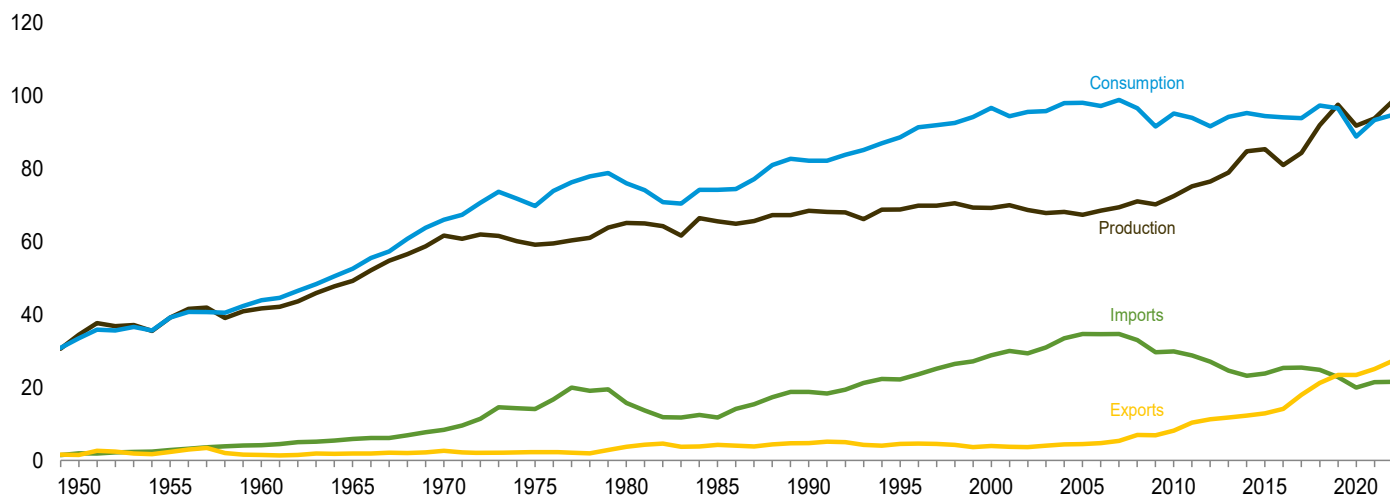


1. Energy Overview

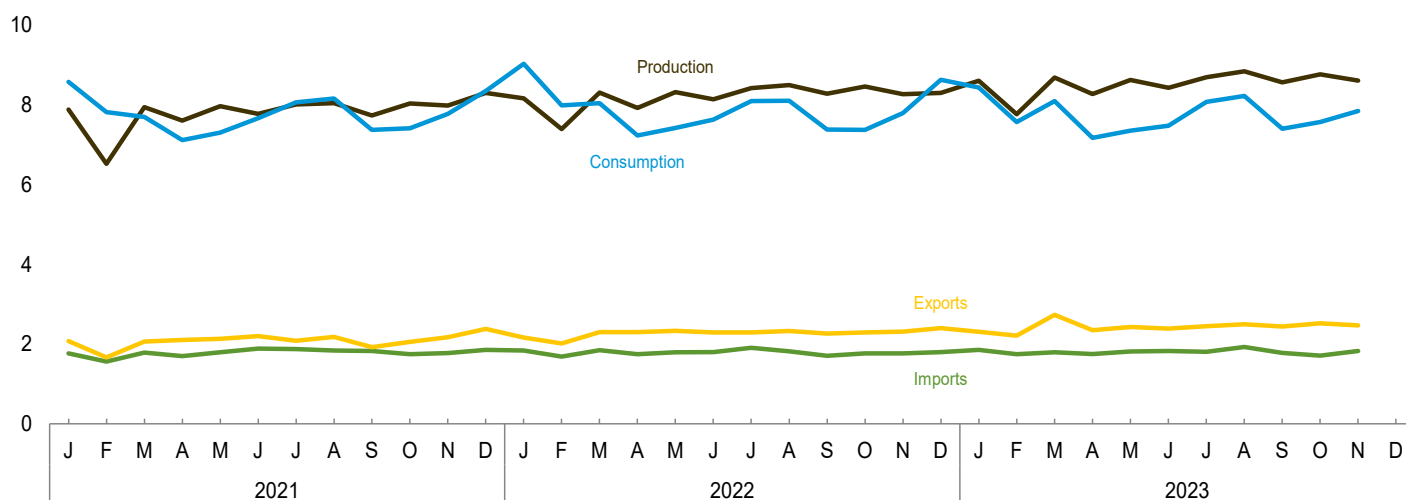
Figure 1.1 Primary Energy Overview

(Quadrillion Btu)

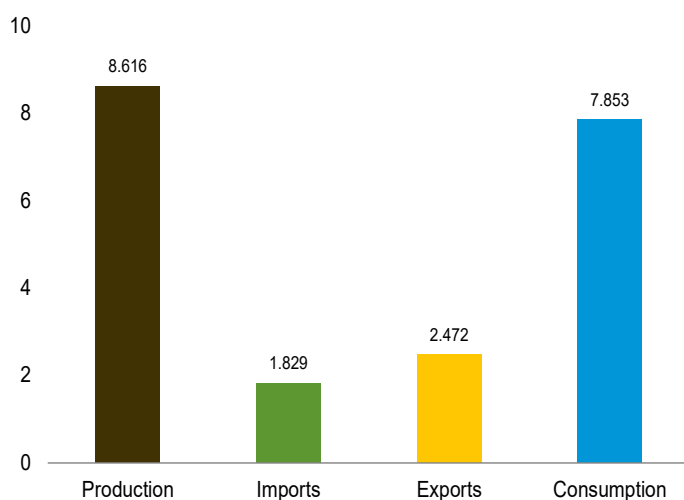
Overview, 1949–2022



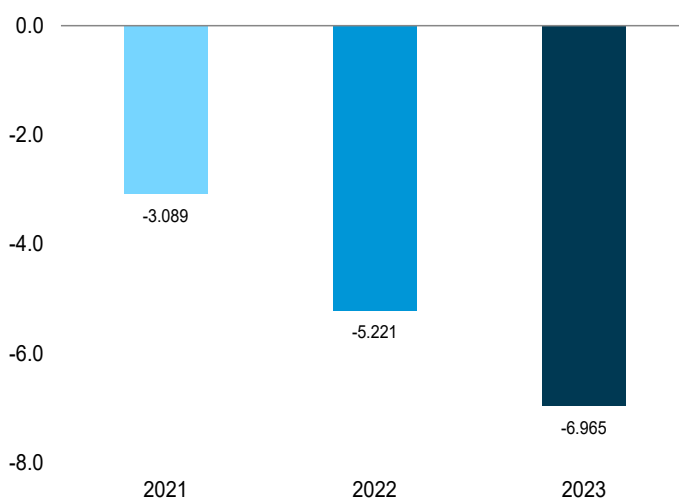
Overview, Monthly



Overview, November 2023



Net Imports, January–November



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 ^d	Consumption			
	Fossil Fuels ^a	Nuclear Electric Power	Renewable Energy ^b	Total	Imports	Exports	Net Imports ^c		Fossil Fuels ^e	Nuclear Electric Power	Renewable Energy ^b	Total ^f
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
2006 Total	55.877	8.215	4.430	68.521	34.649	4.727	29.921	-1.207	84.477	8.215	4.480	97.235
2007 Total	56.369	8.459	4.582	69.410	34.679	5.338	29.341	.215	85.805	8.459	4.595	98.965
2008 Total	57.527	8.426	5.085	71.038	32.970	6.949	26.021	-.412	83.041	8.426	5.068	96.647
2009 Total	56.612	8.355	5.309	70.276	29.690	6.920	22.770	-1.420	77.862	8.355	5.293	91.626
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 January	6.497	.748	.637	7.883	1.772	2.083	-.311	1.008	7.210	.748	.607	8.579
February	5.318	.657	.553	6.528	1.566	1.667	-.101	1.400	6.614	.657	.547	7.827
March	6.603	.664	.678	7.945	1.788	2.067	-.279	.037	6.359	.664	.667	7.703
April	6.362	.595	.651	7.608	1.703	2.104	-.402	-.082	5.876	.595	.642	7.124
May	6.624	.661	.690	7.975	1.799	2.131	-.332	-.332	5.955	.661	.682	7.310
June	6.433	.689	.657	7.779	1.890	2.204	-.314	.205	6.320	.689	.645	7.669
July	6.642	.718	.651	8.011	1.878	2.085	-.208	.267	6.699	.718	.639	8.070
August	6.671	.725	.649	8.045	1.846	2.183	-.337	.456	6.784	.725	.643	8.163
September	6.439	.673	.621	7.733	1.829	1.925	-.096	-.261	6.083	.673	.611	7.375
October	6.783	.609	.650	8.042	1.752	2.063	-.311	-.312	6.159	.609	.641	7.419
November	6.671	.654	.664	7.989	1.774	2.172	-.397	.182	6.472	.654	.643	7.774
December	6.862	.738	.707	8.306	1.859	2.386	-.527	.571	6.924	.738	.680	8.349
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
2022 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
Total	82.157	8.061	8.307	98.526	21.507	27.332	-5.826	2.091	78.498	8.061	8.091	94.791
2023 January	7.168	.740	.702	8.610	1.855	2.309	-.454	.281	7.002	.740	.685	8.438
February	6.476	.635	.660	7.771	1.746	2.212	-.466	.266	6.286	.635	.643	7.572
March	7.295	.656	.735	8.686	1.795	2.736	-.942	.358	6.719	.656	.718	8.102
April	6.982	.592	.700	8.274	1.756	2.353	-.598	-.502	5.889	.592	.687	7.174
May	7.246	.642	.741	8.629	1.818	2.431	-.612	-.662	5.968	.642	.735	7.355
June	7.062	.679	.692	8.433	1.828	2.389	-.561	-.391	6.115	.679	.681	7.481
July	7.257	.730	.712	8.699	1.807	2.450	-.643	.028	6.657	.730	.693	8.084
August	7.405	.729	.712	8.846	1.928	2.499	-.571	-.044	6.795	.729	.703	8.231
September	R 7.212	.685	.668	R 8.565	1.783	2.444	-.661	R -.498	6.069	.685	.652	7.406
October	R 7.426	.642	.700	R 8.767	1.714	2.529	-.814	R -.381	6.233	.642	.690	7.573
November	7.280	.650	.685	8.616	1.829	2.472	-.643	-.120	6.530	.650	.664	7.853
11-Month Total	78.809	7.381	7.706	93.896	19.860	26.824	-6.965	-1.663	70.262	7.381	7.551	85.268
2022 11-Month Total	75.252	7.339	7.627	90.218	19.705	24.926	-5.221	1.156	71.259	7.339	7.430	86.154
2021 11-Month Total	71.041	7.393	7.101	85.535	19.596	22.685	-3.089	2.567	70.530	7.393	6.965	85.014

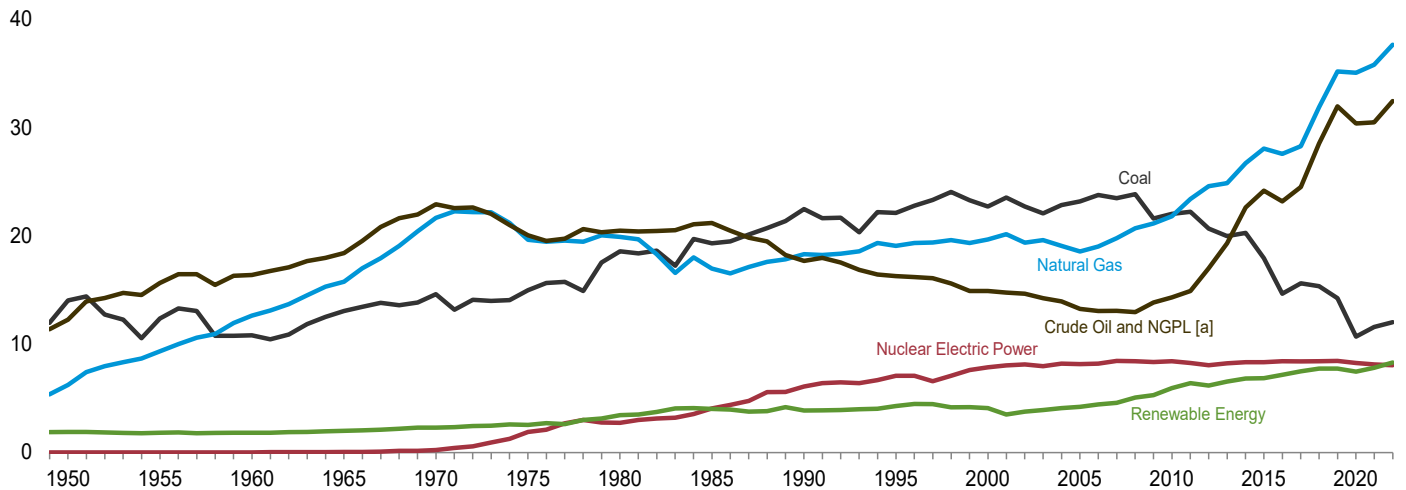
^a Coal, natural gas (dry), crude oil, and natural gas plant liquids.
^b See Tables 10.1–10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.
^c Net imports equal imports minus exports.
^d Includes petroleum stock change 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.

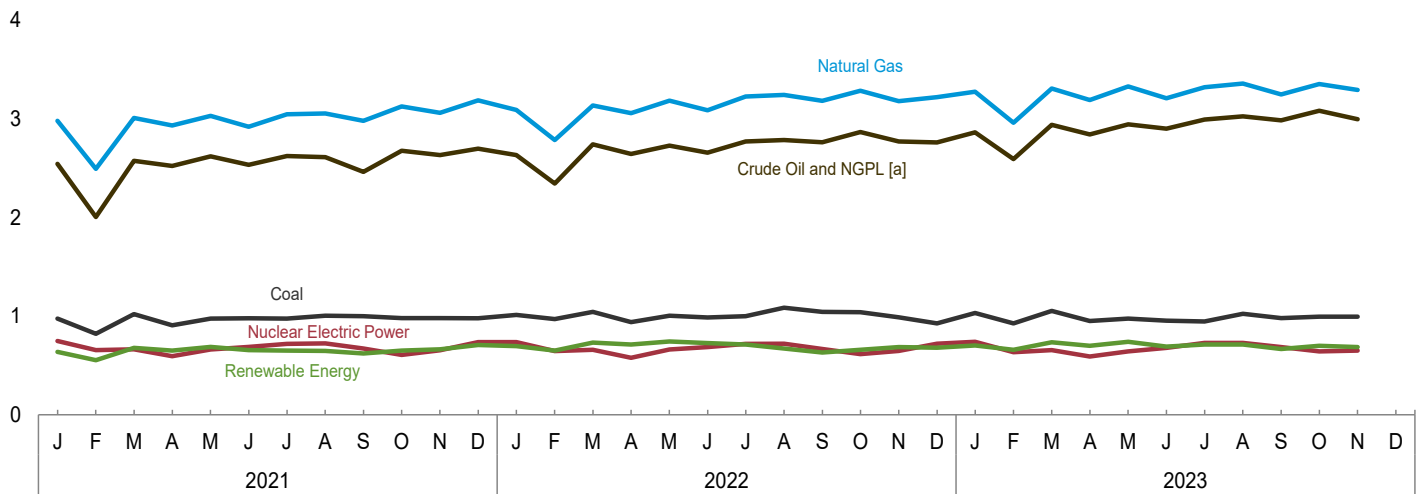
Figure 1.2 Primary Energy Production

(Quadrillion Btu)

