup>	Exports	Product Supplied	Totald	Finished	Ending Stocks <sup>a</sup>		
		Thou	usand Barrels per	Day		Million Barrels				
1973 Average	6,535	134	-9	4	6,674	209	NA	NA		
1974 Average	6,360	204	24	2	6,537	<sup>e</sup> 218	NA	NA		
1975 Average	6,520	184	<sup>e</sup> 28	2	6,675	235	NA	NA		
1976 Average	6,841	131	-10	3	6,978	231	NA	NA		
1977 Average	7,033	217	72	2	7,177	258	NA	NA		
1978 Average	7,169	190	-54	1	7,412	238	NA	NA		
1979 Average	6,852	181	-2	(s)	7,034	237	NA	NA		
1980 Average	6,506	140	66	1	6,579	<sup>e</sup> 261	NA	NA		
1981 Average <sup>f</sup>	6,405	157	<sup>e</sup> -28	2	6,588	253	203	NA		
1982 Average	6,338	197	-25	20	6,539	e235	<sup>e</sup> 194	NA		
1983 Average	6,340	247	<sup>e</sup> -45	10	6,622	222	186	NA		
1984 Average	6,453	299	54	6	6,693	243	205	NA		
1985 Average	6,419	381	-41	10	6,831	223	190	NA		
1986 Average	6,752	326	11	33	7,034	233	194	NA		
1987 Average	6,841	384	-15 3	35	7,206	226	189	NA		
1988 Average	6,956	405		22	7,336	228	190 177	NA		
1989 Average	6,963	369 342	-35 10	39 55	7,328	213 220	177 181	NA NA		
1990 Average	6,959				7,235					
1991 Average	6,975	297 294	3 -11	82 96	7,188	219 216	182 178	NA NA		
1992 Average	7,058	294	-11	90	7,268	210	1/0	NA		
1003 January	<sup>9</sup> 7,228	204	652	142	<sup>g</sup> 6,639	240	198	<sup>h</sup> 15		
1993 January February	7,144	216	149	99	7,112	240	202	14		
March	6,904	177	-417	109	7,389	245	189	14		
April	7,126	253	-168	109	7,435	230	184	15		
Арш Мау	7,446	323	93	90	7,585	225	187	15		
June	7,442	251	-88	81	7,700	221	184	18		
July	7,337	300	-240	92	7,785	215	177	20		
August	7,335	283	-323	77	7,864	202	167	20		
September	7,573	267	148	85	7,607	202	171	19		
October	7,394	210	142	80	7,382	212	176	18		
November	7,652	252	245	126	7,533	222	183	16		
December	7,725	231	132	162	7,661	226	187	13		
Average	7,360	247	26	105	7,476	226	187	13		
	,				.,•					
1994 January	7,097	206	227	97	6,980	236	194	11		
February	6,790	281	-281	77	7,275	227	186	11		
March	6,760	382	-341	88	7,395	213	176	13		
April	7,195	467	26	73	7,564	213	176	15		
May	7,348	446	85	64	7,644	215	179	16		
June	7,455	483	-72	88	7,922	212	177	18		
July	7,380	455	-127	78	7,884	208	173	22		
August	7,432	439	-172	70	7,975	202	168	24		
September	7,385	360	55	74	7,615	205	169	25		
October	7,151	263	-244	110	7,548	201	162	23		
November	7,849	219	496	108	7,464	218	177	20		
December	7,867	265	-23	231	7,924	215	176	17		
Average	7,312	356	-31	97	7,601	215	176	17		
1995 January	7,317	174	235	100	7,157	227	183	16		
February	7,250	223	-116	84	7,505	225	180	16		
March	7,171	336	-380	107	7,780	211	168	15		
April	7,547	235	-26	139	7,670	208	167	15		
May	7,697	286	18	67	7,898	208	168	15		
June	7,866	347	-121	91	8,243	205	164	14		
July	7,718	290	68	86	7,854	207	166	15		
August	7,634	276	-343	103	8,151	193	155	16		
September	7,785	219	122	94	7,788	199	159	15		
October	<sup>R</sup> 7,522	R 272	R-98	<sup>R</sup> 121	<sup>R</sup> 7,770	<sup>R</sup> 197	_ 156	14		
November	E 7,759	E 259	E 12	<sup>E</sup> 94	<sup>E</sup> 7,911	E 197	<sup>E</sup> 156	NA		
11-Month Average	<sup>E</sup> 7,570	<sup>E</sup> 266	<sup>E</sup> -57	E 99	<sup>E</sup> 7,795	<sup>E</sup> 197	<sup>E</sup> 156	NA		
1994 11-Month Average	7,260	364	-31	84	7,571	218	177	20		
· · · · · · · · · · · · · · · · · · ·	7,326	249	16	99	7,459	222	183	16		

### Table 3.4 Finished Motor Gasoline Supply and Disposition

<sup>a</sup> Stocks are totals as of end of period.

<sup>b</sup> From 1981 forward, blending components are excluded.

<sup>c</sup> A negative number indicates a decrease in stocks and a positive number indicates an increase. <sup>d</sup> Includes motor gasoline blending components and gasohol, but excludes

oxygenates, which are reported separately.

See Note 4 at end of section. See Note 2 at end of section.

f

<sup>g</sup> Beginning in 1993, motor gasoline production and product supplied include blending of fuel ethanol and an adjustment to correct for the imbalance of motor gasoline blending components. See Note 2 at end of section. <sup>h</sup> See Note 1 at end of section.

R=Revised data. NA=Not available. E=Estimate. (s)=Less than 500 barrels per day.

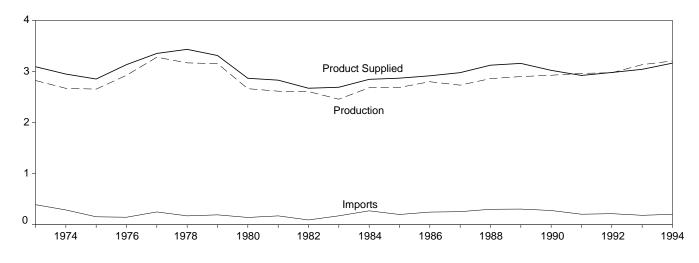
Note: Geographic coverage is the 50 States and the District of Columbia.

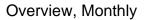
Sources: • 1973-1980: Energy Information Administration (EIA), Petroleum Supply Monthly, February 1993, Table S4. • 1981 forward: EIA, Petroleum Supply Monthly, December 1995, Table S4.

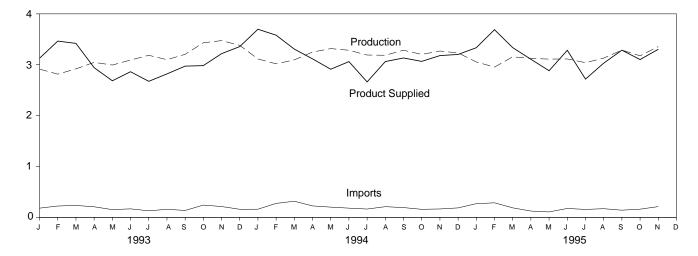
# Figure 3.3 Distillate Fuel

(Million Barrels per Day, Except as Noted)

Overview, 1973-1994

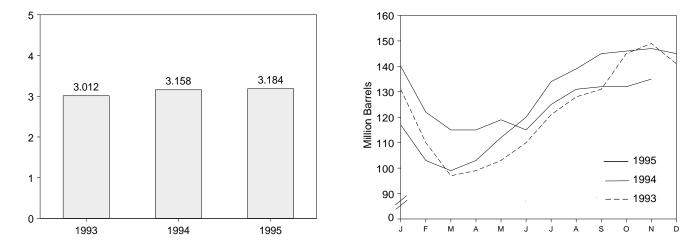






Product Supplied, January-November

Stocks, End of Month



Source: Table 3.5.

		Supply			Disposition			Ending Stock	sa
			Crude Oil					Sulfur	Content
	Total Production	Imports	Used Directly <sup>b</sup>	Stock Change <sup>c</sup>	Exports	Product Supplied <sup>b</sup>	Total	0.05 Percent or Less <sup>d</sup>	Greater Than 0.05 Percent <sup>d</sup>
			Thousand Ba		•			Million Barrel	s
1973 Average	2,822	392	2	115	9	3,092	196	NA	NA
1974 Average	2,669	289	2	<sup>e</sup> 10	2	2,948	<sup>f</sup> 200	NA	NA
1975 Average	2,654	155	2	<sup>e,f</sup> -41	1	2,851	209	NA	NA
1976 Average	2,924	146	1	-62	1	3,133	186	NA	NA
1977 Average	3,278	250	1	176	1	3,352	250	NA	NA
1978 Average	3,167	173	1	-93	3	3,432	216	NA	NA
1979 Average	3,153	193	1	34	3	3,311	,229	NA	NA
1980 Average	2,662	142	1	-64 f	3	2,866	<sup>†</sup> 205	NA	NA
1981 Average <sup>g</sup>	2,613	173	10	<sup>†</sup> -38	5	2,829	192 f 172	NA	NA
1982 Average	2,606	93	10	-35 f 404	74	2,671	<sup>f</sup> 179	NA	NA
1983 Average	2,456	174 272	_	124 57	64 51	2,690	140 161	NA NA	NA NA
1984 Average	2,681 2,687	200	_	-48	67	2,845	144	NA	NA
1985 Average 1986 Average	2,687	200	_	-48 31	100	2,868 2,914	144	NA	NA
1987 Average	2,731	255	_	-56	66	2,976	133	NA	NA
1988 Average	2,859	302	_	-30	69	3,122	124	NA	NA
1989 Average	2,899	306	_	-49	97	3,157	106	NA	NA
1990 Average	2,925	278	_	73	109	3,021	132	NA	NA
1991 Average	2,962	205	_	31	215	2,921	144	NA	NA
1992 Average	2,974	216	-	-8	219	2,979	141	NA	NA
1993 January	2,914	182	-	-318	287	3,128	131	<sup>g</sup> 15	<sup>g</sup> 115
February	2,815	224	-	-727	301	3,465	110	12	99
March	2,919	235	-	-420	154	3,420	97	11	87
April	3,047	209	_	71	241	2,943	99	12	88
May June	2,994 3,093	153 168	_	106 241	355 158	2,685 2,863	103 110	12 15	91 95
	3,186	130	_	346	296	2,674	121	21	100
July August	3,100	159	_	243	196	2,820	121	44	84
September	3,205	137	_	102	267	2,973	131	48	84
October	3,432	242	_	453	237	2,983	145	55	90
November	3,474	214	_	127	342	3,218	149	64	85
December	3,382	160	_	-267	453	3,357	141	64	77
Average	3,132	184	-	1	274	3,041	141	64	77
1994 January	3,114	161	-	-754	332	3,698	117	55	62
February	3,018	276	-	-521	235	3,581	103	49	54
March	3,096	318	_	-113	220	3,307	99	51	49
April	3,249	226		106	252	3,116	103	57	46
May	3,317	202 182	_	318 237	289	2,912	112 120	61 62	51 58
June July	3,285 3,191	162	_	472	168 220	3,062 2,663	120	62 69	58 65
August	3,187	211	_	142	193	3,063	134	67	71
September	3,285	193	_	205	140	3,133	145	66	78
October	3,203	159	-	40	256	3,066	146	67	79
November	3,270	166	-	45	211	3,180	147	70	77
December	3,232	187	-	-68	284	3,203	145	73	73
Average	3,205	203	-	12	234	3,162	145	73	73
1995 January	3,055	270	-	-152	141	3,335	140	69 62	71
February March	2,954 3,156	287 188	_	-660 -208	212 216	3,689 3,336	122 115	63 59	59 56
April	3,156	125	_	-208 -30	172	3,336	115	59 61	55
May	3,125	125	_	135	202	2,883	115	62	56
June	3,114	176	_	-132	137	3,284	115	59	56
July	3,041	157	_	332	148	2,718	125	61	64
August	3,130	171	_	186	84	3,031	131	61	70
September	3 288	142	-	28	116	3,286	132	63	68
October	<sup>R</sup> 3.176	162	-	<sup>R</sup> -2	<sup>R</sup> 238	<sup>R</sup> 3,102	<sup>R</sup> 132	61	<sup>R</sup> 70
November	5,357 ⊑	<sup>E</sup> 212	-	<sup>E</sup> 174	<sup>E</sup> 92	<sup>E</sup> 3,304	<sup>E</sup> 135	<sup>E</sup> 65	<sup>E</sup> 69
11-Month Average	<sup>E</sup> 3,138	<sup>E</sup> 181	-	<sup>E</sup> -25	<sup>E</sup> 160	<sup>E</sup> 3,184	<sup>E</sup> 135	<sup>E</sup> 65	<sup>E</sup> 69
1994 11-Month Average 1993 11-Month Average	3,202 3,108	205 186	-	19 26	229 257	3,158 3,012	147 149	70 64	77 85

### Table 3.5 Distillate Fuel Oil Supply and Disposition

 <sup>a</sup> Stocks are totals as of end of period.
 <sup>b</sup> Beginning in January 1983, crude oil used directly as distillate fuel oil is reported as crude oil product supplied on Table 3.2b rather than as distillate <sup>c</sup> A negative number indicates a decrease in stocks and a positive number

indicates an increase. <sup>d</sup> By weight.

<sup>e</sup> See Note 6 at end of section. <sup>f</sup> See Note 4 at end of section.

<sup>g</sup> See Note 3 at end of section.

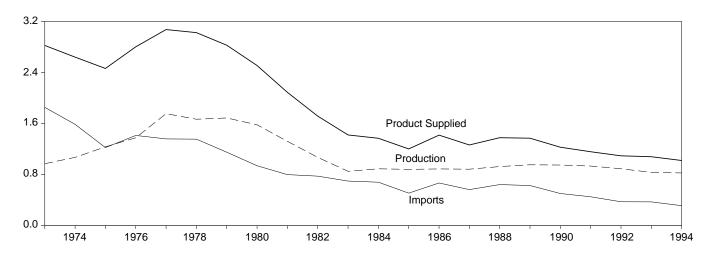
 R=Revised data. NA=Not available. – =Not applicable. E=Estimate.
 Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

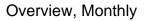
Sources: • **1973-1980**: Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S5. • **1981 forward**: EIA, *Petroleum Supply Monthly*, December 1995, Table S5.

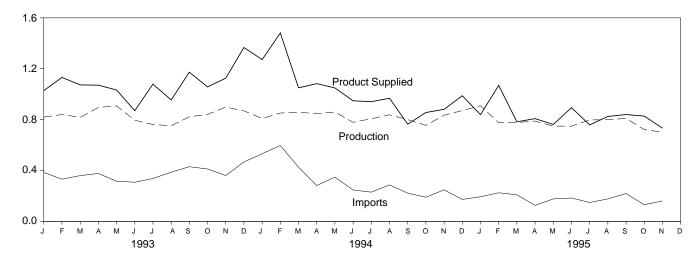
# Figure 3.4 Residual Fuel

(Million Barrels per Day, Except as Noted)

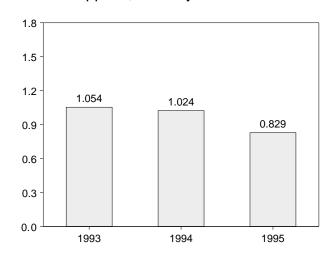
Overview, 1973-1994



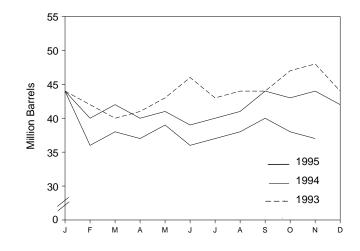




Product Supplied, January-November



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared. Source: Table 3.6.

		Supply			Disposition		
	Total Production	Imports	Crude Oil Used Directly <sup>a</sup>	Stock Change <sup>b</sup>	Exports	Product Supplied <sup>a</sup>	Ending Stocks <sup>c</sup>
			Thousand Ba	arrels per Day	•		Million Barrels
1072 Average	971	4 952	47	F	22	2 822	50
1973 Average 1974 Average	1,070	1,853 1,587	17 13	-5 17	23 14	2,822 2,639	53 d 60
1975 Average	1,235	1,223	15	<sup>d</sup> -2	15	2,462	74
1976 Average	1,377	1,413	17	-5	12	2,801	72
1977 Average	1,754	1,359	13	48	6	3,071	90
1978 Average	1,667	1,355	13	1	13	3,023	90
1979 Average	1,687	1,151	12	15	9	2,826	96
1980 Average	1,580	939	12	-10	33	2,508	d <b>92</b>
1981 Average <sup>e</sup>	1,321	800	48	<sup>d</sup> -37	118	2,088	78
1982 Average	1,070	776	48	-32	209	1,716	d 66
1983 Average	852	699	-	<sup>d</sup> -55	185	1,421	49
1984 Average	891	681	-	12	190	1,369	53
1985 Average	882	510	-	-7	197	1,202	50
1986 Average	889	669	-	-8	147	1,418	47
1987 Average	885	565	-	(s)	186	1,264	47
1988 Average	926	644	-	-8	200	1,378	45
1989 Average	954	629	-	-2	215	1,370	44
1990 Average	950	504	-	13	211	1,229	49
1991 Average	934	453	-	4	226	1,158	50
1992 Average	892	375	-	-20	193	1,094	43
1993 January	820	385	-	44	133	1,028	44
February	840	332	-	-74	113	1,132	42
March	818	360	-	-47	152	1,073	40
April	896	377	-	32	169	1,071	41
May	908	316	-	54	137	1,033	43
June	795	308	-	87	147	870	46
July	762	337	-	-102	122	1,079	43
August	752	387	-	64	120	955	44
September	822	430	-	-31	110 94	1,173	44
October November	841 899	412 361	_	103 48	94 86	1,057	47 48
December	869	467	_	-129	98	1,126 1,367	40
Average	835	373	_	4	123	1,080	44
1994 January	809	532	_	4	64	1,272	44
February	852	597	_	-159	127	1,481	44
March	859	426	_	61	175	1,050	42
April	846	282	_	-65	110	1,083	40
May	860	348	_	30	129	1,049	41
June	779	247	_	-43	122	948	39
July	807	230	-	12	83	941	40
August	838	287	_	37	120	968	41
September	800	222	-	117	141	764	44
October	755	190	-	-45	134	856	43
November	835	248	-	19	182	881	44
December	871	173	-	-58	115	988	42
Average	826	314	-	-6	125	1,021	42
1995 January	909	194	_	60	203	839	44
February	776	225	-	-275	208	1,069	36
March	778	209	-	50	154	783	38
April	789	126	-	-23	129	808	37
May	749	177	-	48	115	762	39
June	749	184	-	-82	120	894	36
July	798	149	-	25	164	759	37
August	799	177	-	28	122	825	38
September	810 <sup>R</sup> 722	219 <sup>R</sup> 131	_	64 <sup>R</sup> -58	124 <sup>R</sup> 84	840 <sup>R</sup> 828	40 <sup>R</sup> 38
October	E 701	<sup>E</sup> 161		<sup>11</sup> -58 <sup>E</sup> -47	<sup>E</sup> 176	E 722	<sup>E</sup> 37
November 11-Month Average	E 701 E <b>780</b>	E 161 E 177		⊑ -47 Ĕ <b>-17</b>	⊑ 176 ⊑ <b>145</b>	<sup>E</sup> 733 <sup>E</sup> 829	E 37 E 37
-	000			~			
1994 11-Month Average 1993 11-Month Average	822 832	327 364	-	-2 17	126 126	1,024 1,054	44 48

### Table 3.6 Residual Fuel Oil Supply and Disposition

 $^{\rm a}$  Beginning in January 1983, crude oil used directly as residual fuel oil is reported as crude oil product supplied on Table 3.2b rather than as residual fuel oil product supplied. <sup>b</sup> A negative number indicates a decrease in stocks and a positive number

indicates an increase. <sup>c</sup> Stocks are totals as of end of period. <sup>d</sup> See Note 4 at end of section.

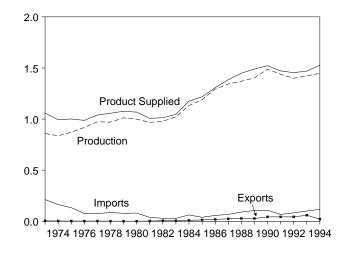
<sup>e</sup> See Note 3 at end of section.

See Note 3 at end of section.
 R=Revised data. - =Not applicable. E=Estimate. (s)=Less than +500 barrels per day and greater than -500 barrels per day.
 Note: Geographic coverage is the 50 States and the District of Columbia. Sources: • 1973-1980: Energy Information Administration (EIA), Petroleum Supply Monthly, February 1993, Table S6. • 1981 forward: EIA, Petroleum Supply Monthly, December 1995, Table S6.

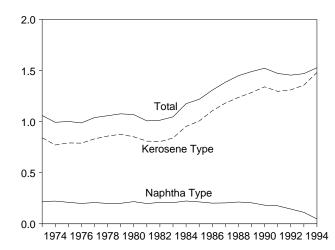
# Figure 3.5 Jet Fuel

(Million Barrels per Day, Except as Noted)

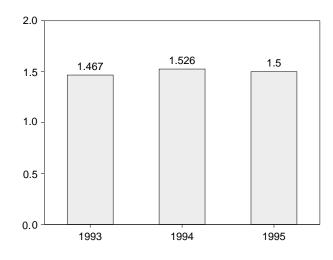
### Overview, 1973-1994



# Product Supplied by Type, 1973-1994

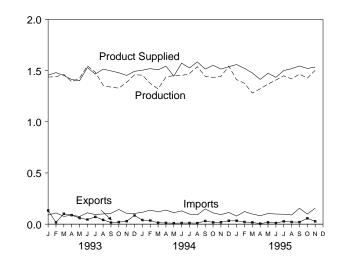


# Product Supplied, January-November

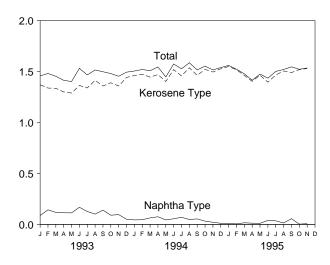


Source: Table 3.7.

#### Overview, Monthly



# Product Supplied by Type, Monthly



### Stocks, End of Month

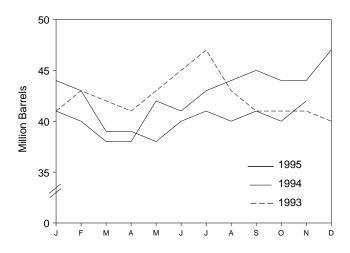


Table 3.7	Jet Fuel	Supply	and	Disposition
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		Supply			Dis	sposition			
	Р	roduction		Charala		Prod	luct Supplied	End	ing Stocks <sup>a</sup>
	Total	Kerosene Type	Imports	Stock Change <sup>b</sup>	Exports	Total	Kerosene Type	Total	Kerosene Type
			Thous	and Barrels p	er Day			Mil	lion Barrels
1973 Average	859	679	212	8	4	1,059	842	29	23
1974 Average	836	641	163	2	3	993	771	<sup>с</sup> 29	<sup>c</sup> 24
1975 Average	871	691	133	<sup>с</sup> 2	2	1,001	791	30	25
1976 Average	918	731	76	5	2	987	789	32	26
1977 Average	973	787	75	7	2	1,039	831	35	28
1978 Average	970	791	86	-2	1	1,057	858	34	28
1979 Average	1,012	835	78	13	1	1,076	876	39	33
1980 Average	999	811	80	10	1	1,068	851	<sup>c</sup> 42	<sup>c</sup> 36
1981 Average	968	775	38	<sup>c</sup> -4	2	1,007	809	41 37 <sup>c</sup>	34
1982 Average	978	778	29	-12	6	1,013	804		<sup>c</sup> 31
1983 Average	1,022	817	29	<sup>с</sup> (s)	6	1,046	839	39	32
1984 Average	1,132	919 983	62	9	9	1,175	953	42	35
1985 Average	1,189		39	-4	13	1,218	1,005	40	34
1986 Average	1,293 1,343	1,097 1,138	57 67	25 (s)	18 24	1,307 1,385	1,105 1,181	50 50	43 42
1987 Average 1988 Average	1,343	1,164	90	(s) -17	24	1,365	1,236	50 44	42
1989 Average	1,403	1,197	106	-17	27	1,489	1,284	41	34
1990 Average	1,488	1,311	108	31	43	1,522	1,340	52	46
1991 Average	1,438	1,274	67	-9	43	1,471	1,296	49	40
1992 Average	1,399	1,254	82	-16	43	1,454	1,310	43	39
	.,	.,				.,	.,		
1993 January	1,437	1,308	89	-64	134	1,456	1,369	41	36
February	1,440	1,316	110	53	17	1,480	1,337	43	38
March	1,463	1,332	76	-15	101	1,453	1,335	42	38
April	1,391	1,265	88	-23	88	1,413	1,299	41	37
	1,427	1,302	75	42	60	1,401	1,288	43	38
June	1,547	1,407	111	83	45	1,530	1,362	45	41
July	1,485	1,359	94	42	71	1,466	1,338	47	43
August	1,358	1,257	100	-98	42	1,514	1,413	43	40
September	1,338	1,241	106	-69	16	1,497	1,357	41	38
October	1,329	1,242	143	-27	20	1,479	1,389	41	37
November	1,386	1,301	105	8	29	1,453	1,357	41	38
December	1,459	1,382	105	-13	85	1,493	1,441	40	38
Average	1,422	1,309	100	-7	59	1,469	1,357	40	38
1994 January	1,456	1,394	116	29	40	1,504	1,460	41	39
February	1,430	1,331	138	-43	35	1,519	1,473	40	38
March	1,322	1,272	120	-80	14	1,507	1,444	38	36
April	1,437	1,395	138	20	12	1,544	1,469	38	36
May	1,451	1,403	112	108	9	1,446	1,402	42	40
June	1,451	1,400	130	-2	11	1,573	1,518	41	40
July	1,472	1,422	98	34	11	1,526	1,456	43	41
August	1,538	1,498	91	33	10	1,585	1,536	44	42
September	1,444	1,419	149	47	31	1,515	1,461	45	44
October	1,434	1,409	110	-27	18	1,552	1,520	44	43
November	1,442	1,433	93	(s)	19	1,515	1,494	44	43
December	1,543	1,533	114	86	33	1,538	1,526	47	46
Average	1,448	1,410	117	18	20	1,527	1,480	47	46
005 January	1,412	1,402	79	-101	33	1 550	1,548	44	43
995 January February	1,412	1,366	123	-101 -44	33 21	1,559 1,522	1,548	44 43	43
March	1,281	1,272	99	-44	17	1,322	1,461	39	38
April	1,322	1,318	99 82	-16	5	1,414	1,403	39	38
May	1,368	1,356	104	-10	18	1,474	1,463	38	37
June	1,408	1,395	99	62	10	1,434	1,395	40	39
July	1,449	1,435	97	19	27	1,500	1,465	41	40
August	1,419	1,411	90	-32	21	1,519	1,505	40	39
September	1.466	1,460	155	56	20	1.545	1.489	41	41
October	<sup>R</sup> 1.426	<sup>R</sup> 1,422	<sup>R</sup> 99	<sup>R</sup> -54	<sup>R</sup> 57	<sup>R</sup> 1,521	<sup>R</sup> 1,518	<sup>R</sup> 40	<sup>R</sup> 39
November	<sup>⊾</sup> 1,503	<sup>E</sup> 1,494	<sup>E</sup> 156	<sup>E</sup> 98	<sup>E</sup> 28	<sup>E</sup> 1,534	<sup>E</sup> 1,528	<sup>E</sup> 42	<sup>E</sup> 41
11-Month Average	<sup>E</sup> 1,403	<sup>E</sup> 1,394	<sup>E</sup> 107	<sup>E</sup> -14	E 24	<sup>E</sup> 1,500	<sup>E</sup> 1,481	<sup>E</sup> 42	<sup>E</sup> 41
004 44 Manuth A	4 400	4 000			40	4 500	4		
994 11-Month Average	1,439	1,398	117	11	19	1,526	1,475	44	43
1993 11-Month Average	1,418	1,302	99	-7	57	1,467	1,350	41	38

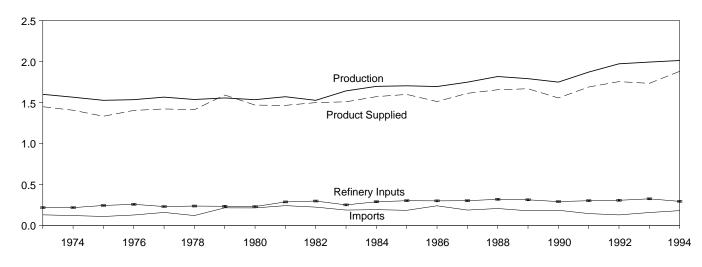
 <sup>a</sup> Stocks are totals as of end of period.
 <sup>b</sup> A negative number indicates a decrease in stocks and a positive number indicates an increase. <sup>c</sup> See Note 4 at end of section. R=Revised data. E=Estimate. (s)=Less than +500 barrels per day and

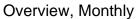
greater than -500 barrels per day. Note: Geographic coverage is the 50 States and the District of Columbia. Sources: • **1973-1980**: Energy Information Administration (EIA), *Petroleum Supply Monthly*, February 1993, Table S7. • **1981 forward:** EIA, *Petroleum Supply Monthly*, December 1995, Table S7.

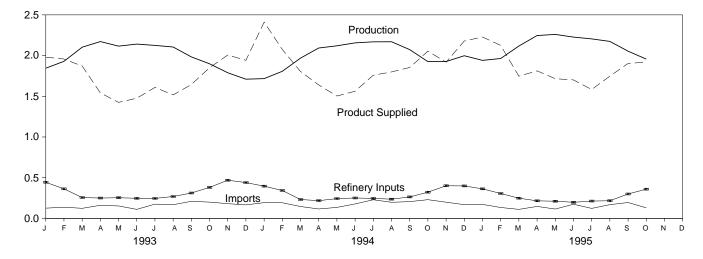
# Figure 3.6 Liquefied Petroleum Gases

(Million Barrels per Day, Except as Noted)

Overview, 1973-1994



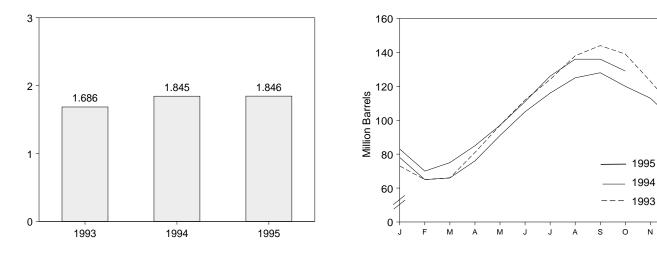




Product Supplied, January-October

Stocks, End of Month

N D



Note: Because vertical scales differ, graphs should not be compared. Source: Table 3.8.

Energy Information Administration/Monthly Energy Review January 1996

	Sup	ply		Dispo	sition		
	Total Production	Imports	Stock Change <sup>a</sup>	Refinery Inputs	Exports	Product Supplied	Ending Stocks <sup>b</sup>
			Thousand Ba	arrels per Day			Million Barrels
973 Average	1,600	132	35	220	27	1,449	99
1974 Average	1,565	123	38	220	25	1,406	<sup>c</sup> 113
1975 Average	1,527	112	<sup>c</sup> 35	246	26	1,333	125
1976 Average	1,535	130	-24	260	25	1,404	116
977 Average	1,566	161	55	233	18	1,422	136
978 Average	1,537	123	-12	239	20	1,413	<sup>c</sup> 132
979 Average	1,556	217	<sup>c</sup> -70	236	15	1,592	111
980 Average	1,535	216	27	233	21	1,469	<sup>c</sup> 120
981 Average	1.571	244	<sup>c</sup> 18	289	42	1,466	135
982 Average	<sup>d</sup> 1,527	226	-111	300	65	1,499	<sup>c</sup> 94
983 Average	1,642	190	<sup>c</sup> -4	253	73	1,509	<sup>c</sup> 101
984 Average	1,697	195	<sup>c</sup> -19	291	48	1,572	101
985 Average	1,704	187	-75	304	62	1,599	74
986 Average	1,695	242	80	302	42	1,512	103
987 Average	1,748	190	-15	304	38	1,612	97
1988 Average	1,817	209	1	321	49	1,656	97
1989 Average	1,791	181	-47	315	35	1,668	80
1990 Average	1,749	188	48	293	40	1,556	98
1991 Average	1,871	147	-15	304	41	1,689	92
1992 Average	1,972	131	-10	309	49	1,755	89
1993 January	1,845	126	-492	444	39	1,980	73
February	1,929	138	-309	363	55	1,958	65
March	2,103	124	53	256	47	1,871	66
April	2,172	161	472	250	69	1,542	81
May	2,116	153	540	254	50	1,425	97
June	2,141	111	489	247	41	1,476	112
July	2,125	175	391	246	54	1,609	124
August	2,105	168	442	269	45	1,517	138
September	1,984	210	204	312	35	1,644	144
October	1,899	200	-154	381	21	1,851	139
November	1,789	181	-527	469	21	2,007	123
December	1,710	166	-545	440	40	1,942	106
Average	1,993	160	49	327	43	1,734	106
994 January	1,717	194	-923	396	28	2,410	78
February	1,807	192	-463	343	44	2,075	65
March	1,969	146	42	232	37	1,804	66
April	2,093	116	323	218	29	1,639	76
May	2,000	135	478	243	32	1,503	91
June	2,156	178	480	251	41	1,562	105
July	2,169	229	353	246	40	1,759	116
August	2,100	198	296	236	37	1,799	125
September	2,073	206	104	264	56	1,854	123
October	1,926	230	-259	322	40	2,054	120
November	1,927	199	-239	401	35	1,919	113
December	1,998	169	-452	399	41	2,179	99
Average	<b>2,012</b>	183	-19	296	38	1,880	99
995 January	1,941	172	-542	363	64	2,228	83
February	1,964	134	-456	306	122	2,125	70
March		111	175	248	57	1,747	75
April		147	323	240	43	1,812	85
Арпі Мау	2,240	115	386	210	43 62	1,716	97
		174	447	198	55	1,701	111
June July	2,205	123	447 489	213	55 41	1,583	126
		169	489 322		57		126
August	2,174			217		1,747	
September	2,054	195	17	300	29 35	1,903	136
October 10-Month Average	1,957 <b>2,115</b>	130 <b>147</b>	-228 <b>97</b>	359 <b>263</b>	35 <b>56</b>	1,920 <b>1,846</b>	129 <b>129</b>
-							
1994 10-Month Average	2,021	182 157	46 166	275 302	38 45	1,845 1,686	120 139

# Table 3.8 Liquefied Petroleum Gases Supply and Disposition

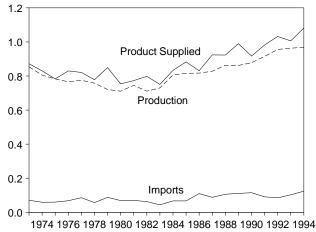
<sup>a</sup> A negative number indicates a decrease in stocks and a positive number indicates an increase.
 <sup>b</sup> Stocks are totals as of end of period.
 <sup>c</sup> See Note 4 at end of section.
 <sup>d</sup> See Note 6 at end of section.
 Notes: • Liquefied petroleum gases include ethane, ethylene, propane,

propylene, normal butane, butylene, isobutane and isobutylene.
Geographic coverage is the 50 States and the District of Columbia. Sources: • 1973-1980: Energy Information Administration (EIA), Petroleum Supply Monthly, February 1993, Table S8. • 1981 forward: EIA, Petroleum Supply Monthly, December 1995, Table S9.

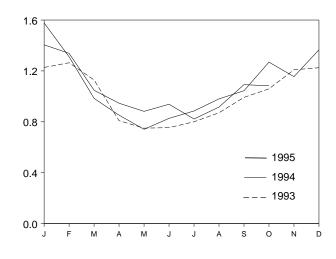
## Figure 3.7 Propane and Propylene

(Million Barrels per Day, Except as Noted)

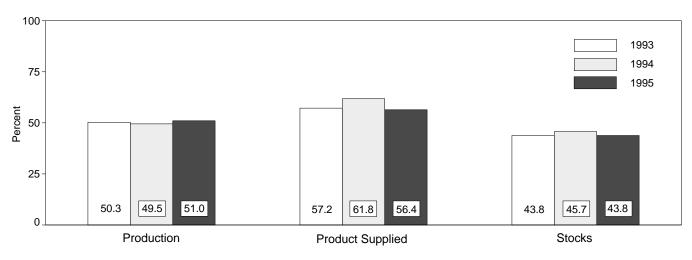
### Overview, 1973-1994



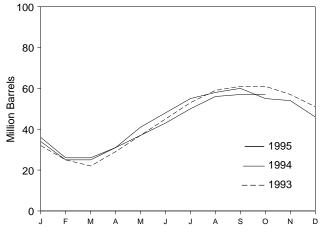
### Product Supplied, Monthly



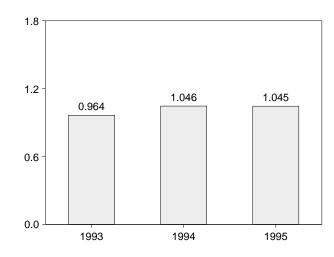
### Share of Liquefied Petroleum Gases, October



Stocks, End of Month



### Product Supplied, January-October



Note: Because vertical scales differ, graphs should not be compared.

Sources: Table 3.9 and, for calculation of shares, data prior to rounding for publication in Tables 3.8 and 3.9.

-	Sup	ply		Dispo	sition	1	_
	Total Production	Imports	Stock Change <sup>a</sup>	Refinery Inputs	Exports	Product Supplied	Ending Stocks <sup>b</sup>
			Thousand Ba	arrels per Day			Million Barrels
1973 Average	854	71	30	8	15	872	65
1974 Average	805	59	11	9	14	830	69
1975 Average	783	60	36	11	13	783	82
1976 Average	766	68	-22	12	13	830	74
1977 Average	775	86	21	10	10	821	81
1978 Average	758	57	15	13	9	778	с <b>87</b>
1979 Average	721	88	<sup>c</sup> -61	14	8	849	64
1980 Average	711	69	4	12	10	754	<sup>c</sup> 65
1981 Average	745	70	<sup>c</sup> 18	5	18	773	76
1982 Average	711	63	-59	4	31	798	<sup>c</sup> 54
1983 Average	730	44	<sup>c</sup> -24	4	43	751	<sup>c</sup> 48
1984 Average	806	67	°7	4	30	833	58
1985 Average	816	67	-50	3	48	883	39
1986 Average	817	110	64	4	28	831	63
1987 Average	828	88	-41	8	24	924	48
1988 Average	863	106	7	8	31	923	50
1989 Average	862	111	-52	11	24	990	32
1990 Average	878	115	48	(s)	28	917	49
1991 Average	915	91	-3	(s)	28	982	48
1992 Average	956	85	-24	(s)	33	1,032	39
1993 January	968	79	-212	1	31	1,227	32
February	964	82	-255	(s)	37	1,264	25
March	966	85	-109	(s)	32	1,129	22
April	980	108	238	(s)	40	809	29
Мау	951	96	266	0	30	750	37
June	967	75	265	0	23	754	45
July	963	118	256	0	26	800	53
August	960	116	178	0	27	871	59
September	969	132	92	0	17	992	61
October	954	107	-11	0	13	1,059	61
November	963	138	-126	0	17	1,209	57
December	953	102	-195	0	25	1,225	51
Average	963	103	34	(s)	26	1,006	51
1994 January	889	141	-566	0	19	1,577	34
February March	905 939	128 87	-308 13	0	30 29	1,311 984	25 25
April	978	83	188	0	29	852	31
Мау	976	90	306	0	20	741	41
June	978	117	247	Ő	20	827	48
July	977	151	221	0	20	885	55
August	980	135	107	0	28	980	58
September	1,008	133	77	Ő	20	1,044	60
October	954	164	-175	õ	24	1,269	55
November	1,002	137	-43	Ő	27	1,155	54
December	1,034	127	-233	Ő	29	1,366	46
Average	969	124	-13	0	24	1,082	46
1995 January	1,002	108	-350	0	55	1,405	36
February	983	94	-361	0	100	1,338	26
March	1,013	90	16	(s)	39	1,048	26
April	1,029	107	159	0	31	946	31
May	1,042	73	204	0	29	882	37
June	1,038	114	187	0	27	938	43
July	1,011	73	235	0	27	822	50
August	1,009	107	176	0	24	916	56
September	1,023	145	51	0	25	1,092	57
October	998	97	-18	0	30	1,083	57
10-Month Average	1,015	101	33	(s)	38	1,045	57
1994 10-Month Average 1993 10-Month Average	959 964	123 100	12 73	0 (s)	23 27	1,046 964	55 61

### Table 3.9 Propane and Propylene Supply and Disposition (A Subset of Table 3.8)

<sup>a</sup> A negative number indicates a decrease in stocks and a positive number indicates an increase.
 <sup>b</sup> Stocks are totals as of end of period.
 <sup>c</sup> See Note 4 at end of section.
 (s)=Less than 500 barrels per day.
 Note: Geographic coverage is the 50 States and the District of Columbia.

Sources: • 1973 through 1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual." • 1976 through 1980: Energy Information Administration (EIA), *Energy Data Reports*, Petroleum Statement, Annual." • 1981 forward: EIA, *Petroleum Supply Monthly*, December 1995, Table S8.

	Sup	ply		Dispo	sition		_	
	Total Production	Imports	Stock Change <sup>a</sup>	Refinery Inputs	Exports	Products Supplied	Ending Stocks <sup>b</sup>	
			Thousand Ba	arrels per Day			Million Barrels	
072 Avorago	2,833	290	1	750	162	2,211	179	
973 Average 974 Average	2,033	269	25	665	172	2,129	<sup>c</sup> 188	
	2,547	144	°-6	537	158	2,001	188	
I975 Average	2,547	129		524	172	2,158	188	
	2,939	130	(s) 20	514	164	2,371	195	
977 Average	3,076	80	-12	492	165	2,511	195	
	3,141	116	24	352	208	2,673	200	
979 Average	2,957	130	15	310	197	2,566	° 205	
980 Average	'	188	<sup>c</sup> -42	723	197	2,081	205	
981 Average	2,771 2,475	305	-42 -68	723	205	<sup>d</sup> 1,857	<sup>241</sup> 216	
982 Average	2,475	382	-00 <sup>C</sup> -6	712	205	1,877	° 217	
983 Average			° -32			'		
984 Average	2,500	503		791	236	2,007	198	
985 Average	2,532	550	22	886	227	1,947	206	
986 Average	2,704	504	-15	888	291	2,045	201	
987 Average	2,737	543	-1	829	264	2,187	200	
988 Average	2,773	645	22	799	294	2,303	208	
989 Average	2,771	627	12	797	305	2,285	213	
990 Average	2,842	705	-32	887	289	2,402	201	
991 Average	2,826	675	18	936	277	2,269	208	
992 Average	2,928	707	-3	906	263	2,470	<sup>c</sup> 207	
993 January	<sup>e</sup> 3,147	726	<sup>c</sup> 739	929	<sup>e</sup> 271	<sup>e</sup> 1,933	229	
February	2,853	773	111	1,057	282	2,176	233	
March	2,887	826	245	843	269	2,356	240	
April	2,935	753	-29	1,033	315	2,368	239	
May	2,941	834	80	1,048	278	2,368	242	
June	3,099	654	-239	1,064	278	2,650	235	
July	3,213	894	61	1,008	303	2,735	237	
August	3,167	693	-28	940	294	2,654	236	
September	3,067	800	-268	1,104	282	2,749	228	
October	3,195	810	-114	1,189	369	2,561	224	
November	3,080	795	-222	1,355	309	2,433	217	
December	2,816	678	-376	1,403	349	2,433	206	
Average	3,035	770	-2	1,081	300	2,426	206	
<b>994</b> January	2,712	838	511	585	256	2,198	222	
February	2,790	743	277	613	248	2,394	229	
March	2,750	810	52	934	361	2,394	229	
	2,914	783	-126		272	,	227	
April	3,078	783	-126 -64	1,016	272	2,534	227	
May	3,078	726	-64 -103	1,009	288 331	2,617	225	
June	,			887		2,742		
July	3,158	746	80	759	361	2,704	225	
August	3,093	797	-46	803	411	2,721	223	
September	3,088	695	50	745	388	2,600	225	
October	3,067	700	-72	902	300	2,636	223	
November	3,001	749	47	1,013	344	2,347	224	
December Average	2,852 <b>2,973</b>	762 <b>761</b>	-298 <b>24</b>	1,049 <b>861</b>	386 <b>329</b>	2,478 <b>2,518</b>	215 <b>215</b>	
995 January	2,819	563	383	634	324	2,041	227	
February	2,914	802	236	722	320	2,438	234	
March	2,797	669	-8	873	329	2,273	234	
April	2,843	699	-106	1,008	355	2,283	231	
May	2,955	592	-72	780	339	2,501	228	
June	3,099	649	-135	893	403	2,588	224	
July	3,276	763	-48	1,069	326	2,692	223	
August	3,246	727	-233	1,119	372	2,714	216	
September	3,216	756	-64	1,045	348	2,643	214	
October	2,912	708	-93	860	376	2,476	211	
10-Month Average	3,008	692	-16	901	349	2,465	211	
994 10-Month Average	2,982	762	55	827	322	2,539	223	

### Table 3.10 Other Petroleum Products Supply and Disposition

<sup>a</sup> A negative number indicates a decrease in stocks and a positive number A negative number indicates a decrementation indicates a decre

<sup>e</sup> Beginning in 1993, other petroleum products production, exports, and products supplied include an adjustment to oxygenates and motor gasoline blending components. (s)=Less than +500 barrels per day and greater than -500 barrels per day.

Notes: • Other petroleum products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, liquefied petroleum gases, and crude oil that is used as fuel. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • 1973-1980: Energy Information Administration (EIA), Petroleum Supply Monthly, February 1993, Table S9. • 1981 forward: EIA, Petroleum Supply Monthly, December 1995, Table S10.

## **Petroleum Notes**

1. The Energy Information Administration (EIA) uses a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review such industry publications as the *Oil and Gas Journal* and *Oil Daily* for information on facilities or companies starting up or closing down operations. Those sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems.

To supplement routine frames maintenance and to provide more thorough coverage, a comprehensive frames investigation is conducted every 3 years. This investigation results in the reassessment and recompilation of the complete frame for each survey. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

In 1991, the EIA conducted a frame identifier survey of companies that produce, blend, store, or import oxygenates. A summary of the results from the identification survey was published in the *Weekly Petroleum Status Report* dated February 12, 1992, and in the February 1992 issue of the *Petroleum Supply Monthly*. In order to continue to provide relevant information about U.S. and regional gasoline supply, the EIA conducted a second frame identifier survey of those companies during 1992. As a result, numerous respondents were added to the monthly surveys effective in January 1993. See Explanatory Note 7 in the *Petroleum Supply Monthly*.

2. Motor Gasoline: Beginning in January 1981, the EIA expanded its universe to include non-refinery blenders and separated blending components from finished motor gasoline as a reporting category. Also, survey forms were modified to describe refinery operations more accurately.

Beginning with the reporting of January 1993 data, the EIA made adjustments to the product supplied series for finished motor gasoline. It was recognized that motor gasoline statistics published by the EIA through 1992 were underreported because the reporting system was (1) not collecting all fuel ethanol blending, and (2) there was a misreporting of motor gasoline blending components that were blended into finished gasoline. The adjustments are incorporated into EIA's data beginning in January 1993. To facilitate data analysis across the 1992-1993 period, EIA has prepared a table of 1992 data adjusted according to the 1993 basis. See *Petroleum Supply Monthly*, March 1993, Table H3.

**3. Distillate and Residual Fuel Oils:** The requirement to report crude oil in pipelines or burned on leases as either distillate or residual fuel oil has been eliminated. Prior to January 1981, the refinery input of unfinished

oils typically exceeded the available supply of unfinished oils. That discrepancy was assumed to be due to the redesignation of distillate and residual fuel oils received as such but used as unfinished oil inputs by the receiving refinery. The imbalance between supply and disposition of unfinished oils would then be subtracted from the production of distillate and residual fuel oils. Two-thirds of that difference was subtracted from distillate and one-third from residual. Beginning in January 1981, the EIA modified its survey forms to account for redesignated product and discontinued the above-mentioned adjustment.

Beginning in January 1993, the end-of-month stocks of distillate fuel oil are split into two sulfur categories (0.05 percent sulfur or less and greater than 0.05 percent sulfur) to meet Environmental Protection Agency requirements effective in October 1992. For further details, see the EIA, *Petroleum Supply Monthly*.

**4.** New Stock Basis: In January 1975, 1979, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys, affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982—645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974—1,121; 1980—1,425; and 1982—1,461.
- Motor Gasoline: 1974—225; 1980—263 (Total) and 214 (Finished); 1982—244 (Total) and 202 (Finished).
- Distillate Fuel Oil: 1974—224; 1980—205; and 1982—186.
- Residual Fuel Oil: 1974—75; 1980—91; and 1982—69.
- Jet Fuel: 1974—30 (Total) and 24 (Kerosene Type); 1980—42 (Total) and 36 (Kerosene Type); and 1982—39 (Total) and 32 (Kerosene Type).
- Liquefied Petroleum Gases: 1974—113; 1978 —136; 1980—128; and 1982—102.
- Propane and Propylene: 1978—86; 1980—69; and 1982—57.
- Other Petroleum Products: 1974—190; 1980 —207; and 1982—219.

Stock change calculations beginning in 1975, 1979, 1981, and 1983 were made by using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in the "Other Petroleum Products Supply and Disposition" table, is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). Most of these stocks now appear in the "Liquefied Petroleum Gases Supply and Disposition" table. This change affects stocks reported and stock change calculations in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983—108.
- Propane and Propylene: 1983—55.
- Other Petroleum Products: 1983—210.

In January 1993, changes were made in the monthly surveys to begin collecting bulk terminal and pipeline stocks of oxygenates. This change affected stocks reported and stock change calculations. However, a new basis stock level was not calculated for 1992 end-of-year stocks.

**5.** Stocks of Alaskan Crude Oil: Stocks of Alaskan Crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

**6.** Data Discrepancies: Due to differences internal to EIA data processing systems, some small discrepancies exist between data in the *Monthly Energy Review (MER)* and the *Petroleum Supply Annual (PSA)* and *Petroleum Supply Monthly (PSM)*. The data that have discrepancies are footnoted in Section 3 tables and summarized here.

Table	Data Series	Year Average	MER Data	PSA and PSM Data
3.1a	Natural Gas Plant Production	1976	1,604	1,603
3.1b	Exports, Total	1979	471	472
3.1b	Exports, Petroleum Products	1979	236	237
3.1b	Net Imports	1979	7,985	7,984
3.2a	Crude Used Directly	1976	-19	-18
3.2a	Imports, SPR	1978	161	162
3.2a	Crude Used Directly	1978	-15	-14
3.2a	Crude Used Directly	1979	-14	-13
3.2a	Crude Used Directly	1980	-14	-13
3.2b	Crude Losses	1976	14	15
3.2b	Crude Losses	1980	14	15
3.5	Stock Change	1974	10	9
3.5	Stock Change	1975	-41	-40
3.8	Total Production	1982	1,527	1,525
3.10	Products Supplied	1982	1,857	1,856

# Section 4. Natural Gas

Total dry natural gas production in the United States during November 1995 was an estimated 1.5 trillion cubic feet, 2 percent<sup>4</sup> higher than production during the previous November.

Consumption of natural and supplemental gas in November 1995 was 1.8 trillion cubic feet, 3 percent above the level in November 1994.

Deliveries to residential consumers in October 1995 (latest date for which data are available) were 216 billion cubic feet, 2 percent below the previous October's deliveries. Total deliveries to industrial customers during October 1995 were 700 billion cubic feet, 3 percent higher than the previous October's level. Imports of natural gas in November 1995 were 198 billion cubic feet, 12 percent lower than imports in the previous November.

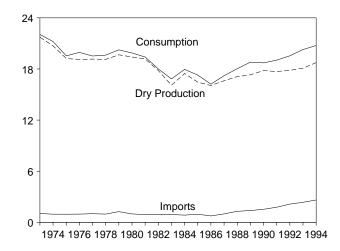
Stocks of working gas<sup>5</sup> in underground natural gas storage reservoirs at the end of November 1995 totaled 2.7 trillion cubic feet, 9 percent below the level of stocks available 1 year earlier. Net withdrawals from storage during November 1995 were 261 billion cubic feet, 164 percent higher than the amount of withdrawals during the previous November.

<sup>&</sup>lt;sup>4</sup>Percentage changes are based on unrounded data. <sup>5</sup>Gas available for withdrawal.

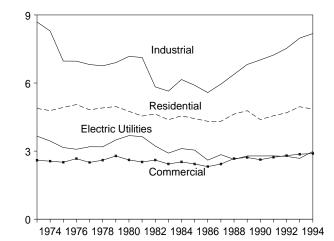
### Figure 4.1 Natural Gas

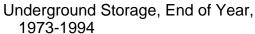
(Trillion Cubic Feet)

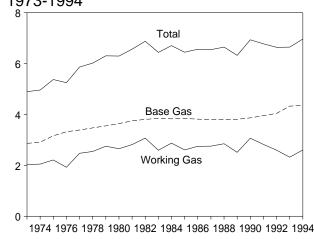
Overview, 1973-1994



### Consumption by Sector, 1973-1994

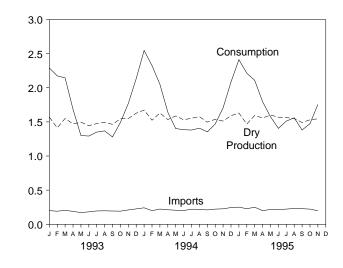




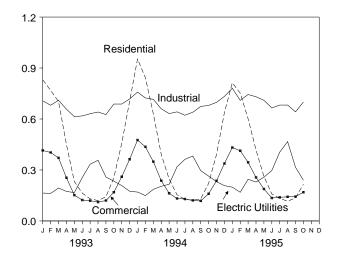


Note: Because vertical scales differ, graphs should not be compared. Sources: Tables 4.2, 4.4, and 4.5.

