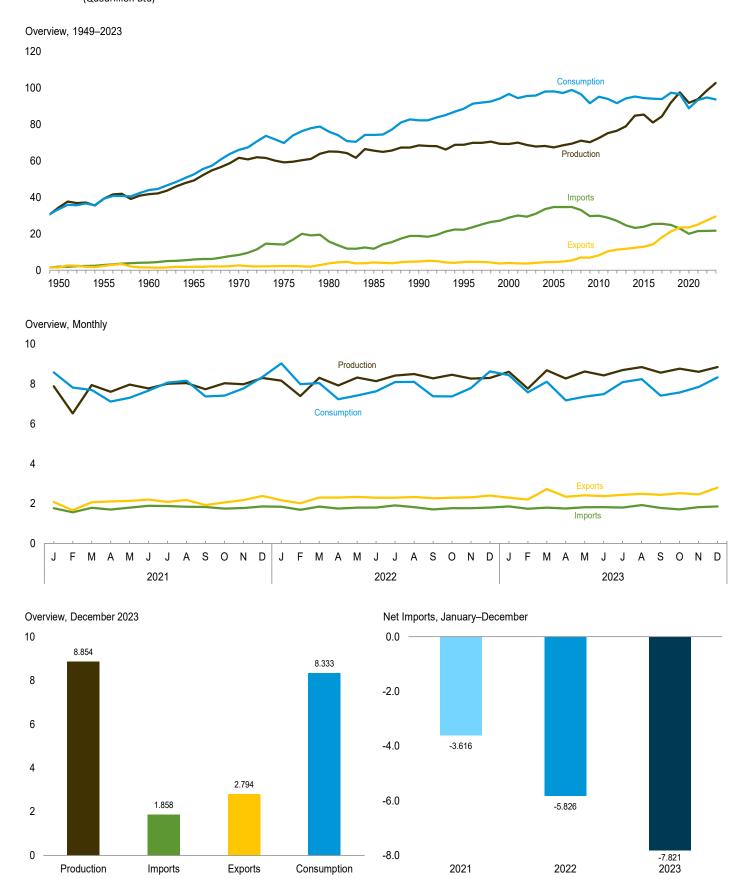
# 1. EnergyOverview

Figure 1.1 Primary Energy Overview





 $Web\ Page:\ http://www.eia.gov/totalenergy/data/monthly/\#summary.$ 

Source: Table 1.1.