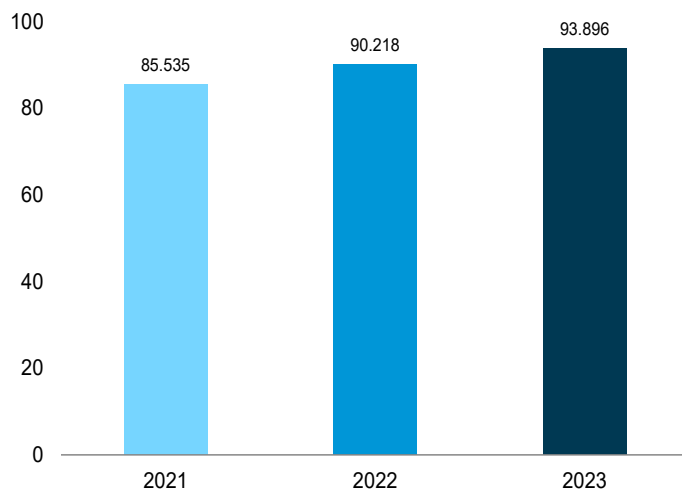
By Source, 1949–2022



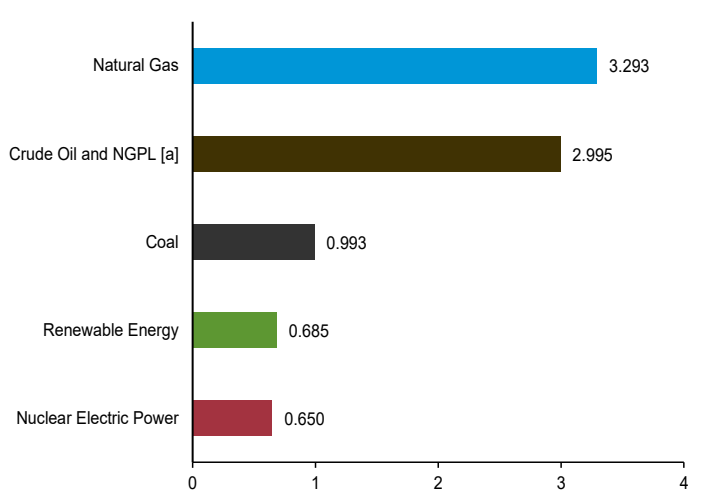
By Source, Monthly



Total, January–November



By Source, November 2023



[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 ^a						Total
	Coal ^b	Natural Gas (Dry)	Crude Oil ^c	NGPL ^d	Total		Hydro- electric Power ^e	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
2006 Total	23.790	19.022	10.767	2.299	55.877	8.215	.987	.086	.054	.091	3.212	4.430	68.521
2007 Total	23.493	19.786	10.741	2.349	56.369	8.459	.845	.091	.057	.118	3.472	4.582	69.410
2008 Total	23.851	20.703	10.613	2.359	57.527	8.426	.869	.097	.061	.189	3.868	5.085	71.038
2009 Total	21.624	21.139	11.340	2.508	56.612	8.355	.933	.105	.063	.252	3.957	5.309	70.276
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 January	.974	2.978	1.965	.580	6.497	.748	.084	.010	.032	.103	.409	.637	7.883
February	.821	2.491	1.580	.426	5.318	.657	.069	.009	.036	.091	.348	.553	6.528
March	1.021	3.007	2.002	.572	6.603	.664	.072	.010	.051	.134	.411	.678	7.945
April	.907	2.933	1.932	.589	6.362	.595	.066	.010	.059	.123	.393	.651	7.608
May	.975	3.029	2.009	.611	6.624	.661	.080	.010	.067	.115	.418	.690	7.975
June	.979	2.920	1.940	.593	6.433	.689	.080	.010	.066	.091	.410	.657	7.779
July	.974	3.046	2.010	.611	6.642	.718	.075	.010	.066	.074	.426	.651	8.011
August	1.005	3.055	1.989	.622	6.671	.725	.069	.010	.064	.092	.413	.649	8.045
September	.999	2.977	1.864	.599	6.439	.673	.058	.010	.059	.099	.395	.621	7.733
October	.982	3.125	2.040	.636	6.783	.609	.058	.010	.050	.110	.422	.650	8.042
November	.980	3.058	2.011	.621	6.671	.654	.066	.010	.042	.122	.424	.664	7.989
December	.977	3.187	2.060	.638	6.862	.738	.080	.010	.035	.136	.445	.707	8.306
Total	11.596	35.807	23.401	7.099	77.903	8.131	.858	.118	.627	1.290	4.914	7.807	93.841
2022 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
Total	12.043	37.662	24.710	7.742	82.157	8.061	.869	.118	.765	1.482	5.073	8.307	98.526
2023 January	1.033	E 3.273	E 2.215	.648	7.168	.740	.076	.011	.044	.134	.437	.702	8.610
February	.927	E 2.958	E 1.995	.597	6.476	.635	.064	.009	.051	.144	.393	.660	7.771
March	1.053	E 3.304	E 2.250	.688	7.295	.656	.069	.010	.067	.152	.436	.735	8.686
April	.951	E 3.190	E 2.157	.684	6.982	.592	.060	.010	.079	.147	.404	.700	8.274
May	.976	E 3.326	E 2.237	.707	7.246	.642	.094	.010	.090	.109	.438	.741	8.629
June	.955	E 3.209	E 2.199	.700	7.062	.679	.066	.010	.092	.094	.430	.692	8.433
July	.945	E 3.320	E 2.278	.714	7.257	.730	.072	.010	.097	.095	.437	.712	8.699
August	1.025	E 3.357	E 2.298	.726	7.405	.729	.072	.010	.093	.097	.440	.712	8.846
September	.981	RE 3.247	RE 2.259	.724	R 7.212	.685	.056	.010	.082	.096	.425	.668	R 8.565
October	R .994	RE 3.352	RE 2.330	.750	R 7.426	.642	.062	.010	.074	.124	.430	.700	R 8.767
November	.993	E 3.293	E 2.269	.725	7.280	.650	.062	.010	.056	.126	.432	.685	8.616
11-Month Total	10.831	E 35.829	E 24.485	7.664	78.809	7.381	.753	.109	.826	1.317	4.700	7.706	93.896
2022 11-Month Total	11.117	34.442	22.572	7.121	75.252	7.339	.800	.108	.725	1.350	4.645	7.627	90.218
2021 11-Month Total	10.619	32.620	21.341	6.461	71.041	7.393	.778	.108	.592	1.154	4.469	7.101	85.535

^a 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.

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

^c Includes lease condensate.

^d 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).

^e Conventional hydroelectric power.

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

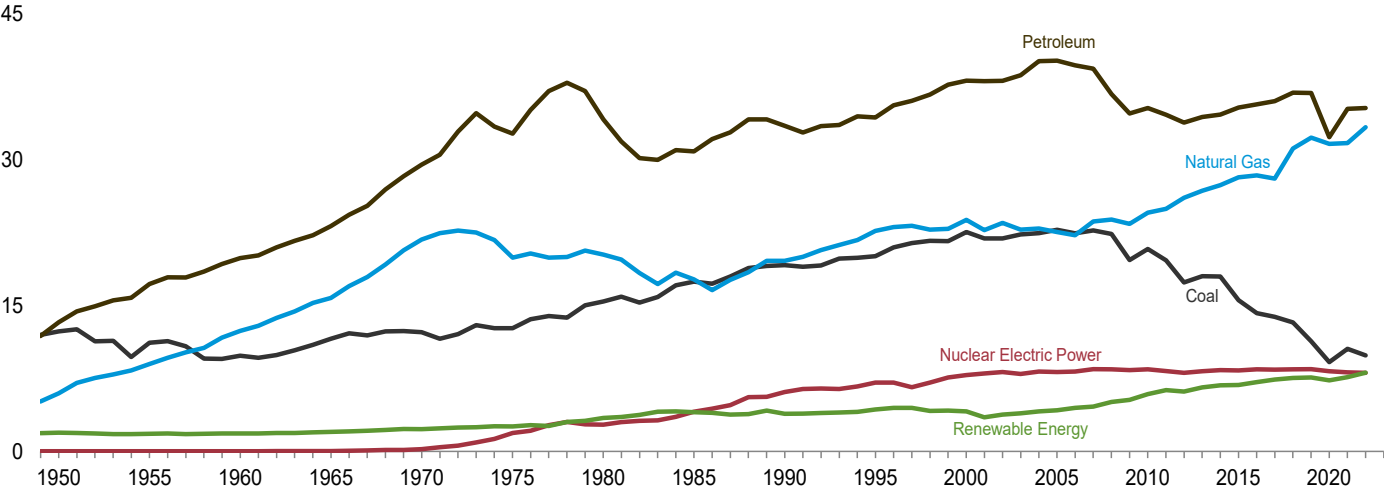
Notes: • See "Primary Energy Production" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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.

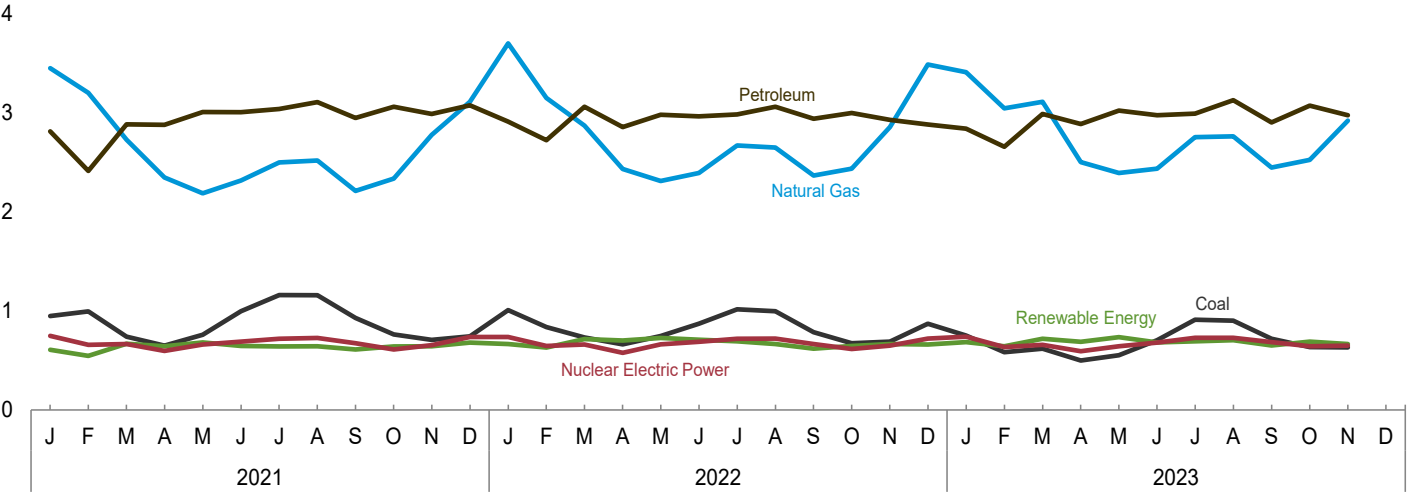
Sources: See end of section.

Figure 1.3 Primary Energy Consumption
(Quadrillion Btu)

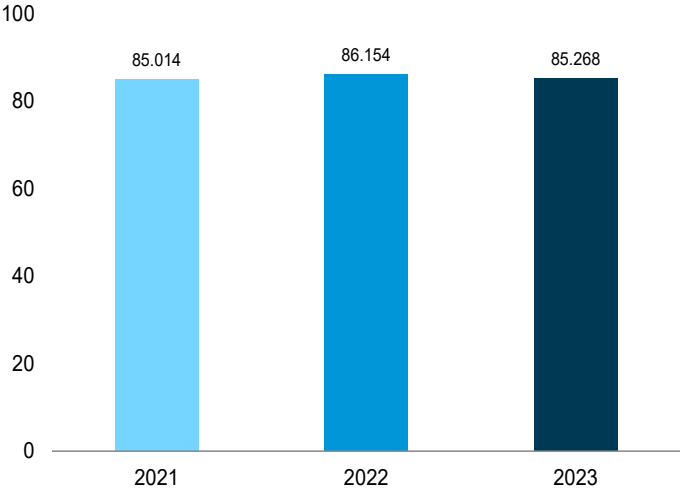
By Source, [a] 1949–2023



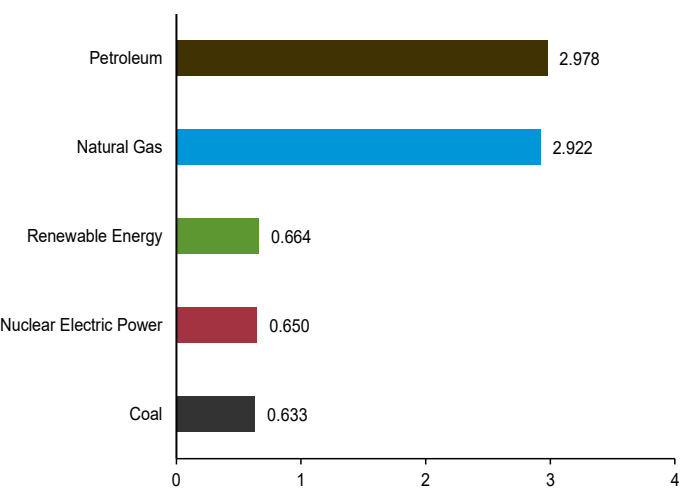
By Source, [a] Monthly



Total, January–November



By Source, [a] November 2023



[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 ^a				Nuclear Electric Power	Renewable Energy ^b						Total ^g
	Coal	Natural Gas ^c	Petro- leum ^d	Total ^e		Hydro- electric Power ^f	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
2006 Total	22.447	22.239	39.731	84.477	8.215	.987	.086	.054	.091	3.262	4.480	97.235
2007 Total	22.749	23.663	39.368	85.805	8.459	.845	.091	.057	.118	3.485	4.595	98.965
2008 Total	22.387	23.843	36.769	83.041	8.426	.869	.097	.061	.189	3.851	5.068	96.647
2009 Total	19.691	23.416	34.779	77.862	8.355	.933	.105	.063	.252	3.940	5.293	91.626
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 January .....	.947	3.453	2.813	7.210	.748	.084	.010	.032	.103	.379	.607	8.579
February .....	.996	3.205	2.415	6.614	.657	.069	.009	.036	.091	.342	.547	7.827
March .....	.741	2.732	2.886	6.359	.664	.072	.010	.051	.134	.399	.667	7.703
April .....	.650	2.350	2.880	5.876	.595	.066	.010	.059	.123	.383	.642	7.124
May .....	.759	2.189	3.010	5.955	.661	.080	.010	.067	.115	.410	.682	7.310
June .....	.997	2.319	3.009	6.320	.689	.080	.010	.066	.091	.398	.645	7.669
July	1.160	2.501	3.040	6.699	.718	.075	.010	.066	.074	.413	.639	8.070
August	1.158	2.521	3.111	6.784	.725	.069	.010	.064	.092	.407	.643	8.163
September .....	.927	2.212	2.950	6.083	.673	.058	.010	.059	.099	.385	.611	7.375
October .....	.762	2.337	3.063	6.159	.609	.058	.010	.050	.110	.413	.641	7.419
November .....	.708	2.778	2.991	6.472	.654	.066	.010	.042	.122	.403	.643	7.774
December .....	.742	3.113	3.076	6.924	.738	.080	.010	.035	.136	.418	.680	8.349
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 .....	.750	3.413	2.842	7.002	.740	.076	.011	.044	.134	.420	.685	8.438
February .....	.583	3.047	2.658	6.286	.635	.064	.009	.051	.144	.376	.643	7.572
March .....	.619	3.112	2.991	6.719	.656	.069	.010	.067	.152	.420	.718	8.102
April .....	.499	2.503	2.888	5.889	.592	.060	.010	.079	.147	.391	.687	7.174
May .....	.552	2.393	3.026	5.968	.642	.094	.010	.090	.109	.432	.735	7.355
June .....	.703	2.437	2.978	6.115	.679	.066	.010	.092	.094	.419	.681	7.481
July .....	.912	2.755	2.993	6.657	.730	.072	.010	.097	.095	.418	.693	8.084
August .....	.902	2.765	3.130	6.795	.729	.072	.010	.093	.097	.431	.703	8.231
September .....	.717	2.450	2.906	6.069	.685	.056	.010	.082	.096	.408	.652	7.406
October .....	.635	2.525	3.074	6.233	.642	.062	.010	.074	.124	.420	.690	7.573
November .....	.633	2.922	2.978	6.530	.650	.062	.010	.056	.126	.410	.664	7.853
11-Month Total ...	7.503	30.322	32.464	70.262	7.381	.753	.109	.826	1.317	4.545	7.551	85.268
2022 11-Month Total ...	9.017	29.858	32.434	71.259	7.339	.800	.108	.725	1.350	4.447	7.430	86.154
2021 11-Month Total ...	9.807	28.598	32.167	70.530	7.393	.778	.108	.592	1.154	4.333	6.965	85.014

^a Includes non-combustion use of fossil fuels.

^b 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.

^c Natural gas only; excludes supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

^d Petroleum products supplied; excludes biofuels. Biofuels are included in "Biomass."

^e Includes coal coke net imports. See Table 1.4c.

^f Conventional hydroelectric power.

^g Includes coal coke net imports and electricity net imports, which are not

separately displayed. See Table 1.4c.