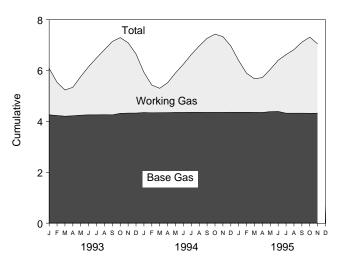
Overview, Monthly



### Consumption by Sector, Monthly



### Underground Storage, End of Month



### Table 4.1 Natural Gas Production

(Billion Cubic Feet)

	Gross	<b>-</b>	Nonhydro- carbon Gases	Vented and	Marketed Production	Extraction	Total Dry Gas
	Withdrawals <sup>a</sup>	Repressuring <sup>b</sup>	Removed <sup>c</sup>	Flaredd	(Wet) <sup>e</sup>	Loss <sup>†</sup>	Production
973 Total	24,067	1,171	NA	248	<sup>h</sup> 22,648	917	<sup>h</sup> 21,731
974 Total	22,850	1,080	NA	169	<sup>h</sup> 21,601	887	<sup>h</sup> 20,713
975 Total	21,104	861	NA	134	<sup>h</sup> 20,109	872	<sup>h</sup> 19,236
					<sup>h</sup> 19,952		<sup>h</sup> 19,098
976 Total	20,944	859	NA	132		854	
977 Total	21,097	935	NA	137	<sup>h</sup> 20,025	863	<sup>n</sup> 19,163
978 Total	21,309	1,181	NA	153	<sup>h</sup> 19,974	852	<sup>h</sup> 19,122
979 Total	21,883	1,245	NA	167	<sup>n</sup> 20,471	808	<sup>h</sup> 19,663
980 Total	21,870	1,365	199	125	20,180	777	19,403
981 Total	21,587	1,312	222	98	19,956	775	19,181
982 Total	20,272	1,388	208	93	18,582	762	17,820
983 Total	18,659	1,458	222	95	16,884	790	16,094
984 Total	20,267	1,630	224	108	18,304	838	17,466
985 Total	19,607	1,915	326	95	17,270	816	16,454
986 Total	19,131	1,838	337	98	16,859	800	16,059
987 Total	20,140	2,208	376	124	17,433	812	16,621
988 Total	20,999	2,478	460	143	17,918	816	17,103
989 Total	21,074	2,475	362	142	18,095	785	17,311
990 Total	21,523	2,489	289	150	18,594	784	17,810
991 Total	21,750	2,772	276	170	18,532	835	17,698
992 Total	22,132	2,973	280	168	18,712	872	17,840
93 January	1,965	264	35	19	1,648	77	1,571
February	1,768	236	31	19	1,481	69	1,412
March	1,943	264	35	18	1,626	76	1,550
	1,843	248	33	19	1,542	70	
April							1,470
Мау	1,879	256	35	20	1,568	73	1,495
June	1,795	230	27	22	1,515	71	1,444
July	1,850	247	36	20	1,548	72	1,475
August	1,871	252	37	16	1,566	73	1,493
September	1,832	244	35	18	1,536	72	1,464
October	1,950	274	36	19	1,621	76	1,545
November	1,966	287	36	17	1,625	76	1,549
December	2,063	301	37	19	1,706	80	1,627
Total	22,726	3,103	414	227	18,982	886	18,095
994 January	2,134	326	36	19	1,752	79	1,673
February	1,958	309	33	19	1,597	72	1,525
March	2,058	297	36	19	1,707	77	1,630
April	1,919	259	35	18	1,607	73	1,534
May	1,982	268	34	18	1,662	75	1,587
June	1,901	248	29	20	1,604	73	1,531
July	1,927	248	33	20	1,626	74	1,553
August	1,977	273	34	19	1,652	75	1,577
September	1,888	266	35	20	1,567	71	1,496
October	1,957	290	37	19	1,611	73	1,538
November	1,898	260	35	19	1,584	72	1,512
December	2,010	288	37	19	1,666	72	1,512
Total	2,010 23,609	3,333	412	228	19,635	889	18,747
		,					
95 January	2,079	328	32	10	1,710	80	1,630
February	1,876	300	28	9	1,539	72	1,468
March	2,025	313	30	10	1,672	78	1,594
April	1,976	302	30	10	1,633	76	1,557
	2,031	313	31	10	1,678	78	1,600
June	1,981	293	29	14	1,646	77	1,569
July	1,973	289	30	14	1,640	76	1,563
August	_1,962	296	29	12	_1,624	_76	្ត1,549
September	<sup>R</sup> 1,888	_ 283	_ 28	13	<sup>R</sup> 1,564	<sup>R</sup> 73	<sup>R</sup> 1,491
October	<sup>E</sup> 1,936	<sup>E</sup> 288	E 29	<sup>E</sup> 13	E 1.606	E 75	<sup>E</sup> 1,531
November	<sup>E</sup> 1,955	E 293	E 29	E 13	<sup>E</sup> 1,620	E 75	<sup>E</sup> 1,545
11-Month Total	E 21,682	E 3,297	E 324	E 129	E 17,932	<sup>E</sup> 836	<sup>E</sup> 17,096
				<b>.</b>			
94 11-Month Total	21,599	3,045	375	210	17,969	813	17,156

 $^{a}$  Gas withdrawn from gas and oil wells.  $^{b}$  The injection of natural gas into oil and gas formations for pressure maintenance and cycling purposes.

 $^{\rm C}$  See Note 1 at end of section.  $^{\rm d}$  Vented: Natural gas released into the air on the base site or at processing plants. Flared: Natural gas burned in flares on the base site or at

gas processing plants. <sup>e</sup> "Gross Withdrawals" minus "Repressuring," "Nonhydrocarbon Gases Removed," and "Vented and Flared." See Note 2 at end of section. <sup>f</sup> See Note 3 at end of section.

<sup>g</sup> "Marketed Production (Wet)" minus "Extraction Loss."

<sup>h</sup> May include unknown quantities of nonhydrocarbon gases.

R=Revised data. NA=Not available. E=Estimate.

Notes: • Totals may not equal sum of components due to independent Geographic coverage is the 50 States and the District of rounding. ٠ Columbia.

Sources: • 1973-1988: Energy Information Administration (EIA), Natural Gas Annual 1994 Volume 1, Table 99. • 1989 forward: EIA, Natural Gas Monthly, January 1996, Table 1.

### Table 4.2 Natural Gas Supply and Disposition

(Billion Cubic Feet)

			Supply					Dispositio	n
	Total Dry Gas Production	Withdrawals from Storage <sup>a</sup>	Supplemental Gaseous Fuels <sup>b</sup>	Imports <sup>c</sup>	Balancing Item <sup>b</sup>	Total Supply/ Disposition <sup>d</sup>	Additions to Storage <sup>a</sup>	Exports <sup>c</sup>	Consumption <sup>b</sup>
4070 7 4 1	P 04 704	4 500		4 000	400		4 074		
1973 Total	e 21,731	1,533	NA	1,033	-196	24,101	1,974	77	22,049
1974 Total	<sup>e</sup> 20,713	1,701	NA	959	-289	23,084	1,784	77	21,223
1975 Total	<sup>e</sup> 19,236	1,760	NA	953	-235	21,714	2,104	73	19,538
1976 Total	<sup>e</sup> 19,098	1,921	NA	964	-216	21,767	1,756	65	19,946
1977 Total	<sup>e</sup> 19,163	1,750	NA	1,011	-41	21,883	2,307	56	19,521
1978 Total	<sup>e</sup> 19,122	2,158	NA	966	-287	21,958	2,278	53	19,627
1979 Total	<sup>e</sup> 19,663	2,047	NA	1,253	-372	22,591	2,295	56	20,241
1980 Total	19,403	1,972	155	985	-640	21,875	1,949	49	19,877
1981 Total	19,181	1,930	176	904	-500	21,691	2,228	59	19,404
1982 Total	17,820	2,164	145	933	_ <b>-537</b>	20,525	2,472	52	18,001
1983 Total	16,094	2,270	132	918	<sup>f</sup> -703	18,712	1,822	55	16,835
1984 Total	17,466	2,098	110	843	<sup>f</sup> -217	20,300	2,295	55	17,951
1985 Total	16,454	2,397	126	950	-428	19,499	2,163	55	17,281
1986 Total	16,059	1,837	113	750	-493	18,266	1,984	61	16,221
1987 Total	16,621	1,905	101	993	-444	19,176	1,911	54	17,211
1988 Total	17,103	2,270	101	1,294	-453	20,315	2,211	74	18,030
1989 Total	17,311	2,854	107	1,382	-218	21,435	2,528	107	18.801
1990 Total	17,810	1,986	123	1,532	-149	21,302	2,499	86	18,716
1990 Total	17,698	2,752	123	1,532	-500	21,836	2,499	129	19,035
1991 Total	17,840	2,772	118	2,138	-508	22,360	2,672	216	19,544
	4 574		40		05	-			
1993 January	1,571	644	13	200	-95	2,333	25	17	2,291
February	1,412	620	11	191	-38	2,196	10	12	2,174
March	1,550	405	12	204	57	2,228	67	16	2,145
April	1,470	90	10	189	148	1,907	212	11	1,683
May	1,495	17	7	171	111	1,801	488	11	1,301
June	1,444	23	9	182	81	1,740	437	11	1,292
July	1,475	22	8	195	72	1,772	410	13	1,350
August	1,493	33	8	197	32	1,763	385	11	1,368
September	1,464	13	8	194	14	1,692	403	10	1,279
October	1,545	90	10	192	-75	1,762	261	.0	1,492
November	1,549	312	11	210	-209	1,873	94	10	1,770
	1,627	530	13	225	-208		42	10	,
December Total	18,095	2,799	119	225 2,350	-208 -111	2,186 <b>23,253</b>	2,835	140	2,134 <b>20,278</b>
4004	1 070	0.44	40	0.44	100	0.500	00		0.540
1994 January	1,673	841	13	241	-182	2,586	29	11	2,546
February	1,525	598	11	199	48	2,381	44	13	2,324
March	1,630	243	10	223	65	2,170	100	19	2,051
April	1,534	61	9	212	130	1,945	294	9	1,642
May	1,587	17	8	206	38	1,857	447	8	1,402
June	1,531	30	8	201	26	1,796	397	13	1,386
July	1,553	19	8	221	19	1,820	429	11	1,380
August	1,577	22	8	219	-16	1,810	388	14	1,408
September	1,496	14	8	210	1	1,729	360	14	1,354
October	1,538	47	9	222	-105	1,710	229	13	1,468
November	1,512	204	9	226	-127	1,825	100	19	1,706
December	1,591	465	11	245	-161	2,152	49	18	2,085
Total	18,747	2,562	111	2,624	-264	23,780	2,865	162	20,754
1005 January	1 620	620	4.4	251	40	2 466	41	14	2 44 2
1995 January	1,630 1,468	620 543	14 12	251	-48 18	2,466	41	14	2,412
February				228		2,268			2,213
March	1,594	314	12	250	54	2,225	101	15	2,109
April	1,557	121	9	199	91	1,978	168	14	1,796
May	1,600	31	10	217	82	1,939	351	13	1,575
June	1,569	37	10	217	-21	1,812	391	16 8 4 5	1,405
July	1,563	51	10	222	<sup>R</sup> 22	<sup>R</sup> 1,869	344	<sup>R</sup> 15	1,511
August	្ត1,549	83	10	<sup>R</sup> 231	<sup>R</sup> -20	<sup>R</sup> 1,852	278	<sup>R</sup> 14	្ព1,560
September	<sup>R</sup> 1,491	27	_ 9	<sup>R</sup> 228	<sup>R</sup> -39	<sup>R</sup> 1,715	323	<sup>R</sup> 12	<sup>R</sup> 1,381
October	<sup>±</sup> 1.531	65	<sup>E</sup> 10	<sup>R</sup> 222	<sup>R</sup> -85	<sup>R</sup> 1,743	257	<sup>E</sup> 12	<sup>R</sup> 1,474
November	<sup>E</sup> 1,545	346	<sup>E</sup> 12	198	-248	1,853	85	<sup>E</sup> 14	<sup>E</sup> 1,755
11-Month Total	<sup>E</sup> 17,096	2,238	<sup>E</sup> 118	2,463	-194	21,721	2,379	<sup>E</sup> 151	E 19,190
1994 11-Month Total	17,156	2,097	99	2,378	-102	21,629	2,816	144	18,668

<sup>a</sup> Data for 1980-1994 include underground storage and liquefied natural gas storage. All other data include underground storage and induced natural gas storage. All other data include underground storage only. Computation procedures are discussed in Note 8 at end of section. <sup>b</sup> See Notes at end of section. <sup>c</sup> See Table 4.3. <sup>d</sup> Data for 1978 forward do not include in-transit receipts and deliveries.

<sup>e</sup> May include unknown quantities of nonhydrocarbon gases.

<sup>f</sup> See Note 7 at end of section.

R=Revised data. NA=Not available. E=Estimate.

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

### Table 4.3 Natural Gas Trade by Country

(Billion Cubic Feet)

		Im	ports			Exp	orts	
	<b>Canada</b> a	Algeriab	Other <sup>c</sup>	Total	Canada <sup>a</sup>	Mexico <sup>a</sup>	Japan <sup>b</sup>	Total
973 Total	1,028	3	2	1,033	15	14	48	77
974 Total	959	0		959	13	13	50	77
		5	(s)	953	10	9	53	73
975 Total	948		0					
976 Total	954	10	0	964	8	7	50	65
977 Total	997	11	2	1,011	(s)	4	52	56
978 Total	881	84	0	966	(s)	4	48	53
979 Total	1,001	253	0	1,253	(s)	4	51	56
980 Total	797	86	102	985	(s)	4	45	49
981 Total	762	37	105	904	(s)	3	56	59
982 Total	783	55	95	933	(s)	2	50	52
983 Total	712	131	75	918	(s)	2	53	55
984 Total	755	36	52	843	(s)	2	53	55
985 Total	926	24	0	950	(s)	2	53	55
986 Total	749	0	2	750	9	2	50	61
987 Total	993	0	0	993	3	2	49	54
988 Total	1,276	17	Ō	1,294	20	2	52	74
989 Total	1,339	42	ŏ	1,382	38	17	51	107
990 Total	1,448	84	ŏ	1,532	17	16	53	86
991 Total	1,710	64	0	1,773	15	60	53 54	129
				,				
992 Total	2,094	43	0	2,138	68	96	53	216
993 January	195	5	0	200	4	8	4	17
February	183	8	0	191	6	2	4	12
March	199	5	0	204	7	4	6	16
April	181	8	0	189	4	3	4	11
May	166	5	0	171	3	4	4	11
June	175	8	Õ	182	3	4	3	11
	187	8	0	195	4	4	5	13
July								
August	192	5	0	197	3	3	5	11
September	184	10	0	194	2	2	5	10
October	187	5	0	192	3	2	3	9
November	202	8	0	210	3	2	5	10
December	216	8	2	225	3	1	7	10
Total	2,267	82	2	2,350	45	40	56	140
<b>994</b> January	229	10	2	241	4	2	5	11
February	193	5	1	199	8	1	4	13
		8	2		12		6	
March	213			223		1		19
April	204	8	0	212	4	1	4	9
May	199	5	2	206	3	2	4	8
June	194	5	1	201	6	1	6	13
July	213	8	0	221	3	2	6	11
August	219	0	0	219	1	7	6	14
September	207	3	0 0	210	2	7	6	14
	222	0	0	222	2	6	6	13
October								
November	226	0	0	226	4	9	6	19
December	245	0	0	245	4	6	7	18
Total	2,566	51	7	2,624	53	47	63	162
995 January	248	3	(s)	251	3	6	6	14
February	225	3	0	228	2	6	6	13
March	247	3	(s)	250	3	7	6	15
April	199	Ő	0	199	3	6	6	14
May	215	3	0	217	2	7	4	13
June	217	0	0	217	3	8 8 <b>7</b>	6	16 B 4 5
July	222	0	0	222	3	R 7	6	<sup>R</sup> 15
August	_227	3	<sup>R</sup> 1	R 231	_ 3	R3	8	<sup>R</sup> 14
September	<sup>R</sup> 224	0	<sup>R</sup> 4	<sup>R</sup> 228	R 4	<sup>R</sup> 2	6	<sup>R</sup> 12
October	<sup>R</sup> 222	0	0	<sup>R</sup> 222	E 3	<sup>E</sup> 6	4	<sup>E</sup> 12
November	E 195	2	ĔĨ	198	E 3	E 3	8	E 14
11-Month Total	E 2,442	15	E 6	2,463	E 30	E 60	61	<sup>E</sup> 151
994 11-Month Total	2,321	51	7	2,378	49	40	55	144
		74	Ó		42	38	49	130
993 11-Month Total	2,051	/4	U	2,125	42	30	49	130

<sup>a</sup> By pipeline, except for very small amounts of liquefied natural gas imported from Canada in 1973, 1977 and 1981. See Note 5 at end of section.
 <sup>b</sup> As liquefied natural gas.
 <sup>c</sup> Other imports are from Mexico, except for 1986, when they came from

Indonesia.

R=Revised data. (s)=Less than 500 million cubic feet.

Notes: • See Note 5 at end of section. • Totals may not equal sum of

components due to independent rounding. • U.S. geographic coverage is the

50 States and the District of Columbia. Sources: • 1973-1988: Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." • 1989 forward: EIA, *Natural Gas Monthly*, January 1996, Tables 5 and 6.

### Table 4.4 Natural Gas Consumption by End-Use Sector

(Billion Cubic Feet)

				Deliv	vered to Consume	ers		
	Lease and Plant Fuel	Pipeline Fuel <sup>a</sup>	Residential	Commercial <sup>b</sup>	Industrial	Electric Utilities	Total	Total Consumption
1973 Total	1,496	728	4,879	2,597	8,689	3,660	19,825	22,049
1974 Total	1,477	669	4,786	2,556	8,292	3,443	19,077	21,223
1975 Total	1,396	583	4,924	2,508	6,968	3,158	17,558	19,538
1976 Total	1,634	548	5,051	2,668	6,964	3,081	17,764	19,946
1977 Total	1,659	533	4,821	2,501	6,815	3,191	17,329	19,521
1978 Total	1,648	530	4,903	2,601	6,757	3,188	17,449	19,627
1979 Total	1,499	601	4,965	2,786	6,899	3,491	18,141	20,241
1980 Total	1,026	635	4,752	2,611	7,172	3,682	18,216	19,877
1981 Total	928	642	4,546	2,520	7,128	3,640	17,834	19,404
1982 Total	1,109	596	4,633	2,606	5,831	3,226	16,295	18,001
1983 Total	978	490	4,381	2,433	5,643	2,911	15,367	16,835
1984 Total	1,077	529	4,555	2,524	6,154	3,111	16,345	17,951
1985 Total	966	504	4,433	2,432	5,901	3,044	15,811	17,281
1986 Total	923	485	4,314	2,318	5,579	2,602	14,814	16,221
1987 Total	1,149	519	4,315	2,430	5,953	2,844	15,542	17,211
1988 Total	1,096	614	4,630	2,670	6,383	2,636	16,320	18,030
1989 Total	1,070	629	4,781	2,718	6,816	2,787	17,102	18,801
1990 Total	1,236	660	4,391	2,623	7,018	2,787	16,820	18,716
1991 Total	1,129	601	4,556	2,729	7,231	2,789	17,305	19,035
1992 Total	1,171	588	4,690	2,803	7,527	2,766	17,786	19,544
1993 January	101	72	831	415	707	164	2,118	2,291
February	91	68	768	403	681	162	2,014	2,174
March	100	67	703	371	710	194	1,978	2,145
April	95	52	450	254	658	174	1,536	1,683
May	97	39	232	152	614	167	1,165	1,301
June	93	39	164	123	618	255	1,160	1,292
July	95	41	130	119	631	334	1,213	1,350
August	97	42	120	111	641	357	1,229	1,368
September	95	39	142	120	626	258	1,146	1,279
October	100	45	254	169	688	235	1,346	1,492
November	101	55	457	260	688	208	1,614	1,770
December Total	106 <b>1,172</b>	66 <b>624</b>	705 <b>4.956</b>	363 <b>2,862</b>	718 <b>7,981</b>	174 <b>2,682</b>	1,961 <b>18,482</b>	2,134 <b>20,278</b>
	,			-			-	
1994 January	104	85	953	476	758	170	2,357	2,546
February	96	78	842	436	724	149	2,151	2,324
March	101	68	631	349	716	186	1,882	2,051
April	95	54	392	237	660	204	1,493	1,642
May	98	46	247	163	632	216	1,258	1,402
June	94	45	154	132	642	319	1,247	1,386
July	95	45	127	129	622	362	1,240	1,380
August	97	46	122	121	640	382	1,264	1,408
September	93	44	130	118	674	296	1,217	1,354
October	96	48	221	160	680	264	1,324	1,468
November	93	56	391	236	698	231	1,557	1,706
December	99	69	638	338	733	208	1,917	2,085
Total	1,161	685	4,848	2,895	8,178	2,987	18,908	20,754
1995 January	107	80 73	813	432	781	199	2,225	2,412
February	96 105	73 70	752	413	710 744	169 245	2,043	2,213
March	105		601	345		245	1,935	2,109
	102 105	59 52	418 262	256 188	731 710	229 258	1,634 1,418	1,796 1,575
May June		52 46		188		258 297		
	103		159	135	665		1,256	1,405
July	103	50 52	133	139	682	405	1,358	1,511
August	102 <sup>R</sup> 98	52	116	142	682	467	1,407	1,560 <sup>R</sup> 1,381
September		46 <sup>R</sup> 49	136	143	642	316	1,238	<sup>R</sup> 1,474
October 10-Month Total	101 <b>1,021</b>	<b>576</b>	216 <b>3,606</b>	169 <b>2,363</b>	700 <b>7,047</b>	240 <b>2,823</b>	1,325 <b>15,839</b>	<b>17,436</b>
1994 10-Month Total	968	559	3,818	2,321	6,747	2,548	15,434	16,962
1993 10-Month Total	965	504	3,794	2,238	6,575	2,348	15,434	16,375

<sup>a</sup> Natural gas consumed in the operation of pipelines, primarily in compressors.
 <sup>b</sup> Small quantities of natural gas delivered for use as vehicle fuel are included in the 1990-1994 annual totals but not in the monthly data.
 R=Revised data.
 Notes: • Natural gas includes supplemental gaseous fuels. • Totals may

not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia. Sources: • **1973-1988:** Energy Information Administration (EIA), *Natural Gas Annual 1994 Volume 1*, Table 101. • **1989 forward:** EIA, *Natural Gas* Monthly, January 1996, Table 3.

### Table 4.5 Natural Gas in Underground Storage

(Volumes in Billion Cubic Feet)

	U	Natural Gas in nderground Storage End of Period	9,	Change in W from Sam Previou	e Period	Storage Activity			
	Base Gas	Working Gas	Totala	Volume	Percent	Injections <sup>b</sup>	Withdrawalsb	Net	
973 Total	2,864	2,034	4,898	305	17.6	1,974	1,533	442	
974 Total	,		,	16				84	
	2,912	2,050	4,962		.8	1,784	1,701		
975 Total	3,162	2,212	5,374	162	7.9	2,104	1,760	344	
976 Total	3,323	1,926	5,250	-286	-12.9	1,756	1,921	-16	
977 Total	3,391	2,475	5,866	549	28.5	2,307	1,750	557	
978 Total	3,473	2,547	6,020	72	2.9	2,278	2,158	120	
979 Total	3,553	2,753	6,306	207	8.1	2,295	2,047	248	
980 Total	3,642	2,655	6,297	-99	-3.6	1,896	1,910	-14	
981 Total	3,752	2,817	6,569	162	6.1	2,180	1,887	293	
982 Total	3,808	3,071	6,879	255	9.0	2,399	2,094	30	
983 Total	3,847	2,595	6,442	-476	-15.5	1,700	2,142	-442	
984 Total	3,830	2,876	6,706	281	10.8	2,252	2,064	188	
985 Total	3,842	2,607	6,448	-270	-9.4	2,128	2,359	-231	
	,	,		142					
986 Total	3,819	2,749	6,567		5.5	1,952	1,812	14	
987 Total	3,792	2,756	6,548	7	.3	1,887	1,881		
988 Total	3,800	2,850	6,650	94	3.4	2,174	2,244	-69	
989 Total	3,812	2,513	6,325	-337	-11.8	2,491	2,804	-313	
990 Total	3,868	3,068	6,936	555	22.1	2,433	1,934	499	
991 Total	3,954	2,824	6,778	-244	-8.0	2,608	2,689	-80	
992 Total	4,044	2,597	6,641	-227	-8.0	2,555	2,724	-16	
993 January	4,259	1,827	6,085	-389	-17.6	37	592	-55	
February	4,231	1,303	5,533	-535	-29.1	22	569	-54	
March	4,204	1,029	5,233	-516	-33.4	79	383	-304	
April	4,219	1,120	5,340	-453	-28.8	212	103	109	
May	4,244	1,521	5,765	-327	-17.7	456	30	42	
June	4,257	1,895	6,151	-258	-12.0	410	36	37	
July	4,256	2,240	6,497	-219	-8.9	385	35	350	
	4,263	2,554	6,817	-207	-7.5	364	45	319	
August									
September	4,256	2,884	7,140	-160	-5.3	378	26	353	
October	4,315	2,978	7,292	-245	-7.6	256	103	15	
November	4,326	2,762	7,088	-292	-9.5	106	303	-197	
December	4,327	2,322	6,649	-275	-10.6	54	492	-439	
Total	4,327	2,322	6,649	-275	-10.6	2,760	2,717	43	
994 January	4,348	1,579	5,927	-247	-13.5	35	792	-758	
February	4,337	1,091	5,428	-212	-16.3	50	567	-51	
March	4,343	958	5,301	-71	-6.9	106	240	-13	
April	4,345	1,172	5,517	51	4.6	286	68	218	
May	4,352	1,554	5,906	33	2.2	427	25	403	
June	4,352	1,896	6,248	2	.1	381	37	344	
July	4,355	2,273	6,629	33	1.5	410	26	38	
August	4,355	2,607	6,961	52	2.1	373	30	34	
September	4,353	2,912	7,266	28	1.0	345	21	32	
October	4,354	3,075	7,429	97	3.3	224	54	17	
November	4,353	2,978	7,331	215	7.8	105	204	-9	
	4,353	2,978		215	12.2	54	443	-38	
December Total	4,360 <b>4,360</b>	2,606 2,606	6,966 <b>6,966</b>	284 284	12.2 12.2	<b>2,796</b>	2,508	-38 28	
95 January	4,356	2,032	6,388	453	28.7	41	620	-579	
February	4,359	1,531	5,890	440	40.4	42	543	-50	
February									
March	4,353	1,323	5,676	366	38.2	101	314	-21	
April	4,351	1,371	5,723	199	17.0	168	121	4	
May	4,384	1,661	6,045	106	6.8	351	31	32	
June	4,390	2,011	6,401	114	6.0	391	37	35	
July	4,323	2,301	6,624	27	1.2	344	51	29	
August	4,322	2,499	6,821	-108	-4.1	278	83	19	
September	4,323	2,790	7,113	-122	-4.2	323	27	29	
October	4,319	2,992	7,311	-83	-2.7	257	65	19	
								10	

<sup>a</sup> For total underground storage capacity at the end of each calendar year, see Note 8 at end of section.
 <sup>b</sup> For 1980-1994, data differ from those shown on Table 4.2, which includes liquefied natural gas storage for that period.
 <sup>c</sup> Positive numbers indicate injections are greater than withdrawals. Negative numbers indicate withdrawals are greater than injections. Net injections or withdrawals may not equal the difference between applicable

ending stocks. See Note 8 at end of section. R=Revised data.

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

# **Natural Gas Notes**

1. Nonhydrocarbon Gases Removed: Annual data on nonhydrocarbon gases removed from marketed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are from the Energy Information Administration (EIA) *Natural Gas Annual (NGA) 1992*. Data are not available prior to 1980. Monthly data are reported by three States and computed for six States. Monthly data are preliminary until after publication of the EIA *NGA*. Differences between annual data published in the EIA *NGA* and the sum of the preliminary monthly data (January-December) are allocated proportionally to the months to create final monthly data. For further information on methods of estimating preliminary monthly data, see the EIA *Natural Gas Monthly (NGM)*.

#### 2. Production.

- Annual data: Final annual data are from the EIA *NGA*.
- Estimated monthly data: Data for the two most recent months presented are estimated. Some of the data for earlier months are also estimated or computed. For a discussion of computation and estimation procedures, see the EIA *NGM*.
- Preliminary monthly data: Monthly data are considered preliminary until after publication of the EIA NGA. Preliminary monthly data are gathered from reports to the Interstate Oil Compact Commission and the U.S. Minerals Management Service. Volumetric data are converted, as necessary, to a standard 14.73 psi pressure base. Unless there are major changes, data are not revised until after publication of the EIA NGA.
- Final monthly data: Differences between annual data in the EIA *NGA* and the sum of preliminary monthly data (January-December) are allocated proportionally to the months to create final monthly data.

**3. Extraction Loss:** Extraction loss is the reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

Annual data are from the EIA *NGA*, where they are estimated on the basis of the type and quantity of liquid products extracted from the gas stream and the calculated volume of such products at standard conditions. For a detailed explanation of the calculations used to derive estimated extraction losses, see the EIA *NGA*.

Preliminary monthly data are estimated on the basis of extraction loss as an annual percentage of marketed production. This percentage is applied to each month's marketed production to estimate monthly extraction loss.

Monthly data are revised and considered final after the publication of the EIA NGA. Final monthly data are es-

timated by allocating annual extraction loss data to the months on the basis of total natural gas marketed production data from the EIA *NGA*.

**4. Supplemental Gaseous Fuels:** Any gaseous substance that, introduced into or commingled with natural gas, increases the volume available for disposition. Such substances include, but are not limited to, propaneair, refinery gas, coke oven gas, still gas, manufactured gas, biomass gas, or air or inert gases added for Btu stabilization.

Annual data beginning with 1980 are from the EIA *NGA*. Unknown quantities of supplemental gaseous fuels are included in consumption data for 1979 and earlier years.

Monthly data are considered preliminary until after the publication of the EIA NGA. Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. The ratio is applied to the monthly sum of the three elements to compute a monthly supplemental gaseous fuels figure.

**5. Imports and Exports:** The United States imports natural gas via pipeline from Canada. Prior to 1985, it also imported natural gas via pipeline from Mexico. Liquefied natural gas (LNG) arrives via tanker from Algeria. One shipment of LNG was received from Indonesia in December 1986. Very small amounts of LNG arrived from Canada in 1973 (667 million cubic feet), 1977 (572 million cubic feet), and 1981 (6 million cubic feet). The United States exports natural gas via pipeline to Canada and Mexico and LNG via tanker to Japan.

Annual and final monthly data are from the annual EIA Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas," which requires data to be reported by month for the calendar year.

Preliminary monthly data are EIA estimates. For a discussion of estimation procedures, see the EIA *NGM*. Preliminary data are revised after the publication of the EIA *U.S. Imports and Exports of Natural Gas*.

**6.** Consumption: Consumption includes pipeline fuel use, lease and plant fuel use, and deliveries to consuming sectors.

Final data are from the EIA *NGA*. Monthly data are considered preliminary until after publication of the EIA *NGA*. For more detailed information on the methods of estimating preliminary and final monthly data, see the EIA *NGM*.

**7. Balancing Item:** The balancing item for natural gas represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas disposition. The differences may be due to quantities lost or to the effects of data reporting problems. Reporting problems include differences due to the

net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems which vary in scope, format, definitions, and type of respondents.

The increase of 0.2 trillion cubic feet (Tcf) in the "Balancing Item" category in 1983, followed by a decline of 0.5 Tcf in 1984, reflected unusually large differences resulting from the use of the annual billing cycle (essentially December 15 through the following December 14) consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 0.3 Tcf increase in net withdrawals from underground storage for peak shaving as compared with the same period in 1982, but the effect of this cold weather was reflected primarily in 1984 consumption data. For underground storage data, see Table F2 in the May 1985 *NGM*, which was published in July 1985.

**8. Natural Gas Storage:** Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals from the quantity in storage at the end of the previous period. The difference is due to changes in the quantity of native gas included in the base gas and/or losses in base gas due to migration from storage reservoirs.

Monthly underground storage data are collected from the Federal Energy Regulatory Commission (FERC) Forms FERC-8 (interstate data) and EIA-191 (intrastate data). Beginning in January 1991, all data are collected on the revised Form EIA-191. Injection and withdrawal data from the FERC-8/EIA-191 survey are adjusted to correspond to data from Form EIA-176 following publication of the EIA *NGA*.

The final monthly and annual storage and withdrawal data for 1980-1994 include both underground and liquefied natural gas (LNG) storage. Annual data on LNG additions and withdrawals are from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying the ratio to the annual LNG data.

Total underground storage capacity at the end of each calendar year since 1975 (first year data were available), in billion cubic feet, was:

1975	6,280	1985	8,087
1976	6,544	1986	8,145
1977	6,678	1987	8,124
1978	6,890	1988	8,124
1979	6,929	1989	8,124
1980	7,434	1990	8,125
1981	7,805	1991	7,993
1982	7,915	1992	7,932
1983	7,985	1993	7,989
1984	8,043	1994	8,043

Current capacity is 8,043 billion cubic feet.

### Sources for Table 4.2

#### 1973-1988

**Total Dry Gas Production**: Energy Information Administration (EIA), *Natural Gas Annual 1994, Volume 1,* Table 99.

Withdrawals from Storage, 1973-1975 and 1980-1988: EIA, *Natural Gas Annual 1994, Volume 1*, Table 100.

Withdrawals from Storage, 1976-1979: EIA, Natural Gas Production and Consumption 1979, Table 1.

**Supplemental Gaseous Fuels:** EIA, *Natural Gas Annual 1994, Volume 2,* Table 12.

**Imports, Additions to Storage, Exports, and Consumption:** EIA, *Natural Gas Annual 1994, Volume 1, Table 100.* 

**Total Supply/Disposition**: Sum of disposition items. **Balancing Item:** Total supply/disposition minus all other supply items.

#### 1989 forward

EIA, Natural Gas Monthly, January 1996, Table 2.

### Sources for Table 4.5

#### **Storage Activity**

**1973-1975 and 1980-1988:** Energy Information Administration (EIA) *Natural Gas Annual 1990, Volume 2,* Table 11.

**1976-1979:** EIA, Natural Gas Production and Consumption 1979, Table 1.

**1993 forward:** EIA, *Natural Gas Monthly*, January 1996, Table 9.

#### **Other Data**

**1973 and 1974:** American Gas Association (AGA), *Gas Facts, 1972 Data, Table 57, Gas Facts, 1973 Data, Table 57, and Gas Facts, 1974 Data, Table 40.* 

**1975 and 1976:** Federal Energy Administration (FEA), Form FEA-G318-M-O, "Underground Gas Storage Report," and Federal Power Commission (FPC), Form FPC-8, "Underground Gas Storage Report."

**1977 and 1978:** EIA, Form FEA-G-318-M-O, "Underground Gas Storage Report," and Federal Energy Regulatory Commission (FERC), Form FERC-8, "Underground Gas Storage Report.

**1979-1988:** EIA, Form EIA-191, "Underground Gas Storage Report," and FERC, Form FERC-8, "Underground Gas Storage Report."

**1989 forward:** EIA, *Natural Gas Monthly*, January 1996, Table 13.

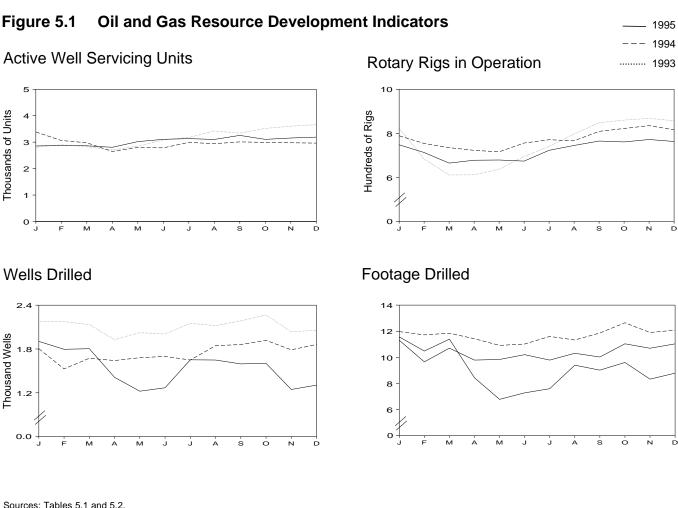
# Section 5. Oil and Gas Resource Development

The December 1995 rotary rig count of 763 was 1 percent less than the count in the previous month and 6 percent lower than the count in December 1994. Of the total number of rigs in operation, 654 were onshore and 109 were offshore. The number of onshore rigs was down 8 percent from the number in December 1994, but the number of offshore rigs was up 2 percent.

Total footage drilled in December 1995 was 8.79 million feet, up 5 percent from footage drilled in November 1995 but down 20 percent from that drilled in December 1994.

The estimated number of exploratory and development oil and gas wells drilled during December 1995 was 1,016, 3 percent higher than the number drilled in November 1995 but 27 percent lower than the number drilled in December 1994. The estimated number of oil wells drilled was 451, and the estimated number of gas wells drilled was 565, 26 percent lower and 28 percent lower, respectively, than their December 1994 levels. The estimated number of dry holes drilled in December 1995 was 289, up 10 percent from the number drilled in November 1995 but 39 percent lower than the number drilled in December 1994.

Seismic activity statistics are not available for this month. The Society of Exploration Geophysics, source of these data, is reorganizing its survey effort. An alternative source of seismic crew data is the *World Geophysical Report* by Petroleum Information Corporation.



		ews Engaged mic Explora			Rotary R	tigs in Ope	rationa			
				Ву	Site	Ву Т	уре	-	Total Footage	Active Well Servicing
	Offshore	Onshore	Total	Offshore	Onshore	Oil	Gas	Total <sup>b</sup>	Drilled <sup>c</sup>	Unitsd
	Mo	onthly Avera	ge		Wee	ekly Avera	ge		Thousand Feet	Number
1973 Average	23	227	250	84	1,110	NA	NA	1,194	139,427	NA
1974 Average	31	274	305	94	1,378	NA	NA	1,472	153,791	NA
1975 Average	30	254	284	106	1,554	NA	NA	1,660	181,046	NA
1976 Average	25	237	262	129	1,529	NA	NA	1,658	187,291	2,601
1977 Average	27	281	308	167	1,834	NA	NA	2,001	215,696	2,828
1978 Average	25	327	352	185	2,074	NA	NA	2,259	238,388	2,988
1979 Average	30	370	400	207	1,970	NA	NA	2,177	243,686	3,399
1980 Average	37	493	530	231	2,678	NA	NA	2,909	312,303	4,089
1981 Average	44	637	681	256	3,714	NA	NA	3,970	408,842	4,850
1982 Average	57	531	588	243	2,862	NA	NA	3,105	378,437	4,248
1983 Average	47	426	473	199	2,033	NA	NA	2,232	318,585	3,732
1984 Average	49	445	494	213	2,215	NA	NA	2,428	370,730	4,663
1985 Average	45	333	378	206	1,774	NA	NA	1,980	312,569	4,716
1986 Average	24	176	200	99 95	865 841	NA NA	NA	964	177,486 161.226	3,036 3,060
1987 Average	24 29	153 153	177 182	123	813	554	NA 354	936 936	- , -	
1988 Average	29	109	132	123	764	554 453	354 401	930 869	153,340 133,383	3,341
1989 Average 1990 Average	23	109	125	105	902	433 532	464	1,010	154,632	3,391 3,658
	23 19	85	123	81	902 779	482	351	860	146,383	3,331
1991 Average 1992 Average	12	64	76	52	669	373	331	721	124,879	2,732
1002 January	17	FF	70	70	750	225	454	824	11.072	2.907
1993 January	17 15	55 63	72 78	72 69	752 615	335 311	454 334	684	11,972	2,807 2,899
February		55	70	62	549		268		11,720	'
March	16	55 63	71	62 69		315 320		611	11,850	2,829
April	14				543		270	612	11,424	2,703
May	15	64 65	79 82	73 83	564 612	323 350	294 327	637	10,915	2,848
	17							695	11,020	3,087
July	15	65 66	80 82	85 87	656 710	368 397	360 390	741 797	11,601	3,178
August	16 18	66	84	89	710	418	390 421	848	11,332 11,864	3,423 3,341
September	15	66	81	93	767	410	421	860	,	'
October November	17	65	82	93	769	441	408	868	12,647 11,905	3,519 3,604
December	18	66	84	103	769	433	408	857	<sup>R</sup> 12,080	3,662
Average	16	<b>63</b>	<b>79</b>	82	672	373	364	<b>754</b>	<sup>R</sup> 140,330	3,158
1994 January	18	60	78	99	690	356	425	789	11,312	3,386
February	18	69	87	95	659	337	405	754	9,655	3,063
March	19	75	94	99	636	323	403	735	10,704	2,977
April	20	68	88	106	617	314	398	723	9,790	2,649
May	22	65	87	104	612	320	382	716	9,839	2,798
June	20	69	89	113	643	331	408	756	10,206	2,785
July	23	64	87	107	664	341	415	771	9,790	2,992
August	NA	NA	NA	95	671	320	433	766	10,311	2,941
September	NA	NA	NA	97	712	325	471	809	10,026	3,010
October	NA	NA	NA	99	723	342	467	822	11,036	2,991
November	NA	NA	NA	106	729	361	460	835	10,697	2,977
December	NA	NA	NA	107	709	354	447	816	<sup>R</sup> 11,033	2,964
Average	NA	NA	NA	102	673	335	427	775	<sup>R</sup> 124,399	2,961
1995 January	NA	NA	NA	106	642	325	411	748	11,567	2,855
February	NA	NA	NA	100	613	326	375	713	10,482	2,877
March	NA	NA	NA	90	575	322	331	665	11,394	2,862
April	NA	NA	NA	91	587	328	336	678	8,437	2,806
May	NA	NA	NA	100	579	325	335	679	6,783	3,020
June	NA	NA	NA	96	578	301	352	674	<sup>R</sup> 7,281	3,107
July	NA	NA	NA	104	619	301	399	723	7,598	3,133
August	NA	NA	NA	103	642	327	399	745	9,400	3,103
September	NA	NA	NA	103	662	333	413	765	9,021	3,255
October	NA	NA	NA	105	656	332	414	761	9,608	_ 3,105
November	NA	NA	NA	104	668	330	430	772	8,331	<sup>R</sup> 3,157
December	NA	NA	NA	109	654	325	427	763	8,789	<sup>E</sup> 3,190 <sup>E</sup> <b>3,039</b>
	NA	NA	NA		622	323		723		

### Table 5.1 Oil and Gas Drilling Activity Measurements

<sup>a</sup> Monthly data are averages of 4- or 5-week reporting periods, not calendar months. Annual data are averages of 52- or 53-week reporting periods, not calendar years.

<sup>b</sup> Sum of oil, gas, and miscellaneous other rigs, which is not shown.
 <sup>c</sup> Values shown are totals.

- <sup>d</sup> See Glossary.

R=Revised data. NA=Not available. E=Estimate.

Note: Geographic coverage is the 50 States and the District of Columbia.

Sources: • Crews Engaged in Seismic Exploration: Society of Exploration Geophysicists, Tulsa, Oklahoma, Monthly Seismic Crew Count. Rotary Rigs in Operation: Baker Hughes, Inc., Houston, Texas, Rotary Rigs Running--by State.
 Total Footage Drilled: Energy Information Administration computations, which are based on well reports submitted to the American Petroleum Institute by the Petroleum Information Corporation, Denver, Colorado.
 Active Well Servicing Units: American Association of Oilwell Servicing Contractor Dallos Oilwell Servicing Contractors, Dallas, Texas, Well Servicing.

### Table 5.2 Oil and Gas Wells Drilled

(Number of Wells)

-		Explo	oratory			Develo	opment			Тс	otal	
	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total
973 Total	654	1,079	6,038	7,771	9,597	5,896	4,428	19,921	10,251	6,975	10,466	27,692
974 Total	870	1,205	6,894	8,969	12,794	5,965	5,311	24,070	13,664	7,170	12,205	33,039
975 Total	991	1,263	7,207	9,461	15,988	6,907	6,529	29,424	16,979	8,170	13,736	38,885
976 Total	1,100	1,362	6,854	9,316	16,597	8,076	6,951	31,624	17,697	9,438	13,805	40,940
977 Total	1,183	1,562	7,402	10,147	17,517	10,557	7,634	35,708	18,700	12,119	15,036	45,855
978 Total	1,191	1,792	8,054	11,037	17,874	12,613	8,537	39,024	19,065	14,405	16,591	50,061
979 Total	1,335	1,920	7,478	10,733	19,368	13,250	8,560	41,178	20,703	15,170	16,038	51,911
980 Total	1,781	2,094	9,035	12,910	30,497	15,129	11,302	56,928	32,278	17,223	20,337	69,83
981 Total	2,667	2,533	12,297	17,497	40,176	17,374	14,987	72,537	42,843	19,907	27,284	90,03
982 Total	2,470	2,168	11,346	15,984	36,672	16,776	15,036	68,484	39,142	18,944	26,382	84,46
983 Total	2,113	1,660	10,271	14,044	35,086	12,896	14,065	62,047	37,199	14,556	24,336	76,09
984 Total	2,335	1,599	11,482	15,416	40,250	15,413	14,315	69,978	42,585	17,012	25,797	85,39
985 Total	1,879	1,282	9,445	12,606	33,142	12,970	11,763	57,875	35,021	14,252	21,208	70,48
986 Total	988	733	5,511	7,232	17,713	7,402	7,255	32,370	18,701	8,135	12,766	39,60
987 Total	859	673	5,179	6,711	15,327	7,084	6,302	28,713	16,186	7,757	11,481	35,42
988 Total	792	663	4,766	6,221	12,530	7,575	5,476	25,581	13,322	8,238	10,242	31,80
989 Total	580	654	4,001	5,235	9,759	8,571	4,490	22,820	10,339	9,225	8,491	28,05
990 Total	628	641	3,855	5,235	11,522	10,064	4,450	26,343	12,150	9,225 10,705	8,612	31,46
991 Total	573	534	3,393	4,500	11,335	8,918	4,521	24,774	11,908	9,452	7,914	29,27
992 Total	505	411	2,656	3,572	8,518	7,680	<sup>R</sup> 3,991	<sup>R</sup> 20,189	9,023	8,091	<sup>R</sup> 6,647	<sup>R</sup> 23,76
993 January	47	41	162	250	662	973	290	1,925	709	1,014	452	2,175
February	33	48	177	258	615	971	330	1,916	648	1,019	507	2,174
March	28	35	184	247	677	963	248	1,888	705	998	432	2,13
April	51	30	218	299	615	676	338	1,629	666	706	556	1,92
Мау	44	43	175	262	636	705	421	1,762	680	748	596	2,02
June	47	35	225	307	657	689	352	1,698	704	724	577	2,00
July	37	35	264	336	716	611	490	1,817	753	646	754	2,15
August	30	44	237	311	769	694	346	1,809	799	738	583	2,12
September	39	38	231	308	736	745	397	1,878	775	783	628	2,18
October	46	56	210	312	777	824	353	1,954	823	880	563	2,26
November	38	47	212	297	705	710	323	1,738	743	757	535	2,03
December	42	43	<sup>R</sup> 219	<sup>R</sup> 304	<sup>R</sup> 682	746	<sup>R</sup> 326	<sup>R</sup> 1,754	<sup>R</sup> 724	789	545	<sup>R</sup> 2,05
Total	482	495	<sup>R</sup> 2,514	<sup>R</sup> 3,491	<sup>R</sup> 8,247	9,307	<sup>R</sup> 4,214	<sup>R</sup> 21,768	<sup>R</sup> 8,729	9,802	6,728	<sup>R</sup> 25,259
994 January	51	51	196	298	616	647	243	1,506	667	698	439	1,804
February	28	38	123	189	524	606	209	1,339	552	644	332	1,528
March	32	62	154	248	517	666	242	1,425	549	728	396	1,673
April	54	52	161	267	489	644	242	1,375	543	696	403	1,64
May	45	45	177	267	436	653	325	1,414	481	698	502	1,68
June	53	51	215	319	458	664	257	1,379	511	715	472	1,69
July	53	75	177	305	435	667	242	1,344	488	742	419	1,64
August	48	55	201	304	567	695	279	1,541	615	750	480	1,84
September	50	46	197	293	517	781	270	1,568	567	827	467	1,86
October	48	61	182	291	564	777	286	1,627	612	838	468	1,91
November	64	77	200	341	507	703 P 224	238	1,448	571	780	438 J	1,78
December	77	116	217	410	<sup>R</sup> 535	<sup>R</sup> 664	<sup>R</sup> 253	<sup>R</sup> 1,452	<sup>R</sup> 612	<sup>R</sup> 780	<sup>R</sup> 470	<sup>R</sup> 1,86
Total	603	729	2,200	3,532	<sup>R</sup> 6,165	<sup>R</sup> 8,167	<sup>R</sup> 3,086	<sup>R</sup> 17,418	<sup>R</sup> 6,768	<sup>R</sup> 8,896	<sup>R</sup> 5,286	<sup>R</sup> 20,95
995 January February	85 79	105 82	223 177	413 338	551 537	721 641	219 280	1,491 1,458	636 616	826 723	442 457	1,90 1,79
,	79 56	62 60	160	336 276	537 598	726	280 204		654	723	457 364	1,79
March		60 54						1,528		490	364 362	1,60
	61 51	54 39	154	269 212	499 448	436 384	208	1,143	560 499	490 423	302 300	
May		<sup>8</sup> 52	122 <sup>R</sup> 128	<sup>R</sup> 249	<sup>R</sup> 463	<sup>8</sup> 393	178 <sup>R</sup> 164	1,010 <sup>R</sup> 1,020	<sup>R</sup> 532	423 <sup>R</sup> 445	<sup>R</sup> 292	1,22 <sup>R</sup> 1,26
June	69											
July	68	41	216	325	536	511	280	1,327	604	552	496	1,65
August	63	64 <sup>R</sup> 85	182 <sup>R</sup> 188	309 <sup>R</sup> 335	560	544 <sup>R</sup> 508	236 <sup>R</sup> 195	1,340 B 1 261	623	608	418 <sup>R</sup> 383	1,64 B 1 50
September	62				558	- 508 R 500		<sup>R</sup> 1,261	620	593		<sup>R</sup> 1,59
October	59	R 68	R 153	<sup>R</sup> 280	560	<sup>R</sup> 582	R 181	<sup>R</sup> 1,323	619	650	334	1,60
November	55	<sup>R</sup> 64	<sup>R</sup> 144	<sup>R</sup> 263	401	<sup>R</sup> 464	<sup>R</sup> 118	<sup>R</sup> 983	456	528	262	1,24
December	58	72	144	274	393	493	145	1,031	451	565	289	1,30
Total	766	786	1,991	3,543	6,104	6,403	2,408	14,915	6,870	7,189	4,399	18,45

R=Revised data.

Notes: • Service wells, stratigraphic tests, and core tests are excluded.
Due to the method of estimation, data shown on this page are frequently revised. See end of section. • Geographic coverage is the 50 States and the

District of Columbia.

Sources: Energy Information Administration computations, which are based on well reports submitted by the Petroleum Information Corporation, Denver, Colorado.

# Oil and Gas Resource Development Notes

Three well types are considered in the *Monthly Energy Review* (*MER*) drilling statistics: "completed for oil," "completed for gas," and "dry hole." Wells that productively encounter both crude oil and natural gas are categorized as "completed for oil." Both development wells and exploratory wells (new field wildcats, new pool tests, and extension tests) are included in the statistics. All other classes of wells drilled in connection with the search for producible hydrocarbons are excluded.

Prior to the March 1985 *MER*, drilling statistics consisted of completion data for the above types and classes of wells as reported to the American Petroleum Institute (API) during a given month. Due to time lags between the date of well completion and the date of completion reporting to the API, as-reported well completions proved to be an inaccurate indicator of drilling activity. During 1982, for example, as-reported well completions rose, while the number of actual completions fell. Consequently, the drilling statistics published since the March 1985 *MER* are Energy Information Administration-generated (EIA) estimates produced by statistically imputing well counts and footage based on the partial data available from the API.

Estimates for a given month are first published in the *MER* for that month. Revisions of the "oil," "gas," and "dry" components are made in the 6th, 12th, and 24th subsequent months, as newly reported data allow refinement of the estimates. Unscheduled revisions may also occur when the latest estimate differs by more than 15 percent during the first 5 months, more than 10 percent during the next 6 months, or more than 2 percent thereafter through 5 years. After 5 years, the reported API data are published in lieu of EIA-generated estimates. A comprehensive, one-time reestimation of Total Footage Drilled (Table 5.1) and Oil and Gas Wells Drilled (Table 5.2) from 1990 through March 1995 was published in the June 1995 *MER*.

Additional information about the EIA estimation methodology may be found in "Estimating Well Completions," the feature article published in the March 1985 *MER*.

