

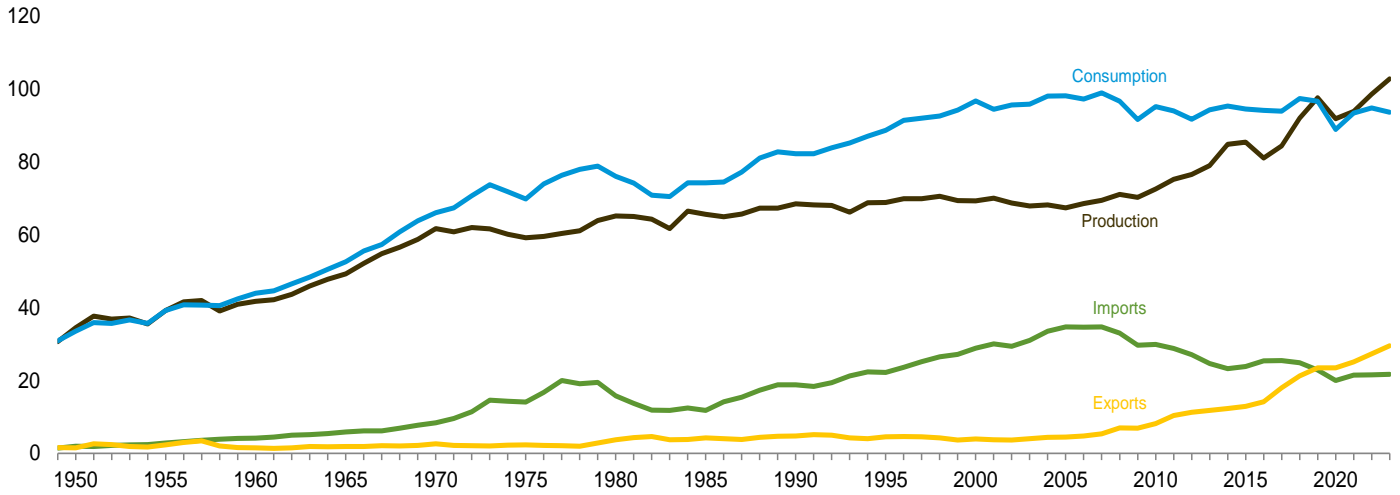
# 1. Energy Overview

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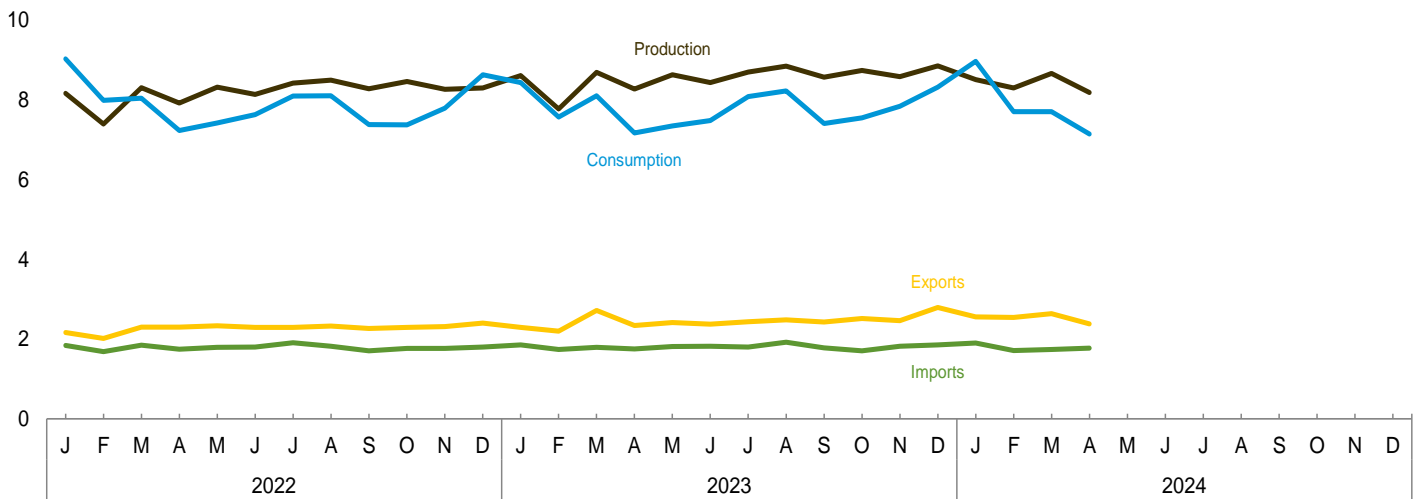
**Figure 1.1 Primary Energy Overview**

(Quadrillion Btu)

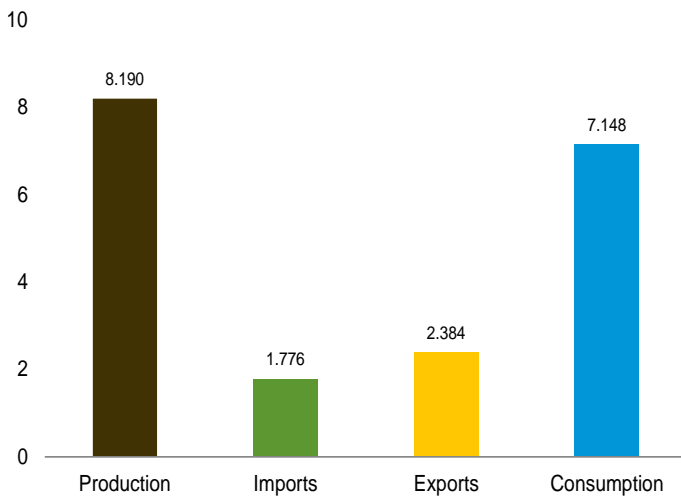
Overview, 1949–2023



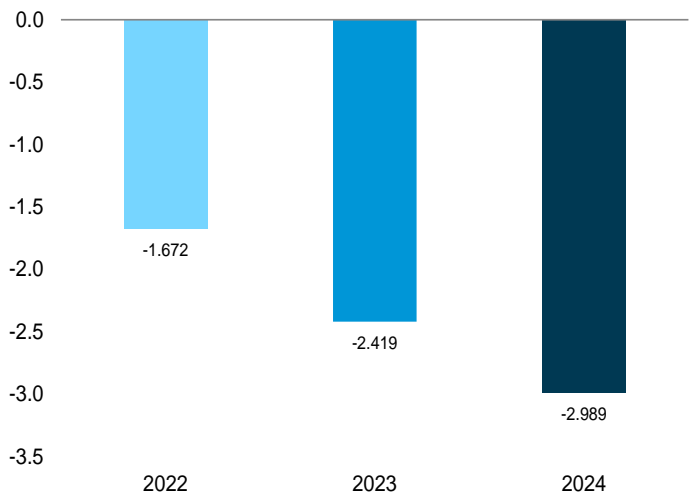
Overview, Monthly



Overview, April 2024



Net Imports, January–April



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

Source: Table 1.1.

**Table 1.1 Primary Energy Overview**  
(Quadrillion Btu)

	Production				Trade			Stock Change and Other <sup>d</sup>	Consumption			
	Fossil Fuels <sup>a</sup>	Nuclear Electric Power	Renewable Energy <sup>b</sup>	Total	Imports	Exports	Net Imports <sup>c</sup>		Fossil Fuels <sup>e</sup>	Nuclear Electric Power	Renewable Energy <sup>b</sup>	Total <sup>f</sup>
1950 Total .....	32.553	0.000	1.907	34.460	1.913	1.465	0.448	-1.380	31.615	0.000	1.907	33.527
1955 Total .....	37.347	.000	1.821	39.168	2.790	2.286	.504	-.457	37.380	.000	1.821	39.215
1960 Total .....	39.855	.006	1.830	41.691	4.188	1.477	2.710	-.458	42.091	.006	1.830	43.942
1965 Total .....	47.205	.043	2.008	49.256	5.892	1.829	4.063	-.754	50.515	.043	2.008	52.565
1970 Total .....	59.152	.239	2.289	61.681	8.342	2.632	5.709	-1.354	63.501	.239	2.289	66.036
1975 Total .....	54.697	1.900	2.544	59.141	14.032	2.323	11.709	-1.062	65.323	1.900	2.544	69.788
1980 Total .....	58.979	2.739	3.445	65.164	15.796	3.695	12.101	-1.227	69.782	2.739	3.445	76.038
1985 Total .....	57.502	4.076	4.018	65.595	11.781	4.196	7.584	1.088	66.035	4.076	4.018	74.268
1990 Total .....	58.523	6.104	3.863	68.490	18.817	4.752	14.065	-.299	72.281	6.104	3.863	82.256
1995 Total .....	57.496	7.075	4.295	68.866	22.180	4.496	17.684	2.118	77.162	7.075	4.297	88.668
2000 Total .....	57.307	7.862	4.093	69.262	28.865	3.962	24.904	2.528	84.620	7.862	4.096	96.694
2005 Total .....	54.995	8.161	4.220	67.376	34.659	4.462	30.197	.527	85.623	8.161	4.233	98.101
2010 Total .....	58.159	8.434	5.943	72.536	29.866	8.176	21.690	.916	80.723	8.434	5.896	95.142
2011 Total .....	60.529	8.269	6.404	75.202	28.748	10.373	18.375	.389	79.263	8.269	6.308	93.966
2012 Total .....	62.298	8.062	6.187	76.547	27.068	11.267	15.801	-.670	77.304	8.062	6.150	91.677
2013 Total .....	64.180	8.244	6.561	78.985	24.623	11.788	12.835	2.433	79.224	8.244	6.587	94.253
2014 Total .....	69.619	8.338	6.836	84.792	23.241	12.270	10.971	-.428	80.017	8.338	6.799	95.335
2015 Total .....	70.186	8.337	6.846	85.369	23.794	12.902	10.892	-1.776	79.090	8.337	6.829	94.484
2016 Total .....	65.435	8.427	7.188	81.050	25.378	14.119	11.259	1.784	78.319	8.427	7.120	94.092
2017 Total .....	68.448	8.419	7.505	84.372	25.458	17.946	7.512	2.017	77.907	8.419	7.383	93.902
2018 Total .....	75.780	8.438	7.744	91.963	24.833	21.224	3.610	1.832	81.281	8.438	7.535	97.405
2019 Total .....	81.399	8.452	7.753	97.604	22.865	23.476	-.610	-.390	80.425	8.452	7.594	96.603
2020 Total .....	76.145	8.251	7.465	91.861	19.988	23.464	-3.476	.467	73.139	8.251	7.301	88.852
2021 Total .....	77.903	8.131	7.807	93.841	21.455	25.071	-3.616	3.138	77.454	8.131	7.644	93.363
<b>2022</b> January .....	6.736	.737	.698	8.171	1.841	2.170	-.329	1.194	7.622	.737	.666	9.036
February .....	6.098	.646	.652	7.396	1.687	2.016	-.330	.929	6.715	.646	.628	7.995
March .....	6.919	.660	.733	8.312	1.848	2.305	-.457	.190	6.663	.660	.715	8.044
April .....	6.637	.578	.712	7.928	1.747	2.303	-.555	-.137	5.949	.578	.700	7.235
May .....	6.917	.662	.743	8.322	1.795	2.335	-.540	-.355	6.031	.662	.725	7.427
June .....	6.730	.687	.726	8.143	1.805	2.297	-.492	-.014	6.225	.687	.710	7.637
July .....	6.995	.719	.713	8.428	1.913	2.294	-.381	.056	6.673	.719	.692	8.103
August .....	7.110	.720	.672	8.503	1.826	2.331	-.505	.113	6.706	.720	.664	8.111
September .....	6.987	.666	.633	8.286	1.705	2.266	-.561	-.339	6.089	.666	.618	7.386
October .....	7.188	.616	.659	8.463	1.771	2.294	-.523	-.560	6.108	.616	.647	7.380
November .....	6.935	.648	.686	8.269	1.767	2.314	-.547	.079	6.478	.648	.665	7.800
December .....	6.905	.722	.680	8.307	1.802	2.407	-.605	.934	7.240	.722	.661	8.636
<b>Total .....</b>	<b>82.157</b>	<b>8.061</b>	<b>8.307</b>	<b>98.526</b>	<b>21.507</b>	<b>27.332</b>	<b>-5.826</b>	<b>2.091</b>	<b>78.498</b>	<b>8.061</b>	<b>8.091</b>	<b>94.791</b>
<b>2023</b> January .....	7.175	.740	.702	8.617	1.854	2.297	-.444	.266	7.003	.740	.685	R 8.440
February .....	6.482	.635	.660	7.777	1.745	2.202	-.457	.253	R 6.287	.635	.644	R 7.573
March .....	7.302	.656	.735	8.693	1.793	2.723	-.930	.343	6.722	.656	.718	8.106
April .....	6.988	.592	.700	8.280	1.754	2.342	-.588	-.518	5.888	.592	.687	7.174
May .....	7.252	.642	.741	8.635	1.817	2.419	-.602	-.680	5.967	.642	.735	7.354
June .....	7.068	.679	.692	8.439	1.826	2.377	-.551	R -.400	R 6.122	.679	.682	R 7.488
July .....	7.263	.730	.712	8.705	1.806	2.437	-.632	.013	6.659	.730	.693	R 8.086
August .....	7.412	.729	.712	8.853	1.927	2.487	-.560	-.062	6.794	.729	.703	8.230
September .....	7.218	.685	.669	8.572	1.782	2.433	-.651	R -.510	6.073	.685	.652	7.410
October .....	7.401	.642	.701	8.743	1.711	2.522	-.811	-.376	6.223	.642	.690	7.556
November .....	7.254	.650	.685	8.589	1.826	2.462	-.636	R -.111	R 6.524	.650	.665	R 7.841
December .....	7.419	.720	.719	8.857	1.859	2.796	-.938	.404	6.909	.720	.690	8.324
<b>Total .....</b>	<b>86.233</b>	<b>8.101</b>	<b>8.426</b>	<b>102.760</b>	<b>21.699</b>	<b>29.498</b>	<b>-7.799</b>	<b>-1.378</b>	<b>R 77.172</b>	<b>8.101</b>	<b>8.245</b>	<b>93.583</b>
<b>2024</b> January .....	R 7.110	.722	.683	R 8.515	1.907	2.559	-.653	R 1.109	R 7.582	.722	.662	R 8.971
February .....	R 6.930	.675	.699	R 8.304	1.716	2.547	-.830	R .237	R 6.354	.675	.682	R 7.711
March .....	R 7.234	.662	R .771	R 8.667	R 1.743	R 2.641	R -.899	R -.062	R 6.296	.662	.749	R 7.706
April .....	6.840	.599	.751	8.190	1.776	2.384	-.608	-.434	5.811	.599	.736	7.148
<b>4-Month Total .....</b>	<b>28.115</b>	<b>2.657</b>	<b>2.903</b>	<b>33.675</b>	<b>7.141</b>	<b>10.131</b>	<b>-2.989</b>	<b>.851</b>	<b>26.043</b>	<b>2.657</b>	<b>2.829</b>	<b>31.537</b>
<b>2023 4-Month Total .....</b>	<b>27.946</b>	<b>2.624</b>	<b>2.797</b>	<b>33.367</b>	<b>7.146</b>	<b>9.565</b>	<b>-2.419</b>	<b>.344</b>	<b>25.901</b>	<b>2.624</b>	<b>2.734</b>	<b>31.292</b>
<b>2022 4-Month Total .....</b>	<b>26.390</b>	<b>2.621</b>	<b>2.795</b>	<b>31.806</b>	<b>7.123</b>	<b>8.795</b>	<b>-1.672</b>	<b>2.176</b>	<b>26.948</b>	<b>2.621</b>	<b>2.709</b>	<b>32.310</b>

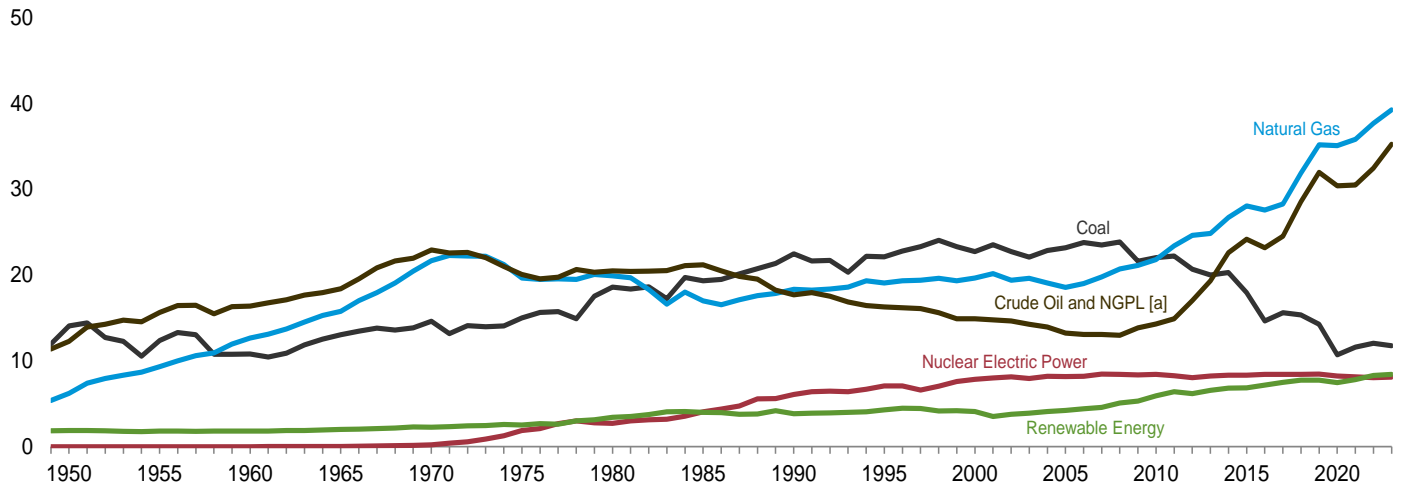
a Coal, natural gas (dry), crude oil, and natural gas plant liquids.  
b See Tables 10.1–10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.  
c Net imports equal imports minus exports.  
d Includes petroleum stock change and adjustments; natural gas net storage withdrawals and balancing item; coal stock change, losses, and unaccounted for; fuel ethanol stock change; and biodiesel stock change and balancing item.  
e Coal, coal coke net imports, natural gas, and petroleum.  
f Also includes electricity net imports.  
R=Revised.

Notes: • See "Primary Energy," "Primary Energy Production," and "Primary Energy Consumption," in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.  
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.  
Sources: • **Production:** Table 1.2. • **Trade:** Tables 1.4a and 1.4b. • **Stock Change and Other:** Calculated as consumption minus production and net imports. • **Consumption:** Table 1.3.

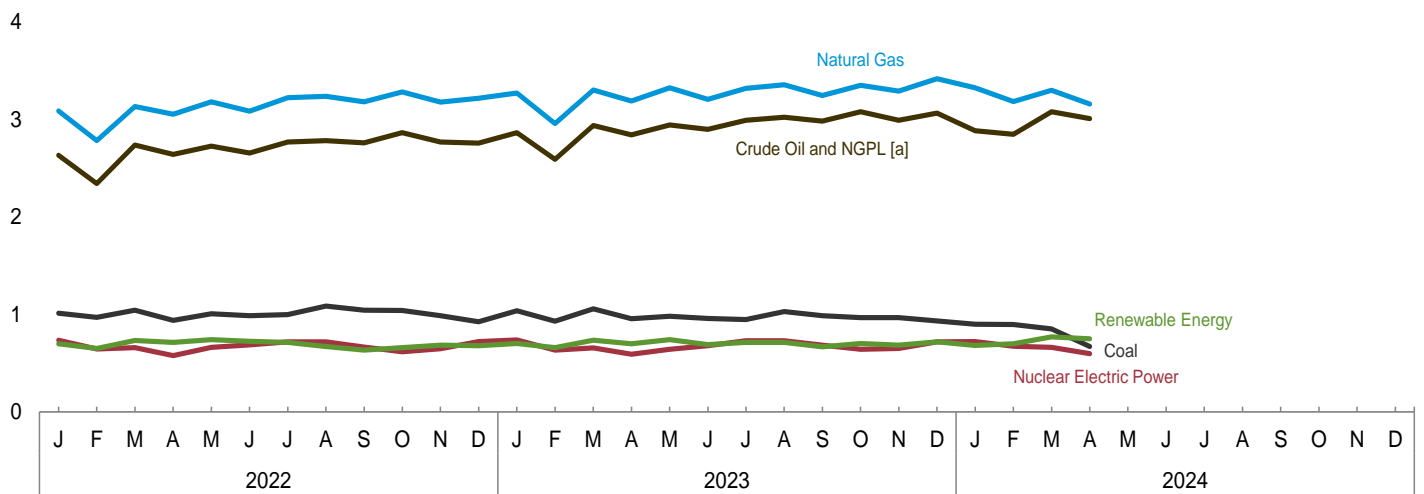
**Figure 1.2 Primary Energy Production**

(Quadrillion Btu)

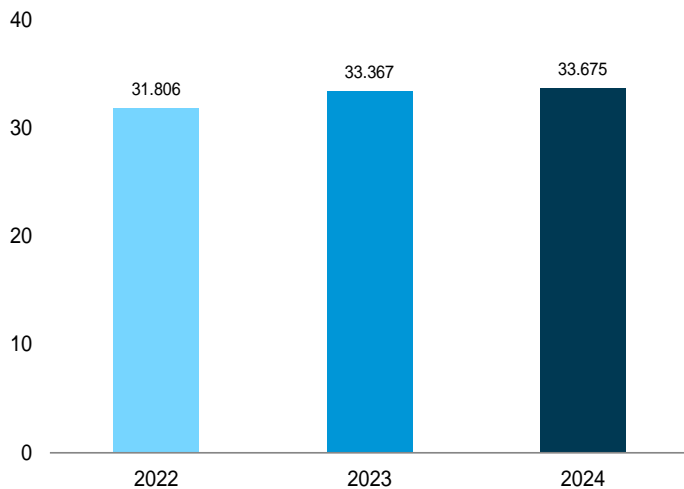
By Source, 1949–2023



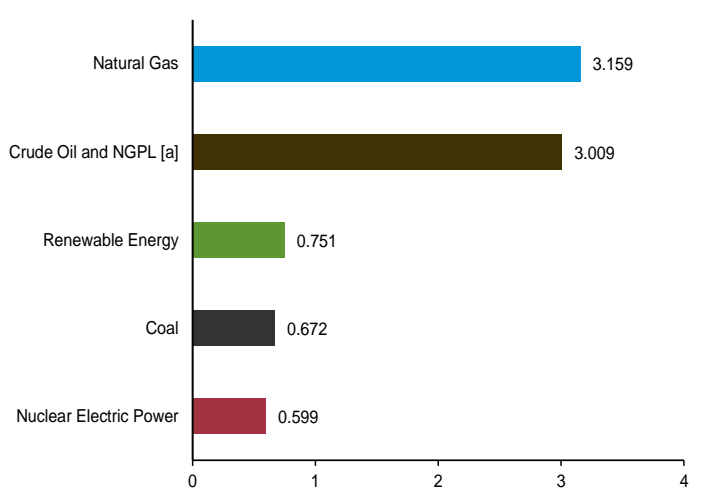
By Source, Monthly



Total, January–April



By Source, April 2024



[a] Natural gas plant liquids.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

Source: Table 1.2.