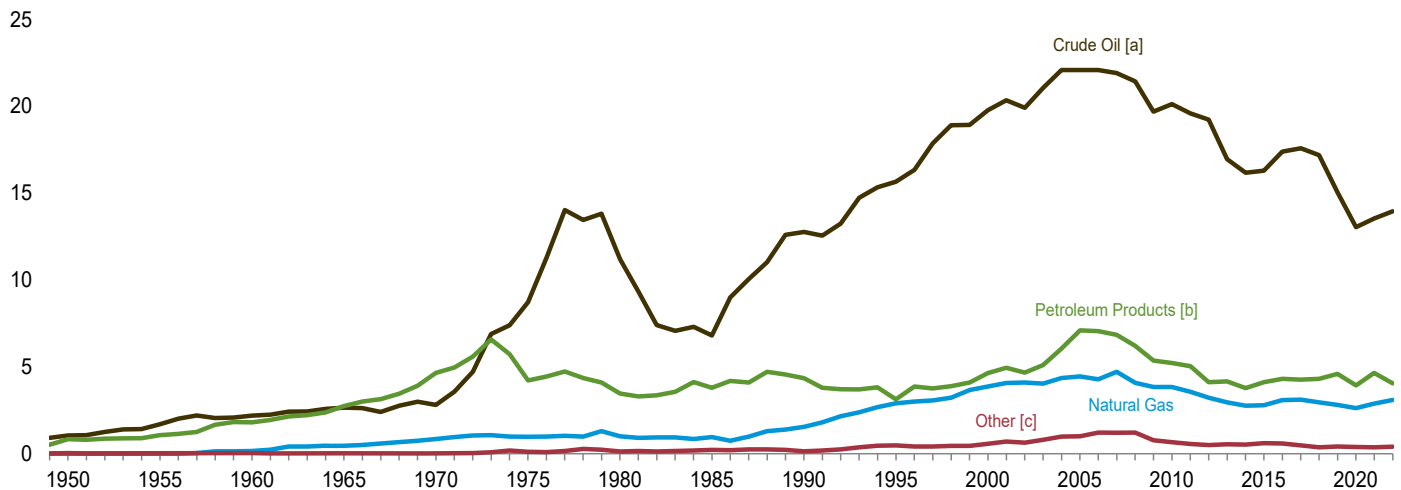
NA=Not available. (s)=Less than 0.5 trillion Btu.

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.

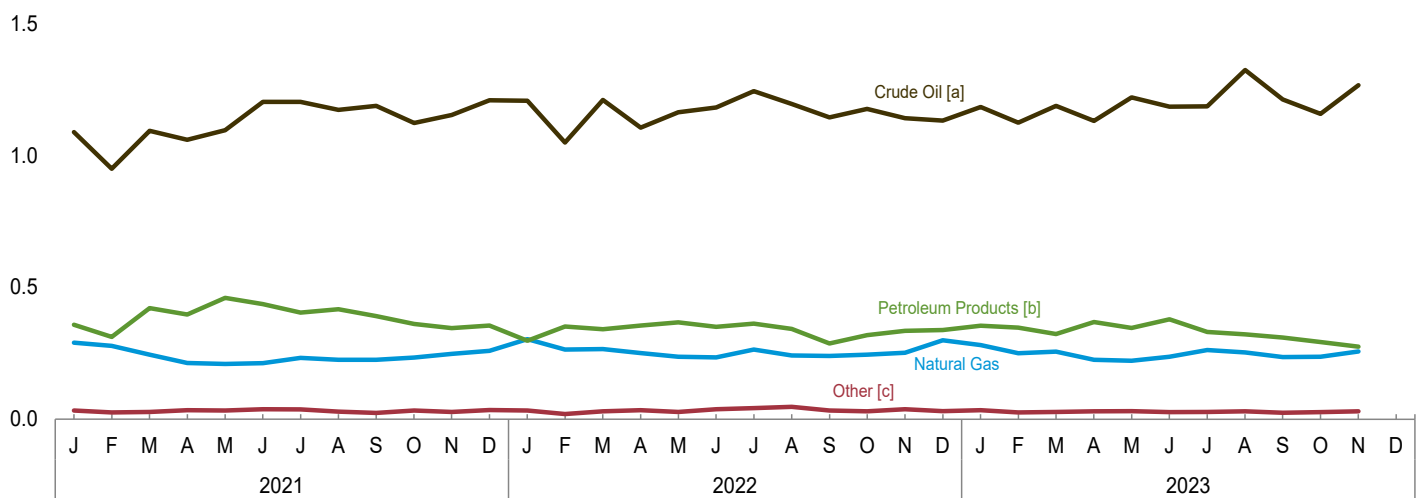
Sources: See end of section.

Figure 1.4a Primary Energy Imports
(Quadrillion Btu)

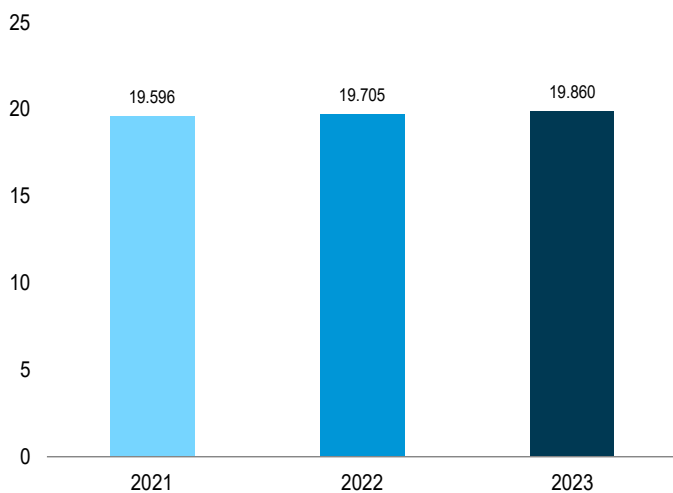
By Source, 1949–2022



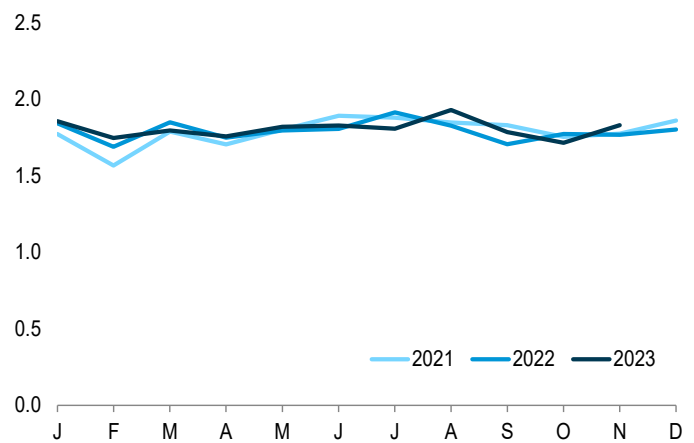
By Source, Monthly



Total, January–November



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 ^c	Electricity	Total
				Crude Oil ^a	Petroleum Products ^b	Total			
1950 Total	0.009	0.011	0.000	1.056	0.830	1.886	NA	0.007	1.913
1955 Total .....	.008	.003	.011	1.691	1.061	2.752	NA	.016	2.790
1960 Total .....	.007	.003	.161	2.196	1.802	3.999	NA	.018	4.188
1965 Total .....	.005	.002	.471	2.654	2.748	5.402	NA	.012	5.892
1970 Total .....	.001	.004	.846	2.814	4.656	7.470	NA	.021	8.342
1975 Total .....	.024	.045	.978	8.721	4.227	12.948	NA	.038	14.032
1980 Total .....	.030	.016	1.006	11.195	3.463	14.658	NA	.085	15.796
1985 Total .....	.049	.014	.952	6.814	3.796	10.609	NA	.157	11.781
1990 Total .....	.067	.019	1.551	12.766	4.351	17.117	NA	.063	18.817
1995 Total .....	.237	.095	2.901	15.669	3.131	18.800	.001	.146	22.180
2000 Total .....	.313	.094	3.869	19.783	4.641	24.424	(s)	.166	28.865
2005 Total .....	.762	.088	4.450	22.091	7.108	29.198	.012	.150	34.659
2006 Total .....	.906	.101	4.291	22.085	7.054	29.139	.066	.146	34.649
2007 Total .....	.909	.061	4.723	21.914	6.842	28.756	.055	.175	34.679
2008 Total .....	.855	.089	4.084	21.448	6.214	27.662	.085	.195	32.970
2009 Total .....	.566	.009	3.845	19.699	5.367	25.066	.027	.178	29.690
2010 Total .....	.484	.030	3.834	20.140	5.219	25.359	.004	.154	29.866
2011 Total .....	.327	.035	3.555	19.595	5.038	24.633	.019	.178	28.748
2012 Total .....	.212	.028	3.216	19.239	4.122	23.361	.049	.202	27.068
2013 Total .....	.199	.003	2.955	16.957	4.169	21.126	.102	.236	24.623
2014 Total .....	.252	.002	2.763	16.178	3.773	19.951	.046	.227	23.241
2015 Total .....	.256	.003	2.786	16.299	4.111	20.410	.079	.259	23.794
2016 Total .....	.220	.006	3.082	17.392	4.309	21.700	.123	.248	25.378
2017 Total .....	.168	.001	3.109	17.597	4.277	21.874	.081	.224	25.458
2018 Total .....	.122	.003	2.961	17.192	4.309	21.501	.048	.199	24.833
2019 Total .....	.138	.003	2.810	15.045	4.596	19.641	.072	.201	22.865
2020 Total .....	.105	.004	2.615	13.044	3.937	16.980	.074	.210	19.988
2021 January .....	.011	(s)	.291	1.088	.359	1.447	.005	.017	1.772
February .....	.006	(s)	.279	.950	.312	1.262	.005	.014	1.566
March .....	.005	(s)	.245	1.094	.421	1.516	.007	.016	1.788
April .....	.010	(s)	.214	1.059	.397	1.456	.008	.015	1.703
May .....	.010	(s)	.210	1.096	.460	1.556	.006	.016	1.799
June .....	.010	(s)	.213	1.203	.437	1.639	.009	.018	1.890
July .....	.011	(s)	.233	1.203	.404	1.607	.006	.019	1.878
August .....	.007	(s)	.226	1.173	.417	1.590	.006	.016	1.846
September .....	.004	(s)	.226	1.188	.391	1.579	.007	.013	1.829
October .....	.011	(s)	.234	1.123	.362	1.485	.008	.014	1.752
November .....	.009	(s)	.248	1.153	.345	1.498	.008	.010	1.774
December .....	.014	.001	.259	1.209	.356	1.565	.006	.014	1.859
Total .....	.109	.003	2.878	13.539	4.661	18.200	.083	.181	21.455
2022 January .....	.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
Total .....	.135	.002	3.100	13.951	4.052	18.003	.073	.194	21.507
2023 January .....	.010	(s)	.282	1.184	.355	1.539	.008	.015	1.855
February .....	.006	(s)	.250	1.124	.347	1.471	.008	.012	1.746
March .....	.006	(s)	.256	1.188	.323	1.510	.009	.013	1.795
April .....	.009	.001	.226	1.131	.369	1.500	.008	.012	1.756
May .....	.007	(s)	.222	1.220	.346	1.566	.011	.013	1.818
June .....	.006	.001	.237	1.185	.379	1.564	.009	.010	1.828
July .....	.007	.001	.262	1.186	.331	1.517	.008	.011	1.807
August .....	.008	(s)	.253	1.324	.322	1.646	.012	.010	1.928
September .....	.007	(s)	.236	1.212	.310	1.522	.010	.008	1.783
October .....	.009	.001	.237	1.157	.293	1.451	.007	.010	1.714
November .....	.007	.001	.257	1.266	.276	1.541	.011	.011	1.829
11-Month Total .....	.081	.005	2.717	13.177	3.649	16.827	.103	.127	19.860
2022 11-Month Total .....	.129	.002	2.800	12.819	3.714	16.533	.064	.178	19.705
2021 11-Month Total .....	.095	.002	2.619	12.330	4.305	16.635	.077	.168	19.596

^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 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.

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.

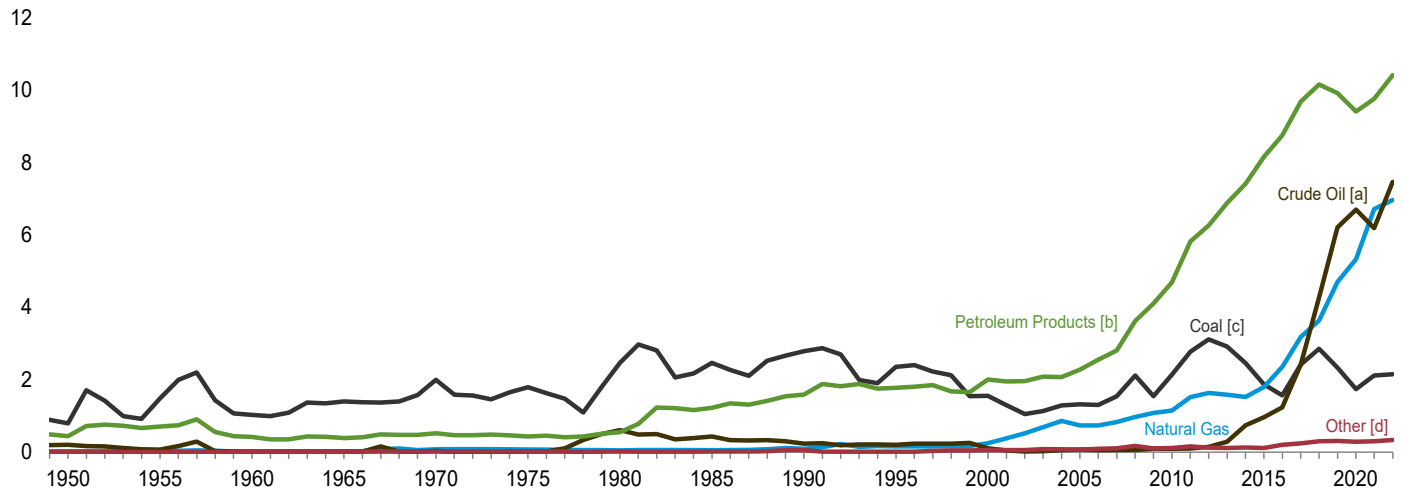
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

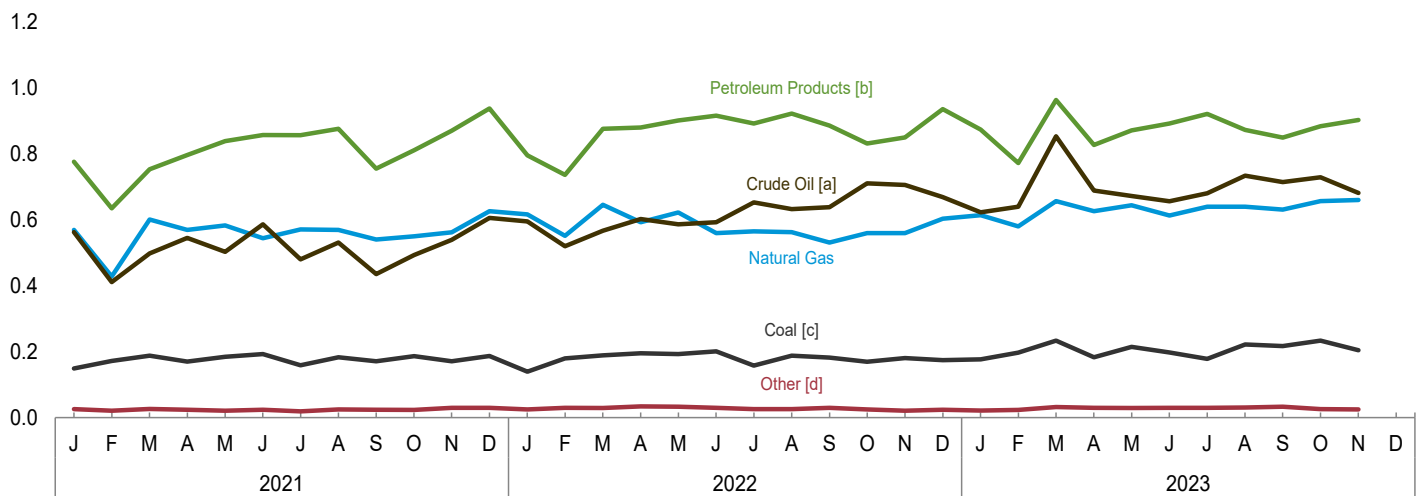
Figure 1.4b Primary Energy Exports

(Quadrillion Btu)