# Section 6. Coal

Coal production in November 1995 totaled 84 million short tons, 3 percent lower<sup>6</sup> than the rate in November 1994. During the first 11 months of 1995 coal production totaled 942 million short tons compared with 945 million short tons during the first 11 months of 1994.

Electric utility coal consumption in October 1995 totaled 66 million short tons, 3 percent higher than the consumption level in October 1994.

Electric utility coal stocks were 127 million short tons at the end of October 1995, up 9 percent from the 117 million short tons at the end of October 1994.

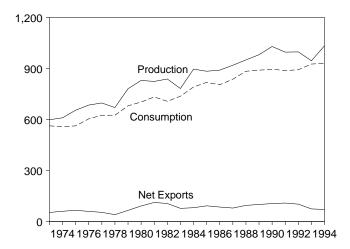
Coal exports in October 1995 totaled 8 million short tons, 28 percent higher than exports in October 1994. Coal imports in October 1995 totaled 613 thousand short tons, 41 percent higher than imports in October 1994.

<sup>6</sup>Percentage changes are based on unrounded data.

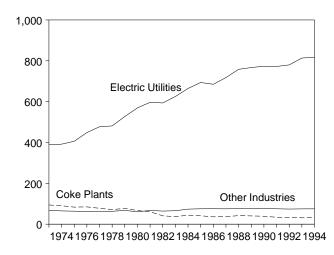
# Figure 6.1 Coal

(Million Short Tons)

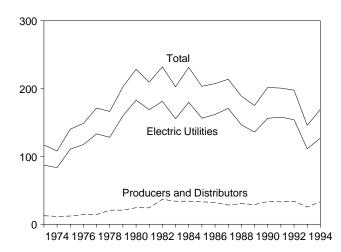
### Overview, 1973-1994



### Consumption by Sector, 1973-1994

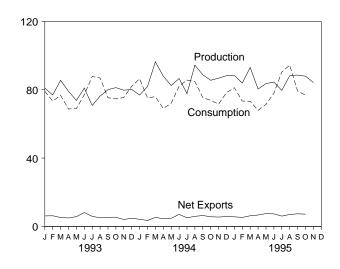


### Stocks, End of Year, 1973-1994

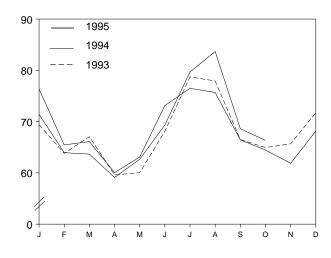


Note: Because vertical scales differ, graphs should not be compared. Sources: Tables 6.1, 6.2, and 6.3.

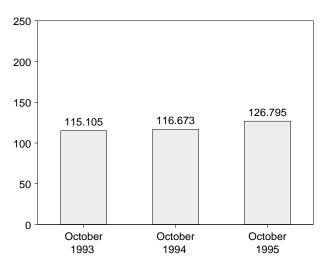
### Overview, Monthly



### Consumption by Electric Utilities, Monthly



Stocks at Electric Utilities, End of Month



### Table 6.1 Coal Overview

(Thousand Short Tons)

	Production	Consumption	Imports <sup>a</sup>	Exports	Stocks <sup>b</sup>
72 Total	E00 E60	EC2 E04	407	E2 E97	116 OCE
973 Total	598,568	562,584	127	53,587	116,865
974 Total	610,023	558,402	2,080	60,661	107,957
975 Total	654,641	562,640	940	66,309	140,158
76 Total	684,913	603,790	1,203	60,021	148,659
77 Total	697,205	625,291	1,647	54,312	171,323
78 Total	670,164	625,225	2,953	40,714	166,246
79 Total	781,134	680,524	2,059	66,042	202,472
			,		
80 Total	829,700	702,730	1,194	91,742	228,407
81 Total	823,775	732,627	1,043	112,541	209,423
82 Total	838,112	706,911	742	106,277	232,038
83 Total	782,091	736,672	1,271	77,772	202,584
84 Total	895,921	791,296	1,286	81,483	231,300
85 Total	883,638	818,049	1,952	92,680	203,367
	,				,
86 Total	890,315	804,231	2,212	85,518	207,319
87 Total	918,762	836,941	1,747	79,607	213,780
88 Total	950,265	883,642	2,134	95,023	188,831
989 Total	980,729	889,699	2,851	100,815	175,087
90 Total	1,029,076	895,480	2,699	105,804	201,629
991 Total	995,984	887,621	3,390	108,969	200,682
92 Total	997,545	892,421	3,803	102,516	197,685
93 January	80,982	79,116	344	6,506	195,037
February	76,919	73,372	454	6,715	192,442
March	85,516	76,677	415	5,648	191,072
April	79,074	68,719	281	5,268	194,213
May	73,728	68,998	298	6,060	195,654
June	80,948	77,102	514	8,619	189,669
July	70,798	87,695	643	6,573	168,179
August	76,277	86,870	747	5,830	152,790
September	80,056	75,306	753	6,120	149,092
October	81,232	74,635	1,054	6,485	150,745
				,	,
November	79,720	75,471	970	5,019	151,116
December	80,176	81,981	836	5,677	145,742
Total	945,424	925,944	7,309	74,519	145,742
94 January	76,886	86,432	540	4,731	134,972
February	81,895	75,215	753	4,252	136,693
	96,372	75,949	557		
March				5,894	146,417
April	87,903	69,007	456	4,976	155,498
Мау	82,470	72,092	550	5,326	163,660
June	86,591	82,046	571	7,637	162,451
July	77,758	85,644	833	5,882	152,748
	94,338	84,791	731	6,670	151,381
August					
September	88,757	75,385	740	7,152	154,180
October	85,538	73,799	434	6,110	158,738
November	86,756	71,556	601	6,098	165,592
December	88,240	78,285	819	6,630	169,358
Total	1,033,504	930,201	7,584	71,359	169,358
<b>95</b> January	88,333	81,185	530	6,184	170.609
				,	- ,
February	83,891	73,378	486	5,774	177,765
March	93,038	73,241	780	7,029	185,796
April	80,386	67,956	525	7,212	193,465
	83,587	71,423	517	8,036	198,177
June	84,523	77,959	567	7,935	193,930
	R 79,601	<sup>R</sup> 90,366		6,632	<sup>R</sup> 178,733
July	B 00 470	B 04 050	566		R 400 700
August	R 88,172	<sup>R</sup> 94,356	547	7,530	<sup>R</sup> 166,720
September	<sup>R</sup> 88,590	<sup>R</sup> 79,262	613	8,012	<sup>R</sup> 167,829
October	87,932	<sup>E</sup> 76,838	613	7,823	<sup>E</sup> 171,423
November	84,221	NA	NA	NA	NA
11-Month Total	942,275	NA	NA	NA	NA
04 11-Month Total	045 264	951 046	6 765	64 700	165 502
94 11-Month Total 93 11-Month Total	945,264	851,916 843,963	6,765	64,728	165,592 151,116
	865,249	543 MD.5	6,473	68,842	151 116

 $^{a}\,$  Includes Puerto Rico.  $^{b}\,$  Stocks held by electric utilities, coke plants, general industry, and coal producers and distributors at end of period. Excludes stocks held at retail dealers for consumption by the residential and commercial sector. R=Revised data. NA=Not available. E=Estimate.

Notes: • Data through 1994 are final. Subsequent data are preliminary.

• For methodology used to calculate production, consumption, and stocks, see Notes 1, 2, and 3 at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

### Table 6.2 Coal Consumption by End-Use Sector

(Thousand Short Tons)

		In	dustrial			
	Residential and Commercial	and Coke		Electric Utilities	Total	
072 Total	11,117	94,101	68,154	389,212	562,584	
973 Total						
974 Total	11,417	90,191	64,983	391,811	558,402	
975 Total	9,410	83,598	63,670	405,962	562,640	
976 Total	8,916	84,704	61,799	448,371	603,790	
977 Total	8,954	77,739	61,472	477,126	625,291	
978 Total	9,511	71,394	63,085	481,235	625,225	
979 Total	8,388	77,368	67,717	527,051	680,524	
980 Total	6,452	66,657	60,347	569,274	702,730	
981 Total	7,421	61,014	67,395	596.797	732,627	
	,		,	, .	,	
982 Total	8,240	40,908	64,097	593,666	706,911	
983 Total	8,448	37,033	65,980	625,211	736,672	
984 Total	9,130	44,022	73,745	664,399	791,296	
985 Total	7,779	41,056	75,372	693,841	818,049	
986 Total	7,667	35,924	75,583	685,056	804,231	
987 Total	6,914	36,957	75,175	717,894	836,941	
988 Total	7,130	41,888	76,252	758,372	883,642	
989 Total	6,167	40,508	76,134	766,888	889,699	
			,	,	,	
990 Total	6,724	38,877	76,330	773,549	895,480	
991 Total	6,094	33,854	75,405	772,268	887,621	
992 Total	6,153	32,366	74,042	779,860	892,421	
993 January	662	2,674	6,380	69,400	79,116	
February	641	2,468	6,451	63,812	73,372	
March	514	2,640	6,450	67,073	76,677	
April	613	2,578	5,931	59,596	68,719	
	323	2,719	5,925	60,032	68,998	
June	418	2,588	5,978	68.118	77,102	
July	424	2,678	5,876	78,717	87,695	
		,	,	,	,	
August	382	2,664	5,892	77,932	86,870	
September	288	2,618	5,907	66,493	75,306	
October	386	2,660	6,647	64,941	74,635	
November	649	2,447	6,697	65,677	75,471	
December	921	2,587	6,757	71,717	81,981	
Total	6,221	31,323	74,892	813,508	925,944	
994 January	854	2,619	6,598	76,362	86,432	
February	669	2,481	6,610	65,455	75,215	
March	493	2,654	6,703	66,098	75,949	
April	455	2,632	5,880	60,040	69,007	
May	334	2,742	5,931	63,084	72,092	
June	398			,		
		2,591	5,928	73,130	82,046	
July	456	2,673	6,027	76,489	85,644	
August	392	2,659	6,057	75,682	84,791	
September	288	2,613	6,039	66,445	75,385	
October	337	2,643	6,371	64,447	73,799	
November	541	2,666	6,473	61,877	71,556	
December	796	2,767	6,562	68,161	78,285	
Total	6,013	31,740	75,179	817,270	930,201	
	620	0 750	6 050	71 404	04 405	
995 January	638	2,758	6,358	71,431	81,185	
February	572	2,549	6,317	63,940	73,378	
March	428	2,833	6,321	63,659	73,241	
April	449	2,769	5,629	59,110	67,956	
	291	2,820	5,656	62,656	71,423	
June	292	2,702	5.623	69,342	77,959	
July	<sup>R</sup> 396	<sup>R</sup> 2,739	<sup>R</sup> 7,544	79,688	<sup>R</sup> 90,366	
August	<sup>R</sup> 398	<sup>R</sup> 2,787	<sup>R</sup> 7,514	83,658	<sup>R</sup> 94,356	
		2,101 R 2 004	1,014 R7500		84,000 R 70,000	
September	<sup>R</sup> 267	<sup>R</sup> 2,804	<sup>R</sup> 7,566	68,624	R 79,262	
October 10-Month Total	<sup>E</sup> 1,094 <sup>E</sup> <b>4,825</b>	<sup>E</sup> 2,757 <sup>E</sup> <b>27,518</b>	<sup>E</sup> 6,661 <sup>E</sup> <b>65,188</b>	66,326 688 435	<sup>E</sup> 76,838 <sup>E</sup> <b>785,965</b>	
	4,020	21,310	00,100	688,435	100,900	
994 10-Month Total	4,676	26,307	62,144	687,232	780,360	
993 10-Month Total	4,652	26,289	61,438	676,114	768,492	

R=Revised data. E=Estimate.

Notes: • For sector-specific reporting and estimating information, see Note 2 at end of section. • Data through 1994 are final. Subsequent data are preliminary. • Totals may not equal sum of components due to independent

rounding. • Geographic coverage is the 50 States and the District of Columbia.

### Table 6.3 Coal Stocks, End of Period

(Thousand Short Tons)

		Cons		- Davidurana		
	Coke Plants	Other Industrial	Electric Utilities	Totala	Producers and Distributors	Total <sup>a</sup>
072 Voor	6,998	10,370	86,967	104,335	12,530	116,865
973 Year						
974 Year	6,209	6,605	83,509	96,323	11,634	107,957
975 Year	8,797	8,529	110,724	128,050	12,108	140,158
976 Year	9,902	7,100	117,436	134,438	14,221	148,659
977 Year	12,816	11,063	133,219	157,098	14,225	171,323
978 Year	8,278	9,048	128,225	145,551	20,695	166,246
979 Year	10,155	11,777	159,714	181,646	20,826	202,472
980 Year	9,067	11,951	183,010	204,028	24,379	228,407
981 Year	6,475	9,906	168,893	185,274	24,149	209,423
982 Year	4,642	9,479	181,132	195,254	36,784	232,038
983 Year	4,346	8,710	155,598	168,654	33,931	202,584
984 Year			179,727	197,211	34,090	231,300
	6,166	11,317	,		,	
985 Year	3,420	10,438	156,376	170,234	33,133	203,367
986 Year	2,992	10,429	161,806	175,226	32,093	207,319
987 Year	3,884	10,777	170,797	185,459	28,321	213,780
988 Year	3,137	8,768	146,507	158,413	30,418	188,831
989 Year	2,864	7,363	135,860	146,087	29,000	175,087
990 Year	3,329	8,716	156,166	168,210	33,418	201,629
991 Year	2,773	7,061	157,876	167,711	32,971	200,682
992 Year	2,597	6,965	154,130	163,692	33,993	197,685
993 January	2,668	6,587	150,302	159,557	35,480	195,037
February	2,739	6,209	146,528	155,476	36,967	192,442
March	2,809	5,831	143,978	152,619	38,453	191,072
April	2,879	5,911	148,178	156,968	37,245	194,213
May	2,949	5,990	150,678	159,618	36,036	195,654
June	3,020	6,070	145.753	154.842	34.827	189,669
	2,858	6,227	126,815	135,900	32,279	168,179
July	,					
August	2,697	6,383	113,978	123,058	29,731	152,790
September	2,536	6,540	112,833	121,909	27,183	149,092
October	2,491	6,599	115,105	124,195	26,550	150,745
November	2,446	6,657	116,095	125,199	25,917	151,116
December	2,401	6,716	111,341	120,458	25,284	145,742
994 January	2,345	6,097	98,294	106,736	28,236	134,972
February	2,289	5,478	97,739	105,506	31,188	136,693
March	2,232	4,859	105,186	112,278	34,139	146,417
April	2,408	5,087	113,324	120,819	34,679	155,498
May	2,583	5,315	120,543	128,442	35,218	163,660
June	2,759	5,543	118,391	126,694	35,758	162,451
July	2,741	5,764	109,419	117,925	34,823	152,748
August	2,724	5,985	108,783	117,492	33,889	151,381
September	2,706	6,206	112,314	121.225	32,955	154,180
October	2,690	6,332	116,673	125,695	33,043	158,738
November	2,673	6,459	123,328	132,461	33,131	165,592
				,		
December	2,657	6,585	126,897	136,139	33,219	169,358
995 January	2,678	6,198	125,475	134,350	36,259	170,609
February	2,698	5,810	129,957	138,465	39,300	177,765
March	2,719	5,422	135,315	143,456	42,340	185,796
April	2,687	5,486	143,033	151,206	42,259	193,465
May	2,656	5,549	147,794	155,999	42,178	198,177
June	2,624	5,612	143,596	151,833	42,097	193,930
July	2,575	<sup>R</sup> 5,720	130,311	<sup>R</sup> 138,605	<sup>R</sup> 40,128	<sup>R</sup> 178.733
August	2,525	<sup>R</sup> 5,827	120,208	<sup>R</sup> 128,560	<sup>R</sup> 38,160	<sup>R</sup> 166.720
September	<sup>R</sup> 2,476	<sup>R</sup> 5,934	123,227	<sup>R</sup> 131,637	<sup>R</sup> 36,191	<sup>R</sup> 167,829
October	E 2,249	<sup>E</sup> 6,379	126,795	<sup>E</sup> 135,423	E 36,000	<sup>E</sup> 171,423

<sup>a</sup> Excludes stocks held at retail dealers for consumption by the residential and commercial sector. R=Revised data. E=Estimate.

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

Notes: • For sector-specific reporting and estimating information, see Note 3 at end of section. • Data through 1994 are final. Subsequent data are

# **Coal Notes**

1. Production: Preliminary monthly estimates of national coal production are the sum of weekly estimates developed by the Energy Information Administration (EIA) and published in the Weekly Coal Production report. When a week extends into a new month, production is allocated on a daily basis and added to the appropriate month. Weekly estimates are based on Association of American Railroads data showing the number of railcars loaded with coal during the week by Class I and certain other railroads. This number is converted into tons of coal by EIA by using the average number of tons of coal per railcar loaded reported in the most recent "Quarterly Freight Commodity Statistics" from the Interstate Commerce Commission. If an average coal tonnage per railcar loaded is not available for a specific railroad, the national average is used. To derive the estimate of total weekly production, the total rail tonnage for the week is divided by the ratio of quarterly production shipped by rail and total quarterly production. Data for the corresponding quarter of previous years are used to derive this ratio. This method ensures that the seasonal variations are preserved in the production estimates.

When preliminary quarterly data become available, the monthly and weekly estimates are adjusted to conform to the quarterly figure. The adjustment procedure uses State-level production data and is explained in EIA's Quarterly Coal Report. Initial estimates of annual production published in January of the following year are based on preliminary production data covering the first 9 months (three quarters) and weekly/monthly estimates for the fourth quarter. The fourth quarter estimates may or may not be revised when preliminary data become available in March of the following year, depending on the magnitude of the difference between the estimates and the preliminary data. In any event, all quarterly, monthly, and weekly production figures are adjusted to conform to the final annual production data published in the Monthly Energy Review in the fall of the following year.

**2. Consumption:** Coal consumption data are reported by major end-use sector. Estimated data for the most recent months (designated by an "E") are derived from forecasted values shown in the EIA *Short-Term Energy Outlook* (DOE/EIA-0202) table titled "Supply and Disposition of Coal: Mid World Oil Price Case." The monthly estimates are one-third of the quarterly values shown in the then current issue of the publication, regularly released in February, May, October, and November. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

• Residential and Commercial—Prior to 1980, monthly consumption estimates for the residential and commercial sector were derived by using reported data to modify baseline figures developed by the Bureau of Mines. From 1980-1987, monthly estimates were derived by proportioning reported quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported on Form EIA-2. During 1981 and 1982, the estimates were also modified to reflect air temperature degree-days. Quarterly consumption data were taken directly from reported data and were defined as distribution to the residential and commercial sector as reported by coal producers and distributors on Form EIA-6. Beginning in January 1988, monthly residential and commercial consumption estimates are derived from reported quarterly data by using monthly national average population weighted heating/cooling degree-days obtained from the National Oceanic and Atmospheric Administration. The monthly ratios are the monthly national sum of heating and cooling degree-days as a proportion of the quarterly national sum. Quarterly consumption data are taken directly from reported data.

- Coke Plants—Prior to 1980, monthly coke plant consumption data were taken directly from reported data. From 1980-1987, coke plant consumption estimates were derived by proportioning reported quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported. Beginning in January 1988, monthly coke plant consumption estimates are derived from the reported quarterly data by using monthly ratios of raw steel production data from the American Iron and Steel Institute. The ratios are the monthly raw steel production from open hearth and basic oxygen process furnaces as a proportion of the quarterly production from those kinds of furnaces.
- Other Industrial—Prior to 1978, monthly consumption data for the other industrial sector (all industrial users minus coke plants) were derived by using reported data to modify baseline consumption figures from the most recent Bureau of the Census Annual Survey of Manufactures or Census of Manufactures. For 1978 and 1979, monthly estimates were derived from data reported on Forms EIA-3 and EIA-6. From 1980-1987, monthly figures were estimated by proportioning quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported on Form EIA-3. Quarterly consumption data were derived by adding beginning stocks at manufacturing plants to current receipts and subtracting ending stocks at manufacturing plants. In this calculation, current receipts were the greater of either reported receipts from manufacturing plants (Form EIA-3) or reported shipments to the other industrial sector (Form EIA-6), thereby ensuring that agriculture, forestry, fishing, mining, and construction consumption data were included where appropriate. Starting in January 1988, monthly consumption for the other industrial sector is estimated from reported quarterly data by using ratios derived from industrial production indices published by the Board of

Governors of the Federal Reserve System. Indices for six major industry groups are used as the basis for calculating the ratios: foods, Standard Industrial Classification (SIC) 20; paper and products, SIC 26; chemicals and products, SIC 28; petroleum products, SIC 29; clay, glass, and stone products, SIC 32; and primary metals, SIC 33. The monthly ratios are computed as the monthly sum of the weighted indices as a proportion of the quarterly sum of the weighted indices by using the 1977 proportion as the weights.

• Electric Utilities—Monthly consumption data for electric utility plants are taken directly from reported data.

**3. Stocks:** Coal stocks data are reported by major enduse sector. Estimated data for the most recent months (designated by an "E") are derived from forecasted values shown in the EIA *Short-Term Energy Outlook* (DOE/EIA-0202) table titled "Supply and Disposition of Coal: Mid World Oil Price Case." The monthly estimates are one-third of the quarterly values shown in the then current issue of the publication, regularly released in February, May, October, and November. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

- Coke Plants—Prior to 1980, monthly stocks at coke plants were taken directly from reported data. From 1980 forward, coke plant stocks are estimated by using one-third of the current quarterly change to indicate the monthly change in stocks. Quarterly stocks are taken directly from data reported on Form EIA-5.
- Other Industrial—Prior to 1978, stocks for the other industrial sector were derived by using reported data to modify baseline figures from a one-time Bureau of Mines survey of consumers. For 1978-1982, monthly estimates were derived by judgmentally proportioning reported quarterly data based on representative seasonal patterns of supply and demand. From 1983 forward, other industrial coal stocks are estimated as indicated above for coke plants. Quarterly stocks are taken directly from data reported on Form EIA-3 and therefore include only manufacturing industries; data for agriculture, forestry, fishing, mining, and construction stocks are not available.
- Electric Utilities—Monthly stocks data at electric utility plants are taken directly from reported data.
- Producers and Distributors—Quarterly stocks at producers and distributors are taken directly from reported data. Monthly data are estimated by using one-third of the current quarterly change to indicate the monthly change in stocks.

**4. Imports and Exports:** All coal import and export figures are taken directly from data reported monthly by the Bureau of the Census.

**5.** Additional Information: EIA's *Quarterly Coal Report* provides additional information about coal data and estimation procedures.

### Sources for Table 6.1

#### Production

**1973-September 1977**—U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook* and *Minerals Industry Surveys*.

**October 1977 forward**—Energy Information Administration, *Weekly Coal Production*.

#### Consumption

Table 6.2.

#### Imports and Exports

U.S. Department of Commerce, Bureau of the Census, Monthly Reports IM-145 (Imports) and EM-545 (Exports).

#### Stocks

Table 6.3.

### Sources for Table 6.2

#### **Residential and Commercial**

**1973-1976**—U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*.

January-September 1977—DOI, BOM, Form 6-1400, "Monthly Coal Report, Retail Dealers-Upper Lake Docks."

**October 1977-1979**—Energy Information Administration (EIA), Form EIA-2, "Monthly Coal Report, Retail Dealers-Upper Lake Docks."

**1980 forward**—EIA, Form EIA-6, "Coal Distribution Report," quarterly.

#### **Coke Plants**

**1973-September 1977**—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys* 

**October 1977-1980**—EIA, Form EIA-5/5A, "Coke and Coal Chemicals-Monthly/Annual Supplement."

**1981-1984**—EIA, Form EIA-5/5A, "Coke Plant Report-Quarterly/Annual Supplement."

**1985 forward**—EIA, Form EIA-5, "Coke Plant Report-Quarterly."

#### **Other Industrial**

**1973-September 1977**—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.

October 1977-1979—EIA, Form EIA-3, "Monthly Coal Consumption Report-Manufacturing Plants." 1980 forward—EIA, Form EIA-3, "Quarterly Coal Consumption Report-Manufacturing Plants," and Form EIA-6, "Coal Distribution Report," quarterly.

#### **Electric Utilities**

**1973-September 1977**—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*. **October 1977 forward**—EIA, Form EIA-759 (formerly Form FPC-4), "Monthly Power Plant Report."

### Sources for Table 6.3

#### **Coke Plants**

**1973-September 1977**—U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook* and *Minerals Industry Surveys*.

**October 1977-1980**—Energy Information Administration (EIA), Form EIA-5/5A, "Coke and Coal Chemicals-Monthly/Annual."

1981-1984—EIA, Form EIA 5/5A, "Coke Plant Report-

Quarterly/Annual Supplement." **1985 forward**—EIA, Form EIA-5, "Coke Plant Report-Quarterly."

#### **Other Industrial**

**1973-September 1977**—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.

**October 1977-1979**—EIA, Form EIA-3, "Monthly Coal Consumption Report-Manufacturing Plants."

**1980 forward**—EIA, Form EIA-3, "Quarterly Coal Consumption Report-Manufacturing Plants," and Form EIA-6, "Coal Distribution Report," quarterly.

#### **Electric Utilities**

**1973-September 1977**—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*. **October 1977 forward**—EIA, Form EI-A759 (formerly Form FPC-4), "Monthly Power Plant Report."

#### **Producers and Distributors**

EIA, Form EIA-6, "Coal Distribution Report," quarterly.

# Section 7. Electricity

During October 1995, electric utilities generated 234 billion kilowatthours of electricity, 3 percent<sup>7</sup> more than in October 1994. Coal-fired generation totaled 131 billion kilowatthours, 1 percent above the October 1994 level. Nuclear generation totaled 54 billion kilowatthours, 7 percent above the level 1 year earlier. Natural gas-fired generation was 23 billion kilowatthours, 11 percent lower than the October 1994 level. Hydroelectric generation totaled 21 billion kilowatthours, 31 percent higher than the October 1994 level. Petroleum-fired generation totaled 3 billion kilowatthours, 23 percent below the level 1 year earlier.

Sales of electricity to all ultimate consumers in the United States in October 1995 were 241 billion kilowatthours, 3 percent higher than sales during October 1994. Sales to industrial consumers totaled 86 billion kilowatthours in October 1995, 1 percent above the level 1 year earlier. Sales to residential consumers during October 1995 were 75 billion kilowatthours, 5 percent higher than the level of sales during the previous year. Commercial sales were 72 billion kilowatthours, 5 percent higher than the level of commercial sales during the previous year. In October 1995, other sales totaled 8 billion kilowatthours, 3 percent higher than the October 1994 level.

Electric utility consumption of coal during October 1995 was 66 million short tons, 3 percent above consumption in October 1994. Petroleum consumption (excluding petroleum coke) during October 1995 was 6 million barrels, 24 percent below the level of consumption in October 1994. During October 1995, electric utilities consumed 240 billion cubic feet of natural gas, 9 percent below the October 1994 consumption level.

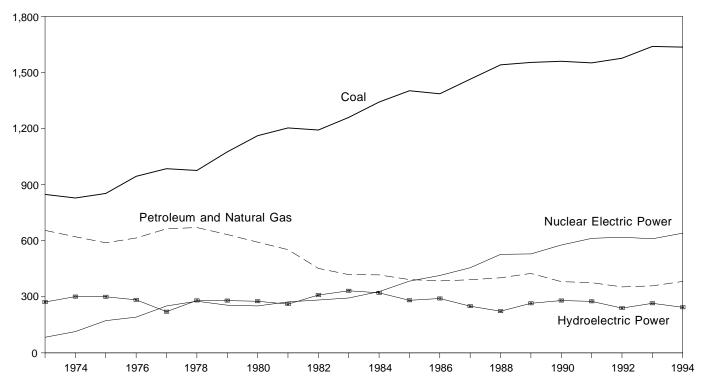
On October 31, 1995, electric utility stocks of all types of coal totaled 127 million short tons, 9 percent above the level on October 31, 1994. Stocks of petroleum (excluding petroleum coke) on October 31, 1995, totaled 53 million barrels, 14 percent below the level on October 31, 1994.

<sup>7</sup>Percentage changes are based on numbers shown in the following tables.

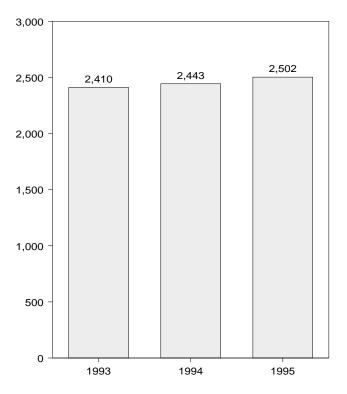
# Figure 7.1 Electric Utility Net Generation of Electricity

(Billion Kilowatthours)

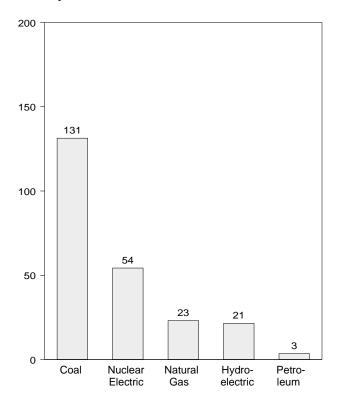
By Source, 1973-1994



### Total, January-October



Total by Source, October 1995



Note: Because vertical scales differ, graphs should not be compared. Source: Table 7.1.

#### **Electric Utility Net Generation of Electricity** Table 7.1

(Million Kilowatthours)

		Natural		Nuclear Electric	Hydro- Electric	Geothermal		
	Coal	Gasa	Petroleum <sup>b</sup>	Power	Power	Energy	Other <sup>c</sup>	Total
73 Total	847,651	340,858	314,343	83,479	272,083	1,966	328	1,860,710
74 Total	828,433	320.065	300,931	113.976	301,032	2,453	251	1.867.140
75 Total	852,786	299,778	289,095	172,505	300,047	3,246	191	1,917,649
76 Total	944,391	294,624	319,988	191,104	283,707	3,616	266	2,037,696
77 Total	985,219	305,505	358,179	250,883	220,475	3,582	481	2,124,323
78 Total	975,742	305,391	365,060	276,403	280,419	2,978	338	2,206,331
79 Total	1,075,037	329,485	303,525	255,155	279,783	3,889	498	2,247,372
80 Total	1,161,562	346,240	245,994	251,116	276,021	5,073	433	2,286,439
81 Total	1,203,203	345,777	206,421	272,674	260,684	5,686	368	2,294,812
82 Total	1,192,004	305,260	146,797	282,773	309.213	4,843	321	2,241,211
83 Total	1,259,424	274,098	144,499	293,677	332,130	6,075	381	2,310,285
84 Total	1,341,681	297,394	119,808	327,634	321,150	7,741	898	2,416,304
85 Total	1,402,128	291,946	100,202	383,691	281,149	9,325	1,399	2,469,841
86 Total	1,385,831	248,508	136,585	414,038	290,844	10,308	1,195	2,487,310
87 Total	1,463,781	272,621	118,493	455,270	249,695	10,300	1,491	2,572,127
88 Total	1,540,653	252,801	148,900	526,973	222,940	10,300	1,684	
89 Total	1,553,661	266,598	158,318	529,355	265,063	9,342	1,968	2,704,250 2,784,304
90 Total	1,559,606	266,598	117,017	529,355 576,862	265,063 279,926	9,342 8,581	2,070	2,784,304
90 Total	1,551,167	264,089	111,463	612,565	279,926 275,519	8,087	2,070	2,808,151
92 Total	1,575,895	264,172	88,916	618,776	239,559	8,104	2,050	2,825,023
93 January	138,354	15,807	7,239	59,076	24,453	651	202	245,782
February	130.069	15,768	6,939	51,319	19,722	633	167	224,617
March	136,404	18,783	8,569	46,606	23,587	659	193	234,801
April	120,325	16,684	5,205	43,199	25,160	654	148	211,374
Мау	120,828	15,845	5,267	50,367	29,323	582	135	222,396
June	137,485	24,393	7,809	52,620	26,600	586	139	249,633
	158,400	31,705	11,341	56,502	23,556	643	139	249,030
July	156,197	34,263	11,975	,	19,667	653	144	202,292
August	,	,	,	56,209	,			- / -
September	134,001	24,978	9,759	49,989	17,073	630	173	236,603
October	130,926	22,912	7,659	44,434	16,899	625	174	223,629
November	132,288	20,535	7,479	46,862	17,898	618	174	225,855
December Total	143,824 <b>1,639,151</b>	17,242 <b>258,915</b>	10,299 <b>99,539</b>	53,108 <b>610,291</b>	21,125 <b>265,063</b>	637 <b>7,571</b>	178 <b>1,994</b>	246,412 <b>2,882,52</b> 5
94 January	152,752	16,847	14,600	56,847	19,843	631	177	261,697
February	131,138	14,523	9,655	49,821	19,146	574	154	225,011
March	133,528	18,177	7,960	48,969	22,161	578	170	231,544
April	119,755	20,235	7,674	43,192	23,219	592	150	214,817
May	126,454	20,235	6,991	48,525	24,329	581	147	214,017
	147,440	30,744	9,887	,	,	522	154	263,859
June	,	34,857	,	51,751 59,123	23,360	553	179	,
July	152,182 151,389	34,857	9,317 6,064	59,123 60,104	21,938 19,119	553 610	164	278,149 274,645
August	132,059	28,803	6,064 5,027	55,628	,	564	164	,
September	,	,	,	,	15,431			237,663
October	129,637	25,936	4,566	50,703	16,368 17.858	578	184	227,972
November	123,604	22,774	4,480	55,280	/	572 584	177 187	224,746
December Total	135,556 <b>1,635,493</b>	20,348 <b>291,115</b>	4,815 <b>91,039</b>	60,497 <b>640,440</b>	20,919 <b>243,693</b>	584 6,941	187 1,992	242,906 <b>2,910,71</b> 2
	142,412	19,338	4,159	63,342	23.299	408	126	253.085
95 January	128,917	,	,	,	-,			,
February		16,422	7,042 3,080	51,858 51,880	23,953	296 326	106 117	228,594 233,689
March	126,978 118,787	23,844		49,321	27,465	282	117 151	
April		22,082	3,310		23,474			217,408
May	126,013	24,656	4,390	54,387	26,570	255	104	236,375
June	138,090	28,368	4,422	56,381	28,395	281	129 157	256,066
July	158,378	38,410	7,321	62,037	25,942	305	157	292,550
August	166,630	44,330	8,296	61,661	22,999	524	165	304,605
September	135,241	30,479	4,850	55,690	18,805	367	149	245,580
October 10-Month Total	131,318 <b>1,372,764</b>	23,076 <b>271,006</b>	3,499 <b>50,370</b>	54,293 <b>560,850</b>	21,447 <b>242,349</b>	619 <b>3,663</b>	163 <b>1,366</b>	234,416 <b>2,502,36</b> 8
							-	
94 10-Month Total	1,376,333	247,993	81,743	524,663	204,916	5,784	1,628	2,443,061

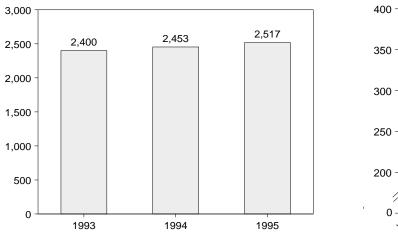
<sup>a</sup> Includes supplemental gaseous fuel.
 <sup>b</sup> Includes fuel oil nos. 1, 2, 4, 5, and 6, crude oil, kerosene, and petroleum

coke.  $^{\rm c}$  "Other" is electricity produced from biomass fuels, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution

systems. Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of

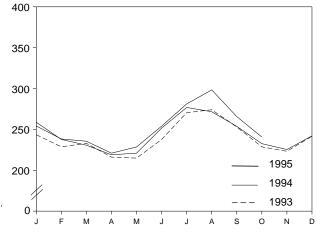
# Figure 7.2 Electric Utility Retail Sales of Electricity

(Billion Kilowatthours)

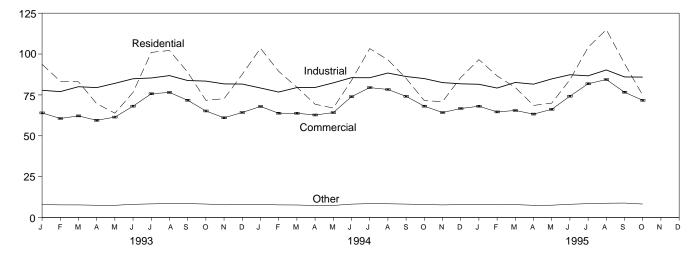


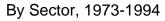
### Total, January-October

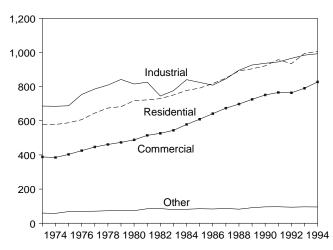
## Total, Monthly



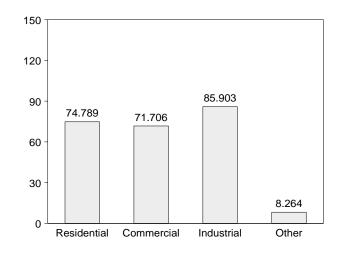
### By Sector, Monthly







By Sector, October 1995



Note: Because vertical scales differ, graphs should not be compared. Source: Table 7.2, Monthly Series.

### Table 7.2 Electric Utility Retail Sales of Electricity by End-Use Sector

(Million Kilowatthours)

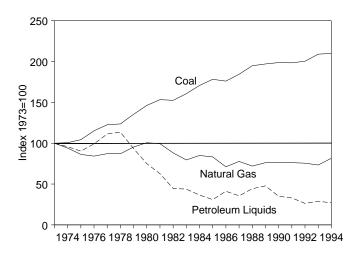
	Reside	ential	Comn	nercial	Indu	strial	Othera		Total	
	Monthly Series <sup>b</sup>	Annual Series	Monthly Series <sup>b</sup>	Annual Series	Monthly Series <sup>b</sup>	Annual Series	Monthly Series <sup>b</sup>	Annual Series	Monthly Series <sup>b</sup>	Annual Series
973 Total	579,231	NA	388,266	NA	686,085	NA	59,326	NA	1,712,909	NA
974 Total	578,184	NA	384,826	NA	684,875	NA	58,039	NA	1,705,924	NA
975 Total	588,140	NA	403,049	NA	687,680	NA	68,222	NA	1,747,091	NA
76 Total	606,452	NA	425,094	NA	754,069	NA	69,631	NA	1,855,246	NA
977 Total	645,239	NA	446,514	NA	786,037	NA	70,571	NA	1,948,361	NA
78 Total	674,466	NA	461,163	NA	809,078	NA	73,215	NA	2,017,922	NA
979 Total	682,819	NA	473,307	NA	841,903	NA	73,070	NA	2,071,099	NA
80 Total	717,495	NA	488,155	NA	815,067	NA	73,732	NA	2,094,449	NA
981 Total	722,265	NA	514,338	NA	825,743	NA	84,756	NA	2,147,103	NA
982 Total	729,520	NA	526,397	NA	744,949	NA	85,575	NA	2,086,441	NA
983 Total	750,948	NA	543,788	NA	775,999	NA	80,219	NA	2,150,955	NA
984 Total	777,654	780,092	578,281	582,621	840,588	837,836	81,849	85,248	2,278,372	2,285,79
985 Total	790,977	793,934	608,968	605,989	824,523	836,772	85,075	87,279	2,309,543	2,323,97
986 Total	817,663	819,088	641,469	630,520	808,292	830,531	83,409	88,615	2,350,835	2,368,75
987 Total	849,613	850,410	673,707	660,433	845,266	858,233	86,854	88,196	2,455,440	2,457,27
988 Total	892,125	892,866	697,711	699,100	895,751	896,498	82,362	89,598	2,567,949	2,578,06
989 Total	903,979	905,525	725,229	725,861	926,376	925,659	91,066	89,765	2,646,651	2,646,80
990 Total			750,835		936,428			91,988		
	921,473 957.801	924,019	765,476	751,027	,	945,522	95,936		2,704,672	2,712,55
991 Total 992 Total		955,417	,	765,664	944,684	946,583 972,714	96,513	94,339	2,764,474	2,762,00
992 TOLdi	934,044	935,939	763,664	761,271	965,356	972,714	94,003	93,442	2,757,067	2,763,36
993 January	93,740	-	63,998	-	77,832	-	7,930	-	243,499	-
February	83,376	-	60,609	-	77,008	-	7,752	-	228,745	-
March	83,023	-	62,169	-	80,028	-	7,734	-	232,954	-
April	69,669	-	59,479	-	79,465	-	7,511	-	216,123	-
May	63,852	-	61,430	-	82,090	-	7,496	-	214,868	-
June	76,555	-	68,107	-	84,887	-	8,088	-	237,637	-
July	101,026	-	75,706	-	85,371	-	8,351	-	270,454	-
August	102,181	-	76,533	-	86,814	-	8,551	-	274,080	-
September	88,884	-	71,734	-	83,804	-	8,525	-	252,948	-
October	71,731	-	65,180	-	83,443	-	8,271	-	228,625	-
November	72,687	-	61,023	-	81,738	-	7,795	-	223,244	-
December	87,656	-	64,257	-	81,632	-	8,059	-	241,604	-
Total	994,380	994,781	790,225	794,573	984,111	977,164	96,065	94,944	2,864,782	2,861,46
994 January	103,502	-	67,928	-	79,231	-	8,046	_	258,706	_
February	89,432	_	63,815	_	76,758	_	7,746	_	237,750	_
March	79,708	_	63,786	_	79,494	_	7,676	_	230,664	_
April	69,318	_	62,713	_	79,556	-	7,389	-	218,976	_
May	66,991	_	64,174	_	82,362	_	7,403	_	220,931	_
June	83,868	_	73,936	_	85,553	_	8,214	_	251,570	_
July	103,327	_	79,470	_	85,517	_	8,530	-	276,844	_
August	96,486	_	78,336	_	88,378	_	8,441	_	271,641	_
September	85,122	_	74,120	_	86,257	_	8,220	_	253,720	_
October	71,511	_	68,107	_	84,979	_	8,004	_	232,602	_
November	70,901	_	64,226	_	82,534	_	7,728	_	232,002	_
December	85,637	_	66,698	_	81,803	_	7,929	_	242,068	_
Total	1,005,804	NA	827,309	NA	<b>992,422</b>	NA	95,326	NA	2,920,860	NA
							-			
995 January	96,576	-	68,089	-	81,499	-	8,061	_	254,226	-
February	86,648	-	64,616	-	79,214	-	7,809	-	238,286	-
March	79,503	-	65,482	-	82,624	-	7,924	-	235,533	-
April	68,593	-	63,278	-	81,583	-	7,479	-	220,933	-
May	69,975	-	66,185	-	84,791	-	7,554	-	228,506	-
June	84,288	-	74,221	-	87,333	-	8,124	-	253,967	-
July	104,131	-	81,832	-	86,685	-	8,503	-	281,151	-
August	114,935	-	84,412	-	90,257	-	8,765	-	298,369	-
September	94,154	-	76,657	-	85,997	-	8,872	-	265,680	-
October	74,789	-	71,706	-	85,903	-	8,264	-	240,661	-
10-Month Total	873,592	-	716,478	-	845,886	-	81,356	-	2,517,312	-
94 10-Month Total	849,265	-	696,385	_	828,085	-	79,669	-	2,453,404	-
93 10-Month Total	834,037	_	664,945	_	820,741	_	80,211	_	2,399,934	_

<sup>a</sup> "Other" is public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.
 <sup>b</sup> Annual totals are the sums of the monthly values.
 NA=Not available.

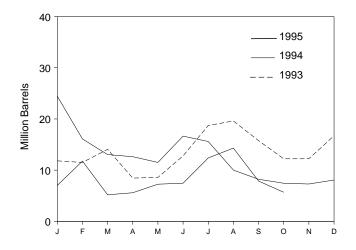
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

### Figure 7.3 Electric Utility Consumption and Stocks of Fossil Fuels

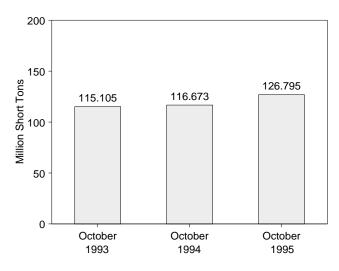
Fuels Consumed, 1973-1994



### Petroleum Liquids Consumed, Monthly

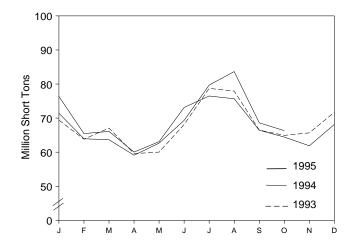


### Coal Stocks, End of Month

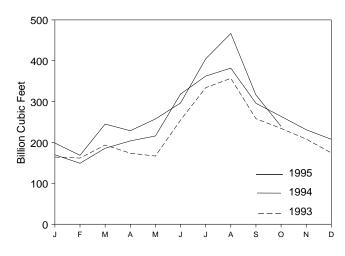


Note: Because vertical scales differ, graphs should not be compared. Sources: Tables 7.3 and 7.4.

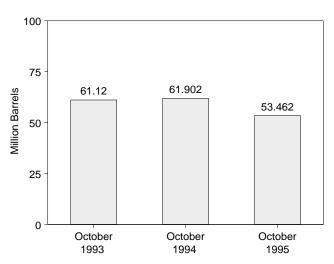
Coal Consumed, Monthly



### Natural Gas Consumed, Monthly



### Petroleum Liquids Stocks, End of Month



				•	1						
		Co	al								
					By T of Petr		By P Mover				
	Anthra- cite	Bituminous Coal	Lignite	Total	Heavy Oil <sup>a</sup>	Light Oil <sup>b</sup>	Steam Plants	GT/IC <sup>c</sup>	Total Liquids	Petroleum Coke	Natural Gas <sup>d</sup>
		Thousand S	Short Tons			Th	Thousand Short Tons	Million Cubic Feet			
1973 Total	1,443	376,975	10,794	389,212	NA	NA	513,190	47,058	560,248	507	3,660,172
1974 Total	1,498	378,643	11,670	391,811	NA	NA	483,146	53,128	536,274	625	3,443,428
1975 Total	1,480	388,523	15,960	405,962	NA	NA	467,221	38,907	506,128	70	3,157,669
1976 Total 1977 Total	1,350 1,425	425,205 451,051	21,817 24,650	448,371 477,126	NA NA	NA NA	514,077 574,869	41,843 48,837	555,920 623,705	68 98	3,080,868 3,191,200
1978 Total	1,064	448,763	31,407	481,235	NA	NA	588,319	47,520	635,839	398	3,188,363
1979 Total	1,046	488,129	37,876	527,051	NA	NA	492,606	30,691	523,297	268	3,490,523
1980 Total	951	526,680	41,642	569,274	391,163	29,051	401,863	18,351	420,214	179	3,681,595
1981 Total 1982 Total	1,221 1,075	550,784 543,346	44,792 49,245	596,797 593,666	329,798 234,434	21,313 15,337	339,680 243,537	11,431 6,234	351,111 249,771	139 149	3,640,154 3,225,518
1983 Total	1,075	570,108	49,245 54,067	625,211	228,984	16,512	243,337	7,652	245,497	261	2,910,767
1984 Total	1,070	606,339	56,990	664,399	189,289	15,190	197,050	7,429	204,479	252	3,111,342
1985 Total	1,033	631,885	60,923	693,841	158,779	14,635	166,842	6,572	173,414	231	3,044,083
1986 Total	829	616,134	68,093	685,056	216,156	14,326	222,500	7,983	230,482	313	2,602,370
1987 Total 1988 Total	972 1,063	647,824 681,048	69,098 76,260	717,894 758,372	184,011 229,327	15,367 18,769	190,818 235,817	8,560 12,279	199,378 248,096	348 409	2,844,051 2,635,613
1989 Total	1,003	688,504	77,335	766,888	241,960	25,491	250,315	17,136	248,090	409 517	2,787,012
1990 Total	1,031	694,317	78,201	773,549	181,231	14,823	187,531	8,523	196,054	819	2,787,332
1991 Total	994	691,275	79,999	772,268	171,157	13,729	177,286	7,600	184,886	722	2,789,014
1992 Total	986	698,626	80,248	779,860	135,779	11,556	141,163	6,172	147,335	999	2,765,608
1993 January	79	61,703	7,617	69,400	10,804	1,013	11,265	552	11,817	92	164,374
February	88	57,293	6,431	63,812	10,569	935	11,002	503	11,504	81	161,928
March	101	60,969	6,002	67,073	12,784	1,277	13,313	748	14,061	87	193,811
April May	84 81	53,755 53,380	5,757 6,570	59,596 60,032	7,629 7,722	819 868	8,094 8,198	354 392	8,448 8,590	79 86	173,834 166,840
June	80	61,090	6,948	68,118	11,756	1,033	12,249	540	12,789	98	254,823
July	73	71,134	7,511	78,717	16,896	1,817	17,406	1,306	18,713	125	334,101
August	67	70,241	7,624	77,932	18,044	1,566	18,509	1,101	19,610	112	357,027
September	60	60,143	6,289	66,493	14,730	1,031	15,111	650	15,761	129	258,325
October November	64 81	59,125 59,385	5,752 6,211	64,941 65,677	11,318 11,339	897 886	11,771 11,781	444 444	12,216 12,225	112 101	234,544 208,335
December	92	64,516	7,109	71,717	15,694	1,027	16,206	514	16,720	120	174,498
Total	951	732,736	79,821	813,508	149,287	13,168	154,905	7,549	162,454	1,220	2,682,440
1994 January	82	69,022	7,257	76,362	20,743	3,709	21,602	2,850	24,452	112	169,983
February	98 100	58,843 59,696	6,514 6,303	65,455 66,098	14,697 12,026	1,397 1,014	15,242 12,532	851 509	16,094 13,040	88 93	149,156 185,924
April	88	54,246	5,706	60,098	11,585	1,014	12,043	583	12,626	93 71	203,934
May	89	56,482	6,513	63,084	10,346	1,164	10,839	670	11,510	59	216,022
June	87	66,162	6,881	73,130	14,775	1,871	15,369	1,278	16,646	71	318,528
July	98	69,428 68,713	6,964 6 877	76,489	14,062	1,530	14,576	1,016	15,592	76 65	362,444
August September	92 93	68,713 59,873	6,877 6,479	75,682 66,445	8,992 7,346	1,021 870	9,453 7,759	559 456	10,013 8,216	65 62	382,114 295,956
October	107	58,011	6,330	64,447	6,634	811	7,057	387	7,444	62	263,958
November	90	55,542	6,245	61,877	6,432	863	6,910	385	7,294	59	231,242
December Total	100 <b>1,123</b>	61,084 <b>737,102</b>	6,977 <b>79,045</b>	68,161 <b>817,270</b>	7,029 <b>134,666</b>	1,048 <b>16,338</b>	7,523 <b>140,907</b>	554 <b>10,097</b>	8,077 <b>151,004</b>	57 <b>875</b>	207,886 <b>2,987,146</b>
1995 January February	75 82	64,253 58,129	7,103 5,729	71,431 63,940	5,955 10,457	1,057 1,316	6,380 10,883	632 890	7,012 11,773	64 61	198,657 168,710
March	83	57,885	5,692	63,659	4,276	907	4,730	452	5,183	52	245,166
April	77	53,889	5,144	59,110	4,673	918	5,111	480	5,591	36	228,820
May	86	57,068	5,502	62,656	6,121	1,133	6,648	607	7,254	59	257,592
June	72 67	62,422	6,849 7,530	69,342	6,262	1,194	6,828	628	7,456	68 57	296,692
July August	67 79	72,082 76,043	7,539 7,536	79,688 83,658	10,507 11,446	1,884 2,853	10,949 11,934	1,441 2,365	12,390 14,299	57 80	404,725 466,821
September	87	61,631	6,906	68,624	6,964	2,855	7,355	2,303	7,867	66	316,096
October	86	59,747	6,492	66,326	4,747	931	5,192	486	5,679	74	239,686
10-Month Total	793	623,150	64,492	688,435	71,408	13,097	76,011	8,494	84,505	616	2,822,965
1994 10-Month Total 1993 10-Month Total	933 778	620,476 608,835	65,824 66,502	687,232 676,114	121,206 122,254	14,427 11,255	126,474 126,918	9,159 6,591	135,633 133,509	759 999	2,548,019 2,299,607

### Table 7.3 Electric Utility Consumption of Fossil Fuels To Generate Electricity

<sup>a</sup> Heavy oil includes fuel oil nos. 4, 5, and 6, and residual fuel oils.
 <sup>b</sup> Light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.
 <sup>c</sup> GT/IC = Gas turbine and internal combustion plants.
 <sup>d</sup> Includes supplemental gaseous fuels.
 NA=Not available.