**Table 1.2 Primary Energy Production by Source**  
(Quadrillion Btu)

	Fossil Fuels					Nuclear Electric Power	Renewable Energy <sup>a</sup>						Total
	Coal <sup>b</sup>	Natural Gas (Dry)	Crude Oil <sup>c</sup>	NGPL <sup>d</sup>	Total		Hydro-electric Power <sup>e</sup>	Geo-thermal	Solar	Wind	Bio-mass	Total	
1950 Total .....	14.060	6.233	11.447	0.813	32.553	0.000	0.344	NA	NA	NA	1.562	1.907	34.460
1955 Total .....	12.370	9.345	14.410	1.223	37.347	.000	.397	NA	NA	NA	1.424	1.821	39.168
1960 Total .....	10.817	12.656	14.935	1.447	39.855	.006	.510	(s)	NA	NA	1.320	1.830	41.691
1965 Total .....	13.055	15.775	16.521	1.853	47.205	.043	.672	.001	NA	NA	1.335	2.008	49.256
1970 Total .....	14.607	21.666	20.401	2.478	59.152	.239	.856	.002	NA	NA	1.431	2.289	61.681
1975 Total .....	14.989	19.640	17.729	2.338	54.697	1.900	1.034	.011	NA	NA	1.499	2.544	59.141
1980 Total .....	18.598	19.908	18.249	2.225	58.979	2.739	.953	.017	NA	NA	2.475	3.445	65.164
1985 Total .....	19.325	16.980	18.992	2.204	57.502	4.076	.970	.032	(s)	(s)	3.016	4.018	65.595
1990 Total .....	22.488	18.326	15.571	2.138	58.523	6.104	.999	.063	.056	.010	2.735	3.863	68.490
1995 Total .....	22.130	19.082	13.887	2.398	57.496	7.075	1.061	.060	.064	.011	3.099	4.295	68.866
2000 Total .....	22.735	19.662	12.358	2.551	57.307	7.862	.940	.069	.059	.019	3.006	4.093	69.262
2005 Total .....	23.185	18.556	10.974	2.280	54.995	8.161	.922	.084	.052	.061	3.101	4.220	67.376
2010 Total .....	22.038	21.806	11.610	2.705	58.159	8.434	.888	.111	.068	.323	4.553	5.943	72.536
2011 Total .....	22.221	23.406	12.012	2.890	60.529	8.269	1.090	.116	.076	.410	4.712	6.404	75.202
2012 Total .....	20.677	24.610	13.849	3.162	62.298	8.062	.943	.117	.094	.480	4.554	6.187	76.547
2013 Total .....	20.001	24.859	15.868	3.451	64.180	8.244	.916	.117	.120	.573	4.835	6.561	78.985
2014 Total .....	20.286	26.718	18.610	4.005	69.619	8.338	.885	.118	.161	.620	5.052	6.836	84.792
2015 Total .....	17.946	28.067	19.697	4.476	70.186	8.337	.850	.118	.196	.651	5.031	6.846	85.369
2016 Total .....	14.667	27.576	18.527	4.665	65.435	8.427	.914	.117	.251	.774	5.132	7.188	81.050
2017 Total .....	15.625	28.289	19.547	4.987	68.448	8.419	1.025	.118	.329	.868	5.166	7.505	84.372
2018 Total .....	15.363	31.882	22.808	5.727	75.780	8.438	.998	.118	.384	.930	5.314	7.744	91.963
2019 Total .....	14.256	35.187	25.604	6.352	81.399	8.452	.982	.116	.430	1.010	5.215	7.753	97.604
2020 Total .....	10.703	35.062	23.575	6.805	76.145	8.251	.973	.118	.511	1.153	4.710	7.465	91.861
2021 Total .....	11.596	35.807	23.401	7.099	77.903	8.131	.858	.118	.627	1.290	4.914	7.807	93.841
<b>2022</b> January .....	1.012	3.090	2.023	.610	6.736	.737	.083	.010	.042	.128	.435	.698	8.171
February .....	.970	2.784	1.792	.552	6.098	.646	.073	.009	.047	.128	.394	.652	7.396
March .....	1.044	3.135	2.080	.660	6.919	.660	.083	.010	.063	.147	.430	.733	8.312
April .....	.940	3.056	2.007	.635	6.637	.578	.068	.010	.071	.158	.406	.712	7.928
May .....	1.006	3.183	2.068	.661	6.917	.662	.080	.010	.079	.144	.430	.743	8.322
June .....	.986	3.087	2.012	.644	6.730	.687	.089	.010	.083	.115	.430	.726	8.143
July .....	1.000	3.224	2.085	.686	6.995	.719	.084	.010	.083	.101	.436	.713	8.428
August .....	1.087	3.240	2.112	.672	7.110	.720	.072	.010	.077	.084	.429	.672	8.503
September .....	1.044	3.181	2.102	.660	6.987	.666	.058	.010	.070	.093	.402	.633	8.286
October .....	1.040	3.284	2.181	.684	7.188	.616	.049	.010	.063	.112	.425	.659	8.463
November .....	.988	3.178	2.110	.658	6.935	.648	.061	.010	.047	.141	.427	.686	8.269
December .....	.926	3.219	2.139	.621	6.905	.722	.070	.010	.040	.132	.429	.680	8.307
<b>Total</b> .....	<b>12.043</b>	<b>37.662</b>	<b>24.710</b>	<b>7.742</b>	<b>82.157</b>	<b>8.061</b>	<b>.869</b>	<b>.118</b>	<b>.765</b>	<b>1.482</b>	<b>5.073</b>	<b>8.307</b>	<b>98.526</b>
<b>2023</b> January .....	1.037	E 3.273	E 2.217	.648	7.175	.740	.076	.011	.044	.134	.437	.702	8.617
February .....	.931	E 2.958	E 1.996	.597	6.482	.635	.064	.009	.050	.144	.393	.660	7.777
March .....	1.057	E 3.304	E 2.252	.688	7.302	.656	.069	.010	.067	.152	.436	.735	8.693
April .....	.955	E 3.190	E 2.159	.683	6.988	.592	.060	.010	.079	.147	.404	.700	8.280
May .....	.981	E 3.326	E 2.239	.706	7.252	.642	.094	.010	.090	.109	.438	.741	8.635
June .....	.959	E 3.209	E 2.201	.700	7.068	.679	.066	.010	.092	.094	.430	.692	8.439
July .....	.949	E 3.320	E 2.280	.714	7.263	.730	.072	.010	.098	.095	.437	.712	8.705
August .....	1.030	E 3.357	E 2.300	.726	7.412	.729	.072	.010	.093	.097	.440	.712	8.853
September .....	.986	E 3.247	E 2.261	.724	7.218	.685	.056	.010	.082	.086	.425	.669	8.572
October .....	.968	E 3.351	E 2.331	.750	7.401	.642	.062	.010	.074	.124	.430	.701	8.743
November .....	.968	E 3.291	E 2.269	.725	7.254	.650	.062	.010	.056	.126	.430	.685	8.589
December .....	.933	E 3.419	E 2.339	.728	7.419	.720	.066	.010	.051	.131	.461	.719	8.857
<b>Total</b> .....	<b>11.754</b>	<b>E 39.246</b>	<b>E 26.843</b>	<b>8.389</b>	<b>86.233</b>	<b>8.101</b>	<b>.818</b>	<b>.120</b>	<b>.878</b>	<b>1.451</b>	<b>5.160</b>	<b>8.426</b>	<b>102.760</b>
<b>2024</b> January .....	R .899	E 3.326	E 2.214	.671	R 7.110	.722	.072	.010	.053	.119	.428	.683	R 8.515
February .....	R .897	RE 3.184	RE 2.162	.688	R 6.930	.675	.067	.009	.065	.142	.416	.699	R 8.304
March .....	R .853	RE 3.301	RE 2.324	.757	R 7.234	.662	.078	.010	.083	.157	R .443	R .771	R 8.667
April .....	.672	E 3.159	E 2.261	.748	6.840	.599	.065	.010	.098	.163	.415	.751	8.190
<b>4-Month Total</b> ...	<b>3.321</b>	<b>E 12.970</b>	<b>E 8.960</b>	<b>2.864</b>	<b>28.115</b>	<b>2.657</b>	<b>.283</b>	<b>.039</b>	<b>.299</b>	<b>.581</b>	<b>1.702</b>	<b>2.903</b>	<b>33.675</b>
<b>2023 4-Month Total</b> ...	<b>3.981</b>	<b>E 12.725</b>	<b>E 8.624</b>	<b>2.616</b>	<b>27.946</b>	<b>2.624</b>	<b>.268</b>	<b>.040</b>	<b>.241</b>	<b>.577</b>	<b>1.670</b>	<b>2.797</b>	<b>33.367</b>
<b>2022 4-Month Total</b> ...	<b>3.966</b>	<b>12.065</b>	<b>7.902</b>	<b>2.457</b>	<b>26.390</b>	<b>2.621</b>	<b>.307</b>	<b>.039</b>	<b>.223</b>	<b>.560</b>	<b>1.665</b>	<b>2.795</b>	<b>31.806</b>

<sup>a</sup> Most data are estimates. See Tables 10.1–10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.

<sup>b</sup> Beginning in 1989, includes waste coal supplied. Beginning in 2001, also includes a small amount of refuse recovery. See Table 6.1.

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

<sup>d</sup> Natural gas processing plant production of natural gas liquids (ethane, propane, normal butane, isobutane, and natural gasoline). Through 1980, also includes natural gas processing plant production of finished petroleum products (aviation gasoline, distillate fuel oil, jet fuel, kerosene, motor gasoline, special

naphthas, and miscellaneous products).

<sup>e</sup> Conventional hydroelectric power.

R=Revised. E=Estimate. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • See "Primary Energy Production" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

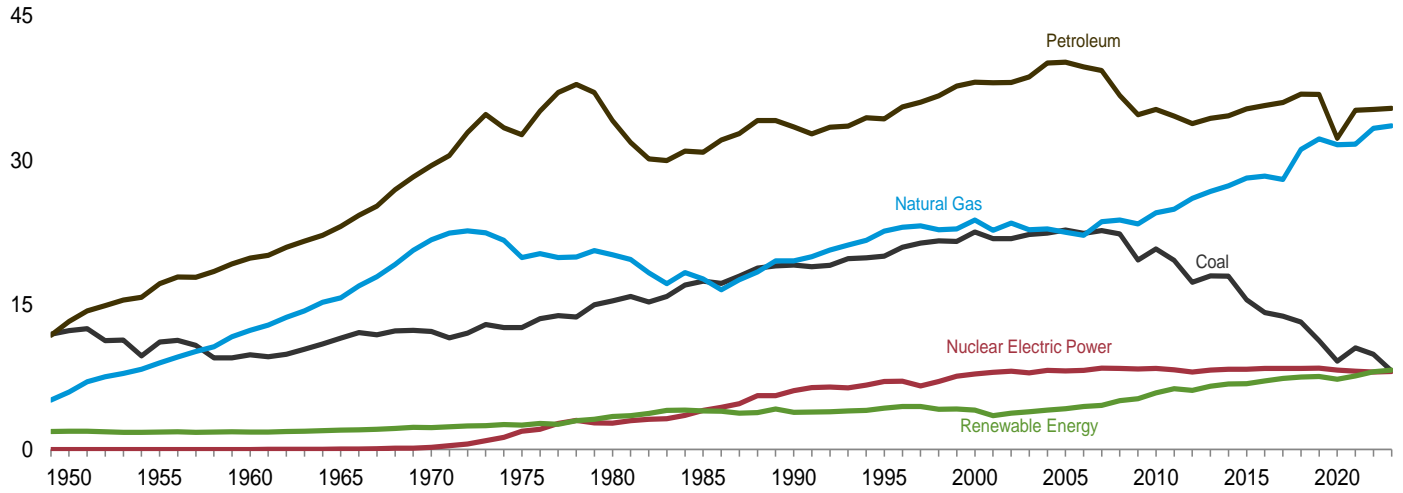
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

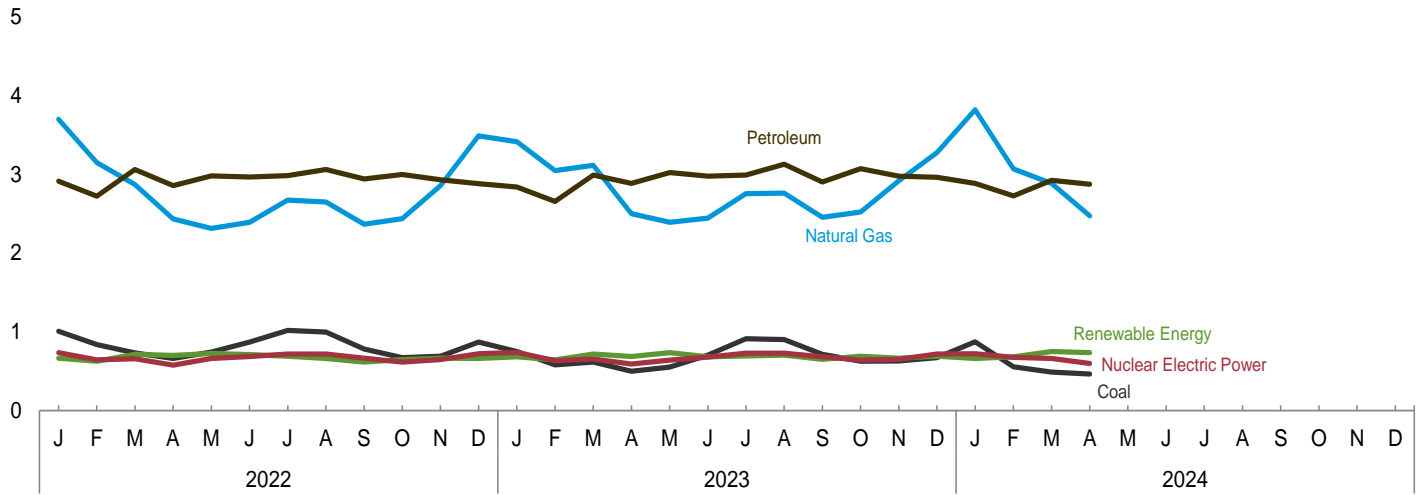
**Figure 1.3 Primary Energy Consumption**

(Quadrillion Btu)

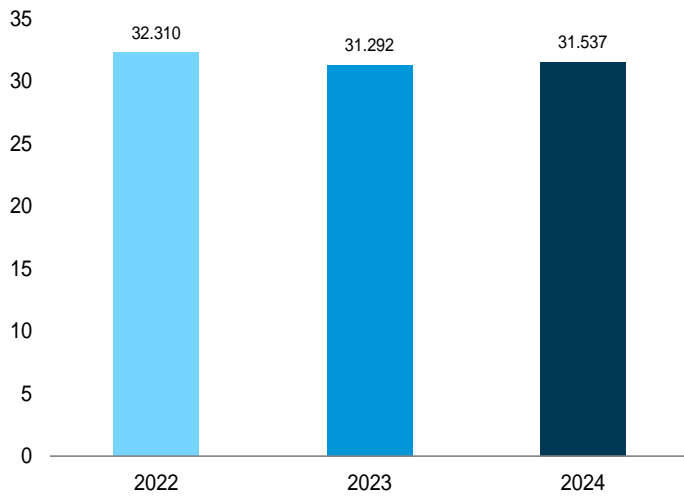
By Source, [a] 1949–2023



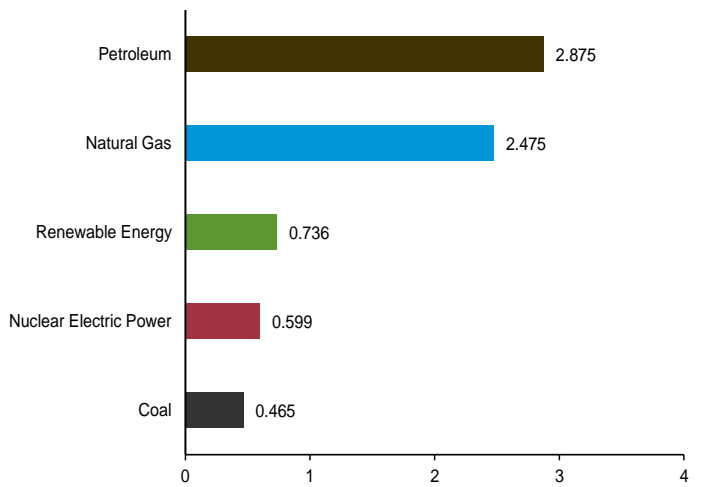
By Source, [a] Monthly



Total, January–April



By Source, [a] April 2024



[a] Small quantities of net imports of coal coke and electricity are not shown.  
 Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.  
 Source: Table 1.3.

**Table 1.3 Primary Energy Consumption by Source**  
(Quadrillion Btu)

	Fossil Fuels <sup>a</sup>				Nuclear Electric Power	Renewable Energy <sup>b</sup>						Total <sup>g</sup>
	Coal	Natural Gas <sup>c</sup>	Petro-leum <sup>d</sup>	Total <sup>e</sup>		Hydro-electric Power <sup>f</sup>	Geo-thermal	Solar	Wind	Bio-mass	Total	
1950 Total	12.347	5.968	13.298	31.615	0.000	0.344	NA	NA	NA	1.562	1.907	33.527
1955 Total	11.167	8.998	17.225	37.380	.000	.397	NA	NA	NA	1.424	1.821	39.215
1960 Total	9.838	12.385	19.874	42.091	.006	.510	(s)	NA	NA	1.320	1.830	43.942
1965 Total	11.581	15.769	23.184	50.515	.043	.672	.001	NA	NA	1.335	2.008	52.565
1970 Total	12.265	21.795	29.499	63.501	.239	.856	.002	NA	NA	1.431	2.289	66.036
1975 Total	12.663	19.948	32.699	65.323	1.900	1.034	.011	NA	NA	1.499	2.544	69.788
1980 Total	15.423	20.235	34.159	69.782	2.739	.953	.017	NA	NA	2.475	3.445	76.038
1985 Total	17.478	17.703	30.866	66.035	4.076	.970	.032	(s)	(s)	3.016	4.018	74.268
1990 Total	19.173	19.603	33.500	72.281	6.104	.999	.063	.056	.010	2.735	3.863	82.256
1995 Total	20.089	22.671	34.341	77.162	7.075	1.061	.060	.064	.011	3.101	4.297	88.668
2000 Total	22.580	23.824	38.152	84.620	7.862	.940	.069	.059	.019	3.008	4.096	96.694
2005 Total	22.797	22.565	40.217	85.623	8.161	.922	.084	.052	.061	3.114	4.233	98.101
2010 Total	20.834	24.575	35.321	80.723	8.434	.888	.111	.068	.323	4.506	5.896	95.142
2011 Total	19.658	24.955	34.639	79.263	8.269	1.090	.116	.076	.410	4.616	6.308	93.966
2012 Total	17.378	26.089	33.833	77.304	8.062	.943	.117	.094	.480	4.517	6.150	91.677
2013 Total	18.039	26.805	34.398	79.224	8.244	.916	.117	.120	.573	4.861	6.587	94.253
2014 Total	17.998	27.383	34.658	80.017	8.338	.885	.118	.161	.620	5.016	6.799	95.335
2015 Total	15.549	28.191	35.368	79.090	8.337	.850	.118	.196	.651	5.015	6.829	94.484
2016 Total	14.226	28.400	35.712	78.319	8.427	.914	.117	.251	.774	5.063	7.120	94.092
2017 Total	13.837	28.055	36.043	77.907	8.419	1.025	.118	.329	.868	5.045	7.383	93.902
2018 Total	13.252	31.163	36.892	81.281	8.438	.998	.118	.384	.930	5.105	7.535	97.405
2019 Total	11.316	32.264	36.866	80.425	8.452	.982	.116	.430	1.010	5.056	7.594	96.603
2020 Total	9.181	31.640	32.331	73.139	8.251	.973	.118	.511	1.153	4.545	7.301	88.852
2021 Total	10.549	31.711	35.243	77.454	8.131	.858	.118	.627	1.290	4.751	7.644	93.363
2022 January	1.008	3.704	2.915	7.622	.737	.083	.010	.042	.128	.404	.666	9.036
February	.838	3.153	2.726	6.715	.646	.073	.009	.047	.128	.370	.628	7.995
March	.733	2.872	3.063	6.663	.660	.083	.010	.063	.147	.412	.715	8.044
April	.663	2.434	2.858	5.949	.578	.068	.010	.071	.158	.393	.700	7.235
May	.745	2.313	2.982	6.031	.662	.080	.010	.079	.144	.412	.725	7.427
June	.870	2.393	2.967	6.225	.687	.089	.010	.083	.115	.414	.710	7.637
July	1.018	2.674	2.986	6.673	.719	.084	.010	.083	.101	.415	.692	8.103
August	.997	2.650	3.064	6.706	.720	.072	.010	.077	.084	.421	.664	8.111
September	.783	2.368	2.943	6.089	.666	.058	.010	.070	.093	.387	.618	7.386
October	.673	2.439	2.999	6.108	.616	.049	.010	.063	.112	.413	.647	7.380
November	.690	2.859	2.931	6.478	.648	.061	.010	.047	.141	.407	.665	7.800
December	.871	3.490	2.884	7.240	.722	.070	.010	.040	.132	.409	.661	8.636
Total	9.888	33.347	35.319	78.498	8.061	.869	.118	.765	1.482	4.857	8.091	94.791
2023 January	.749	3.415	2.842	7.003	.740	.076	.011	.044	.134	.420	.685	R 8.440
February	.582	R 3.048	2.658	R 6.287	.635	.064	.009	.050	.144	.376	.644	R 7.573
March	.618	3.115	2.991	6.722	.656	.069	.010	.067	.152	.420	.718	8.106
April	.499	2.503	2.888	5.888	.592	.060	.010	.079	.147	.391	.687	7.174
May	.552	2.392	3.026	5.967	.642	.094	.010	.090	.109	.432	.735	7.354
June	.703	R 2.444	2.978	R 6.122	.679	.066	.010	.092	.094	.420	.682	R 7.488
July	.913	2.755	2.993	6.659	.730	.072	.010	.098	.095	.418	.693	R 8.086
August	.902	2.764	3.130	6.794	.729	.072	.010	.093	.097	.431	.703	8.230
September	.716	2.455	2.906	6.073	.685	.056	.010	.082	.096	.408	.652	7.410
October	.628	2.522	3.074	6.223	.642	.062	.010	.074	.124	.420	.690	7.556
November	.630	R 2.919	2.978	R 6.524	.650	.062	.010	.056	.126	.410	.665	R 7.841
December	.674	3.277	2.963	6.909	.720	.066	.010	.051	.131	.432	.690	8.324
Total	8.167	33.611	35.427	R 77.172	8.101	.818	.120	.878	1.451	4.978	8.245	93.583
2024 January	R .875	R 3.822	2.886	R 7.582	.722	.072	.010	.053	.119	.407	.662	R 8.971
February	R .558	R 3.070	2.728	R 6.354	.675	.067	.009	.065	.142	.399	.682	R 7.711
March	R .489	R 2.887	2.924	R 6.296	.662	.078	.010	.083	.157	.422	.749	R 7.706
April	.465	2.475	2.875	5.811	.599	.065	.010	.098	.163	.401	.736	7.148
4-Month Total	2.387	12.255	11.412	26.043	2.657	.283	.039	.299	.581	1.629	2.829	31.537
2023 4-Month Total	2.449	12.082	11.379	25.901	2.624	.268	.040	.241	.577	1.607	2.734	31.292
2022 4-Month Total	3.241	12.162	11.562	26.948	2.621	.307	.039	.223	.560	1.579	2.709	32.310

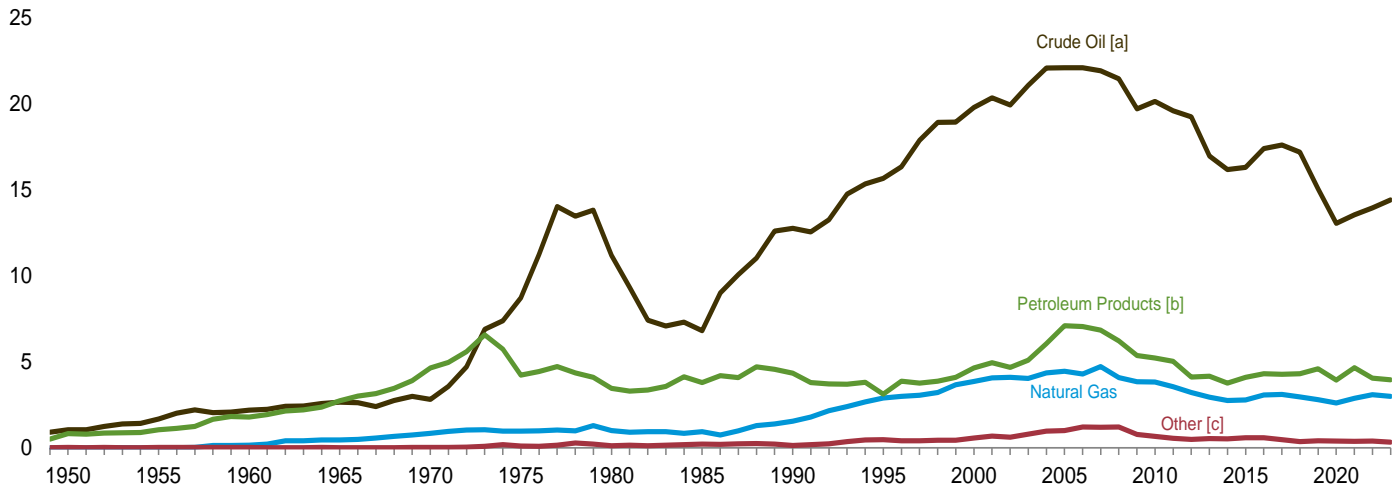
<sup>a</sup> Includes non-combustion use of fossil fuels.  
<sup>b</sup> Most data are estimates. See Tables 10.1–10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.  
<sup>c</sup> Natural gas only; excludes supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.  
<sup>d</sup> Petroleum products supplied; excludes biofuels. Biofuels are included in "Biomass."  
<sup>e</sup> Includes coal coke net imports. See Table 1.4c.  
<sup>f</sup> Conventional hydroelectric power.  
<sup>g</sup> Includes coal coke net imports and electricity net imports, which are not

separately displayed. See Table 1.4c.  
R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.  
Notes: • See "Primary Energy Consumption" in Glossary.  
• See Table D1 for estimated energy consumption for 1635–1945. • Totals may not equal sum of components due to independent rounding.  
• Geographic coverage is the 50 states and the District of Columbia.  
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.  
Sources: See end of section.

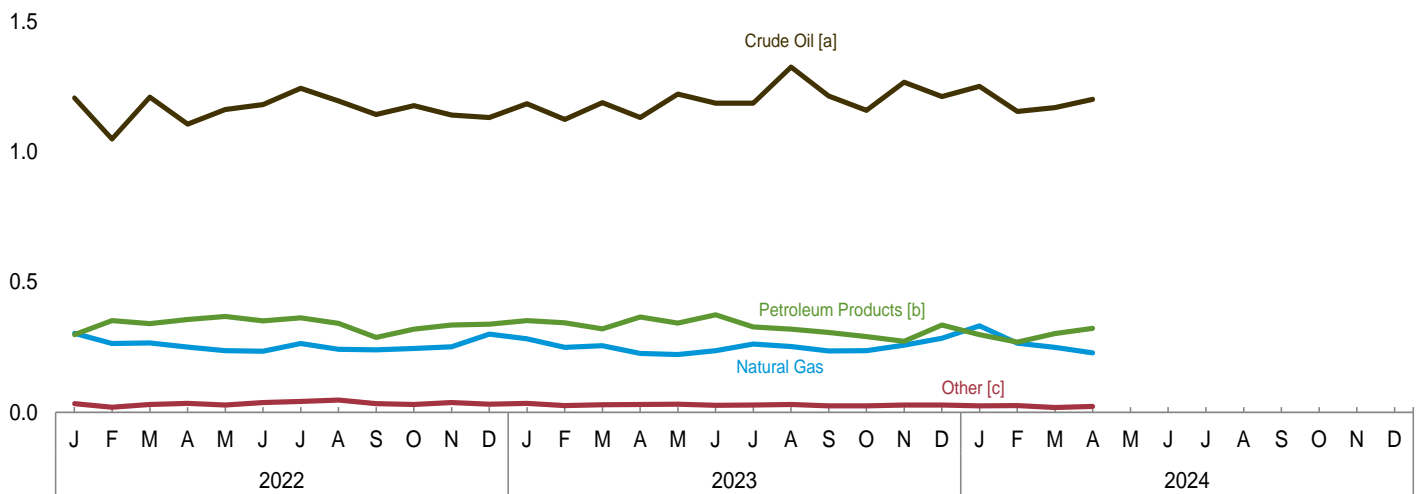
**Figure 1.4a Primary Energy Imports**

(Quadrillion Btu)

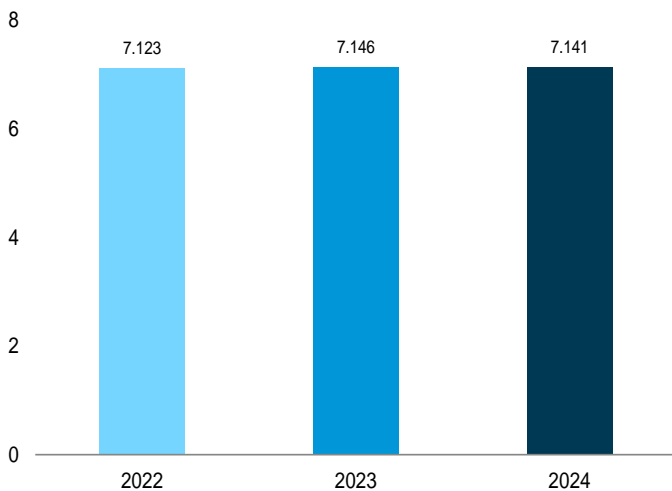
By Source, 1949–2023



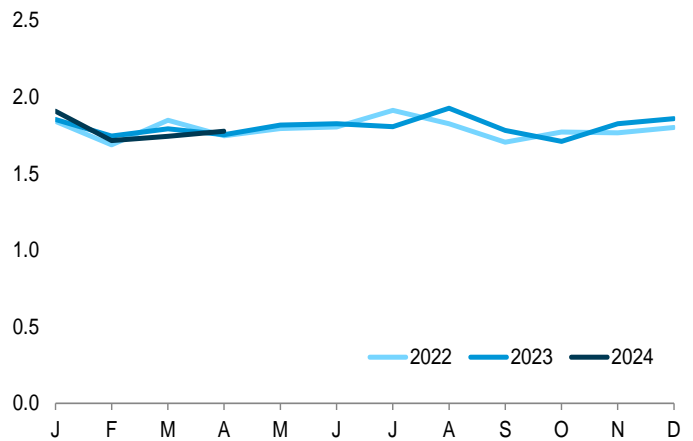
By Source, Monthly



Total, January–April



Total, Monthly



[a] Crude oil and lease condensate, includes imports into the Strategic Petroleum Reserve, which began in 1977.