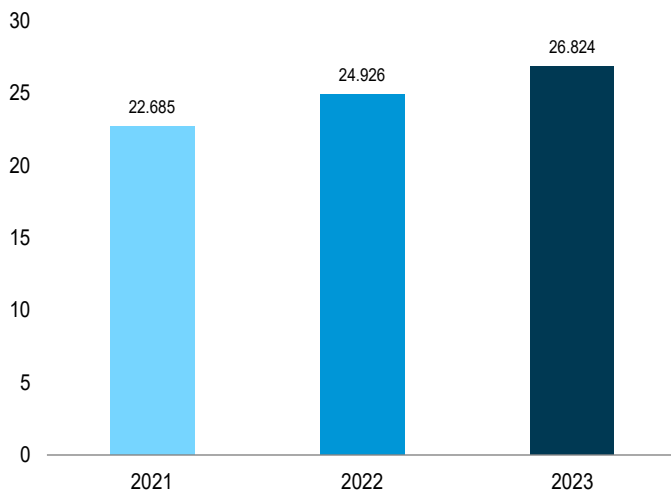
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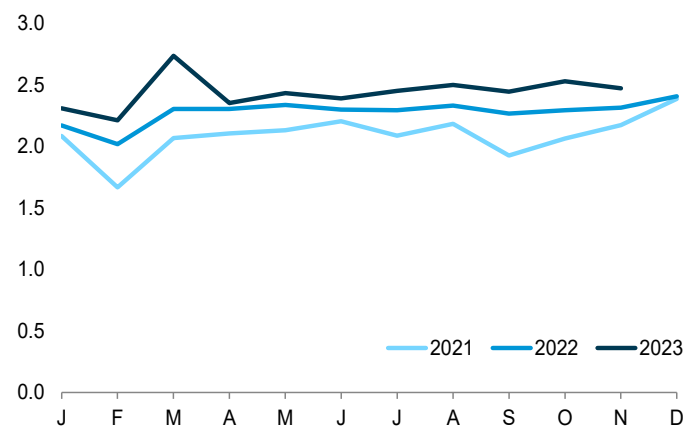
By Source, Monthly



Total, January–November



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 ^c	Electricity	Total
				Crude Oil ^a	Petroleum Products ^b	Total			
1950 Total	0.786	0.010	0.027	0.202	0.440	0.642	NA	0.001	1.465
1955 Total	1.465	.013	.032	.067	.707	.774	NA	.002	2.286
1960 Total	1.023	.009	.012	.018	.413	.431	NA	.003	1.477
1965 Total	1.376	.021	.027	.006	.386	.392	NA	.013	1.829
1970 Total	1.936	.061	.072	.029	.520	.549	NA	.014	2.632
1975 Total	1.761	.032	.074	.012	.427	.439	NA	.017	2.323
1980 Total	2.421	.051	.049	.609	.551	1.160	NA	.014	3.695
1985 Total	2.438	.028	.056	.432	1.225	1.657	NA	.017	4.196
1990 Total	2.772	.014	.087	.230	1.594	1.824	NA	.055	4.752
1995 Total	2.318	.034	.156	.200	1.776	1.976	NA	.012	4.496
2000 Total	1.528	.028	.245	.106	2.003	2.110	NA	.051	3.962
2005 Total	1.273	.043	.735	.067	2.276	2.344	(s)	.065	4.462
2006 Total	1.264	.040	.730	.052	2.554	2.606	(s)	.083	4.727
2007 Total	1.507	.036	.830	.058	2.803	2.861	.036	.069	5.338
2008 Total	2.071	.049	.972	.061	3.626	3.686	.089	.083	6.949
2009 Total	1.515	.032	1.082	.093	4.101	4.194	.035	.062	6.920
2010 Total	2.101	.036	1.147	.088	4.691	4.780	.047	.065	8.176
2011 Total	2.751	.024	1.519	.100	5.820	5.919	.108	.051	10.373
2012 Total	3.087	.024	1.633	.143	6.261	6.404	.078	.041	11.267
2013 Total	2.895	.021	1.587	.284	6.886	7.170	.076	.039	11.788
2014 Total	2.435	.023	1.528	.744	7.414	8.158	.081	.045	12.270
2015 Total	1.852	.021	1.800	.964	8.153	9.118	.080	.031	12.902
2016 Total	1.546	.025	2.356	1.238	8.752	9.990	.181	.021	14.119
2017 Total	2.388	.030	3.182	2.424	9.684	12.108	.206	.032	17.946
2018 Total	2.824	.029	3.640	4.277	10.158	14.434	.249	.047	21.224
2019 Total	2.305	.024	4.700	6.212	9.926	16.139	.240	.068	23.476
2020 Total	1.725	.017	5.332	6.699	9.410	16.108	.234	.048	23.464
2021 January .....	.146	.003	.569	.563	.776	1.339	.023	.003	2.083
February .....	.169	.003	.428	.411	.635	1.046	.017	.004	1.667
March .....	.187	(s)	.601	.498	.753	1.252	.024	.003	2.067
April .....	.166	.004	.569	.545	.796	1.341	.021	.004	2.104
May .....	.181	.004	.583	.503	.838	1.341	.018	.003	2.131
June .....	.186	.006	.544	.586	.857	1.444	.021	.003	2.204
July .....	.156	.003	.571	.480	.856	1.336	.015	.004	2.085
August .....	.178	.005	.569	.531	.876	1.407	.021	.004	2.183
September .....	.165	.006	.540	.435	.755	1.190	.020	.004	1.925
October .....	.182	.004	.550	.493	.811	1.304	.018	.004	2.063
November .....	.165	.005	.562	.539	.870	1.409	.024	.006	2.172
December .....	.180	.008	.626	.606	.937	1.543	.024	.005	2.386
Total	2.061	.052	6.712	6.191	9.761	15.952	.247	.047	25.071
2022 January .....	.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
Total	2.093	.057	6.966	7.468	10.417	17.885	.278	.054	27.332
2023 January .....	.174	.003	.614	.623	.873	1.496	.018	.004	2.309
February .....	.195	.002	.580	.640	.772	1.413	.018	.005	2.212
March .....	.231	.002	.657	.853	.963	1.815	.027	.004	2.736
April .....	.180	.002	.626	.688	.827	1.515	.024	.006	2.353
May .....	.212	.003	.644	.672	.871	1.543	.024	.004	2.431
June .....	.195	.003	.613	.656	.892	1.548	.026	.005	2.389
July .....	.174	.004	.640	.680	.921	1.601	.023	.007	2.450
August .....	.219	.003	.640	.734	.872	1.607	.025	.005	2.499
September .....	.213	.004	.631	.714	.849	1.563	.026	.008	2.444
October .....	.230	.002	.657	.729	.884	1.613	.024	.002	2.529
November .....	.201	.003	.660	.681	.902	1.582	.023	.002	2.472
11-Month Total	2.223	.033	6.963	7.670	9.626	17.296	.257	.053	26.824
2022 11-Month Total	1.924	.052	6.363	6.799	9.481	16.279	.256	.051	24.926
2021 11-Month Total	1.882	.044	6.086	5.585	8.824	14.409	.222	.042	22.685

^a Crude oil and lease condensate.

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

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

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.

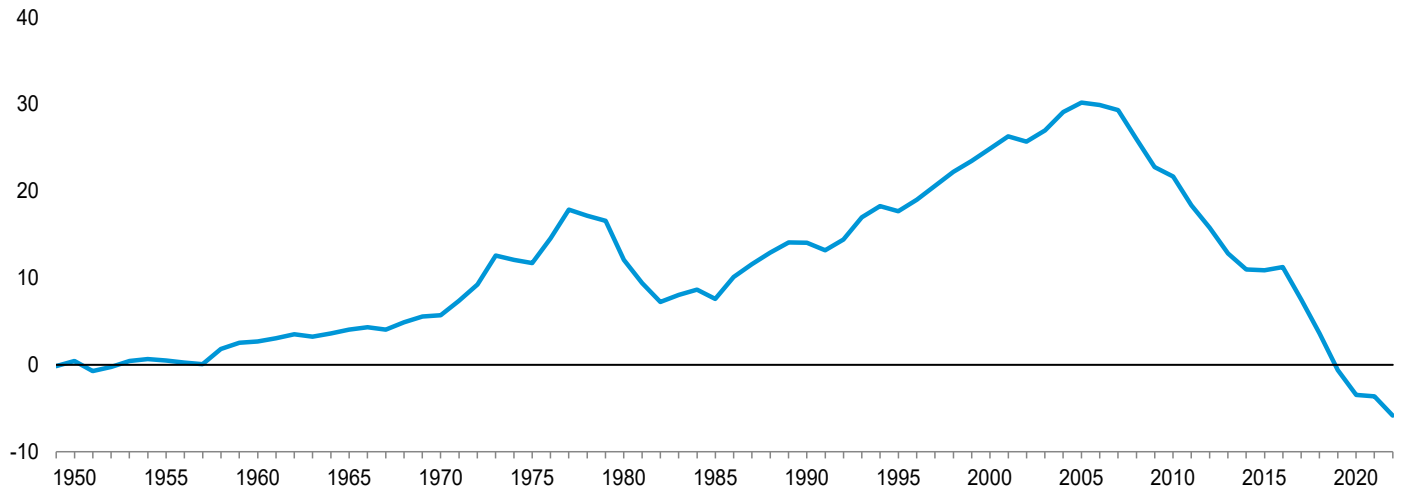
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

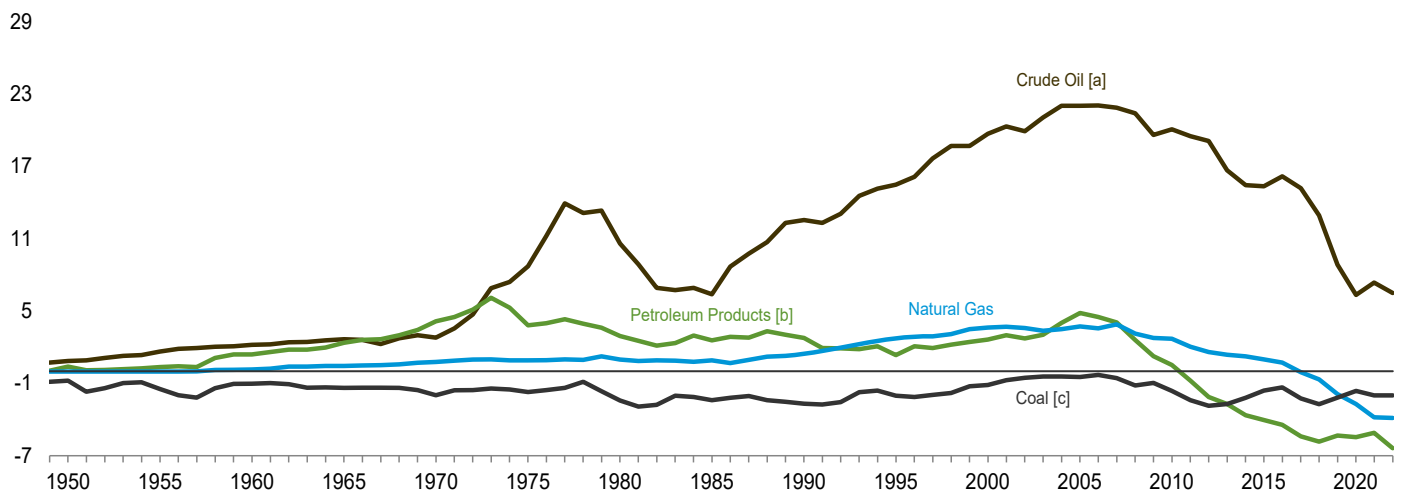
Figure 1.4c Primary Energy Net Imports

(Quadrillion Btu)

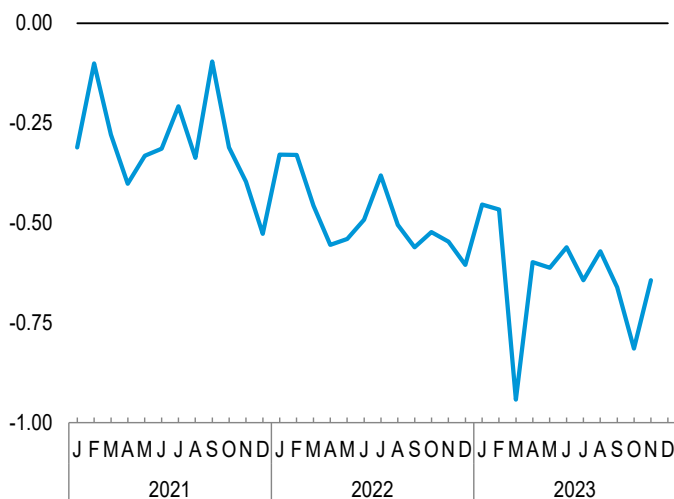
Total, 1949–2022



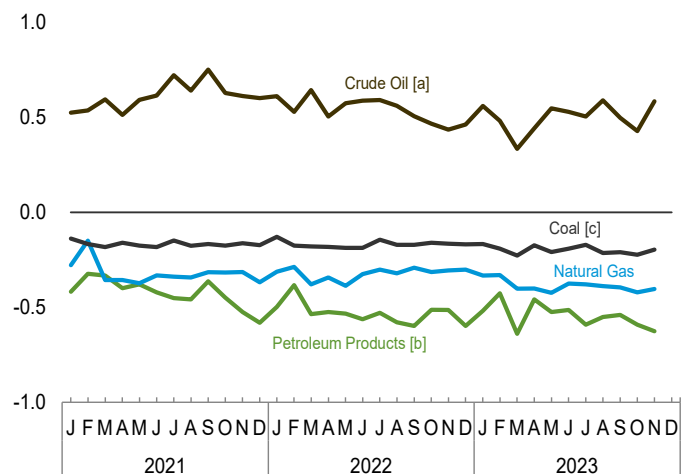
By Major Source, 1949–2022



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 ^a								
	Coal	Coal Coke	Natural Gas	Petroleum			Biomass ^d	Electricity	Total
				Crude Oil ^b	Petroleum Products ^c	Total			
1950 Total	-0.777	0.001	-0.027	0.854	0.390	1.244	NA	0.006	0.448
1955 Total	-1.456	-.010	-.021	1.624	.354	1.978	NA	.014	.504
1960 Total	-1.017	-.006	.149	2.178	1.389	3.568	NA	.015	2.710
1965 Total	-1.372	-.018	.444	2.648	2.362	5.010	NA	(s)	4.063
1970 Total	-1.935	-.058	.774	2.785	4.136	6.921	NA	.007	5.709
1975 Total	-1.738	.014	.904	8.708	3.800	12.508	NA	.021	11.709
1980 Total	-2.391	-.035	.957	10.586	2.912	13.499	NA	.071	12.101
1985 Total	-2.389	-.013	.896	6.381	2.570	8.952	NA	.140	7.584
1990 Total	-2.705	.005	1.464	12.536	2.757	15.293	NA	.008	14.065
1995 Total	-2.081	.061	2.745	15.469	1.355	16.824	NA	.134	17.684
2000 Total	-1.215	.065	3.623	19.676	2.638	22.314	NA	.115	24.904
2005 Total	-.512	.044	3.714	22.023	4.831	26.855	.011	.085	30.197
2006 Total	-.358	.061	3.560	22.032	4.501	26.533	.062	.063	29.921
2007 Total	-.598	.025	3.893	21.855	4.040	25.895	.019	.107	29.341
2008 Total	-1.215	.041	3.112	21.388	2.588	23.976	-.004	.112	26.021
2009 Total	-.949	-.024	2.763	19.606	1.266	20.872	-.009	.116	22.770
2010 Total	-1.617	-.006	2.687	20.052	.528	20.580	-.042	.089	21.690
2011 Total	-2.423	.011	2.036	19.495	-.781	18.714	-.089	.127	18.375
2012 Total	-2.875	.004	1.583	19.096	-2.139	16.957	-.029	.161	15.801
2013 Total	-2.696	-.017	1.369	16.673	-2.717	13.956	.026	.197	12.835
2014 Total	-2.183	-.022	1.235	15.434	-3.641	11.793	-.034	.182	10.971
2015 Total	-1.596	-.018	.986	15.335	-4.042	11.292	-.001	.227	10.892
2016 Total	-1.326	-.019	.725	16.154	-4.443	11.710	-.058	.227	11.259
2017 Total	-2.220	-.029	-.073	15.173	-5.407	9.766	-.124	.192	7.512
2018 Total	-2.702	-.026	-.679	12.915	-5.849	7.066	-.201	.152	3.610
2019 Total	-2.167	-.021	-1.889	8.833	-5.331	3.502	-.168	.133	-.610
2020 Total	-1.620	-.013	-2.717	6.345	-5.473	.872	-.159	.161	-3.476
2021 January	-.135	-.003	-.277	.525	-.418	.108	-.017	.014	-.311
February	-.163	-.003	-.149	.538	-.323	.215	-.012	.010	-.101
March	-.182	(s)	-.356	.596	-.332	.264	-.018	.013	-.279
April	-.155	-.004	-.356	.514	-.399	.115	-.012	.011	-.402
May	-.171	-.004	-.373	.593	-.378	.215	-.012	.013	-.332
June	-.176	-.006	-.331	.616	-.421	.196	-.012	.015	-.314
July	-.145	-.003	-.338	.723	-.452	.271	-.009	.015	-.208
August	-.171	-.005	-.342	.642	-.458	.184	-.015	.012	-.337
September	-.160	-.006	-.315	.753	-.363	.389	-.013	.009	-.096
October	-.171	-.004	-.316	.630	-.449	.181	-.010	.010	-.311
November	-.157	-.005	-.314	.614	-.525	.089	-.016	.004	-.397
December	-.166	-.007	-.368	.603	-.581	.022	-.018	.008	-.527
Total	-1.952	-.049	-3.834	7.348	-5.100	2.248	-.163	.134	-3.616
2022 January	-.124	-.005	-.313	.612	-.497	.115	-.013	.010	-.329
February	-.172	-.002	-.287	.530	-.383	.147	-.022	.006	-.330
March	-.173	-.005	-.379	.644	-.535	.109	-.016	.007	-.457
April	-.175	-.005	-.342	.505	-.524	-.019	-.023	.009	-.555
May	-.177	-.010	-.386	.576	-.533	.043	-.021	.009	-.540
June	-.184	-.004	-.324	.589	-.563	.026	-.021	.015	-.492
July	-.139	-.005	-.301	.592	-.529	.062	-.017	.019	-.381
August	-.167	-.004	-.321	.562	-.579	-.017	-.016	.020	-.505
September	-.166	-.005	-.291	.507	-.598	-.091	-.021	.013	-.561
October	-.156	-.004	-.314	.467	-.512	-.044	-.014	.010	-.523
November	-.163	-.003	-.306	.437	-.514	-.077	-.007	.009	-.547
December	-.163	-.005	-.302	.463	-.598	-.135	-.013	.014	-.605
Total	-1.957	-.056	-3.866	6.483	-6.365	.118	-.205	.141	-5.826
2023 January	-.164	-.003	-.332	.561	-.518	.043	-.010	.011	-.454
February	-.189	-.002	-.330	.483	-.426	.058	-.010	.007	-.466
March	-.225	-.002	-.401	.335	-.640	-.305	-.018	.009	-.942
April	-.171	-.002	-.400	.443	-.458	-.015	-.016	.007	-.598
May	-.205	-.003	-.423	.548	-.525	.023	-.014	.009	-.612
June	-.189	-.002	-.375	.530	-.514	.016	-.016	.006	-.561
July	-.167	-.003	-.378	.506	-.591	-.085	-.015	.004	-.643
August	-.211	-.003	-.388	.590	-.550	.039	-.013	.005	-.571
September	-.206	-.004	-.395	.499	-.539	-.041	-.015	(s)	-.661
October	-.221	-.002	-.420	.428	-.591	-.163	-.016	.008	-.814
November	-.194	-.002	-.403	.585	-.626	-.041	-.012	.009	-.643
11-Month Total	-2.142	-.028	-4.245	5.507	-5.977	-.469	-.154	.074	-6.965
2022 11-Month Total	-1.795	-.050	-3.564	6.020	-5.767	.254	-.192	.127	-5.221
2021 11-Month Total	-1.786	-.042	-3.467	6.744	-4.519	2.226	-.145	.126	-3.089