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

Table 7.4	Electric	Utility	Stocks	of Coal	and Petro	oleum,	End of Period
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		Co	al								
						Гуре roleum		Prime r Type		Petroleum Coke	
	Anthracite	Bituminous Coal	Lignite	Total	Heavy Oil <sup>a</sup>	Light Oil <sup>b</sup>	Steam Plants	GT/IC <sup>c</sup>	Total Liquids		
		Thousand S	Short Tons			Thousand Barrels					
973 Total	1,066	84,941	961	86,967	NA	NA	79,121	10,095	89,216	312	
974 Total	930	81,712	867	83,509	NA	NA	97,718	15,199	112,917	35	
975 Total	982	107,927	1,815	110,724	NA	NA	108,825	16,432	125,257	31	
976 Total	1,000	114,130	2,306	117,436	NA	NA	106,993	14,703	121,696	32	
977 Total 978 Total	2,321 2,178	128,210 123,020	2,688 3,027	133,219 128,225	NA NA	NA NA	124,750 102,402	19,281 16,386	144,031 118,788	44 198	
979 Total	3,274	152,981	3,459	159,714	NA	NA	111,121	20,301	131,422	183	
980 Total	4,741	174,154	4,115	183,010	105,351	30,023	117,227	18,147	135,374	52	
981 Total	5,537	158,258	5,098	168,893	102,042	26,094	112,380	15,756	128,136	42	
982 Total	6,080	170,480	4,573	181,132	95,515	23,369	105,287	13,597	118,884	41	
983 Total	6,507	145,250	3,841	155,598	70,573	18,801	78,285	11,090	89,375	55	
984 Total	6,710	167,118	5,899	179,727	68,503 57 204	19,116	76,836	10,784	87,619	50	
985 Total 986 Total	7,189 7,099	142,144 148,665	7,043 6,042	156,376 161,806	57,304 56,841	16,386 16,269	64,704 64,258	8,985 8,853	73,689 73,111	49 40	
987 Total	6,940	156,670	7,187	170,797	55.069	15,759	61,705	9,123	70.827	51	
988 Total	6,561	133,434	6,512	146,507	54,187	15,099	60,311	8,974	69,285	86	
989 Total	6,403	122,967	6,490	135,860	47,446	13,824	53,309	7,962	61,270	105	
990 Total	6,499	142,650	7,016	156,166	67,030	16,471	73,306	10,195	83,501	94	
991 Total	6,513	145,367	5,996	157,876	58,636	16,357	65,032	9,961	74,993	70	
992 Total	6,215	142,156	5,759	154,130	56,135	15,714	62,374	9,475	71,849	67	
93 January	6,166	138,615	5,521	150,302	53,781	15,840	60,193	9,428	69,620	65	
February	6,107	135,063	5,357	146,528	50,005	15,131	56,303	8,833	65,136	60	
March	6,036	132,183	5,758	143,978	45,313	14,914	51,528	8,698	60,227	66	
April	5,802	136,199	6,177	148,178	47,356	14,856	53,475	8,736	62,211	77	
May	5,773	138,668	6,238	150,678	50,422	14,669	56,495	8,596	65,091	82	
June July	5,766 5,755	133,977 115,383	6,009 5,677	145,753 126,815	49,294 47,401	14,936 14,618	55,604 53,639	8,626 8,380	64,230 62,019	92 90	
August	5,745	102,582	5,651	113,978	43,943	14,842	50,223	8,562	58,785	99	
September	5,735	100,951	6,147	112,833	45,913	14,774	52,071	8,617	60,687	62	
October	5,718	102,700	6,687	115,105	46,298	14,822	52,385	8,735	61,120	69	
November	5,693	103,447	6,955	116,095	46,603	14,878	52,812	8,668	61,481	84	
December	5,639	98,560	7,142	111,341	46,769	15,674	53,360	9,083	62,443	89	
994 January	5,576	86,043	6,676	98,294	42,781	15,127	49,922	7,986	57,908	83	
February	5,496	85,523	6,720	97,739	44,764	15,289	51,209	8,843	60,053	73	
March	5,420	92,333	7,433	105,186	45,750	15,024	51,950	8,824	60,774	89	
April	5,360	100,161	7,803	113,324	44,221	14,937	50,528	8,630	59,158	103	
May	5,309 5,275	107,716 105,668	7,518	120,543 118,391	46,104	15,170 15,541	52,623 51,361	8,651	61,274 60,259	78 63	
June July	5,275 5,214	96,502	7,449 7,704	109,419	44,719 44,259	15,323	50,654	8,898 8,928	59,582	37	
August	5,173	95,932	7,679	108,783	46,420	15,509	52,643	9,286	61,929	25	
September	5,133	99,793	7,388	112,314	47,111	15,586	53,261	9,437	62,697	35	
October	5,080	104,432	7,161	116,673	45,971	15,930	52,182	9,720	61,902	33	
November	4,903	110,569	7,856	123,328	46,475	16,128	52,730	9,873	62,603	51	
December	4,879	115,325	6,693	126,897	46,342	16,644	52,814	10,172	62,986	69	
995 January	4,849	114,316	6,309	125,475	45,428	16,615	51,758	10,285	62,043	75	
February	4,791	118,880	6,286	129,957	39,922	16,005	46,101	9,826	55,927	95	
March	4,748	124,452	6,115	135,315	41,032	15,608	47,073	9,568	56,641	128	
April	4,711	132,108	6,215	143,033	38,859	15,447	44,832	9,474	54,306	162	
May June	4,656 4,634	136,770 132,778	6,369 6,184	147,794 143,596	38,280 39,810	15,560 15,793	44,284 45,749	9,556 9,854	53,840 55,603	173 144	
July	4,634 4,608	132,778	5,712	143,596	39,810	15,793	45,749 43,824	9,854 9,351	53,003 53,175	144	
August	4,000	110,183	5,435	120,208	37,122	15,454	43,440	9,135	52,576	98	
September	4,551	113,604	5,073	123,227	37,397	15,338	43,538	9,197	52,735	90	
October	4,514	117,137	5,145	126,795	37,861	15,601	43,942	9,520	53,462	71	

<sup>a</sup> Heavy oil includes fuel oil nos. 4, 5, and 6, and residual fuel oils.
 <sup>b</sup> Light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.
 <sup>c</sup> GT/IC = Gas turbine and internal combustion plants.
 NA=Not available.

Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia. Sources: See end of section.

### Sources for Table 7.1

**1973-September 1977**—Federal Power Commission Form FPC-4, "Monthly Power Plant Report."

**October 1977-1979**—Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report."

**1980**—Energy Information Administration (EIA), *Electric Power Monthly*, March 1991, Table 4, and (for geothermal energy and other) FERC, Form FPC-4, "Monthly Power Plant Report."

1981—EIA, Electric Power Monthly, March 1992, Table 4, and (for geothermal energy and other) FERC, Form FPC-4, "Monthly Power Plant Report." 1982—EIA, Electric Power Monthly, March 1993, Table 4, and (for geothermal energy and other) EIA, Form EIA-759, "Monthly Power Plant Report." 1983-1992—EIA, Electric Power Monthly, March 1994, Table 4, and (for geothermal energy and other) EIA, Form EIA-759, "Monthly Power Plant Report." 1993 and 1994—EIA, Electric Power Monthly, May 1995, Tables 4 and 5.

**1995**—EIA, Form EIA-759, "Monthly Power Plant Report."

### Sources for Table 7.2

**1973-September 1977**—Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."

**October 1977-1979**—Federal Energy Regulatory Commission, Form FERC-5, "Electric Operating Revenue and Income."

**1980**—Energy Information Administration (EIA), *Electric Power Monthly*, March 1991, Table 51.

**1981**—EIA, *Electric Power Monthly*, March 1992, Table 51.

**1982**—EIA, *Electric Power Monthly*, March 1993, Table 51.

**1983 and 1992 monthly data**—EIA, *Electric Power Monthly*, March 1994, Table 51.

**1984 forward (except 1992 monthly data)**—EIA, *Electric Power Monthly*, January 1996, Table 52.

### Sources for Table 7.3

#### Prime Mover Type Data

**1973-September 1977**—Federal Power Commission (FPC), Form FPC-4, "Monthly Power Plant Report." **October 1977-1981**—Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report."

**1982 forward**—Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."

#### All Other Data

**1973-September 1977**—FPC, Form FPC-4, "Monthly Power Plant Report."

**October 1977-1979**—FERC, Form FPC-4, "Monthly Power Plant Report."

**1980**—EIA, Electric Power Monthly, March 1991, Table 17.

**1981**—EIA, *Electric Power Monthly*, March 1992, Table 17.

**1982**—EIA, *Electric Power Monthly*, March 1993, Table 17.

**1983**—EIA, *Electric Power Monthly*, March 1994, Table 18.

**1984**—EIA, *Electric Power Monthly*, March 1995, Table 18.

**1985 forward**—EIA, *Electric Power Monthly*, January 1996, Table 18.

### Sources for Table 7.4

#### Prime Mover Type Data

**1973-September 1977**—Federal Power Commission (FPC), Form FPC-4, "Monthly Power Plant Report." **October 1977-1981**—Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report."

**1982 forward**— Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."

#### **All Other Data**

**1973-September 1977**—FPC, Form FPC-4, "Monthly Power Plant Report."

**October 1977-1979**—FERC, Form FPC-4 "Monthly Power Plant Report."

**1980**—EIA, *Electric Power Monthly*, March 1991, Table 29.

**1981**—EIA, *Electric Power Monthly*, March 1992, Table 29.

**1982**—EIA, *Electric Power Monthly*, March 1993, Table 29.

**1983 and 1992 monthly data**—EIA, *Electric Power Monthly*, March 1994, Table 29.

**1984 forward (except 1992 monthly data)**—EIA, *Electric Power Monthly*, January 1996, Table 29.

## Section 8. Nuclear Energy

In October 1995, U.S. nuclear generating units produced a total of 54 net terawatthours (billion kilowatthours) of electricity, 7 percent<sup>8</sup> more than in October 1994. Nuclear units generated at an average capacity factor of 73.5 percent, 4.8 percentage points higher than in October 1994. Nuclear power supplied 23.2 percent of the total electric utility-generated electricity in October 1995, compared with 22.2 percent in October 1994.

No low- or full power licenses for nuclear power plants were issued by the Nuclear Regulatory Commission during October 1995.

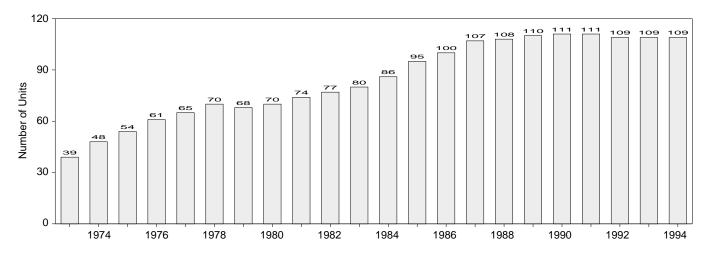
On October 31, 1995, there were 109 operable nuclear generating units in the United States, with a collective net summer capability of 99.1 million kilowatts of electricity. Of the 109 operable units, 22 units generated at less than 25 percent of capacity because of maintenance, refueling, or repair outage, and 14 of the 22 units generated no electricity during the month including two operable units, Browns Ferry 1 and 3, that have been shut down since March 1985.

As of October 31, 1995, there were 116 domestic nuclear generating units in all stages of construction and operation. Seven units possess construction permits, although construction for 6 of the 7 units was canceled or halted. The aggregate net design capacity of the 109 operable units was 101.1 million kilowatts, and the design capacity of the 7 units with construction permits was 8.5 million kilowatts, for a total design capacity of 109.6 million kilowatts.

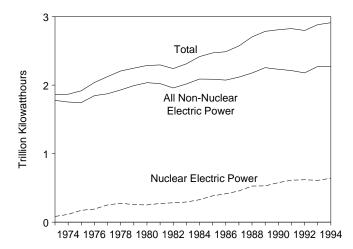
<sup>8</sup> Percentage changes are based on numbers shown in the following tables.

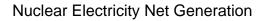
## Figure 8.1 Nuclear Power Plant Operations

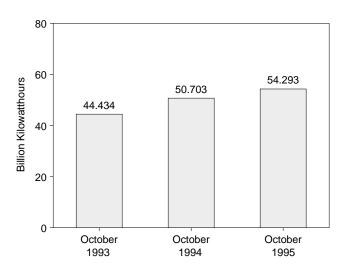
Operable Units, End of Year, 1973-1994



## Net Generation of Electricity, 1973-1994

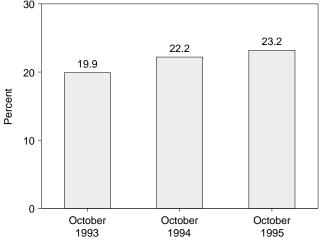


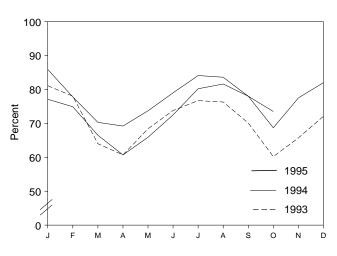




Note: Because vertical scales differ, graphs should not be compared. Sources: Tables 7.1 and 8.1.

Nuclear Portion of Domestic Electricity Net Generation





Capacity Factor, Monthly

	Operable Units <sup>a,b</sup>	Nuclear Electricity Net Generation	Nuclear Portion of Domestic Electricity Net Generation	Net Summer Capability of Operable Units <sup>a,c</sup>	Capacity Factor <sup>d</sup>
	Number	Million Kilowatthours	Percent	Million Kilowatts	Percent
				l	
073 Year	39	83,479	4.5	22.683	53.5
74 Year	48 54	113,976	6.1	31.867	47.8
75 Year		172,505	9.0	37.267	55.9
76 Year	61	191,104	9.4	43.822	54.7
77 Year	65 70	250,883	11.8 12.5	46.303	63.3
78 Year 79 Year	68	276,403 255,155	11.4	50.824 49.747	64.5 58.4
80 Year	70	255,155	11.4	51.810	56.3
81 Year	70	272,674	11.9	56.042	58.2
		,			
82 Year	77	282,773	12.6	60.035	56.6
83 Year	80 86	293,677	12.7 13.6	63.009 69.652	54.4 56 3
84 Year	86 95	327,634	13.6	69.652 70.207	56.3
85 Year 86 Year	95 100	383,691 414,038		79.397 85.241	58.0 56.9
			16.6 17.7	85.241 93.583	
987 Year	107 108	455,270	17.7 19.5	93.583 94.695	57.4 63.5
988 Year 989 Year		526,973 520 355	19.5		63.5 62.2
	110	529,355 576 862		98.161	62.2 66 0
90 Year 91 Year	111 111	576,862	20.5 21.7	99.624 99.589	66.0 70.2
991 Year	109	612,565 618,776	21.7	99.589	70.2
	103	010,110	££.1	50.505	10.3
<b>93</b> January	108	59,076	24.0	97.881	81.1
February	108	51,319	22.8	97.881	78.0
March	108	46,606	19.8	97.881	64.0
April	109	43,199	20.4	99.031	60.7
Мау	109	50,367	22.6	99.031	68.4
June	109	52,620	21.1	99.031	73.8
July	109	56,502	20.0	99.031	76.7
August	109	56,209	20.1	99.031	76.3
September	109	49,989	21.1	99.031	70.1
October	109	44,434	19.9	99.094	60.2
November	109	46,862	20.7	99.094	65.7
December	109	53,108	21.6	99.041	72.1
Year	109	610,291	21.2	99.041	70.5
94 January	109	56,847	21.7	99.041	77.1
February	109	49,821	22.1	99.041	74.9
March	109	48,969	21.1	99.041	66.5
April	109	43,192	20.1	99.041	60.7
May	109	48,525	21.3	99.041	65.9
June	109	51,751	19.6	99.041	72.5
July	109	59,123	21.3	99.041	80.2
August	109	60,104	21.9	99.041	81.6
September	109	55,628	23.4	99.041	78.0
October	109	50,703	22.2	99.041	68.7
November	109	55,280	24.6	99.041	77.5
December	109	60,497	24.9	99.148	82.0
Year	109	640,440	22.0	99.148	73.8
<b>95</b> January	109	63 242	25.0	00 1 4 9	85.9
95 January February	109	63,342	25.0 22.7	99.148 99.148	85.9 77.8
	109	51,858	22.2		77.8
March		51,880		99.148	
April	109	49,321	22.7 23.0	99.148	69.2 73 7
May	109	54,387		99.148	73.7
June	109	56,381	22.0	99.148	79.0
July	109	62,037	21.2	99.148	84.1
August	109	61,661	20.2	99.148	83.6
September	109	55,690	22.7	99.148	78.0
October	109	54,293	23.2	99.148	73.5
10-Month Total	109	560,850	22.4	99.148	77.5
94 10-Month Total	109	524,663	21.5	99.041	72.6

## Table 8.1 Nuclear Power Plant Operations

<sup>a</sup> At end of period.
 <sup>b</sup> See Note 1 at end of section.
 <sup>c</sup> For the definition of "Net Summer Capability," see Note 3 at end of

section  $\frac{d}{d}$  For an explanation of the method of calculating the capacity factor, see

Note 4 at end of section. Notes: • Nuclear electricity net generation totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

		nsed eration		ruction mits				Total
-	<b>Operable</b> <sup>a</sup>	In Startup <sup>b</sup>	Granted	Pending	On Order	Announced	Total	Design Capacity <sup>c</sup>
				Number of Units	6			Million Kilowatts
973 Year	39	2	57	52	49	9	208	198
974 Year	48	5	62	75	30	6	226	223
975 Year	54	2	69	69	14	5	213	212
976 Year	61	1	71	63	16	2	214	211
977 Year	65	2	78	49	13	2	209	203
978 Year	70	ō	88	32	5	ō	195	191
979 Year	68	ŏ	90	24	3	ŏ	185	180
980 Year	70	1	82	12	3	ŏ	168	162
981 Year	74	ò	76	11	2	ŏ	163	157
982 Year	77	2	60	3	2	ŏ	144	134
983 Year	80	3	53	ŏ	2	ŏ	138	129
984 Year	86	6	38	ŏ	2	ŏ	132	123
985 Year	95	3	30	ŏ	2	ŏ	130	120
986 Year	100	7	19	ŏ	2	ŏ	128	119
987 Year	100	4	14	ŏ	2	ŏ	120	119
988 Year	108	3	12	ŏ	Ő	ŏ	123	115
989 Year	110	1	10	ŏ	0 0	ŏ	121	113
990 Year	111	ò	8	ŏ	0	ŏ	119	111
991 Year	111	0	8	ŏ	0	ŏ	119	111
992 Year	109	0	8	ŏ	0	Ö	117	111
552 i eai	103	U	0	U	U	U	117	
993 January	108	0	8	0	0	0	116	110
February	108	1	7	0	0	0	116	110
March	108	1	7	0	0	0	116	110
April	109	0	7	0	0	0	116	110
May	109	0	7	0	0	0	116	110
June	109	0	7	0	0	0	116	110
July	109	0	7	0	0	0	116	110
August	109	0	7	0	0	0	116	110
September	109	0	7	0	0	0	116	110
October	109	0	7	0	0	0	116	110
November	109	0	7	0	0	0	116	110
December	109	Ó	7	Ó	Ó	Ó	116	110
	400	0	-	0	0	0		440
994 January	109	0	7	0	0	0	116	110
February	109	0	7	0	0	0	116	110
March	109	0	7	0	0	0	116	110
April	109	0	7	0	0	0	116	110
May	109	0	7	0	0	0	116	110
June	109	0	7	0	0	0	116	110
July	109	0	7	0	0	0	116	110
August	109	0	7	0	0	0	116	110
September	109	0	7	0	0	0	116	110
October	109	0	7	0	0	0	116	110
November	109	0	7	0	0	0	116	110
December	109	0	7	0	0	0	116	110
995 January	109	0	7	0	0	0	116	110
February	109	0	7	0	0	0	116	110
March	109	0	7	0	0	0	116	110
April	109	0	7	0	0	0	116	110
May	109	0	7	0	0	0	116	110
June	109	0	7	0	0	0	116	110
July	109	0	7	0	0	0	116	110
August	109	0	7	0	0	0	116	110
September	109	0	7	0	Ō	0	116	110
October	109	0	7	0	0	0	116	110
		<b>~</b>	•	•	•	•		

## Table 8.2 Nuclear Generating Units, End of Period

<sup>a</sup> See Note 1 at end of section.
 <sup>b</sup> See Note 2 at end of section.
 <sup>c</sup> Net design electrical rating (DER) is used because many of the units were canceled prior to being assigned a net summer capability. See Note 3

at end of section.

Note: Geographic coverage is the 50 States and the District of Columbia. Sources: See end of section.

## **Nuclear Energy Notes**

**1. Operable Units:** Nuclear generating units that have been issued a full-power license by the Nuclear Regulatory Commission (NRC).

**Exceptions:** The Shippingport (60 megawatts (MW)) and the Hanford-N (840 MW) nuclear units were included in the operable units until 1982 and 1988, respectively. The Shippingport unit was excluded from the operable category during March 1974-October 1977 due to a major core modification outage. Hanford-N, an unlicensed unit used for defense materiel production, was included in the operable category because power was produced as by-product and sold commercially. Three Mile Island 2 (880 MW) experienced a major accident in 1979 and, although that unit still retains its operating license and site cleanup continues, there is no plan to restart it. Therefore, it has not been included in the operable category since March 1979. Although Shoreham received a full-power license in April 1989, the unit is not currently scheduled to operate and, therefore, has not been included in the operable category. Rancho Seco (873 MW) was shut down by the Sacramento Municipal Utility District (SMUD) in June 1989 following a referendum on its continued operation. Because there are currently no plans to operate it as a nuclear unit, it is no longer included as an operable unit but is identified as a unit shut down for an extended period. As soon as SMUD and the NRC formalize the plant's official retirement, it will be noted as such in this report. The Department of Energy-operated Experimental Breeder Reactor 2 unit is not a commercial reactor and is therefore not included in the operable category.

In addition, nine units have been retired and therefore removed from the operable category. Those units are: Peach Bottom 1 (40 MW) and Indian Point 1 (265 MW), both retired in 1974; Humboldt Bay (65 MW), officially retired in 1976; Dresden 1 (200 MW), retired in October 1979; LaCrosse (51 MW), retired in May 1987; Fort Saint Vrain (217 MW), retired in October 1989; Yankee Rowe 1 (185 MW), retired in February 1992; San Onofre 1 (436 MW), retired in December 1992; and Trojan (1,104 MW), retired in January 1993.

**2. In Startup:** The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its full-power license. During that period, the unit is undergoing low-power testing and the maximum level of operation is 5 percent of the unit's design thermal rating.

**3. Capacity:** Nuclear generating units may have more than one type of net capacity rating, including the following:

(a) Net Summer Capability—The steady hourly output that generating equipment is expected to supply to system load, exclusive of auxiliary power, as demonstrated by test at the time of summer peak demand. Auxiliary

power of a typical nuclear power plant is about 5 percent of gross generation.

(b) Net Design Capacity or Net Design Electrical Rating (DER)—The nominal net electrical output of a unit, specified by the utility and used for plant design.

4. Monthly Capacity Factors: The monthly capacity factors are computed as the actual monthly generation divided by the maximum possible generation for that month. The maximum possible generation is the number of hours in the month multiplied by the net summer capability at the end of the month. That fraction is then multiplied by 100 to obtain a percentage. Annual capacity factors are averages of the monthly values for that year.

### Sources for Table 8.1

#### **Operable Units**

**1973-1982:** U.S. Department of Energy (DOE), Office of Nuclear Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones." **1983 forward:** Nuclear Regulatory Commission (NRC), "Licensed Operating Reactors" (NUREG-0020).

#### **Nuclear Electricity Net Generation**

Table 7.1.

## Nuclear Portion of Domestic Electricity Net Generation

Calculated from data in Table 7.1.

#### **Net Summer Capability of Operable Units**

**1973-1982:** Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones."

**1983 forward:** Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and monthly updates as appropriate.

#### **Capacity Factor**

EIA, Office of Coal, Nuclear, Electric and Alternate Fuels.

#### Sources for Table 8.2

#### **Licensed for Operation**

**1973-1982:** U.S. Department of Energy (DOE), Office of Nuclear Programs, "U.S. Central Station

Nuclear Electric Generating Units: Significant Milestones."

**1983 forward:** Nuclear Regulatory Commission (NRC), "Licensed Operating Reactors" (NUREG-0020).

## Construction Permits, On Order, and Announced

**1973-1982:** Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones"; Energy Information Administration (EIA), Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), "Nuclear Steam-Electric Units That Have Been in Operation as of 1957-1989"; EIA, CNEAF, "Nuclear Plant Cancellations: Causes, Costs, and Consequences"; and Utility Data Institute, Inc., "U.S. Nuclear Plant Statistics, 1987.

1983 forward: NRC, "Summary Information Report"

(NUREG-0871); NRC, "Licensed Operating Reactors" (NUREG-0020); and various journals.

#### **Total Design Capacity**

**1973-1982:** Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones"; EIA, CNEAF, "Nuclear Steam-Electric Units That Have Been in Operation as of 1957-1987"; EIA, CNEAF, "Monthly Report for Electric Utilities-Power Generation"; EIA, CNEAF, "Nuclear Plant Cancellations: Causes, Costs, and Consequences"; and Utility Data Institute, Inc., "U.S. Nuclear Plant Statistics, 1987."

**1983 forward:** NRC, "Summary Information Report" (NUREG-0871); NRC, "Licensed Operating Reactors" (NUREG-0020); and EIA, Form EIA-860, "Annual Electric Generator Report."

## **Section 9. Energy Prices**

**Crude Oil.** The average price of domestic crude oil purchased at the wellhead was \$13.67 per barrel in October 1995, 1 percent lower than the level in October 1994. The refiner acquisition cost of imported crude oil in October 1995 was \$16.23 per barrel, slightly lower than the October 1994 level. The average cost of domestic crude oil in October 1995 was \$16.75, 2 percent higher than the October 1994 average.

**Motor Gasoline.** The national city average retail price of unleaded regular gasoline at all types of stations was \$1.10 per gallon in November 1995, 5 percent lower than the price in November 1994. The price of unleaded premium gasoline averaged \$1.29 per gallon in November 1995, 5 percent lower than the price in November 1994.

**Residual Fuel Oil.** The average price, excluding taxes, of residual fuel oil sold to end users in October 1995 was 36 cents per gallon, 2 percent higher than the previous month's price and 4 percent above the October 1994 average. The average resale price, excluding taxes, of residual fuel oil in October 1995 was 34 cents per gallon, 1 percent higher than the previous month's average and 8 percent higher than the price 1 year earlier.

**Aviation Fuel.** The average price, excluding taxes, of aviation gasoline sold to end users in October 1995 was 97 cents per gallon, 4 percent lower than the previous month's price and 3 percent lower than the October 1994 price. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in October 1995 was 55 cents per gallon, 1 percent lower than the previous month's price and slightly lower than the October 1994 average price.

**No. 2 Distillate Fuel Oil.** The October 1995 national average price, excluding taxes, of heating oil sold to residential customers was 84 cents per gallon, 2 percent higher than the previous month's price but 1 percent lower than the price 1 year earlier. The average price of No. 2 fuel oil sold to all end users was 54 cents per gallon in October 1995, 4 percent lower than the September 1995 price and 3 percent lower than the October 1994 price.

**Electricity**. The average price of electricity sold to all ultimate consumers in the United States in October 1995 was 6.95 cents per kilowatthour, 1 percent higher than the October 1994 mean price. The price of electricity sold to residential consumers in October 1995 averaged 8.66 cents per kilowatthour, 1 percent higher than the October 1994 price. The price of electricity sold to commercial consumers averaged 7.85 cents per kilowatthour in October 1995, 1 percent less than the October 1994 price. The price of electricity sold to other consumers was 6.81 cents per kilowatthour, 1 percent below the October 1994 price. The price of electricity sold to industrial users in October 1995 averaged 4.74 cents per kilowatthour, 1 percent higher than the price 1 year earlier.

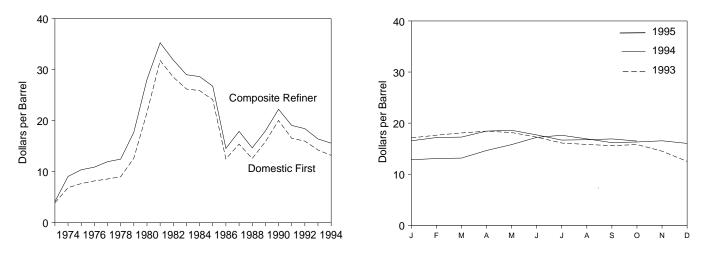
Beginning with January 1986, new series of national average price estimates were based on a statistically derived sample of both publicly and privately owned electric utilities. Previously, average price estimates were derived from selected privately owned electric utilities and were not national averages.

**Natural Gas.** The estimated average wellhead price of natural gas for October 1995 was \$1.67 per thousand cubic feet, 8 percent below the October 1994 price.

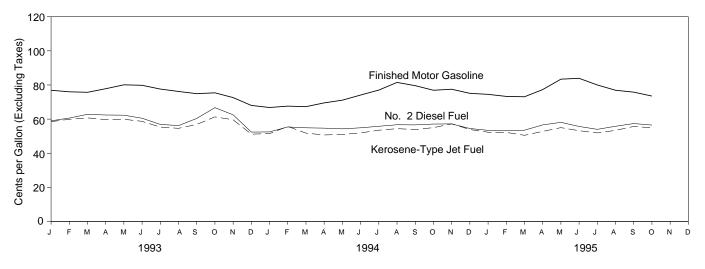
The average price of natural gas delivered to electric utility plants was \$1.94 per thousand cubic feet in September 1995 (latest date for which data are available) 3 percent below the September 1994 price. The average price of natural gas used by residential consumers in October 1995 was \$6.62 per thousand cubic feet, 3 percent lower than the October 1994 price. The average price of natural gas used by commercial consumers in October 1995 was \$4.77 per thousand cubic feet, 6 percent lower than the October 1994 price. The average price of natural gas used by industrial consumers in October 1995 was \$2.53 per thousand cubic feet, 1 percent above the October 1994 price.

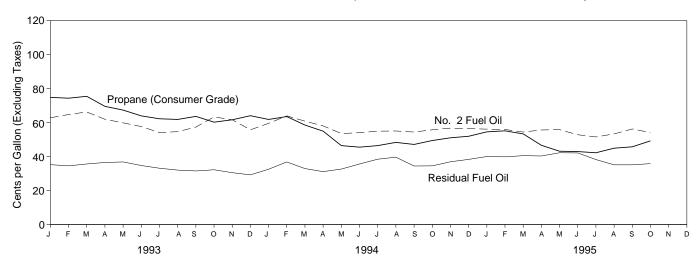
## Crude Oil Prices, 1973-1994

## Composite Refiner Acquisition Cost, Monthly



Refiner Prices to End Users: Motor Gasoline, Diesel Fuel, and Jet Fuel, Monthly





Refiner Prices to End Users: No. 2 Fuel Oil, Propane, and Residual Fuel, Monthly

Sources: Tables 9.1, 9.5, and 9.7.

## Table 9.1 Crude Oil Price Summary

(Dollars per Barrel)

				Re	efiner Acquisition Co	st <sup>a</sup>
	Domestic First Purchase Price <sup>b</sup>	F.O.B. Cost of Imports <sup>c</sup>	Landed Cost of Imports <sup>d</sup>	Domestic	Imported	Composite
973 Average	3.89	<sup>e</sup> 5.21	<sup>e</sup> 6.41	<sup>E</sup> 4.17	<sup>E</sup> 4.08	<sup>E</sup> 4.15
974 Average	6.87	10.91	12.32	7.18	12.52	9.07
975 Average	7.67	11.18	12.70	8.39	13.93	10.38
976 Average	8.19	12.15	13.32	8.84	13.48	10.89
	8.57	13.24	14.36	9.55	14.53	11.96
977 Average						
978 Average	9.00	13.29	14.35	10.61	14.57	12.46
979 Average	12.64	20.07	21.45	14.27	21.67	17.72
980 Average	21.59	32.37	33.67	24.23	33.89	28.07
981 Average	31.77	35.15	36.47	34.33	37.05	35.24
982 Average	28.52	32.02	33.18	31.22	33.55	31.87
983 Average	26.19	27.81	28.93	28.87	29.30	28.99
984 Average	25.88	27.60	28.54	28.53	28.88	28.63
985 Average	24.09	25.84	26.67	26.66	26.99	26.75
986 Average	12.51	12.52	13.49	14.82	14.00	14.55
987 Average	15.40	16.69	17.65	17.76	18.13	17.90
988 Average	12.58	13.25	14.08	14.74	14.56	14.67
989 Average	15.86	16.89	17.68	17.87	18.08	17.97
	20.03	20.37	21.13	22.59	21.76	22.22
990 Average						
991 Average	16.54	16.89	18.02	19.33	18.70	19.06
992 Average	15.99	16.77	17.75	18.63	18.20	18.43
993 January	14.70	15.24	16.36	17.40	16.80	17.11
February	15.53	16.09	17.12	17.84	17.41	17.64
March	15.94	16.60	17.56	18.31	17.82	18.08
April	16.15	16.30	17.55	18.49	18.35	18.42
	16.03	16.19	17.30	18.44	17.89	18.16
June	15.06	15.10	16.32	17.70	16.80	17.26
July	13.83	14.23	15.45	16.39	15.81	16.10
	13.75	14.19	15.26	16.01	15.64	15.83
August						
September	13.39	14.09	14.95	15.82	15.32	15.59
October	13.72	14.12	15.01	16.04	15.59	15.81
November	12.45	12.90	13.83	14.99	14.05	14.51
December	10.38	11.63	12.33	12.46	12.56	12.51
Average	14.25	14.71	15.72	16.67	16.14	16.41
994 January	10.49	12.07	12.74	12.73	12.93	12.83
February	10.71	12.05	12.71	13.24	12.90	13.07
March	10.94	12.38	13.00	13.14	13.18	13.16
April	12.31	13.55	14.30	14.74	14.54	14.64
May	14.02	14.67	15.62	15.86	15.74	15.80
June	14.93	15.44	16.51	17.38	17.04	17.21
July	15.34	16.10	17.15	17.74	17.52	17.62
August	14.50	14.94	16.07	17.22	16.66	16.92
September	13.62	14.32	15.47	16.46	15.91	16.18
October	13.84	14.74	15.66	16.35	16.27	16.31
November	14.14	14.88	15.98	16.63	16.46	16.54
December	13.43	14.46	15.61	16.22	15.78	16.03
Average	13.19	14.18	15.18	15.67	15.51	15.59
995 January	14.00	15.08	16.23	16.52	16.56	16.54
February	14.69	15.63	16.73	17.16	17.21	17.18
March	14.68	15.88	17.04	17.31	17.22	17.18
April	15.84	17.28	18.26	18.20	18.73	18.44
May	15.85	17.30	18.18	18.68	18.51	18.60
June	15.02	15.91	17.07	17.94	17.44	17.69
July	14.01	_14.82	15.94	16.85	16.50	16.68
August	14.13	<sup>R</sup> 15.05	16.10	16.96	16.54	16.75
September	14.49	<sup>R</sup> 15.22	16.38	<sup>R</sup> 17.12	<sup>R</sup> 16.71	16.91
October	13.67	14.59	15.76	16.75	16.23	16.49

<sup>a</sup> See Note 4 at end of section. <sup>b</sup> See Note 1 at end of section.

<sup>c</sup> See Note 2 at end of section. <sup>d</sup> See Note 3 at end of section.

<sup>e</sup> Based on October, November, and December data only.

R=Revised data. E=Estimate. Notes: • Values for Domestic First Purchase Price and Refiner Acquisition

Cost for the current month and for F.O.B. and Landed Costs of Imports for the current 2 months are preliminary. • F.O.B. and landed costs through 1980 Annual averages are the averages of the monthly prices, weighted by volume.
 Geographic coverage is the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and all U.S. Territories and Possessions. Sources: See end of section.

#### Table 9.2 F.O.B. Costs of Crude Oil Imports from Selected Countries

(Dollars per Barrel)

	Algeria	Indonesia	<b>Iran</b> a	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela	Other Countries	Arab OPEC <sup>b</sup>	Tota OPE
73 Average <sup>d</sup>	7.23	5.67	4.24	NA	7.81	3.25	NA	5.39	4.84	4.06	5.4
74 Average	13.23	11.99	10.85	Ŵ	12.44	10.17	NA	10.71	10.02	10.96	11.3
5 Average	11.93	12.55	10.83	11.44	11.82	10.17	NA	11.04	10.86	11.18	11.3
6 Average	13.05	12.35	11.61	12.22	13.08	11.62	Ŵ	11.39	11.92	12.06	12.2
7 Average	14.35	13.57	12.68	13.42	14.44	12.38	14.11	12.63	13.19	13.13	13.2
8 Average	14.33	13.61	12.65	13.42	14.44	12.30	13.82	12.38	13.35	13.13	13.2
		19.03	22.93				21.70	16.90			19.8
9 Average	20.53			20.27	21.69	17.28			21.10	19.27	
0 Average	36.67	32.17	NA	31.06	35.93	28.17	34.36	24.81	34.34	31.57	32.2
1 Average	39.08	35.62	( <sup>e</sup> )	33.01	38.31	32.60	36.06	28.95	36.69	34.79	35.1
2 Average	34.20	35.11	30.97	28.08	35.13	33.73	33.42	23.74	31.96	33.84	33.4
3 Average	30.09	29.92	28.39	25.20	29.81	27.53	29.91	21.48	27.96	28.28	28.4
4 Average	28.34	29.13	27.42	26.39	29.51	27.67	28.87	24.23	27.79	27.79	27.7
5 Average	26.89	27.12	W	25.33	28.04	22.04	27.64	23.64	26.12	24.34	25.6
6 Average	13.62	13.19	W	11.84	14.35	11.36	13.84	10.92	13.32	11.59	12.2
7 Average	16.79	17.40	W	16.36	18.47	15.12	18.28	15.08	17.11	15.80	16.4
8 Average	w	13.81	( <sup>e</sup> )	12.18	15.16	12.16	14.80	12.96	13.45	12.57	13.4
9 Average	w	17.01	(°)	15.96	18.31	16.29	17.89	16.09	17.12	16.72	17.0
0 Average	w	21.29	(°)	19.26	22.46	20.36	23.43	19.55	19.88	18.84	20.4
1 Average	w	18.69	15.58	15.37	20.29	14.62	20.81	14.91	17.79	15.59	16.9
2 Average	w	17.06	(°)	15.26	19.98	15.85	19.61	14.39	17.65	16.50	16.8
<b>3</b> January	(e)	W	(e)	14.14	17.95	15.55	18.29	12.99	15.19	15.63	15.6
February	(e)	W	(e)	14.64	19.06	16.13	18.13	13.68	16.51	16.36	16.4
March	W	W	(e)	15.16	19.33	16.34	18.51	14.22	16.84	16.73	16.9
April	( <sup>e</sup> )	W	(e)	15.04	19.21	15.23	18.36	14.52	16.76	15.46	16.4
	(e)	19.14	(e)	15.15	18.90	13.62	18.29	13.89	16.63	14.09	16.1
June	(e)	W	(e)	14.04	18.00	W	17.03	12.44	15.86	14.20	14.9
July	`w´	16.48	(e)	13.09	17.46	W	16.07	11.96	14.97	13.67	14.1
August	( <sup>e</sup> )	17.74	(e)	13.20	17.42	W	16.73	12.56	14.68	14.13	14.1
September	`w´	W	(e)	13.50	16.73	W	16.06	12.72	14.23	12.72	14.1
October	W	W	(e)	13.74	17.02	11.16	16.31	11.87	14.88	12.94	13.7
November	W	W	(e)	12.27	15.80	11.15	15.29	9.97	13.85	12.19	12.4
December	Ŵ	W	(e)	11.19	14.21	W	14.19	9.34	11.86	11.47	11.4
Average	Ŵ	17.13	(°)	13.74	17.79	13.77	16.64	12.46	15.17	14.25	14.7
4 January	W	W	( <sup>e</sup> )	11.26	15.02	10.29	W	10.93	12.16	10.73	12.3
February	( <sup>e</sup> )	14.46	(a)	11.44	14.00	12.81	Ŵ	10.35	12.16	12.19	11.9
March	`w′	W	(a)	11.68	14.27	14.19	13.68	11.09	12.36	13.70	12.5
April	Ŵ	13.52	(a)	12.88	15.65	14.91	W	11.81	13.73	14.53	13.7
May	( <sup>e</sup> )	15.26	(a)	13.67	16.77	15.59	15.77	12.80	15.23	15.72	14.7
June	`w′	15.91	(a)	15.07	17.32	14.83	16.53	13.21	16.11	15.21	15.2
July	Ŵ	17.56	(a)	15.70	18.02	W	17.29	14.28	16.71	14.76	15.2
August	Ŵ	W	(a)	14.57	16.69	14.14	16.70	14.20	15.95	14.70	14.2
	( <sup>e</sup> )	W	(a)	14.57	16.69	14.14	16.70	12.31	15.95	14.09	14.2
September	(e)	W	(a)								
October	(°)	W	(a) (a)	14.42 15.19	17.01	14.22 W	16.42	12.90	15.29	14.20 W	14.4
November	(°) W	W	(a)		17.13	W	17.01	11.93 12.38	15.82		14.3
December				14.74	16.18		15.75		15.14	14.65	13.9
Average	w	15.57	( <sup>a</sup> )	13.68	16.32	14.12	15.66	12.21	14.68	14.05	14.0
5 January	(e) (e)	W	(a) (a)	14.98	17.13	W	W	12.61	15.57	W	14.7
February	(č)	W	(ª) ( <sup>a</sup> )	15.79	17.43	W	16.84	13.02	16.41	15.88	15.0
March	(e)	W	(°)	15.74	17.19	W	W	14.23	16.62	W	15.4
April	W	W	(a)	17.16	18.96	W	W	15.97	17.51	17.33	17.1
May	W	W	(a)	17.20	18.66	W	18.42	15.76	17.96	16.69	16.9
June	(e)	17.71	(a)	16.07	17.66	14.90	W	13.80	16.63	14.84	15.4
July	(e)	W	(a)	14.77	15.97	W	W	13.33	_ 15.54	W	_ 14.4
August	W	W	(a)	14.54	16.48	W	16.23	13.73	<sup>R</sup> 15.68	15.13	<sup>R</sup> 14.8
September	W	W	(a)	<sup>R</sup> 15.24	<sup>R</sup> 16.91	W	16.47	<sup>R</sup> 13.29	<sup>R</sup> 16.06	<sup>R</sup> 14.77	<sup>R</sup> 14.7
October	( <sup>e</sup> )	W	(a)	15.01	16.50	W	16.59	12.48	15.09	W	14.1

 $^{\rm a}\,$  Beginning with February 1994, data for Iran are no longer reported in the

Petroleum Marketing Monthly. <sup>b</sup> The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates. <sup>c</sup> Current members of OPEC are Gabon, Indonesia, Iran, Nigeria, and

Venezuela, as well as the Arab members. Prior to 1993, Ecuador was also a member. The cost of imports from the Neutral Zone between Kuwait and Saudi Arabia is included in the cost of imports from "Total OPEC."

Based on October, November, and December data only.

<sup>e</sup> No data reported.

R=Revised data. NA=Not available. W=Value withheld to avoid disclosure of individual company data.

Notes: • The Free on Board (F.O.B.) cost at the country of origin excludes all costs related to insurance and transportation. See Note 2 at end of section. • Values for the current 2 months are preliminary. • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. • Annual averages are averages of the monthly prices, including prices not published, weighted by volume. • Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. ٠ U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • October 1973-September 1977: Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report." • October Federal Energy 1977-December 1977: Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report." • 1978 forward: EIA, Petroleum Marketing Monthly, January 1996, Table 24.

#### Table 9.3 Landed Costs of Crude Oil Imports from Selected Countries

(Dollars per Barrel)

		1										
				• •			Saudi	United		Other	Arab	Total
	Algeria	Canada	Indonesia	Iran <sup>a</sup>	Mexico	Nigeria	Arabia	Kingdom	Venezuela	Countries	OPECb	OPECC
973 Average <sup>d</sup>	8.39	5.33	7.22	6.48	NA	9.08	5.37	NA	5.99	6.99	5.92	6.85
1974 Average	13.97	11.48	13.20	12.48	W	13.16	11.63	NA	11.25	12.93	12.39	12.49
975 Average	12.86	12.84	13.83	12.51	12.61	12.70	12.50	NA	12.36	12.66	12.71	12.70
976 Average	13.90	13.36	13.85	12.86	12.64	13.81	13.06	W	11.89	13.36	13.31	13.32
977 Average	15.24	14.13	14.65	13.86	13.82	15.29	13.69	14.83	13.11	14.56	14.30	14.35
978 Average	14.93	14.41	14.65	13.89	13.56	14.88	13.94	14.53	12.84	14.58	14.36	14.34
1979 Average	21.88	20.22	20.63	24.21	20.77	22.97	18.95	22.97	17.65	22.86	20.79	21.29
1980 Average	37.92	30.11	33.92	NA	31.77	37.15	29.80	35.68	25.92	36.15	32.97	33.56
1981 Average	40.46	32.32	37.31	(°)	33.70	39.66	34.20	37.29	29.91	38.54	36.22	36.60
1982 Average	35.35	27.15	36.70	32.46	28.63	36.16	34.99	34.25	24.93	34.03	35.15	34.81
1983 Average	31.26	25.63	31.57	29.81	25.78	30.85	29.27	30.87	22.94	29.68	29.87	29.84
1984 Average	29.06	26.56	30.87	28.70	26.85	30.36	29.20	29.45	25.19	29.21	29.10	29.06
1985 Average	27.51	25.71	28.67	25.79	25.63	28.96	24.72	28.36	24.43	27.33	25.90	26.86
1986 Average	14.82	13.43	14.63	12.38	12.17	15.29	12.84	14.63	11.52	14.25	13.14	13.46
1987 Average	17.87	17.04	18.49	18.28	16.69	19.32	16.81	18.78	15.76	18.30	17.32	17.64
1988 Average	W	13.50	15.15	W	12.58	15.88	13.37	15.82	13.66	14.45	13.60	14.18
1989 Average	19.13	16.81	18.35	( <sup>e</sup> )	16.35	19.19	17.34	18.74	16.78	18.08	17.41	17.78
1990 Average	W	20.48	22.50	(°)	19.64	23.33	21.82	22.65	20.31	20.52	20.64	21.23
1991 Average	ŵ	17.16	20.20	17.54	15.89	21.39	17.22	21.37	15.92	19.73	17.45	18.08
1992 Average	w	17.04	18.76	( <sup>e</sup> )	15.60	20.78	17.48	20.63	15.13	19.25	17.63	17.81
	(e)	15.28	W	( <sup>e</sup> )	14.50	18.94	16.46	19.12	14.07	17.22	16.49	16.67
1993 January	(°) (°)			(°) (°)								
February	( )	15.84	W	(°) (°)	14.98	19.92	17.30	19.28	14.60	18.17	17.30	17.44
March	W	16.48	W	(°) (°)	15.50	20.25	17.56	19.43	15.14	18.44	17.62	17.84
April	W	16.79	20.01	(°)	15.56	20.18	17.46	19.32	15.55	18.41	17.45	17.71
May	W	16.82	20.67	(°) (°)	15.57	19.83	16.45	19.33	14.91	18.33	16.56	17.22
June	(e)	16.25	W	(°) (°)	14.49	18.94	15.83	18.67	13.49	17.42	15.92	16.06
July	W	15.30	17.86	(°) (°)	13.44	18.31	14.95	17.51	12.92	16.45	14.98	15.32
August	(e)	14.94	19.28	(°)	13.66	18.10	15.04	17.56	13.32	16.04	15.09	15.23
September	W	14.56	W		13.83	17.65	14.31	16.95	13.46	15.53	14.34	14.85
October	W	15.14	W	(e) (e)	14.11	17.98	14.13	16.67	12.70	15.68	14.34	14.70
November	W	14.28	W	(°) (°)	12.63	16.72	13.03	16.57	10.81	14.74	13.15	13.34
December	W	12.44	15.72		11.39	15.09	11.74	15.14	10.14	12.82	11.67	12.05
Average	17.34	15.27	18.55	(°)	14.11	18.73	15.40	17.92	13.39	16.44	15.28	15.68
1994 January	W	12.13	W	(e)	11.61	15.76	11.66	14.98	11.78	13.52	11.86	12.94
February	( <sup>e</sup> )	12.05	16.17	(a)	11.73	14.68	12.32	15.40	11.12	13.60	12.24	12.59
March	W	11.92	W	(a)	11.97	15.13	13.31	14.67	11.87	13.33	12.85	13.05
April	W	13.43	15.08	(a)	13.23	16.46	14.30	15.31	12.72	15.09	14.21	14.47
May	( <sup>e</sup> )	15.25	16.42	(`a´)	14.10	17.36	15.81	16.33	13.53	16.48	15.72	15.62
June	W	16.45	17.00	(a)	15.44	18.21	16.60	17.40	14.15	17.18	16.58	16.48
July	W	17.53	18.41	(a)	16.17	18.74	16.81	17.96	15.02	17.73	16.86	16.88
August	W	16.51	19.96	(a)	14.97	17.78	15.68	17.41	13.24	16.92	15.72	15.69
September	W	15.50	W	(a)	14.04	17.39	15.62	16.62	13.04	16.38	15.46	15.25
October	W	15.54	W	(a)	14.82	17.85	15.41	17.06	13.85	16.28	15.34	15.51
November	W	16.06	W	(a)	15.61	18.04	15.85	17.19	13.03	16.97	15.84	15.63
December	W	15.41	16.99	(a)	15.56	17.24	15.56	16.84	13.50	16.45	15.56	15.34
Average	w	14.83	16.91	( <sup>a</sup> )	14.09	17.21	15.11	16.64	13.12	15.95	15.02	15.08
1995 January	W	16.03	W	( <sup>a</sup> )	15.52	17.64	16.66	17.35	13.66	16.94	16.65	16.14
February	Ŵ	16.74	Ŵ	(a)	16.23	18.24	17.11	17.70	14.01	17.57	17.03	16.49
March	Ŵ	16.88	18.78	(a)	16.34	18.13	17.41	18.00	15.29	17.78	17.33	16.86
April	Ŵ	18.27	W	(a)	17.56	19.82	18.45	18.53	16.95	18.55	18.41	18.34
May	Ŵ	18.44	Ŵ	(a)	17.69	19.45	17.71	19.16	16.68	18.86	17.70	17.90
June	( <sup>e</sup> )	17.28	18.98	(a)	16.58	18.74	16.39	18.71	14.85	17.96	16.41	16.62
July	`w′	16.33	17.27	(a)	15.28	17.29	15.73	17.44	14.21	16.72	15.74	15.69
August	Ŵ	16.35	17.47	(a)	15.12	17.39	<sup>R</sup> 16.16	17.28	14 68	<sup>R</sup> 16.68	<sup>R</sup> 16.12	16.04
September	Ŵ	16.37	W	)aj	<sup>R</sup> 15.74	<sup>R</sup> 17.86	<sup>R</sup> 16.30	<sup>R</sup> 17.46	<sup>R</sup> 14.28	<sup>R</sup> 17.19	<sup>R</sup> 16.33	<sup>R</sup> 16.20
October	Ŵ	15.29	Ŵ	(a)	15.60	17.48	15.64	17.48	13.35	16.79	15.65	15.44
0010061	* *	10.20	**	( )	10.00	17.40	10.04	17.40	10.00	10.13	10.00	10.44

<sup>a</sup> Beginning with February 1994, data for Iran are no longer reported in the Petroleum Marketing Monthly. <sup>b</sup> The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar,

Saudi Arabia, and the United Arab Emirates.

<sup>c</sup> Current members of OPEC are Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members. Prior to 1993, Ecuador was also a member. The cost of imports from the Neutral Zone between Kuwait and Saudi Arabia is included in the cost of imports from "Total OPEC."

<sup>d</sup> Based on October, November, and December data only.

e No data reported.

R=Revised data. NA=Not available. W=Value withheld to avoid disclosure of individual company data.

Notes: • See Note 3 at end of section. • Values for the current 2 months are preliminary. • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. . Annual averages are averages of the monthly prices, including prices not published, weighted by volume. Cargoes that are purchased on a "netback" basis, or under similar • contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. • U.S. geographic coverage is the 50 States and the District of Columbia.

1973-September 1977: Federal Energy Sources: • October Administration, Form FEA-F701-M-0, "Transfer Pricing Report." • October **1977-December 1977:** Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report." • **1978 forward:** EIA, *Petroleum* Marketing Monthly, January 1996, Table 25.

#### Table 9.4 Motor Gasoline Retail Prices, U.S. City Average

(Cents per Gallon, Including Taxes)

	Leaded Regular	Unleaded Regular	Unleaded Premium	All Types <sup>a</sup>
72 Average	20.0	NA	NA	NA
73 Average	38.8	NA	NA	NA
74 Average	53.2	NA	NA	NA
75 Average	56.7	NA	NA	NA
76 Average	59.0	61.4	NA	NA
77 Average	62.2	65.6	NA	NA
78 Average	62.6	67.0	NA	65.2
79 Average	85.7	90.3	NA	88.2
80 Average	119.1	124.5	NA	122.1
81 Average <sup>b</sup>	131.1	137.8	<sup>c</sup> 147.0	135.3
82 Average	122.2	129.6	141.5	128.1
B3 Average	115.7	124.1	138.3	122.5
84 Average	112.9	121.2	136.6	119.8
85 Average	111.5	120.2	134.0	119.6
86 Average	85.7	92.7	108.5	93.1
87 Average	89.7	94.8	109.3	95.7
88 Average	89.9	94.6	110.7	96.3
89 Average	99.8	102.1	119.7	106.0
90 Average	114.9	116.4	134.9	121.7
91 Average	NA	114.0	132.1	119.6
92 Average	NA	112.7	131.6	119.0
93 January	NA	111.7	131.3	118.2
February	NA	110.8	130.1	117.2
March	NA	109.8	129.4	116.3
April	NA	111.2	130.4	117.5
	NA	112.9	131.9	119.3
May				
June	NA	113.0	132.1	119.4
July	NA	110.9	130.5	117.4
August	NA	109.7	129.4	116.3
September	NA	108.5	128.2	115.1
October	NA	112.7	132.3	119.3
November	NA	111.3	130.5	117.8
December	NA	107.0	126.8	113.6
Average	NA	110.8	130.2	117.3
	ΝΔ	104.2	124.0	110.0
94 January	NA	104.3	124.0	110.9
February	NA	105.1	124.5	111.4
March	NA	104.5	124.3	110.9
April	NA	106.4	126.0	112.8
May	NA	108.0	127.4	114.3
June	NA	110.6	130.0	116.7
July	NA	113.6	132.7	119.9
	NA	118.2	136.7	124.3
August				
September	NA	117.7	136.4	123.7
October	NA	115.2	134.5	121.2
November	NA	116.3	135.4	122.2
December	NA	114.3	133.7	120.3
Average	NA	111.2	130.5	117.4
<b>95</b> January	NA	112.9	132.4	119.0
February	NA	112.0	131.6	118.1
March	NA	111.5	130.6	117.3
April	NA	114.0	132.5	119.7
May	NA	120.0	138.3	125.6
June	NA	122.6	141.1	128.1
July	NA	119.5	138.4	125.2
August	NA	116.4	135.2	122.2
September	NA			
•		114.8	133.2	120.6
October	NA	112.7	131.5	118.5
November	NA	110.1	129.2	116.1

<sup>a</sup> Also includes types of motor gasoline not shown separately.