[b] Petroleum products, unfinished oils, natural gasoline, and gasoline blending components. Does not include biofuels.

[c] Coal, coal coke, biomass, and electricity.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

Source: Table 1.4a.



**Table 1.4a Primary Energy Imports by Source**  
(Quadrillion Btu)

	Imports								
	Coal	Coal Coke	Natural Gas	Petroleum			Biomass <sup>c</sup>	Electricity	Total
				Crude Oil <sup>a</sup>	Petroleum Products <sup>b</sup>	Total			
<b>1950 Total</b> .....	0.009	0.011	0.000	1.056	0.830	1.886	NA	0.007	1.913
<b>1955 Total</b> .....	.008	.003	.011	1.691	1.061	2.752	NA	.016	2.790
<b>1960 Total</b> .....	.007	.003	.161	2.196	1.802	3.999	NA	.018	4.188
<b>1965 Total</b> .....	.005	.002	.471	2.654	2.748	5.402	NA	.012	5.892
<b>1970 Total</b> .....	.001	.004	.846	2.814	4.656	7.470	NA	.021	8.342
<b>1975 Total</b> .....	.024	.045	.978	8.721	4.227	12.948	NA	.038	14.032
<b>1980 Total</b> .....	.030	.016	1.006	11.195	3.463	14.658	NA	.085	15.796
<b>1985 Total</b> .....	.049	.014	.952	6.814	3.796	10.609	NA	.157	11.781
<b>1990 Total</b> .....	.067	.019	1.551	12.766	4.351	17.117	NA	.063	18.817
<b>1995 Total</b> .....	.237	.095	2.901	15.669	3.131	18.800	.001	.146	22.180
<b>2000 Total</b> .....	.313	.094	3.869	19.783	4.641	24.424	(s)	.166	28.865
<b>2005 Total</b> .....	.762	.088	4.450	22.091	7.108	29.198	.012	.150	34.659
<b>2010 Total</b> .....	.484	.030	3.834	20.140	5.219	25.359	.004	.154	29.866
<b>2011 Total</b> .....	.327	.035	3.555	19.595	5.038	24.633	.019	.178	28.748
<b>2012 Total</b> .....	.212	.028	3.216	19.239	4.122	23.361	.049	.202	27.068
<b>2013 Total</b> .....	.199	.003	2.955	16.957	4.169	21.126	.102	.236	24.623
<b>2014 Total</b> .....	.252	.002	2.763	16.178	3.773	19.951	.046	.227	23.241
<b>2015 Total</b> .....	.256	.003	2.786	16.299	4.111	20.410	.079	.259	23.794
<b>2016 Total</b> .....	.220	.006	3.082	17.392	4.309	21.700	.123	.248	25.378
<b>2017 Total</b> .....	.168	.001	3.109	17.597	4.277	21.874	.081	.224	25.458
<b>2018 Total</b> .....	.122	.003	2.961	17.192	4.309	21.501	.048	.199	24.833
<b>2019 Total</b> .....	.138	.003	2.810	15.045	4.596	19.641	.072	.201	22.865
<b>2020 Total</b> .....	.105	.004	2.615	13.044	3.937	16.980	.074	.210	19.988
<b>2021 Total</b> .....	.109	.003	2.878	13.539	4.661	18.200	.083	.181	21.455
<b>2022 January</b> .....	.011	(s)	.304	1.207	.298	1.505	.006	.015	1.841
February .....	.006	(s)	.264	1.049	.352	1.402	.003	.011	1.687
March .....	.011	(s)	.266	1.210	.341	1.552	.006	.013	1.848
April .....	.015	(s)	.251	1.106	.356	1.462	.006	.013	1.747
May .....	.007	(s)	.237	1.163	.368	1.530	.006	.015	1.795
June .....	.013	(s)	.235	1.182	.351	1.533	.005	.019	1.805
July .....	.014	(s)	.264	1.244	.363	1.607	.005	.023	1.913
August .....	.017	(s)	.242	1.195	.342	1.537	.006	.025	1.826
September .....	.011	(s)	.240	1.144	.288	1.432	.004	.018	1.705
October .....	.009	(s)	.245	1.177	.319	1.496	.007	.014	1.771
November .....	.015	(s)	.252	1.141	.335	1.477	.010	.012	1.767
December .....	.006	(s)	.300	1.132	.338	1.470	.009	.017	1.802
<b>Total</b> .....	.135	.002	3.100	13.951	4.052	18.003	.073	.194	21.507
<b>2023 January</b> .....	.011	(s)	.282	1.185	.352	1.537	.008	.015	1.854
February .....	.006	(s)	.250	1.125	.344	1.469	.008	.012	1.745
March .....	.006	(s)	.256	1.189	.320	1.509	.009	.013	1.793
April .....	.009	.001	.226	1.132	.366	1.498	.008	.012	1.754
May .....	.007	(s)	.222	1.222	.343	1.564	.011	.013	1.817
June .....	.006	.001	.237	1.187	.375	1.562	.009	.010	1.826
July .....	.007	.001	.262	1.187	.328	1.515	.008	.011	1.806
August .....	.008	(s)	.253	1.326	.319	1.644	.012	.010	1.927
September .....	.007	(s)	.236	1.214	.307	1.521	.010	.008	1.782
October .....	.009	.001	.237	1.159	.291	1.449	.007	.008	1.711
November .....	.007	.001	.258	1.267	.273	1.540	.011	.008	1.826
December .....	.005	(s)	.284	1.212	.335	1.547	.012	.011	1.859
<b>Total</b> .....	.088	.005	3.003	14.404	3.952	18.356	.114	.133	21.699
<b>2024 January</b> .....	.002	(s)	.332	1.252	.298	1.550	.011	.012	1.907
February .....	.003	(s)	.265	1.155	.270	1.425	.014	.009	1.716
March .....	.002	(s)	R .250	1.170	.303	1.473	.009	.008	R 1.743
April .....	.006	(s)	.228	1.202	.323	1.525	.013	.004	1.776
<b>4-Month Total</b> .....	.013	(s)	1.075	4.779	1.195	5.973	.048	.032	7.141
<b>2023 4-Month Total</b> .....	.032	.001	1.014	4.632	1.382	6.013	.033	.053	7.146
<b>2022 4-Month Total</b> .....	.043	(s)	1.085	4.573	1.348	5.921	.022	.052	7.123

<sup>a</sup> Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.

<sup>b</sup> Petroleum products, unfinished oils, natural gasoline, and gasoline blending components. Does not include biofuels.

<sup>c</sup> Beginning in 1993, includes fuel ethanol (minus denaturant). Beginning in 2001, also includes biodiesel. Beginning in 2011, also includes renewable diesel fuel. Beginning in 2021, also includes other biofuels.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • See "Primary Energy" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

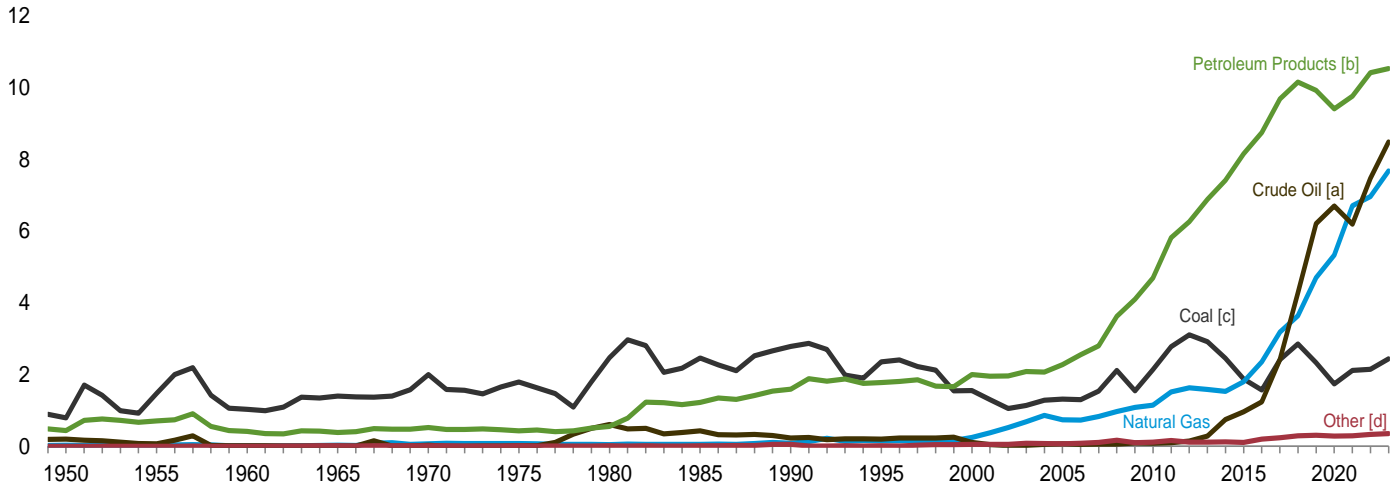
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

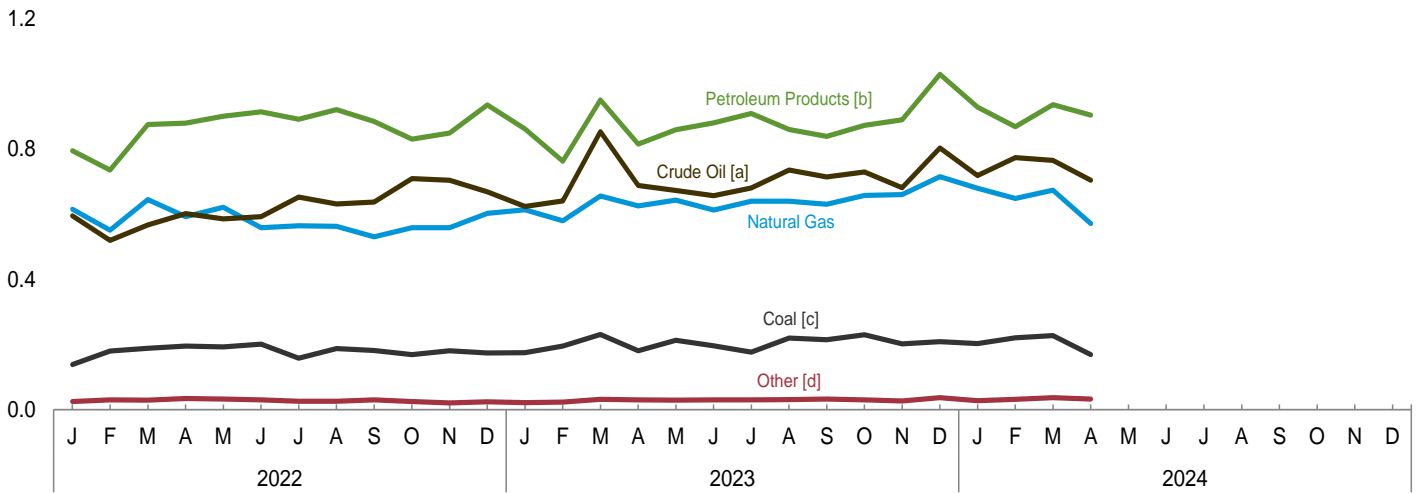
**Figure 1.4b Primary Energy Exports**

(Quadrillion Btu)

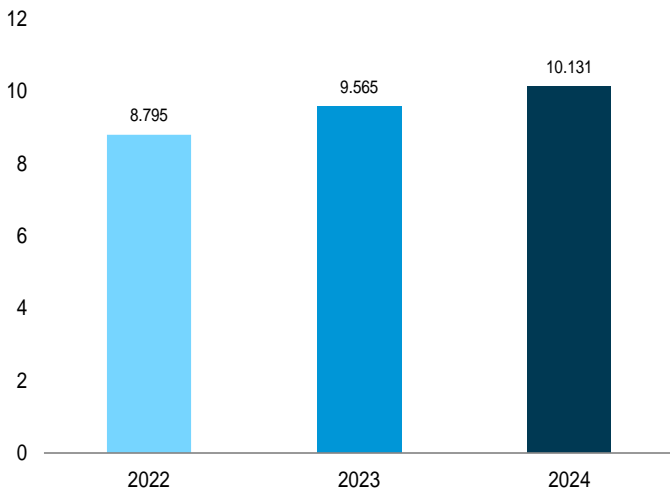
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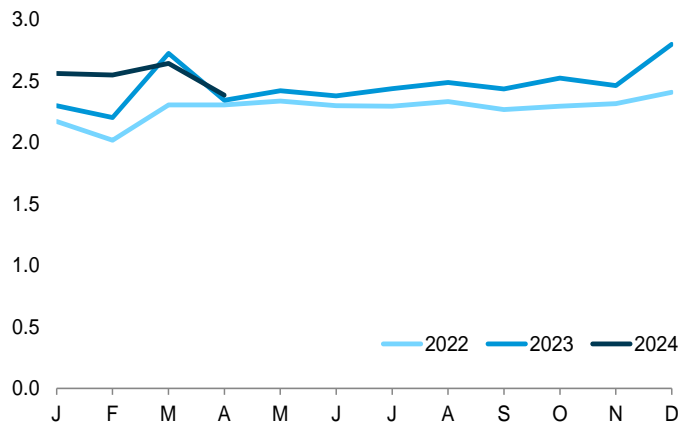
By Source, Monthly



Total, January–April



Total, Monthly



[a] Crude oil and lease condensate.

[b] Petroleum products, unfinished oils, natural gasoline, and gasoline blending components. Does not include biofuels.

[c] Includes coal coke.

[d] Biomass and electricity

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

Source: Table 1.4b.

**Table 1.4b Primary Energy Exports by Source**  
(Quadrillion Btu)

	Exports								
	Coal	Coal Coke	Natural Gas	Petroleum			Biomass <sup>c</sup>	Electricity	Total
				Crude Oil <sup>a</sup>	Petroleum Products <sup>b</sup>	Total			
<b>1950 Total</b> .....	0.786	0.010	0.027	0.202	0.440	0.642	NA	0.001	1.465
<b>1955 Total</b> .....	1.465	.013	.032	.067	.707	.774	NA	.002	2.286
<b>1960 Total</b> .....	1.023	.009	.012	.018	.413	.431	NA	.003	1.477
<b>1965 Total</b> .....	1.376	.021	.027	.006	.386	.392	NA	.013	1.829
<b>1970 Total</b> .....	1.936	.061	.072	.029	.520	.549	NA	.014	2.632
<b>1975 Total</b> .....	1.761	.032	.074	.012	.427	.439	NA	.017	2.323
<b>1980 Total</b> .....	2.421	.051	.049	.609	.551	1.160	NA	.014	3.695
<b>1985 Total</b> .....	2.438	.028	.056	.432	1.225	1.657	NA	.017	4.196
<b>1990 Total</b> .....	2.772	.014	.087	.230	1.594	1.824	NA	.055	4.752
<b>1995 Total</b> .....	2.318	.034	.156	.200	1.776	1.976	NA	.012	4.496
<b>2000 Total</b> .....	1.528	.028	.245	.106	2.003	2.110	NA	.051	3.962
<b>2005 Total</b> .....	1.273	.043	.735	.067	2.276	2.344	(s)	.065	4.462
<b>2010 Total</b> .....	2.101	.036	1.147	.088	4.691	4.780	.047	.065	8.176
<b>2011 Total</b> .....	2.751	.024	1.519	.100	5.820	5.919	.108	.051	10.373
<b>2012 Total</b> .....	3.087	.024	1.633	.143	6.261	6.404	.078	.041	11.267
<b>2013 Total</b> .....	2.895	.021	1.587	.284	6.886	7.170	.076	.039	11.788
<b>2014 Total</b> .....	2.435	.023	1.528	.744	7.414	8.158	.081	.045	12.270
<b>2015 Total</b> .....	1.852	.021	1.800	.964	8.153	9.118	.080	.031	12.902
<b>2016 Total</b> .....	1.546	.025	2.356	1.238	8.752	9.990	.181	.021	14.119
<b>2017 Total</b> .....	2.388	.030	3.182	2.424	9.684	12.108	.206	.032	17.946
<b>2018 Total</b> .....	2.824	.029	3.640	4.277	10.158	14.434	.249	.047	21.224
<b>2019 Total</b> .....	2.305	.024	4.700	6.212	9.926	16.139	.240	.068	23.476
<b>2020 Total</b> .....	1.725	.017	5.332	6.699	9.410	16.108	.234	.048	23.464
<b>2021 Total</b> .....	2.061	.052	6.712	6.191	9.761	15.952	.247	.047	25.071
<b>2022 January</b> .....	.134	.005	.616	.595	.795	1.390	.020	.005	2.170
February .....	.178	.002	.551	.520	.736	1.255	.024	.005	2.016
March .....	.184	.005	.645	.567	.876	1.443	.023	.006	2.305
April .....	.190	.005	.593	.602	.880	1.481	.029	.005	2.303
May .....	.184	.010	.622	.586	.901	1.487	.027	.005	2.335
June .....	.197	.004	.559	.593	.915	1.508	.026	.004	2.297
July .....	.153	.005	.565	.653	.892	1.545	.022	.004	2.294
August .....	.184	.004	.563	.632	.922	1.554	.022	.004	2.331
September .....	.177	.005	.531	.638	.885	1.523	.025	.005	2.266
October .....	.165	.004	.559	.710	.831	1.541	.021	.004	2.294
November .....	.177	.003	.559	.705	.850	1.554	.018	.003	2.314
December .....	.169	.005	.603	.669	.936	1.605	.022	.003	2.407
<b>Total</b> .....	<b>2.093</b>	<b>.057</b>	<b>6.966</b>	<b>7.468</b>	<b>10.417</b>	<b>17.885</b>	<b>.278</b>	<b>.054</b>	<b>27.332</b>
<b>2023 January</b> .....	.172	.003	.614	.624	.862	1.486	.018	.004	2.297
February .....	.193	.002	.580	.641	.763	1.404	.018	.005	2.202
March .....	.229	.002	.656	.854	.951	1.804	.027	.004	2.723
April .....	.179	.002	.626	.689	.816	1.505	.024	.006	2.342
May .....	.209	.003	.644	.673	.860	1.533	.024	.004	2.419
June .....	.193	.003	.613	.657	.881	1.538	.026	.005	2.377
July .....	.172	.004	.640	.681	.910	1.591	.023	.007	2.437
August .....	.217	.003	.640	.736	.861	1.597	.025	.005	2.487
September .....	.211	.004	.631	.715	.839	1.553	.026	.008	2.433
October .....	.228	.002	.658	.730	.873	1.603	.024	.007	2.522
November .....	.199	.003	.661	.682	.890	1.572	.021	.006	2.462
December .....	.204	.005	.716	.804	1.030	1.834	.031	.006	2.796
<b>Total</b> .....	<b>2.405</b>	<b>.037</b>	<b>7.679</b>	<b>8.486</b>	<b>10.536</b>	<b>19.022</b>	<b>.286</b>	<b>.068</b>	<b>29.498</b>
<b>2024 January</b> .....	.203	.001	.680	.719	.929	1.648	.021	.006	2.559
February .....	.220	.002	.649	.774	.869	1.643	.024	.008	2.547
March .....	.224	.004	.674	.766	.937	1.703	R .028	.009	R 2.641
April .....	.165	.004	.572	.705	.905	1.609	.031	.002	2.384
<b>4-Month Total</b> .....	<b>.811</b>	<b>.011</b>	<b>2.575</b>	<b>2.964</b>	<b>3.639</b>	<b>6.604</b>	<b>.105</b>	<b>.025</b>	<b>10.131</b>
<b>2023 4-Month Total</b> .....	<b>.772</b>	<b>.010</b>	<b>2.477</b>	<b>2.809</b>	<b>3.391</b>	<b>6.200</b>	<b>.087</b>	<b>.019</b>	<b>9.565</b>
<b>2022 4-Month Total</b> .....	<b>.687</b>	<b>.017</b>	<b>2.405</b>	<b>2.283</b>	<b>3.286</b>	<b>5.569</b>	<b>.096</b>	<b>.021</b>	<b>8.795</b>

<sup>a</sup> Crude oil and lease condensate.

<sup>b</sup> Petroleum products, unfinished oils, natural gasoline, and gasoline blending components. Does not include biofuels.

<sup>c</sup> Beginning in 2001, includes biodiesel. Beginning in 2010, also includes fuel ethanol (minus denaturant). Beginning in 2016, also includes wood and wood-derived fuels.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • See "Primary Energy" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

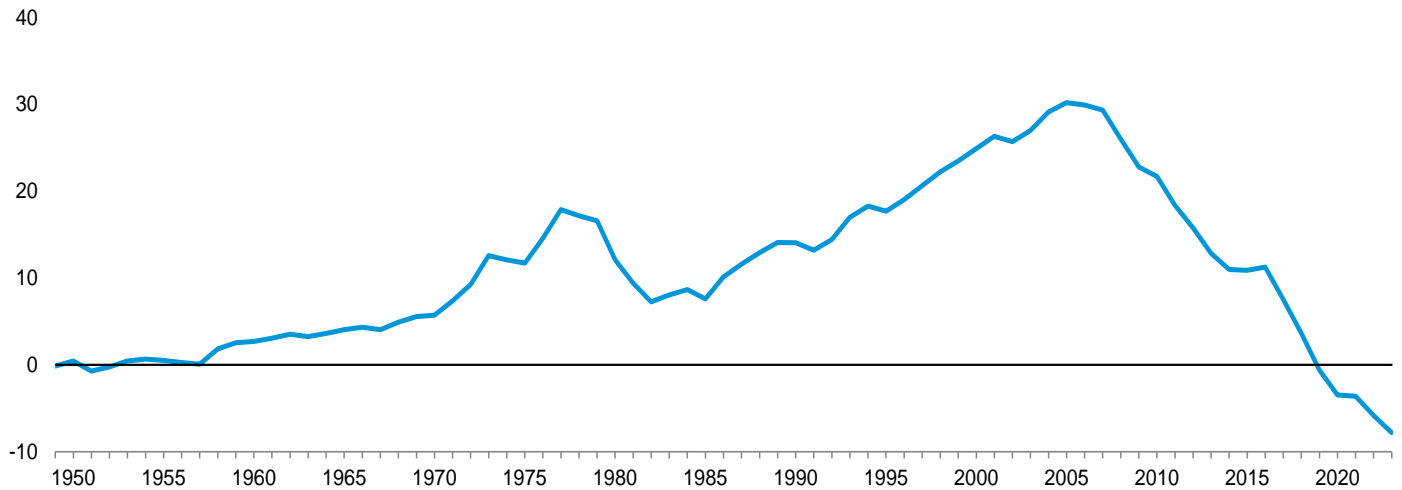
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

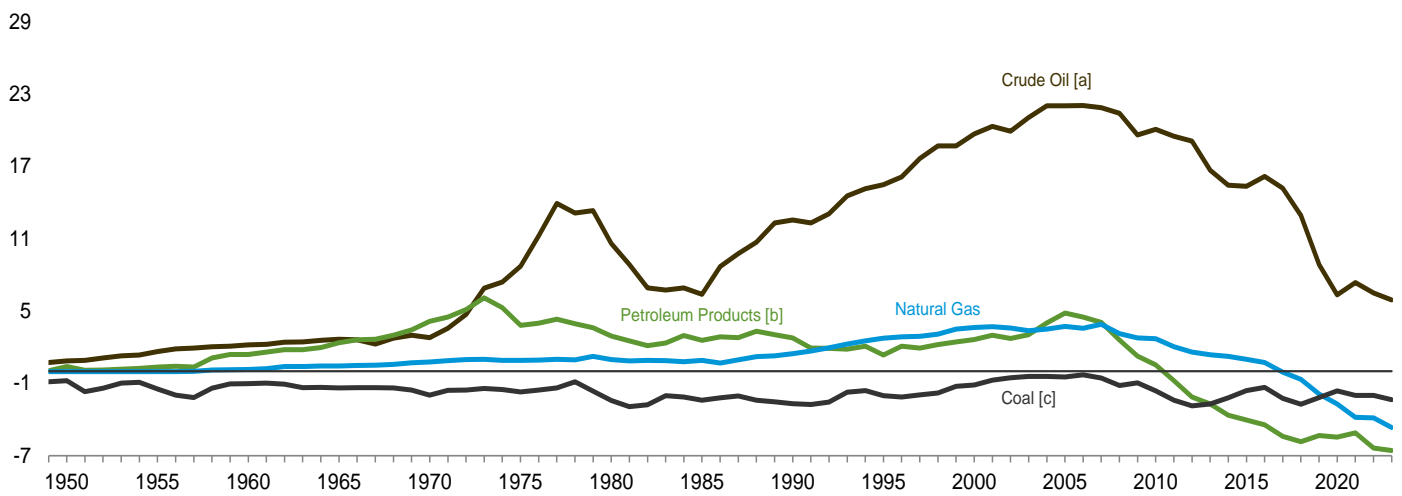
**Figure 1.4c Primary Energy Net Imports**

(Quadrillion Btu)

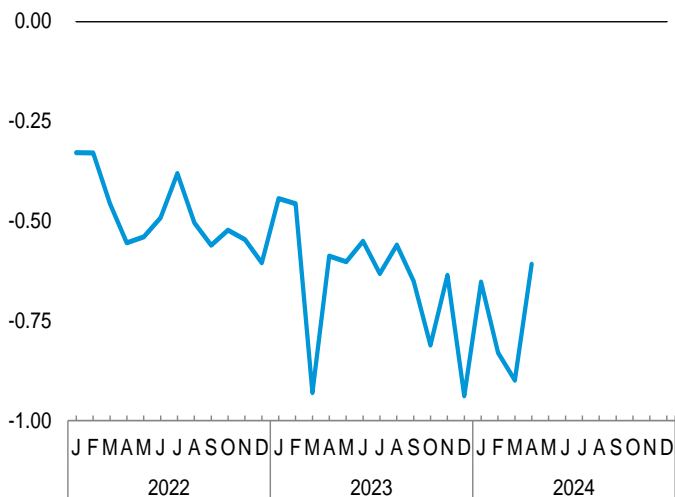
Total, 1949–2023



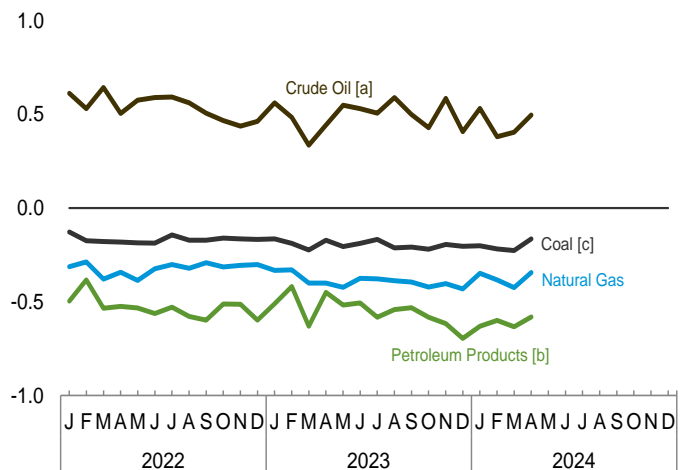
By Major Source, 1949–2023



Total, Monthly



By Major Source, Monthly



[a] Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.