^a Net imports equal imports minus exports.

^b Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.

^c Petroleum products, unfinished oils, natural gasoline, and gasoline blending components. Does not include biofuels.

^d 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.

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.

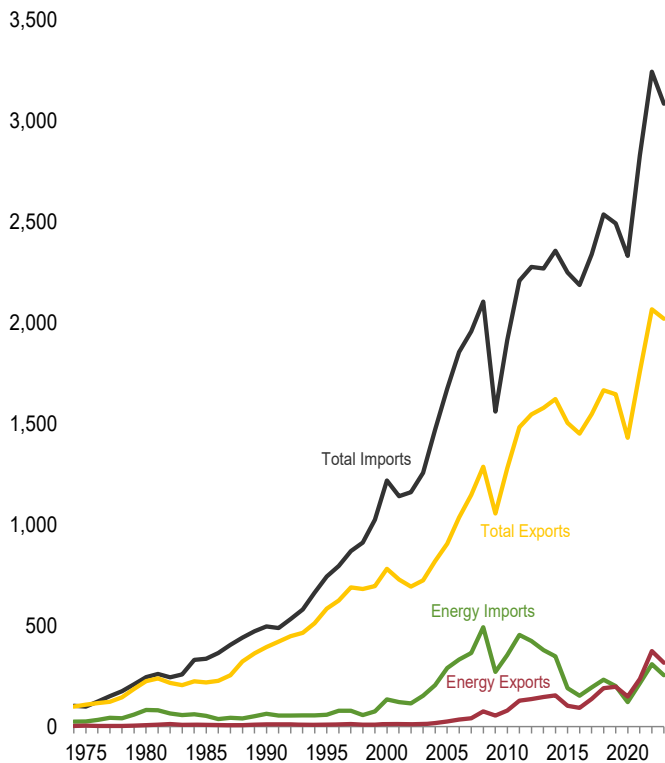
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: Tables 1.4a and 1.4b.

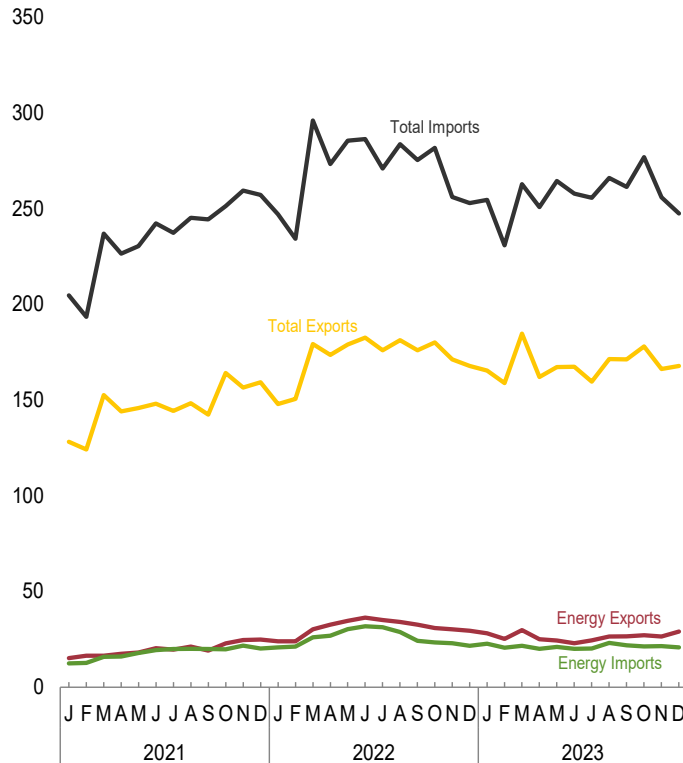
Figure 1.5 Merchandise Trade Value

(Billion Dollars[a])

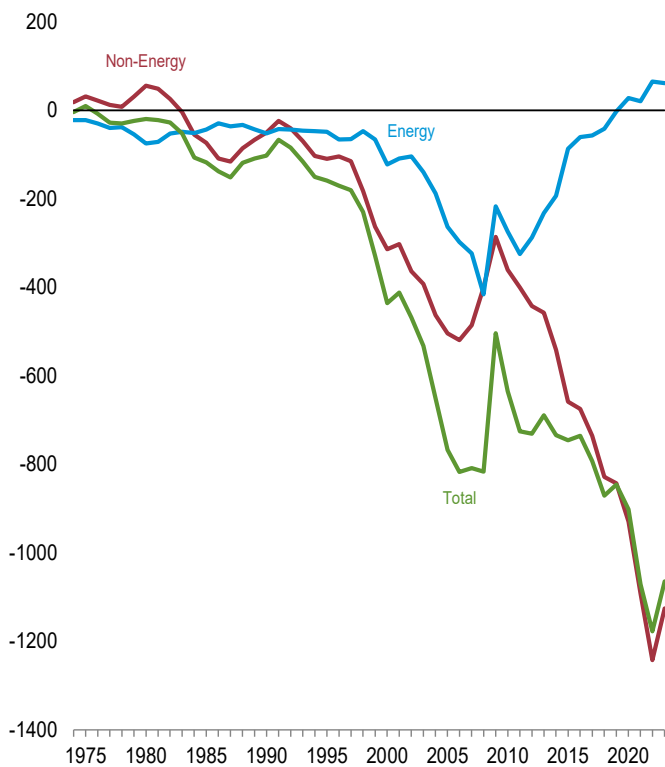
Imports and Exports, 1974–2023



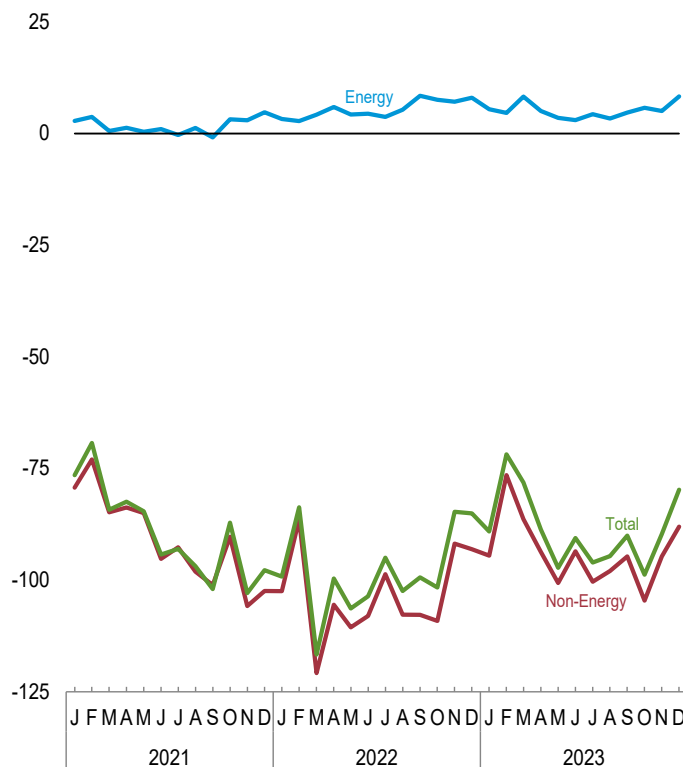
Imports and Exports, Monthly



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^a)

	Petroleum ^b			Energy ^c			Non-Energy Balance	Total Merchandise		
	Exports	Imports	Balance	Exports	Imports	Balance		Exports	Imports	Balance
1974 Total	792	24,668	-23,876	3,444	25,454	-22,010	18,126	99,437	103,321	-3,884
1975 Total	907	25,197	-24,289	4,470	26,476	-22,006	31,557	108,856	99,305	9,551
1980 Total	2,833	78,637	-75,803	7,982	82,924	-74,942	55,246	225,566	245,262	-19,696
1985 Total	4,707	50,475	-45,768	9,971	53,917	-43,946	-73,765	218,815	336,526	-117,712
1990 Total	6,901	61,583	-54,682	12,233	64,661	-52,428	-50,068	393,592	496,088	-102,496
1995 Total	6,321	54,368	-48,047	10,358	59,109	-48,751	-110,050	584,742	743,543	-158,801
2000 Total	8,569	102,663	-94,094	11,541	115,748	-104,207	-364,056	693,103	1,161,366	-468,263
2005 Total	19,155	250,068	-230,913	26,488	289,723	-263,235	-504,242	905,978	1,673,455	-767,477
2006 Total	28,171	299,714	-271,543	34,711	332,500	-297,789	-519,515	1,036,635	1,853,938	-817,304
2007 Total	33,293	327,620	-294,327	41,725	364,987	-323,262	-485,501	1,148,199	1,956,962	-808,763
2008 Total	61,695	449,847	-388,152	76,075	491,885	-415,810	-400,389	1,287,442	2,103,641	-816,199
2009 Total	44,509	251,833	-207,324	54,536	271,739	-217,203	-286,379	1,056,043	1,559,625	-503,582
2010 Total	64,753	333,472	-268,719	80,625	354,982	-274,357	-361,005	1,278,495	1,913,857	-635,362
2011 Total	^b 102,180	^b 431,866	^b 329,686	128,989	453,839	-324,850	-400,597	1,482,508	2,207,954	-725,447
2012 Total	111,949	408,509	-296,560	136,054	423,860	-287,806	-442,640	1,545,821	2,276,267	-730,446
2013 Total	123,244	363,141	-239,897	147,572	379,758	-232,186	-457,284	1,578,517	2,267,987	-689,470
2014 Total	127,818	326,709	-198,891	154,498	347,474	-192,976	-541,506	1,621,874	2,356,356	-734,482
2015 Total	85,890	177,455	-91,565	103,612	190,501	-86,889	-658,594	1,503,328	2,248,811	-745,483
2016 Total	74,921	142,920	-67,999	92,971	153,800	-60,829	-674,497	1,451,460	2,186,786	-735,326
2017 Total	104,975	181,672	-76,697	137,920	194,790	-56,870	-735,526	1,547,195	2,339,591	-792,396
2018 Total	149,715	219,493	-69,778	190,888	232,746	-41,858	-828,500	1,665,787	2,536,145	-870,358
2019 Total	156,390	189,040	-32,650	197,740	200,829	-3,089	-842,670	1,645,940	2,491,700	-845,759
2020 Total	110,373	113,077	-2,704	150,074	122,486	27,588	-929,070	1,429,995	2,331,477	-901,482
2021 January	10,253	11,035	-782	15,160	12,361	2,799	-79,276	128,162	204,639	-76,477
February	8,976	10,724	-1,748	16,376	12,681	3,695	-72,958	124,182	193,445	-69,263
March	10,837	14,708	-3,871	16,491	15,937	554	-84,804	152,671	236,921	-84,250
April	12,062	15,133	-3,071	17,352	16,059	1,293	-83,730	144,018	226,454	-82,437
May	12,779	16,813	-4,034	18,179	17,803	376	-84,966	145,815	230,405	-84,590
June	14,762	18,254	-3,492	20,370	19,390	980	-95,241	148,067	242,329	-94,261
July	13,639	18,564	-4,925	19,578	19,936	-358	-92,670	144,270	237,297	-93,028
August	14,485	18,642	-4,157	21,191	19,994	1,197	-88,107	148,295	245,205	-96,910
September	12,197	18,528	-6,331	19,030	19,934	-904	-101,132	142,339	244,375	-102,036
October	14,754	18,041	-3,287	22,861	19,714	3,147	-90,307	164,138	251,297	-87,159
November	16,105	19,854	-3,749	24,652	21,708	2,944	-105,825	156,533	259,414	-102,881
December	16,600	18,352	-1,752	24,910	20,218	4,692	-102,453	159,332	257,093	-97,761
Total	157,448	198,648	-41,200	236,151	215,734	20,417	-1,091,470	1,757,822	2,828,875	-1,071,053
2022 January	16,213	18,180	-1,967	23,981	20,737	3,244	-102,461	147,848	247,065	-99,217
February	15,898	19,117	-3,219	23,981	21,207	2,774	-86,437	150,555	234,219	-83,663
March	20,953	24,082	-3,129	30,134	25,978	4,156	-120,818	179,314	295,975	-116,662
April	22,813	24,904	-2,091	32,722	26,847	5,875	-105,518	173,534	273,177	-99,643
May	23,559	28,205	-4,646	34,610	30,388	4,222	-110,563	179,048	285,388	-106,341
June	25,009	29,559	-4,550	36,284	31,859	4,425	-108,047	182,663	286,285	-103,622
July	25,364	29,009	-3,645	35,002	31,322	3,680	-98,691	175,897	270,907	-95,011
August	23,183	26,196	-3,013	34,022	28,738	5,284	-107,737	181,182	283,635	-102,453
September	21,934	22,030	-96	32,686	24,256	8,430	-107,793	175,980	275,343	-99,363
October	21,317	21,686	-369	30,853	23,322	7,531	-109,166	180,101	281,737	-101,635
November	21,572	21,006	566	30,149	23,029	7,120	-91,807	171,280	255,967	-84,687
December	20,525	19,334	1,191	29,501	21,516	7,985	-93,060	167,755	252,830	-85,075
Total	258,342	283,306	-24,964	373,924	309,198	64,726	-1,242,099	2,065,157	3,242,530	-1,177,373
2023 January	18,737	20,164	-1,427	28,103	22,703	5,400	-94,496	165,342	254,438	-89,096
February	17,530	17,921	-391	25,213	20,601	4,612	-76,468	158,851	230,707	-71,856
March	21,600	18,959	2,641	29,762	21,517	8,245	-86,381	184,621	262,756	-78,136
April	18,214	18,527	-313	25,019	20,013	5,006	-93,694	162,064	250,752	-88,688
May	17,751	19,804	-2,053	24,398	20,960	3,438	-100,659	167,128	264,349	-97,221
June	17,121	18,991	-1,870	23,032	20,046	2,986	-93,570	167,303	257,887	-90,584
July	18,440	19,049	-609	24,519	20,205	4,314	-100,361	159,619	255,666	-96,047
August	20,088	22,045	-1,957	26,465	23,101	3,364	-97,986	171,405	266,027	-94,622
September	20,215	20,768	-553	26,560	21,927	4,633	-94,667	171,272	261,306	-90,034
October	20,064	20,099	-35	27,109	21,363	5,746	-104,557	178,021	276,832	-98,811
November	19,379	20,265	-886	26,490	21,501	4,989	^R -94,705	^R 166,193	^R 255,909	^R -89,716
December	21,868	19,204	2,664	29,081	20,782	8,299	-88,037	167,724	247,463	-79,738
Total	231,007	235,796	-4,789	315,750	254,718	61,032	-1,125,582	2,019,542	3,084,092	-1,064,550

^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

^b 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.