<sup>b</sup> In September 1981, the Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. From September 1981 forward, gasohol is included in the average for all types, and unleaded premium is weighted more heavily.

<sup>c</sup> Based on September through December data only.

NA=Not available.

Notes: • See Note 5 at end of section. • Geographic coverage for

1973-1977 is 56 urban areas. Geographic coverage for 1978 forward is 85 urban areas.

Sources: • Monthly Data: U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Prices: Energy.* • Annual Data: 1973—*Platt's Oil Price Handbook and Oilmanac*, 1974, 51st Edition. 1974 forward—calculated by the Energy Information Administration as the simple averages of monthly data.

#### Table 9.5 Refiner Prices of Residual Fuel Oil

(Cents per Gallon, Excluding Taxes)

	Sulfur Co	I Fuel Oil ntent Less al to 1 Percent	Sulfur	Il Fuel Oil Content an 1 Percent	Ave	erage
	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users
978 Average	29.3	31.4	24.5	27.5	26.3	29.8
979 Average	45.0	46.8	36.6	38.9	39.9	43.6
980 Average	60.8	67.5	47.9	52.3	52.8	60.7
981 Average	74.8	82.9	62.2	67.3	66.3	75.6
982 Average	69.5	74.7	57.2	61.1	61.2	67.6
983 Average	64.3	69.5	59.1	61.1	60.9	65.1
984 Average	68.5	72.0	63.9	65.9	65.4	68.7
985 Average	61.0	64.4	56.0	58.2	57.7	61.0
986 Average	32.8	37.2	28.9	31.7	30.5	34.3
987 Average	41.2	44.7	36.2	39.6	38.5	42.3
988 Average	33.3	37.2	27.1	30.0	30.0	33.4
989 Average	40.7	43.6	33.1	34.4	36.0	38.5
990 Average	47.2	50.5	37.2	40.0	41.3	44.4
991 Average	36.4	40.2	29.2	30.6	31.4	34.0
992 Average	35.1	38.9	28.6	31.2	30.8	33.6
993 January	36.8	40.7	27.3	32.3	31.5	35.2
February	35.5	40.8	26.7	31.0	30.9	34.5
March	39.1	42.6	27.5	31.6	32.9	35.6
April	38.4	43.6	29.0	32.4	33.3	36.5
Мау	34.8	41.9	27.8	34.1	31.1	36.8
June	33.7	40.6	26.7	31.5	30.2	34.7
July	32.7	40.2	24.6	28.5	27.5	33.1
August	31.6	36.4	23.7	28.7	27.2	32.0
September	31.9	37.0	24.1	28.6	27.1	31.5
October	32.1	38.3	25.7	29.6	28.7	32.2
November	30.7	38.1	22.5	27.5	26.2	30.5
December	27.5	35.1	21.8	25.8	24.8	29.2
Average	33.7	39.7	25.6	30.3	29.3	33.7
994 January	33.6	39.1	22.8	27.8	28.3	32.5
February	39.3	44.8	25.7	31.3	33.8	36.8
March	30.0	39.9	24.3	29.5	27.4	32.9
April	29.4	35.2	25.8	29.5	27.5	31.1
May	31.7	35.9	27.5	31.1	29.5	32.6
June	35.8	38.6	31.1	34.2	33.5	35.6
July	37.8	41.2	34.5	37.2	36.2	38.4
August	37.1	43.0	32.7	38.2	35.2	39.6
September	32.6	41.1	27.8	32.2	30.1	34.4
October	32.6	38.7	30.6	33.0	31.6	34.5
November	35.6	40.0	32.9	35.7	34.2	36.9
December	36.9	42.2	32.0	36.9	34.1	38.3
Average	34.5	40.1	28.7	33.0	31.7	35.2
995 January	38.4	46.0	33.3	37.7	35.9	40.0
February	37.1	43.7	33.3	38.2	35.4	39.8
March	38.3	43.4	35.2	39.6	37.0	40.5
April	36.8	42.6	36.1	39.6	36.5	40.3
May	40.4	43.6	37.3	41.7	38.8	42.2
June	39.9	45.1	36.9	41.3	38.7	42.1
July	36.8	42.9	32.5	36.5	35.3	38.2
August	ຼ 35.2	39.1	30.0	33.7	33.1	35.1
September	<sup>R</sup> 36.4	39.0	30.5	34.0	33.8	35.1
October	35.2	41.7	32.5	34.5	34.0	35.8

R=Revised data.

Notes: • Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and commercial consumers. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Source: EIA, Petroleum Marketing Monthly, January 1996, Table 19.

### Table 9.6 Refiner Prices of Petroleum Products for Resale

(Cents per Gallon, Excluding Taxes)

	Finished Motor Gasoline <sup>a</sup>	Finished Aviation Gasoline	Kerosene- Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consume Grade)
1978 Average	43.4	53.7	38.6	40.4	36.9	36.5	23.7
979 Average	63.7	72.1	66.0	62.4	56.9	57.4	29.1
980 Average	94.1	112.8	86.8	86.4	80.3	80.1	41.5
981 Average	106.4	125.0	101.2	106.6	97.6	97.2	46.6
982 Average	97.3	122.8	95.3	101.8	91.4	91.4	42.7
983 Average	88.2	117.8	85.4	89.2	81.5	80.8	48.4
984 Average	83.2	116.5	83.0	91.6	82.1	80.3	45.0
985 Average	83.5	113.0	79.4	87.4	77.6	77.2	39.8
986 Average	53.1	91.2	49.5	60.6	48.6	45.2	29.0
987 Average	58.9	85.9	53.8	59.2	52.7	53.4	25.2
988 Average	57.7	85.0	49.5	54.9	47.3	47.3	24.0
989 Average	65.4	95.0	58.3	66.9	56.5	56.7	24.7
990 Average	78.6	106.3	77.3	83.9	69.7	69.4	38.6
991 Average	69.9	100.0	65.0	72.2	62.2	61.5	34.9
992 Average	67.7	99.1	60.5	63.2	57.9	59.1	32.8
352 Average	07.7	33.1	00.5	03.2	57.9	55.1	52.0
993 January	63.8	96.9	57.7	61.4	54.4	54.9	40.2
February	63.8	96.5	60.4	63.7	56.9	57.4	36.7
March	65.2	97.4	60.3	65.4	59.0	60.0	38.2
April	67.7	97.7	59.8	60.8	57.5	59.8	36.2
May	69.1	99.4	60.1	58.3	56.9	59.6	34.0
June	66.2	99.1	58.5	56.9	55.0	57.2	33.8
July	62.7	97.9	55.1	53.6	51.0	53.2	33.3
August	62.9	96.9	55.1	55.6	51.0	53.2	33.3
September	61.5	96.3	56.6	58.7	54.8	58.9	34.1
October	61.7	95.0	60.5	65.5	58.1	65.8	34.7
November	57.0	92.7	58.7	62.4	53.1	58.9	33.6
December	50.3	87.4	51.0	53.6	45.1	46.8	30.9
Average	62.6	96.5	57.7	60.4	54.4	57.0	35.1
994 January	52.2	87.1	52.9	65.7	50.7	49.1	32.3
February	54.6	87.8	56.0	73.5	54.2	52.8	34.0
March	54.9	87.4	52.5	59.9	49.7	52.9	31.8
	57.9	89.5	50.9	55.1	48.9	52.3	30.4
April	59.2	91.2	50.9	53.2	49.0	51.7	30.4
May							
June	62.6	93.2	51.5	53.9	49.8	52.3	29.9
July	65.4	96.1	53.8	55.1	50.9	53.7	29.8
August	67.8	98.5	54.4	55.1	51.4	54.1	31.0
September	61.0	97.3	54.0	55.3	50.1	54.2	31.7
October	61.4	95.4	54.4	59.1	50.8	55.2	33.5
November	62.2	95.2	56.3	60.7	51.0	55.1	35.0
December	58.0	94.2	53.1	57.4	49.5	51.0	35.7
Average	59.9	93.3	53.4	61.8	50.6	52.9	32.4
995 January	60.1	92.9	52.3	56.7	49.4	50.1	35.6
February	60.3	93.2	52.1	55.2	49.1	50.6	34.5
March	60.0	93.1	50.1	52.8	48.1	51.2	34.3
April	66.5	96.6	52.6	56.0	50.4	54.8	33.0
May	71.8	102.2	54.7	57.7	52.4	55.9	33.2
June	68.2	101.6	53.1	53.2	49.3	52.6	32.6
July	62.9	100.1	51.3	52.3	48.1	51.4	32.0
August	62.0	98.9	53.1	54.9	51.0	54.2	33.2
September	62.3	98.7	55.2	<sup>R</sup> 58.0	52.0	55.7	33.8
October	58.8	96.7 95.8	54.1	57.0	50.5	54.6	33.0 34.4
	00.0	50.0	04.1	57.0	50.5	04.0	34.4

<sup>a</sup> See Note 5 at end of section.
 R=Revised data.
 Notes: • Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are shown in Table 9.7; they are sales made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial

consumers. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Source: EIA, Petroleum Marketing Monthly, January 1996, Table 4.

## Table 9.7 Refiner Prices of Petroleum Products to End Users

(Cents per Gallon, Excluding Taxes)

	Finished Motor Gasoline <sup>a</sup>	Finished Aviation Gasoline	Kerosene- Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consume Grade)
978 Average	48.4	51.6	38.7	42.1	40.0	37.7	33.5
979 Average	71.3	68.9	54.7	58.5	51.6	58.5	35.7
980 Average	103.5	108.4	86.8	90.2	78.8	81.8	48.2
981 Average	114.7	130.3	102.4	112.3	91.4	99.5	56.5
982 Average	106.0	131.2	96.3	108.9	90.5	94.2	59.2
983 Average	95.4	125.5	87.8	96.1	91.6	82.6	70.9
984 Average	90.7	123.4	84.2	103.6	91.6	82.3	73.7
985 Average	91.2	120.1	79.6	103.0	84.9	78.9	71.7
986 Average	62.4	101.1	52.9	79.0	56.0	47.8	74.5
987 Average	66.9	90.7	54.3	77.0	58.1	55.1	70.1
988 Average	67.3	89.1	51.3	73.8	54.4	50.0	71.4
989 Average	75.6	99.5	59.2	70.9	58.7	58.5	61.5
	88.3		76.6	92.3	73.4	72.5	74.5
990 Average		112.0					
991 Average	79.7	104.7	65.2	83.8	66.5	64.8	73.0
992 Average	78.7	102.7	61.0	78.8	62.7	61.9	64.3
993 January	76.9	100.3	58.5	81.4	62.8	59.0	74.8
February	76.0	99.9	59.9	81.3	64.7	60.6	74.3
March	75.7	99.4	60.7	83.2	66.2	62.8	75.4
April	77.8	100.7	59.7	77.0	61.9	62.4	69.5
May	80.1	102.2	59.9	68.8	59.8	62.3	67.3
June	79.8	102.5	58.7	65.3	57.6	60.5	63.9
July	77.6	99.7	55.3	61.4	54.1	56.9	62.2
August	76.2	98.8	54.6	61.9	54.6	56.2	61.8
September	74.9	98.2	56.9	66.5	57.3	60.4	63.6
October	75.4	98.0	61.3	77.5	63.3	66.7	60.2
November	72.6	95.7	59.6	79.4	61.6	62.5	61.6
December	68.0	91.2	51.2	72.5	55.7	52.4	64.0
	75.9	91.2 99.0	58.0	72.5 75.4	60.2	60.2	67.3
Average	75.9	99.0	50.0	75.4	00.2	60.2	07.5
994 January	66.8	88.6	51.5	79.5	59.5	52.5	61.8
February	67.6	88.4	55.7	84.1	63.9	55.4	63.5
March	67.3	89.0	51.8	78.2	60.8	54.9	58.5
April	69.5	91.3	50.7	69.7	58.0	54.7	54.9
Мау	71.1	92.3	51.0	55.2	53.5	54.3	46.4
June	74.1	95.6	51.9	54.5	54.0	54.9	45.5
July	77.0	97.4	53.5	60.4	54.9	55.8	46.4
August	81.5	101.7	54.4	57.8	55.0	56.7	48.3
September	79.6	101.1	53.9	58.3	54.4	56.6	47.1
October	76.9	100.0	55.0	61.5	55.7	57.1	49.4
November	77.5	100.0	57.2	64.0	56.7	57.2	51.0
December	75.1	99.2	53.9	64.7	56.4	54.5	51.9
Average	73.8	95.7	53.4	66.0	57.2	55.4	53.0
<b>995</b> January	74.5	99.6	52.3	67.4	56.1	53.4	54.5
February	73.3	99.8	52.3	62.7	55.9	53.3	55.1
-	73.1	99.0 99.0	50.5	59.4	54.4	53.5	53.3
March	73.1	99.0 101.3	50.5 52.8	59.4 56.1	54.4 55.6	53.5 56.6	53.3 46.6
April							
May	83.4	105.8	55.0	51.8	55.8	58.1	43.1
June	83.9	106.4	53.2	54.9	52.8	55.7	42.9
July	80.0	101.8	51.9	51.3	51.5	54.0	42.2
August	76.9	99.2	53.4	53.3	53.3	55.8	44.9
September	75.8	101.3	55.7	57.3	56.2	57.4	45.7
October	73.5	96.8	54.9	56.5	54.1	56.5	49.2

<sup>a</sup> See Note 5 at end of section. Notes: • Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial consumers. Sales for resale are shown in Table 9.6; they are sales made to purchasers other than

ultimate consumers. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Source: EIA, Petroleum Marketing Monthly, January 1996, Table 2.

#### Table 9.8a No. 2 Distillate Prices to Residences: Northeastern States

	Maine	New Hampshire	Vermont	Massachusetts	Rhode Island	Connecticut	New York	New Jersey	Pennsylvania
978 Average	48.6	50.3	50.8	48.8	50.7	50.1	50.1	49.6	48.8
979 Average	68.8	72.5	72.5	70.9	72.8	72.0	71.2	71.0	69.8
980 Average	96.3	100.4	101.5	97.8	101.1	98.3	98.2	97.9	96.4
981 Average	120.4	123.7	125.4	121.3	123.8	121.7	123.2	121.5	118.1
982 Average	115.5	117.4	120.1	117.6	120.1	118.3	120.5	117.4	113.7
983 Average	102.8	104.1	112.9	109.1	110.5	109.1	112.1	107.9	105.8
984 Average	102.0	104.1	111.9	111.6	111.4	112.1	115.5	111.0	103.0
-	99.7	102.4	107.7	107.0	106.7	108.0	111.3	105.9	107.3
985 Average	99.7 74.4	75.9	86.6	82.1	82.8	89.0	91.1	90.2	81.4
986 Average									
987 Average	74.7	76.5	81.1	80.6	82.5	83.4	85.2	84.3	76.9
988 Average	77.7	78.2	82.6	82.1	83.6	85.3	86.3	84.8	77.8
989 Average	89.4	89.3	90.5	92.6	93.9	92.9	95.8	91.8	85.1
990 Average	98.9	102.8	107.0	108.4	108.6	109.8	112.5	108.7	102.6
991 Average	96.0	91.6	101.9	103.0	99.9	106.2	111.3	104.0	99.7
992 Average	87.1	85.6	92.1	92.5	91.2	94.7	102.8	93.9	89.0
993 January	85.2	87.1	93.4	94.0	91.7	94.9	104.4	96.2	88.6
February	85.4	86.9	93.3	94.4	91.8	96.2	104.2	96.4	89.1
March	86.4	86.6	93.7	94.8	92.4	96.7	104.3	96.2	89.8
April	83.0	84.5	91.2	91.5	90.4	93.6	100.4	95.0	89.0
	81.7	83.9	91.3	91.1	90.7	91.6	99.5	91.6	86.7
June	81.1	82.4	89.7	88.6	87.6	88.6	97.8	87.1	83.9
July	78.5	78.3	85.5	83.9	85.2	86.5	95.1	87.4	78.8
August	77.4	76.0	85.6	83.4	82.7	84.0	92.7	85.3	77.1
September	78.3	74.9	86.6	83.8	84.8	84.2	93.6	85.9	80.4
October	82.9	77.0	87.6	86.1	86.0	88.6	96.3	89.7	83.2
November	80.8	76.9	86.6	85.7	87.8	88.8	95.9	89.4	84.7
December	79.6	70.9	86.9	83.9	85.9	88.2	93.9	87.3	84.2
Average	82.6	82.8	90.9	89.7	89.3	91.9	100.1	92.4	86.3
	83.8	80.4	88.8	88.4	87.3	90.2	07.2	01 7	87.7
994 January							97.2	91.7	
February	90.4	86.6	92.3	91.3	91.4	93.8	101.7	94.8	92.5
March	85.9	83.6	91.0	88.3	89.4	92.1	100.3	93.9	90.4
April	80.8	78.2	88.3	86.0	85.1	89.4	96.4	90.7	86.2
May	76.8	75.4	86.7	85.1	83.3	85.4	96.3	85.4	83.7
June	75.6	73.1	84.6	83.7	82.3	86.1	96.8	83.5	80.1
July	75.6	71.8	83.0	82.1	81.6	84.2	93.9	82.9	75.7
August	78.0	72.8	83.8	78.7	84.0	79.7	89.1	85.9	77.9
September	78.5	72.9	83.3	81.1	84.7	80.5	90.8	85.4	79.1
October	77.5	74.0	83.9	83.0	84.4	83.7	92.9	86.8	80.2
November	77.7	73.7	84.3	83.6	85.8	84.0	93.3	88.6	81.4
December	77.5	77.3	85.3	84.2	87.2	86.1	94.6	89.6	82.0
Average	81.8	79.2	87.6	87.0	88.5	89.0	96.6	89.5	85.7
995 January	77.8	78.4	85.8	84.8	87.3	86.7	95.6	NA	83.1
February	77.4	78.5	85.9	84.9	87.3	87.8	97.0	NA	83.4
March	76.3	77.7	85.6	83.7	87.0	87.0	97.0	NA	82.3
April	76.7	76.6	84.8	83.3	86.5	85.2	94.8	NA	80.9
May	78.7	75.8	84.5	85.4	86.1	86.5	96.0	87.8	81.1
June	78.0	74.5	83.7	84.0	83.2	84.2	90.0 95.9	87.4	79.5
	76.9	74.5	81.6	80.6	81.7	79.4	95.9 92.9	85.3	79.5
July							92.9 90.3		
August	76.6	73.1	81.7 B 82.5	80.9	85.3 B 04 5	77.4	90.3 Rod 4	81.9 <sup>B</sup> 82.7	75.5
September	<sup>R</sup> 76.2	73.8	<sup>R</sup> 82.5	81.8	<sup>R</sup> 84.5	79.2	<sup>R</sup> 91.1	<sup>R</sup> 83.7	77.2
October	75.8	73.9	82.5	82.2	85.6	82.3	94.9	85.0	79.6

(Cents per Gallon, Excluding Taxes)

R=Revised data. NA=Not available.

• Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section.

Notes: • States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. • Values for the current month are preliminary.

Source: EIA, Petroleum Marketing Monthly, January 1996, Table 18.

# Table 9.8b No. 2 Distillate Prices to Residences: Selected South Atlantic and Midwestern States

District West of Delaware Columbia Maryland Virginia Virginia Ohio Michigan Indiana Illinois Wisconsin Minnesota 1978 Average ..... 47.8 50.7 49.2 49.1 46.2 47.4 48.5 46.5 47.8 47.9 44.7 1979 Average ..... 68.2 74.2 70.1 70.4 65.1 68.6 70.9 72.7 68.8 67.3 72.4 1980 Average ..... 95.4 102.6 97.9 98.5 92.2 91.9 97.8 99.6 95.8 91.5 99.9 1981 Average 117.3 127.4 121.4 120.5 115.0 113.2 118.3 118.5 114.9 109.1 118.4 ..... 1982 Average ..... 111.3 124.5 117.1 117.7 109.3 110.2 113.9 114.3 110.9 107.8 115.1 1983 Average 106.0 117.0 110.3 108.7 101.0 101.3 106.4 100.7 100.4 101.2 103.1 ..... 1984 Average ..... 109.6 118.7 113.5 110.5 102.1 102.1 105.0 103.1 100.1 101.0 104.1 1985 Average ..... 104.6 114.3 108.8 106.3 98.0 99.7 102.1 99.1 97.5 98.3 101.9 1986 Average ..... 85.0 93.1 91.4 86.6 74.6 77.7 81.0 74.8 NA 75.6 79.2 76.4 74.6 1987 Average ..... 79.3 91.8 86.6 79.5 74.7 77.5 75.4 79.8 75.1 1988 Average ..... 80.1 91.6 87 0 80.5 74.2 74.7 77.5 75.4 77.6 73.9 73.5 83.0 1989 Average ..... 88.2 98.6 93.8 87.0 81.6 85.3 83.2 80.9 81.1 82.4 1990 Average ..... 105.8 107.8 111.9 110.6 99.1 98.1 100.9 99.3 96.1 94.2 101.4 1991 Average 99.7 112.2 108.4 101.1 93.4 91.0 94.2 91.8 92.7 89.5 91.1 ..... 1992 Average ..... 92.3 105.7 100.0 92.8 86.4 83.6 87.2 81.2 87.7 81.6 82.6 91.2 1993 January ..... 105.2 100 5 924 88.5 84 2 88 1 81.8 87.3 82.8 82.9 February ..... 90.8 106.8 101 4 93.5 88.8 85.5 875 82.3 88.2 83.3 83.0 March ..... 924 108.5 101.7 94.2 90.1 86.6 89.9 83 1 90.0 84.0 83.9 84.6 April ..... 91.6 106.7 99.2 90.3 87.6 86.9 90.5 84 9 86.5 83.4 May ..... 894 104.3 96.2 88.4 87.0 86.0 89.2 83.6 84.8 84.9 84.3 June ..... 90.6 100.4 94.7 85.7 87.0 86.5 87.2 82.0 81.3 84.0 83.6 July ..... 84 0 864 100.2 92.3 84 5 81 0 792 83 2 791 794 824 78.6 August ..... 84.0 79.9 83.5 96.1 91.3 80.1 82.1 76.7 77.4 78.6 95.5 924 84 9 80.5 81 2 82.6 83 1 September ..... 84.6 814 85 5 79.3 October ..... 87.4 102.1 94.1 85.1 84.3 85.5 89.9 82.7 87.2 81.6 87.0 November ..... 88.3 100.9 95.8 84.2 84.3 84.5 86.3 80.2 82.4 82.5 84.8 December ..... 80.9 88.6 100 5 94 6 85 5 84.8 82.0 77 1 78.6 78 6 80.6 89.9 104.5 84.0 Average ..... 98.1 89.3 85.6 87.2 81.0 84.4 82.3 83.2 1994 January ..... 102.5 80.5 92.1 98.8 88.6 86.3 81.3 85.6 79.1 78.8 79.9 82.2 91.5 105.5 99.5 88.6 86.3 84 2 82.0 81.8 80.6 February ..... 88.0 82.5 102.0 96.3 86.6 85.0 78.7 80.0 March ..... 91.2 87.7 81.0 82.4 76.1 89.2 924 77 8 827 877 81 2 814 80.3 April ..... 937 83.0 May ..... 84.4 83.1 86.8 82.2 73.5 83.3 87.3 79.9 73.3 80.8 79.9 June ..... 82.0 W 877 797 724 82 2 86.9 81 5 75 5 79.9 797 80.5 W 79.6 72.9 76.8 87.7 80.0 75.3 81.4 79.8 July ..... 87.8 August ..... 81.9 74.8 77.2 80.8 82.3 86.0 80.5 76.0 84.3 81.6 79.1 September ..... 76.2 76.6 83.1 86.2 87.8 80.4 79.9 84.2 82.6 79.8 81.2 77.6 October ..... 95.5 82.3 79.3 79.8 85.2 81.7 84.9 90.0 80.7 81.4 86.0 977 924 84 1 81.4 798 85.9 81 2 80.8 80.9 81 2 November ..... 84.8 December ..... 86.1 101.3 94.3 81.3 81.1 86.1 82.4 80.4 81.2 80.3 95.0 80.6 89.4 100.0 85.3 80.9 81.2 86.3 81.2 78.4 Average ..... 81.1 1995 January ..... 88.5 102.4 94.2 84.9 82.1 86.2 81.7 82.0 80.1 81 2 81 1 88.6 103.4 95.0 84.6 82.3 80.9 85.8 80.1 80.8 80.3 79.1 February ..... 103.3 80.4 80.4 March ..... 87.6 94.2 84.0 81.4 80.4 85.7 82.3 76.6 87.0 84.0 80.2 82.7 81.5 80.5 April ..... 100.0 91.3 81.9 86.3 81.1 83.0 76.2 80.8 83.9 80.5 85.2 93.3 89.6 86.1 81.6 81.5 May ..... 77.3 83.2 86.7 82.3 78.8 83.7 77.0 81.3 77.3 NA 83.5 June ..... 75.3 76.6 80.0 85.1 83.2 76.6 82.0 82.0 81.0 July ..... 81.2 76.5 W 82.6 80.8 74.3 82.1 72.9 77.3 August ..... 82.2 72.6 79.3 78.5 <sup>R</sup> 77.5 86.1 <sup>R</sup> 85.5 <sup>R</sup>76.0 <sup>R</sup> 84.5 <sup>R</sup> 81.0 <sup>R</sup> 80.7 September ..... 75.6 79.5 82.4 81.6 October ..... 83.1 NA 89.3 82.5 77.1 79.0 85.5 82.1 74.6 80.4 80.1

(Cents per Gallon, Excluding Taxes)

R=Revised data. NA=Not available. W=Value withheld to avoid disclosure of individual company data.

 Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section.

Notes: • States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. • Values for the current month are preliminary.

Source: EIA, *Petroleum Marketing Monthly*, January 1996, Table 18.

# Table 9.8c No. 2 Distillate Prices to Residences: Selected Western States and U.S. Average

(Cents per Gallon, Excluding Taxes)

			_		U.S.
	Idaho	Washington	Oregon	Alaska	Average
78 Average	43.6	48.6	45.8	53.2	49.0
079 Average	62.1	69.7	68.0	68.2	70.4
080 Average	91.6	100.8	97.3	97.8	97.4
	110.4	116.5	111.4	118.0	119.4
81 Average					
82 Average	110.4	117.6	111.6	117.4	116.0
83 Average	101.8	109.0	103.6	108.8	107.8
984 Average	98.5	102.6	99.3	106.9	109.1
985 Average	97.2	101.1	97.1	108.3	105.3
86 Average	73.8	77.5	70.4	94.9	83.6
87 Average	68.8	79.5	72.5	86.5	80.3
988 Average	68.8	78.5	70.9	86.9	81.3
089 Average	77.8	87.4	80.2	96.4	90.0
990 Average	97.4	102.9	97.0	110.1	106.3
	95.1	102.5	93.3	105.0	100.5
991 Average					
92 Average	85.7	94.0	87.6	94.1	93.4
93 January	85.0	100.5	91.7	95.1	94.3
February	84.1	101.6	89.9	95.1	94.6
March	87.8	99.0	90.7	96.9	95.4
April	84.6	100.5	92.1	96.1	92.6
May	83.2	99.1	91.3	96.8	91.1
June	82.8	95.1	90.3	98.1	88.9
	80.0	91.3	86.1	98.0	85.6
July					
August	77.0	89.3	83.5	99.7	84.1
September	85.3	97.1	92.0	95.2	85.5
October	94.7	105.4	100.2	98.6	88.7
November	97.4	103.7	97.4	95.0	88.5
December	81.1	96.6	87.8	91.7	86.6
Average	86.2	99.9	91.8	96.1	91.1
94 January	73.2	92.8	86.0	88.8	89.6
February	73.7	96.3	88.3	88.6	92.9
					91.4
March	77.4	97.1	88.4	89.2	• · · ·
April	76.2	97.5	88.1	88.6	88.2
May	76.9	96.2	87.6	90.0	86.1
June	72.8	93.1	85.1	87.7	85.2
July	74.6	NA	82.5	88.2	82.7
August	80.8	NA	NA	80.8	82.1
September	83.1	90.2	87.8	83.4	83.2
October	85.8	96.2	91.1	85.1	84.7
November	84.8	99.0	91.6	86.6	85.7
December	84.6	97.3	89.4	84.7	86.8
Average	<b>78.9</b>	97.0	88.7	86.5	88.4
-		<b>6</b> 5 ·	aa -	ac -	
95 January	80.3 79.7	95.4	88.5 87.0	83.5 84.0	87.4 87.9
February		94.8			
March	80.0	94.5	88.8	84.2	87.4
April	81.0	NA	90.4	82.8	86.2
Мау	83.2	NA	91.5	82.3	86.4
June	82.8	NA	89.9	82.7	84.7
July	82.9	94.0	NA	81.7	82.0
August	83.5	91.2	86.3	81.7	80.6
September	<sup>R</sup> 86.6	<sup>R</sup> 95.5	<sup>R</sup> 87.1	<sup>R</sup> 83.1	82.3
October	88.1	97.7	90.5	83.4	84.1

R=Revised data. NA=Not available.

• Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section.

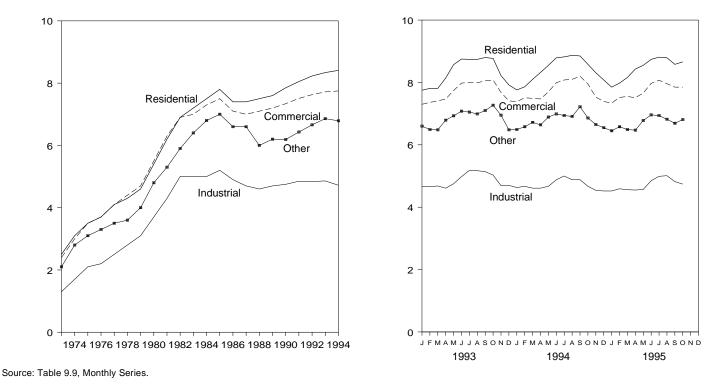
Notes: • States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. • Values for the current month are preliminary.

Source: EIA, Petroleum Marketing Monthly, January 1996, Table 18.

## Figure 9.2 Retail Prices of Electricity Sold by Electric Utilities

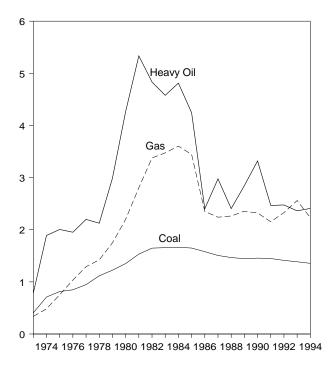
(Cents per Kilowatthour)

By Sector, 1973-1994



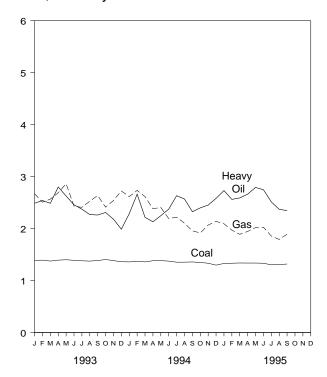
## Figure 9.3 Cost of Fossil-Fuel Receipts at Steam-Electric Plants (Dollars per Million Btu)

Costs, 1973-1994



Costs, Monthly

By Sector, Monthly



## Table 9.9 Retail Prices of Electricity Sold by Electric Utilities

(Cents per Kilowatthour)

	Reside	ential	Comm	ercial	Indus	strial	Oth	era	Tot	al <sup>b</sup>
	Monthly Series <sup>c</sup>	Annual Series	Monthly Series <sup>c</sup>	Annua Series						
973 Average	2.5	NA	2.4	NA	1.3	NA	2.1	NA	2.0	NA
974 Average	3.1	NA	3.0	NA	1.7	NA	2.8	NA	2.5	NA
975 Average	3.5	NA	3.5	NA	2.1	NA	3.1	NA	2.9	NA
976 Average	3.7	NA	3.7	NA	2.2	NA	3.3	NA	3.1	NA
977 Average	4.1	NA	4.1	NA	2.5	NA	3.5	NA	3.4	NA
978 Average	4.3	NA	4.4	NA	2.8	NA	3.6	NA	3.7	NA
979 Average	4.6	NA	4.7	NA	3.1	NA	4.0	NA	4.0	NA
980 Average	5.4	NA	5.5	NA	3.7	NA	4.8	NA	4.7	NA
981 Average	6.2	NA	6.3	NA	4.3	NA	5.3	NA	5.5	NA
982 Average	6.9	NA	6.9	NA	5.0	NA	5.9	NA	6.1	NA
983 Average	7.2	NA	7.0	NA	5.0	NA	6.4	NA	6.3	NA
984 Average	7.5	7.15	7.3	7.13	5.0	4.83	6.8	5.90	6.5	6.25
985 Average	7.8	7.39	7.5	7.27	5.2	4.97	7.0	6.09	6.7	6.44
986 Average	7.4	7.42	7.1	7.20	4.9	4.93	6.6	6.11	6.4	6.44
987 Average	7.4	7.45	7.0	7.08	4.7	4.77	6.6	6.21	6.3	6.37
988 Average	7.4	7.45	7.0	7.08	4.6	4.77	6.0	6.20	6.3	6.35
	7.6	7.40	7.2	7.20	4.0	4.70	6.2	6.25	6.4	6.45
989 Average 990 Average	7.85	7.83	7.34	7.20	4.7	4.72	6.19	6.40	6.57	6.57
	8.05	8.04	7.54	7.53	4.75	4.74	6.43	6.51	6.75	6.75
991 Average 992 Average	8.05	8.04 8.21	7.51	7.53	4.85	4.83	6.66	6.74	6.83	6.82
332 Average	0.25	0.21	7.05	7.00	4.04	4.05	0.00	0.74	0.05	0.02
993 January	7.75	-	7.30	_	4.66	_	6.60	_	6.61	_
February	7.81	-	7.36		4.66		6.49		6.59	
March	7.81	-	7.41	-	4.68	-	6.48	-	6.58	-
April	8.14	-	7.47	-	4.61	-	6.79	-	6.61	-
May	8.57	-	7.74	-	4.75	-	6.93	-	6.81	-
June	8.75	-	7.98	-	4.98	-	7.08	-	7.13	-
July	8.74	-	8.00	-	5.18	-	7.05	-	7.36	-
August	8.74	-	7.99	-	5.17	-	6.99	-	7.35	-
September	8.80	-	8.05	-	5.14	-	7.10	-	7.32	-
October	8.77	-	8.08	-	5.03	-	7.27	-	7.15	-
November	8.22	-	7.68	-	4.69	-	6.95	-	6.74	-
December	7.92	_	7.41		4.70		6.48	_	6.65	_
Average	8.34	8.32	7.72	7.74	4.86	4.85	6.86	6.88	6.92	6.93
994 January	7.76	-	7.38	-	4.63	-	6.49	-	6.66	-
February	7.86	-	7.51	-	4.67	-	6.58	-	6.69	-
March	8.10	-	7.49	-	4.61	-	6.72	-	6.68	-
April	8.32	-	7.47	-	4.61	-	6.64	-	6.67	-
May	8.55	-	7.70	-	4.67	-	6.89	-	6.80	-
June	8.79	-	7.99	-	4.88	-	6.99	-	7.17	-
July	8.82	-	8.08	-	5.00	-	6.94	-	7.37	-
August	8.87	-	8.10	-	4.88	-	6.91	-	7.29	-
September	8.85	-	8.20	-	4.88	-	7.22	-	7.25	-
October	8.58	-	7.95	-	4.67	-	6.86	-	6.91	-
November	8.31	-	7.53	-	4.54	-	6.65	-	6.65	-
December	8.08	-	7.39	-	4.52	-	6.55	-	6.64	-
Average	8.41	NA	7.75	NA	4.72	NA	6.79	NA	6.92	NA
995 January	7.85	_	7.34	_	4.52	_	6.45	_	6.60	_
February	7.98	-	7.52	_	4.59	-	6.58	-	6.68	_
March	8.16	_	7.55	_	4.56	_	6.49	_	6.67	_
April	8.43	_	7.51	_	4.55	_	6.47	_	6.67	_
May	8.55	_	7.66	_	4.57	_	6.78	_	6.76	_
June	8.74	_	7.97	_	4.85	_	6.96	_	7.12	_
July	8.81	_	8.07	_	4.99	_	6.94	_	7.36	_
August	8.79	_	7.96	_	5.01	_	6.82	_	7.36	_
September	8.58	_	7.85	_	4.82	_	6.69	_	7.09	_
October	8.66	_	7.85	_	4.02	_	6.81	_	6.95	_
10-Month Average	8.47	_	7.85	_	4.74	_	6.70	_	6.95 6.95	_
-										
994 10-Month Average	8.45	-	7.81	-	4.76	-	6.83	-	6.97	-

<sup>a</sup> "Other" is public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.
 <sup>b</sup> Average price for total sales to ultimate consumers.

<sup>c</sup> Annual values are the sum of the monthly revenue divided by the sum of the monthly sales. Data through 1979 cover privately owned electric utilities in Classes A and B. Data for 1980-1985 cover selected privately owned electric utilities in Class A whose electric operating revenue was \$100 million or more during the previous year. See Note 7 at end of section.

NA=Not available. -=Not applicable.

Notes: • Prices are calculated by dividing revenue by sales. Revenue may not correspond to sales for a particular month because of electric utility billing and accounting procedures. That lack of correspondence could result in uncharacteristic increases or decreases in the monthly prices. See Note 7 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

## Table 9.10 Quantity and Cost of Fossil-Fuel Receipts at Steam-Electric Utility Plants

	Coal			Petro	leum	Ga	All Fossil Fuels <sup>b</sup>		
			Heav	y Oil <sup>b</sup>	Tot	al <sup>b,c</sup>			
	Quantity (thousand short tons)	Cost (cents per million Btu)	Quantity (thousand barrels)	Cost (cents per million Btu)	Quantity (thousand barrels)	Cost (cents per million Btu)	Quantity (million cubic feet)	Cost (cents per million Btu)	Cost (cents per million Btu)
1973 Year	374,842	40.5	512,650	78.5	535,859	80.0	3,382,677	33.8	47.6
1974 Year	384,868	70.9	479,166	189.0	515,217	191.0	3,225,203	48.2	91.4
1975 Year	431,527	81.4	457,582	200.5	510,352	202.3	3,034,808	75.2	104.4
1976 Year	454,858	84.8	495,363	195.2	549,973	199.0	2,962,811	103.4	111.9
1977 Year	490,415	94.7	563,685	219.8 212.5	635,556	224.9 219.1	3,106,403	129.1 142.2	129.7 141.1
1978 Year 1979 Year	476,169 556,558	111.6 122.4	546,197 479,705	298.8	616,040 515,695	307.2	3,140,654 3,368,976	174.9	163.9
1980 Year	593,995	135.1	394,159	426.7	419,140	435.1	3,588,814	219.9	192.8
1981 Year	579,374	153.2	327,477	533.4	345,544	542.5	3,573,558	280.5	225.6
1982 Year	601,427	164.7	228,200	483.2	239,111	492.2	3,161,348	337.6	224.9
1983 Year	592,728	165.6	211,705	457.8	219,652	462.8	2,732,248	347.4	220.6
1984 Year	684,111	166.4	193,832	481.2	202,372	486.3	2,878,808	360.3	219.1
1985 Year	666,743	164.8	156,410	424.4	164,947	431.7	2,808,921	344.4	209.4
1986 Year	686,964	157.9	220,585	240.1	228,522	243.7	2,387,622	235.1	175.0
1987 Year 1988 Year	721,298 727,775	150.6 146.6	187,300 230,234	297.6 240.5	194,578 236,924	301.1 243.9	2,605,191 2,362,721	224.0 226.3	170.6 164.3
1989 Year	753,217	144.5	237,668	284.6	246,422	289.3	2,472,506	235.5	167.5
1990 Year	786,627	145.5	202,281	331.9	209,350	338.4	2,490,979	232.1	168.9
1991 Year	769,923	144.7	163,106	246.5	169,625	254.8	2,630,818	215.3	160.3
1992 Year	775,963	141.2	138,537	247.5	144,390	255.1	2,637,678	232.8	159.0
1993 January	65,219	138.5	8,437	248.7	9,027	259.1	159,320	267.3	156.2
February	59,225	139.3	7,002	254.1	7,421	263.8	153,537	250.7	155.6
March	63,957	137.5	8,548	248.6	9,022	258.8	185,876	256.7	156.4
April	63,814 62,568	139.3 140.0	10,074 10,378	280.0 262.7	10,534 10.803	286.5 269.3	169,838 163.917	268.9 286.3	159.9 161.7
May June	63,702	139.0	10,638	245.8	11,149	254.2	244,015	243.2	159.9
July	59,853	138.0	15,424	237.3	16,045	243.3	313,392	240.9	164.5
August	65,843	137.4	15,099	227.0	15,624	232.2	340,505	252.6	165.1
September	65,357	138.5	15,324	226.1	15,766	231.0	250,296	263.6	162.8
October	67,123	140.5	13,596	231.0	14,005	236.6	226,238	241.3	159.1
November	65,938	138.4	10,868	218.0	11,420	227.3	201,903	254.0	156.9
December Year	66,552 <b>769,152</b>	136.2 <b>138.5</b>	16,331 <b>141,719</b>	198.8 <b>236.2</b>	17,085 <b>147,902</b>	205.5 <b>243.3</b>	165,685 <b>2,574,523</b>	272.4 <b>256.0</b>	154.9 <b>159.5</b>
			,		,				
1994 January	62,611 64,409	135.9 136.8	16,700	228.6 266.2	17,781 17,543	238.0 274.4	160,361	261.5 273.5	156.7 159.0
February March	72,960	135.9	16,554 12,796	200.2	13,318	274.4	142,783 179,910	273.5	159.0
April	67,380	138.1	9,904	213.1	10,400	220.9	199,349	238.2	153.6
May	71,130	138.3	13,291	224.8	13,892	231.3	211,907	240.6	155.2
June	70,066	137.4	13,461	237.3	14,333	246.1	302,900	219.2	156.4
July	67,619	135.3	14,215	263.2	14,771	267.9	347,984	221.9	158.9
August	75,308	135.4	11,135	256.9	11,562	262.1	360,874	210.3	153.8
September	69,922	135.8	8,495	232.5	8,966	240.2	283,747	195.7	148.8
October	69,323	134.8	4,689	239.8	5,187	253.9	252,845	191.6	145.6
November December	68,846 72,354	133.3 129.7	6,313 7,630	245.2 258.1	6,852 8,336	256.9 268.6	221,118 200,126	206.8 213.9	146.3 143.8
Year	831,929	135.5	135,184	230.1 240.9	142,940	200.0 248.8	2,863,904	213.9 223.0	152.6
1995 January	69,981	132.9	5,565	273.1	6,114	282.7	188,389	209.2	145.2
February	65,789	133.4	6,150	256.2	6,535	263.1	163,598	197.0	143.6
March	69,027	133.8	5,040	259.0	5,451	267.6	233,406	189.0	144.3
April	66,167	133.7	2,849	266.2	3,222	280.4	222,405	194.5	144.1
May	68,501	133.7	5,864	279.2	6,212	286.0	247,211	201.9	147.3
June	64,483	133.3	8,476	274.8	9,083	282.4	281,754	202.6	150.3
July	67,734 73,242	130.3 130.9	8,367 9,284	251.3 237.0	8,838 10,022	257.7 247.6	376,164 424,323	185.6 179.1	146.0 145.0
August September	70,923	130.9	9,284 9,036	237.0	9,432	241.3	424,323 302,769	189.2	145.0
9 Months	615,846	132.6	<b>60,630</b>	256.5	64,909	264.8	2,440,018	192.2	145.7
1994 9 Months 1993 9 Months	621,406	136.5	116,551	239.6	122,566	246.8	2,189,816	229.1	155.0
	569,540	138.6	100,923	244.9	105,391	252.1	1,980,696	256.6	160.4

<sup>a</sup> Includes supplemental gaseous fuels. <sup>b</sup> Heavy oil includes fuel oil nos. 4, 5, and 6, and topped crude oil. The weighted averages for petroleum and all fossil fuels include both heavy and light oil (fuel oil nos. 1 and 2, kerosene, and jet fuel) prices. Data do not include petroleum coke.

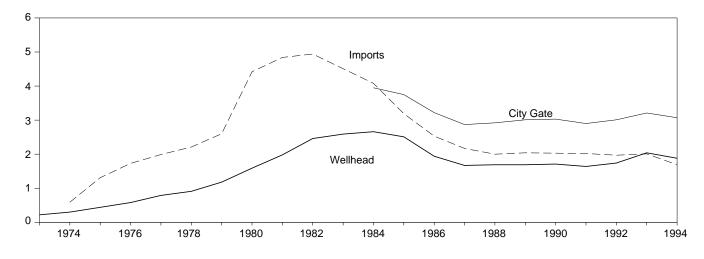
<sup>c</sup> Data for 1973-1982 do not include small quantities of rerefined motor oil, bunker oil, and liquefied petroleum gas.
 Notes: • See Note 8 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

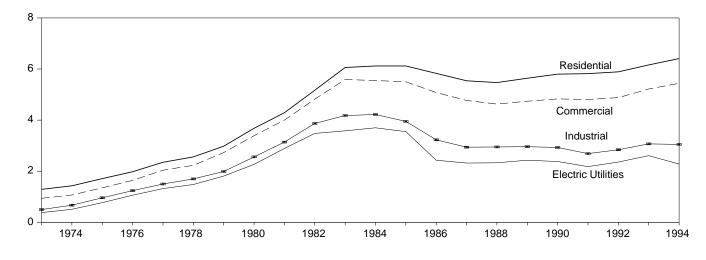
## Figure 9.4 Natural Gas Prices

(Dollars per Thousand Cubic Feet)

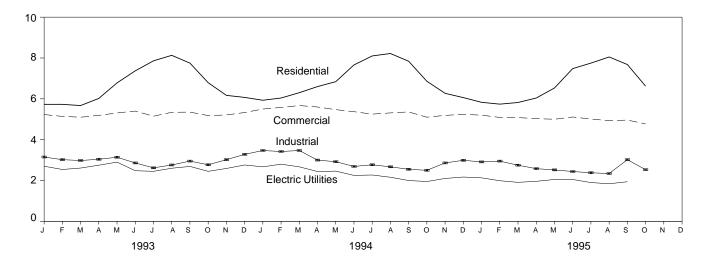
Selected Prices, 1973-1994



### Delivered to Consumers, 1973-1994



Delivered to Consumers, Monthly



Note: Because vertical scales differ, graphs should not be compared. Source: Table 9.11.

#### Table 9.11 Natural Gas Prices

(Prices: Dollars per Thousand Cubic Feet; Share of Volume Delivered: Percentage)

				Commercial		Inc		
	Wellhead	City Gate	Residential	Price	Share of Total Volume Delivered	Price	Share of Total Volume Delivered	Electric Utilities <sup>c</sup>
73 Average	0.22	NA	1.29	0.94	NA	0.50	NA	0.38
974 Average	.30	NA	1.43	1.07	NA	.67	NA	.51
975 Average	.44	NA	1.71	1.35	NA	.96	NA	.77
76 Average	.58	NA	1.98	1.64	NA	1.24	NA	1.06
977 Average	.79	NA	2.35	2.04	NA	1.50	NA	1.32
78 Average	.91	NA	2.56	2.23	NA	1.70	NA	1.48
979 Average	1.18	NA	2.98	2.73	NA	1.99	NA	1.81
80 Average	1.59	NA	3.68	3.39	NA	2.56	NA	2.27
981 Average	1.98	NA	4.29	4.00	NA	3.14	NA	2.89
982 Average	2.46	NA	5.17	4.82	NA	3.87	85.1	3.48
983 Average	2.59	NA	6.06	5.59	NA	4.18	80.7	3.58
84 Average	2.66	3.95	6.12	5.55	NA	4.22	74.7	3.70
85 Average	2.51	3.75	6.12	5.50	NA	3.95	68.8	3.55
986 Average	1.94	3.22	5.83	5.08	NA	3.23	59.8	2.43
87 Average	1.67	2.87	5.54	4.77	93.1	2.94	47.4	2.32
988 Average	1.69	2.92	5.47	4.63	90.8	2.95	42.6	2.33
089 Average	1.69	3.01	5.64	4.74	89.1	2.96	36.9	2.43
90 Average	1.71	3.03	5.80	4.83	86.6	2.93	35.2	2.38
991 Average	1.64	2.90	5.82	4.81	85.1	2.69	32.7	2.18
992 Average	1.74	3.01	5.89	4.88	83.2	2.84	30.3	2.36
<b>193</b> January	2.03	3.11	5.73	5.23	86.6	3.15	32.6	2.70
February	1.93	2.94	5.73	5.14	86.3	3.02	32.9	2.54
March	2.00	3.06	5.67	5.10	86.4	2.98	32.0	2.61
April	2.06	3.24	6.02	5.19	84.9	3.04	30.7	2.75
May	2.18	3.58	6.78	5.31	82.2	3.14	29.6	2.90
June	1.98	3.44	7.37	5.40	79.0	2.86	27.4	2.48
July	1.99	3.34	7.86	5.15	79.2	2.62	28.3	2.45
August	2.04	3.35	8.13	5.34	78.0	2.76	27.6	2.60
September	2.09	3.54	7.75	5.35	78.3	2.95	27.0	2.69
October	2.02	3.15	6.79	5.18	79.9	2.77	28.1	2.45
November	2.03	3.15	6.17	5.21	83.0	3.02	29.8	2.59
December	2.15	3.27	6.07	5.33	85.1	3.28	29.5	2.76
Average	2.04	3.21	6.16	5.22	83.9	3.07	29.7	2.61
<b>94</b> January	2.00	3.04	5.93	5.50	83.8	3.47	27.6	2.67
February	1.88	3.26	6.04	5.58	83.9	3.42	29.7	2.80
March	1.86	3.33	6.30	5.67	83.0	3.47	28.3	2.67
April	1.94	3.15	6.60	5.60	78.8	3.00	26.8	2.44
May	1.87	3.17	6.84	5.47	74.1	2.92	25.5	2.46
June	1.84	3.17	7.66	5.37	70.0	2.69	23.3	2.25
July	1.80	3.12	8.10	5.25	68.8	2.77	24.0	2.27
August	2.02	3.15	8.22	5.31	71.8	2.67	23.6	2.16
September	1.90	2.92	7.84	5.36	72.2	2.55	22.2	2.00
October	1.81	2.80	6.86	5.10	74.0	2.50	23.9	1.95
November	1.72	2.84	6.27	5.19	77.9	2.86	24.1	2.10
December	1.84	2.86	6.06	5.24	82.3	2.99	25.7	2.17
Average	1.88	3.07	6.41	5.44	79.3	3.05	25.5	2.28
995 January	1.65	2.79	5.83	5.20	80.6	2.91	25.4	2.13
February	1.46	2.71	5.74	5.09	81.1	2.95	24.8	1.99
March	1.48	2.74	5.82	5.08	80.4	2.75	24.6	1.91
April	1.48	2.70	6.04	5.03	76.4	2.58	23.6	1.96
May	1.63	2.75	6.53	5.00	70.3	2.52	22.1	2.05
June	1.66	2.90	7.48	5.11	70.5	2.44	22.9	2.05
July	1.45	2.90	7.75	5.01	64.7	2.38	21.0	1.90
August	1 37	2.89	8.05	4.93	62.2	2.34	20.8	1 84
September	<sup>R</sup> 1.56	2.87	7.68	4.96	59.7	3.02	19.5	<sup>R</sup> 1.94
October	<sup>E</sup> 1.67	2.88	6.62	4.77	65.4	2.53	18.5	NA
10-Month Average	<sup>E</sup> 1.54	2.79	6.22	5.06	74.4	2.66	22.3	NA
94 10-Month Average	1.89 2.03	3.13 3.21	6.48 6.18	5.49 5.20	79.0 83.8	3.00	25.3 29.3	2.30 2.60

a Includes supplemental gaseous fuels.
 b See Note 9 at end of section.
 c See Note 8 at end of section.

R=Revised data. NA=Not available. E=Estimate.

Notes: • Prices shown on this page are intended to include all taxes. See

Note 9 at end of section. • Wellhead annual and year-to-date prices are simple averages of the monthly prices; all other annual and year-to-date prices are volume-weighted averages of the monthly prices. • Geographic coverage is the 50 States and the District of Columbia.

## **Energy Prices Notes**

**1.** The average domestic first purchase price represents the average price at which all domestic crude oil is purchased. Prior to February 1976, the price represented an estimate of the average of posted prices; beginning with February 1976, the price represents an average of actual first purchase prices. The data series was previously called "Actual Domestic Wellhead Price."