[b] Petroleum products, unfinished oils, natural gasoline, and gasoline blending components. Does not include biofuels.

[c] Includes coal coke.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

Source: Table 1.4c.

**Table 1.4c Primary Energy Net Imports by Source**  
(Quadrillion Btu)

	Net Imports <sup>a</sup>								
	Coal	Coal Coke	Natural Gas	Petroleum			Biomass <sup>d</sup>	Electricity	Total
				Crude Oil <sup>b</sup>	Petroleum Products <sup>c</sup>	Total			
<b>1950 Total</b> .....	-0.777	0.001	-0.027	0.854	0.390	1.244	NA	0.006	0.448
<b>1955 Total</b> .....	-1.456	-0.010	-0.021	1.624	.354	1.978	NA	.014	.504
<b>1960 Total</b> .....	-1.017	-0.006	.149	2.178	1.389	3.568	NA	.015	2.710
<b>1965 Total</b> .....	-1.372	-0.018	.444	2.648	2.362	5.010	NA	(s)	4.063
<b>1970 Total</b> .....	-1.935	-0.058	.774	2.785	4.136	6.921	NA	.007	5.709
<b>1975 Total</b> .....	-1.738	.014	.904	8.708	3.800	12.508	NA	.021	11.709
<b>1980 Total</b> .....	-2.391	-0.035	.957	10.586	2.912	13.499	NA	.071	12.101
<b>1985 Total</b> .....	-2.389	-0.013	.896	6.381	2.570	8.952	NA	.140	7.584
<b>1990 Total</b> .....	-2.705	.005	1.464	12.536	2.757	15.293	NA	.008	14.065
<b>1995 Total</b> .....	-2.081	.061	2.745	15.469	1.355	16.824	NA	.134	17.684
<b>2000 Total</b> .....	-1.215	.065	3.623	19.676	2.638	22.314	NA	.115	24.904
<b>2005 Total</b> .....	-.512	.044	3.714	22.023	4.831	26.855	.011	.085	30.197
<b>2010 Total</b> .....	-1.617	-0.006	2.687	20.052	.528	20.580	-.042	.089	21.690
<b>2011 Total</b> .....	-2.423	.011	2.036	19.495	-.781	18.714	-.089	.127	18.375
<b>2012 Total</b> .....	-2.875	.004	1.583	19.096	-2.139	16.957	-.029	.161	15.801
<b>2013 Total</b> .....	-2.696	-0.017	1.369	16.673	-2.717	13.956	.026	.197	12.835
<b>2014 Total</b> .....	-2.183	-0.022	1.235	15.434	-3.641	11.793	-.034	.182	10.971
<b>2015 Total</b> .....	-1.596	-0.018	.986	15.335	-4.042	11.292	-.001	.227	10.892
<b>2016 Total</b> .....	-1.326	-0.019	.725	16.154	-4.443	11.710	-.058	.227	11.259
<b>2017 Total</b> .....	-2.220	-0.029	-.073	15.173	-5.407	9.766	-.124	.192	7.512
<b>2018 Total</b> .....	-2.702	-0.026	-.679	12.915	-5.849	7.066	-.201	.152	3.610
<b>2019 Total</b> .....	-2.167	-0.021	-1.889	8.833	-5.331	3.502	-.168	.133	-.610
<b>2020 Total</b> .....	-1.620	-0.013	-2.717	6.345	-5.473	.872	-.159	.161	-3.476
<b>2021 Total</b> .....	-1.952	-0.049	-3.834	7.348	-5.100	2.248	-.163	.134	-3.616
<b>2022 January</b> .....	-.124	-0.005	-.313	.612	-.497	.115	-.013	.010	-.329
February .....	-.172	-0.002	-.287	.530	-.383	.147	-.022	.006	-.330
March .....	-.173	-0.005	-.379	.644	-.535	.109	-.016	.007	-.457
April .....	-.175	-0.005	-.342	.505	-.524	-.019	-.023	.009	-.555
May .....	-.177	-0.010	-.386	.576	-.533	.043	-.021	.009	-.540
June .....	-.184	-0.004	-.324	.589	-.563	.026	-.021	.015	-.492
July .....	-.139	-0.005	-.301	.592	-.529	.062	-.017	.019	-.381
August .....	-.167	-0.004	-.321	.562	-.579	-.017	-.016	.020	-.505
September .....	-.166	-0.005	-.291	.507	-.598	-.091	-.021	.013	-.561
October .....	-.156	-0.004	-.314	.467	-.512	-.044	-.014	.010	-.523
November .....	-.163	-0.003	-.306	.437	-.514	-.077	-.007	.009	-.547
December .....	-.163	-0.005	-.302	.463	-.598	-.135	-.013	.014	-.605
<b>Total</b> .....	<b>-1.957</b>	<b>-0.056</b>	<b>-3.866</b>	<b>6.483</b>	<b>-6.365</b>	<b>.118</b>	<b>-.205</b>	<b>.141</b>	<b>-5.826</b>
<b>2023 January</b> .....	-.162	-0.003	-.332	.561	-.510	.052	-.010	.011	-.444
February .....	-.187	-0.002	-.330	.484	-.419	.065	-.010	.007	-.457
March .....	-.222	-0.002	-.400	.335	-.631	-.296	-.018	.009	-.930
April .....	-.169	-0.002	-.400	.443	-.450	-.007	-.016	.007	-.588
May .....	-.203	-0.003	-.423	.549	-.518	.031	-.014	.009	-.602
June .....	-.187	-0.002	-.375	.530	-.506	.024	-.016	.006	-.551
July .....	-.165	-0.003	-.378	.506	-.582	-.076	-.015	.004	-.632
August .....	-.209	-0.003	-.388	.590	-.542	.048	-.013	.005	-.560
September .....	-.204	-0.004	-.395	.499	-.532	-.033	-.015	(s)	-.651
October .....	-.219	-0.002	-.421	.428	-.582	-.154	-.016	.001	-.811
November .....	-.192	-0.002	-.403	.585	-.617	-.032	-.010	.002	-.636
December .....	-.199	-0.005	-.431	.408	-.696	-.288	-.019	.005	-.938
<b>Total</b> .....	<b>-2.317</b>	<b>-0.032</b>	<b>-4.677</b>	<b>5.918</b>	<b>-6.584</b>	<b>-.666</b>	<b>-.172</b>	<b>.065</b>	<b>-7.799</b>
<b>2024 January</b> .....	-.201	-0.001	-.348	.532	-.631	-.099	-.010	.006	-.653
February .....	-.216	-0.002	-.384	.380	-.599	-.218	-.010	.001	-.830
March .....	-.222	-0.004	R-.424	.404	-.634	-.229	R-.019	-.001	R-.899
April .....	-.159	-0.004	-.344	.497	-.581	-.084	-.018	.002	-.608
<b>4-Month Total</b> .....	<b>-.798</b>	<b>-0.011</b>	<b>-1.500</b>	<b>1.814</b>	<b>-2.445</b>	<b>-.630</b>	<b>-.057</b>	<b>.007</b>	<b>-2.989</b>
<b>2023 4-Month Total</b> .....	<b>-.740</b>	<b>-0.009</b>	<b>-1.463</b>	<b>1.823</b>	<b>-2.010</b>	<b>-.187</b>	<b>-.053</b>	<b>.033</b>	<b>-2.419</b>
<b>2022 4-Month Total</b> .....	<b>-.644</b>	<b>-0.017</b>	<b>-1.320</b>	<b>2.290</b>	<b>-1.938</b>	<b>.352</b>	<b>-.074</b>	<b>.032</b>	<b>-1.672</b>

<sup>a</sup> Net imports equal imports minus exports.

<sup>b</sup> Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.

<sup>c</sup> Petroleum products, unfinished oils, natural gasoline, and gasoline blending components. Does not include biofuels.

<sup>d</sup> Beginning in 1993, includes fuel ethanol (minus denaturant) imports. Beginning in 2001, also includes biodiesel imports and exports. Beginning in 2010, also includes fuel ethanol (minus denaturant) exports. Beginning in 2011, also includes renewable diesel fuel imports. Beginning in 2021, also includes other

biofuels imports.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • See "Primary Energy" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

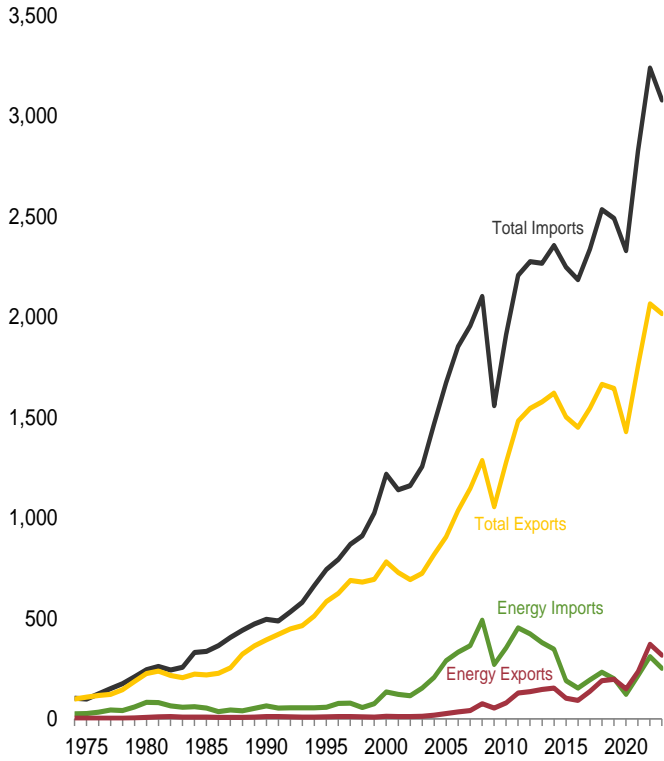
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: Tables 1.4a and 1.4b.

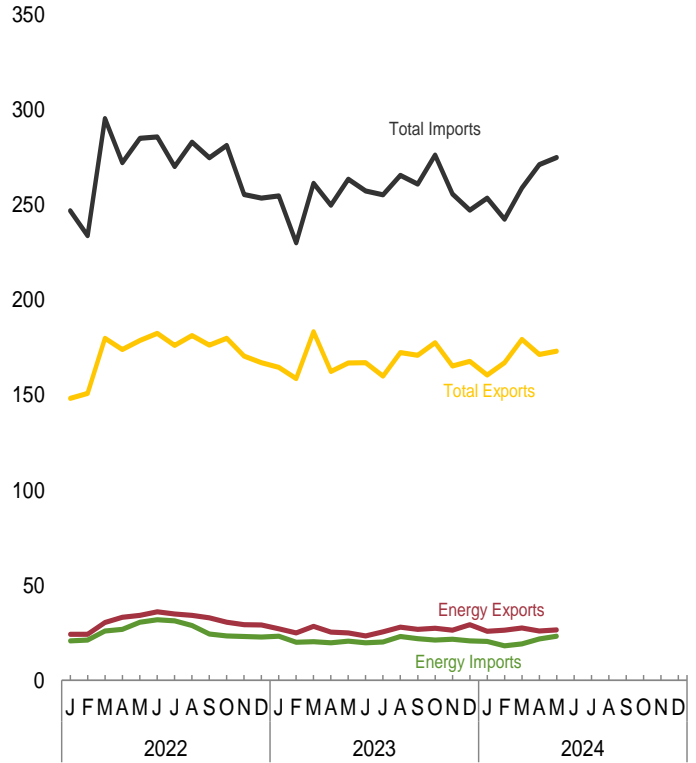
**Figure 1.5 Merchandise Trade Value**

(Billion Dollars[a])

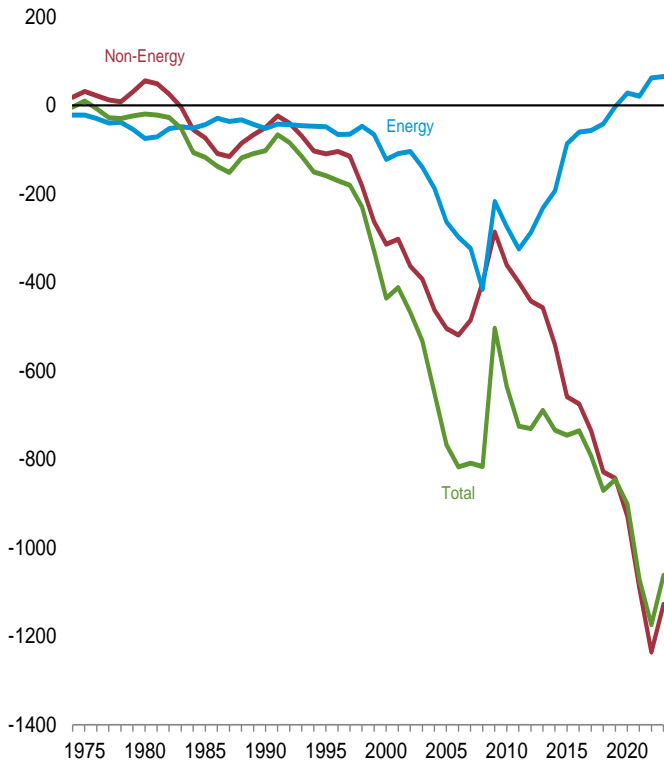
Imports and Exports, 1974–2023



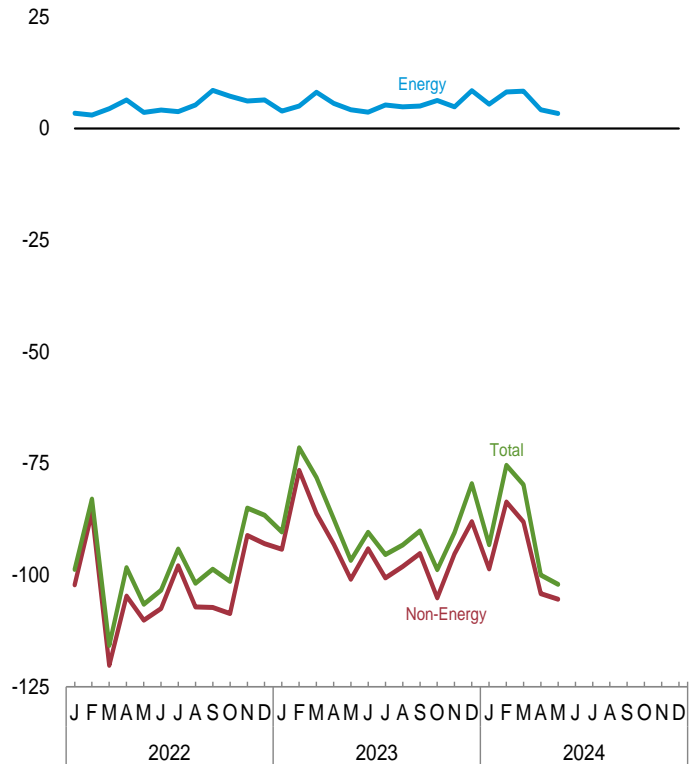
Imports and Exports, Monthly



Trade Balance, 1974–2023



Trade Balance, Monthly



[a] Prices are not adjusted for inflation. See “Nominal Dollars” in Glossary.  
 Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.  
 Source: Table 1.5.

**Table 1.5 Merchandise Trade Value**  
(Million Dollars<sup>a</sup>)

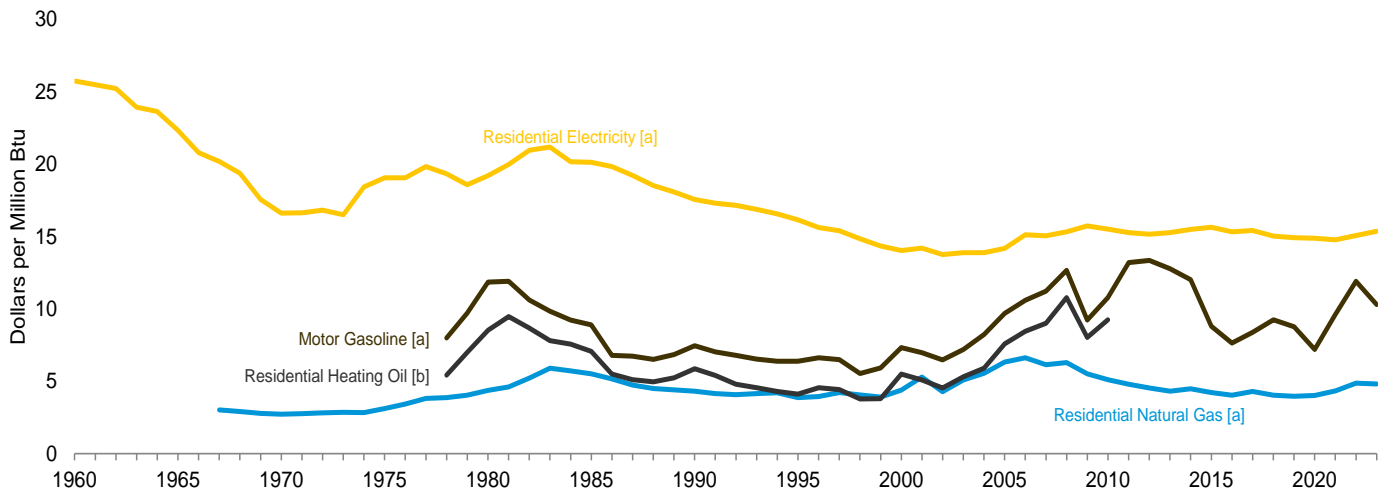
	Petroleum <sup>b</sup>			Energy <sup>c</sup>			Non-Energy Balance	Total Merchandise		
	Exports	Imports	Balance	Exports	Imports	Balance		Exports	Imports	Balance
<b>1974 Total</b> .....	792	24,668	-23,876	3,444	25,454	-22,010	18,126	99,437	103,321	-3,884
<b>1975 Total</b> .....	907	25,197	-24,289	4,470	26,476	-22,006	31,557	108,856	99,305	9,551
<b>1980 Total</b> .....	2,833	78,637	-75,803	7,982	82,924	-74,942	55,246	225,566	245,262	-19,696
<b>1985 Total</b> .....	4,707	50,475	-45,768	9,971	53,917	-43,946	-73,765	218,815	336,526	-117,712
<b>1990 Total</b> .....	6,901	61,583	-54,682	12,233	64,661	-52,428	-50,068	393,592	496,088	-102,496
<b>1995 Total</b> .....	6,321	54,368	-48,047	10,358	59,109	-48,751	-110,050	584,742	743,543	-158,801
<b>2000 Total</b> .....	10,192	119,251	-109,059	13,179	135,367	-122,188	-313,916	781,918	1,218,022	-436,104
<b>2005 Total</b> .....	19,155	250,068	-230,913	26,488	289,723	-263,235	-504,242	905,978	1,673,455	-767,477
<b>2010 Total</b> .....	64,753	333,472	-268,719	80,625	354,982	-274,357	-361,005	1,278,495	1,913,857	-635,362
<b>2011 Total</b> .....	<sup>b</sup> 102,180	<sup>b</sup> 431,866	<sup>b</sup> -329,686	128,989	453,839	-324,850	-400,597	1,482,508	2,207,954	-725,447
<b>2012 Total</b> .....	111,949	408,509	-296,560	136,054	423,860	-287,806	-442,640	1,545,821	2,276,267	-730,446
<b>2013 Total</b> .....	123,244	363,141	-239,897	147,572	379,758	-232,186	-457,284	1,578,517	2,267,987	-689,470
<b>2014 Total</b> .....	127,818	326,709	-198,891	154,998	347,474	-192,976	-541,506	1,621,874	2,356,356	-734,482
<b>2015 Total</b> .....	85,890	177,455	-91,565	103,612	190,501	-86,889	-658,594	1,503,328	2,248,811	-745,483
<b>2016 Total</b> .....	74,921	142,920	-67,999	92,971	153,800	-60,829	-674,497	1,451,460	2,186,786	-735,326
<b>2017 Total</b> .....	104,975	181,672	-76,697	137,920	194,790	-56,870	-735,526	1,547,195	2,339,591	-792,396
<b>2018 Total</b> .....	149,715	219,493	-69,778	190,888	232,746	-41,858	-828,500	1,665,787	2,536,145	-868,358
<b>2019 Total</b> .....	156,390	189,040	-32,650	197,740	200,829	-3,089	-842,670	1,645,940	2,491,700	-845,759
<b>2020 Total</b> .....	110,373	113,077	-2,704	150,074	122,486	27,588	-929,070	1,429,995	2,331,477	-901,482
<b>2021 Total</b> .....	157,530	198,648	-41,118	236,233	215,734	20,499	-1,091,271	1,757,744	2,828,515	-1,070,772
<b>2022</b>										
January .....	16,419	18,180	-1,761	24,205	20,777	3,428	-102,184	148,312	247,067	-98,756
February .....	16,083	19,117	-3,034	24,185	21,207	2,978	-85,937	150,966	233,926	-82,959
March .....	21,186	24,083	-2,897	30,405	25,978	4,427	-120,185	179,913	295,671	-115,758
April .....	23,196	24,787	-1,591	33,113	26,730	6,383	-104,706	174,107	272,430	-98,323
May .....	23,090	28,330	-5,240	34,086	30,513	3,573	-110,097	178,786	285,309	-106,524
June .....	24,698	29,557	-4,859	35,952	31,858	4,094	-107,485	182,602	285,993	-103,391
July .....	25,207	28,886	-3,679	34,938	31,199	3,739	-97,922	176,254	270,437	-94,183
August .....	23,268	26,280	-3,012	34,087	28,821	5,266	-107,098	181,450	283,282	-101,832
September .....	22,054	22,031	23	32,786	24,257	8,529	-107,231	176,312	275,014	-98,702
October .....	21,088	21,640	-552	30,500	23,276	7,224	-108,613	180,050	281,439	-101,389
November .....	20,677	21,043	-366	29,184	23,064	6,120	-91,117	170,583	255,580	-84,997
December .....	20,146	19,301	845	29,047	22,678	6,369	-92,974	167,120	253,725	-86,605
<b>Total</b> .....	<b>257,113</b>	<b>283,233</b>	<b>-26,120</b>	<b>372,488</b>	<b>310,358</b>	<b>62,130</b>	<b>-1,235,549</b>	<b>2,066,454</b>	<b>3,239,873</b>	<b>-1,173,419</b>
<b>2023</b>										
January .....	18,329	20,191	-1,862	27,094	23,215	3,879	-94,226	164,603	254,950	-90,347
February .....	17,462	17,922	-460	24,974	19,953	5,021	-76,523	158,770	230,272	-71,502
March .....	20,342	18,852	1,490	28,400	20,312	8,088	-86,213	183,433	261,558	-78,125
April .....	18,444	18,627	-183	25,279	19,669	5,610	-93,070	162,579	250,039	-87,460
May .....	18,255	19,736	-1,481	24,849	20,643	4,206	-100,933	166,969	263,697	-96,727
June .....	17,401	18,764	-1,363	23,351	19,681	3,670	-94,081	167,128	257,538	-90,411
July .....	19,413	19,024	389	25,437	20,176	5,261	-100,641	160,080	255,460	-95,380
August .....	21,557	21,899	-342	27,878	23,037	4,841	-98,106	172,531	265,796	-93,265
September .....	20,521	20,753	-232	26,847	21,811	5,036	-95,141	171,036	261,141	-90,105
October .....	20,303	20,034	269	27,376	21,093	6,283	-105,079	177,653	276,449	-98,796
November .....	19,368	20,218	-850	26,362	21,550	4,812	-95,255	165,416	255,859	-90,443
December .....	21,960	19,216	2,744	29,209	20,726	8,483	-88,033	167,861	247,412	-79,550
<b>Total</b> .....	<b>233,356</b>	<b>235,236</b>	<b>-1,880</b>	<b>317,057</b>	<b>251,865</b>	<b>65,192</b>	<b>-1,127,303</b>	<b>2,018,059</b>	<b>3,080,170</b>	<b>-1,062,111</b>
<b>2024</b>										
January .....	18,784	18,422	362	25,789	20,382	5,407	-98,628	160,579	253,800	-93,221
February .....	19,098	16,656	2,442	26,320	18,147	8,173	-83,613	167,171	242,611	-75,440
March .....	20,964	18,026	2,938	27,459	19,104	8,355	-88,112	179,391	259,147	-79,757
April .....	20,446	20,803	-357	25,917	21,733	4,184	<sup>R</sup> -104,157	<sup>R</sup> 171,453	<sup>R</sup> 271,427	<sup>R</sup> -99,973
May .....	20,588	22,437	-1,849	26,455	23,119	3,336	-105,391	173,124	275,179	-102,055
<b>5-Month Total</b> .....	<b>99,880</b>	<b>96,344</b>	<b>3,536</b>	<b>131,940</b>	<b>102,485</b>	<b>29,455</b>	<b>-479,901</b>	<b>851,718</b>	<b>1,302,165</b>	<b>-450,446</b>
<b>2022 5-Month Total</b> .....	<b>92,833</b>	<b>95,327</b>	<b>-2,496</b>	<b>130,597</b>	<b>103,792</b>	<b>26,804</b>	<b>-450,965</b>	<b>836,354</b>	<b>1,260,516</b>	<b>-424,162</b>
<b>2021 5-Month Total</b> .....	<b>145,994</b>	<b>125,205</b>	<b>-14,523</b>	<b>99,974</b>	<b>114,497</b>	<b>20,789</b>	<b>-523,109</b>	<b>832,083</b>	<b>1,334,403</b>	<b>-502,320</b>

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.  
<sup>b</sup> Through 2010, data are for crude oil, petroleum preparations, liquefied propane and butane, and other mineral fuels. Beginning in 2011, data are for petroleum products and preparations.  
<sup>c</sup> Petroleum, coal, natural gas, and electricity.  
R=Revised.  
Notes: • Monthly data are not adjusted for seasonal variations. • See Note 1, "Merchandise Trade Value," at end of section. • Totals may not equal sum of

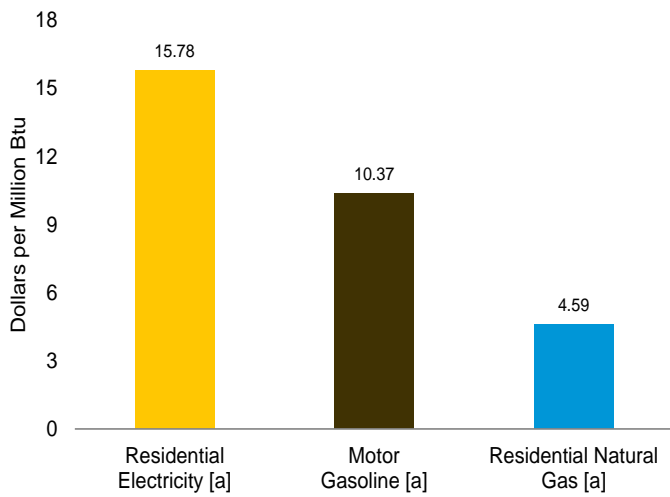
components due to independent rounding. • The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory, which comprises the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands.  
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual and monthly data beginning in 1974.  
Sources: See end of section.