**Table 1.1 Primary Energy Overview** 

	Production Nuclear Renew-					Trade				Consu	mption	
	Fossil Fuels <sup>a</sup>	Nuclear Electric Power	Renew- able Energy <sup>b</sup>	Total	Imports	Exports	Net Imports <sup>c</sup>	Stock Change and Other <sup>d</sup>	Fossil Fuels <sup>e</sup>	Nuclear Electric Power	Renew- able Energy <sup>b</sup>	Total <sup>f</sup>
1950 Total 1955 Total 1955 Total 1965 Total 1966 Total 1970 Total 1977 Total 1985 Total 1985 Total 1995 Total 2000 Total 2005 Total 2008 Total 2009 Total 2010 Total 2011 Total 2012 Total 2015 Total 2017 Total 2017 Total 2018 Total 2018 Total 2017 Total 2018 Total 2018 Total 2019 Total	32.553 37.347 39.855 47.205 59.152 54.697 57.502 58.523 57.496 57.307 54.995 55.877 56.369 57.527 56.12 58.159 60.529 62.298 64.180 69.619 70.186 65.435 68.448 75.780 81.399 76.145	0.000 .000 .006 .043 .239 1.900 2.739 4.076 6.104 7.075 7.862 8.161 8.215 8.459 8.426 8.355 8.434 8.269 8.062 8.244 8.338 8.337 8.427 8.419 8.427 8.438	1.907 1.821 1.830 2.008 2.289 2.544 3.445 4.018 3.863 4.295 4.093 4.220 4.430 4.582 5.085 5.943 6.404 6.187 6.561 6.836 6.846 7.188 7.505 7.744 7.753 7.465	34.460 39.168 41.691 49.256 61.681 59.141 65.595 68.490 68.866 69.262 67.376 68.521 69.410 71.038 70.276 72.536 75.202 76.547 76.985 84.792 91.604 91.861	1.913 2.790 4.188 5.892 8.342 14.032 15.796 11.781 18.817 22.180 28.865 34.659 34.649 34.679 32.970 29.866 28.748 27.068 24.623 23.241 23.794 25.378 25.458 24.833 22.865 19.988	1.465 2.286 1.477 1.829 2.632 2.323 3.695 4.196 4.752 4.496 3.962 4.727 5.338 6.949 6.920 8.176 10.373 11.267 10.373 11.267 12.270 12.902 14.119 17.946 21.224 23.476 23.464	0.448 .504 2.710 4.063 5.709 11.709 12.101 7.584 14.065 17.684 24.904 30.197 29.921 29.341 26.021 22.770 21.690 18.375 15.801 12.835 10.971 10.892 11.259 7.512 3.610 -610 -3.476	-1.380 457 458 754 -1.354 -1.062 -1.227 -1.088 299 2.118 2.528 -527 -1.207 -2.15 412 -1.420 -916 -389 -670 2.433 -1.776 1.784 2.017 1.784 2.017 1.784 2.017 1.832 -390 -467	31.615 37.380 42.091 50.515 63.501 65.323 69.782 66.035 72.281 77.162 85.623 84.620 85.623 84.620 85.623 77.304 79.263 79.263 77.304 79.224 80.017 79.07 81.281 80.425 73.139	0.000 .000 .006 .043 .239 1.900 2.739 4.076 6.104 7.075 7.862 8.161 8.215 8.459 8.426 8.355 8.434 8.269 8.062 8.244 8.338 8.437 8.419 8.427 8.419 8.427 8.438	1.907 1.821 1.830 2.008 2.289 2.544 3.445 4.018 3.863 4.297 4.096 4.233 4.480 4.595 5.068 5.293 5.896 6.308 6.150 6.799 6.829 7.120 7.383 7.594 7.301	33.527 39.215 43.942 52.565 66.036 69.788 74.268 82.256 88.668 96.694 98.101 97.235 98.965 96.647 91.626 95.142 93.966 91.677 94.253 95.335 94.484 94.992 93.902 97.405 96.603 88.852
2021 January February March April May June July August September October November December Total	6.497 5.318 6.603 6.362 6.624 6.433 6.642 6.671 6.439 6.783 6.671 6.862 77.903	.748 .657 .664 .595 .661 .689 .718 .725 .673 .609 .654 .738	.637 .553 .678 .651 .690 .657 .651 .649 .621 .650 .664 .707	7.883 6.528 7.945 7.608 7.975 7.779 8.011 8.045 7.733 8.042 7.989 8.306 <b>93.841</b>	1.772 1.566 1.788 1.703 1.799 1.890 1.878 1.846 1.829 1.752 1.774 1.859 21.455	2.083 1.667 2.067 2.104 2.131 2.204 2.085 2.183 1.925 2.063 2.172 2.386 <b>25.071</b>	311 101 279 402 332 314 208 337 096 311 397 527	1.008 1.400 .037 -082 -332 .205 .267 .456 -261 -312 .182 .571 3.138	7.210 6.614 6.359 5.876 5.955 6.320 6.699 6.784 6.083 6.159 6.472 6.924 77.454	.748 .657 .664 .595 .661 .689 .718 .725 .673 .609 .654 .738	.607 .547 .667 .642 .645 .639 .643 .611 .641 .643	8.579 7.827 7.703 7.124 7.310 7.669 8.070 8.163 7.375 7.419 7.774 8.349 93.363
Post of the control o	6.736 6.098 6.919 6.637 6.917 6.730 6.995 7.110 6.987 7.188 6.935 6.905 <b>82.157</b>	.737 .646 .660 .578 .662 .687 .719 .720 .666 .616 .648 .722	.698 .652 .733 .712 .743 .726 .713 .672 .633 .659 .686 .680	8.171 7.396 8.312 7.928 8.322 8.143 8.428 8.503 8.286 8.463 8.269 8.307 <b>98.526</b>	1.841 1.687 1.848 1.747 1.795 1.805 1.913 1.826 1.705 1.771 1.767 1.802 21.507	2.170 2.016 2.305 2.303 2.335 2.297 2.294 2.331 2.266 2.294 2.314 2.407 <b>27.332</b>	- 329 - 330 - 457 - 555 - 540 - 492 - 381 - 505 - 561 - 523 - 547 - 605 - 5826	1.194 .929 .190 137 355 014 .056 .113 339 560 .079 .934 2.091	7.622 6.715 6.663 5.949 6.031 6.225 6.673 6.706 6.089 6.108 6.478 7.240 78.498	.737 .646 .660 .578 .662 .687 .719 .720 .666 .616 .648 .722	.666 .628 .715 .700 .725 .710 .692 .664 .618 .647 .665 .661	9.036 7.995 8.044 7.235 7.427 7.637 8.103 8.111 7.386 7.380 8.636 <b>94.791</b>
2023 January February March April May June July August September October November December Total	R 7.170 R 6.478 R 7.297 R 6.984 R 7.247 R 7.064 R 7.259 R 7.407 R 7.214 7.426 R 7.283 7.420 86.248	.740 .635 .656 .592 .642 .679 .730 .729 .685 .642 .650 .720	.702 .660 .735 .700 .741 .692 .712 .712 R.669 R.701 R.684 .714	R 8.612 R 7.773 R 8.628 R 8.6276 R 8.631 R 8.435 R 8.701 R 8.8567 R 8.768 R 8.618 R 8.567	R 1.854 R 1.745 R 1.793 R 1.754 R 1.817 R 1.826 R 1.805 R 1.927 R 1.782 R 1.711 R 1.826 1.858 21.697	R 2.299 R 2.204 R 2.726 R 2.344 R 2.421 R 2.439 R 2.439 R 2.435 R 2.435 R 2.464 2.794 <b>29.518</b>	R445 R459 R933 R590 R604 R553 R653 R653 R653 935	R .282 R .265 R .357 R504 R665 R389 R .027 R046 R384 R126 .414	R 7.013 R 6.294 R 6.294 R 5.896 R 5.8975 R 6.127 R 6.6803 R 6.080 R 6.238 R 6.536 G.919	.740 .635 .656 .592 .642 .679 .730 .729 .685 .642 .650 .720	.685 R.644 R.719 .687 735 R.682 .693 .652 .690 .664 .690	R 8.449 R 7.579 R 8.113 R 7.182 R 7.362 R 7.493 R 8.094 R 7.418 R 7.571 7.853 8.333 93.686