**2.** F.O.B. 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.

**3.** 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 that 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.

4. Beginning with January 1981, refiner acquisition costs of crude oil are from data collected on Energy Information Administration (EIA) Form EIA-14, "Refiners' Monthly Cost Report." Those costs were previously published from data collected on Economic Regulatory Administration (ERA) Form ERA-49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report." Form ERA-49 was discontinued with the decontrol of crude oil on January 28, 1981. Crude oil purchases and costs are defined for Form EIA-14 in accordance with conventions used for Form ERA-49. The respondents for the two forms are also essentially the same. However, due to possible different interpretations of the filing requirements and a different method for handling prior period adjustments, care must be taken when comparing the data collected on the two forms.

The refiner acquisition cost of crude oil is the average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1331. Imported crude oil is either that oil reported on Form ERA-51, "Transfer Pricing Report," or any crude oil that is not domestic oil. The composite cost is the weighted average of domestic and imported crude oil costs.

Crude oil costs and volumes reported on Form ERA-49 excluded unfinished oils but included the Strategic Pe-

troleum Reserve (SPR). Crude oil costs and volumes reported on Federal Energy Administration (FEA) Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report," included unfinished oils but excluded SPR. Imported averages derived from Form ERA-49 exclude oil purchased for SPR, whereas the composite averages derived from Form ERA-49 include SPR. None of the prices derived from Form EIA-14 include either unfinished oils or SPR.

**5.** Several different series of motor gasoline prices are published in this section. U.S. City average retail prices of motor gasoline are calculated monthly by the Bureau of Labor Statistics during the development of the Consumer Price Index (CPI). These prices include all Federal, State, and local taxes paid at the time of sale. From 1974-1977, prices were collected in 56 urban areas. From 1978 forward, prices were collected from a new sample of service stations 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).

Refiner prices of finished motor gasoline for resale and to end users are determined by the EIA in a monthly survey of refiners and gas plant operators (Form EIA-782A). The prices do not include any Federal, State, or local taxes paid at the time of sale. Estimates of prices prior to January 1983 are based on Form FEA-P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices," and also exclude all Federal, State, or local taxes paid at the time of sale. Sales for resale are those made to purchasers who are other-than-ultimate consumers. Sales to end users are sales made directly to the consumer of the product, including bulk consumers (such as agriculture, industry, and utilities) and residential and commercial consumers.

6. Starting in January 1983, Form EIA-782, "Monthly Petroleum Product Sales Report," replaced 10 previous surveys. Every attempt was made to continue the most important price series. However, prices published through December 1982 and those published since January 1983 do not necessarily form continuous data series due to changes in survey forms, definitions, instructions, populations, samples, processing systems, and statistical procedures. To provide historical data, continuous series were generated for annual data 1978-1982 and for monthly data 1981 and 1982 by estimating the prices that would have been published had Form EIA-782 survey and system been in operation at that time. This form of estimation was performed after detailed adjustment was made for product and sales type matching and for discontinuity due to other factors. An important difference between the previous and present prices is the distinction between wholesale and resale and between retail and end user. The resale category continues to sales among resellers. However, sales to bulk consumers, such as utility, industrial, and commercial accounts previously included in the wholesale category are now counted as made to end users. The end-user category continues to include retail sales through company owned and operated outlets but also includes sales to the bulk consumers such as agriculture, industry, and electric utilities. Additional information may be found in "Estimated Historic Time Series for the EIA-782," a feature article reprinted from the December 1983 [3] *Petroleum Marketing Monthly*, published by EIA.

7. National average electricity prices are shown in two data series. The "Annual Series" is based on data from publicly and privately owned electric utilities that report on Form EIA-861, "Annual Electric Utility Report." The "Monthly Series" is based on data from over 250 utilities statistically chosen as a sample of the utilities that report on Form EIA-861. The selected utilities report monthly on Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions," formerly the "Electric Utility Company Monthly Statement." Annual values shown for the monthly series are the sum of the monthly revenue divided by the sum of the monthly sales. Prior to January 1986, only privately owned utilities were included in the monthly survey and the sample was chosen by using cut-off techniques; from January 1986 through 1992, the sample was chosen using stratification techniques.

8. Data for 1973-1982 cover all electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 25 megawatts or greater. From 1974-1982, peaking units were included in the data and counted towards the 25-megawatt-or-greater total. Data for 1983-1990 cover all electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. Data for 1991 forward cover all electric generating plants at which the generator nameplate capacity of all steam-electric units at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50 megawatts or greater.

**9**. Natural gas prices are intended to include all taxes. Instructions on the data collection forms specifically direct that all Federal, State, and local taxes, surcharges, and/or adjustments billed to consumers are to be included. However, sales and other taxes itemized on more than 3,000 consumers' bills are sometimes excluded by the reporting utilities. Delivered-to-consumers prices for 1987 forward represent natural gas delivered and sold to residential, commercial, industrial, and electric utility consumers. They do not include the price of natural gas delivered to industrial and commercial consumers on behalf of third parties. Volumes of natural gas delivered on behalf of third parties are included in the consumption data shown in Table 4.4. Additional information is available in the EIA*Natural Gas Monthly*, Appendix C.

### Sources for Table 9.1

#### **Domestic First Purchase Price**

**1973-1976:** U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*, "Crude Petroleum and Petroleum Products" chapter. **1977:** Federal Energy Administration (FEA), based on Form FEA-P124, "Domestic Crude Oil Purchaser's Monthly Report."

**1978 forward:** Energy Information Administration (EIA), *Petroleum Marketing Monthly*, January 1996, Table 1.

#### F.O.B. and Landed Cost of Imports

**October 1973-September 1977:** Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report."

**October-December 1977:** EIA, Form FEA-F701-M-0, "Transfer Pricing Report."

**1978 forward:** EIA, *Petroleum Marketing Monthly*, January 1996, Table 1.

#### **Refiner Acquisition Cost**

**1973:** EIA estimates. The domestic price was derived by adding estimated transportation costs to the reported domestic first purchase price. The imported price was derived by adding an estimated ocean transport cost to the average "Free Alongside Ship" value published by the U.S. Bureau of the Census.

**1974-1976:** DOI, BOM, *Minerals Yearbook*, "Crude Petroleum and Petroleum Products" chapter.

**1977:** January-September, FEA, based on Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report." October-December, EIA, based on Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report."

**1978 forward:** EIA, *Petroleum Marketing Monthly*, January 1996, Table 1.

### Sources for Table 9.9

#### **Monthly Series**

**1973-September 1977:** Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."

**October 1977-February 1980:** Federal Energy Regulatory Commission (FERC), Form FERC-5, "Electric Operating Revenue and Income."

March 1980-December 1980: FERC, Form FERC-5, "Electric Utility Company Monthly Statement." **1981:** Energy Information Administration (EIA) *Electric Power Monthly*, March 1992, Table 59. **1982:** EIA, *Electric Power Monthly*, March 1993 Table 59.

**1983:** EIA, *Electric Power Monthly*, March 1994, Table 59.

**1984 (and 1993 monthly data):** EIA, *Electric Power Monthly*, March 1995, Table 60.

**1985 forward (except 1993 monthly data):** EIA, *Electric Power Monthly*, January 1996, Table 60.

#### **Annual Series**

**1973-1993:** EIA, *Electric Power Monthly*, January 1996, Table 60.

#### Sources for Table 9.10

**1973-1979:** Annual data for quantity are simple sums of unrounded monthly values and for cost are averages of monthly values, weighted by quantities of Btu, from the following:

**1973-May 1977:** Federal Power Commission, Form FPC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants."

June 1977-December 1977: Federal Energy Regulatory Commission, Form FERC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants." 1978 and 1979: Energy Information Administration (EIA), Form FERC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants."

- **1980:** EIA, *Electric Power Monthly*, April 1991, Table 33.
- **1981:** EIA, *Electric Power Monthly*, April 1992, Table 33.
- **1982:** EIA, *Electric Power Monthly*, April 1993, Table 33.
- **1983:** EIA, *Electric Power Monthly*, April 1994, Table 34.

**1984 forward**: EIA, *Electric Power Monthly*, January 1996, Table 34.

#### Sources for Table 9.11

#### 1973-1988

Wellhead: Energy Information Administration (EIA), *Natural Gas Annual 1994, Volume 1*, Table 99.

City Gate, 1984-1986: EIA, Natural Gas Monthly, December 1989, Table 4.

City Gate, 1987-1988: EIA, *Natural Gas Monthly*, December 1994, Table 4.

**Delivered to Consumers, 1973-1988:** EIA, *Natural Gas Annual 1994, Volume 1,* Table 102.

#### 1989 forward

EIA, Natural Gas Monthly, January 1996, Table 4.

## Section 10. International Energy

**Crude Oil Production.** World crude oil production during October 1995 was 63 million barrels per day, down 0.2 million barrels per day from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during October 1995 averaged 27 million barrels per day, up 0.3 million barrels per day from the level during the previous month. Production by the Arab members of OPEC in October 1995 averaged 16 million barrels per day, up slightly from the September 1995 level. During October 1995, production increased in Kuwait by 30 thousand barrels per day. Production remained unchanged in Algeria, Iraq, Libya, Qatar, Saudi Arabia, and the United Arab Emirates. Among the non-Arab members of OPEC, production during October 1995 increased in Iran by 100 thousand barrels per day, in both Indonesia and Venezuela by 50 thousand barrels per day.

Among the non-OPEC nations, production during October 1995 increased in the United Kingdom by 85 thousand barrels per day, the United States by 49 thousand barrels per day, the former U.S.S.R. by 26 thousand barrels per day, and Canada by 20 thousand barrels per day. Due to hurricanes in the month of October, production losses in Mexico amounted to 840 thousand barrels per day. Production remained the same in Ecuador and China.

**Petroleum Consumption.** In August 1995, consumption in all Organization for Economic Cooperation and Development (OECD) countries was 40.1 million barrels per day, slightly higher than the August 1994 rate. The consump-

tion rate was higher than it was 1 year ago in France, Italy, and the United Kingdom (all +3 percent)<sup>9</sup>, and Canada and Germany (both +1 percent). The consumption rate was lower in Japan and the United States (both -1 percent), compared with the rate 1 year earlier.

**Petroleum Stocks.** For all OECD countries, petroleum stocks at the end of August 1995 totaled 3.7 billion barrels, slightly lower than the ending stock level in August 1994. Stock levels were higher in Canada (+9 percent), Italy (+8 percent), and Japan (+6 percent). Stocks were lower in the United Kingdom (-6 percent), the United States (-3 percent), and France and Germany (both -2 percent), compared with levels 1 year earlier.

**Nuclear Electricity Generation.** Based on *Nucleonics Week* information for October 1995, all reporting countries with nuclear capacity generated 182.6 gross terawatthours<sup>10</sup> of nuclear-generated electricity.

During the first 10 months of 1995, three nuclear units became operable: Kakrapar-2 in India during January; Sizewell-B in the United Kingdom during February; and Onagawa-2 in Japan during March. One unit was permanently shutdown: Wuergassen, in Germany during June.

As of October 31, 1995, there were 434 operable nuclear generating units in the world.

<sup>&</sup>lt;sup>9</sup> Percentage changes are based on unrounded data.

<sup>&</sup>lt;sup>10</sup>One terawatthour equals 1 billion kilowatthours.

#### Table 10.1a World Crude Oil Production: Algeria Through Venezuela

(Thousand Barrels per Day)

								United					
		Algeria	Iraq	Kuwait <sup>a</sup>	Libya	Qatar	Saudi Arabia <sup>a</sup>	Arab Emirates	Arab OPEC <sup>b</sup>	Indonesia	Iran	Nigeria	Venezuela
1072 Averag	•	1,097	2,018	2 0 2 0	2,175	570	7 506	4 522	18,009	1 220	5,861	2,054	2 266
1973 Averag 1974 Averag		1,097	2,018	3,020 2,546	1,521	570	7,596 8,480	1,533 1,679	18,009	1,339 1,375	6,022	2,054 2,255	3,366 2,976
1975 Averag		983	2,262	2,040	1,480	438	7,075	1,664	15,985	1,307	5,350	1,783	2,346
1976 Averag		1,075	2,415	2,145	1,933	497	8,577	1,936	18,579	1,504	5,883	2,067	2,294
1977 Averag		1,152	2,348	1,969	2,063	445	9,245	1,999	19,221	1,686	5,663	2,085	2,238
1978 Averag		1,231	2,563	2,131	1,983	487	8,301	1,831	18,525	1,635	5,242	1,897	2,165
1979 Averag		1,224	3,477	2,500	2,092	508	9,532	1,831	21,163	1,591	3,168	2,302	2,356
1980 Averag	е	1,106	2,514	1,656	1,787	472	9,900	1,709	19,144	1,577	1,662	2,055	2,168
1981 Averag	е	1,002	1,000	1,125	1,140	405	9,815	1,474	15,961	1,605	1,380	1,433	2,102
1982 Averag	е	987	1,012	823	1,150	330	6,483	1,250	12,035	1,339	2,214	1,295	1,895
1983 Averag		968	1,005	1,064	1,105	295	5,086	1,149	10,672	1,343	2,440	1,241	1,801
1984 Averag		1,014	1,209	1,157	1,087	394	4,663	1,146	10,670	1,412	2,174	1,388	1,798
1985 Averag		1,037	1,433	1,023	1,059	301	3,388	1,193	9,434	1,325	2,250	1,495	1,677
1986 Averag		945	1,690	1,419	1,034	308	4,870	1,330	11,596	1,390	2,035	1,467	1,787
1987 Averag		1,048	2,079	1,585	972 1 175	293 346	4,265	1,541 1,565	11,783 13,389	1,343 1,342	2,298	1,341 1,450	1,752 1,903
1988 Averag 1989 Averag		1,040 1,095	2,685 2,897	1,492 1,783	1,175 1,150	346	5,086 5,064	1,860	13,389	1,342	2,240 2,810	1,450	1,903
1990 Averag		1,175	2,097	1,175	1,375	406	5,004 6,410	2,117	14,698	1,462	3,088	1,810	2,137
1991 Averag		1,230	305	190	1,483	395	8,115	2,386	14,104	1,592	3,312	1,892	2,375
1992 Averag		1,214	425	1,058	1,433	423	8,332	2,266	15,151	1,504	3,429	1,943	2,371
1993 January	·	1,210	500	1,675	1,480	456	8,500	2,244	16,065	1,572	3,650	2,125	2,484
Februar		1,210	500	1,865	1,425	436	8,440	2,254	16,130	1,552	3,750	2,105	2,464
March .		1,200	500	1,650	1,350	406	8,300	2,219	15,625	1,521	3,700	2,075	2,412
April		1,200	500	1,645	1,350	406	8,000	2,219	15,320	1,501	3,500	2,025	2,412
May		1,200	500	1,712	1,350	426	8,000	2,180	15,369	1,531	3,650	2,025	2,412
June		1,200	500	1,775	1,350	406	8,150	2,180	15,561	1,531	3,650	1,995	2,412
July		1,180	500	1,940	1,350	416	8,240	2,161	15,786	1,531	3,800	1,975	2,464
August Septem		1,180 1,180	500 530	2,045 2,020	1,370 1,370	416 416	8,345 8,270	2,161 2,170	16,016 15,956	1,531 1,531	3,500 3,650	2,025 2,045	2,464 2,453
October		1,180	530	2,020	1,370	416	8,145	2,170	15,876	1,501	3,700	2,045	2,433
Novemb		1,170	540	2,045	1,330	416	7,995	2,170	15,706	1,501	3,550	2,005	2,474
Decemb		1,170	540	2,050	1,370	416	8,000	2,170	15,716	1,531	3,700	2,175	2,474
Averag		1,190	512	1,872	1,377	419	8,198	2,191	15,759	1,528	3,650	2,050	2,450
1994 January		1,170	545	1,995	1,370	445	8,095	2,250	15,870	1,510	3,635	2,200	2,490
Februar		1,170	545	1,998	1,370	430	8,088	2,275	15,875	1,510	3,585	2,200	2,490
March .		1,170	545	2,005	1,370	445	8,095	2,250	15,880	1,510	3,685	2,150	2,490
April		1,170	555	2,020	1,370	445	8,110	2,250	15,920	1,510	3,535	2,070	2,480
May		1,170	555	2,050	1,370	445	8,090	2,260	15,940	1,510	3,585	2,100	2,500
June		1,170	555 555	2,050 2,050	1,370	455 475	8,090 8 100	2,280 2,280	15,970 16,010	1,510 1,510	3,685 3,585	2,090 1,990	2,500 2,520
July August		1,170 1,170	555	2,050 2,050	1,380 1,390	475 435	8,100 8,120	2,280 2,280	16,010	1,510 1,530	3,585 3,635	1,990	2,520 2,540
Septem		1,170	555	2,050	1,390	435	8,120	2,280	16,050	1,510	3,685	2,010	2,540
October		1,170	555	2,030	1,390	385	8,245	2,240	16,030	1,520	3,635	2,010	2,540
Novemb		1,170	555	2,045	1,390	455	8,245	2,240	16,100	1,520	3,735	1,980	2,540
Decemb		1,170	555	2,050	1,390	465	8,300	2,270	16,200	1,520	3,635	1,965	2,530
Averag	e	1,170	553	2,034	1,378	444	8,147	2,263	15,988	1,514	3,635	2,037	2,514
1995 January		1,180	555	2,070	1,390	455	8,120	2,280	16,050	1,520	3,585	2,000	2,600
Februar		1,180	555	2,070	1,390	475	8,220	2,280	16,170	1,500	3,685	1,980	2,600
March .		1,180	555	2,060	1,390	485	8,110	2,280	16,060	1,510	3,485	1,890	2,600
April		1,180	555 555	2,070	1,390	485 485	8,220 8,400	2,280 2,280	16,180 16,340	1,510 1,510	3,635	2,050 2,080	2,670 2,790
May June		1,180 1,180	555	2,050 2,050	1,390 1,390	485 485	8,400 8,100	2,280 2,280	16,340	1,510 1,510	3,835 3,585	2,080	2,790 2,790
July		1,180	555	2,050	1,390	485	8,410	2,280	16,390	1,510	3,535	1,980	2,790
August		1,210	555	2,000	1,390	485	8,425	2,280	16,420	1,510	3,685	2,035	2,790
Septem		1,210	555	2,075	1,390	485	8,315	2,280	16,270	1,510	3,635	2,033	2,790
October		1,210	555	2,065	1,390	485	8,315	2,280	16,300	1,560	3,735	2,040	2,840
10-Mo.		1,192	555	2,060	1,390	481	8,264	2,280	16,223	1,515	3,640	2,008	2,727
1994 10-Mo.		1,170	552	2,031	1,375	441	8,122	2,264	15,955	1,513	3,625	2,050	2,509
1993 10-Mo.	Ava.	1,194	506	1,837	1,378	420	8,238	2,195	15,768	1,530	3,655	2,040	2,445

<sup>a</sup> Includes about one-half of the production in the Kuwait-Saudi Arabia Neutral Zone from 1973 through July 1990 and in June 1991. Kuwaiti Neutral Zone output was discontinued following Iraq's invasion of Kuwait on August 2, 1990, but was resumed in June 1991. In October 1995, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 430 thousand barrels per day. <sup>b</sup> The Arab members of the Organization of Petroleum Exporting Countries

(OPEC) are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United

Arab Emirates. Production in the Neutral Zone between Kuwait and Saudi Arabia is included in "Arab OPEC."

Notes: • Crude oil includes lease condensate but excludes natural gas plant liquids. . Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Sources: See end of section.

## Table 10.1b World Crude Oil Production: Total OPEC, Ecuador Through Former U.S.S.R., and World

(Thousand Barrels per Day)

	Total OPEC <sup>a</sup>	Ecuador <sup>a</sup>	Persian Gulf Nations <sup>b</sup>	Canada	China	Mexico	United Kingdom	United States	Former U.S.S.R.	Other <sup>c</sup>	World	
4070 4	~~		~~ ~~~	4	4 000	105	•				FF 070	
1973 Average	30,779	209	20,668	1,798	1,090	465	2	9,208	8,324	3,804	55,679	
1974 Average	30,552	177	21,282	1,551	1,315	571	2	8,774	8,912	3,862	55,716	
1975 Average	26,994	161	18,934	1,430	1,490	705	12	8,375	9,523	4,139	52,828	
1976 Average	30,549	188	21,514	1,314	1,670	831	245	8,132	10,060	4,355	57,344	
1977 Average	31,115	183	21,725	1,321	1,874	981	768	8,245	10,603	4,616	59,707	
1978 Average	29,673	202 214	20,606	1,316	2,082	1,209	1,082	8,707	11,105	4,782	60,158	
1979 Average	30,784	214	21,066	1,500	2,122	1,461	1,568 1,622	8,552	11,384	5,089	62,674	
1980 Average	26,781		17,961	1,435	2,114	1,936	,	8,597	11,706	5,204	59,599	
1981 Average	22,632 18,934	211 211	15,245 12,156	1,285 1,271	2,012 2,045	2,313 2,748	1,811 2,065	8,572 8,649	11,850 11,912	5,390 5,646	56,076 53,481	
1982 Average	17,654	237	11,081	1,356	2,045	2,689	2,003	8,688	11,972	6,248	53,255	
1983 Average	17,599	258	10,784	1,438		2,009	2,480	8,879	11,861	6,897	54,488	
1984 Average	16,353	256	9,630	1,430	2,296 2,505	2,780	2,480	8,971	11,585	0,097 7,540	53,981	
1985 Average	18,441	201	9,630 11,696	1,471	2,505	2,745	2,530	8,680	11,895	7,340	56,227	
1986 Average	18,672	174	12,103	1,535	2,620	2,435	2,539	8,349	12,050	8,242	56,666	
1987 Average 1988 Average	20,483	302	13,457	1,616	2,030	2,540	2,400	8,140	12,050	8,669	58,737	
	22,279	279	14,837	1,560	2,757	2,512	1,802	7,613	11,715	9,338	59,863	
1989 Average 1990 Average	23,465	285	15,278	1,553	2,774	2,553	1,820	7,355	10,975	9,785	60,566	
1991 Average	23,569	205	14,741	1,548	2,835	2,680	1,797	7,417	9,992	10,074	60,210	
1992 Average	24,695	318	16,104	1,598	2,838	2,668	1,825	7,171	8,931	10,169	60,213	
1993 January	26,213	330	17,066	1,572	2,885	2,605	1,821	6,961	8,249	10,478	61,113	
February		330	17,285	1,612	2,805	2,603	1,931	6,943	8,233	10,478	61,468	
March		330	16,816	1,637	2,885	2,635	1,715	6,974	8,127	10,782	60,736	
April	,	330	16,311	1,607	2,900	2,674	1,701	6,881	8,106	10,750	60,024	
May		345	16,509	1,662	2,925	2,673	1,751	6,847	7,926	10,781	60,213	
June	- /	350	16,702	1,727	2,960	2,675	1,680	6,795	7,826	10,460	59,939	
July		350	17,097	1,712	2,930	2,650	1,936	6,688	7,530	10,874	60,533	
August	25,843	350	17,007	1,772	2,855	2,650	1,946	6,758	7,429	10,748	60,351	
September	,	350	17,097	1,742	2,895	2,700	1,951	6,712	7,313	10,764	60,368	
October		360	17,047	1,727	2,975	2,700	2,067	6,839	7,308	10,987	60,824	
November	25,563	360	16,757	1,677	2,945	2,730	2,202	6,912	7,313	11,179	60,879	
December	25,903	360	16,917	1,712	2,898	2,745	2,277	6,858	7,281	11,237	61,270	
Average	25,748	346	16,883	1,680	2,911	2,671	1,915	6,847	7,717	10,806	60,640	
1994 January	25,995	360	17,000	1,669	2,900	2,745	2,280	6,817	6,985	11,114	60,864	
February		360	16,955	1,722	2,920	2,710	2,280	6,770	6,715	11,270	60,697	
March	,	360	17,060	1,706	2,920	2,685	2,315	6,746	6,660	11,190	60,608	
April		365	16,950	1,671	2,940	2,700	2,340	6,612	6,485	11,200	60,158	
		365	17,020	1,706	2,940	2,690	2,345	6,688	6,635	11,250	60,594	
June	26,095	375	17,150	1,729	2,950	2,675	2,340	6,611	6,650	11,488	60,912	
July	25,955	385	17,080	1,801	2,940	2,675	2,275	6,501	6,540	11,445	60,517	
August		385	17,110	1,790	2,950	2,675	2,315	6,544	6,520	11,535	60,389	
September	26,135	400	17,230	1,817	2,910	2,680	2,475	6,609	6,480	11,515	61,021	
October	26,145	395	17,140	1,735	2,950	2,685	2,435	6,658	6,560	11,950	61,514	
November	26,215	395	17,310	1,778	2,970	2,675	2,485	6,628	6,580	11,960	61,686	
December	26,190	395	17,310	1,793	2,980	2,675	2,605	6,760	6,520	12,094	62,011	
Average	26,017	378	17,110	1,743	2,939	2,689	2,375	6,662	6,611	11,503	60,916	
1995 January	26,090	400	17,100	1,792	2,950	2,680	2,520	<sup>E</sup> 6,596	6,445	12,088	61,561	
February	26,270	400	17,320	1,774	3,000	2,645	2,610	<sup>E</sup> 6,703	6,655	12,013	62,071	
March	25,880	400	17,010	1,739	3,000	2,670	2,565	<sup>E</sup> 6,606	6,445	12,124	61,429	
April	26,380	400	17,280	1,811	3,000	2,670	2,570	<sup>E</sup> 6,561	6,550	12,230	62,172	
May	26,890	400	17,640	1,754	2,980	2,680	2,305	<sup>E</sup> 6,572	6,655	11,919	62,155	
June		390	17,090	1,847	2,980	2,700	1,855	<sup>E</sup> 6,540	6,650	12,135	61,317	
July	26,540	ຼ 385	17,360	1,843	_ 2,980	2,705	2,350	<sup>E</sup> 6,449	6,560	_ 12,510	_ 62,322	
August	26,790	<sup>R</sup> 375	17,540	_ 1,805	<sup>R</sup> 3,015	2,710	2,405	<sup>E</sup> 6,462	6,610	<sup>R</sup> 12,292	<sup>R</sup> 62,464	
September	26,595	<sup>R</sup> 390	17,340	<sup>R</sup> 1,840	<sup>R</sup> 3,070	2,740	2,655	<sup>E</sup> 6,380	<sup>R</sup> 6,574	<sup>R</sup> 12,527	<sup>R</sup> 62,771	
October	26,845	390	17,470	1,860	3,070	1,900	2,740	<sup>E</sup> 6,429	6,600	12,785	62,619	
10-Mo. Avg	26,452	393	17,316	1,807	3,004	2,609	2,457	<sup>E</sup> 6,529	6,573	12,264	62,088	
1994 10-Mo. Avg	25,979	375	17,070	1,735	2,932	2,692	2,340	6,655	6,623	11,397	60,728	
1993 10-Mo. Avg	25,751	343	16,892	1,677	2,909	2,657	1,850	6,839	7,801	10,726	60,552	

<sup>a</sup> "Total OPEC" consists of Algeria, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. Production from the Neutral Zone between Kuwait and Saudi Arabia is included in "Total OPEC." Although Ecuador belonged to OPEC from November 19, 1973, until December 31, 1992, when it formally withdrew, it is not included in "Total OPEC." <sup>b</sup> The Persian Gulf Nations are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi and the sum of production in "Total OPEC," Ecuador, Canada, China, Mexico, the United Kingdom, the United States, and the former U.S.S.R. R=Revised data. E=Estimate.

Arabia, and the United Arab Emirates. Production from the Neutral Zone

between Kuwait and Saudi Arabia is included in "Persian Gulf Nations." <sup>c</sup> "Other" is a calculated total derived from the difference between "World"

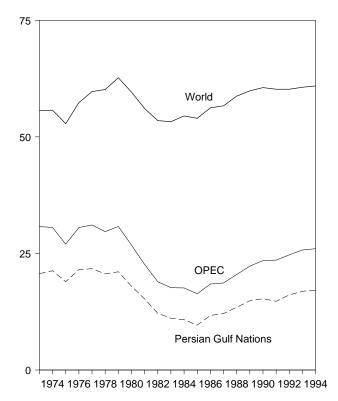
Notes: • Crude oil includes lease condensate but excludes natural gas plant liquids. • Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available. • Data for countries may not sum to World totals due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

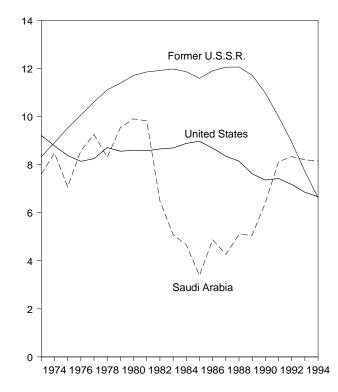
## Figure 10.1 Crude Oil Production

(Million Barrels per Day)

## World Production, 1973-1994

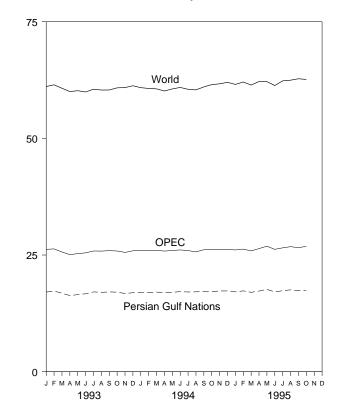


## Leading Producers, 1973-1994

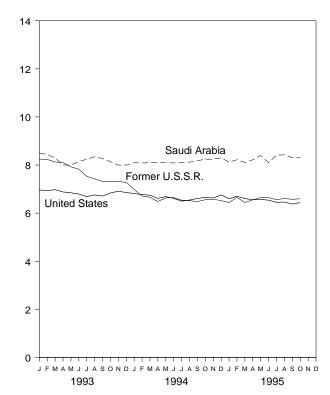


## Note: OPEC is the Organization of Petroleum Exporting Countries. Sources: Tables 10.1a and 10.1b.

## World Production, Monthly

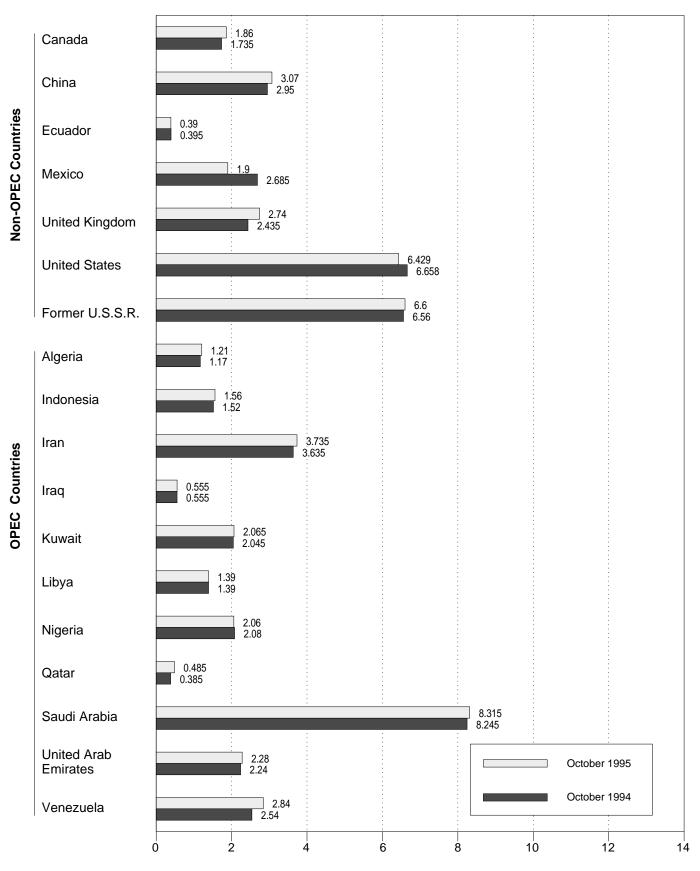


## Leading Producers, Monthly



## Figure 10.2 Crude Oil Production by Selected Country

(Million Barrels per Day)

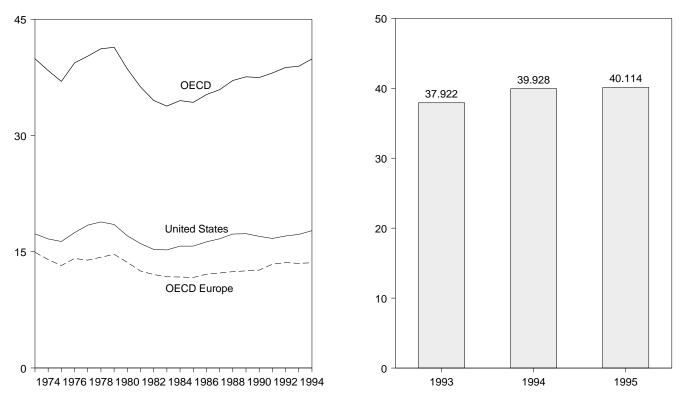


Note: OPEC is the Organization of Petroleum Exporting Countries. Sources: Tables 10.1a and 10.1b.

## Figure 10.3 Petroleum Consumption in OECD Countries

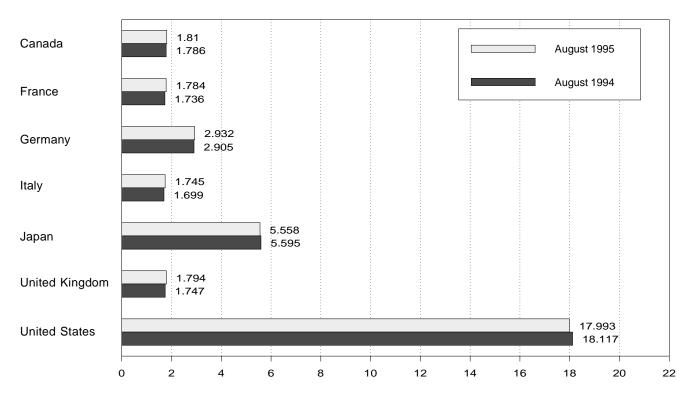
(Million Barrels per Day)

## Overview, 1973-1994



**OECD** Total, August

## By Selected OECD Country



Note: OECD is the Organization for Economic Cooperation and Development. Source: Table 10.2.

#### Energy Information Administration/Monthly Energy Review January 1996

### Table 10.2 Petroleum Consumption in OECD Countries

(Thousand Barrels per Day)

	Conside	<b>F</b>	<b>6</b>	li a ha		United	United	OECD	Other	oropd
	Canada	France	Germany <sup>a</sup>	Italy	Japan	Kingdom	States	Europe <sup>D</sup>	OECD <sup>c</sup>	OECDd
1973 Average	1,729	2,601	3,055	2,068	4,949	2,341	17,308	14,925	988	39,900
1974 Average	1,779	2,447	2,748	2,004	4,864	2,210	16,653	13,988	1,095	38,379
1975 Average	1,779	2,252	2,650	1,855	4,621	1,911	16,322	13,217	1,041	36,980
1976 Average	1,818	2,420	2,877	1,971	4,837	1,892	17,461	14,124	1,119	39,358
1977 Average	1,850	2,294	2,865	1,897	4,880	1,905	18,431	13,916	1,160	40,237
1978 Average	1,902	2,408	2,927	1,952	4,945	1,938	18,847	14,290	1,204	41,187
1979 Average	1,971	2,463	3,003	2,039	5,050	1,971	18,513	14,667	1,178	41,379
1980 Average 1981 Average	1,873 1,768	2,256 2,023	2,707 2,449	1,934 1,874	4,960 4,848	1,725 1,590	17,056 16,058	13,634 12,515	1,072 1,080	38,595 36,269
1982 Average	1,578	1,880	2,372	1,781	4,582	1,590	15,296	12,053	1,008	34,517
1983 Average	1,448	1,835	2,324	1,750	4,395	1,531	15,231	11,765	954	33,793
1984 Average	1,472	1,754	2,322	1,646	4,576	1,849	15,726	11,736	989	34,500
1985 Average	1,504	1,775	2,338	1,717	4,384	1,634	15,726	11,681	976	34,271
1986 Average	1,506	1,772	2,498	1,738	4,439	1,649	16,281	12,102	951	35,279
1987 Average	1,548	1,789	2,424	1,855	4,484	1,603	16,665	12,255	959	35,911
1988 Average	1,693	1,797	2,422	1,836	4,752	1,697	17,283	12,427	939	37,093
1989 Average	1,733	1,857	2,280	1,930	4,983	1,738	17,325	12,531	998	37,570
1990 Average	1,690	1,818	2,382	1,872	5,140	1,752	16,988	12,629	1,027	37,475
1991 Average	1,622 1,643	1,935 1,926	2,828 2,843	1,863 1,937	5,284 5,446	1,801 1,803	16,714 17,033	13,391 13,605	1,056 1,041	38,067 38,768
1992 Average	1,045	1,520	2,045	1,957	3,440	1,005	17,035	13,005	1,041	30,700
1993 January	1,592	1,922	2,530	1,835	5,956	1,729	16,173	12,718	958	37,398
February	1,704	2,103	2,895	1,941	6,306	1,878	17,334	13,904	1,121	40,370
March	1,698	1,981	2,929	1,915	6,252	1,888	17,575	13,915	1,156	40,596
April	1,596	1,901	2,817	1,681	5,459	1,730	16,781	13,019	1,123	37,978
May	1,601 1,706	1,668 1,930	2,587 3,043	1,662 1,709	4,770 4,963	1,676 1,809	16,508 17,096	11,999 13,526	1,147 1,110	36,024 38,401
June July	1,681	1,930	2,965	1,709	4,963	1,809	17,357	13,502	1,053	38,457
August	1,730	1,626	2,893	1,691	4,796	1,792	17,332	12,945	1,120	37,922
September	1,715	1,761	3,163	1,894	4,775	1,845	17,650	13,923	1,096	39,159
October	1,708	1,789	2,814	1,885	4,998	1,803	17,323	13,368	1,109	38,506
November	1,759	2,045	3,057	2,066	5,502	1,983	17,780	14,535	1,125	40,701
December	1,770	1,983	3,123	2,181	6,234	1,846	17,953	14,619	1,290	41,866
Average	1,688	1,875	2,900	1,852	5,401	1,815	17,237	13,492	1,117	38,935
1994 January	1,701	1,840	2,492	1,774	5,913	1,743	18,072	12,771	1,031	39,488
February	1,795	1,966	2,994	1,907	6,524	1,920	18,337	14,223	1,156	42,036
March	1,701	1,825	3,062	1,891	6,269	1,954	17,313	13,910	1,209	40,402
April	1,590	1,850	2,900	1,816	5,294	1,809	17,489	13,475	1,157	39,005
May	1,658	1,675	2,746	1,674	4,853	1,770	17,181	12,665	1,186	37,543
June	1,690	1,811	3,000	1,683	5,132	1,880	17,815	13,621	1,228	39,487
July	1,717	1,771	2,817	1,702	5,577	1,748	17,485	12,980	1,183	38,943
August	1,786	1,736	2,905	1,699	5,595	1,747	18,117	13,294	1,137	39,928
September	1,790	1,920	3,041	1,945	5,334	1,862	17,490	14,199	1,187	40,001
October	1,731 1,749	1,844 1,811	2,884 2,914	1,873 2,070	5,363 5,860	1,853 1,954	17,719 17,315	13,648 14,162	1,084 1,268	39,545 40,353
November December	1,749	1,961	2,914	2,070	5,800 6,421	1,954	18,319	14,162	1,200	40,353 41,970
Average	1,727	1,833	2,879	1,841	5,674	1,837	17,718	13,584	1,173	39,876
1005 January	4 674	1.0.40	0 700	1 0 4 4	6 075	4 75 4	47 407	R 10 507	1 400	20 574
1995 January February	1,671 1,857	1,949 1,895	2,730 2,802	1,944 2,128	6,075 6,787	1,754 1,953	17,167 18 355	<sup>R</sup> 13,537 <sup>R</sup> 13,900	1,123 1 175	39,574 <sup>R</sup> 42,074
March	1,704	2,002	2,802 3,188	1,993	6,787 6,378	1,955	18,355 17,403	<sup>R</sup> 14,554	1,175 1,241	<sup>R</sup> 41,280
April	<sup>R</sup> 1,559	1,843	2,854	1,837	5,576	<sup>R</sup> 1,780	17,403	<sup>R</sup> 13,460	<sup>R</sup> 1,170	<sup>R</sup> 38,868
May	1,715	1,764	2,940	1,829	5,030	<sup>R</sup> 1,770	17,241	<sup>R</sup> 13,411	<sup>R</sup> 1,263	<sup>R</sup> 38,660
June	1 757	1,850	2,874	1,884	5,004	<sup>R</sup> 1,801	18,149	<sup>R</sup> 13,683	<sup>R</sup> 1,219	<sup>R</sup> 39,812
July	<sup>R</sup> 1,754	1,939	2,826	1,885	<sup>R</sup> 5,129	1,735	17,113	<sup>R</sup> 13,508	<sup>R</sup> 1,161	<sup>R</sup> 38,666
August	1,810	1,784	2,932	1,745	5,558	1,794	17,993	13,534	1,218	40,114
8-Mo. Average	1,728	1,878	2,895	1,903	5,682	1,819	17,555	13,697	1,197	39,858
1994 8-Mo. Average	1,704	1,807	2,862	1,767	5,637	1,820	17,719	13,355	1,161	39,577
1993 8-Mo. Average	1,663	1,866	2,831	1,774	5,412	1,788	17,016	13,182	1,098	38,371

<sup>a</sup> Through December 1990, the data for Germany are for the former West

 Beginning with January 1991, the data for Germany are for the function west
 Germany only. Beginning with January 1991, the data for Germany and mest
 the former East Germany and West Germany.
 <sup>b</sup> "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France,
 Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands,
 Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom. C "Other OECD" consists of Australia, New Zealand, and the U.S.

Territories. <sup>d</sup> The Organization for Economic Cooperation and Development (OECD)

consists of Canada, Japan, the United States, "OECD Europe" and "Other OECD."

R=Revised data.

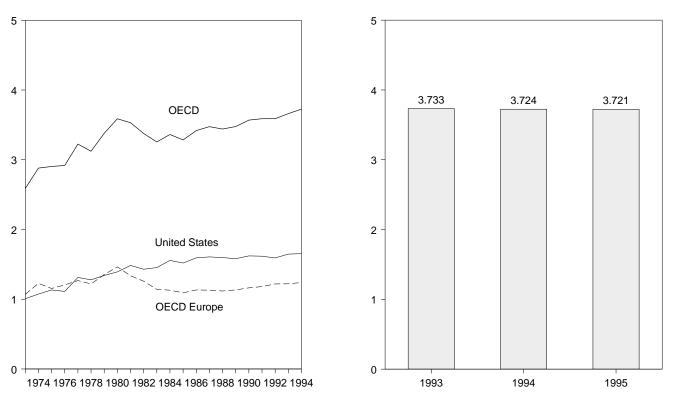
Notes: • Data through 1992 are final. Subsequent data are preliminary. • Totals may not equal sum of components due to independent rounding.

U.S. geographic coverage is the 50 States and the District of Columbia. Sources: • United States: Table 3.1a. • All Other Data: 1973-1979—International Energy Agency (IEA), Annual Oil and Gas Statistics of OECD Countries. 1980 forward—IEA, quarterly and monthly computer tapes supporting Quarterly Oil Statistics and Energy Balances.

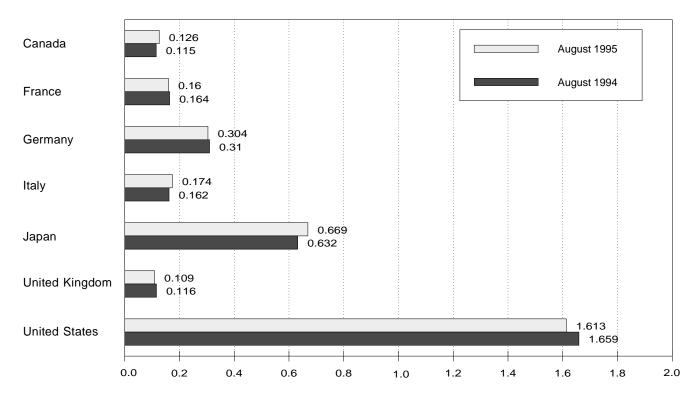
## Figure 10.4 Petroleum Stocks in OECD Countries

(Billion Barrels)

## Overview, End of Year, 1973-1994



## By Selected Country, End of Month



Note: OECD is the Organization for Economic Cooperation and Development. Source: Table 10.3.

OECD Stocks, End of Month, August

#### Table 10.3 Petroleum Stocks in OECD Countries, End of Period

(Million Barrels)

	Canada	France	Germany <sup>a</sup>	Italy	Japan	United Kingdom	United States	OECD Europe <sup>b</sup>	Other OECD <sup>c</sup>	OECD
	Ganada	Trance	Cermany	itary	Vapan	rangaom	otates	Luiope	OLOD	0200
73 Year	140	201	181	152	303	156	1,008	1,070	67	2,588
74 Year	145	249	213	167	370	191	1,074	1,227	64	2,880
75 Year	174	225	187	143	375	165	1,133	1,154	67	2,903
76 Year	153	234	208	143	380	165	1,112	1,205	68	2,918
77 Year	167	239	225	161	409	148	1,312	1,268	68	3,224
78 Year	144	201	238	154	413	157	1,278	1,219	68	3,122
79 Year	150	226	272	163	460	169	1,341	1,353	75	3,37
30 Year	164	243	319	170	495	168	1,392	1,464	72	3,58
81 Year	161	214	297	167	482	143	1,484	1,337	67	3,53
82 Year	136	193	272	179	484	125	1,430	1,258	68	3,37
83 Year	121	153	249	149	470	118	1,454	1,142	68	3,25
84 Year	128	152	239	159	479	112	1,556	1,130	69	3,36
85 Year	113	139	233	157	494	123	1,519	1,092	66	3,28
86 Year	111	127	252	155	509	124	1,593	1,133	72	3,41
87 Year	126	127	259	169	540	121	1,607	1,130	71	3,47
88 Year	116	140	266	155	538	112	1,597	1,118	71	3.44
89 Year	114	138	271	164	577	118	1,581	1,133	71	3,47
90 Year	121	140	265	172	590	112	1,621	1,163	73	3,56
91 Year	119	153	288	160	606	119	1,617	1,181	65	3,58
92 Year	107	146	310	174	603	113	1,592	1,219	67	3,58
52 Tedi	107	140	510	1/4	005	115	1,552	1,215	07	3,50
<b>93</b> January	107	162	318	171	614	119	1,618	1,243	68	3,65
February	102	156	316	166	606	119	1,602	1,229	68	3,60
March	103	154	310	163	593	119	1,590	1,213	66	3,56
April	105	154	310	165	584	115	1,617	1,208	73	3,58
May	106	161	319	170	592	116	1,650	1,220	68	3,63
June	107	156	309	166	601	118	1,667	1,201	69	3,64
July	113	155	311	167	616	114	1,682	1,200	70	3,68
August	114	167	314	169	633	116	1,676	1,240	69	3,73
September	111	164	311	161	647	115	1,665	1,229	77	3,73
October	110	166	316	160	652	110	1,688	1.225	78	3.75
November	111	156	309	164	643	115	1,686	1,212	78	3,73
December	105	158	309	163	618	118	1,647	1,221	69	3,66
04 Ιουμου	104	105	322	100	646	110	1 600	1,248	70	3,66
94 January		165		166	616	118	1,622			
February	97	159	315	157	610	111	1,586	1,206	68	3,56
March	103	152	306	154	602	109	1,584	1,181	72	3,54
April	108	151	309	158	611	108	1,591	1,185	73	3,56
May	109	155	314	160	627	116	1,612	1,213	71	3,63
June	112	161	308	158	630	112	1,624	1,216	70	3,65
July	120	159	313	157	623	114	1,654	1,227	75	3,70
August	115	164	310	162	632	116	1,659	1,243	74	3,72
September	118	159	305	160	646	114	1,684	1,227	73	3,74
October	119	163	307	160	655	111	1,673	1,229	74	3,74
November	118	168	309	162	656	112	1,687	1,229	72	3,76
December	119	158	312	164	645	115	1,653	1,240	69	3,720
95 January	121	160	314	167	650	113	1,641	1,242	69	3,72
February	121	164	317	163	631	114	1,603	1,246	64	3,66
March	124	152	305	159	636	105	1,599	1,194	68	3,62
April	119	152	306	159	642	103	1,600	1,197	71	3,62
May	116	153	304	161	652	112	1,611	1,206	72	<sup>R</sup> 3,65
June	115	166	304 301	168	657	102	1,609	1,200	72	3,66
	<sup>R</sup> 129	160	304	171	667	<sup>R</sup> 110	,	1,209	<sup>R</sup> 77	<sup>R</sup> 3,73
July	129	160	304 304	171	669	109	1,623	1,241	71	
August	120	100	304	1/4	009	109	1,613	1,241	/ 1	3,72

<sup>a</sup> Through December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.
 <sup>b</sup> "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France,

<sup>b</sup> "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

<sup>C</sup> "Other OECD" consists of Australia, New Zealand, and the U.S.
 Territories.
 <sup>d</sup> The Organization for Economic Cooperation and Development (OECD)

<sup>a</sup> The Organization for Economic Cooperation and Development (OECD) consists of Canada, Japan, the United States, "OECD Europe" and "Other OECD."

R=Revised data.

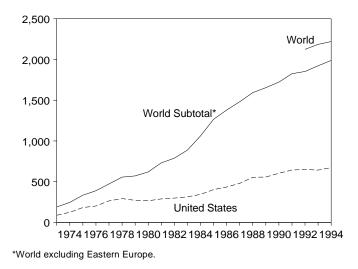
Notes: • Petroleum stocks include crude oil (including strategic reserves), unfinished oils, natural gas plant liquids, and refined products. Petroleum stocks include all nonmilitary petroleum held for storage, regardless of ownership, within each country in bulk terminals, refinery tanks, pipeline tankage, intercoastal tankers, tankers in port, and inland ship bunkers. Data exclude oil held in pipelines (except for those in the United States), rail and truck cars, sea-going ships' bunkers, service stations, retail stores, and tankers at sea. • In the United States in January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys, thereby affecting subsequent stocks reported. New-basis end-of-year U.S. stocks, in million barrels, would have been 1,121 in 1974, 1,425 in 1980, and 1,461 in 1982. • Data through 1992 are final. Subsequent data are preliminary. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • United States: Table 3.1a. • All Other Data: International Energy Agency, quarterly and monthly computer tapes supporting *Quarterly Oil Statistics and Energy Balances.* 

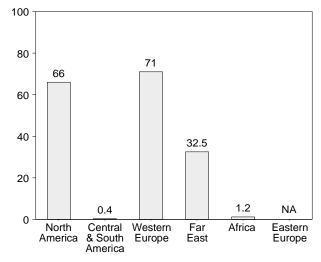
## Figure 10.5 Nuclear Electricity Gross Generation

(Billion Kilowatthours)

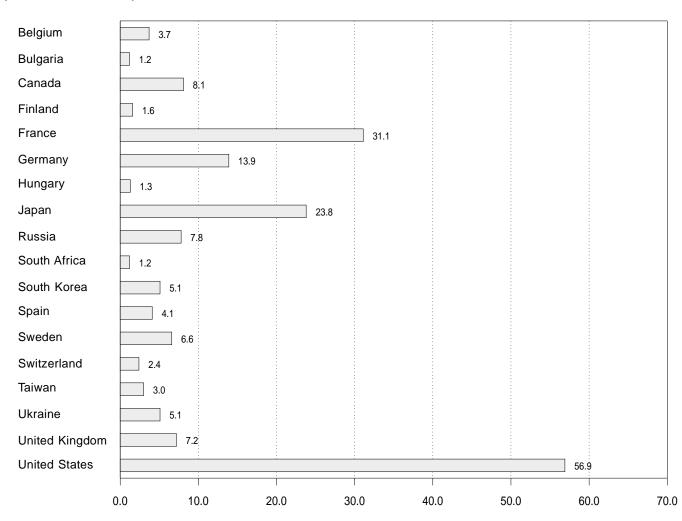
## U.S. and World, 1973-1994



## By Region, October 1995



NA = Not available.



## By Selected Country, October 1995

Note: Because vertical scales differ, graphs should not be compared. Sources: Tables 10.4a-10.4e.