**Figure 1.6 Cost of Fuels to End Users In Real (1982-1984) Dollars**

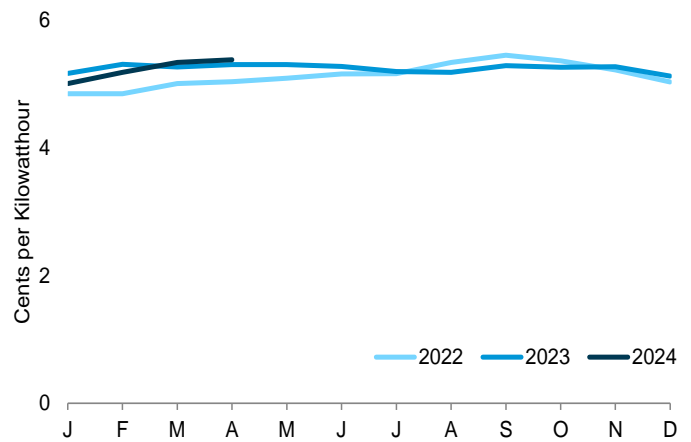
Costs, 1960–2023



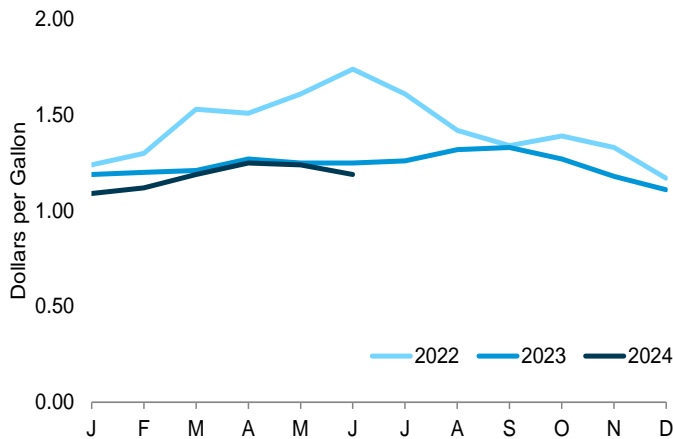
Costs, April 2024



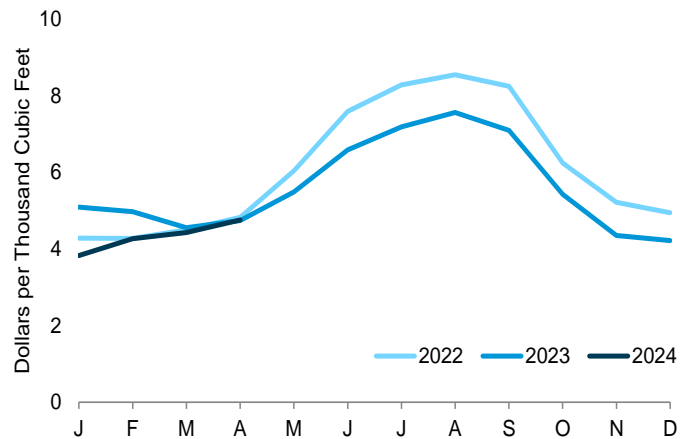
Residential Electricity, [a] Monthly



Motor Gasoline, [a] Monthly



Residential Natural Gas, [a] Monthly



[a] Includes Taxes.

[b] Excludes Taxes.

Note: See "Real Dollars" in Glossary.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

Source: Tables 1.6.



**Table 1.6 Cost of Fuels to End Users in Real (1982–1984) Dollars**

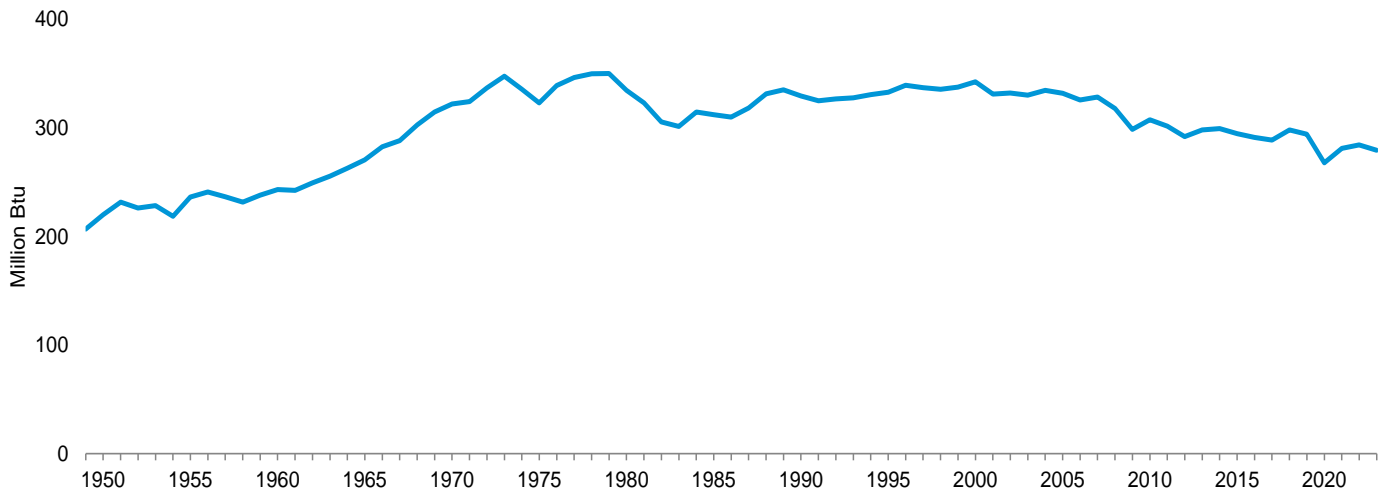
	Consumer Price Index, All Urban Consumers <sup>a</sup>	Motor Gasoline <sup>b</sup>		Residential Heating Oil <sup>c</sup>		Residential Natural Gas <sup>b</sup>		Residential Electricity <sup>b</sup>	
	Index 1982–1984=100	Dollars per Gallon	Dollars per Million Btu	Dollars per Gallon	Dollars per Million Btu	Dollars per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatthour	Dollars per Million Btu
<b>1960 Average</b> .....	29.6	NA	NA	NA	NA	NA	NA	8.8	25.74
<b>1965 Average</b> .....	31.5	NA	NA	NA	NA	NA	NA	7.6	22.33
<b>1970 Average</b> .....	38.8	NA	NA	NA	NA	2.81	2.72	5.7	16.62
<b>1975 Average</b> .....	53.8	NA	NA	NA	NA	3.18	3.12	6.5	19.07
<b>1980 Average</b> .....	82.4	1.482	11.85	1.182	8.52	4.47	4.36	6.6	19.21
<b>1985 Average</b> .....	107.6	1.112	8.89	0.979	7.06	5.69	5.52	6.87	20.13
<b>1990 Average</b> .....	130.7	0.931	7.44	0.813	5.86	4.44	4.31	5.99	17.56
<b>1995 Average</b> .....	152.4	0.791	6.38	0.569	4.10	3.98	3.87	5.51	16.15
<b>2000 Average</b> .....	172.2	0.908	7.33	0.761	5.49	4.51	4.39	4.79	14.02
<b>2005 Average</b> .....	195.3	1.197	9.68	1.051	7.58	6.50	6.33	4.84	14.18
<b>2010 Average</b> .....	218.056	1.301	10.78	1.283	9.25	5.22	5.11	5.29	15.51
<b>2011 Average</b> .....	224.939	1.590	13.19	NA	NA	4.90	4.80	5.21	15.27
<b>2012 Average</b> .....	229.594	1.609	13.35	NA	NA	4.64	4.53	5.17	15.17
<b>2013 Average</b> .....	232.957	1.538	12.77	NA	NA	4.43	4.31	5.21	15.26
<b>2014 Average</b> .....	236.736	1.447	12.01	NA	NA	4.63	4.49	5.29	15.50
<b>2015 Average</b> .....	237.017	1.059	8.80	NA	NA	4.38	4.22	5.34	15.64
<b>2016 Average</b> .....	240.007	0.918	7.63	NA	NA	4.19	4.03	5.23	15.33
<b>2017 Average</b> .....	245.120	1.007	8.37	NA	NA	4.45	4.29	5.26	15.41
<b>2018 Average</b> .....	251.107	1.113	9.25	NA	NA	4.18	4.03	5.13	15.02
<b>2019 Average</b> .....	255.657	1.055	8.77	NA	NA	4.11	3.95	5.09	14.91
<b>2020 Average</b> .....	258.811	0.866	7.20	NA	NA	4.17	4.01	5.08	14.89
<b>2020 Average</b> .....	270.970	1.156	9.62	NA	NA	4.50	4.33	5.04	14.77
<b>2021</b> January .....	281.148	1.245	10.36	NA	NA	4.28	4.13	4.85	14.22
February .....	283.716	1.295	10.78	NA	NA	4.28	4.12	4.85	14.21
March .....	287.504	1.531	12.73	NA	NA	4.50	4.34	5.01	14.69
April .....	289.109	1.511	12.57	NA	NA	4.83	4.66	5.04	14.77
May .....	292.296	1.606	13.36	NA	NA	6.05	5.82	5.09	14.93
June .....	296.311	1.738	14.46	NA	NA	7.59	7.32	5.16	15.13
July .....	296.276	1.609	13.39	NA	NA	8.29	7.98	5.17	15.15
August .....	296.171	1.420	11.81	NA	NA	8.56	8.24	5.34	15.66
September .....	296.808	1.344	11.18	NA	NA	8.25	7.95	5.45	15.99
October .....	298.012	1.386	11.53	NA	NA	6.25	6.02	5.37	15.73
November .....	297.711	1.329	11.06	NA	NA	5.22	5.03	5.22	15.31
December .....	296.797	1.165	9.69	NA	NA	4.95	4.77	5.03	14.75
<b>Average</b> .....	<b>292.655</b>	<b>1.432</b>	<b>11.92</b>	<b>NA</b>	<b>NA</b>	<b>5.04</b>	<b>4.86</b>	<b>5.14</b>	<b>15.06</b>
<b>2023</b> January .....	299.170	1.188	9.88	NA	NA	5.10	4.91	5.17	15.16
February .....	300.840	1.204	10.02	NA	NA	4.98	4.80	5.31	15.57
March .....	301.836	1.213	10.09	NA	NA	4.56	4.39	5.27	15.45
April .....	303.363	1.265	10.53	NA	NA	4.75	4.57	5.31	15.55
May .....	304.127	1.248	10.38	NA	NA	5.49	5.29	5.31	15.56
June .....	305.109	1.252	10.42	NA	NA	6.59	6.35	5.28	15.48
July .....	305.691	1.257	10.45	NA	NA	7.19	6.93	5.20	15.23
August .....	307.026	1.324	11.01	NA	NA	7.57	7.29	5.19	15.21
September .....	307.789	1.334	11.10	NA	NA	7.10	6.84	5.29	15.51
October .....	307.671	1.271	10.57	NA	NA	5.43	5.23	5.27	15.43
November .....	307.051	1.180	9.82	NA	NA	4.35	4.19	5.27	15.45
December .....	306.746	1.112	9.25	NA	NA	4.22	4.06	5.13	15.03
<b>Average</b> .....	<b>304.702</b>	<b>1.238</b>	<b>10.29</b>	<b>NA</b>	<b>NA</b>	<b>5.00</b>	<b>4.82</b>	<b>5.24</b>	<b>15.37</b>
<b>2023</b> January .....	308.417	1.087	9.04	NA	NA	3.83	3.69	5.01	14.68
February .....	310.326	1.123	9.34	NA	NA	4.27	4.11	5.19	15.21
March .....	312.332	1.187	9.87	NA	NA	4.43	4.27	5.34	15.65
April .....	313.548	1.246	10.37	NA	NA	<sup>R</sup> 4.76	<sup>R</sup> 4.59	<sup>R</sup> 5.38	<sup>R</sup> 15.78
May .....	314.069	1.237	10.29	NA	NA	NA	NA	NA	NA
June .....	314.175	1.187	9.87	NA	NA	NA	NA	NA	NA

a Data are U.S. city averages for all items, and are not seasonally adjusted.  
b Includes taxes.  
c Excludes taxes.  
R=Revised. NA=Not available.  
Notes: • See "Real Dollars" in Glossary. • 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.

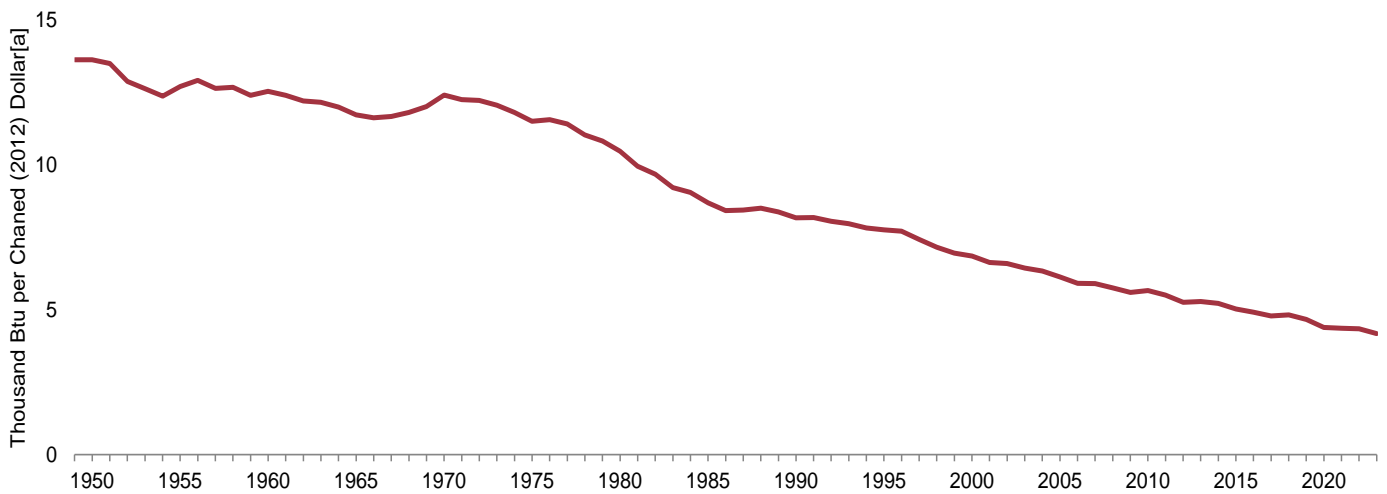
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1960 and monthly data beginning in 1995.  
Sources: • **Fuel Prices:** Tables 9.4 (All Grades), 9.8, and 9.10, adjusted by the CPI; and *Monthly Energy Review*, September 2012, Table 9.8c. • **Consumer Price Index, All Urban Consumers:** U.S. Department of Labor, Bureau of Labor Statistics, series ID CUUR0000SA0. • **Conversion Factors:** Tables A1, A3, A4, and A6.

**Figure 1.7 Primary Energy Consumption and Energy Expenditures Indicators**

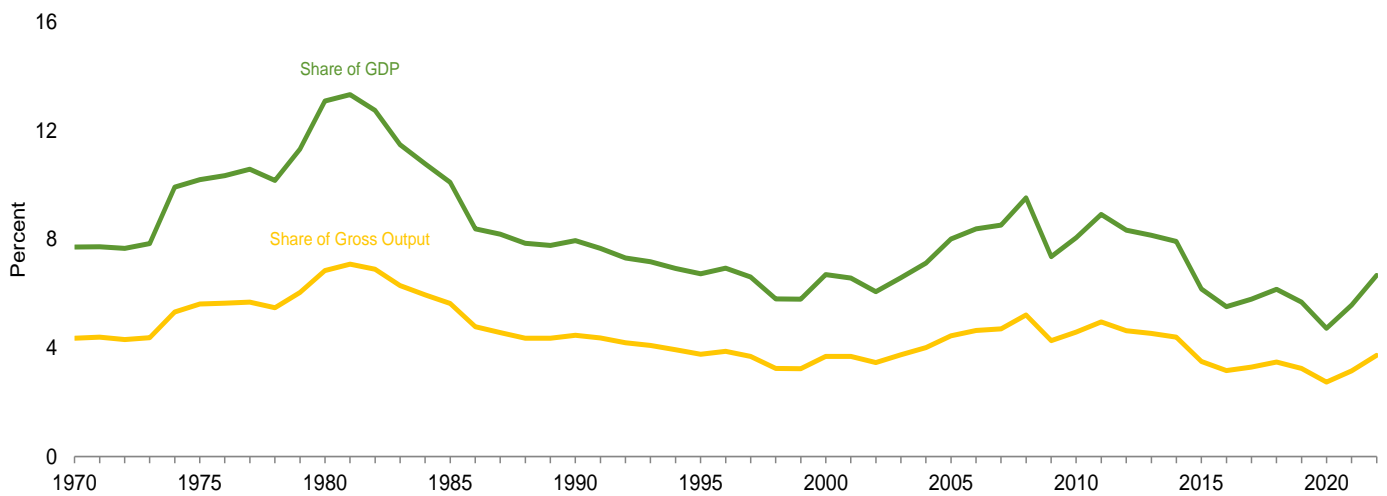
Energy Consumption per Capita, 1949–2023



Primary Energy Consumption per Real Dollar [a] of Gross Domestic Product, 1949–2023



Energy Expenditures as Share of Gross Domestic Product and Gross Output,[b] 1970–2022



[a] See “Chained Dollars” and “Real Dollars” in Glossary.

[b] Gross output is the value of gross domestic product (GDP) plus the value of intermediate inputs used to produce GDP.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

Source: Table 1.7.

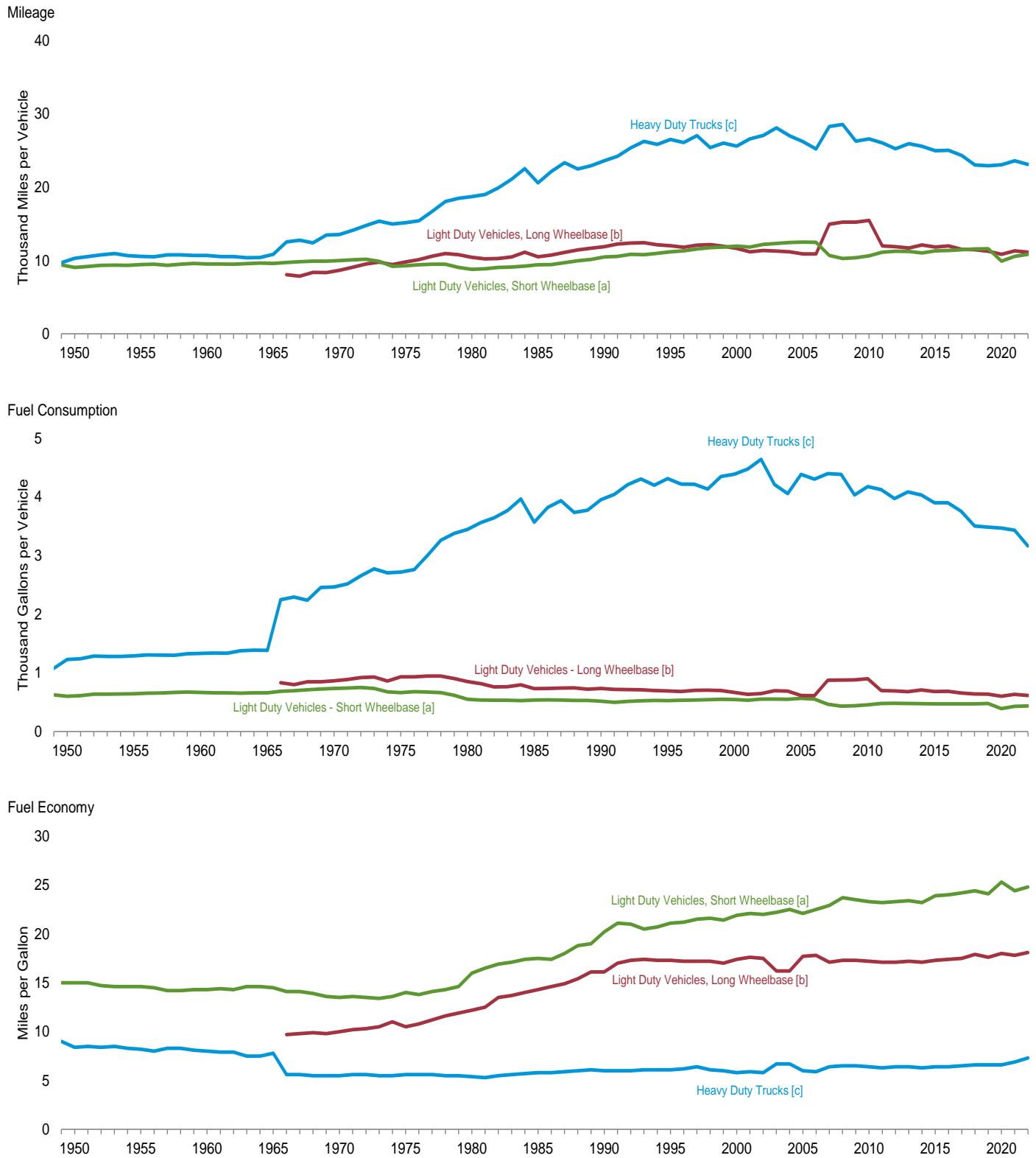
**Table 1.7 Primary Energy Consumption, Energy Expenditures, and Carbon Dioxide Emissions Indicators**

	Primary Energy Consumption <sup>a</sup>			Energy Expenditures <sup>b</sup>				Carbon Dioxide Emissions <sup>c</sup>		
	Consumption	Consumption per Capita	Consumption per Real Dollar <sup>d</sup> of GDP <sup>e</sup>	Expenditures	Expenditures per Capita	Expenditures as Share of GDP <sup>e</sup>	Expenditures as Share of Gross Output <sup>f</sup>	Emissions	Emissions per Capita	Emissions per Real Dollar <sup>d</sup> of GDP <sup>e</sup>
	Quadrillion Btu	Million Btu	Thousand Btu per Chained (2017) Dollar <sup>d</sup>	Million Nominal Dollars <sup>g</sup>	Nominal Dollars <sup>g</sup>	Percent	Percent	Million Metric Tons Carbon Dioxide	Metric Tons Carbon Dioxide	Metric Tons Carbon Dioxide per Million Chained (2017) Dollars <sup>d</sup>
1950 .....	33.527	220	13.64	NA	NA	NA	NA	2,382	15.6	969
1955 .....	39.215	236	12.72	NA	NA	NA	NA	2,685	16.2	871
1960 .....	43.942	243	12.55	NA	NA	NA	NA	2,914	16.1	833
1965 .....	52.565	271	11.74	NA	NA	NA	NA	3,462	17.8	773
1970 .....	66.036	322	12.42	82,875	404	7.7	4.4	4,261	20.8	802
1975 .....	69.788	323	11.51	171,854	796	10.2	5.6	4,428	20.5	731
1980 .....	76.038	335	10.48	374,350	1,647	13.1	6.9	4,756	20.9	655
1981 .....	74.159	323	9.97	427,901	1,865	13.3	7.1	4,637	20.2	623
1982 .....	70.812	306	9.69	426,482	1,841	12.8	6.9	4,404	19.0	603
1983 .....	70.489	302	9.22	417,622	1,786	11.5	6.3	4,384	18.8	574
1984 .....	74.237	315	9.06	435,313	1,846	10.8	6.0	4,613	19.6	563
1985 .....	74.268	312	8.70	438,343	1,842	10.1	5.6	4,605	19.4	539
1986 .....	74.458	310	8.43	384,091	1,599	8.4	4.8	4,616	19.2	523
1987 .....	77.161	318	8.44	397,627	1,641	8.2	4.6	4,776	19.7	523
1988 .....	81.025	331	8.51	411,568	1,683	7.9	4.4	4,998	20.4	525
1989 .....	82.711	335	8.38	439,051	1,779	7.8	4.4	5,085	20.6	515
1990 .....	82.256	330	8.18	474,652	1,901	8.0	4.5	5,038	20.2	501
1991 .....	82.214	325	8.19	472,440	1,867	7.7	4.4	4,991	19.7	497
1992 .....	83.836	327	8.06	476,845	1,859	7.3	4.2	5,089	19.8	489
1993 .....	85.191	328	7.97	492,275	1,894	7.2	4.1	5,182	19.9	485
1994 .....	87.053	331	7.83	504,856	1,919	6.9	3.9	5,262	20.0	473
1995 .....	88.668	333	7.77	514,624	1,933	6.7	3.8	5,324	20.0	467
1996 .....	91.404	339	7.72	560,293	2,080	6.9	3.9	5,518	20.5	466
1997 .....	91.956	337	7.43	567,962	2,083	6.6	3.7	5,589	20.5	452
1998 .....	92.602	336	7.16	526,283	1,908	5.8	3.2	5,637	20.4	436
1999 .....	94.232	338	6.96	558,627	2,002	5.8	3.2	5,700	20.4	421
2000 .....	96.694	343	6.86	687,711	2,437	6.7	3.7	5,889	20.9	418
2001 .....	94.416	331	6.63	696,242	2,443	6.6	3.7	5,778	20.3	406
2002 .....	95.575	332	6.60	663,964	2,308	6.1	3.5	5,820	20.2	402
2003 .....	95.806	330	6.44	755,070	2,603	6.6	3.7	5,887	20.3	396
2004 .....	98.033	335	6.35	871,210	2,975	7.1	4.0	5,994	20.5	388
2005 .....	98.101	332	6.14	1,045,730	3,539	8.0	4.4	6,007	20.3	376
2006 .....	97.235	326	5.92	1,158,821	3,884	8.4	4.6	5,929	19.9	361
2007 .....	98.965	329	5.90	1,233,869	4,096	8.5	4.7	6,016	20.0	359
2008 .....	96.647	318	5.76	1,408,759	4,633	9.5	5.2	5,823	19.1	347
2009 .....	91.626	299	5.60	1,066,528	3,477	7.4	4.3	5,404	17.6	331
2010 .....	95.142	308	5.67	1,214,278	3,926	8.1	4.6	5,594	18.1	333
2011 .....	93.966	302	5.51	1,392,469	4,469	8.9	5.0	5,455	17.5	320
2012 .....	91.677	292	5.26	1,355,175	4,318	8.3	4.6	5,236	16.7	300
2013 .....	94.253	298	5.29	1,376,403	4,356	8.2	4.5	5,359	17.0	301
2014 .....	95.335	300	5.22	1,395,432	4,384	7.9	4.4	5,414	17.0	296
2015 .....	94.484	295	5.03	1,128,449	3,519	6.2	3.5	5,262	16.4	280
2016 .....	94.092	291	4.92	1,038,885	3,217	5.5	3.2	5,169	16.0	270
2017 .....	93.902	289	4.79	1,136,316	3,497	5.8	3.3	5,132	15.8	262
2018 .....	97.405	298	4.82	1,271,998	3,894	6.2	3.5	5,278	16.2	261
2019 .....	96.603	294	4.67	1,223,875	3,729	5.7	3.2	5,147	15.7	249
2020 .....	88.852	268	4.39	1,007,680	3,040	4.7	2.7	4,584	13.8	227
2021 .....	93.363	281	4.36	1,316,978	3,966	5.6	3.2	4,906	14.8	229
2022 .....	94.791	284	4.34	1,719,438	5,159	6.7	3.7	4,939	14.8	226
2023 .....	93.583	279	4.18	NA	NA	NA	NA	4,793	14.3	214

<sup>a</sup> See "Primary Energy Consumption" in Glossary.  
<sup>b</sup> Expenditures include taxes where data are available.  
<sup>c</sup> Carbon dioxide emissions from energy consumption. See Table 11.1.  
<sup>d</sup> See "Chained Dollars" and "Real Dollars" in Glossary.  
<sup>e</sup> See "Gross Domestic Product (GDP)" in Glossary.  
<sup>f</sup> Gross output is the value of GDP plus the value of intermediate inputs used to produce GDP. Through 1996, data have been adjusted by EIA based on DOC/BEA's 2012 comprehensive revision.  
<sup>g</sup> See "Nominal Dollars" in Glossary.  
 NA=Not available.  
 Notes: • Data are estimates. • Geographic coverage is the 50 states and the District of Columbia.  
 Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949.  
 Sources: • **Consumption:** Table 1.3. • **Consumption per Capita:**

Calculated as energy consumption divided by U.S. population (see Table C1).  
 • **Consumption per Real Dollar of GDP:** Calculated as energy consumption divided by U.S. gross domestic product in chained (2017) dollars (see Table C1).  
 • **Expenditures:** U.S. Energy Information Administration, "State Energy Price and Expenditure Estimates, 1970 Through 2021" (June 2023), U.S. Table ET.1.  
 • **Expenditures per Capita:** Calculated as energy expenditures divided by U.S. population (see Table C1). • **Expenditures as Share of GDP:** Calculated as energy expenditures divided by U.S. gross domestic product in nominal dollars (see Table C1). • **Expenditures as Share of Gross Output:** Calculated as energy expenditures divided by U.S. gross output (see Table C1). • **Emissions: 1949–1972—**U.S. Energy Information Administration, *Annual Energy Review 2011*, Table 11.1. **1973 forward—**Table 11.1. • **Emissions per Capita:** Calculated as carbon dioxide emissions divided by U.S. population (see Table C1). • **Emissions per Real Dollar of GDP:** Calculated as carbon dioxide emissions divided by U.S. gross domestic product in chained (2017) dollars (see Table C1).