^c 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

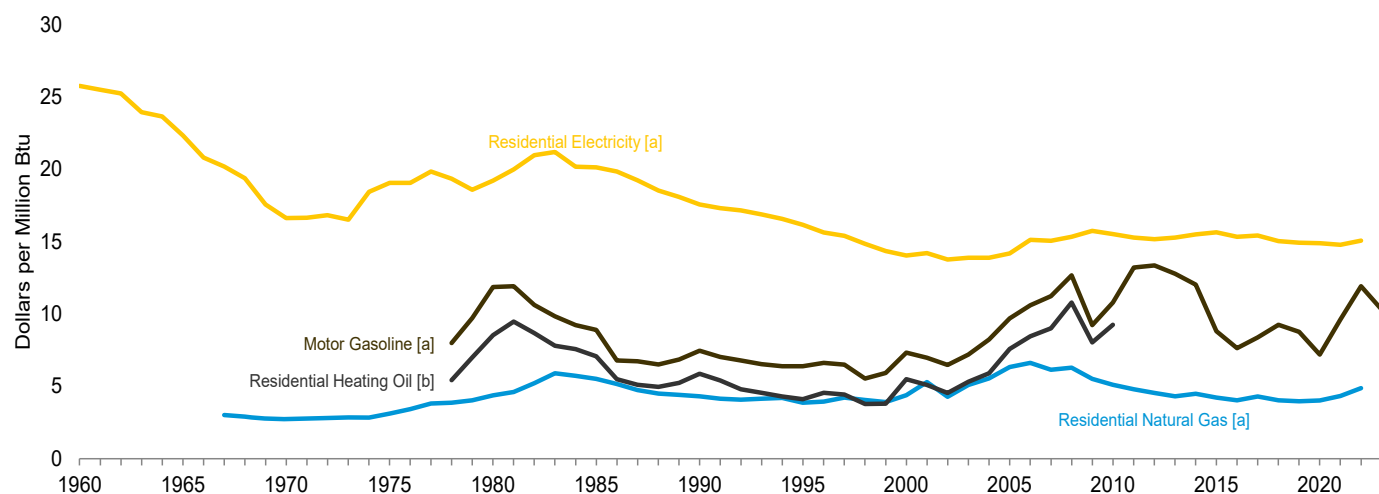
components due to independent rounding. • The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory, which comprises the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands.

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.

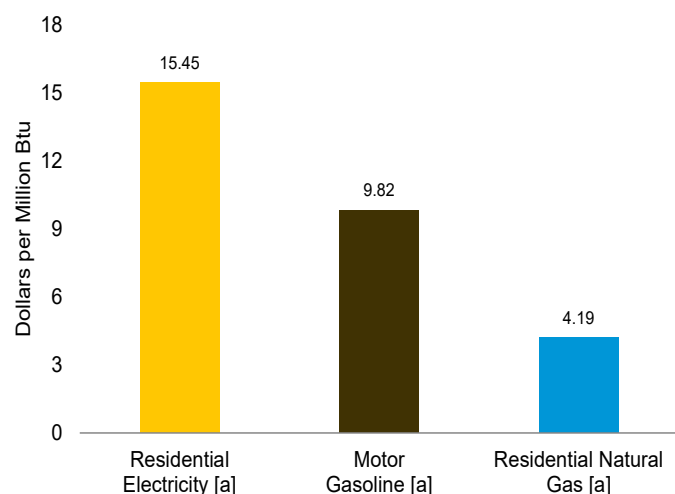
Sources: See end of section.

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

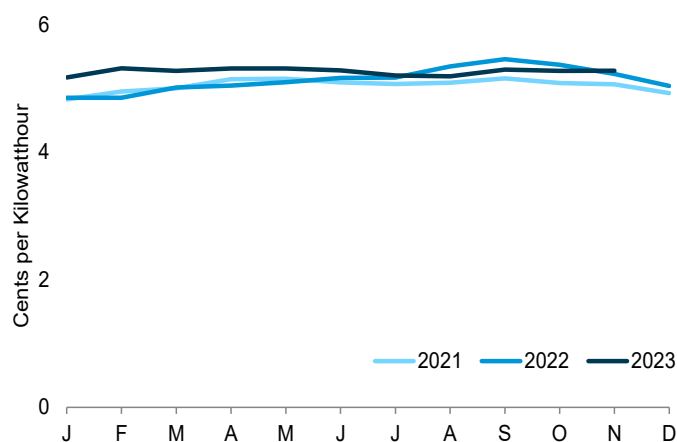
Costs, 1960–2023



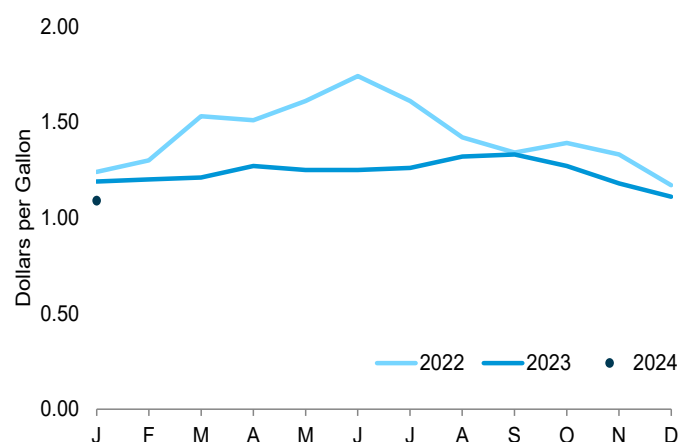
Costs, November 2023



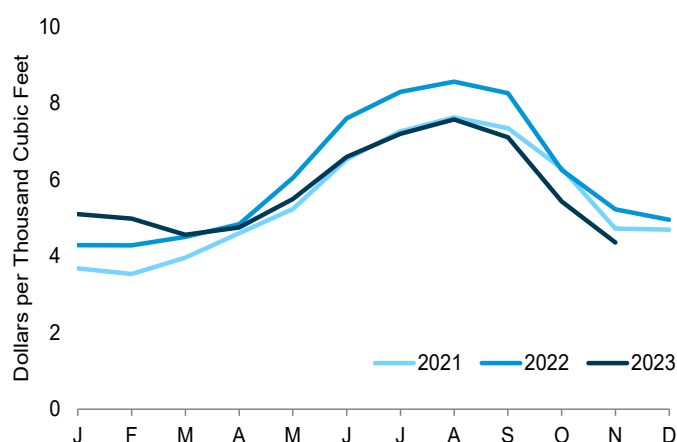
Residential Electricity, [a] Monthly



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 ^a	Motor Gasoline ^b		Residential Heating Oil ^c		Residential Natural Gas ^b		Residential Electricity ^b	
	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 Kilowatt-hour	Dollars per Million Btu
1960 Average	29.6	NA	NA	NA	NA	NA	NA	8.8	25.74
1965 Average	31.5	NA	NA	NA	NA	NA	NA	7.6	22.33
1970 Average	38.8	NA	NA	NA	NA	2.81	2.72	5.7	16.62
1975 Average	53.8	NA	NA	NA	NA	3.18	3.12	6.5	19.07
1980 Average	82.4	1.482	11.85	1.182	8.52	4.47	4.36	6.6	19.21
1985 Average	107.6	1.112	8.89	0.979	7.06	5.69	5.52	6.87	20.13
1990 Average	130.7	0.931	7.44	0.813	5.86	4.44	4.31	5.99	17.56
1995 Average	152.4	0.791	6.38	0.569	4.10	3.98	3.87	5.51	16.15
2000 Average	172.2	0.908	7.33	0.761	5.49	4.51	4.39	4.79	14.02
2001 Average	177.1	0.864	6.98	0.706	5.09	5.44	5.28	4.84	14.20
2002 Average	179.9	0.801	6.47	0.628	4.52	4.39	4.28	4.69	13.75
2003 Average	184.0	0.890	7.19	0.736	5.31	5.23	5.09	4.74	13.89
2004 Average	188.9	1.018	8.23	0.819	5.91	5.69	5.55	4.74	13.89
2005 Average	195.3	1.197	9.68	1.051	7.58	6.50	6.33	4.84	14.18
2006 Average	201.6	1.307	10.59	1.173	8.46	6.81	6.63	5.16	15.12
2007 Average	207.342	1.374	11.22	1.250	9.01	6.31	6.14	5.14	15.05
2008 Average	215.303	1.541	12.67	1.495	10.78	6.45	6.28	5.23	15.33
2009 Average	214.537	1.119	9.23	1.112	8.02	5.66	5.52	5.37	15.72
2010 Average	218.056	1.301	10.78	1.283	9.25	5.22	5.11	5.29	15.51
2011 Average	224.939	1.590	13.19	NA	NA	4.90	4.80	5.21	15.27
2012 Average	229.594	1.609	13.35	NA	NA	4.64	4.53	5.17	15.17
2013 Average	232.957	1.538	12.77	NA	NA	4.43	4.31	5.21	15.26
2014 Average	236.736	1.447	12.01	NA	NA	4.63	4.49	5.29	15.50
2015 Average	237.017	1.059	8.80	NA	NA	4.38	4.22	5.34	15.64
2016 Average	240.007	0.918	7.63	NA	NA	4.19	4.03	5.23	15.33
2017 Average	245.120	1.007	8.37	NA	NA	4.45	4.29	5.26	15.41
2018 Average	251.107	1.113	9.25	NA	NA	4.18	4.03	5.13	15.02
2019 Average	255.657	1.055	8.77	NA	NA	4.11	3.95	5.09	14.91
2020 Average	258.811	0.866	7.20	NA	NA	4.17	4.01	5.08	14.89
2021 January	261.582	0.914	7.60	NA	NA	3.68	3.54	4.82	14.14
February	263.014	0.973	8.09	NA	NA	3.53	3.40	4.95	14.50
March	264.877	1.078	8.97	NA	NA	3.95	3.80	5.00	14.65
April	267.054	1.089	9.05	NA	NA	4.60	4.42	5.14	15.07
May	269.195	1.130	9.40	NA	NA	5.23	5.03	5.15	15.09
June	271.696	1.194	9.93	NA	NA	6.53	6.28	5.09	14.92
July	273.003	1.218	10.13	NA	NA	7.26	6.98	5.07	14.85
August	273.567	1.225	10.19	NA	NA	7.63	7.34	5.09	14.91
September	274.310	1.225	10.19	NA	NA	7.34	7.06	5.15	15.11
October	276.589	1.257	10.46	NA	NA	6.29	6.05	5.08	14.90
November	277.948	1.287	10.70	NA	NA	4.72	4.54	5.06	14.84
December	278.802	1.257	10.46	NA	NA	4.69	4.52	4.92	14.42
Average	270.970	1.156	9.62	NA	NA	4.50	4.33	5.04	14.77
2022 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
Average	292.655	1.432	11.92	NA	NA	5.04	4.86	5.14	15.06
2023 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	15.44
November	307.051	1.180	9.82	NA	NA	R 4.35	R 4.19	R 5.27	R 15.45
December	306.746	1.112	9.25	NA	NA	NA	NA	NA	NA
Average	304.702	1.238	10.29	NA	NA	NA	NA	NA	NA
2024 January	308.417	1.087	9.04	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.

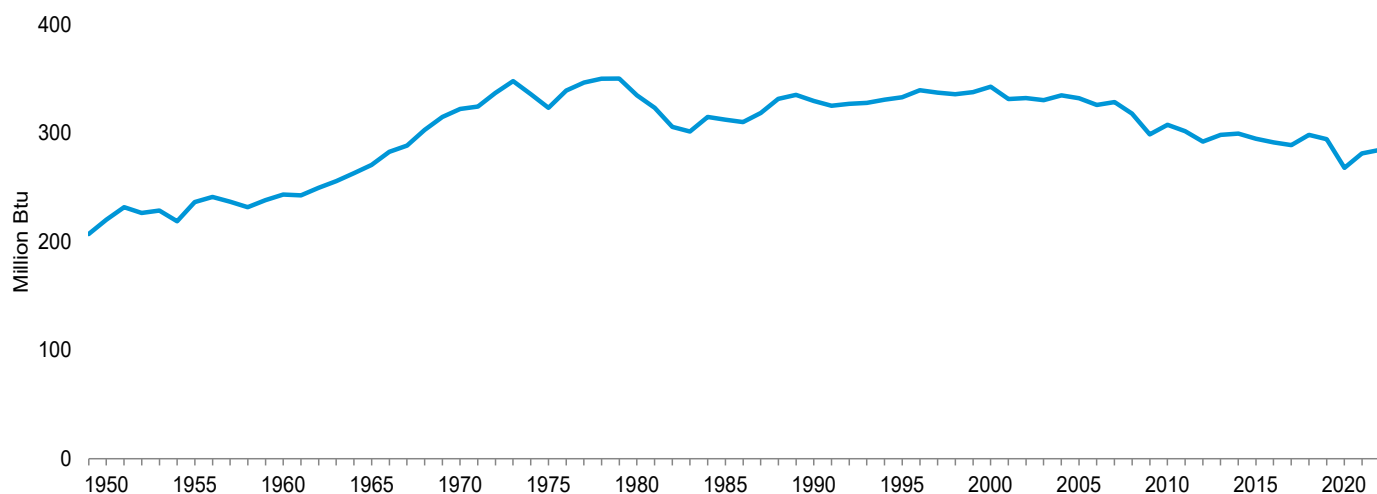
Notes: • See "Real Dollars" in Glossary. • Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. • Annual averages may not equal average of months due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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.

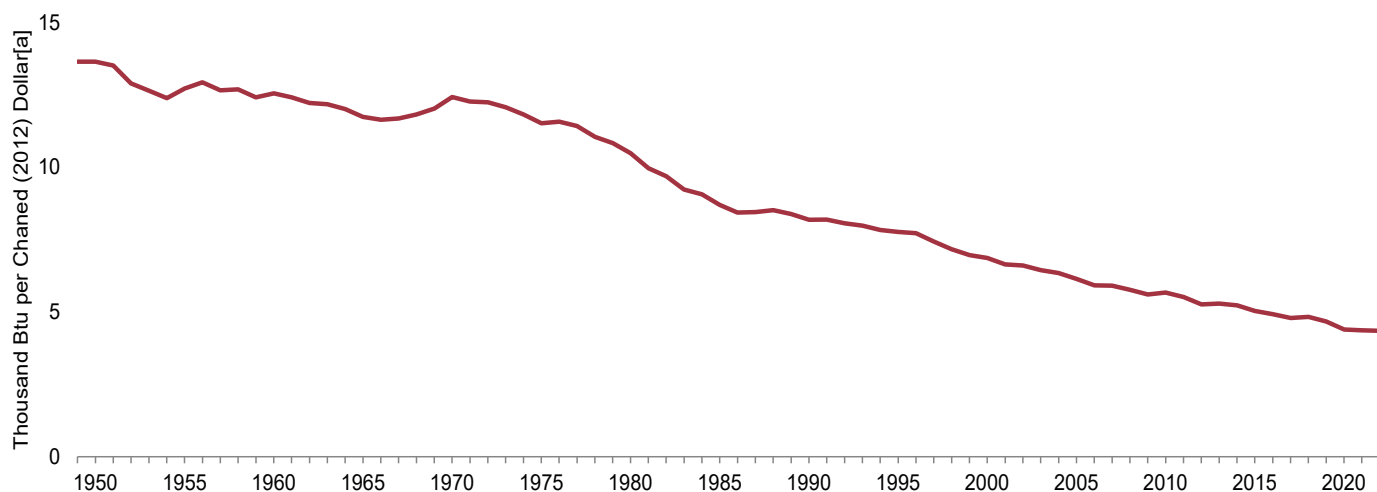
Sources: • **Fuel Prices:** Tables 9.4 (All Grades), 9.8, and 9.10, adjusted by the CPI; and *Monthly Energy Review*, September 2012, Table 9.8c. • **Consumer Price Index, All Urban Consumers:** U.S. Department of Labor, Bureau of Labor Statistics, series ID CUUR0000SA0. • **Conversion Factors:** Tables A1, A3, A4, and A6.