### Table 10.4a Nuclear Electricity Gross Generation: Regions and World

(Billion Kilowatthours)

	North America	Central and South America	Western Europe	Far East	Africa	Subtotal	Eastern Europe <sup>a</sup>	World
973 Total	103.1	_	73.9	12.3	_	189.3	NA	NA
		10			_			
974 Total	139.7	1.0	83.9	21.4		246.0	NA	NA
75 Total	195.5	2.5	111.7	24.4	-	334.1	NA	NA
976 Total	219.8	2.6	126.2	40.3	-	388.9	NA	NA
977 Total	290.8	1.6	148.1	31.5	-	472.0	NA	NA
978 Total	325.4	2.9	166.9	60.6	-	555.9	NA	NA
979 Total	309.0	2.7	184.3	74.7	_	570.7	NA	NA
980 Total	305.8	2.3	214.2	97.4	_	619.8	NA	NA
981 Total	331.8	2.8	293.4	102.9	_	730.9	NA	NA
982 Total	341.2	1.9	321.8	123.6	-	788.5	NA	NA
983 Total	366.6	3.6	377.2	140.1	_	887.5	NA	NA
984 Total	397.6	6.6	485.4	167.7	4.2	1,061.5	NA	NA
985 Total	465.6	9.1	582.8	202.0	5.9	1,265.4	NA	NA
986 Total	508.8	5.8	631.5	223.6	9.3	1,378.9	NA	NA
987 Total	560.1	6.2	648.3	259.5	6.6	1,480.7	NA	NA
988 Total	639.7	5.5	688.1	248.5	11.1	1,592.8	NA	NA
89 Total	640.2	6.6	732.2	263.4	11.7	1,654.1	NA	NA
						'	NA	NA
990 Total	681.3	9.4	738.6	284.3	8.9	1,722.5		
91 Total	733.4	9.2	769.7	303.3	9.7	1,825.2		NA
992 Total	735.2	8.8	783.9	315.2	9.9	1,852.9	<sup>E</sup> 271.5	<sup>E</sup> 2,124.5
93 January	70.5	.8	78.9	28.1	.6	178.9	NA	NA
February	61.5	.6	72.6	25.3	.6	160.6	NA	NA
March	57.7	.6	76.3	26.9	.5	162.1	NA	NA
April	53.2	.7	68.6	25.6	.6	148.7	NA	NA
May	60.0	.7	60.1	E 25.9	.8	<sup>E</sup> 147.5	NA	NA
June	63.0	.7	60.7	E 26.0	.5	<sup>E</sup> 151.0	NA	NA
				<sup>E</sup> 31.8				
July	68.6	.7	60.8		1.0	E 163.1	NA	NA
August	68.5	.7	57.9	<sup>E</sup> 33.3	.9	<sup>E</sup> 161.2	NA	NA
September	60.8	.7	63.9	<sup>E</sup> 28.5	.5	<sup>E</sup> 154.4	NA	NA
October	55.8	.4	65.7	<sup>E</sup> 28.5	.4	<sup>E</sup> 150.7	NA	NA
November	57.7	.6	70.6	<sup>E</sup> 27.9	.4	<sup>E</sup> 157.2	NA	NA
December	65.5	.7	81.0	<sup>E</sup> 30.0	.8	<sup>E</sup> 178.1	NA	NA
Total	744.6	8.1	817.0	<sup>E</sup> 345.2	7.7	E 1,922.7	E 263.0	E 2,185.6
<b>94</b> January	69.5	.7	76.3	<sup>E</sup> 28.6	.9	<sup>E</sup> 176.0	NA	NA
February	61.3	.7	67.5	E 25.0	.8	<sup>E</sup> 155.2	NA	NA
				<sup>E</sup> 27.0		E 160.5		
March	61.8	.7	70.3	27.0 F 20.0	.8	160.5 F 4 5 4 0	NA	NA
April	55.0	.7	66.8	<sup>E</sup> 28.3	1.0	<sup>E</sup> 151.8	NA	NA
May	60.3	.7	60.2	<sup>E</sup> 28.2	1.3	<sup>E</sup> 150.7	NA	NA
June	63.6	.7	59.9	E 28.0	1.1	<sup>E</sup> 153.3	NA	NA
July	72.1	.7	60.2	<sup>E</sup> 33.6	1.1	<sup>E</sup> 167.7	NA	NA
August	73.3	.7	62.6	E 36.2	.9	<sup>E</sup> 173.8	NA	NA
September	67.6	.5	66.9	E 29.6	.4	E 165.0	NA	NA
October	62.5	.5	70.0	E 28.6	.5	<sup>E</sup> 162.3	NA	NA
		.7		E 28.5	.5 .6	<sup>E</sup> 169.8	NA	
November	67.4		72.6	∠ö.⊃ E 00.0				NA
December	72.9	.7	82.4	<sup>E</sup> 30.9	.8	<sup>E</sup> 187.7	NA	NA
Total	787.3	8.2	815.5	E 366.7	10.3	<sup>E</sup> 1,988.0	<sup>E</sup> 232.4	<sup>E</sup> 2,220.4
95 January	75.7	1.1	81.4	<sup>E</sup> 31.2	1.0	<sup>E</sup> 190.4	NA	NA
February	63.1	1.0	69.8	<sup>E</sup> 29.3	.7	<sup>E</sup> 163.9	NA	NA
March	64.5	1.0	73.9	<sup>E</sup> 32.1	.7	<sup>E</sup> 172.1	NA	NA
April	59.8	.9	69.3	<sup>⊨</sup> 30.8	.7	<sup>E</sup> 161.4	NA	NA
May	64.2	.9	62.9	<sup>E</sup> 31.5	.8	E 160.3	NA	NA
June			61.1	<sup>E</sup> 30.2		<sup>E</sup> 160.7		
	67.3	.9		30.2 F co. 7	1.1		NA	NA
July	_ 75.1	1.0	<sup>E</sup> 60.6	<sup>E</sup> 36.5	1.1	<sup>E</sup> 174.3	NA	NA
August	<sup>E</sup> 75.6	.6	<sup>E</sup> 62.0	E 39.3	1.2	<sup>E</sup> 178.6	NA	NA
September	<sup>E</sup> 68.6	.9	<sup>E</sup> 63.5	<sup>E</sup> 32.4	1.3	<sup>E</sup> 166.7	NA	NA
October	E 66.0	.4	E 71.0	E 32.5	1.2	E 171.1	NA	NA
10-Month Total	E 679.8	8.7	E 675.5	E 325.8	9.8	<sup>E</sup> 1,699.6	NA	NA
994 10-Month Total	646.9	6.9	660.6	<sup>E</sup> 293.1	8.9	<sup>E</sup> 1,616.3	NA	NA
993 10-Month Total	619.6	6.8	665.4	E 279.8	6.5	E 1,578.1	NA	NA
aaa iu-wuunun lutdi	019.0	0.0	005.4	219.0	0.5	1,570.1	An	NA

<sup>a</sup> See Table 10.4e for country-specific estimated annual generation and available monthly generation for Eastern Europe.
 NA=Not available. -=Not applicable. E=Estimate.
 Notes: • Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants

themselves. • Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. • Data for regions may not sum to totals due to independent rounding. Source: McGraw-Hill Publishing Company, *Nucleonics Week*.

### Table 10.4b Nuclear Electricity Gross Generation: North, Central, and South America (Billion Kilowatthours)

	Canada	Mexico	United States	North America	Argentina	Brazil	Central and South Americ
973 Total	15.3	_	87.8	103.1	_	_	_
974 Total	15.4	_	124.3	139.7	1.0	_	1.0
975 Total	13.4	_	182.3	195.5	2.5	_	2.5
76 Total		-				-	
	18.0		201.8	219.8	2.6	-	2.6
77 Total	26.6	-	264.2	290.8	1.6	-	1.6
78 Total	33.0	-	292.4	325.4	2.9	-	2.9
79 Total	38.4	-	270.6	309.0	2.7	-	2.7
80 Total	40.4	-	265.4	305.8	2.3	-	2.3
81 Total	43.3	-	288.5	331.8	2.8	-	2.8
82 Total	42.6	-	298.6	341.2	1.9	0.1	1.9
83 Total	53.0	-	313.6	366.6	3.4	.2	3.6
84 Total	53.8	-	343.8	397.6	4.5	2.1	6.6
85 Total	62.9	-	402.7	465.6	5.8	3.4	9.1
86 Total	74.6	-	434.1	508.8	5.7	.1	5.8
87 Total	80.6	_	479.5	560.1	5.2	1.0	6.2
88 Total	85.6	_	554.1	639.7	5.1	.3	5.5
89 Total	83.2	_	557.0	640.2	5.0	1.6	6.6
90 Total	75.8	2.1	603.4	681.3	7.4	2.0	9.4
	86.1	4.2	643.0		7.4	2.0 1.4	9.4 9.2
91 Total				733.4			
92 Total	81.3	3.9	650.0	735.2	7.1	1.8	8.8
93 January	8.2	.5	61.8	70.5	.6	.2	.8
February	7.4	.3	53.7	61.5	.4	.2	.6
March	7.8	.1	49.8	57.7	.6	(s)	.6
April	7.3	.5	45.4	53.2	.7	.0	.7
May	6.7	.5	52.8	60.0	.7	.0	.7
June	7.1	.5	55.4	63.0	.7	.0	.7
July	9.3	.5	58.9	68.6	.7	.0	.7
August	9.1	.5	58.9	68.5	.7	.0	.7
September	7.9	.5	52.5	60.8	.7	.0	.7
October	8.5	.4	46.9	55.8	.4	.0	.4
November	8.2	.4	49.1	57.7	.4	.0	.6
December Total	9.2 <b>97.6</b>	.4 <b>4.9</b>	55.9 <b>642.0</b>	65.5 <b>744.6</b>	.7 7.7	.0 <b>.4</b>	.7 8.1
	. –				_		_
94 January	9.7	.2	59.6	69.5	.7	.0	.7
February	9.1	.0	52.2	61.3	.7	.0	.7
March	10.5	(s)	51.3	61.8	.7	.0	.7
April	9.1	.4	45.4	55.0	.7	.0	.7
May	8.8	.4	51.1	60.3	.7	.0	.7
June	8.7	.5	54.5	63.6	.7	.0	.7
July	9.5	.5	62.2	72.1	.7	.0	.7
August	9.7	.4	63.1	73.3	.7	.0	.7
September	8.8	.4	58.3	67.6	.5	.0	.5
October	8.8	.5	53.2	62.5	.7	.0	.5
	0.0 9.0	.5 .4	58.0	67.4	.7	.0	.7
November							
December Total	9.0 <b>110.7</b>	.4 <b>4.2</b>	63.5 <b>672.4</b>	72.9 <b>787.3</b>	.7 <b>8.2</b>	.0 <b>.0</b>	.7 8.2
	0.0	2	<u> </u>		7	4	
<b>95</b> January	9.0	.3	66.4	75.7	.7	.4	1.1
February	8.4	.4	54.3	63.1	.6	.3	1.0
March	9.5	.4	54.6	64.5	.7	.3	1.0
April	7.6	.6	51.7	59.8	.7	.2	.9
May	6.7	.5	57.1	64.2	.7	.2	.9
June	7.8	.5	59.0	67.3	.7	.2	.9
July	_ 9.1	.9	_ 65.1	_75.1	.7	.2	1.0
August	<sup>E</sup> 9.5	.8	E 65.3	<sup>E</sup> 75.6	.6	.1	.6
September	<sup>E</sup> 8.6	.8	<sup>E</sup> 59.3	<sup>E</sup> 68.6	.7	.2	.9
October	E 8.1	.9	E 56.9	E 66.0	.3	.1	.4
10-Month Total	<sup>E</sup> 84.1	6.2	E 589.6	E 679.8	6.6	2.1	8.7
94 10-Month Total	92.6	3.3	550.9	646.9	6.9	.0	6.9
93 10-Month Total	79.3	4.2	536.2	619.6	6.4	.4	6.8
			00012	01010	v		0.0

– =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours. Notes:  $\bullet$  Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. • Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in

some annual totals but not in the monthly data. • Data for countries may not sum to regional totals due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia. Source: McGraw-Hill Publishing Company, *Nucleonics Week*.

### Table 10.4c Nuclear Electricity Gross Generation: Western Europe

(Billion Kilowatthours)

	Belgium	Finland	France	Germany <sup>a</sup>	ltaly <sup>b</sup>	Netherlands	Spain	Sweden	Switzerland	United Kingdom <sup>c</sup>	Wester Europ
973 Total	0.0	_	14.7	11.9	3.1	1.1	6.5	2.1	6.2	28.2	73.9
974 Total	.1	_			3.4	3.3	7.2	2.1	7.0	33.8	83.9
			14.7	12.0							
975 Total	6.8	-	18.3	21.7	3.8	3.3	7.5	12.0	7.7	30.5	111.7
976 Total	10.0		15.8	24.5	3.8	3.9	7.6	16.0	7.9	36.8	126.2
977 Total	11.9	2.7	17.9	36.0	3.4	3.7	6.5	19.9	8.1	38.1	148.1
978 Total	12.5	3.3	30.6	35.7	4.5	4.1	7.6	23.8	8.3	36.6	166.9
979 Total	11.4	6.7	39.9	42.2	2.6	3.5	6.7	21.0	11.8	38.5	184.3
980 Total	12.5	7.0	61.2	43.7	2.2	4.2	5.2	26.7	14.3	37.2	214.2
981 Total	12.8	14.5	105.2	53.4	2.7	3.7	9.4	37.7	15.2	38.9	293.4
982 Total	15.6	16.5	108.9	63.4	6.8	3.9	8.8	38.8	15.0	44.1	321.8
983 Total	24.1	17.4	144.2	65.8	5.8	3.6	10.7	40.4	15.5	49.6	377.2
984 Total	27.7	18.5	191.2	92.6	6.9	3.8	23.1	51.3	16.3	54.1	485.4
985 Total	34.5	18.8	224.0	125.8	7.0	3.9	28.0	58.6	22.4	59.7	582.8
986 Total	38.6	18.8	254.3	118.9	8.7	4.2	37.5	69.9	22.5	58.2	631.5
987 Total	41.9	19.4	265.5	130.2	.2	3.6	41.2	67.2	23.0	56.2	648.3
988 Total	43.1	19.3	274.9	145.2	.0	3.7	50.4	69.4	22.7	59.4	688.1
89 Total	41.2	18.8	302.5	149.6	.0	4.0	56.1	65.6	22.8	71.6	732.2
90 Total	42.7	18.9	314.1	147.2	.0	3.4	54.3	68.2	23.6	66.1	738.6
991 Total	42.9	19.2	331.4	147.3	.0	3.3	55.6	76.8	22.9	70.4	769.7
992 Total	43.5	19.0	337.6	158.8	.0	3.8	55.8	63.5	23.4	78.5	783.9
93 January	4.3	1.8	36.3	15.1	.0	.4	5.4	5.8	2.3	7.6	78.9
February	3.7	1.6	32.7	13.9	.0	.3	4.3	5.9	2.1	7.9	72.6
March	3.4	1.8	34.3	14.2	.0	.1	4.9	7.1	2.3	8.3	76.3
April	3.3	1.7	30.5	12.4	.0	.1	4.2	6.6	2.0	7.7	68.6
May	3.1	1.3	26.9	11.8	.0	.4	4.1	4.6	1.9	6.0	60.1
June	3.0	1.6	25.4	12.0	.0	.4	4.4	4.7	1.2	8.2	60.7
July	3.2	1.8	26.9	12.3	.0	.4	5.0	3.1	1.8	6.4	60.8
August	3.4	1.5	25.9	11.1	.0	.4	5.1	3.2	1.1	6.1	57.9
September	3.4	1.3	28.8	11.2	.0	.4	4.6	4.1	1.7	8.4	63.9
October	3.2	1.8	20.0	12.6	.0	.4	4.7	4.7	2.2	6.9	65.7
	3.7				.0 .0	.4			2.2		
November		1.7	33.7	12.6			4.2	5.3		6.7	70.6
December Total	4.3 <b>41.9</b>	1.8 <b>19.6</b>	36.2 <b>366.7</b>	14.3 <b>153.5</b>	.0 .0	.4 3.9	5.2 <b>56.1</b>	6.3 <b>61.4</b>	2.4 <b>23.3</b>	10.2 <b>90.4</b>	81.0 <b>817.0</b>
994 January	4.3	1.8	34.1	13.8	.0	.4	5.1	6.9	2.4	7.6	76.3
February	3.5	1.6	30.8	12.1	.0	.1	4.1	6.7	2.1	6.6	67.5
March	3.6	1.8	30.5	12.7	.0	.1	4.1	7.2	2.3	7.9	70.3
April	3.3	1.7	28.6	12.0	.0	.4	4.3	6.9	2.3	7.3	66.8
	2.8	1.1	25.3	11.2	.0	.4	4.7	5.6	2.0	7.2	60.2
May											
June	2.4	1.6	25.5	11.8	.0	.4	4.1	4.3	1.4	8.5	59.9
July	2.6	1.5	28.0	10.6	.0	.4	4.8	4.4	1.5	6.5	60.2
August	3.3	1.4	28.1	11.5	.0	.4	5.3	4.5	1.2	7.0	62.6
September	3.2	1.4	28.7	12.3	.0	.3	5.1	5.5	2.1	8.3	66.9
October	3.5	1.8	30.8	13.7	.0	.4	4.1	6.7	2.4	6.5	70.0
November	4.0	1.7	31.7	14.1	.0	.4	4.2	7.1	2.3	7.1	72.6
December	4.3	1.8	37.1	15.2	.0	.4	5.3	7.0	2.4	8.8	82.4
Total	40.6	19.1	359.1	151.1	.0	4.0	55.1	72.8	24.2	89.5	815.5
95 January	4.2	1.6	38.7	15.2	.0	.3	5.4	7.2	2.4	6.4	81.4
February	3.7	1.5	31.7	13.1	.0	(s)	4.6	6.2	2.2	6.8	69.8
March	3.6	1.8	34.4	12.4	.0	.1	4.6	6.6	2.4	8.0	73.9
April	4.0	1.7	30.6	12.2	.0	.4	4.3	6.5	2.0	7.5	69.3
Мау	3.4	1.3	28.3	10.2	.0	.4	5.0	5.6	2.1	6.5	62.9
June	3.1	1.6	27.1	11.3	.0	.4	4.7	3.5	1.6	_7.9	_ 61.1
July	2.5	1.7	28.2	11.2	.0	.4	4.3	4.0	1.6	<sup>E</sup> 6.8	E 60.6
August	2.5	1.4	29.0	12.1	.0	.4	4.3	4.5	1.3	6.4	<sup>E</sup> 62.0
September	2.7	1.6	27.9	12.5	.0	.4	4.0	5.2	2.0	<sup>E</sup> 7.2	<sup>E</sup> 63.5
October	3.7	1.6	31.1	13.9	.0	.4	4.1	6.6	2.4	<sup>E</sup> 7.2	_ <sup>E</sup> 71.0
10-Month Total	33.4	15.9	306.9	124.3	.0	3.2	45.3	55.8	20.1	<sup>E</sup> 70.6	<sup>E</sup> 675.5
94 10-Month Total 93 10-Month Total	32.3 34.0	15.6 16.1	290.3 296.8	121.8 126.6	0. 0.	3.2 3.2	45.7 46.6	58.7 49.8	19.6 18.7	73.5 73.5	660.6 665.4

<sup>a</sup> Through December 1990, the data for Germany are for the former West Inrough December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.
 In 1987, Italy's citizens voted for a nuclear power moratorium, which shut down their nuclear power plants indefinitely.
 <sup>c</sup> Monthly data for the United Kingdom are totals for 4- or 5-week reporting periods, not calendar months.

- =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: • Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. • Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. • Data for countries may not sum to regional totals due to independent rounding. Source: McGraw-Hill Publishing Company, *Nucleonics Week*.

# Table 10.4d Nuclear Electricity Gross Generation: Far East and Africa

(Billion Kilowatthours)

	<b>China</b> <sup>a</sup>	India	Japan	Pakistan	South Korea	Taiwan	Far East	South Africa
973 Total	_	2.5	9.4	0.5	_	_	12.3	_
974 Total	_	1.9	18.9	.6	_	_	21.4	_
975 Total	_	2.5	21.3	.5	_	_	24.4	_
976 Total	_	3.2	36.6	.5	_	_	40.3	_
977 Total	_	2.8	28.2	.3	0.1	0.1	31.5	_
978 Total	_	2.3	53.1	.0	2.3	2.7	60.6	_
979 Total	_	3.2	62.0		3.2	6.3	74.7	_
				(s)				
980 Total	-	2.9	82.8	.1	3.5	8.2	97.4	-
981 Total	-	3.1	86.0	.2	2.9	10.7	102.9	-
982 Total	-	2.2	104.5	.1	3.8	13.1	123.6	-
983 Total	-	2.9	109.1	.2	9.0	18.9	140.1	-
984 Total	-	4.1	127.2	.3	11.8	24.3	167.7	4.2
985 Total	-	4.5	152.0	.3	16.5	28.7	202.0	5.9
986 Total	-	5.1	164.8	.5	26.1	26.9	223.6	9.3
987 Total	-	5.5	182.8	.3	37.8	33.1	259.5	6.6
988 Total	-	6.1	173.6	.2	38.7	29.9	248.5	11.1
989 Total	-	4.0	183.7	.1	47.2	28.3	263.4	11.7
990 Total	-	6.3	191.9	.4	52.8	32.9	284.3	8.9
991 Total	-	5.4	205.8	.4	56.3	35.3	303.3	9.7
992 Total	-	6.3	218.0	.6	56.4	33.8	315.2	9.9
93 January	-	.7	19.5	(s)	4.8	3.0	28.1	.6
February	-	.6	17.4	.1	4.5	2.7	25.3	.6
March	-	.6	18.9	.1	4.6	2.8	26.9	.5
April	-	.2	17.6	.1	4.8	2.8	25.6	.6
May	NA	.4	17.4	(s)	5.3	2.7	<sup>E</sup> 25.9	.8
June	NA	.5	17.9	(s)	5.1	2.6	<sup>E</sup> 26.0	.5
July	NA	.7	22.3	.í	5.5	3.4	<sup>E</sup> 31.8	1.0
August	NA	.5	24.2	(s)	4.9	3.6	E 33.3	.9
September	NA	.4	20.5	.1	4.6	2.9	E 28.5	.5
October	NA	.5	20.6	(s)	4.6	2.8	E 28.5	.4
November	NA	.5	20.9	.0	4.2	2.3	E 27.9	.4
December	NA	.6	21.5	.0 (s)	5.1	2.8	E 30.0	.8
Total	E 2.6	6.2	243.5	.4	58.1	34.3	E 345.2	7.7
94 January	NA	.4	20.5	.1	5.0	2.6	<sup>E</sup> 28.6	.9
February	NA	.3	17.8	(s)	4.1	2.8	<sup>E</sup> 25.0	.8
March	NA	.4	19.0	.1	4.6	2.9	E 27.0	.8
April	NA	.4	20.2	(s)	4.9	2.7	E 28.3	1.0
May	NA	.5	19.8	.1	4.9	2.9	E 28.2	1.3
June	NA	.5	19.8	.1	4.9 5.0	2.9	E 28.0	1.1
		.5			5.5	3.3	E 33.6	1.1
July	NA		24.3	(s)			<sup>E</sup> 36.2	
August	NA	.5	26.9	(s)	5.3	3.5		.9
September	NA	.3	21.7	(s)	4.8	2.9	E 29.6	.4
October	NA	.3	20.5	.1	5.0	2.8	E 28.6	.5
November	NA	.5	20.6	(s)	4.7	2.7	<sup>E</sup> 28.5	.6
December	NA	.6	23.1	.1	4.3	2.9	<sup>E</sup> 30.9	.8
Total	<sup>E</sup> 14.2	5.0	253.8	.6	58.3	34.8	<sup>E</sup> 366.7	10.3
995 January	NA	.7	23.1	(s)	4.8	2.5	E 31.2	1.0
February	NA	.5	21.5	(s)	4.9	2.3	<sup>E</sup> 29.3	.7
March	NA	.6	23.6	(s)	5.1	2.7	<sup>E</sup> 32.1	.7
April	NA	.6	22.6	(s)	4.9	2.7	<sup>E</sup> 30.8	.7
May	NA	.7	22.1	(s)	5.4	3.2	<sup>E</sup> 31.5	.8
June	NA	.7	20.6	.1	5.5	3.4	<sup>E</sup> 30.2	1.1
July	NA	.8	26.3	.1	6.1	3.3	<sup>E</sup> 36.5	1.1
August	NA	Eg	29.0	.1	5.9	3.4	E 39.3	1.2
September	NA	Eg	23.9	(s)	4.8	2.8	E 32.4	1.3
October	NA	E 5	23.8	.1	5.1	3.0	E 32.5	1.2
10-Month Total	NA	E 6.9	236.6	.4	52.5	29.4	E 325.8	9.8
994 10-Month Total	NA	4.0	210.1	.5	49.3	29.3	<sup>E</sup> 293.1	8.9

<sup>a</sup> The total gross generation estimate for 1993 and 1994 for China is calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency (IAEA) and is published in the Energy Information Administration annual report, *World Nuclear Outlook 1995,* October 1995, Table 1. <sup>b</sup> South Africa comprises all of Africa's nuclear electricity generation.

NA=Not available. - =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours. Notes: • The Philippines has a nuclear generating unit under construction.

Its earliest initial commercial operation is projected to be in 1996. • Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. • Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. • Data for countries may not sum to regional totals due to independent rounding. Source: McGraw-Hill Publishing Company, Nucleonics Week.

#### Table 10.4e Nuclear Electricity Gross Generation: Eastern Europe

(Billion Kilowatthours)

	Bulgaria	Czech Republic <sup>a</sup>	Hungary	Kazakhstan <sup>a</sup>	Lithuania <sup>a</sup>	Romania <sup>b</sup>	Russia	Slovakia <sup>a</sup>	Slovenia	Ukraine	Easter Europe
973 Total	_	_	_	NA	_	_	NA	NA	_	_	NA
974 Total	NA	-	_	NA	-	_	NA	NA	_	-	NA
975 Total	NA	-	_	NA	-	_	NA	NA	_	-	NA
976 Total	NA	-	-	NA	-	-	NA	NA	-	-	NA
977 Total	NA	-	-	NA	-	-	NA	NA	-	-	NA
978 Total	NA	-	-	NA	-	-	NA	NA	-	NA	NA
979 Total	NA	-	-	NA	-	-	NA	NA	-	NA	NA
980 Total	NA	-	-	NA	-	-	NA	NA	-	NA	NA
981 Total	NA	-	-	NA	-	-	NA	NA	-	NA	NA
982 Total	NA	-		NA	-	-	NA	NA		NA	NA
983 Total	NA	-	NA	NA	-	-	NA	NA	NA	NA	NA
984 Total	NA		NA	NA	_	-	NA	NA	NA	NA	NA
985 Total	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA
986 Total	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA
987 Total	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA
988 Total	NA NA	NA NA	NA NA	NA NA	NA NA	-	NA NA	NA NA	NA NA	NA NA	NA NA
989 Total		NA NA	NA NA	NA NA	NA NA	_		NA NA	NA NA	NA NA	NA NA
990 Total 991 Total	NA NA	NA NA	NA NA	NA NA	NA NA	-	NA NA	NA NA	NA NA	NA NA	NA NA
991 Total		E 12.9	E 13.8	ыла <sup>Е</sup> .5	E 16.4	_	E 125.6	E 11.7	<sup>E</sup> 4.0	E 74.6	E 271.5
552 IULAI		12.9	13.0	.ə	10.4	-	123.0	11.7	4.0		2/1.3
993 January	<sup>E</sup> 1.5	NA	1.4	NA	NA	-	11.0	NA	.5	<sup>E</sup> 7.8	NA
February	E 1.5	NA	1.2	NA	NA	-	9.8	NA	.4	<sup>E</sup> 7.8	NA
March	<sup>E</sup> 1.5	NA	1.2	NA	NA	-	10.6	NA	.4	7.8	NA
April	<sup>E</sup> 1.5	NA	1.0	NA	NA	-	10.3	NA	.5	5.5	NA
Мау	1.2	NA	1.0	NA	NA	-	9.6	NA	.2	5.1	NA
June	.8	NA	1.0	NA	NA	-	10.1	NA	.0	5.0	NA
July	.9	NA	1.0	NA	NA	-	8.4	NA	(s)	5.6	NA
August	.9	NA	1.0	NA	NA	-	9.5	NA	.4	6.0	NA
September	1.1	.9	1.0	NA	NA	-	9.3	NA	.5	5.1	NA
October	.6	.9	1.2	NA	NA	-	9.7	NA	.5	5.3	NA
November	.9	1.0	1.3	NA	NA	-	10.4	NA	.4	5.3	NA
December Total	1.6 <b>14.0</b>	.9 <sup>E</sup> 13.2	1.4 <b>13.8</b>	NA <sup>⊑</sup> .4	NA <sup>E</sup> 12.9	_	11.9 <b>120.4</b>	NA <sup>E</sup> 11.6	.3 <b>4.0</b>	6.3 E <b>72.7</b>	NA <sup>E</sup> 263.0
994 January	1.6 1.4	1.2 1.2	1.4 1.2	NA NA	NA NA	_	11.0 10.0	NA NA	.3 .4	7.6 6.7	NA NA
February						_					
March	1.6 1.1	1.3 1.3	1.2 1.0	NA NA	NA NA	_	9.5 8.0	NA NA	.4 .5	6.5 5.8	NA NA
April	1.1	1.3	1.0	NA	NA	_	8.0 7.5	NA	.5	5.o 6.2	NA
May June	.8	1.3	1.0	NA	NA	_	7.0	NA	.5	5.8	NA
	.0 .6	1.3	1.0	NA	NA	_	7.0	NA	.5	3.7	NA
July August	.0	NA	1.1	NA	NA	_	6.0	NA	.4 .3	3.7 2.9	NA
September	.9 .8	NA	1.0	NA	NA	_	6.5	NA	.3 (s)	2.9	NA
October	.o 1.2	NA	1.0	NA	NA	_	7.5	NA	.4	5.4	NA
November	1.6	NA	1.3	NA	NA	_	8.4	NA	.4	6.7	NA
December	2.0	NA	1.4	NA	NA	_	9.2	NA	.5	7.4	NA
Total	14.9	E 12.7	14.0	E.4	<sup>E</sup> 7.0	-	97.7	<sup>E</sup> 12.7	4.6	68.4	<sup>E</sup> 232.
995 January	2.2	NA	1.4	NA	NA	_	10.7	NA	.5	8.5	NA
February	2.1	NA	1.1	NA	NA	_	8.9	NA	.4	7.5	NA
March	1.9	NA	1.3	NA	.9	_	9.0	NA	.5	7.3	NA
April	1.5	NA	1.1	NA	.7	-	7.8	NA	.3	6.5	NA
May	1.3	NA	1.1	NA	.8	_	7.2	NA	.0	4.8	NA
June	.9	NA	1.0	NA	.7	-	6.6	NA	.4	4.4	NA
July	1.0	NA	1.1	NA	.8	-	7.4	NA	.5	4.0	NA
August	.8	NA	1.0	NA	1.0	-	7.2	NA	.4	4.8	NA
September	1.0	NA	1.1	NA	.9	-	6.5	NA	.4	4.1	NA
October	1.2	NA	1.3	NA	1.0	-	7.8	NA	.5	5.1	NA
10-Month Total	14.0	NA	11.5	NA	NA	-	79.0	NA	3.8	57.0	NA
994 10-Month Total	11.3	NA	11.3	NA	NA	-	80.1	NA	3.7	54.2	NA
993 10-Month Total	11.5	NA	11.1	NA	NA		98.1	NA	3.3	61.1	NA

<sup>a</sup> The total gross generation estimate for 1993 and 1994 for Czech Republic, Kazakhstan, Lithuania, and Slovakia is calculated as 5 percent Atomic Frequency, Nazakistali, Elimania, and Slovania is calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency (IAEA) and is published in the Energy Information annual report, *World Nuclear Outlook 1995*, October 1995, Table 1. <sup>b</sup> Romania has a nuclear generating unit under construction. Its earliest initial operation is projected to be in 1995.

<sup>c</sup> The total gross generation estimate for 1992 for Eastern European countries are calculated as 5 percent more than the annual net nuclear generation reported by the IAEA and published in the Energy Information Administration annual report, *World Nuclear Capacity and Fuel Cycle Requirements 1993*, November 1993, Table 10.

NA=Not available. - =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: • Armenia has two nuclear generating units under construction. The earliest commercial operation for one unit is projected to be in 2000.
Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves.
Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. • Data for countries may not sum to regional totals due to independent rounding. Source: McGraw-Hill Publishing Company, Nucleonics Week.

# Sources for Tables 10.1a and 10.1b

#### **United States**

Table 3.1a.

#### **Other Countries: Annual Data**

**1973-1979:** Energy Information Administration (EIA), *International Energy Annual 1981*, Table 8.

**1980:** EIA, International Energy Annual 1989, Table 1. **1981:** EIA, International Energy Annual 1990, Table 1.

**1982:** EIA, International Energy Annual 1991, Table 1.

**1983-1992:** EIA, *International Energy Annual 1992*, Table 1.

**1993:** EIA, *International Energy Annual 1993*, Table 2.2.

1994: Average of monthly data.

#### Other Countries: Monthly Data

**1993-1995:** *Petroleum Intelligence Weekly*, the *Oil and Gas Journal*, and other industry sources.

#### World: Annual Data

**1973-1979**: EIA, *International Energy Annual 1981*, Table 8.

1980: EIA, International Energy Annual 1989, Table 1.
1981: EIA, International Energy Annual 1990, Table 1.
1982: EIA, International Energy Annual 1991, Table
1983-1992: EIA, International Energy Annual 1992, Table 1.
1993: EIA, International Energy Annual 1993, Table 2.2.

**1994:** Average of monthly data.

#### World: Monthly Data

**1993-1995:** EIA, *International Petroleum Statistics Report*, sum of all countries' monthly data.

# **Appendix A. Thermal Conversion Factors**

The thermal conversion factors presented in the following eight tables can be used to estimate the heat content in British thermal units (Btu) of a given amount of energy measured in physical units, such as barrels or cubic feet. For example, 10 barrels of asphalt have a heat content of approximately 66.36 million Btu (10 barrels x 6.636 million Btu/barrel = 66.36 million Btu).

Thermal conversion factors for hydrocarbon mixes (Table A1) are weighted averages of the thermal conversion factors for each hydrocarbon included in the mix. For example, in calculating the thermal conversion factor for a 60-40 butane-propane mixture, the thermal conversion factor for butane is weighted 1.5 times more heavily than the thermal conversion factor for propane.

In general, the annual thermal conversion factors presented in Tables A1 through A8 are computed from final annual data. However, if the current year's final data are not available in time for publication, thermal conversion factors for the current year are computed from the best available data and are labeled "preliminary." The source of each factor is described in the section entitled "Thermal Conversion Factor Source Documentation," which follows Table A8 in this appendix.

 
 Table A1. Approximate Heat Content of Petroleum Products (Million Btu per Barrel)

Petroleum Product	Heat Content	Petroleum Product He	eat Content
Asphalt		Petrochemical Feedstocks	5.040
Aviation Gasoline		Naphtha Less Than 401° F	5.248
Butane		Other Oils Equal to or Greater Than 401° F	5.825
Butane-Propane Mixture <sup>a</sup>		Still Gas	6.000
Distillate Fuel Oil	5.825	Petroleum Coke	6.024
Ethane	3.082	Plant Condensate	5.418
Ethane-Propane Mixture <sup>b</sup>	3.308	Propane	3.836
Isobutane	3.974	Residual Fuel Oil	6.287
Jet Fuel, Kerosene Type	5.670	Road Oil	6.636
Jet Fuel, Naphtha Type	5.355	Special Naphthas	5.248
Kerosene	5.670	Still Gas	6.000
Lubricants	6.065	Unfinished Oils	5.825
Motor Gasoline	5.253	Unfractionated Stream	5.418
Natural Gasoline and Isopentane	4.620	Waxes	5.537
Pentanes Plus	4.620	Miscellaneous	5.796

<sup>a</sup> 60 percent butane and 40 percent propane.

<sup>b</sup> 70 percent ethane and 30 percent propane.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

# Table A2. Approximate Heat Content of Crude Oil, Crude Oil and Products, and **Natural Gas Plant Liquids**

(Million Btu per Barrel)

		Crude Oil		Crude Oil a	nd Products	Natural Gas
	Production	Imports	Exports	Imports	Exports	Plant Liquids Production
1973	5.800	5.817	5.800	5.897	5.752	4.049
1974	5.800	5.827	5.800	5.884	5.774	4.011
1975	5.800	5.821	5.800	5.858	5.748	3.984
1976	5.800	5.808	5.800	5.856	5.745	3.964
1977	5.800	5.810	5.800	5.834	5.797	3.941
1978	5.800	5.802	5.800	5.839	5.808	3.925
1979	5.800	5.810	5.800	5.810	5.832	3.955
1980	5.800	5.812	5.800	5.796	5.820	3.914
1981	5.800	5.818	5.800	5.775	5.821	3.930
982	5.800	5.826	5.800	5.775	5.820	3.872
983	5.800	5.825	5.800	5.774	5.800	3.839
984	5.800	5.823	5.800	5.745	5.850	3.812
985	5.800	5.832	5.800	5.736	5.814	3.815
1986	5.800	5.903	5.800	5.808	5.832	3.797
1987	5.800	5.901	5.800	5.820	5.858	3.804
988	5.800	5.900	5.800	5.820	5.840	3.800
989	5.800	5.906	5.800	5.833	5.857	3.826
990	5.800	5.934	5.800	5.849	5.833	3.822
991	5.800	5.948	5.800	5.873	5.823	3.807
992	5.800	5.953	5.800	5.877	5.777	3.804
993	5.800	5.954	5.800	5.883	5.779	3.801
1994 <sup>a</sup>	5.800	5.951	5.800	5.862	5.781	3.794
1995 <sup>a</sup>	5.800	5.951	5.800	5.862	5.781	3.794

<sup>a</sup> Preliminary.

Note: Crude oil includes lease condensate.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

### Table A3. Approximate Heat Content of Petroleum Products, Weighted Averages (Million Btu per Barrel)

			Consumption					
	Residential and Commercial	Industrial	Transportation	Electric Utilities	Total	Imports	Exports	LPG Consumption
1973	5.387	5.568	5.395	6.245	5.515	5.983	5.752	3.746
1974	5.377	5,538	5.394	6.238	5.504	5.959	5.773	3.730
1975	5.358	5,528	5.392	6.250	5.494	5.935	5.747	3.715
1976	5.383	5,538	5.395	6.251	5.504	5.980	5.743	3.711
1977	5.389	5.555	5.400	6.249	5.518	5.908	5.796	3.677
1978	5.382	5,553	5.404	6.251	5.519	5.955	5.814	3.669
1979	5.471	5.418	5.428	6.258	5.494	5.811	5.864	3.680
1980	5.468	5.376	5.440	6.254	5.479	5.748	5.841	3.674
1981	5.409	5.313	5.432	6.258	5.448	5.659	5.837	3.643
1982	5.392	5.263	5.422	6.258	5.415	5.664	5.829	3.615
1983	5.286	5.273	5.415	6.255	5.406	5.677	5.800	3.614
1984	5.384	5.223	5.422	6.251	5.395	5.613	5.867	3.599
1985	5.326	5.221	5.423	6.247	5.387	5.572	5.819	3.603
1986	5.357	5.286	5.427	6.257	5.418	5.624	5.839	3.640
1987	5.316	5.253	5.430	6.249	5.403	5.599	5.860	3.659
1988	5.320	5.248	5.434	6.250	5.410	5.618	5.842	3.652
1989	5.257	5.233	5.440	6.241	5.410	5.641	5.869	3.683
1990	5.208	5.272	5.445	6.247	5.411	5.614	5.838	3.625
1991	5.163	5.192	5.442	6.248	5.384	5.636	5.827	3.614
1992	5.169	5.188	5.445	6.243	5.378	5.623	5.774	3.624
1993	5.148	5.200	5.438	6.241	5.379	5.620	5.777	3.606
1994 <sup>a</sup>	5.122	5.181	5.441	6.231	5.371	5.538	5.779	3.635
1995 <sup>a</sup>	5.122	5.181	5.441	6.231	5.371	5.538	5.779	3.635

<sup>a</sup> Preliminary.

Note: Weighted averages of the products included in each category are calculated by using heat content values shown in Table A1. Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

### Table A4. Approximate Heat Content of Natural Gas

(Btu per Cubic Foot)

	Prod	luction		Consumption			
	Dry	Marketed (Wet)	Sectors Other Than Electric Utilities	Electric Utilities	Total	Imports	Exports
973	1,021	1.093	1,020	1,024	1,021	1,026	1,023
974	1,024	1.097	1.024	1.022	1,024	1.027	1,016
975	1,021	1,095	1,020	1,026	1,021	1,026	1,014
976	1,020	1,093	1,019	1,023	1,020	1,025	1,013
977	1.021	1.093	1.019	1.029	1.021	1.026	1,013
978	1,019	1,088	1,016	1,034	1,019	1,030	1,013
979	1,021	1,092	1.018	1,035	1,021	1.037	1,013
980	1,026	1,098	1,024	1,035	1,026	1,022	1,013
981	1.027	1.103	1.025	1.035	1.027	1.014	1,011
982	1,028	1,107	1,026	1,036	1,028	1,018	1,011
983	1,031	1,115	1,031	1,030	1,031	1,024	1,010
984	1,031	1,109	1,030	1,035	1,031	1,005	1,010
985	1,032	1,112	1,031	1,038	1,032	1,002	1,011
986	1,030	1,110	1,029	1,034	1,030	997	1,008
987	1,031	1,112	1,031	1,032	1,031	999	1,011
988	1,029	1,109	1,029	1,028	1,029	1,002	1,018
989	1,031	1,107	1,031	1,030	1,031	1,004	1,019
990	1,031	1,105	1,030	1,034	1,031	1,012	1,018
991	1,030	1,108	1,031	1,024	1,030	1,014	1,022
992	1,030	1,110	1,031	1,022	1,030	1,011	1,018
993	1,027	1,106	1,028	1,022	1,027	1,020	1,016
994 <sup>a</sup>	1,028	1,105	1,029	1,022	1,028	1,022	1,011
995 <sup>a</sup>	1,028	1,105	1,029	1,022	1,028	1,022	1,011

<sup>a</sup> Preliminary. Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

### Table A5. Approximate Heat Content of Coal

(Million Btu per Short Ton)

				Consumption				
	Production	Residential and Commercial	Coke Plants	Other Industrial <sup>a</sup>	Electric Utilities <sup>b</sup>	Total	Imports	Exports
1973	23.376	22.831	26.780	22.586	22.246	23.057	25.000	26.596
1974	23.072	22.479	26.778	22.419	21.781	22.677	25.000	26.700
1975	22.897	22.261	26.782	22.436	21.642	22.506	25.000	26.562
1976	22.855	22.774	26.781	22.530	21.679	22.498	25.000	26.601
1977	22.597	22.919	26.787	22.322	21.508	22.265	25.000	26.548
1978	22.248	22.466	26.789	22.207	21.275	22.017	25.000	26.478
1979	22.454	22.242	26.788	22.452	21.364	22.100	25.000	26.548
1980	22.415	22.543	26.790	22.690	21.295	21.947	25.000	26.384
1981	22,308	22.474	26.794	22.585	21.085	21.713	25.000	26.160
1982	22.239	22.695	26,797	22,712	21,194	21.674	25.000	26.223
1983	22.052	22.775	26.798	22.691	21.133	21.576	25.000	26.291
1984	22.010	22.844	26.799	22.543	21.101	21.573	25.000	26.402
1985	21.870	22.646	26.798	22.020	20.959	21.366	25.000	26.307
1986	21.913	22.947	26.798	22.198	21.084	21.462	25.000	26.292
1987	21.922	23.404	26.799	22.381	21.136	21.517	25.000	26.291
1988	21.823	23.571	26.799	22.360	20.900	21.328	25.000	26.299
1989	21.765	23.650	26.800	22.347	20.848	21.272	25.000	26.160
1990	21.822	23.137	26.799	22.457	20.929	21.331	25.000	26.202
1991	21.681	23.114	26.799	22.460	20.755	21.146	25.000	26.188
1992	21.646	23.105	26.799	22.250	20.787	21.143	25.000	26.161
1993	21.388	22.994	26.800	22.123	20.639	20.983	25.000	26.335
1994	21.352	23.112	26.800	22.068	20.673	21.010	25.000	26.329
1995 <sup>c</sup>	<sup>R</sup> 21.278	<sup>R</sup> 23.165	26.800	<sup>R</sup> 21.909	<sup>R</sup> 20.502	<sup>R</sup> 20.852	25.000	<sup>R</sup> 26.207

 <sup>a</sup> Includes transportation.
 <sup>b</sup> Data shown in this column are not the same as those shown in the *Electric Power Monthly* (EPM). The EPM data report coal receipts; the data shown here represent coal consumption.

R=Revised data.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

# Table A6. Approximate Heat Content of Bituminous Coal and Lignite

(Million Btu per Short Ton)

				Consumption				
	Production	Residential and Commercial	Coke Plants	Other Industrial <sup>a</sup>	Electric Utilities	Total	Imports	Exports
973	23.391	22.887	26.800	22.585	22.262	23.073	25.000	26.612
974	23.087	22.523	26.800	22.420	21.799	22.694	25.000	26.716
975	22.910	22.258	26.800	22.439	21.659	22.522	25.000	26.573
976	22.863	22.819	26.800	22.528	21.692	22.509	25.000	26.613
977	22.597	22.594	26.800	22.290	21.521	22.266	25.000	26.561
978	22.242	22.078	26.800	22.175	21.284	22.014	25.000	26.501
979	22.449	21.884	26.800	22.436	21.372	22.100	25.000	26.570
980	22.411	22.488	26.800	22.690	21.301	21.950	25.000	26.404
981	22.301	22.010	26.800	22.572	21.091	21.710	25.000	26.176
982	22.233	22.226	26.800	22.695	21,200	21.670	25.000	26.231
983	22.048	22.438	26.800	22.680	21.141	21.576	25.000	26.300
984	22.005	22.406	26.800	22.525	21.108	21.570	25.000	26.410
985	21.867	22.568	26.800	22.013	20.965	21.368	25.000	26.320
986	21.908	22.669	26.800	22.185	21.091	21.462	25.000	26.308
987	21.918	22.800	26.800	22.360	21.143	21.514	25.000	26.304
988	21.817	23.135	26.800	22.341	20.905	21.324	25.000	26.308
989	21.759	22.917	26.800	22.324	20.854	21.268	25.000	26.166
990	21.819	22.678	26.800	22.444	20.935	21.330	25.000	26.207
991	21.678	22.635	26.800	22.448	20.761	21.146	25.000	26.192
992	21.643	22.768	26.800	22.242	20.792	21.142	25.000	26.165
993	21.383	22.749	26.800	22.111	20.644	20.983	25.000	26.341
994	21.347	22.683	26.800	22.046	20.681	21.011	25.000	26.335
995 <sup>b</sup>	<sup>R</sup> 21.272	<sup>R</sup> 22.785	26.800	<sup>R</sup> 21.887	<sup>R</sup> 20.509	<sup>R</sup> 20.852	25.000	<sup>R</sup> 26.212

<sup>a</sup> Includes transportation.

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

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

# Table A7. Approximate Heat Content of Anthracite and Coal Coke

(Million Btu per Short Ton)

			Anthracite			
			Consumption			Coal Coke
	Production	Sectors Other Than Electric Utilities	Electric Utilities	Total	Imports and Exports	Imports and Exports
1973	22.132	22.674	17.920	21.464	25.400	24.800
1974	21.711	22.330	17.200	20.919	25.400	24.800
1975	21.582	22.272	17.064	20.762	25.400	24.800
1976	22.045	22.618	17.526	21.254	25.400	24.800
977	22.661	24.101	17.244	22.066	25.400	24.800
978	23.079	24.388	17.104	22.398	25.400	24.800
979	23.170	24.272	17.454	22.069	25.400	24.800
980	22.869	22.719	17.652	21.405	25.400	24.800
981	23.291	23.749	18,168	22.080	25.400	24.800
982	23.289	24.578	18.160	22.518	25.400	24.800
983	22.734	24.536	16.516	21.583	25.400	24.800
984	23.107	25.128	17.018	22.322	25.400	24.800
985	22.428	23.031	16.784	20.817	25.400	24.800
986	23.084	24.399	15.578	21.512	25.400	24.800
987	23.108	26.293	15.962	22.435	25.400	24.800
988	23.266	26.021	17.312	22.423	25.400	24.800
989	23.385	27.196	16.310	22.623	25.400	24.800
990	22.574	25.199	16.140	21.668	25.400	24.800
991	22.573	25.268	15.858	21.410	25.400	24.800
992	22.572	24.617	16.944	21.423	25.400	24.800
993	22.573	24.096	16.534	21.262	25.400	24.800
994	22.572	25.037	14.680	20.828	25.400	24.800
995 <sup>a</sup>	<sup>R</sup> 22.573	<sup>R</sup> 24.872	<sup>R</sup> 14.568	<sup>R</sup> 20.860	25.400	24.800

<sup>a</sup> Preliminary.

R=Revised data.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

### Table A8. Approximate Heat Rates for Electricity

(Btu per Kilowatthour)

	Fossil-Fueled Steam-Electric Plants <sup>a</sup>	Nuclear Steam-Electric Plants	Geothermal Energy Plants	Electricity Consumptior
973	10.389	10,903	21,674	3,412
974	10,442	11.161	21,674	3,412
975	10,406	11.013	21,611	3.412
976	10,373	11.047	21,611	3.412
977	10,435	10,769	21,611	3,412
978	10,361	10,941	21.611	3,412
979	10,353	10,879	21,545	3,412
980	10,388	10,908	21,639	3,412
981	10.453	11.030	21.639	3.412
982	10,454	11.073	21.629	3.412
983	10,520	10,905	21,290	3,412
984	10,440	10,843	21,303	3.412
985	10,447	10,813	21,263	3,412
986	10,446	10,799	21,263	3,412
1987	10,419	10,776	21,263	3,412
988	10,324	10,743	21,096	3,412
989	10,317	10,724	21,096	3,412
990	10,335	10,680	21,096	3,412
991	10,352	10,740	20,997	3,412
992	10,302	10,678	20,914	3,412
993	10,280	10,682	20,914	3,412
994 <sup>b</sup>	10,280	10,682	20,914	3,412
995 <sup>b</sup>	10,280	10,682	20,914	3,412

<sup>a</sup> This thermal conversion factor is used for hydroelectric power generation and for biomass fuels, wind, photovoltaic, and solar thermal energy consumed at electric utilities. <sup>b</sup> Preliminary.

Source: See "Thermal Conversion Factor Source Documentation," which follows this table.

# Thermal Conversion Factor Source Documentation

#### Approximate Heat Content of Petroleum and Natural Gas Plant Liquids

Asphalt. The Energy Information Administration (EIA) adopted the thermal conversion factor of 6.636 million British thermal units (Btu) per barrel as estimated by the Bureau of Mines and first published in the Petroleum Statement, Annual, 1956.

Aviation Gasoline. EIA adopted the Bureau of Mines thermal conversion factor of 5.048 million Btu per barrel for "Gasoline, Aviation" as published by the Texas Eastern Transmission Corporation in Appendix V of Competition and Growth in American Energy Markets 1947-1985, a 1968 release of historical and projected statistics.

Butane. EIA adopted the Bureau of Mines thermal conversion factor of 4.326 million Btu per barrel in the California Oil World and Petroleum Industry, First Issue, April 1942.

Butane-Propane Mixture. EIA adopted the Bureau of Mines calculation of 4.130 million Btu per barrel based on an assumed mixture of 60 percent butane and 40 percent propane. See Butane and Propane.

Crude Oil, Exports. Assumed by EIA to be 5.800 million Btu per barrel or equal to the thermal conversion factor for crude oil produced in the United States. See Crude Oil and Lease Condensate, Production.

Crude Oil, Imports. Calculated annually by EIA by weighting the thermal conversion factor of each type of crude oil imported by the quantity imported. Thermal conversion factors for each type were calculated on a foreign country basis, by determining the average American Petroleum Institute (API) gravity of crude imported from each foreign country from Form ERA-60 in 1977 and converting average API gravity to average Btu content by using National Bureau of Standards, Miscellaneous Publication No. 97, Thermal Properties of Petroleum Products, 1933.

Crude Oil and Lease Condensate, Production. EIA adopted the thermal conversion factor of 5.800 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

Crude Oil and Petroleum Products, Exports. Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product exported and crude oil exported weighted by the quantity of each petroleum product and crude oil exported. See **Crude Oil, Exports** and **Petroleum Products, Exports**.

**Crude Oil and Petroleum Products, Imports.** Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product and each type of crude oil imported weighted by the quantity of each petroleum product and each type of crude oil imported. See **Crude Oil, Imports** and **Petroleum Products, Imports**.

**Distillate Fuel Oil**. EIA adopted the Bureau of Mines thermal conversion factor of 5.825 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Value of Various Fuels, Adopted January 3, 1950."

**Ethane.** EIA adopted the Bureau of Mines thermal conversion factor of 3.082 million Btu per barrel in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Ethane-Propane Mixture**. EIA calculated 3.308 million Btu per barrel based on an assumed mixture of 70 percent ethane and 30 percent propane. See **Ethane** and **Propane**.

**Isobutane**. EIA adopted the Bureau of Mines thermal conversion factor of 3.974 million Btu per barrel in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

Jet Fuel, Kerosene Type. EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel for "Jet Fuel, Commercial" as published by the Texas Eastern Transmission Corporation in Appendix V of Competition and Growth in American Energy Markets 1947-1985, a 1968 release of historical and projected statistics.

**Jet Fuel, Naphtha Type**. EIA adopted the Bureau of Mines thermal conversion factor of 5.355 million Btu per barrel for "Jet Fuel, Military" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

**Kerosene.** EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

Liquefied Petroleum Gases (LPG) Consumption. Calculated annually by EIA as the average of the thermal conversion factors of each liquefied petroleum gas consumed, weighted by the quantity of each liquefied petroleum gas consumed. **Lubricants.** EIA adopted the thermal conversion factor of 6.065 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.* 

**Miscellaneous Products.** EIA adopted the thermal conversion factor of 5.796 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.* 

**Motor Gasoline**. EIA adopted the Bureau of Mines thermal conversion factor of 5.253 million Btu per barrel for "Gasoline, Motor Fuel" by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets* 1947-1985, a 1968 release of historical and projected statistics.

**Natural Gas Plant Liquids, Production.** Calculated annually by EIA as the average of the thermal conversion factors of each natural gas plant liquid produced weighted by the quantity of each natural gas plant liquid produced.