**Figure 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy, 1949-2022**



[a] Through 1989, data are for passenger cars and motorcycles. For 1990–2006, data are for passenger cars only. Beginning in 2007, data are for light-duty vehicles (passenger cars, light trucks, vans, and sport utility vehicles) with a wheelbase less than or equal to 121 inches.

[b] For 1966–2000, data are for vans, pickup trucks, and sport utility vehicles. Beginning in 2007, data are for light-duty vehicles (passenger cars, light trucks, vans, and sport utility vehicles) with a wheelbase greater than 121 inches.

[c] For 1949–1965, data are for single-unit trucks with 2 axles and 6 or more tires, combination trucks, and other vehicles with 2 axles and 4 tires that are not

passenger cars. For 1966–2006 data are for single-unit truck with 2 axles and 6 or more tires, and combination trucks. Beginning in 2007, data are for single-unit trucks with 2 axles and 6 or more tires (or a gross vehicle weight rating exceeding 10,000 pounds), and combination trucks.

Note: Through 1965, “Light-Duty Vehicles, Long Wheelbase” data are included in “Heavy-Duty Trucks.”

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

Source: Table 1.8.

**Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy**

	Light-Duty Vehicles, Short Wheelbase <sup>a</sup>			Light-Duty Vehicles, Long Wheelbase <sup>b</sup>			Heavy-Duty Trucks <sup>c</sup>			All Motor Vehicles <sup>d</sup>		
	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy
	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon
1950	9,060	603	15.0	(e)	(e)	(e)	10,316	1,229	8.4	9,321	725	12.8
1955	9,447	645	14.6	(e)	(e)	(e)	10,576	1,293	8.2	9,661	761	12.7
1960	9,518	668	14.3	(e)	(e)	(e)	10,693	1,333	8.0	9,732	784	12.4
1965	9,603	661	14.5	(e)	(e)	(e)	10,851	1,387	7.8	9,826	787	12.5
1970	9,989	737	13.5	8,676	866	10.0	13,565	2,467	5.5	9,976	830	12.0
1975	9,309	665	14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2
1980	8,813	551	16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3
1981	8,873	538	16.5	10,244	819	12.5	19,016	3,565	5.3	9,477	697	13.6
1982	9,050	535	16.9	10,276	762	13.5	19,931	3,647	5.5	9,644	686	14.1
1983	9,118	534	17.1	10,497	767	13.7	21,083	3,769	5.6	9,760	686	14.2
1984	9,248	530	17.4	11,151	797	14.0	22,550	3,967	5.7	10,017	691	14.5
1985	9,419	538	17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6
1986	9,464	543	17.4	10,764	738	14.6	22,143	3,821	5.8	10,143	692	14.7
1987	9,720	539	18.0	11,114	744	14.9	23,349	3,937	5.9	10,453	694	15.1
1988	9,972	531	18.8	11,465	745	15.4	22,485	3,736	6.0	10,721	688	15.6
1989	10,157	533	19.0	11,676	724	16.1	22,926	3,776	6.1	10,932	688	15.9
1990	10,504	520	20.2	11,902	738	16.1	23,603	3,953	6.0	11,107	677	16.4
1991	10,571	501	21.1	12,245	721	17.0	24,229	4,047	6.0	11,294	669	16.9
1992	10,857	517	21.0	12,381	717	17.3	25,373	4,210	6.0	11,558	683	16.9
1993	10,804	527	20.5	12,430	714	17.4	26,262	4,309	6.1	11,595	693	16.7
1994	10,992	531	20.7	12,156	701	17.3	25,838	4,202	6.1	11,683	698	16.7
1995	11,203	530	21.1	12,018	694	17.3	26,514	4,315	6.1	11,793	700	16.8
1996	11,330	534	21.2	11,811	685	17.2	26,092	4,221	6.2	11,813	700	16.9
1997	11,581	539	21.5	12,115	703	17.2	27,032	4,218	6.4	12,107	711	17.0
1998	11,754	544	21.6	12,173	707	17.2	25,397	4,135	6.1	12,211	721	16.9
1999	11,848	553	21.4	11,957	701	17.0	26,014	4,352	6.0	12,206	732	16.7
2000	11,976	547	21.9	11,672	669	17.4	25,617	4,391	5.8	12,164	720	16.9
2001	11,831	534	22.1	11,204	636	17.6	26,602	4,477	5.9	11,887	695	17.1
2002	12,202	555	22.0	11,364	650	17.5	27,071	4,642	5.8	12,171	719	16.9
2003	12,325	556	22.2	11,287	697	16.2	28,093	4,215	6.7	12,208	718	17.0
2004	12,460	553	22.5	11,184	690	16.2	27,023	4,057	6.7	12,200	714	17.1
2005	12,510	567	22.1	10,920	617	17.7	26,235	4,385	6.0	12,082	706	17.1
2006	12,485	554	22.5	10,920	612	17.8	25,231	4,304	5.9	12,017	698	17.2
2007	<sup>a</sup> 10,710	<sup>a</sup> 468	<sup>a</sup> 22.9	<sup>b</sup> 14,970	<sup>b</sup> 877	<sup>b</sup> 17.1	<sup>c</sup> 28,290	<sup>c</sup> 4,398	6.4	11,915	693	17.2
2008	10,290	435	23.7	15,256	880	17.3	28,573	4,387	6.5	11,631	667	17.4
2009	10,391	442	23.5	15,252	882	17.3	26,274	4,037	6.5	11,631	661	17.6
2010	10,650	456	23.3	15,474	901	17.2	26,604	4,180	6.4	11,866	681	17.4
2011	11,150	481	23.2	12,007	702	17.1	26,054	4,128	6.3	11,652	665	17.5
2012	11,262	484	23.3	11,885	694	17.1	25,255	3,973	6.4	11,707	665	17.6
2013	11,244	480	23.4	11,712	683	17.2	25,951	4,086	6.4	11,679	663	17.6
2014	11,048	476	23.2	12,138	710	17.1	25,594	4,036	6.3	11,621	666	17.5
2015	11,327	475	23.9	11,855	684	17.3	24,979	3,904	6.4	11,742	656	17.9
2016	11,370	475	24.0	11,991	689	17.4	25,037	3,904	6.4	11,810	658	17.9
2017	11,467	474	24.2	11,543	659	17.5	24,335	3,758	6.5	11,789	653	18.1
2018	11,576	475	24.4	11,486	643	17.9	23,037	3,507	6.6	11,843	651	18.2
2019	11,599	481	24.1	11,263	640	17.6	22,930	3,488	6.6	11,797	651	18.1
2020	9,928	393	25.3	10,855	603	18.0	23,075	3,470	6.6	10,523	577	18.2
2021	10,573	433	24.4	11,318	636	17.8	23,601	3,436	6.9	11,099	617	18.0
2022	10,847	437	24.8	11,142	617	18.1	23,111	3,167	7.3	11,278	608	18.5

<sup>a</sup> Through 1989, data are for passenger cars and motorcycles. For 1990–2006, data are for passenger cars only. Beginning in 2007, data are for light-duty vehicles (passenger cars, light trucks, vans, and sport utility vehicles) with a wheelbase less than or equal to 121 inches.

<sup>b</sup> For 1966–2006, data are for vans, pickup trucks, and sport utility vehicles. Beginning in 2007, data are for light-duty vehicles (passenger cars, light trucks, vans, and sport utility vehicles) with a wheelbase greater than 121 inches.

<sup>c</sup> For 1949–1965, data are for single-unit trucks with 2 axles and 6 or more tires, combination trucks, and other vehicles with 2 axles and 4 tires that are not passenger cars. For 1966–2006, data are for single-unit trucks with 2 axles and 6 or more tires, and combination trucks. Beginning in 2007, data are for single-unit trucks with 2 axles and 6 or more tires (or a gross vehicle weight rating exceeding

10,000 pounds), and combination trucks.

<sup>d</sup> Includes buses and motorcycles, which are not separately displayed.

<sup>e</sup> Included in "Heavy-Duty Trucks."

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949.

Sources: • **Light-Duty Vehicles, Short Wheelbase: 1990–1994**—U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 1998*, Table 4-13. • **All Other Data:**

**1949–1994**—Federal Highway Administration (FHWA), *Highway Statistics Summary to 1995*, Table VM-201A. **1995 forward**—FHWA, *Highway Statistics*, annual reports, Table VM-1.

**Table 1.9 Light-Duty Vehicle Average Miles Traveled by Technology Type**  
(Miles per Vehicle<sup>a</sup>)

	Internal Combustion Engine Vehicles			Electric Vehicles	
	Motor Gasoline Vehicles <sup>b</sup>	Diesel Vehicles	Hybrid Electric Vehicles <sup>c</sup>	Battery Electric Vehicles <sup>d</sup>	Plug-in Hybrid Electric Vehicles <sup>e</sup>
2016 .....	9,945	10,647	12,161	6,793	9,634
2017 .....	10,070	10,218	12,037	6,057	9,300
2018 .....	10,217	10,494	12,013	5,594	9,245
2019 .....	9,893	9,792	11,507	6,060	8,855
2020 .....	10,142	10,139	11,537	6,670	9,359
2021 .....	9,893	10,265	10,757	6,569	8,668
2022 .....	9,847	10,681	10,537	7,039	8,704

<sup>a</sup> See Note 2, "Light-Duty Vehicle Average Annual Miles Traveled by Technology Type," at end of section.

<sup>b</sup> Does not include hybrid electric vehicles.

<sup>c</sup> See "Hybrid Electric Vehicle (HEV)" in Glossary.

<sup>d</sup> See "Battery Electric Vehicle (BEV)" in Glossary.

<sup>e</sup> See "Plug-in Hybrid Electric Vehicle (PHEV)" in Glossary.

E=Estimate.

Note: • Data are for on-road vehicles less than or equal to 8,500 pounds

(includes passenger cars and light trucks). • Data are derived from vehicle odometer reading data. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 2016.

Source: • Calculated by EIA using S&P Global Mobility Odometer data and Vehicles in Operation data, 2016–2022.

**Table 1.10 Electric and Fuel Cell Electric Light-Duty Vehicles Overview**

	Electric Light-Duty Vehicles			Fuel Cell Electric Vehicles <sup>c</sup>	All Light-Duty Vehicles <sup>d</sup>	Electric Vehicle Share of All Light-Duty Vehicles
	Battery Electric Vehicles <sup>a</sup>	Plug-In Hybrid Electric Vehicles <sup>b</sup>	Total			
Thousands of Registered Vehicles						Percent
2012 .....	29.7	64.7	94.4	0.1	231,872.8	(s)
2013 .....	<sup>E</sup> 85.7	<sup>E</sup> 108.9	<sup>E</sup> 194.7	<sup>E</sup> 0.2	<sup>E</sup> 237,326.1	<sup>E</sup> 0.1
2014 .....	127.4	158.8	286.2	0.1	240,796.6	0.1
2015 .....	<sup>E</sup> 194.8	<sup>E</sup> 196.7	<sup>E</sup> 391.5	<sup>E</sup> 0.2	<sup>E</sup> 248,926.1	<sup>E</sup> 0.2
2016 .....	272.6	239.0	511.7	1.1	251,219.0	0.2
2017 .....	<sup>E</sup> 353.3	<sup>E</sup> 368.3	<sup>E</sup> 721.6	<sup>E</sup> 4.6	<sup>E</sup> 257,206.5	<sup>E</sup> 0.3
2018 .....	573.0	491.2	1,064.2	5.9	259,182.4	0.4
2019 .....	755.7	561.2	1,316.9	7.6	261,451.1	0.5
2020 .....	973.5	613.0	1,586.5	8.2	259,976.0	0.6
2021 .....	1,422.0	774.9	2,196.9	11.4	263,152.3	0.8
2022 .....	2,115.6	936.9	3,052.5	13.9	263,764.2	1.2

<sup>a</sup> See "Battery Electric Vehicle (BEV)" in Glossary.  
<sup>b</sup> See "Plug-In Hybrid Electric Vehicle (PHEV)" in Glossary.  
<sup>c</sup> See "Fuel Cell Electric Vehicle (FCEV)" in Glossary.  
<sup>d</sup> Includes internal combustion engine vehicles, electric vehicles, and fuel cell electric vehicles.  
<sup>E</sup>=Estimate. (s)=Less than 0.05 percent.  
 Notes: • Data are at end of year. • Data are for on-road vehicles less than or equal to 8,500 pounds (includes passenger cars and light trucks). • Data for 2013, 2015, and 2017 are estimates. • The federal government and some states self-register their state-owned vehicles. These vehicles are not included in number of registered vehicles. • Geographic coverage is the 50 states and the District of

Columbia.  
 Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 2012.  
 Sources: • **Electric Light-Duty Vehicles, Fuel Cell Electric Vehicles, and All Light-Duty Vehicles:** S&P Global Mobility Vehicles in Operation, as of calendar year end figures for each of the years shown. Data for 2013, 2015, and 2017 are estimates interpolated by EIA. • **Electric Vehicle Share of All Light Duty-Vehicles (defined by EIA as less than or equal to 8,500 lbs):** Calculated as battery electric and plug-in hybrid electric light-duty vehicles divided by all light-duty vehicles by EIA.

**Table 1.11 Heating Degree Days by Census Division**

	New England <sup>a</sup>	Middle Atlantic <sup>b</sup>	East North Central <sup>c</sup>	West North Central <sup>d</sup>	South Atlantic <sup>e</sup>	East South Central <sup>f</sup>	West South Central <sup>g</sup>	Mountain <sup>h</sup>	Pacific <sup>i</sup>	United States
1950 Total	6,793	6,313	7,028	7,461	3,495	3,552	2,280	6,320	3,910	5,362
1955 Total	6,872	6,220	6,488	6,918	3,487	3,517	2,295	6,686	4,324	5,242
1960 Total	6,826	6,376	6,909	7,191	3,764	4,139	2,767	6,264	3,806	5,400
1965 Total	7,027	6,379	6,588	6,938	3,358	3,505	2,238	6,067	3,825	5,143
1970 Total	7,022	6,376	6,721	7,094	3,437	3,827	2,561	6,098	3,731	5,214
1975 Total	6,545	5,881	6,407	6,886	2,953	3,441	2,311	6,237	4,120	4,900
1980 Total	7,071	6,463	6,976	6,840	3,361	3,969	2,495	5,534	3,544	5,075
1985 Total	6,750	5,957	6,668	7,269	2,892	3,663	2,537	6,040	3,939	4,886
1990 Total	5,988	5,240	5,779	6,141	2,301	2,947	1,967	5,370	3,610	4,178
1995 Total	6,686	6,079	6,741	6,916	2,984	3,653	2,148	5,079	3,274	4,637
2000 Total	6,624	5,986	6,317	6,504	2,902	3,555	2,152	4,952	3,464	4,491
2005 Total	6,645	5,938	6,224	6,218	2,773	3,384	1,985	4,873	3,383	4,346
2010 Total	5,935	5,539	6,188	6,570	3,163	3,954	2,450	5,060	3,628	4,461
2011 Total	6,113	5,471	6,173	6,569	2,564	3,347	2,113	5,304	3,823	4,312
2012 Total	5,563	5,563	4,960	5,520	2,304	2,880	1,648	4,560	3,418	3,771
2013 Total	6,425	5,827	6,623	7,140	2,736	3,651	2,325	5,262	3,367	4,470
2014 Total	6,676	6,190	7,196	7,308	2,961	3,935	2,421	4,737	2,777	4,558
2015 Total	6,520	5,762	6,165	6,093	2,497	3,224	2,085	4,595	2,902	4,094
2016 Total	5,928	5,339	5,701	5,791	2,464	3,095	1,750	4,617	3,035	3,867
2017 Total	6,037	5,318	5,684	6,003	2,239	2,837	1,580	4,571	3,190	3,838
2018 Total	6,323	5,769	6,434	6,974	2,638	3,479	2,252	4,808	3,172	4,291
2019 Total	6,538	5,736	6,427	7,082	2,392	3,181	2,143	5,309	3,547	4,317
2020 Total	5,822	5,199	5,855	6,326	2,263	3,064	1,812	4,784	3,219	3,914
2021 Total	5,799	5,262	5,747	6,061	2,366	3,166	1,911	4,694	3,338	3,934
<b>2022</b> January	1,303	1,242	1,391	1,442	644	847	578	888	549	914
February	994	933	1,084	1,194	412	591	498	806	478	712
March	841	758	791	847	286	388	263	608	401	525
April	544	495	567	578	156	217	52	422	337	342
May	187	146	159	185	31	32	4	240	213	122
June	53	27	26	30	1	1	0	69	56	26
July	3	2	3	9	0	0	0	7	10	4
August	3	3	14	18	0	0	0	11	8	6
September	108	67	82	84	13	23	2	66	31	44
October	386	393	425	405	177	240	66	311	140	258
November	614	588	695	825	267	429	298	770	516	511
December	983	980	1,105	1,289	536	671	439	926	627	781
<b>Total</b>	<b>6,019</b>	<b>5,636</b>	<b>6,344</b>	<b>6,905</b>	<b>2,523</b>	<b>3,438</b>	<b>2,200</b>	<b>5,125</b>	<b>3,366</b>	<b>4,245</b>
<b>2023</b> January	924	845	R 998	R 1,184	450	R 577	R 403	R 963	632	R 716
February	938	R 814	R 881	R 1,031	R 308	R 414	R 330	826	592	621
March	R 849	R 795	849	956	R 303	397	R 200	773	R 609	586
April	466	367	441	R 489	R 116	188	86	R 446	353	297
May	281	R 242	215	146	65	R 62	6	182	R 194	R 145
June	66	R 44	43	23	9	R 7	0	101	R 106	R 43
July	1	1	7	17	0	0	0	11	11	5
August	24	13	21	17	0	0	0	19	10	10
September	64	R 57	68	59	R 10	13	1	R 97	R 77	46
October	R 285	R 273	338	R 362	110	R 146	47	R 316	R 172	R 206
November	R 788	R 714	R 736	747	R 326	416	R 255	R 573	R 386	505
December	R 853	R 788	825	903	454	598	R 393	R 768	R 484	625
<b>Total</b>	<b>R 5,538</b>	<b>R 4,952</b>	<b>R 5,422</b>	<b>R 5,934</b>	<b>R 2,151</b>	<b>R 2,817</b>	<b>R 1,721</b>	<b>R 5,073</b>	<b>R 3,627</b>	<b>R 3,804</b>
<b>2024</b> January	R 1,088	R 1,019	1,191	R 1,341	R 576	R 853	635	R 916	R 580	841
February	911	R 830	R 775	R 761	405	449	R 255	R 670	R 503	R 575
March	R 763	R 669	689	R 739	271	R 358	R 185	R 634	R 496	R 490
April	540	428	393	399	112	138	46	387	350	281
<b>4-Month Total</b>	<b>3,302</b>	<b>2,946</b>	<b>3,048</b>	<b>3,240</b>	<b>1,364</b>	<b>1,798</b>	<b>1,122</b>	<b>2,608</b>	<b>1,929</b>	<b>2,186</b>
<b>2023 4-Month Total</b>	<b>3,177</b>	<b>2,821</b>	<b>3,169</b>	<b>3,660</b>	<b>1,177</b>	<b>1,576</b>	<b>1,019</b>	<b>3,007</b>	<b>2,185</b>	<b>2,219</b>
<b>2022 4-Month Total</b>	<b>3,682</b>	<b>3,428</b>	<b>3,834</b>	<b>4,061</b>	<b>1,499</b>	<b>2,042</b>	<b>1,391</b>	<b>2,724</b>	<b>1,765</b>	<b>2,493</b>

<sup>a</sup> Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

<sup>b</sup> New Jersey, New York, and Pennsylvania.

<sup>c</sup> Illinois, Indiana, Michigan, Ohio, and Wisconsin.

<sup>d</sup> Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

<sup>e</sup> Delaware, Florida, Georgia, Maryland (and the District of Columbia), North Carolina, South Carolina, Virginia, and West Virginia.

<sup>f</sup> Alabama, Kentucky, Mississippi, and Tennessee.

<sup>g</sup> Arkansas, Louisiana, Oklahoma, and Texas.

<sup>h</sup> Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

<sup>i</sup> Alaska, California, Hawaii, Oregon, and Washington.

R=Revised.

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 degrees Fahrenheit (°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). • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: State-level degree day data are from U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Centers for Environmental Information. Using these state-level data, the U.S. Energy Information Administration calculates population-weighted census-division and U.S. degree day averages using state populations from the same year the degree days are measured. See methodology at [http://www.eia.gov/forecasts/steo/special/pdf/2012\\_sp\\_04.pdf](http://www.eia.gov/forecasts/steo/special/pdf/2012_sp_04.pdf).