Figure 1.7 Primary Energy Consumption and Energy Expenditures Indicators

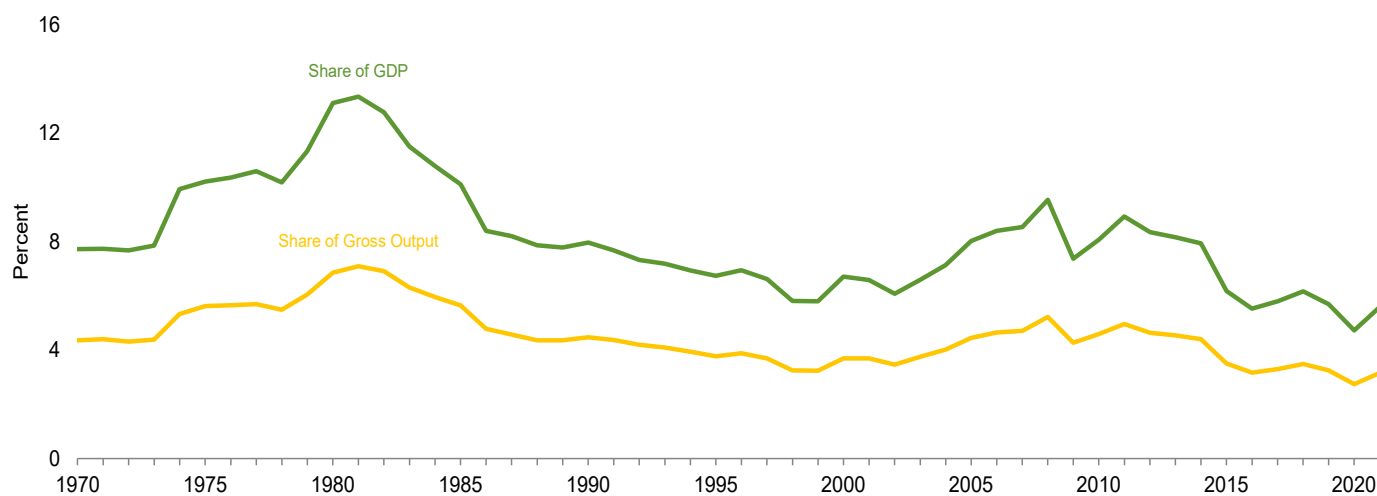
Energy Consumption per Capita, 1949–2022



Primary Energy Consumption per Real Dollar [a] of Gross Domestic Product, 1949–2022



Energy Expenditures as Share of Gross Domestic Product and Gross Output, [b] 1970–2021



[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.

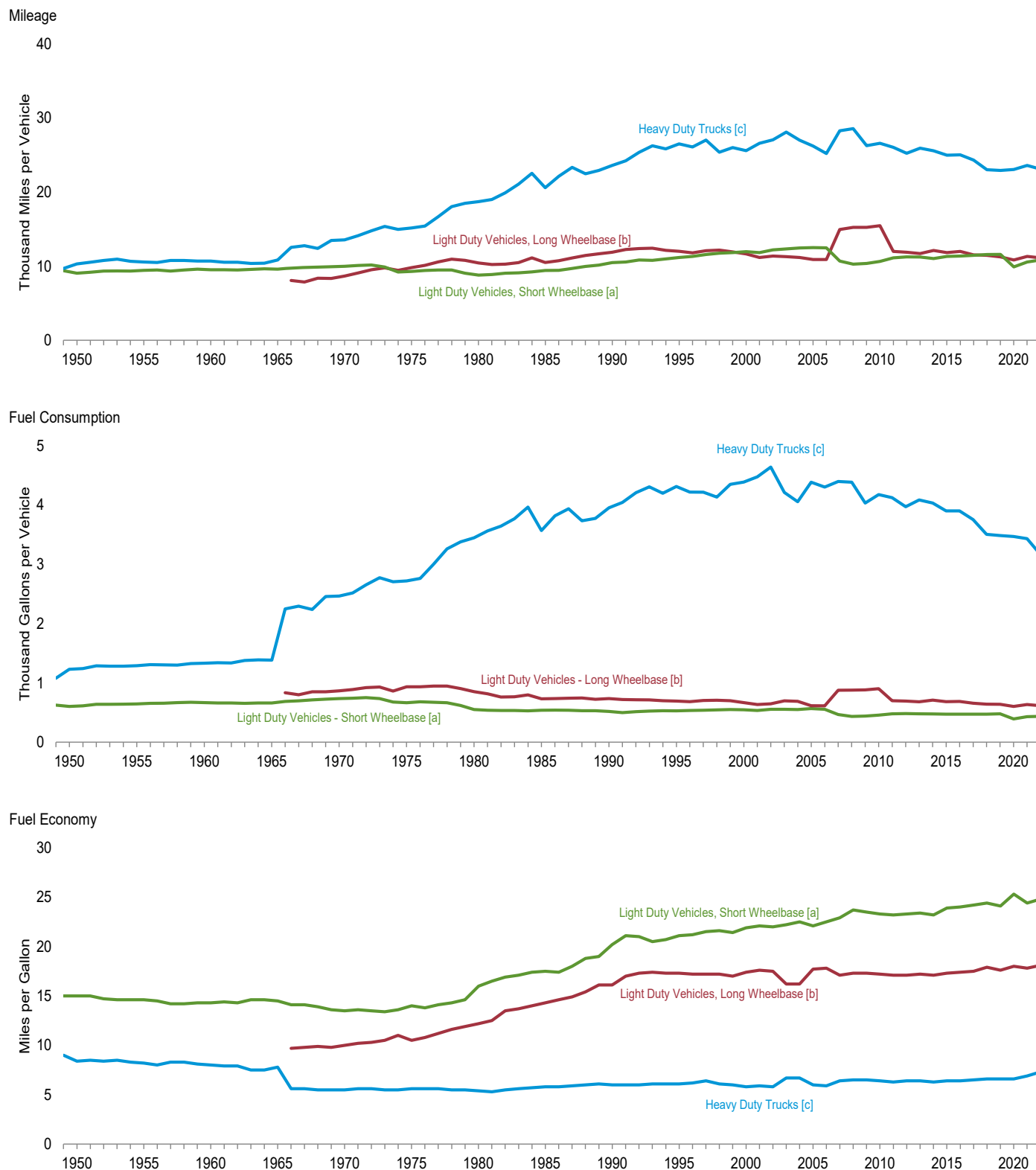
Table 1.7 Primary Energy Consumption, Energy Expenditures, and Carbon Dioxide Emissions Indicators

	Primary Energy Consumption ^a			Energy Expenditures ^b				Carbon Dioxide Emissions ^c		
	Consumption	Consumption per Capita	Consumption per Real Dollar ^d of GDP ^e	Expenditures	Expenditures per Capita	Expenditures as Share of GDP ^e	Expenditures as Share of Gross Output ^f	Emissions	Emissions per Capita	Emissions per Real Dollar ^d of GDP ^e
	Quadrillion Btu	Million Btu	Thousand Btu per Chained (2017) Dollar ^d	Million Nominal Dollars ^g	Nominal Dollars ^g	Percent	Percent	Million Metric Tons Carbon Dioxide	Metric Tons Carbon Dioxide	Metric Tons Carbon Dioxide per Million Chained (2017) Dollars ^d
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	1,392,468	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	1,376,402	4,356	8.2	4.5	5,359	17.0	301
2014	95.335	300	5.22	1,395,430	4,384	7.9	4.4	5,414	17.0	296
2015	94.484	295	5.03	1,128,447	3,519	6.2	3.5	5,262	16.4	280
2016	94.092	291	4.92	1,038,884	3,217	5.5	3.2	5,169	16.0	270
2017	93.902	289	4.79	1,136,379	3,497	5.8	3.3	5,132	15.8	262
2018	97.405	298	4.82	1,271,931	3,893	6.2	3.5	5,278	16.2	261
2019	96.603	294	4.67	1,223,985	3,729	5.7	3.2	5,147	15.7	249
2020	88.852	268	4.39	1,007,785	3,040	4.7	2.7	4,584	13.8	227
2021	93.363	281	4.36	1,317,098	3,967	5.6	3.2	4,905	14.8	229
2022	94.791	284	4.34	NA	NA	NA	NA	4,941	14.8	226

^a See "Primary Energy Consumption" in Glossary.
^b Expenditures include taxes where data are available.
^c Carbon dioxide emissions from energy consumption. See Table 11.1.
^d See "Chained Dollars" and "Real Dollars" in Glossary.
^e See "Gross Domestic Product (GDP)" in Glossary.
^f 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.
^g 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 ET1.
• **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 ^a			Light-Duty Vehicles, Long Wheelbase ^b			Heavy-Duty Trucks ^c			All Motor Vehicles ^d		
	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	^a 10,710	^a 468	^a 22.9	^b 14,970	^b 877	^b 17.1	^c 28,290	^c 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	^R 10,573	^R 433	^R 24.4	^R 11,318	^R 636	^R 17.8	^R 23,601	^R 3,436	^R 6.9	^R 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

^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 1966–2006, 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.

^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 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.

^d Includes buses and motorcycles, which are not separately displayed.

^e Included in "Heavy-Duty Trucks."

R=Revised.

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 Electric and Fuel Cell Electric Light-Duty Vehicles Overview

	Electric Light-Duty Vehicles			Fuel Cell Electric Vehicles ^c	All Light-Duty Vehicles ^d	Electric Vehicle Share of All Light-Duty Vehicles
	Battery Electric Vehicles ^a	Plug-In Hybrid Electric Vehicles ^b	Total			
	Thousands of Registered Vehicles					Percent
2012	29.7	64.7	94.4	0.1	231,872.8	(s)
2013	£ 85.7	£ 108.9	£ 194.7	£ 0.2	£ 237,326.1	£ 0.1
2014	127.4	158.8	286.2	0.1	240,796.6	0.1
2015	£ 194.8	£ 196.7	£ 391.5	£ 0.2	£ 248,926.1	£ 0.2
2016	272.6	239.0	511.7	1.1	251,219.0	0.2
2017	£ 353.3	£ 368.3	£ 721.6	£ 4.6	£ 257,206.5	£ 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

^a See "Battery Electric Vehicle" in Glossary.

^b See "Plug-In Hybrid Electric Vehicle" in Glossary.

^c See "Fuel Cell Electric Vehicle" in Glossary.

^d Includes internal combustion engine vehicles, electric vehicles, and fuel cell electric vehicles.

E=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 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 1.10 Heating Degree Days by Census Division

	New England ^a	Middle Atlantic ^b	East North Central ^c	West North Central ^d	South Atlantic ^e	East South Central ^f	West South Central ^g	Mountain ^h	Pacific ⁱ	United States
1950 Total	6,794	6,326	7,029	7,457	3,491	3,548	2,277	6,342	3,908	5,364
1955 Total	6,874	6,234	6,488	6,914	3,484	3,515	2,295	6,706	4,321	5,244
1960 Total	6,828	6,391	6,909	7,186	3,760	4,136	2,767	6,282	3,801	5,402
1965 Total	7,030	6,395	6,589	6,934	3,354	3,502	2,237	6,088	3,820	5,145
1970 Total	7,023	6,390	6,721	7,092	3,434	3,824	2,561	6,120	3,727	5,216
1975 Total	6,548	5,895	6,408	6,881	2,948	3,439	2,313	6,261	4,118	4,903
1980 Total	7,071	6,480	6,976	6,837	3,357	3,966	2,495	5,556	3,540	5,077
1985 Total	6,751	5,972	6,668	7,264	2,890	3,662	2,536	6,060	3,937	4,888
1990 Total	5,988	5,254	5,780	6,138	2,299	2,943	1,968	5,392	3,605	4,180
1995 Total	6,688	6,094	6,741	6,911	2,981	3,650	2,149	5,102	3,273	4,640
2000 Total	6,626	5,999	6,316	6,502	2,898	3,552	2,154	4,972	3,463	4,493
2005 Total	6,646	5,951	6,223	6,214	2,769	3,381	1,986	4,896	3,380	4,348
2006 Total	5,886	5,213	5,706	5,822	2,470	3,212	1,802	4,916	3,558	4,040
2007 Total	6,539	5,757	6,075	6,385	2,519	3,188	2,105	4,941	3,507	4,268
2008 Total	6,436	5,784	6,679	7,120	2,704	3,601	2,126	5,233	3,567	4,494
2009 Total	6,645	5,924	6,513	6,842	2,806	3,538	2,154	5,140	3,539	4,480
2010 Total	5,935	5,555	6,187	6,566	3,161	3,949	2,450	5,085	3,625	4,463
2011 Total	6,115	5,485	6,174	6,566	2,561	3,344	2,115	5,327	3,821	4,314
2012 Total	5,564	4,973	5,357	5,517	2,302	2,876	1,651	4,583	3,414	3,773
2013 Total	6,427	5,842	6,622	7,136	2,732	3,649	2,326	5,285	3,365	4,472
2014 Total	6,677	6,206	7,196	7,305	2,957	3,933	2,423	4,758	2,775	4,560
2015 Total	6,521	5,777	6,166	6,090	2,493	3,221	2,087	4,616	2,899	4,096
2016 Total	5,929	5,353	5,701	5,788	2,461	3,093	1,752	4,640	3,030	3,889
2017 Total	6,037	5,333	5,684	6,000	2,237	2,834	1,582	4,593	3,186	3,840
2018 Total	6,325	5,784	6,434	6,971	2,634	3,477	2,252	4,830	3,168	4,293
2019 Total	6,538	5,753	6,428	7,078	2,390	3,180	2,145	5,333	3,545	4,320
2020 Total	5,822	5,214	5,854	6,322	2,259	3,063	1,815	4,807	3,215	3,916
2021 January	1,124	1,065	1,147	1,181	579	738	515	875	550	805
February	1,052	1,016	1,249	1,375	485	716	580	780	493	794
March	837	736	690	673	283	338	200	643	524	508
April	520	440	448	478	154	231	102	404	286	308
May	247	215	243	225	56	83	18	221	175	151
June	15	10	14	14	1	1	0	35	28	12
July	13	4	7	8	0	0	0	5	10	5
August	4	2	5	12	0	0	0	23	14	6
September	68	50	57	68	10	20	1	82	53	40
October	279	206	227	295	70	104	32	344	246	180
November	727	708	780	738	378	522	258	491	324	509
December	914	809	880	995	351	414	205	792	634	616
Total	5,799	5,262	5,747	6,061	2,366	3,166	1,911	4,695	3,338	3,934
2022 January	R 1,303	1,242	R 1,391	1,442	R 645	R 847	R 578	R 888	R 549	R 914
February	R 994	R 933	1,084	1,194	412	591	R 498	R 806	R 478	R 712
March	R 841	758	791	R 847	286	388	263	R 608	R 401	R 525
April	544	495	R 567	578	R 156	217	52	R 422	R 337	342
May	187	146	159	185	31	32	4	R 240	R 213	R 122
June	R 53	27	26	30	1	1	0	69	R 56	26
July	3	2	3	9	0	0	0	R 7	10	4
August	R 3	3	14	R 18	0	0	0	R 11	8	6
September	R 108	67	82	84	13	R 23	2	66	31	44
October	386	R 393	R 425	405	177	R 240	66	R 311	R 140	R 258
November	614	R 588	R 695	825	R 267	R 429	R 298	R 770	R 516	R 511
December	R 983	R 980	1,105	1,289	536	R 671	R 439	926	R 627	R 781
Total	R 6,018	R 5,636	R 6,344	R 6,906	2,523	R 3,438	R 2,200	R 5,125	R 3,366	R 4,245
2023 January	R 923	R 846	996	1,184	R 450	577	R 402	961	R 629	715
February	938	R 815	R 881	1,031	306	414	R 329	R 825	R 591	621
March	R 849	R 797	R 850	955	R 302	398	R 199	R 772	R 606	585
April	466	R 368	R 442	R 488	R 117	188	85	R 445	R 355	R 297
May	R 284	R 244	R 216	145	65	63	6	181	R 192	145
June	67	R 44	43	23	R 9	6	0	101	R 106	R 43
July	1	1	7	17	0	0	0	11	R 12	5
August	R 25	13	R 21	17	0	0	0	19	10	10
September	64	R 59	68	R 59	R 10	14	1	98	R 74	46
October	286	R 275	R 339	R 362	110	R 147	47	R 317	R 173	R 207
November	788	717	736	746	325	415	254	573	386	505
11-Month Total ...	4,692	4,179	4,597	5,026	1,692	2,221	1,323	4,301	3,134	3,177
2022 11-Month Total ...	5,036	4,655	5,239	5,617	1,987	2,767	1,761	4,199	2,739	3,464
2021 11-Month Total ...	4,885	4,452	4,867	5,066	2,015	2,752	1,707	3,902	2,704	3,319

^a Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

^b New Jersey, New York, and Pennsylvania.

^c Illinois, Indiana, Michigan, Ohio, and Wisconsin.

^d Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

^e Delaware, Florida, Georgia, Maryland (and the District of Columbia), North Carolina, South Carolina, Virginia, and West Virginia.

^f Alabama, Kentucky, Mississippi, and Tennessee.

^g Arkansas, Louisiana, Oklahoma, and Texas.

^h Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

ⁱ 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.