R=Revised.

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.

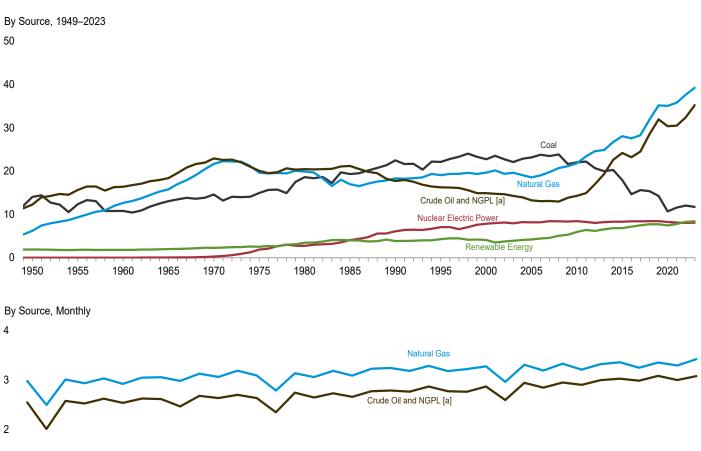
a Coal, natural gas (dry), crude oil, and natural gas plant liquids.
 b See Tables 10.1–10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.
 c Net imports equal imports minus exports.
 d Includes petroleum stock change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

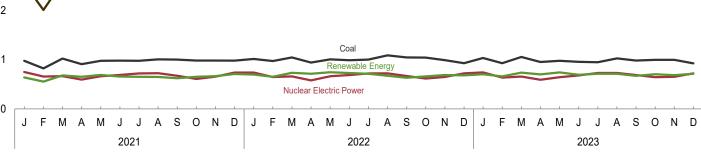
Notes: • See "Primary Energy," "Primary Energy Production," and "Primary Energy Consumption," in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

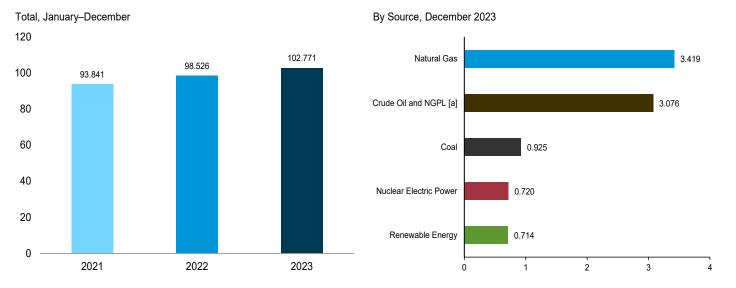
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary (Excel and CSV files) for all available annual data beginning in 1973