**Table 1.12 Cooling Degree Days by Census Division**

	New England <sup>a</sup>	Middle Atlantic <sup>b</sup>	East North Central <sup>c</sup>	West North Central <sup>d</sup>	South Atlantic <sup>e</sup>	East South Central <sup>f</sup>	West South Central <sup>g</sup>	Mountain <sup>h</sup>	Pacific <sup>i</sup>	United States
<b>1950 Total</b> .....	296	403	506	646	1,427	1,419	2,279	689	628	873
<b>1955 Total</b> .....	531	764	921	1,139	1,645	1,672	2,505	787	557	1,145
<b>1960 Total</b> .....	318	488	626	870	1,597	1,529	2,366	983	794	1,002
<b>1965 Total</b> .....	311	502	617	831	1,624	1,550	2,461	788	575	981
<b>1970 Total</b> .....	423	619	746	979	1,758	1,569	2,281	981	732	1,082
<b>1975 Total</b> .....	423	586	720	937	1,802	1,439	2,162	913	597	1,052
<b>1980 Total</b> .....	439	683	768	1,158	1,923	1,751	2,652	1,083	651	1,216
<b>1985 Total</b> .....	324	513	602	780	1,882	1,519	2,519	1,107	758	1,122
<b>1990 Total</b> .....	428	566	602	912	2,058	1,560	2,527	1,224	833	1,201
<b>1995 Total</b> .....	472	705	878	928	2,030	1,611	2,398	1,226	791	1,262
<b>2000 Total</b> .....	279	460	630	983	1,925	1,672	2,773	1,494	771	1,233
<b>2005 Total</b> .....	599	895	944	1,063	2,100	1,674	2,645	1,386	777	1,390
<b>2010 Total</b> .....	634	913	963	1,095	2,271	1,974	2,754	1,370	674	1,457
<b>2011 Total</b> .....	553	840	858	1,074	2,260	1,725	3,112	1,462	734	1,470
<b>2012 Total</b> .....	563	819	974	1,221	2,163	1,760	2,913	1,582	917	1,494
<b>2013 Total</b> .....	540	685	689	892	2,001	1,438	2,535	1,471	889	1,305
<b>2014 Total</b> .....	420	600	609	812	2,001	1,491	2,474	1,439	1,068	1,296
<b>2015 Total</b> .....	556	809	729	941	2,397	1,717	2,742	1,485	1,067	1,485
<b>2016 Total</b> .....	625	891	957	1,072	2,405	1,956	2,882	1,502	929	1,554
<b>2017 Total</b> .....	451	665	708	910	2,247	1,585	2,718	1,550	1,056	1,423
<b>2018 Total</b> .....	668	890	972	1,134	2,411	1,928	2,855	1,574	1,004	1,579
<b>2019 Total</b> .....	536	787	832	951	2,504	1,885	2,759	1,398	845	1,496
<b>2020 Total</b> .....	645	848	831	964	2,335	1,636	2,735	1,683	1,071	1,519
<b>2021 Total</b> .....	604	837	911	1,093	2,226	1,611	2,644	1,583	1,040	1,492
<b>2022</b> January .....	0	0	0	0	28	3	9	0	9	8
February .....	0	0	0	0	45	3	5	2	7	11
March .....	0	0	1	3	84	22	41	13	14	27
April .....	0	0	0	2	98	25	158	52	23	49
May .....	18	40	79	72	240	206	386	127	42	147
June .....	63	114	177	232	376	367	554	290	146	270
July .....	260	311	264	338	482	480	682	431	247	394
August .....	273	302	219	276	440	385	583	358	297	359
September .....	33	72	74	121	278	200	404	245	222	202
October .....	0	1	2	7	106	29	131	67	59	55
November .....	0	0	0	0	88	5	26	1	11	23
December .....	0	0	0	0	37	3	13	0	9	11
<b>Total</b> .....	<b>647</b>	<b>838</b>	<b>816</b>	<b>1,050</b>	<b>2,302</b>	<b>1,728</b>	<b>2,992</b>	<b>1,586</b>	<b>1,088</b>	<b>1,556</b>
<b>2023</b> January .....	0	0	0	0	49	19	35	0	8	17
February .....	0	0	0	0	69	17	27	0	8	20
March .....	0	0	0	1	R 82	27	R 27	3	10	R 31
April .....	0	0	1	5	R 117	29	93	R 41	18	R 44
May .....	4	12	49	89	174	142	291	R 117	R 34	109
June .....	50	R 79	131	R 225	293	R 271	R 514	193	R 59	R 210
July .....	275	R 310	247	282	R 487	R 430	R 646	R 462	R 279	390
August .....	134	R 193	188	R 279	R 461	R 418	R 710	R 363	R 242	349
September .....	R 60	R 82	88	146	R 289	248	508	R 204	R 91	R 203
October .....	5	10	10	14	137	R 65	R 171	85	R 56	73
November .....	0	0	0	0	R 65	4	28	13	14	20
December .....	0	0	0	0	R 38	3	R 15	0	8	11
<b>Total</b> .....	<b>R 529</b>	<b>R 687</b>	<b>713</b>	<b>R 1,040</b>	<b>R 2,261</b>	<b>R 1,675</b>	<b>R 3,125</b>	<b>R 1,482</b>	<b>R 826</b>	<b>R 1,476</b>
<b>2024</b> January .....	0	0	0	0	35	2	8	0	7	9
February .....	0	0	0	4	29	10	R 37	2	6	13
March .....	0	0	R 2	7	R 83	R 27	R 80	7	8	31
April .....	0	0	3	10	88	46	152	36	14	46
<b>4-Month Total</b> .....	<b>0</b>	<b>0</b>	<b>6</b>	<b>21</b>	<b>236</b>	<b>86</b>	<b>277</b>	<b>45</b>	<b>35</b>	<b>99</b>
<b>2023 4-Month Total</b> .....	<b>0</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>317</b>	<b>93</b>	<b>242</b>	<b>44</b>	<b>44</b>	<b>111</b>
<b>2022 4-Month Total</b> .....	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>254</b>	<b>53</b>	<b>213</b>	<b>67</b>	<b>54</b>	<b>95</b>

<sup>a</sup> Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

<sup>b</sup> New Jersey, New York, and Pennsylvania.

<sup>c</sup> Illinois, Indiana, Michigan, Ohio, and Wisconsin.

<sup>d</sup> Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

<sup>e</sup> Delaware, Florida, Georgia, Maryland (and the District of Columbia), North Carolina, South Carolina, Virginia, and West Virginia.

<sup>f</sup> Alabama, Kentucky, Mississippi, and Tennessee.

<sup>g</sup> Arkansas, Louisiana, Oklahoma, and Texas.

<sup>h</sup> Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

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R=Revised.

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 degrees Fahrenheit (°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).

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

• Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: State-level degree day data are from U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Centers for Environmental Information. Using these state-level data, the U.S. Energy Information Administration calculates population-weighted census-division and U.S. degree day averages using state populations from the same year the degree days are measured. See methodology at [http://www.eia.gov/forecasts/steo/special/pdf/2012\\_sp\\_04.pdf](http://www.eia.gov/forecasts/steo/special/pdf/2012_sp_04.pdf).

**Table 1.13a Non-Combustion Use of Fossil Fuels in Physical Units**

	Coal	Natural Gas	Petroleum							Total
			Asphalt and Road Oil	Hydrocarbon Gas Liquids <sup>a</sup>	Lubricants	Petrochemical Feedstocks <sup>b</sup>	Petroleum Coke	Special Naphthas	Other <sup>c</sup>	
			Thousand Barrels per Day							
Thousand Short Tons	Billion Cubic Feet									
<b>1973 Total</b> .....	<b>3,523</b>	<b>898</b>	<b>522</b>	<b>684</b>	<b>162</b>	<b>356</b>	<b>45</b>	<b>88</b>	<b>88</b>	<b>1,945</b>
<b>1975 Total</b> .....	<b>3,105</b>	<b>761</b>	<b>419</b>	<b>654</b>	<b>137</b>	<b>320</b>	<b>43</b>	<b>75</b>	<b>122</b>	<b>1,770</b>
<b>1980 Total</b> .....	<b>2,612</b>	<b>759</b>	<b>396</b>	<b>890</b>	<b>159</b>	<b>692</b>	<b>41</b>	<b>100</b>	<b>143</b>	<b>2,422</b>
<b>1985 Total</b> .....	<b>1,536</b>	<b>642</b>	<b>425</b>	<b>982</b>	<b>145</b>	<b>395</b>	<b>46</b>	<b>83</b>	<b>95</b>	<b>2,173</b>
<b>1990 Total</b> .....	<b>758</b>	<b>675</b>	<b>483</b>	<b>1,071</b>	<b>164</b>	<b>546</b>	<b>57</b>	<b>56</b>	<b>85</b>	<b>2,462</b>
<b>1995 Total</b> .....	<b>921</b>	<b>868</b>	<b>486</b>	<b>1,357</b>	<b>156</b>	<b>590</b>	<b>58</b>	<b>37</b>	<b>70</b>	<b>2,754</b>
<b>2000 Total</b> .....	<b>674</b>	<b>918</b>	<b>525</b>	<b>1,543</b>	<b>166</b>	<b>662</b>	<b>78</b>	<b>51</b>	<b>78</b>	<b>3,103</b>
<b>2005 Total</b> .....	<b>929</b>	<b>761</b>	<b>546</b>	<b>1,369</b>	<b>141</b>	<b>729</b>	<b>106</b>	<b>33</b>	<b>75</b>	<b>2,997</b>
<b>2010 Total</b> .....	<b>719</b>	<b>654</b>	<b>362</b>	<b>1,597</b>	<b>131</b>	<b>539</b>	<b>42</b>	<b>14</b>	<b>89</b>	<b>2,773</b>
<b>2011 Total</b> .....	<b>730</b>	<b>680</b>	<b>355</b>	<b>1,639</b>	<b>125</b>	<b>520</b>	<b>40</b>	<b>12</b>	<b>91</b>	<b>2,781</b>
<b>2012 Total</b> .....	<b>707</b>	<b>706</b>	<b>340</b>	<b>1,747</b>	<b>114</b>	<b>444</b>	<b>43</b>	<b>8</b>	<b>88</b>	<b>2,785</b>
<b>2013 Total</b> .....	<b>732</b>	<b>721</b>	<b>323</b>	<b>1,870</b>	<b>121</b>	<b>448</b>	<b>40</b>	<b>52</b>	<b>93</b>	<b>2,948</b>
<b>2014 Total</b> .....	<b>562</b>	<b>725</b>	<b>327</b>	<b>1,780</b>	<b>126</b>	<b>410</b>	<b>20</b>	<b>55</b>	<b>97</b>	<b>2,817</b>
<b>2015 Total</b> .....	<b>520</b>	<b>703</b>	<b>343</b>	<b>1,918</b>	<b>138</b>	<b>378</b>	<b>21</b>	<b>52</b>	<b>99</b>	<b>2,948</b>
<b>2016 Total</b> .....	<b>435</b>	<b>727</b>	<b>351</b>	<b>1,943</b>	<b>130</b>	<b>371</b>	<b>20</b>	<b>49</b>	<b>100</b>	<b>2,966</b>
<b>2017 Total</b> .....	<b>463</b>	<b>746</b>	<b>351</b>	<b>2,023</b>	<b>121</b>	<b>394</b>	<b>19</b>	<b>52</b>	<b>103</b>	<b>3,062</b>
<b>2018 Total</b> .....	<b>531</b>	<b>1,118</b>	<b>327</b>	<b>2,309</b>	<b>117</b>	<b>393</b>	<b>22</b>	<b>48</b>	<b>103</b>	<b>3,320</b>
<b>2019 Total</b> .....	<b>520</b>	<b>1,114</b>	<b>348</b>	<b>2,342</b>	<b>113</b>	<b>349</b>	<b>21</b>	<b>50</b>	<b>94</b>	<b>3,318</b>
<b>2020 Total</b> .....	<b>418</b>	<b>1,051</b>	<b>343</b>	<b>2,479</b>	<b>102</b>	<b>329</b>	<b>17</b>	<b>45</b>	<b>88</b>	<b>3,403</b>
<b>2021 Total</b> .....	<b>509</b>	<b>1,074</b>	<b>371</b>	<b>2,652</b>	<b>105</b>	<b>336</b>	<b>18</b>	<b>42</b>	<b>90</b>	<b>3,615</b>
<b>2022 January</b> .....	<b>41</b>	<b>108</b>	<b>243</b>	<b>2,849</b>	<b>125</b>	<b>237</b>	<b>16</b>	<b>41</b>	<b>98</b>	<b>3,610</b>
February .....	38	95	264	2,696	114	203	15	49	107	3,448
March .....	41	99	272	2,790	139	249	17	53	95	3,614
April .....	38	92	335	2,657	123	267	16	45	94	3,537
May .....	39	88	401	2,596	112	276	13	37	91	3,526
June .....	37	83	493	2,837	93	236	15	48	103	3,825
July .....	39	84	465	2,941	46	266	27	51	99	3,895
August .....	39	85	510	2,597	134	252	20	69	98	3,681
September .....	37	83	472	2,682	99	233	18	52	99	3,655
October .....	40	89	453	2,636	130	252	12	45	92	3,620
November .....	37	94	369	2,606	107	228	21	34	94	3,460
December .....	38	99	256	2,341	105	243	14	34	93	3,085
<b>Total</b> .....	<b>464</b>	<b>1,100</b>	<b>378</b>	<b>2,685</b>	<b>111</b>	<b>246</b>	<b>17</b>	<b>47</b>	<b>97</b>	<b>3,580</b>
<b>2023 January</b> .....	<b>39</b>	<b>99</b>	<b>231</b>	<sup>R</sup> 2,516	<b>117</b>	<b>268</b>	<b>8</b>	<b>47</b>	<b>85</b>	<sup>R</sup> 3,272
February .....	37	92	239	2,497	112	221	16	36	94	3,215
March .....	41	98	258	2,523	57	220	22	48	95	3,224
April .....	37	92	328	2,741	84	302	23	48	88	3,614
May .....	38	88	406	2,895	97	294	16	39	89	3,837
June .....	37	83	472	<sup>R</sup> 2,962	95	228	13	45	92	<sup>R</sup> 3,907
July .....	39	85	461	2,989	94	258	8	55	99	3,964
August .....	39	88	512	2,762	74	240	22	44	91	3,744
September .....	38	84	476	2,733	81	226	28	45	101	3,690
October .....	37	91	451	2,914	94	225	18	58	89	3,848
November .....	40	96	331	<sup>R</sup> 2,979	55	259	33	52	89	3,797
December .....	38	102	253	3,190	37	241	10	43	90	3,864
<b>Total</b> .....	<b>459</b>	<b>1,097</b>	<b>369</b>	<b>2,811</b>	<b>83</b>	<b>249</b>	<b>18</b>	<b>47</b>	<b>92</b>	<b>3,667</b>
<b>2024 January</b> .....	<sup>R</sup> 37	<b>103</b>	<b>229</b>	<b>2,821</b>	<b>85</b>	<b>229</b>	<b>15</b>	<b>47</b>	<b>89</b>	<b>3,514</b>
February .....	<sup>R</sup> 37	93	226	<sup>R</sup> 2,983	74	279	9	46	75	<sup>R</sup> 3,692
March .....	<sup>R</sup> 38	97	262	<sup>R</sup> 2,868	76	275	9	44	89	<sup>R</sup> 3,623
April .....	38	89	299	2,780	111	199	27	47	89	3,552
<b>4-Month Total</b> .....	<b>150</b>	<b>381</b>	<b>254</b>	<b>2,862</b>	<b>86</b>	<b>245</b>	<b>15</b>	<b>46</b>	<b>85</b>	<b>3,594</b>
<b>2022 4-Month Total</b> .....	<b>153</b>	<b>381</b>	<b>264</b>	<b>2,570</b>	<b>92</b>	<b>253</b>	<b>17</b>	<b>45</b>	<b>90</b>	<b>3,332</b>
<b>2021 4-Month Total</b> .....	<b>158</b>	<b>394</b>	<b>279</b>	<b>2,750</b>	<b>125</b>	<b>240</b>	<b>16</b>	<b>47</b>	<b>98</b>	<b>3,555</b>

<sup>a</sup> Ethane, propane, normal butane, isobutane, natural gasoline, and refinery olefins (ethylene, propylene, butylene, and isobutylene).

<sup>b</sup> Includes still gas not burned as refinery fuel.

<sup>c</sup> Distillate fuel oil, residual fuel oil, waxes, and miscellaneous products.

R=Revised.

Notes: • Data are estimates. • Non-combustion use estimates are included in total energy consumption. See Table 1.3. • Non-combustion estimates are all for industrial sector consumption, except for some lubricants consumed by the

transportation sector. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia. • See Note 3, "Non-Combustion Use of Fossil Fuels," at end of section.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> for all available annual and monthly data beginning in 1973.

Sources: • See Note 3, "Non-Combustion Use of Fossil Fuels," at end of section.

**Table 1.13b Heat Content of Non-Combustion Use of Fossil Fuels**  
(Quadrillion Btu)

	Coal	Natural Gas	Petroleum								Total	Percent of Total Energy Consumption
			Asphalt and Road Oil	Hydro-carbon Gas Liquids <sup>a</sup>	Lubri-cants	Petro-chemical Feed-stocks <sup>b</sup>	Petro-leum Coke	Special Naphthas	Other <sup>c</sup>	Total		
1973 Total	0.113	0.916	1.264	0.872	0.359	0.726	0.093	0.169	0.185	3.668	4.696	6.4
1975 Total	.099	.777	1.014	.822	.304	.652	.090	.144	.256	3.283	4.159	6.0
1980 Total	.084	.777	.962	1.128	.354	1.426	.086	.193	.303	4.451	5.312	7.0
1985 Total	.049	.662	1.029	1.194	.322	.817	.096	.159	.201	3.818	4.529	6.1
1990 Total	.024	.695	1.170	1.345	.362	1.123	.119	.107	.179	4.406	5.125	6.2
1995 Total	.029	.892	1.178	1.716	.346	1.214	.120	.071	.145	4.790	5.711	6.4
2000 Total	.022	.942	1.276	1.928	.369	1.344	.163	.097	.164	5.342	6.306	6.5
2005 Total	.030	.782	1.323	1.701	.312	1.474	.221	.063	.157	5.250	6.062	6.2
2010 Total	.023	.669	.878	1.931	.291	1.096	.087	.026	.188	4.496	5.187	5.5
2011 Total	.023	.695	.859	1.947	.276	1.057	.083	.023	.193	4.437	5.156	5.5
2012 Total	.023	.724	.827	2.109	.254	.901	.090	.015	.187	4.382	5.128	5.6
2013 Total	.023	.741	.783	2.270	.268	.901	.083	.100	.197	4.601	5.366	5.7
2014 Total	.018	.749	.793	2.125	.280	.827	.043	.106	.205	4.379	5.146	5.4
2015 Total	.017	.730	.832	2.317	.305	.760	.043	.099	.208	4.564	5.310	5.6
2016 Total	.014	.755	.853	2.330	.289	.754	.043	.094	.212	4.575	5.344	5.7
2017 Total	.015	.774	.849	2.393	.267	.797	.040	.100	.217	4.663	5.452	5.8
2018 Total	.017	1.160	.793	2.708	.259	.794	.046	.092	.218	4.910	6.087	6.2
2019 Total	.017	1.159	.844	2.746	.250	.704	.044	.096	.198	4.882	6.057	6.3
2020 Total	.013	1.092	.832	2.870	.227	.669	.036	.087	.186	4.908	6.013	6.8
2021 Total	.016	1.116	.898	3.084	.233	.684	.038	.081	.190	5.208	6.340	6.8
<b>2022</b> January	.001	.112	.050	.270	.024	.041	.003	.007	.017	.411	.524	5.8
February	.001	.099	.049	.230	.019	.031	.002	.007	.017	.357	.457	5.7
March	.001	.103	.056	.266	.026	.043	.003	.009	.017	.420	.524	6.5
April	.001	.095	.067	.243	.022	.045	.003	.007	.016	.403	.499	6.9
May	.001	.091	.083	.246	.021	.048	.002	.006	.016	.422	.515	6.9
June	.001	.087	.098	.262	.017	.040	.003	.008	.018	.445	.533	7.0
July	.001	.087	.096	.282	.009	.046	.005	.008	.018	.463	.551	6.8
August	.001	.088	.105	.252	.025	.044	.003	.011	.018	.459	.548	6.8
September	.001	.086	.094	.250	.018	.039	.003	.008	.017	.429	.517	7.0
October	.001	.092	.093	.250	.024	.044	.002	.007	.016	.438	.531	7.2
November	.001	.098	.073	.240	.020	.038	.004	.005	.016	.396	.496	6.4
December	.001	.103	.053	.220	.020	.042	.003	.005	.017	.359	.463	5.4
<b>Total</b>	<b>.015</b>	<b>1.141</b>	<b>.916</b>	<b>3.011</b>	<b>.245</b>	<b>.501</b>	<b>.035</b>	<b>.089</b>	<b>.204</b>	<b>5.002</b>	<b>6.158</b>	<b>6.5</b>
<b>2023</b> January	.001	.103	.048	.238	.022	.046	.001	.008	.015	R .378	.483	5.7
February	.001	.095	.044	.209	.019	.035	.003	.005	.015	.330	.426	5.6
March	.001	.102	.053	.236	.011	.038	.004	.008	.017	.367	.470	5.8
April	.001	.096	.065	.250	.015	.051	.004	.008	.015	.408	.505	7.0
May	.001	.091	.084	.274	.018	.051	.003	.006	.016	.452	.545	7.4
June	.001	.086	.094	.275	.017	.038	.002	.007	.016	R .450	.537	7.2
July	.001	.088	.095	.287	.018	.045	.001	.009	.018	.473	.562	6.9
August	.001	.091	.105	.265	.014	.042	.004	.007	.016	.454	.546	6.6
September	.001	.088	.095	.254	.015	.037	.005	.007	.018	.430	.519	7.0
October	.001	.095	.093	.281	.018	.039	.003	.009	.016	.459	.555	7.3
November	.001	R .099	.066	.279	.010	.043	.006	.008	.015	.427	R .527	6.7
December	.001	.106	.052	.302	.007	.041	.002	.007	.016	.427	.534	6.4
<b>Total</b>	<b>.015</b>	<b>1.139</b>	<b>.893</b>	<b>3.151</b>	<b>.184</b>	<b>.506</b>	<b>.038</b>	<b>.089</b>	<b>.194</b>	<b>5.055</b>	<b>6.209</b>	<b>6.6</b>
<b>2024</b> January	.001	.107	.047	.269	.016	.039	.003	.008	.016	.397	.505	5.6
February	.001	.096	.044	.262	.013	.045	.002	.007	.013	.384	.482	6.2
March	.001	R .101	.054	R .271	.014	.048	.002	.007	.016	.412	.514	6.7
April	.001	.093	.060	.253	.020	.033	.005	.007	.015	.394	.488	6.8
<b>4-Month Total</b>	<b>.005</b>	<b>.396</b>	<b>.204</b>	<b>1.055</b>	<b>.063</b>	<b>.165</b>	<b>.011</b>	<b>.029</b>	<b>.060</b>	<b>1.587</b>	<b>1.988</b>	<b>6.3</b>
<b>2022 4-Month Total</b>	<b>.005</b>	<b>.396</b>	<b>.210</b>	<b>.933</b>	<b>.067</b>	<b>.170</b>	<b>.012</b>	<b>.028</b>	<b>.063</b>	<b>1.484</b>	<b>1.884</b>	<b>6.0</b>
<b>2021 4-Month Total</b>	<b>.005</b>	<b>.409</b>	<b>.222</b>	<b>1.009</b>	<b>.091</b>	<b>.160</b>	<b>.011</b>	<b>.030</b>	<b>.068</b>	<b>1.591</b>	<b>2.005</b>	<b>6.2</b>

<sup>a</sup> Ethane, propane, normal butane, isobutane, natural gasoline, and refinery olefins (ethylene, propylene, butylene, and isobutylene).

<sup>b</sup> Includes still gas not burned as refinery fuel.

<sup>c</sup> Distillate fuel oil, residual fuel oil, waxes, and miscellaneous products.

Notes: • Data are estimates. • Non-combustion use estimates are included in total energy consumption. See Table 1.3. • Non-combustion estimates are all for industrial sector consumption, except for some lubricants consumed by the transportation sector. • Totals may not equal sum of components due to

independent rounding. • Geographic coverage is the 50 states and the District of Columbia. • See Note 3, "Non-Combustion Use of Fossil Fuels," at end of section.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> for all available annual and monthly data beginning in 1973.

Sources: • See Note 3, "Non-Combustion Use of Fossil Fuels," at end of section. • **Percent of Total Energy Consumption:** Calculated as total non-combustion use of fossil fuels divided by total primary energy consumption (see Table 1.3).

**Note 1. Merchandise Trade Value.** Imports data presented are based on the customs values. Those values do not include insurance and freight and are consequently lower than the cost, insurance, and freight (CIF) values, which are also reported by the Bureau of the Census. All exports data, and imports data through 1980, are on a free alongside 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 U.S. 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.

**Note 2. Light-Duty Vehicle Average Annual Miles Traveled by Technology Type.** The average annual light-duty vehicle miles traveled (VMT) by technology type is a stock-weighted estimate using the average VMT by vintage and the number of vehicles (stock) by vintage to determine the overall average VMT by technology type. The top-level model is defined as:

$$avg\ VMT_{tech} = \frac{\sum_{vint=1}^{25} VMT_{vint,tech} * stock_{vint,tech}}{\sum_{vint=1}^{25} stock_{vint,tech}}$$

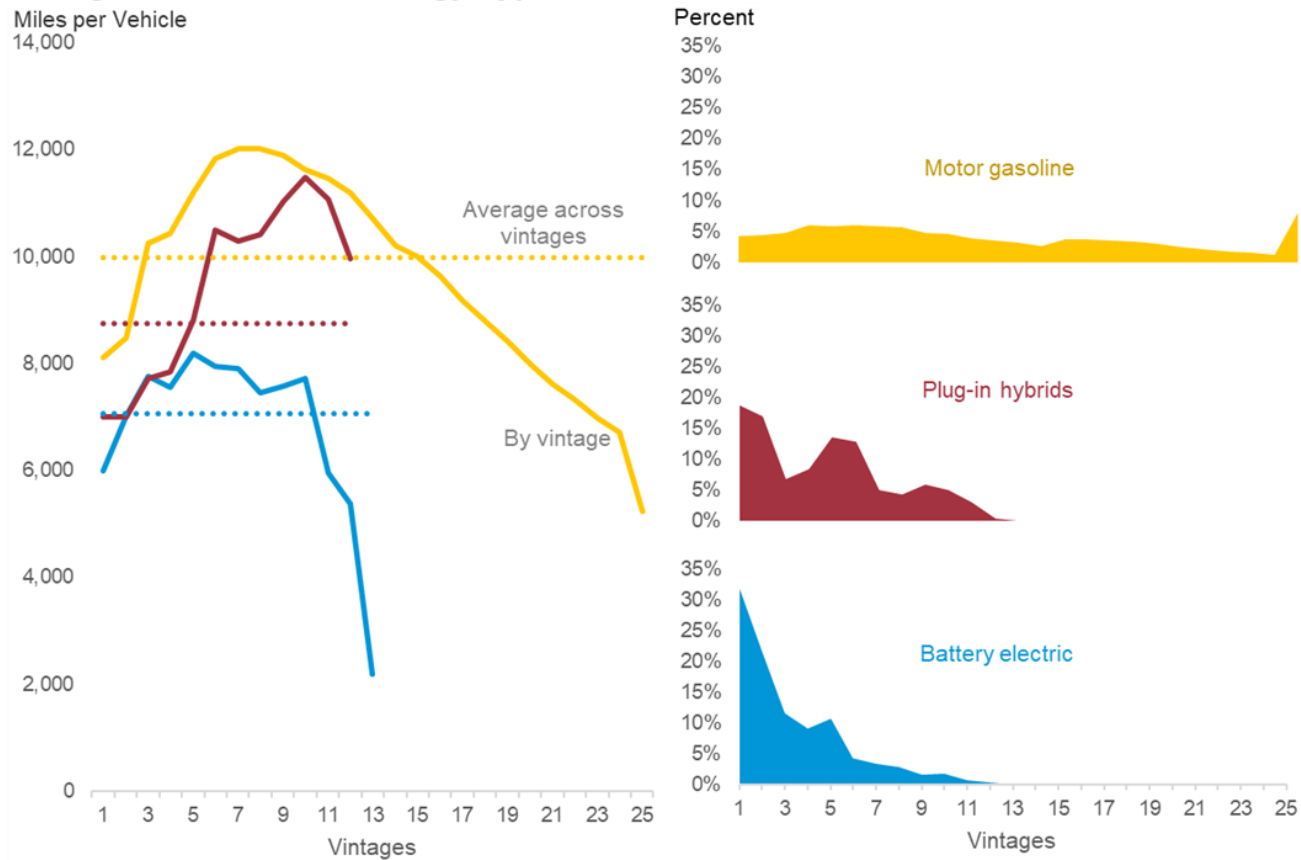
where  $avg\ VMT_{tech}$  is the average annual VMT by technology type;  $VMT_{vint,tech}$  is the average annual VMT by vintage and technology type;  $stock_{vint,tech}$  is the total number of on-road light-duty vehicles by vintage and technology type;  $vint$  is the vintage of the vehicle, ranging from 1 to 25 years; and  $tech$  is the vehicle technology type—motor gasoline vehicles, diesel vehicles, hybrid electric vehicles, battery electric vehicles (BEV), or plug-in hybrid electric vehicles (PHEV). The vintage of the vehicle relates the model year of the vehicle with the year being analyzed. For example, a model year 2024 vehicle in 2024 would have a vintage equal to one and a model year 2020 vehicle in 2024 would have a vintage equal to five. The maximum vintage EIA uses is 25, resulting in all vehicles 25 years or older be grouped in vintage 25, so a model year 1990 vehicle in 2024 would have a vintage equal to 25.