Table 1.11 Cooling Degree Days by Census Division

	New England ^a	Middle Atlantic ^b	East North Central ^c	West North Central ^d	South Atlantic ^e	East South Central ^f	West South Central ^g	Mountain ^h	Pacific ⁱ	United States
1950 Total	296	401	505	646	1,429	1,420	2,281	681	628	872
1955 Total	531	761	922	1,138	1,647	1,673	2,506	779	556	1,145
1960 Total	318	486	626	870	1,599	1,531	2,366	973	795	1,002
1965 Total	310	498	617	831	1,626	1,551	2,460	779	576	980
1970 Total	423	615	746	979	1,759	1,571	2,282	970	732	1,081
1975 Total	422	583	720	937	1,805	1,440	2,161	903	596	1,051
1980 Total	439	679	769	1,158	1,925	1,753	2,651	1,071	652	1,216
1985 Total	324	509	601	780	1,885	1,521	2,519	1,095	759	1,122
1990 Total	429	561	602	912	2,061	1,562	2,526	1,211	835	1,200
1995 Total	471	703	877	927	2,033	1,613	2,398	1,213	791	1,261
2000 Total	278	458	630	983	1,928	1,673	2,773	1,479	772	1,232
2005 Total	598	892	944	1,063	2,102	1,675	2,646	1,372	777	1,389
2006 Total	484	693	733	1,033	2,056	1,647	2,786	1,465	920	1,360
2007 Total	445	693	881	1,102	2,222	1,892	2,477	1,562	828	1,392
2008 Total	462	666	683	818	1,998	1,537	2,500	1,385	917	1,283
2009 Total	349	523	534	698	2,032	1,479	2,588	1,392	894	1,241
2010 Total	634	908	963	1,095	2,274	1,975	2,756	1,356	674	1,456
2011 Total	553	835	858	1,074	2,263	1,727	3,112	1,447	734	1,469
2012 Total	563	815	974	1,221	2,166	1,761	2,914	1,567	918	1,493
2013 Total	540	681	689	891	2,005	1,440	2,535	1,456	891	1,304
2014 Total	419	596	610	812	2,005	1,493	2,474	1,423	1,070	1,295
2015 Total	555	804	729	941	2,401	1,718	2,740	1,469	1,069	1,484
2016 Total	626	887	958	1,072	2,409	1,957	2,882	1,485	930	1,553
2017 Total	450	661	709	910	2,250	1,585	2,718	1,534	1,055	1,422
2018 Total	667	885	972	1,133	2,414	1,929	2,856	1,558	1,005	1,579
2019 Total	535	783	831	951	2,508	1,886	2,758	1,383	843	1,495
2020 Total	644	844	831	964	2,338	1,637	2,735	1,665	1,071	1,518
2021 January	0	0	0	0	30	5	15	0	10	10
February	0	0	0	0	50	1	4	3	7	12
March	0	0	2	8	73	34	70	7	8	28
April	0	0	0	3	81	17	84	59	24	36
May	8	17	35	43	188	108	229	126	51	100
June	133	165	215	267	347	306	457	347	175	274
July	159	250	238	302	437	397	514	417	296	347
August	238	286	285	300	456	410	555	331	252	357
September	60	94	105	147	280	207	401	222	158	200
October	7	23	29	22	178	98	209	45	27	84
November	0	0	0	0	41	2	31	24	25	18
December	0	0	0	1	66	25	75	0	8	26
Total	604	837	911	1,093	2,226	1,611	2,644	1,582	1,040	1,492
2022 January	0	0	0	0	28	3	9	R 0	9	R 8
February	0	0	0	0	45	3	5	2	7	11
March	0	0	1	3	R 84	22	41	R 13	14	27
April	0	0	0	2	R 98	25	R 158	R 52	23	49
May	18	40	79	R 72	R 240	206	R 386	R 127	R 42	147
June	63	114	R 177	232	R 376	R 367	R 554	R 290	R 146	R 270
July	R 260	R 311	264	R 338	R 482	480	R 682	R 431	R 247	394
August	273	R 302	219	276	440	R 385	R 583	R 358	R 297	R 359
September	33	72	R 74	121	R 278	R 200	R 404	R 245	R 222	R 202
October	0	1	2	R 7	R 107	29	R 131	R 67	R 59	55
November	0	0	0	0	88	5	R 26	R 1	11	23
December	0	0	0	0	R 37	3	13	0	9	11
Total	647	R 838	R 816	R 1,050	R 2,303	R 1,728	R 2,992	R 1,586	R 1,088	R 1,556
2023 January	0	0	0	0	49	19	R 35	0	8	17
February	0	0	0	0	70	17	27	0	8	20
March	0	0	0	1	84	27	R 88	3	10	32
April	0	0	1	5	R 117	R 30	R 94	R 41	17	44
May	4	12	R 48	89	176	R 142	R 292	R 117	R 34	109
June	49	78	R 130	R 226	R 294	R 271	R 515	194	R 59	210
July	R 274	R 306	283	R 247	489	430	R 648	462	R 276	390
August	R 134	R 190	187	R 280	462	418	R 709	364	R 242	349
September	R 59	R 80	88	146	R 290	R 246	R 507	205	R 94	203
October	5	10	10	14	R 138	66	R 171	R 87	55	73
November	0	0	0	0	65	4	29	13	14	20
11-Month Total ...	525	676	710	1,042	2,235	1,671	3,115	1,487	817	1,467
2022 11-Month Total ...	647	838	816	1,050	2,265	1,725	2,979	1,586	1,079	1,545
2021 11-Month Total ...	604	837	911	1,092	2,160	1,586	2,570	1,582	1,032	1,466

^a Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

^b New Jersey, New York, and Pennsylvania.

^c Illinois, Indiana, Michigan, Ohio, and Wisconsin.

^d Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

^e Delaware, Florida, Georgia, Maryland (and the District of Columbia), North Carolina, South Carolina, Virginia, and West Virginia.

^f Alabama, Kentucky, Mississippi, and Tennessee.

^g Arkansas, Louisiana, Oklahoma, and Texas.

^h Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

ⁱ 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. 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.

Table 1.12a Non-Combustion Use of Fossil Fuels in Physical Units

	Coal	Natural Gas	Petroleum							
			Asphalt and Road Oil	Hydrocarbon Gas Liquids ^a	Lubricants	Petro-chemical Feedstocks ^b	Petroleum Coke	Special Naphthas	Other ^c	Total
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels per Day							
1973 Total	3,523	898	522	684	162	356	45	88	88	1,945
1975 Total	3,105	761	419	654	137	320	43	75	122	1,770
1980 Total	2,612	759	396	890	159	692	41	100	143	2,422
1985 Total	1,536	642	425	982	145	395	46	83	95	2,173
1990 Total	758	675	483	1,071	164	546	57	56	85	2,462
1995 Total	921	868	486	1,357	156	590	58	37	70	2,754
1996 Total	884	896	484	1,413	151	592	60	39	70	2,809
1997 Total	842	909	505	1,447	160	686	58	38	72	2,966
1998 Total	656	938	521	1,441	168	690	84	56	83	3,043
1999 Total	654	906	547	1,578	169	651	92	76	77	3,190
2000 Total	937	836	512	1,474	151	628	100	53	85	3,003
2005 Total	929	761	546	1,369	141	729	106	33	75	2,997
2006 Total	562	573	521	1,424	137	726	111	37	86	3,041
2007 Total	556	587	494	1,444	142	664	108	41	82	2,974
2008 Total	541	597	417	1,279	131	574	103	44	85	2,634
2009 Total	375	513	360	1,401	118	507	95	24	85	2,591
2010 Total	719	654	362	1,597	131	539	42	14	89	2,773
2011 Total	730	680	355	1,639	125	520	40	12	91	2,781
2012 Total	707	706	340	1,747	114	444	43	8	88	2,785
2013 Total	732	721	323	1,870	121	448	40	52	93	2,948
2014 Total	562	725	327	1,780	126	410	20	55	97	2,817
2015 Total	520	703	343	1,918	138	378	21	52	99	2,948
2016 Total	435	727	351	1,943	130	371	20	49	100	2,966
2017 Total	463	746	351	2,023	121	394	19	52	103	3,062
2018 Total	531	1,118	327	2,309	117	393	22	48	103	3,320
2019 Total	520	1,114	348	2,342	113	349	21	50	94	3,318
2020 Total	418	1,051	343	2,479	102	329	17	45	88	3,403
2021 January	43	103	239	2,775	114	325	18	44	80	3,594
February	39	90	206	1,867	110	256	8	29	80	2,556
March	44	92	275	2,282	97	301	17	38	81	3,092
April	43	88	345	2,538	108	349	14	51	91	3,495
May	44	85	388	2,787	107	380	25	51	91	3,828
June	43	81	512	2,822	113	371	22	41	88	3,969
July	43	84	473	2,764	109	361	14	43	96	3,861
August	43	85	492	2,815	97	356	23	39	90	3,913
September	41	82	473	2,730	94	348	18	46	94	3,803
October	43	88	453	2,741	104	298	16	46	90	3,747
November	42	95	364	2,649	112	320	17	38	99	3,599
December	42	101	221	2,987	96	362	24	42	102	3,834
Total	509	1,074	371	2,652	105	336	18	42	90	3,615
2022 January	41	108	243	R 2,863	125	237	16	41	98	3,624
February	38	95	264	R 2,711	114	203	15	49	107	R 3,463
March	41	99	272	R 2,801	139	249	17	53	95	3,625
April	38	92	335	R 2,664	123	267	16	45	94	3,544
May	39	88	401	2,603	112	276	13	37	91	3,533
June	37	83	493	2,847	93	236	15	48	103	R 3,834
July	39	84	465	2,953	46	266	27	51	99	3,907
August	39	85	510	2,608	134	252	20	69	98	3,691
September	37	83	472	2,697	99	233	18	52	99	3,670
October	40	89	453	R 2,647	130	252	12	45	92	R 3,631
November	37	94	369	R 2,619	107	228	21	34	94	R 3,472
December	38	99	256	R 2,352	105	243	14	34	93	R 3,096
Total	464	1,100	378	2,697	111	246	17	47	97	3,592
2023 January	39	100	231	R 2,543	117	268	8	47	85	3,298
February	37	92	239	R 2,522	112	221	16	36	93	3,239
March	41	98	258	2,539	57	220	22	48	95	3,240
April	37	92	328	R 2,751	84	302	23	48	87	3,624
May	38	88	406	2,898	97	294	16	39	89	3,840
June	37	83	472	2,968	95	228	13	45	92	R 3,913
July	39	85	461	2,993	94	258	8	55	99	3,968
August	39	88	512	2,769	74	240	22	44	90	3,751
September	38	85	476	2,740	81	226	28	45	101	3,697
October	40	91	451	2,930	94	225	18	58	88	3,864
November	36	96	331	3,000	55	259	33	52	88	3,817
11-Month Total ..	420	996	380	2,788	87	249	19	47	92	3,662
2022 11-Month Total ..	426	1,001	390	2,729	111	246	17	48	97	3,638
2021 11-Month Total ..	468	974	385	2,621	106	334	18	42	89	3,595

^a Ethane, propane, normal butane, isobutane, natural gasoline, and refinery olefins (ethylene, propylene, butylene, and isobutylene).

^b Includes still gas not burned as refinery fuel.

^c 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 2, "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 2, "Non-Combustion Use of Fossil Fuels," at end of section.

Table 1.12b 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 ^a	Lubri-cants	Petro-chemical Feed-stocks ^b	Petro-leum Coke	Special Naphthas	Other ^c	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
1996 Total .....	.028	.921	1.176	1.779	.335	1.209	.126	.075	.146	4.846	5.795	6.3
1997 Total .....	.027	.933	1.224	1.821	.354	1.400	.121	.072	.150	5.142	6.102	6.6
1998 Total .....	.021	.969	1.263	1.819	.371	1.403	.176	.107	.174	5.312	6.302	6.8
1999 Total .....	.021	.932	1.324	1.989	.375	1.329	.192	.145	.161	5.516	6.469	6.9
2000 Total .....	.030	.856	1.240	1.831	.334	1.272	.209	.102	.178	5.167	6.054	6.3
2005 Total .....	.030	.782	1.323	1.701	.312	1.474	.221	.063	.157	5.250	6.062	6.2
2006 Total .....	.018	.589	1.261	1.754	.303	1.477	.232	.070	.180	5.278	5.885	6.1
2007 Total .....	.018	.603	1.197	1.768	.313	1.351	.225	.078	.173	5.106	5.726	5.8
2008 Total .....	.017	.613	1.012	1.564	.291	1.172	.216	.085	.180	4.520	5.150	5.3
2009 Total .....	.012	.526	.873	1.676	.262	1.031	.199	.046	.179	4.265	4.804	5.2
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 January .....	.001	.107	.049	.277	.022	.056	.003	.007	.014	.428	.537	6.3
February .....	.001	.094	.038	.166	.019	.040	.001	.004	.013	.282	.377	4.8
March .....	.001	.096	.057	.227	.018	.052	.003	.006	.015	.378	.475	6.2
April .....	.001	.092	.069	.239	.020	.058	.002	.008	.016	.411	.504	7.1
May .....	.001	.088	.080	.275	.020	.066	.004	.008	.016	.470	.560	7.7
June .....	.001	.084	.102	.273	.021	.062	.004	.007	.015	.483	.569	7.4
July .....	.001	.087	.097	.276	.021	.062	.003	.007	.017	.482	.571	7.1
August .....	.001	.088	.101	.281	.018	.062	.004	.006	.016	.489	.578	7.1
September .....	.001	.085	.094	.263	.017	.058	.003	.007	.016	.459	.545	7.4
October .....	.001	.091	.093	.268	.019	.052	.003	.007	.016	.459	.551	7.4
November .....	.001	.099	.072	.248	.020	.053	.003	.006	.017	.421	.521	6.7
December .....	.001	.105	.046	.291	.018	.062	.004	.007	.018	.447	.553	6.6
Total .....	.016	1.116	.898	3.084	.233	.684	.038	.081	.190	5.208	6.340	6.8
2022 January .....	.001	.112	.050	.272	.024	.041	.003	.007	.017	.413	.526	5.8
February .....	.001	.099	.049	.232	.019	.031	.002	.007	.017	.359	.459	5.7
March .....	.001	.103	.056	.268	.026	.043	.003	.009	.017	.421	.525	6.5
April .....	.001	.095	.067	.243	.022	.045	.003	.007	.016	.403	.500	6.9
May .....	.001	.091	.083	.247	.021	.048	.002	.006	.016	.423	.516	6.9
June .....	.001	.087	.098	.264	.017	.040	.003	.008	.018	.446	.534	7.0
July .....	.001	.087	.096	.283	.009	.046	.005	.008	.018	.464	.552	6.8
August .....	.001	.088	.105	.253	.025	.044	.003	.011	.018	.460	.549	6.8
September .....	.001	.086	.094	.251	.018	.039	.003	.008	.017	.431	.519	7.0
October .....	.001	.092	.093	.251	.024	.044	.002	.007	.016	.439	.533	7.2
November .....	.001	.098	.073	.242	.020	.038	.004	.005	.016	.398	.497	6.4
December .....	.001	.103	.053	.221	.020	.042	.003	.005	.017	.360	.464	5.4
Total .....	.015	1.141	.916	3.027	.245	.501	.035	.089	.204	5.017	6.174	6.5
2023 January .....	.001	.103	.048	.241	.022	.046	.001	.008	.015	.382	.486	5.8
February .....	.001	.095	.044	.211	.019	.035	.003	.005	.015	.332	.429	5.7
March .....	.001	.101	.053	.238	.011	.038	.004	.008	.017	.369	.472	5.8
April .....	.001	.096	.065	.251	.015	.051	.004	.008	.015	.409	.507	7.1
May .....	.001	.091	.084	.275	.018	.051	.003	.006	.016	.453	.545	7.4
June .....	.001	.086	.094	.275	.017	.038	.002	.007	.016	.450	.537	7.2
July .....	.001	.088	.095	.288	.018	.045	.001	.009	.018	.473	.562	7.0
August .....	.001	.091	.105	.266	.014	.042	.004	.007	.016	.454	.547	6.6
September .....	.001	.088	.095	.255	.015	.037	.005	.007	.018	.431	.520	7.0
October .....	.001	.095	.093	.283	.018	.039	.003	.009	.016	.461	.557	7.4
November .....	.001	.100	.066	.281	.010	.043	.006	.008	.015	.429	.530	6.7
11-Month Total ..	.013	1.034	.841	2.865	.177	.465	.036	.083	.177	4.644	5.691	6.7
2022 11-Month Total ..	.014	1.039	.863	2.805	.225	.459	.033	.084	.188	4.657	5.710	6.6
2021 11-Month Total ..	.015	1.012	.853	2.792	.214	.621	.033	.074	.172	4.761	5.787	6.8

^a Ethane, propane, normal butane, isobutane, natural gasoline, and refinery olefins (ethylene, propylene, butylene, and isobutylene).

^b Includes still gas not burned as refinery fuel.

^c 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 2, "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 2, "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. 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.

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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