**Natural Gasoline.** EIA adopted the thermal conversion factor of 4.620 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.* 

**Pentanes Plus.** EIA assumed the thermal conversion factor to be 4.620 million Btu per barrel or equal to that for natural gasoline. See **Natural Gasoline**.

**Petrochemical Feedstocks, Naphtha Less Than 401 Degrees Fahrenheit.** Assumed by EIA to be 5.248 million Btu per barrel, equal to the thermal conversion factor for special naphthas. See **Special Naphthas**.

**Petrochemical Feedstocks, Oils Equal to or Greater Than 401 Degrees Fahrenheit.** Assumed by EIA to be 5.825 million Btu per barrel, equal to the thermal conversion factor for distillate fuel oil. See **Distillate Fuel Oil**.

**Petrochemical Feedstocks, Still Gas.** Assumed by EIA to be 6.000 million Btu per barrel, equal to the thermal conversion factor for still gas. See **Still Gas**.

**Petroleum Coke.** EIA adopted the thermal conversion factor of 6.024 million Btu per barrel as reported in Btu per short ton in the Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Value of Various Fuels, Adopted January 3, 1950." The Bureau of Mines calculated this factor by dividing 30,120,000 Btu per short ton, as given in the referenced Bureau of Mines internal memorandum, by 5.0 barrels per short ton, as given in the Bureau of Mines Form 6-1300-M and successor EIA forms.

**Petroleum Products, Total Consumption.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products

consumed, weighted by the quantity of each petroleum product consumed.

**Petroleum Products, Consumption by Electric Utilities.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed at electric utilities, weighted by the quantity of each petroleum product consumed at electric utilities. The quantity of petroleum consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*.

**Petroleum Products, Consumption by Industrial Users**. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed in the industrial sector, weighted by the estimated quantity of each petroleum product consumed in the industrial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*.

**Petroleum Products, Consumption by Residential and Commercial Users.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the residential and commercial sector, weighted by the estimated quantity of each petroleum product consumed in the residential and commercial sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report.* 

**Petroleum Products, Consumption by Transportation Users**. Calculated annually by EIA as the average of the thermal conversion factor for all petroleum products consumed in the transportation sector, weighted by the estimated quantity of each petroleum product consumed in the transportation sector. The quantity of petroleum products consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report*.

**Petroleum Products, Exports.** Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product, weighted by the quantity of each petroleum product exported.

**Petroleum Products, Imports.** Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product imported, weighted by the quantity of each petroleum product imported.

**Plant Condensate.** Estimated to be 5.418 million Btu per barrel by EIA from data provided by McClanahan Consultants, Inc., Houston, Texas.

**Propane**. EIA adopted the Bureau of Mines thermal conversion factor of 3.836 million Btu per barrel in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Residual Fuel Oil.** EIA adopted the thermal conversion factor of 6.287 million Btu per barrel as reported in the Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

**Road Oil.** EIA adopted the Bureau of Mines thermal conversion factor of 6.636 million Btu per barrel, which was assumed to be equal to that of asphalt (see **Asphalt**) and was first published by the Bureau of Mines in the *Petroleum Statement, Annual, 1970*.

**Special Naphthas.** EIA adopted the Bureau of Mines thermal conversion factor of 5.248 million Btu per barrel, which was assumed to be equal to that of total gasoline (aviation and motor) factor and was first published in the *Petroleum Statement, Annual, 1970.* 

**Still Gas.** EIA adopted the Bureau of Mines estimated thermal conversion factor of 6.000 million Btu per barrel and first published in the *Petroleum Statement*, *Annual*, 1970.

**Unfinished Oil.** EIA assumed the thermal conversion factor to be 5.825 million Btu per barrel or equal to that for distillate fuel oil (see **Distillate Fuel Oil**) and first published in the *Annual Report to Congress*, *Volume 3, 1977*.

**Unfractionated Stream.** EIA assumed the thermal conversion factor to be 5.418 million Btu per barrel or equal to that for plant condensate (see **Plant Condensate**) and first published in the *Annual Report to Congress, Volume 2, 1981.* 

**Waxes.** EIA adopted the thermal conversion factor of 5.537 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956.* 

# Approximate Heat Content of Natural Gas

**Natural Gas, Total Consumption.** 1973-1979: EIA adopted the thermal conversion factor calculated annually by the American Gas Association (AGA) and published in *Gas Facts*, an AGA annual publication. 1980 forward: Calculated annually by EIA by dividing the total heat content of natural gas consumed by the total quantity of natural gas consumed. The heat content and quantity consumed are from Form EIA-176. Published sources are: 1980-1989: EIA, *Natural Gas Annual 1992, Volume 2*, Table 15. 1990-1992: EIA, *Natural Gas Annual 1992, Volume 2*, Table 16. 1993 forward: 1992 value used as an estimate.

**Natural Gas, Consumption by Electric Utilities.** Calculated annually by EIA by dividing the total heat content of natural gas received at electric utilities by the total quantity received at electric utilities. The heat contents and receipts are from Form FERC-423 and predecessor forms.

**Natural Gas, Consumption by Sectors Other Than Electric Utilities**. Calculated annually by EIA by dividing the heat content of all natural gas consumed less the heat content of natural gas consumed at electric utilities by the quantity of all natural gas consumed less the quantity of natural gas consumed at electric utilities. Data are from Forms EIA-176, FERC-423, EIA-759, and predecessor forms.

**Natural Gas, Exports**. Calculated annually by EIA by dividing the heat content of exported natural gas by the quantity of natural gas exported, both reported on Form FPC-14.

**Natural Gas, Imports.** Calculated annually by EIA by dividing the heat content of imported natural gas by the quantity of natural gas imported, both reported on Form FPC-14.

Natural Gas Production, Dry. Assumed by EIA to be equal to the thermal conversion factor for the consumption of dry natural gas. See Natural Gas Total Consumption.

**Natural Gas Production, Marketed (Wet).** Calculated annually by EIA by adding the heat content of dry natural gas production and the total heat content of natural gas plant liquids production and dividing this sum by the total quantity of marketed (wet) natural gas production.

# Approximate Heat Content of Coal and Coal Coke

Anthracite, Total Consumption. Calculated annually by EIA by dividing the sum of the heat content of anthracite consumed by electric utilities and all other sectors combined by the total quantity of anthracite consumed.

Anthracite, Consumption by Electric Utilities. Calculated annually by EIA by dividing the heat content of anthracite receipts at electric utilities by the quantity of anthracite received at electric utilities. Heat contents and receipts are from Form FERC-423 and predecessor forms.

Anthracite, Consumption by Sectors Other Than Electric Utilities. Calculated annually by EIA by dividing the heat content of anthracite production less the heat content of the anthracite consumed at electric utilities, net exports, and shipments to U.S. Armed Forces overseas by the quantity of anthracite consumed by sectors other than electric utilities less the quantity of anthracite stock changes, losses, and "unaccounted for."

Anthracite, Imports and Exports. EIA assumed the anthracite imports and exports to be freshly mined

anthracite having an estimated heat content of 25.40 million Btu per short ton.

Anthracite, Production. Calculated annually by EIA by dividing the sum of the heat content of freshly mined anthracite (estimated to have an average heat content of 25.400 million Btu per short ton) and the heat content of anthracite recovered from culm banks and river dredging (estimated to have a heat content of 17.500 million Btu per short ton) by the total quantity of anthracite production.

**Bituminous Coal and Lignite, Total Consumption**. Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite consumed by electric utilities, coal coke plants, other industrial plants, the residential and commercial sector, and the transportation sector by the sum of their respective tonnages.

**Bituminous Coal and Lignite, Consumption by Coke Plants**. Estimated by EIA to be 26.800 million Btu per short ton on the basis of an input/output analysis of coal carbonization.

**Bituminous Coal and Lignite, Consumption by Electric Utilities.** Calculated annually by EIA by dividing the total heat content of bituminous coal and lignite received at electric utilities by the total quantity received at electric utilities. Heat contents and receipts are from Form FERC-423 and predecessor forms.

Bituminous Coal and Lignite, Consumption by Other Industrial and Transportation Users. 1973: Calculated by EIA through regression analysis measuring the difference between the average Btu value of coal consumed by other industrial users and that of coal consumed at electric utilities in the 1974-1982 period. 1974 forward: Calculated annually by EIA by assuming that the bituminous coal and lignite delivered to other industrial users from each coal-producing area (reported on Form EIA-6 and predecessor Bureau of Mines Form 6-1419-Q) contained a heat value equal to that of bituminous coal and lignite received at electric utilities from each of the same coal-producing areas (reported on Form FERC-423). The average Btu value of coal by coal-producing area was applied to the volume of deliveries to other industrial users from each coal-producing area, and the sum total of the heat content was divided by the total volume of deliveries. Coal-producing areas are the Bureau of Mines coal-producing districts for 1974 through 1989 and coal-producing States for 1990 forward.

**Bituminous Coal and Lignite, Consumption by Residential and Commercial Users.** 1973: Calculated by EIA through regression analysis measuring the difference between the average Btu value of coal consumed by residential and commercial users and that of coal consumed by electric utilities in the 1974-1982 period. 1974 forward: Calculated annually by EIA by assuming that the bituminous coal and lignite delivered to residential and commercial users from each coal-producing area (reported on Form EIA-6 and predecessor Bureau of Mines Form 6-1419-Q) contained a heat value equal to that of bituminous coal and lignite received at electric utilities from each of the same coal-producing areas (reported on Form FERC-423). The average Btu value of coal by coal-producing area was applied to the volume of deliveries to residential and commercial users from each coal-producing area, and the total of the heat value was divided by the total volume of deliveries. Coal-producing areas are the Bureau of Mines coal-producing districts for 1974 through 1989 and coal-producing States for 1990 forward.

**Bituminous Coal and Lignite, Exports.** Calculated annually by EIA by dividing the sum of the heat content of exported metallurgical coal (estimated to average 27.000 million Btu per short ton) and the heat content of exported steam coal (estimated to have an average thermal content of 25.000 million Btu per short ton) by the total quantity of bituminous coal and lignite exported.

**Bituminous Coal and Lignite, Imports.** EIA estimated the average thermal conversion factor to be 25.000 million Btu per short ton.

**Bituminous Coal and Lignite, Production**. Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite consumption, net exports, stock changes, and unaccounted for by the sum of their respective tonnages. Consumers' stock changes by sectors were assumed to have the same conversion factor as that of the consumption sector. Producers' stock changes and unaccounted for were assumed to have the same conversion factor as that for consumption by all users.

**Coal, Consumption.** Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite consumption by the sum of their respective tonnages.

**Coal, Consumption by Electric Utilities**. Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite received at electric utilities by the sum of their respective tonnages received.

**Coal, Consumption by Sectors Other Than Electric Utilities.** Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite consumed by sectors other than electric utilities by the sum of their respective tonnages.

**Coal, Exports.** Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite exported by the sum of their respective tonnages.

**Coal, Imports.** Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite imported by the sum of their respective tonnages.

**Coal, Production.** Calculated annually by EIA by dividing the sum of the total heat content of bituminous coal and lignite and anthracite production by the sum of their respective tonnages.

**Coal Coke, Imports and Exports.** EIA adopted the Bureau of Mines estimate of 24.800 million Btu per short ton.

#### Approximate Heat Rates for Electricity

Fossil-Fueled Steam-Electric Plant Generation. There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydroelectric, wood and waste, wind, photovoltaic, or solar thermal energy sources. Therefore, EIA uses data from Form EIA-767 to calculate a rate factor that is equal to the prevailing annual average heat rate factor for fossil-fueled steam-electric power plants in the United States. By using that factor, it is possible to evaluate fossil fuel requirements for replacing those sources during periods of interruption such as droughts. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatthour. 1973-1991: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published by EIA in Electric Plant Cost and Power Production Expenses 1991, Table 9. 1992 forward: Unpublished factors calculated on the basis of data from Form EIA-767.

**Geothermal Energy Plant Generation.** 1973-1981: Calculated annually by EIA by weighting the annual average heat rates of operating geothermal units by the installed nameplate capacities as reported on Form FPC-12. 1982 forward: Estimated annually by EIA on the basis of an informal survey of relevant plants.

Nuclear Steam-Electric Plant Generation. 1973-1991: Calculated annually by EIA by dividing the total heat content consumed in nuclear generating units by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation are reported on Form FERC-1, Form EIA-412, and predecessor forms. The factors, beginning with 1982 data, are published in the following EIA reports-1982: Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982, page 215. 1983-1991: Electric Plant Cost and Power Production Expenses 1991, Table 13. 1992 forward: Calculated annually by EIA by dividing the total heat content of the steam leaving the nuclear generating units to generate electricity by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation data are reported in Nuclear Regulatory Commission, Licensed Operating Reactors—Status Summary Report.

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# Appendix B. Metric and Other Physical Conversion Factors

Data presented in the *Monthly Energy Review* and in other Energy Information Administration publications are expressed predominately in units that historically have been used in the United States, such as British thermal units, barrels, cubic feet, and short tons. However, because U.S. commerce involves other nations, most of which use metric units of measure, the U.S. Government is committed to the transition to the metric system, as stated in the Metric Conversion Act of 1975 (Public Law 94–168), amended by the Omnibus Trade and Competitiveness Act of 1988 (Public Law 100–418), and Executive Order 12770 of July 25, 1991.

The metric conversion factors presented in Table B1 can be used to calculate the metric-unit equivalents of values expressed in U.S. customary units. For example, 500 short tons are the equivalent of 453.6 metric tons (500 short tons x 0.9071847 metric tons/short ton = 453.6 metric tons).

In the metric system of weights and measures, the names of multiples and subdivisions of any unit may be derived by combining the name of the unit with prefixes, such as deka, hecto, and kilo, meaning, respectively, 10, 100, 1,000, and deci, centi, and milli, meaning, respectively, one-tenth, one-hundredth, and one-thousandth. Common metric prefixes can be found in Table B2.

The conversion factors presented in Table B3 can be used to calculate equivalents in various physical units commonly used in energy analyses. For example, 10 barrels are the equivalent of 420 U.S. gallons (10 barrels x 42 gallons/barrel = 420 gallons).

Type of Unit	U.S. Unit	multiplied by	Conversion Factor	equals	Metric Unit
Mass	short tons (2,000 lb)	х	0.907 184 7	=	metric tons (t)
	long tons	х	1.016 047	=	metric tons (t)
	pounds (lb)	х	0.453 592 37 <sup>a</sup>	=	kilograms (kg)
	pounds uranium oxide (lb $U_3O_8$ )	х	0.384 647 <sup>b</sup>	=	kilograms uranium (kgU)
	ounces, avoirdupois (avdp oz)	x	28.349 52	=	grams (g)
Volume	barrels of oil (bbl)	x	0.158 987 3	=	cubic meters (m <sup>3</sup> )
	cubic yards (yd <sup>3</sup> )	х	0.764 555	=	cubic meters (m <sup>3</sup> )
	cubic feet (ft <sup>3</sup> )	х	0.028 316 85	=	cubic meters (m <sup>3</sup> )
	U.S. gallons (gal)	х	3.785 412	=	liters (L)
	ounces, fluid (fl oz)	х	29.573 53	=	milliliters (mL)
	cubic inches (in <sup>3</sup> )	х	16.387 06	=	milliliters (mL)
Length	miles (mi)	x	1.609 344 <sup>a</sup>	=	kilometers (km)
	yards (yd)	х	0.914 4 <sup>a</sup>	=	meters (m)
	feet (ft)	х	0.304 8 <sup>a</sup>	=	meters (m)
	inches (in)	х	2.54 <sup>b</sup>	=	centimeters (cm)
Area	acres	x	0.404 69	=	hectares (ha)
	square miles (mi <sup>2</sup> )	х	2.589 988	=	square kilometers (km <sup>2</sup> )
	square yards (yd <sup>2</sup> )	х	0.836 127 4	=	square meters (m <sup>2</sup> )
	square feet (ft <sup>2</sup> )	х	0.092 903 04 <sup>a</sup>	=	square meters (m <sup>2</sup> )
	square inches (in <sup>2</sup> )	х	6.451 6 <sup>b</sup>	=	square centimeters (cm <sup>2</sup> )
Temperature	degrees Fahrenheit ( <sup>o</sup> F)	x	5/9 (after subtracting 32) <sup>a,c</sup>	=	degrees Celsius ( <sup>o</sup> C)
Energy	British thermal units (Btu)	x	1, 055.055 852 62 <sup>a,d</sup>	=	joules (J)
	calories (cal)	х	4.186 8 <sup>a</sup>	=	joules (J)
	kilowatthours (kWh)	х	3.6 <sup>a</sup>	=	megajoules (MJ)

#### **Table B1. Metric Conversion Factors**

<sup>a</sup>Exact conversion.

<sup>b</sup>Calculated by the Energy Information Administration.

<sup>c</sup>To convert degrees Celsius (<sup>o</sup>C) to degrees Fahrenheit (<sup>o</sup>F) exactly, multiply by 9/5, then add 32.

<sup>d</sup>The Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956.

Notes: • Spaces have been inserted after every third digit to the right of the decimal for ease of reading. • Most metric units belong to the International System of Units (SI), and the liter, hectare, and metric ton are accepted for use with the SI units. For more information about the SI units, contact Dr. Barry Taylor at Building 221, Room B610, National Institute of Standards and Technology, Gaithersburg, MD 20899, or on telephone number 301–975–4220.

Sources: • General Services Administration, Federal Standard 376B, *Preferred Metric Units for General Use by the Federal Government* (Washington, DC, January 27, 1993), pp. 9–11, 13, and 16. • National Institute of Standards and Technology, Special Publications 330, 811, and 814. • American National Standards Institute/Institute of Electrical and Electronic Engineers, ANSI/IEEE Std 268–1992, pp. 28 and 29.

Unit Multiple	Prefix	Symbol	Unit Subdivision	Prefix	Symbol
10 <sup>1</sup>	deka	da	10 <sup>-1</sup>	deci	d
10 <sup>2</sup>	hecto	h	10 <sup>-2</sup>	centi	С
10 <sup>3</sup>	kilo	k	10 <sup>-3</sup>	milli	m
10 <sup>6</sup>	mega	М	10 <sup>-6</sup>	micro	μ
10 <sup>9</sup>	giga	G	10 <sup>-9</sup>	nano	n
$10^{12}$	tera	Т	10 <sup>-12</sup>	pico	р
10 <sup>15</sup>	peta	Р	10 <sup>-15</sup>	femto	f
10 <sup>18</sup>	exa	Е	10 <sup>-18</sup>	atto	а
10 <sup>21</sup>	zetta	Z	10 <sup>-21</sup>	zepto	Z
10 <sup>24</sup>	yotta	Y	10 <sup>-24</sup>	yocto	У

#### **Table B2. Metric Prefixes**

Source: U.S. Department of Commerce, National Institute of Standards and Technology, *The International System of Units (SI)*, NIST Special Publication 330, 1991 Edition (Washington, DC, August 1991), p. 10.

### **Table B3. Other Physical Conversion Factors**

Energy Source	Original Unit	multiplied by	Conversion Factor	equals	Final Unit
Petroleum	barrels (bbl)	х	42 <sup>a</sup>	=	U.S. gallons (gal)
Coal	short tons	x	2,000 <sup>a</sup>	=	pounds (lb)
	long tons	х	2,240 <sup>a</sup>	=	pounds (lb)
	metric tons (t)	x	1,000 <sup>a</sup>	=	kilograms (kg)
Wood	cords (cd)	x	1.25 <sup>b</sup>	=	short tons
	cords (cd)	х	128 <sup>a</sup>	=	cubic feet (ft <sup>3</sup> )

<sup>a</sup>Exact conversion. <sup>b</sup>Calculated by the Energy Information Administration. Source: U.S. Department of Commerce, National Institute of Standards and Technology, *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, NIST Handbook 44, 1994 Edition (Washington, DC, October 1993), pp. B–10, C–17 and C–21.

# Appendix C. Carbon Dioxide Emission Factors for Coal

The need for accurate estimates of carbon dioxide emissions produced during the combustion of coal has led the Energy Information Administration (EIA) to develop basic emission factors. Basic emission factors reflect the carbon-to-heat-content ratio of coal, a ratio which measures carbon dioxide emissions per unit of energy (pounds per million Btu), assuming complete combustion. These basic factors are derived from 5,426 sample analyses maintained in EIA's Coal Analysis File. Variations in the carbon-to-heat-content of different coals were observed to follow coal rank and geographic origin, leading EIA to develop basic emission factors specific to the rank and the State of origin of the coal.

On the basis of these rank- and State-specific basic emission factors for coal, EIA has also developed emission factors by sector. These sectoral emission factors weight the coal consumed in a given sector by its rank and State of origin. Table C1 presents the U.S. average carbon dioxide emission factors for coal by sector. Emission factors differ among sectors and within a given sector over time for a number of reasons:

- A higher average emission factor in the residential and commercial sector can be attributed to the steady consumption of bituminous coal and anthracite (presumably for home heating).
- Virtually all of the coal consumed by coke plants comes from only a few States in the Appalachian Coal Basin (West Virginia, Virginia, and eastern Kentucky). Hence, the emission factors for this sector have remained fairly constant.
- Other industrial users of coal (not coke plants) increased consumption of low-rank, high-emission western coals, which has contributed to a rise in their average emission factor.
- Electric utilities, which account for most U.S. coal consumption, have shifted over time away from high-rank, low-emission bituminous coal to low-rank, high-emission subbituminous coal and lignite as reflected in a gradually rising weighted-average carbon dioxide emission factor.

#### Table C1. Average Carbon Dioxide Emission Factors for Coal by Coal-Consuming Sector (Pounds of Carbon Dioxide per Million Btu)

		Indus	trial		
Year	Residential and Commercial	Coke Plants <sup>a</sup>	Other Coal	Electric Utilities	U.S. Average <sup>b</sup>
1980	210.6	205.8	205.9	206.7	206.5
1981	212.0	205.8	205.9	206.9	206.7
1982	210.4	205.7	206.0	207.0	206.9
1983	209.2	205.5	205.9	207.1	207.0
1984	209.5	205.6	206.2	207.1	207.0
1985	209.3	205.6	206.4	207.3	207.1
1986	209.2	205.4	206.5	207.3	207.1
1987	209.4	205.2	206.4	207.3	207.2
1988	209.1	205.3	206.4	207.6	207.3
1989	209.7	205.3	206.6	207.5	207.3
1990	209.5	206.2	206.8	207.6	207.4
1991	210.2	206.2	206.9	207.7	207.5
1992	211.2	206.2	207.1	207.7	207.6
1993	209.9	206.2	207.0	207.8	207.7

<sup>a</sup>No allowances have been made for carbon retained in non-energy coal chemical byproducts from the coal carbonization process.

<sup>b</sup>Weighted average. The weights used are consumption values by sector.

Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

# **Appendix D. List of Features**

The following is a complete list of features that have appeared in the *Monthly Energy Review* since the first issue was published in October 1974. There are five categories of features on the list. "Articles" cover a wide range of energy-related subjects in depth. "Highlights" summarize the most important information presented in the subject Energy Information Administration (EIA) report. "Energy Previews" provide brief overviews of EIA preliminary energy data on a given topic. "EIA Data News" items present information on recent changes in the scope, design, methodology, and findings of EIA's energy surveys and databases. "Energy Snapshots" use graphics to set off key data from EIA survey reports. Questions and comments about features may be directed to Barbara T. Fichman by telephone at 202-586-5737, by fax at 202-586-0018, or by Internet E-Mail at bfichman@eia.doe.gov.

Cover Date

#### Feature

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# Glossary

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. It conforms to ASTM Specification D388-84 for anthracite, meta-anthracite, and semianthracite.

**Asphalt:** A dark-brown-to-black cement-like material containing bitumens as the predominant constituents obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts.

**ASTM:** The American Society for Testing and Materials.

Aviation Gasoline Blending Components: Naphthas that are used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols and ethers), butane, and pentanes plus.

Aviation Gasoline, Finished: All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components that will be used in blending or compounding into finished aviation gasoline.

**Barrel (petroleum):** A unit of volume equal to 42 U.S. gallons.

**Base (Cushion) Gas:** The volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

**Bituminous Coal:** A dense black coal, often with well-defined bands of bright and dull material, with a moisture content usually less than 20 percent. Often referred to as soft coal. It is the most common coal and is used primarily for generating electricity, making coke, and space heating. It conforms to ASTM Specification D388-84 for bituminous coal. In this report, bituminous coal includes subbituminous coal.

**British Thermal Unit (Btu):** The quantity of heat needed to raise the temperature of 1 pound of water by 1° F at or near 39.2° F. See Heat Content of a Quantity of Fuel, Gross and Heat Content of a Quantity of Fuel, Net.

**Butane:** A normally gaseous straight-chain or branched-chain hydrocarbon ( $C_4H_{10}$ ). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

- *Isobutane:* A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.
- Normal Butane: A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

**Butylene:** An olefinic hydrocarbon  $(C_4H_8)$  recovered from refinery processes.

**Capacity Factor:** The ratio of the electrical energy produced by a generating unit for a given period of time to the electrical energy that could have been produced at continuous full-power operation during the same period.

#### CIF: See Cost, Insurance, Freight.

**City Gate:** A point or measuring station at which a distribution gas utility receives gas from a natural gas pipeline company or transmission system.

**Coal:** A black or brownish-black solid, combustible substance formed by the partial decomposition of vegetable matter without access to air. The rank of coal, which includes anthracite, bituminous coal, subbituminous coal, and lignite, is based on fixed carbon, volatile matter, and heating value. Coal rank indicates the progressive alteration, or coalification, from lignite to anthracite. Lignite contains approximately 9 to 17 million Btu per ton. The heat contents of subbituminous and bituminous coal range from 16 to 24 million Btu per ton, and from 19 to 30 million Btu per ton, respectively. Anthracite contains approximately 22 to 28 million Btu per ton.

**Coal Coke:** A hard, porous product made from baking bituminous coal in ovens at temperatures as high as  $2,000^{\circ}$  F. It is used both as a fuel and as a reducing agent in smelting iron ore in a blast furnace.

**Commercial Sector:** The commercial sector, as defined economically, consists of business establishments that are not engaged in transportation or in manufacturing or other types of industrial activity (agriculture, mining, or construction). Commercial establishments include hotels, motels, restaurants,

wholesale businesses, retail stores, laundries, and other service enterprises; religious and nonprofit organizations; health, social, and educational institutions; and Federal, State, and local governments. Street lights, pumps, bridges, and public services are also included if the establishment operating them is considered commercial.

**Completion:** The installation of permanent equipment for the production of oil or gas. If a well is equipped to produce only oil or gas from one zone or reservoir, the definition of a well (classified as an oil well or gas well) and the definition of a completion are identical. However, if a well is equipped to produce oil and/or gas separately from more than one reservoir, a well is not synonymous with a completion.

**Conversion Factor:** A number that translates units of one system into corresponding values of another system. Conversion factors can be used to translate physical units of measure for various fuels into Btu equivalents.

**Cost, Insurance, Freight (CIF):** A type of sale in which the buyer of the product agrees to pay a unit price that includes the f.o.b. value of the product at the point of origin plus all costs of insurance and transportation. This type of transaction differs from a "delivered" purchase in that the buyer accepts the quantity as determined at the loading port (as certified by the Bill of Loading and Quality Report) rather than pay on the basis of the quantity and quality ascertained at the unloading port. It is similar to the terms of an f.o.b. sale, except that the seller, as a service for which he is compensated, arranges for transportation and insurance.

**Crude Oil f.o.b. Price:** The crude oil price actually charged at the oil-producing country's port of loading. Includes deductions for any rebates and discounts or additions of premiums, where applicable. It is the actual price paid with no adjustment for credit terms.

**Crude Oil (Including Lease Condensate):** A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Where identifiable, liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded.

**Crude Oil Landed Cost:** The price of crude oil at the port of discharge, including charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. The cost does not include charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage). **Crude Oil Refinery Input:** The total crude oil put into processing units at refineries.

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

**Crude Oil Used Directly:** Crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

**Cubic Foot (natural gas):** A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of  $60^{\circ}$  F.

**Degree-Day Normals:** Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1961-1990). The averages may be simple degree-day normals or population-weighted degree-day normals.

**Degree-Days, Cooling (CDD):** The number of degrees per day that the daily average temperature is above  $65^{\circ}$  F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

**Degree-Days, Heating (HDD):** The number of degrees per day that the daily average temperature is below  $65^{\circ}$  F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

Degree-Days. Population-Weighted: Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute State population-weighted degree-days, each State is divided into from one to nine climatically homogeneous divisions, which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and those products are then summed to arrive at the State population-weighted degree-day figure. To compute national population-weighted degree-days, the Nation is divided into nine Census regions, each comprising from three to eight States, which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and those products are then summed to arrive at the national population-weighted degree-day figure.

**Design Electrical Rating, Net:** The nominal net electrical output of a nuclear unit as specified by the electric utility for the purpose of plant design.

**Development Well:** A well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

**Distillate Fuel Oil:** A general classification for one of the petroleum fractions produced in conventional distillation operations. Included are products known as No. 1, No. 2, and No. 4 fuel oils and No. 1, No. 2, and No. 4 diesel fuels. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation.

**Dry Hole:** An exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

Dry Natural Gas Production (as a decrement from gas reserves): The volume of natural gas withdrawn from reservoirs during the report year less (1) the volume returned to such reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; (2) shrinkage resulting from the removal of lease condensate and plant liquids; and (3) nonhydrocarbon gases, where they occur in sufficient quantity to render the gas unmarketable. Volumes of gas withdrawn from gas storage reservoirs and native gas that has been transferred to the storage category are not considered production. This is not the same as marketed production, since the latter also excludes vented and flared gas but contains liquids.

Dry Natural Gas Production (as an increment to gas supply): Gross withdrawals from production reservoirs less gas used in reservoir repressuring, amounts vented and flared, nonhydrocarbons removed, and various natural gas constituents, such as ethane, propane, and butane, removed at natural gas processing plants. The parameters for measurement are  $60^{\circ}$  F and 14.73 pounds standard per square inch absolute.

**Electrical System Energy Losses:** The amount of energy lost during generation, transmission, and distribution of electricity, including plant and unaccounted-for uses.

**Electricity Generation:** The process of producing electric energy or transforming other forms of energy into electric energy. Also the amount of electric energy produced or expressed in watthours (Wh).

**Electricity Generation, Gross:** The total amount of electric energy produced by the generating station or stations, measured at the generator terminals.

**Electricity Generation, Net:** Gross generation less electricity consumed at the generating plant for station use. Electricity required for pumping at pumped-storage plants is regarded as plant use and is deducted from gross generation.

**Electricity Production:** Net electricity (gross electricity output measured at generator terminals minus power plant use) generated by publicly and

privately owned electric utilities. Excludes industrial electricity generation (except autogeneration of hydroelectric power).

**Electricity Sales:** The amount of kilowatthours sold in a given period of time; usually grouped by classes of service, such as residential, commercial, industrial, and other. "Other" sales include sales for public street and highway lighting and other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

**Electric Power Plant:** A station containing prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or fission energy into electric energy.

**Electric Utility:** A corporation, person, agency, authority, or other legal entity or instrumentality that owns and/or operates facilities for the generation, transmission, distribution, or sale of electric energy, primarily for use by the public, and that files forms listed in the *Code of Federal Regulations*, Title 18, Part 141. Facilities that qualify as cogenerators or small power producers under the Public Utility Regulatory Policies Act are not considered electric utilities.

**Electric Utility Sector:** The electric utility sector consists of privately and publicly owned establishments that generate, transmit, distribute, or sell electricity primarily for use by the public and that meet the definition of an electric utility. Nonutility power producers are not included in the electric utility sector.

**End-Use Sectors:** The residential, commercial, industrial, and transportation sectors of the economy.

**Energy:** The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertible and can be changed to another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks. Electrical energy is usually measured in kilowatthours, while heat energy is usually measured in British thermal units.

**Energy Consumption:** The use of energy as a source of heat or power or as an input in the manufacturing process.

**Energy Consumption, End-Use:** *Primary end-use energy consumption* is the sum of fossil fuel consumption by the four end-use sectors (residential, commercial, industrial, and transportation) and generation of hydroelectric power by nonelectric utilities. *Net end-use energy consumption* includes electric utility sales to those sectors but excludes electrical system energy losses. *Total end-use energy consumption* includes both electric utility sales to the four end-use sectors *and* electrical system energy losses.

**Energy Consumption, Total:** The sum of fossil fuel consumption by the five sectors (residential, commercial, industrial, transportation, and electric utility) plus hydroelectric power, nuclear electric power, net imports of coal coke, and electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

**Energy Source:** A substance, such as petroleum, natural gas, or coal, that supplies heat or power. In Energy Information Administration reports, electricity and renewable forms of energy, such as biomass, geothermal, wind, and solar, are considered to be energy sources.

**Ethane:** A normally gaseous straight-chain hydrocarbon ( $C_2H_6$ ). It is a colorless, paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

**Ethylene:** An olefinic hydrocarbon  $(C_2H_4)$  recovered from refinery processes or petrochemical processes.

**Exploratory Well:** A well drilled to find and produce oil or gas in an unproved area, to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir, or to extend the limit of a known oil or gas reservoir.

**Exports:** Shipments of goods from the 50 States and the District of Columbia to foreign countries and to Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

f.a.s.: See Free Alongside Ship.

**Federal Energy Regulatory Commission (FERC):** The Federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification. FERC is an independent regulatory agency within the Department of Energy and is the successor to the Federal Power Commission.

**Federal Power Commission (FPC):** The predecessor agency of the Federal Energy Regulatory Commission. The Federal Power Commission was created by an Act of Congress under the Federal Water Power Act on June 10, 1920. It was charged originally with regulating the electric power and natural gas industries. It was abolished on September 30, 1977, when the Department of Energy was created. Its functions were divided between the Department of Energy and the Federal Energy Regulatory Commission, an independent regulatory agency.

**First Purchase Price:** The marketed first sales price of domestic crude oil, consistent with the removal price defined by the provisions of the Windfall Profits Tax on Domestic Crude Oil (Public Law 96-223, Sec. 4998 (c)).

Flared Natural Gas: Natural gas burned in flares on the base site or at gas processing plants.

f.o.b.: See Free on Board.

**Footage Drilled:** Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells, and (3) all new footage drilled for directional sidetrack wells. Footage reported for directional sidetrack wells does not include footage in the common bore, which is reported as footage for the original well. In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

Former U.S.S.R.: See U.S.S.R.

Fossil Fuel: Any naturally occurring organic fuel, such as petroleum, coal, and natural gas.

**Fossil Fuel Steam-Electric Power Plant:** An electricity generation plant in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

**Free Alongside Ship** (f.a.s.): The value of a commodity at the port of exportation, generally including the purchase price, plus all charges incurred in placing the commodity alongside the carrier at the port of exportation.

**Free on Board (f.o.b.):** A transaction whereby the seller makes the product available within an agreed-on period at a given port at a given price. It is the responsibility of the buyer to arrange for the transportation and insurance.

**Fuel Ethanol:** An anhydrous, denatured aliphatic alcohol ( $C_2H_5OH$ ) intended for motor gasoline blending. See **Oxygenates.** 

**Full-Power Operation:** Operation of a nuclear generating unit at 100 percent of its design capacity. Full-power operation precedes commercial operation.

**Gasohol:** A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) limited to 10 percent by volume

of alcohol. Gasohol is included in finished leaded and unleaded motor gasoline.

**Gas-Turbine Electric Power Plant:** A plant in which the prime mover is a gas turbine. A gas turbine typically consists of an axial-flow air compressor, one or more combustion chambers where liquid or gaseous fuel is burned and the hot gases expand to drive the generator and then are used to run the compressor.

**Gas Well:** A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are classified as oil wells.)

**Geothermal Energy:** Energy from the internal heat of the Earth, which may be residual heat, friction heat, or a result of radioactive decay. The heat is found in rocks and fluids at various depths and can be extracted by drilling and/or pumping.

Geothermal Energy (as used at electric utilities): Hot water or steam extracted from geothermal reservoirs in the Earth's crust and supplied to steam turbines at electric utilities that drive generators to produce electricity.

**Gross Domestic Product (GDP):** The total value of goods and services produced by labor and property located in the United States. As long as the labor and property are located in the United States, the supplier (that is, the workers and, for property, the owners) may be either U.S. residents or residents of foreign countries.

Heat Content of a Quantity of Fuel, Gross: The total amount of heat released when a fuel is burned. Coal, crude oil, and natural gas all include chemical compounds of carbon and hydrogen. When those fuels are burned, the carbon and hydrogen combine with oxygen in the air to produce carbon dioxide and water. Some of the energy released in burning goes into transforming the water into steam and is usually lost. The amount of heat spent in transforming the water into steam is counted as part of gross heat content but is not counted as part of net heat content. Also referred to as the higher heating value. Btu conversion factors typically used in EIA represent gross heat content.

Heat Content of a Quantity of Fuel, Net: The amount of usable heat energy released when a fuel is burned under conditions similar to those in which it is normally used. Also referred to as the lower heating value. Btu conversion factors typically used in EIA represent gross heat content.

**Heavy Oil:** The fuel oils remaining after the lighter oils have been distilled off during the refining process. Except for start-up and flame stabilization, virtually all petroleum used in steam-electric power plants is heavy oil. **Hydrocarbon:** An organic chemical compound of hydrogen and carbon in the gaseous, liquid, or solid phase. The molecular structure of hydrocarbon compounds varies from the simplest (methane, the primary constituent of natural gas) to the very heavy and very complex.

**Hydroelectric Power:** The production of electricity from the kinetic energy of falling water.

Hydroelectric Power Plant: A plant in which the turbine generators are driven by falling water.

**Imports:** Receipts of goods into the 50 States and the District of Columbia from foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

**Industrial Sector:** The industrial sector comprises manufacturing industries, which make up the largest part of the sector, along with mining, construction, agriculture, fisheries, and forestry. Establishments in this sector range from steel mills, to small farms, to companies assembling electronic components.

**Internal Combustion Electric Power Plant:** A power plant in which the prime mover is an internal combustion engine. Diesel or gas-fired engines are the principal types used in electric power plants. The plant is usually operated during periods of high demand for electricity.

Jet Fuel: The term includes kerosene-type jet fuel and naphtha-type jet fuel. Kerosene-type jet fuel is a kerosene-quality product used primarily for commercial turbojet and turboprop aircraft engines. Naphtha-type jet fuel is a fuel in the heavy naphthas range used primarily for military turbojet and turboprop aircraft engines.

**Kerosene:** A petroleum distillate that has a maximum distillation temperature of  $401^{\circ}$  F at the 10-percent recovery point, a final boiling point of  $572^{\circ}$  F, and a minimum flash point of  $100^{\circ}$  F. Included are the two grades designated in ASTM D3699 (No. 1-K and No. 2-K) and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters; it is suitable for use as an illuminant when burned in wick lamps.

Lease and Plant Fuel: Natural gas used in well, field, and lease operations (such as gas used in drilling operations, heaters, dehydrators, and field compressors), and as fuel in natural gas processing plants.

Lease Condensate: A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons. **Light Oil:** Lighter fuel oils distilled off during the refining process. Virtually all petroleum used in internal combustion and gas-turbine engines is light oil.

**Lignite:** A brownish-black coal of low rank with a high content of moisture and volatile matter. Often referred to as brown coal. It is used almost exclusively for electric power generation. It conforms to ASTM Specification D388-84 for lignite.

**Liquefied Natural Gas (LNG):** Natural gas (primarily methane) that has been liquefied by reducing its temperature to  $-260^{\circ}$  F at atmospheric pressure.

Liquefied Petroleum Gases (LPG): Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate new natural gas plant liquids.

**Low-Power Testing:** The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its operating (full-power) license. The maximum level of operation during that period is 5 percent of the unit's design thermal rating.

Lubricants: Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Excluded are byproducts of lubricating oil refining, such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. Included are all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Lubricant categories are paraffinic and naphthenic.

**Marketed Production:** Gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing operations.

**Methanol:** A light, volatile alcohol ( $CH_3OH$ ) eligible for motor gasoline blending. See **Oxygenates.** 

**Miscellaneous Petroleum Products:** All finished petroleum products not classified elsewhere—for example, petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils.

Motor Gasoline Blending Components: Naphthas that will be used for blending or compounding into finished motor gasoline (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, and zylene).

Excluded are oxygenates (alcohols and ethers), butane, and pentanes plus.

**Motor Gasoline, Finished:** A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, includes a range in distillation temperatures from 122 to 158° F at the 10-percent recovery point and from 365 to 374° F at the 90-percent recovery point. Motor gasoline includes reformulated motor gasoline, oxygenated motor gasoline, and other finished motor gasoline. Blendstock is excluded until blending has been completed.

- *Reformulated Motor Gasoline*: Motor gasoline, formulated for use in motor vehicles, the composition and properties of which are certified as "reformulated motor gasoline" by the Environmental Protection Agency.
- Oxygenated Motor Gasoline: Motor gasoline, formulated for use in motor vehicles, that has an oxygen content of 1.8 percent or higher by weight.
- Other Finished Motor Gasoline: Motor gasoline that is not included in the reformulated or oxygenated categories.

**Motor Gasoline, Finished Gasohol:** A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol, but sometimes methanol) in which 10 percent or more of the product is alcohol.

Motor Gasoline, Finished Leaded: Motor gasoline that contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Motor Gasoline, Finished Leaded Premium: Motor gasoline having an antiknock index, calculated as (R+M)/2, greater than 90 and containing more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon.

Motor Gasoline, Finished Leaded Regular: Motor gasoline having an antiknock index, calculated as (R+M)/2, greater than or equal to 87 and less than or equal to 90 and containing more than 0.05 gram of lead or 0.005 gram of phosphorus per gallon.

Motor Gasoline, Finished Unleaded: Motor gasoline containing not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blendstock is excluded until blending has

been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Motor Gasoline, Finished Unleaded Midgrade: Motor gasoline having an antiknock index, calculated as (R+M)/2, greater than or equal to 88 and less than or equal to 90 and containing not more than 0.05 gram of phosphorus per gallon.

Motor Gasoline, Finished Unleaded Premium: Motor gasoline having an antiknock index, calculated as (R+M)/2, greater than 90 and containing not more than 0.05 gram of lead or 0.005 gram of phosphorus per gallon.

Motor Gasoline, Finished Unleaded Regular: Motor gasoline having an antiknock index, calculated as (R+M)/2, of 87 containing not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon.

Motor Gasoline Retail Prices: Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). Those 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-service).

Motor Gasoline, Total: Includes finished leaded motor gasoline (premium and regular), finished unleaded motor gasoline (premium, midgrade, and regular), motor gasoline blending components, and gasohol.

**MTBE** (Methyl Tertiary Butyl Ether): An ether,  $(CH_3)_3COCH_3$ , intended for motor gasoline blending. See Oxygenates.

**Naphtha:** A genetic term applied to a petroleum fraction with an approximate boiling range between 122 and  $400^{\circ}$  F.

**Natural Gas:** A mixture of hydrocarbons (principally methane) and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

**Natural Gas, Dry:** The marketable portion of natural gas production, which is obtained by subtracting extraction losses, including natural gas liquids removed at natural gas processing plants, from total production.

**Natural Gas Marketed Production:** Gross withdrawals of natural gas from production reservoirs, less gas used for reservoir repressuring;

nonhydrocarbon gases removed in treating and processing operations; and quantities vented and flared.

**Natural Gas Plant Liquids (NGPL):** Natural gas liquids recovered from natural gas in processing plants and, in some situations, from natural gas field facilities, as well as those extracted by fractionators. Natural gas plant liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

**Natural Gas Wellhead Price:** The wellhead price of natural gas is calculated by dividing the total reported value at the wellhead by the total quantity produced as reported by the appropriate agencies of individual producing States and the U.S. Minerals Management Service. The price includes all costs prior to shipment from the lease, including gathering and compression costs, in addition to State production, severance, and similar charges.

Natural Gas, Wet: Natural gas prior to the extraction of liquids and other miscellaneous products.

Net Consumption: See Energy Consumption, End-Use.

**Nonhydrocarbon Gases:** Typical nonhydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide, and nitrogen.

**Nuclear Electric Power:** Electricity generated by an electric power plant whose turbines are driven by steam generated in a reactor by heat from the fissioning of nuclear fuel.

**Nuclear Electric Power Plant:** A single-unit or multiunit facility in which heat produced in one or more reactors by the fissioning of nuclear fuel is used to drive one or more steam turbines.

**Nuclear Reactor:** An apparatus in which the nuclear fission chain can be initiated, maintained, and controlled so that energy is released at a specific rate. The reactor includes fissionable material (fuel), such as uranium or plutonium; fertile material; moderating material (unless it is a fast reactor); a heavy-walled pressure vessel; shielding to protect personnel; provision for heat removal; and control elements and instrumentation.

**Offshore:** That geographic area that lies seaward of the coastline. In general, the coastline is the line of ordinary low water along with that portion of the coast that is in direct contact with the open sea or the line marking the seaward limit of inland water.

#### Oil: See Crude Oil (Including Lease Condensate).

**Oil Well:** A well completed for the production of crude oil from one or more oil zones or reservoirs. Wells producing both crude oil and natural gas are classified as oil wells.

**Operable (nuclear):** A U.S. nuclear generating unit is considered operable after it completes low-power testing and is issued a full-power operating license by the Nuclear Regulatory Commission. A foreign nuclear generating unit is considered operable once it has generated electricity to the grid.

**Organization for Economic Cooperation and Development (OECD):** Current members are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States and its territories (Guam, Puerto Rico, and the Virgin Islands), and Germany.

**Organization of Petroleum Exporting Countries** (**OPEC**): Countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

# Oxygenated Motor Gasoline: See Motor Gasoline, Finished.

Oxygenates: Any substance which, when added to motor gasoline, increases the amount of oxygen in that motor gasoline blend. Through a series of waivers and interpretive rules, the Environmental Protection Agency (EPA) has determined the allowable limits for oxygenates in unleaded gasoline. The "Substantially Similar" Interpretive Rules (56 FR [February 11, 1991]) allows blends of aliphatic alcohols other than methanol and aliphatic ethers, provided the oxygen content does not exceed 2.7 percent by weight. The "Substantially Similar" Interpretive Rules also provide for blends of methanol up to 0.3 percent by volume exclusive of other oxygenates, and butanol or alcohols of a higher molecular weight up to 2.75 percent by weight. Individual waivers pertaining to the use of oxygenates in unleaded motor gasoline have been issued by the EPA. They include:

- *Fuel Ethanol*. Blends of up to 10 percent by volume anhydrous ethanol (200 proof).
- *Methanol.* Blends of methanol and gasoline-grade tertiary butyl alcohol (GTBA)

such that the total oxygen content does not exceed 3.5 percent by weight and the ratio of methanol to GTBA is less than or equal to 1. It is also specified that this blended fuel must meet ASTM volatility specifications. Blends of up to 5.0 percent by volume methanol with a minimum of 2.5 percent by volume cosolvent alcohols having carbon number of 4 or less (i.e., ethanol, propanol, butanol, and/or GTBA). The total oxygen must not exceed 3.7 percent by weight, and the blend must meet ASTM volatility specifications as well as phase separation and alcohol purity specifications.

• *MTBE (Methyl tertiary butyl ether).* Blends up to 15.0 percent by volume MTBE that must meet the ASTM D4814 specifications. Blenders must take precautions that the blends are not used as base gasolines for other oxygenated blends.

**Pentanes Plus:** A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

**Petrochemical Feedstocks:** Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics.

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

**Petroleum Coke:** A residue that is the final product of the condensation process in cracking. The product is either marketable petroleum coke or catalyst petroleum coke.

**Petroleum Coke, Catalyst:** The carbonaceous residue that is deposited on and deactivates the catalyst used in many catalytic operations (e.g., catalytic cracking). Carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. That carbon or coke is not recoverable in a concentrated form.

**Petroleum Coke, Marketable:** Those grades of coke produced in delayed or fluid cokers that may be recovered as relatively pure carbon. Marketable petroleum coke may be sold as is or further purified by calcining.

**Petroleum Consumption:** The sum of all refined petroleum products supplied. For each refined petroleum product, the amount supplied is calculated by adding production and imports, then subtracting changes in primary stocks (net withdrawals are a plus

quantity and net additions are a minus quantity) and exports.

**Petroleum Imports:** Imports of petroleum into the 50 States and the District of Columbia from foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. territories and possessions. Included are imports for the Strategic Petroleum Reserve and withdrawals from bonded warehouses for onshore consumption, offshore bunker use, and military use. Excluded are receipts of foreign petroleum into bonded warehouses and into U.S. territories and U.S. Foreign Trade Zones.

**Petroleum Products:** Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

# **Petroleum Products Supplied:** See **Petroleum Consumption**.

**Petroleum Stocks, Primary:** For individual products, quantities that are held at refineries, in pipelines, and at bulk terminals that have a capacity of 50,000 barrels or more, or that are in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but are included in other oils estimates and total.

**Photovoltaic and Solar Thermal Energy (as used at electric utilities):** Energy radiated by the sun as electromagnetic waves (electromagnetic radiation) that is converted at electric utilities into electricity by means of solar (photovoltaic) cells or concentrating (focusing) collectors.

**Pipeline Fuel:** Gas consumed in the operation of pipelines, primarily in compressors.

# Primary Consumption: See Energy Consumption, End-Use.

**Propane**: A normally gaseous straight-chain hydrocarbon ( $C_3H_8$ ). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

**Propylene:** An olefinic hydrocarbon  $(C_3H_6)$  recovered from refinery or petrochemical processes.

**Refiner Acquisition Cost of Crude Oil:** The cost of crude oil to the refiner, including transportation and fees. The composite cost is the weighted average of domestic and imported crude oil costs.

**Refinery (petroleum):** An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

**Renewable Energy:** Energy obtained from sources that are essentially inexhaustible (unlike, for example, the fossil fuels, of which there is a finite supply). Renewable sources of energy include wood, waste, photovoltaic, and solar thermal energy.

**Repressuring:** The injection of a pressurized fluid (such as air, gas, or water) into oil and gas reservoir formations to effect greater ultimate recovery.

**Residential Sector:** The residential sector is considered to consist of all private residences, whether occupied or vacant, owned or rented, including single-family homes, multifamily housing units, and mobile homes. Secondary homes, such as summer homes, are also included. Institutional housing, such as school dormitories, hospitals, and military barracks, generally are not included in the residential sector; they are included in the commercial sector.

**Residual Fuel Oil:** The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; and No. 6, which includes Bunker C fuel oil and is used for commercial and industrial heating, electricity generation, and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

**Road Oil:** Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades, from 0, the most liquid, to 5, the most viscous.

**Rotary Rig:** A machine used for drilling wells that employs a rotating tube attached to a bit for boring holes through rock.

Short Ton (coal): A unit of weight equal to 2,000 pounds.

SIC: See Standard Industrial Classification.

**Solar Energy:** The radiant energy of the sun, which can be converted into other forms of energy, such as heat or electricity.

**Standard Industrial Classification (SIC):** A set of codes developed by the Office of Management and Budget which categorizes industries into groups with similar economic activities.

**Startup Test Phase of Nuclear Power Plant:** A nuclear power plant that has been licensed by the Nuclear Regulatory Commission to operate but is still in the initial testing phase, during which the 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 power plant in the rate base calculation.

**Steam-Electric Power Plant:** A plant in which the prime mover is a steam turbine. The steam used to drive the turbine is produced in a boiler where fossil fuels are burned.

**Strategic Petroleum Reserve (SPR):** Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

**Supplemental Gaseous Fuels:** Any gaseous substance that, introduced into or commingled with natural gas, increases the volume available for disposition. Such substances include, but are not limited to, propane-air, refinery gas, coke oven gas, still gas, manufactured gas, biomass gas, or air or inert gases added for Btu stabilization.

Synthetic Natural Gas (SNG): A manufactured product chemically similar in most respects to natural gas, resulting from the conversion or reforming of petroleum hydrocarbons. It may easily be substituted for, or interchanged with, pipeline quality natural gas. Also referred to as substitute natural gas.

# Total Consumption: See Energy Consumption, End-Use.

**Transportation Sector:** The transportation sector consists of private and public vehicles that move people and commodities. Included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges, and natural gas pipelines.

Unaccounted-for Crude Oil: Arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production and imports, less changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses. **Underground Storage:** The storage of natural gas in underground reservoirs at a different location from which it was produced.

**United States:** Unless otherwise noted, "United States" in this publication means the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

**U.S.S.R.:** The Union of Soviet Socialist Republics consisted of 15 constituent republics: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. As a political entity, the U.S.S.R. ceased to exist as of December 31, 1991.

**Vented Natural Gas:** Gas released into the air on the base site or at processing plants.

**Wellhead Price:** The value of crude oil or natural gas at the mouth of the well.

Well Servicing Unit: Truck-mounted equipment generally used for downhole services after a well is drilled. Services include well completions and recompletions, maintenance, repairs, workovers, and well plugging and abandonments. Jobs range from minor operations, such as pulling the rods and rod pumps out of an oil well, replacing the pump and rerunning the assemblage into the well, to major workovers, such as milling out and repairing collapsed casing. Well depth and characteristics determine the type of equipment used.

**Wind Energy (as used at electric utilities):** The kinetic energy of wind converted at electric utilities into mechanical energy by wind turbines (i.e., blades rotating from a hub) that drive generators to produce electricity for distribution.

Wood and Waste (as used at electric utilities): Wood energy, garbage, bagasse, sewerage gas, and other industrial, agricultural, and urban refuse used to generate electricity for distribution.

**Wood Energy:** Wood and wood products used as fuel, including round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, pulp waste, and spent pulping liquor.

**Working Gas:** The gas in a reservoir that is in addition to the base (cushion) gas. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any given season.