In general, newer vehicles are driven more than older vehicles. However, the average annual VMT for vintage one vehicles is typically the lowest newer vintage VMT because many of these vehicles are not owned for an entire year resulting in a lower average annual VMT for the first model year. The average annual VMT increases for the first few vintages until it reaches the highest VMT by vintage, which occurs around seven years old. After the highest VMT by vintage is reached, the average annual VMT decreases as the vintage increases.

While the general pattern for travel by vintage is relatively consistent across technology types, the distribution of the stock by vintage is not consistent across technology types. For example, in 2022, nearly half of the motor gasoline vehicles were over 10 years old while only 3% of PHEVs and 1% of BEVs were over 10 years old. This implies that the average annual VMT for motor gasoline vehicles is more impacted by older vehicles than the average annual VMT for BEVs and PHEVs. If the average annual VMT were calculated for 2022 using the first 10 vintages instead of all 25 vintages, the average annual VMT would increase by almost 11% for motor gasoline vehicles and change by less than 1% for BEVs and PHEVs. When all vintages are included in the average annual VMT, the difference between motor gasoline vehicles and BEV VMT is almost 3,000 miles per year in 2022. However, when only the first 10 years are included in the average annual VMT calculation the difference increases to almost 4,000 miles per year. Similarly, the average annual VMT difference between motor gasoline vehicles and PHEVs increases in 2022 from over 1,000 miles per year when all 25 vintages are included to over 2,000 miles per year when only the first 10 vintages are included.

Comparing the average annual VMT calculated using the first 10 vintages shows that BEVs and PHEVs have further to go to reach annual average VMT parity with motor gasoline vehicles than what is implied using all 25 vintages. When year-over-year growth in BEV and PHEV registrations slows down, their stock by vintage distribution will more closely resemble that of the motor gasoline stock by vintage distribution, the more consistent comparison can be made using all 25 vintages. However, if high growth in new vehicle registrations continues for BEVs and PHEVs resulting in the vast majority of electric vehicles (EVs) being less than or equal to 10 years old, then a more consistent comparison can be made using a subset of vintages.

**Figure 1.9 Annual Average Vehicle Miles Traveled and Vehicle Stock Distribution by Vintage for Select Technology Types, 2022**



Source: U.S. Energy Information Administration, AEO2023 National Energy Modeling System, run REF2023.020623A.

**Note 3. Non-Combustion Use of Fossil Fuels.** Most fossil fuels consumed in the United States and elsewhere are combusted to produce heat and power. However, some are used directly for non-combustion use as construction materials, chemical feedstocks, lubricants, solvents, and waxes. For example, coal tars from coal coke manufacturing are used as feedstock in the chemical industry, for metallurgical work, and in anti-dandruff shampoos; natural gas is used to make nitrogenous fertilizers and as chemical feedstocks; asphalt and road oil are used for roofing and paving; hydrocarbon gas liquids are used to create intermediate products that are used in making plastics; lubricants, including motor oil and greases, are used in vehicles and various industrial processes; petrochemical feedstocks are used to make plastics, synthetic fabrics, and related products.

### Coal

The U.S. Energy Information Administration (EIA) assumes all non-combustion use of coal comes from the process of manufacturing coal coke in the industrial sector. Among the byproducts of the process are "coal tars" or "coal liquids," which typically are rich in aromatic hydrocarbons, such as benzene, and are used as chemical feedstock. EIA estimates non-combustion use ratios of coal tar for 1973 forward. Prior to 1998, estimate ratios are based on coal tar production data from the United States International Trade Commission's *Synthetic Organic Chemicals*. For 1998 forward, coal tar production is estimated using chemicals industry coal, coke, and breeze nonfuel use data from EIA, Form EIA-846, "Manufacturing Energy Consumption Survey" (MECS). For Table 1.12b, coal tar values in Table 1.12a are multiplied by

32.0067 million Btu/short ton, which is the product of 4.95 barrels/short ton (the density of coal tar) and 6.466 million Btu/barrel (the approximate heat content of coal tar).

#### *Natural Gas*

EIA assumes that all non-combustion use of natural gas takes place in the industrial sector. EIA estimates non-combustion ratios of natural gas using total natural gas nonfuel use data from MECS, and natural gas used as feedstock for hydrogen production data from EIA, Form EIA-820, "Annual Refinery Report." For Table 1.12b, natural gas values in Table 1.12a are multiplied by the heat content factors for natural gas end-use sectors consumption shown in Table A4.

#### *Asphalt and Road Oil*

EIA assumes all asphalt and road oil consumption is for non-combustion use. For Table 1.12b, asphalt and road oil values in Table 1.12a are multiplied by 6.636 million Btu/ barrel (the approximate heat content of asphalt and road oil) and the number of days in the period.

#### *Distillate Fuel Oil*

EIA assumes that all non-combustion use of distillate fuel oil occurs in the industrial sector. EIA estimates non-combustion ratios of distillate fuel oil using total distillate fuel oil nonfuel use data from MECS. Ratios prior to 1985 are assumed to be equal to the 1985 ratio. For Table 1.12b, distillate fuel oil values in Table 1.12a are multiplied by the heat content factors for distillate fuel oil consumption shown in Table A3 and the number of days in the period. Distillate fuel oil is included in "other" petroleum products.

#### *Hydrocarbon Gas Liquids (HGL)*

EIA estimates non-combustion ratios of hydrocarbon gas liquids (HGL), which include ethane, propane, normal butane, isobutane, natural gasoline (pentanes plus), and refinery olefins (ethylene, propylene, butylene, and isobutylene). EIA assumes that 100% of ethane, ethylene, and propylene consumption is for non-combustion use; 85% of normal butane, butylene, isobutane, and isobutylene consumption is for non-combustion use; and 50% of natural gasoline consumption is for non-combustion use. Non-combustion use of propane in the industrial sector is estimated using data from the American Petroleum Institute (API), the Propane Education & Research Council (PERC), and EIA's *Petroleum Supply Annual* (PSA). For 1984 through 2009, propane non-combustion ratios are estimated using API propane and propylene chemical industry sales data. Propane non-combustion ratios prior to 1984 are assumed to be equal to the 1984 ratio. For 2010 through 2016, propane non-combustion ratios are estimated by subtracting API data for total odorized propane sales from PSA data for total propane product supplied. Beginning in 2017, propane non-combustion ratios are estimated by subtracting PERC data for total odorized propane sales from PSA data for total propane product supplied. For Table 1.12b, HGL component values are multiplied by the appropriate heat content factors in Table A1 and the number of days in the period.

#### *Lubricants*

EIA assumes all lubricants consumption is for non-combustion use. For Table 1.12b, lubricants values in Table 1.12a are multiplied by 6.065 million Btu/barrel (the approximate heat content of lubricants) and the number of days in the period.

#### *Petrochemical Feedstocks, Naphtha*

EIA assumes all naphtha for petrochemical feedstocks is for non-combustion use. For Table 1.12b, naphtha petrochemical feedstock values in 1.12a are multiplied by 5.248 million Btu/barrel (the approximate heat content of naphtha for petrochemical feedstocks) and the number of days in the period.

#### *Petrochemical Feedstocks, Other Oils*

EIA assumes all other oils for petrochemical feedstocks are for non-combustion use. For Table 1.12b, other oils petrochemical feedstock values in 1.12a are multiplied by 5.825 million Btu/barrel (the approximate heat content of other oils for petrochemical feedstocks) and the number of days in the period.

#### *Petrochemical Feedstocks, Still Gas*

EIA assumes all still gas not burned as refinery fuel or for pipeline gas supplies is for non-combustion use. EIA estimates non-combustion ratios of still gas by subtracting data for all known fuel uses (refinery fuel use from the PSA, and

pipeline gas supplies from EIA's *Natural Gas Annual*) from the products supplied values in the PSA. The remainder is assumed to be dispatched to chemical plants as a feedstock for non-combustion use. For Table 1.12b, still gas for petrochemical feedstock values in 1.12a are multiplied by the still gas heat content factors (through 2015, the still gas heat content factor is 6.000 million Btu per fuel oil equivalent barrel; beginning in 2016, the still gas heat content factor is 6.287 million Btu per residual fuel oil equivalent barrel) and the number of days in the period.

#### *Petroleum Coke*

EIA assumes all non-combustion use of petroleum coke occurs in the industrial sector. Examples include petroleum coke used in the production of chemicals and metals. EIA estimates non-combustion ratios of petroleum coke by first subtracting data for petroleum coke consumed at refineries (from EIA, Form EIA-820, "Annual Refinery Report") from industrial sector petroleum coke consumption (from MER Table 3.7b), and then multiplying that amount by the nonfuel share of non-refinery petroleum coke consumption (from MECS). Non-combustion ratios prior to 1994 are assumed to be equal to the 1994 ratio. For Table 1.12b, petroleum coke values in 1.12a are multiplied by 5.719 million Btu/barrel (the approximate heat content of marketable petroleum coke) and the number of days in the period.

#### *Residual Fuel Oil*

EIA assumes that all non-combustion use of residual fuel oil occurs in the industrial sector. EIA estimates non-combustion ratios of residual fuel oil using total minus chemicals industry residual fuel oil nonfuel use data from MECS. Ratios prior to 1994 are assumed to be equal to the 1994 ratio. For Table 1.12b, residual fuel oil values in Table 1.12a are multiplied by 6.287 million Btu/barrel (the approximate heat content of residual fuel oil) and the number of days in the period. Residual fuel oil is included in "other" petroleum products.

#### *Special Naphthas*

EIA assumes all special naphthas consumption is for non-combustion use. For Table 1.12b, special naphthas values in Table 1.12a are multiplied by 5.248 million Btu/barrel (the approximate heat content of special naphthas) and the number of days in the period.

#### *Waxes*

EIA assumes all waxes consumption is for non-combustion use. For Table 1.12b, waxes values in Table 1.12a are multiplied by 5.537 million Btu/barrel (the approximate heat content of waxes) and the number of days in the period. Waxes are included in "other" petroleum products.

#### *Miscellaneous Petroleum Products*

Miscellaneous products include all finished petroleum products not classified elsewhere. EIA assumes all miscellaneous petroleum products consumption is for non-combustion use. For Table 1.12b, miscellaneous petroleum products values in Table 1.12a are multiplied by 5.796 million Btu/barrel (the approximate heat content of miscellaneous petroleum products) and the number of days in the period. Miscellaneous petroleum products are included in "other" petroleum products.

## **Table 1.2 Sources**

#### *Coal*

1949–1988: Coal production data from Table 6.1 are converted to Btu by multiplying by the coal production heat content factors in Table A5.

1989 forward: Coal production data from Table 6.1 are converted to Btu by multiplying by the coal production heat content factors in Table A5. Waste coal supplied data from Table 6.1 are converted to Btu by multiplying by the waste coal supplied heat content factors in Table A5. Coal production (including waste coal supplied) is equal to coal production plus waste coal supplied.

#### *Natural Gas (Dry)*

1949 forward: Natural gas (dry) production data from Table 4.1 are converted to Btu by multiplying by the natural gas (dry) production heat content factors in Table A4.

### *Crude Oil*

1949 forward: Crude oil (including lease condensate) production data from Table 3.1 are converted to Btu by multiplying by the crude oil (including lease condensate) production heat content factors in Table A2.

### *NGPL*

1949 forward: Natural gas plant liquids (NGPL) production data from Table 3.1 are converted to Btu by multiplying by the NGPL production heat content factors in Table A2.

### *Fossil Fuels Total*

1949 forward: Total fossil fuels production is the sum of the production values for coal, natural gas (dry), crude oil, and NGPL.

### *Nuclear Electric Power*

1949 forward: Nuclear electricity net generation data from Table 7.2a are converted to Btu by multiplying by the nuclear heat rate factors in Table A6.

### *Renewable Energy*

1949 forward: Table 10.1.

### *Total Primary Energy Production*

1949 forward: Total primary energy production is the sum of the production values for fossil fuels, nuclear electric power, and renewable energy.

## **Table 1.3 Sources**

### *Coal*

1949 forward: Coal consumption data from Table 6.1 are converted to Btu by multiplying by the total coal consumption heat content factors in Table A5.

### *Natural Gas*

1949–1979: Natural gas (including supplemental gaseous fuels) consumption data from Table 4.1 are converted to Btu by multiplying by the total natural gas consumption heat content factors in Table A4.

1980 forward: Natural gas (including supplemental gaseous fuels) consumption data from Table 4.1 are converted to Btu by multiplying by the total natural gas consumption heat content factors in Table A4. Supplemental gaseous fuels data in Btu are estimated using the method described in Note 3, “Supplemental Gaseous Fuels,” at the end of Section 4. Natural gas (excluding supplemental gaseous fuels) consumption is equal to natural gas (including supplemental gaseous fuels) consumption minus supplemental gaseous fuels.

### *Petroleum*

1949–1992: Petroleum (excluding biofuels) consumption is equal to total petroleum products supplied from Table 3.6.

1993–2008: Petroleum (excluding biofuels) consumption is equal to total petroleum products supplied from Table 3.6 minus fuel ethanol consumption from Table 10.3.

2009–2011: Petroleum (excluding biofuels) consumption is equal to: total petroleum products supplied from Table 3.6; minus fuel ethanol (minus denaturant) consumption from Table 10.3; minus biodiesel consumption, calculated using biodiesel data from U.S. Energy Information Administration (EIA), EIA-22M, “Monthly Biodiesel Production Survey”; and biomass-based diesel fuel data from EIA-810, “Monthly Refinery Report,” EIA-812, “Monthly Product Pipeline Report,” and EIA-815, “Monthly Bulk Terminal and Blender Report” (the data are converted to Btu by multiplying by the biodiesel heat content factor in Table A1); minus renewable diesel fuel and other biofuels refinery and blender net inputs, calculated using “other renewable diesel fuel” and “other renewable fuels” data from EIA-810, “Monthly Refinery Report,” and EIA-815, “Monthly Bulk Terminal and Blender Report” (the data are converted to Btu by multiplying by the heat content factors for renewable diesel fuel and other biofuels in Table A1).



2012–2020: Petroleum (excluding biofuels) consumption is equal to: total petroleum products supplied from Table 3.6; minus fuel ethanol (minus denaturant) consumption from Table 10.3; minus biodiesel consumption from Table 10.4a; minus renewable diesel fuel and other biofuels refinery and blender net inputs, calculated using “other renewable diesel fuel” and “other renewable fuels” data from EIA-810, “Monthly Refinery Report,” and EIA-815, “Monthly Bulk Terminal and Blender Report” (the data are converted to Btu by multiplying by the heat content factors for renewable diesel fuel and other biofuels in Table A1).

2021 forward: Petroleum (excluding biofuels) consumption is equal to: total petroleum products supplied from Table 3.6; minus fuel ethanol (minus denaturant) consumption from Table 10.3; minus biodiesel, renewable diesel fuel, and other biofuels refinery and blender net inputs and products supplied calculated using “biofuels except fuel ethanol” refinery and blender net inputs and products supplied from U.S. Energy Information Administration (EIA), *Petroleum Supply Annual* and *Petroleum Supply Monthly* (data are converted to Btu by multiplying by the appropriate heat content factors in Table A1).

#### *Coal Coke Net Imports*

1949 forward: Table 1.4c.

#### *Fossil Fuels Total*

1949 forward: Total fossil fuels consumption is the sum of the consumption values for coal, natural gas, and petroleum, plus coal coke net imports.

#### *Nuclear Electric Power*

1949 forward: Nuclear electricity net generation data from Table 7.2a are converted to Btu by multiplying by the nuclear heat rate factors in Table A6.

#### *Renewable Energy*

1949 forward: Table 10.1.

#### *Electricity Net Imports*

1949 forward: Table 1.4c.

#### *Total Primary Energy Consumption*

1949 forward: Total primary energy consumption is the sum of the consumption values for fossil fuels, nuclear electric power, and renewable energy, plus electricity net imports.

### **Table 1.4a Sources**

#### *Coal*

1949 forward: Coal imports data from Table 6.1 are converted to Btu by multiplying by the coal imports heat content factors in Table A5.

#### *Coal Coke*

1949 forward: Coal coke imports data from U.S. Department of Commerce, Bureau of the Census, Monthly Report IM 145, are converted to Btu by multiplying by the coal coke imports heat content factor in Table A5.

#### *Natural Gas*

1949 forward: Natural gas imports data from Table 4.1 are converted to Btu by multiplying by the natural gas imports heat content factors in Table A4.

#### *Crude Oil*

1949 forward: Crude oil imports data from Table 3.3b are converted to Btu by multiplying by the crude oil imports heat content factors in Table A2.

### *Petroleum Products*

1949–1992: Petroleum products (excluding biofuels) imports are equal to total petroleum imports from Table 3.3b minus crude oil imports from Table 3.3b; petroleum products (excluding biofuels) imports data are converted to Btu by multiplying by the total petroleum products imports heat content factors in Table A2.

1993–2008: Petroleum products (excluding biofuels) imports are equal to petroleum products (including biofuels) imports (see 1949–1992 sources above) minus fuel ethanol (minus denaturant) imports (see “Biomass—Fuel Ethanol (Minus Denaturant)” sources below).

2009–2011: Biomass-based diesel fuel imports data are from U.S. Energy Information Administration, Petroleum Supply Annual (PSA), Tables 1 and 25, and Petroleum Supply Monthly (PSM), Tables 1 and 37 (the data are converted to Btu by multiplying by the biodiesel heat content factor in Table A1). Petroleum products (excluding biofuels) imports are equal to petroleum products (including biofuels) imports (see 1949–1992 sources above) minus fuel ethanol (minus denaturant) imports (see “Biomass—Fuel Ethanol (Minus Denaturant)” sources below) minus biomass-based diesel fuel imports.

2012–2020: Petroleum products (excluding biofuels) imports are equal to petroleum products (including biofuels) imports (see 1949–1992 sources above) minus fuel ethanol (minus denaturant) imports (see “Biomass—Fuel Ethanol (Minus Denaturant)” sources below) minus biodiesel imports (see “Biomass—Biodiesel”) minus renewable diesel fuel imports (see “Biomass—Renewable Diesel Fuel”).

2021 forward: Petroleum products (excluding biofuels) imports are equal to petroleum products (including biofuels) imports (see 1949–1992 sources above) minus fuel ethanol (minus denaturant) imports (see “Biomass—Fuel Ethanol (Minus Denaturant)” sources below) minus biodiesel imports (see “Biomass—Biodiesel”) minus renewable diesel fuel imports (see “Biomass—Renewable Diesel Fuel”) minus other biofuels imports (see “Biomass—Other Biofuels”).

### *Total Petroleum*

1949 forward: Total petroleum imports are equal to crude oil imports plus petroleum products imports.

### *Biomass—Fuel Ethanol (Minus Denaturant)*

1993 forward: Fuel ethanol (including denaturant) imports data are from PSA/PSM Table 1. Fuel ethanol (minus denaturant) production is equal to fuel ethanol (including denaturant) production from Table 10.3 minus denaturant from Table 10.3. Fuel ethanol (minus denaturant) imports are equal to fuel ethanol (including denaturant) imports multiplied by the ratio of fuel ethanol (minus denaturant) production to fuel ethanol (including denaturant) production. Fuel ethanol (minus denaturant) imports data are converted to Btu by multiplying by 3.539 million Btu per barrel, the undenatured ethanol heat content factor in Table A3.

### *Biomass—Biodiesel*

2001 forward: Biodiesel imports data are from Table 10.4a, and are converted to Btu by multiplying by the biodiesel heat content factor in Table A1.

### *Biomass—Renewable Diesel Fuel*

2012 forward: Renewable diesel fuel imports data are from Table 10.4b, and are converted to Btu by multiplying by the renewable diesel fuel heat content factor in Table A1.

### *Biomass—Other Biofuels*

2021 forward: Other biofuels imports data are from Table 10.4c, and are converted to Btu by multiplying by the other biofuels heat content factor in Table A1.

### *Total Biomass*

1993–2000: Total biomass imports are equal to fuel ethanol (minus denaturant) imports.

2001–2011: Total biomass imports are equal to fuel ethanol (minus denaturant) imports plus biodiesel imports.

2012–2020: Total biomass imports are the sum of imports values for fuel ethanol (minus denaturant), biodiesel, and renewable diesel fuel.

2021 forward: Total biomass imports are the sum of imports values for fuel ethanol (minus denaturant), biodiesel, renewable diesel fuel, and other biofuels.

### *Electricity*

1949 forward: Electricity imports data from Table 7.1 are converted to Btu by multiplying by the electricity heat content factor in Table A6.

### *Total Primary Energy Imports*

1949 forward: Total primary energy imports are the sum of the imports values for coal, coal coke, natural gas, total petroleum, total biomass, and electricity.

## **Table 1.4b Sources**

### *Coal*

1949 forward: Coal exports data from Table 6.1 are converted to Btu by multiplying by the coal exports heat content factors in Table A5.

### *Coal Coke*

1949 forward: Coal coke exports data from U.S. Department of Commerce, Bureau of the Census, Monthly Report EM 545, are converted to Btu by multiplying by the coal coke exports heat content factor in Table A5.

### *Natural Gas*

1949 forward: Natural gas exports data from Table 4.1 are converted to Btu by multiplying by the natural gas exports heat content factors in Table A4.

### *Crude Oil*

1949 forward: Crude oil exports data from Table 3.3b are converted to Btu by multiplying by the crude oil exports heat content factor in Table A2.

### *Petroleum Products*

1949–2009: Petroleum products (excluding biofuels) exports are equal to total petroleum exports from Table 3.3b minus crude oil exports from Table 3.3b; petroleum products (excluding biofuels) exports data are converted to Btu by multiplying by the total petroleum products exports heat content factors in Table A2.

2010: Petroleum products (including biofuels) exports are equal to total petroleum exports from Table 3.3b minus crude oil exports from Table 3.3b; petroleum products (including biofuels) exports data are converted to Btu by multiplying by the total petroleum products exports heat content factors in Table A2. Petroleum products (excluding biofuels) exports are equal to petroleum products (including biofuels) exports minus fuel ethanol (minus denaturant) exports (see “Biomass—Fuel Ethanol (Minus Denaturant)” sources below).

2011–2018: Biomass-based diesel fuel exports data are from U.S. Energy Information Administration (EIA), Petroleum Supply Annual (PSA), Table 31, and are converted to Btu by multiplying by the biodiesel heat content factor in Table A1. Petroleum products (excluding biofuels) exports are equal to petroleum products (including biofuels) exports (see 2010 sources above) minus fuel ethanol (minus denaturant) exports (see “Biomass—Fuel Ethanol (Minus Denaturant)” sources below) minus biomass-based diesel fuel exports.

2019 forward: Biodiesel exports data are from EIA, PSA, Table 31, and *Petroleum Supply Monthly* (PSM), Table 49, and are converted to Btu by multiplying by the biodiesel heat content factor in Table A1. Petroleum products (excluding biofuels) exports are equal to petroleum products (including biofuels) exports (see 2010 sources above) minus fuel ethanol (minus denaturant) exports (see “Biomass—Fuel Ethanol (Minus Denaturant)” sources below) minus biodiesel exports.

### *Total Petroleum*

1949 forward: Total petroleum exports are equal to crude oil exports plus petroleum products exports.

### *Biomass—Fuel Ethanol (Minus Denaturant)*

2010 forward: Fuel ethanol (including denaturant) exports data are from PSA/PSM Table 1. Fuel ethanol (minus denaturant) production is equal to fuel ethanol (including denaturant) production from Table 10.3 minus denaturant from Table 10.3. Fuel ethanol (minus denaturant) exports are equal to fuel ethanol (including denaturant) exports multiplied by the ratio of fuel ethanol (minus denaturant) production to fuel ethanol (including denaturant) production. Fuel ethanol (minus denaturant) exports are converted to Btu by multiplying by 3.539 million Btu per barrel, the undenatured ethanol heat content factor in Table A3.

### *Biomass—Biodiesel*

2001 forward: Biodiesel exports data are from Table 10.4a, and are converted to Btu by multiplying by the biodiesel heat content factor in Table A1.

### *Biomass—Densified Biomass*

2016 forward: Densified biomass exports data are from EIA, Form EIA-63C, “Densified Biomass Fuel Report.”

### *Total Biomass*

2001–2009: Total biomass exports are equal to biodiesel exports.

2010–2015: Total biomass exports are equal to fuel ethanol (minus denaturant) exports plus biodiesel exports.

2016 forward: Total biomass exports are the sum of the exports values for fuel ethanol (minus denaturant), biodiesel, and densified biomass.

### *Electricity*

1949 forward: Electricity exports data from Table 7.1 are converted to Btu by multiplying by the electricity heat content factor in Table A6.

### *Total Primary Energy Exports*

1949 forward: Total primary energy exports are the sum of the exports values for coal, coal coke, natural gas, total petroleum, total biomass, and electricity.

## **Table 1.5 Sources**

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

### *Petroleum Exports*

1974–1987: “U.S. Exports,” FT-410, December issues.

1988 and 1989: “Report on U.S. Merchandise Trade,” final revisions.

1990–1992: “U.S. Merchandise Trade,” final report.

1993–2019: “U.S. International Trade in Goods and Services,” annual revisions.

2020–2022: “U.S. International Trade in Goods and Services,” 2022 annual revisions.

2023: “U.S. International Trade in Goods and Services,” FT-900, monthly.

### *Petroleum Imports*

1974–1987: “U.S. Merchandise Trade,” FT-900, December issues, 1975–1988.

1988 and 1989: “Report on U.S. Merchandise Trade,” final revisions.

1990–1993: “U.S. Merchandise Trade,” final report.

1994–2019: “U.S. International Trade in Goods and Services,” annual revisions.

2020–2022: “U.S. International Trade in Goods and Services,” 2022 annual revisions.

2023: "U.S. International Trade in Goods and Services," FT-900, monthly.

### *Energy Exports and Imports*

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

1988: January–July, monthly FT-900 supplement, 1989 issues. August–December, monthly FT-900, 1989 issues.

1989: Monthly FT-900, 1990 issues.

1990–1992: "U.S. Merchandise Trade," final report.

1993–2019: "U.S. International Trade in Goods and Services," annual revisions.

2020–2022: "U.S. International Trade in Goods and Services," 2022 annual revisions.

2023: "U.S. International Trade in Goods and Services," FT-900, monthly.

### *Petroleum Balance*

1974 forward: The petroleum balance is calculated by the U.S. Energy Information Administration (EIA) as petroleum imports minus petroleum exports.

### *Energy Balance*

1974 forward: The energy balance is calculated by EIA as energy imports minus energy exports.

### *Non-Energy Balance*

1974 forward: The non-energy balance is calculated by EIA as the total merchandise balance minus the energy balance.

### *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.

1992–2019: "U.S. International Trade in Goods and Services," annual revisions.

2020–2022: "U.S. International Trade in Goods and Services," 2022 annual revisions.

2023: "U.S. International Trade in Goods and Services," FT-900, monthly.

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