**Figure 1.2 Primary Energy Production** 









[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

		Fossil Fuels							Renewabl	e Energy <sup>a</sup>	l		
	Coal <sup>b</sup>	Natural Gas (Dry)	Crude Oil <sup>c</sup>	<b>NGPL</b> d	Total	Nuclear Electric Power	Hydro- electric Power <sup>e</sup>	Geo- thermal	Solar	Wind	Bio- mass	Total	Total
1950 Total 1955 Total 1960 Total 1965 Total 1970 Total 1977 Total 1980 Total 1980 Total 1995 Total 1995 Total 2000 Total 2007 Total 2007 Total 2008 Total 2009 Total 2010 Total 2011 Total 2011 Total 2012 Total 2013 Total 2014 Total 2015 Total 2016 Total 2017 Total 2018 Total 2017 Total 2018 Total 2019 Total	14.060 12.370 10.817 13.055 14.607 14.989 18.598 19.325 22.488 22.130 22.735 23.185 23.790 23.493 23.851 21.624 22.038 22.038 22.221 20.677 20.001 20.286 17.946 14.667 15.625 15.363 14.256 10.703	6.233 9.345 12.656 15.775 21.666 19.640 19.980 16.980 18.326 19.082 19.062 19.786 20.703 21.139 21.806 23.406 23.406 24.610 24.859 26.718 28.067 27.576 28.289 31.882 35.187 35.062	11.447 14.410 14.935 16.521 20.401 17.729 18.249 18.992 15.571 13.887 10.974 10.767 10.761 11.610 12.012 13.849 15.868 18.610 19.697 18.527 19.547 22.808 25.604 23.575	0.813 1.223 1.447 1.853 2.478 2.338 2.225 2.204 2.138 2.398 2.558 2.289 2.349 2.349 2.359 2.508 2.705 2.890 3.162 3.451 4.076 4.665 4.987 5.727 6.352 6.805	32.553 37.347 39.855 47.205 59.152 54.697 57.502 58.523 57.496 57.307 54.995 55.877 56.369 57.527 56.612 58.159 60.529 62.298 64.180 69.619 70.186 65.435 68.448 75.780 81.399 76.145	0.000 .000 .006 .043 .239 1.900 2.739 4.076 6.104 7.075 7.865 8.161 8.215 8.459 8.459 8.355 8.434 8.269 8.362 8.244 8.337 8.427 8.438 8.452 8.452 8.452	0.344 .397 .510 .672 .856 1.034 .953 .970 .999 1.061 .940 .942 .987 .845 .869 .933 .888 1.090 .943 .916 .885 .914 1.025 .914 1.025 .914 1.025 .914	NA NA (s) .001 .002 .011 .017 .032 .063 .069 .084 .086 .091 .105 .111 .116 .117 .118 .118 .118 .118 .118	NA NA NA NA NA NA NA NA NA NA NA NA NA N	NA NA NA NA NA NA (s) .010 .011 .019 .091 .118 .189 .252 .323 .410 .480 .573 .620 .651 .774 .868 .930 1.010	1.562 1.424 1.320 1.335 1.431 1.499 2.475 3.016 2.735 3.099 3.006 3.101 3.212 3.472 3.868 3.957 4.553 4.712 4.554 4.835 5.052 5.031 5.132 5.132 5.132 5.132 5.132 5.1314 5.215 4.710	1.907 1.821 1.830 2.008 2.289 2.544 3.445 4.018 3.863 4.295 4.093 4.220 4.430 4.585 5.309 5.943 6.404 6.187 6.561 6.846 7.188 7.505 7.744 7.753 7.465	34.460 39.168 41.691 49.256 61.681 59.141 65.595 68.490 68.866 69.262 67.376 68.521 69.410 71.038 70.276 72.536 75.202 76.547 78.985 84.372 91.963 97.604 91.861
Post January February March April May June July August September October November December Total	.974 .821 1.021 .907 .975 .979 .974 1.005 .999 .982 .980 .977	2.978 2.491 3.007 2.933 3.029 2.920 3.046 3.055 2.977 3.125 3.058 3.187 35.807	1.965 1.580 2.002 1.932 2.009 1.940 2.010 1.989 1.864 2.040 2.011 2.060 <b>23.401</b>	.580 .426 .572 .589 .611 .593 .611 .622 .599 .636 .621 .638 <b>7.099</b>	6.497 5.318 6.603 6.362 6.624 6.643 6.642 6.671 6.439 6.783 6.671 6.862 77.903	.748 .657 .664 .595 .661 .689 .718 .725 .673 .609 .654 .738	.084 .069 .072 .066 .080 .075 .069 .058 .058	.010 .009 .010 .010 .010 .010 .010 .010	.032 .036 .051 .059 .067 .066 .064 .059 .050 .042 .035	.103 .091 .134 .123 .115 .091 .074 .092 .099 .110 .122 .136	.409 .348 .411 .393 .418 .410 .426 .413 .395 .422 .424 .445	.637 .553 .678 .651 .690 .657 .651 .649 .621 .650 .664 .707	7.883 6.528 7.945 7.608 7.975 7.779 8.011 8.045 7.733 8.042 7.989 8.306 <b>93.841</b>
2022 January February March April May June July August September October November December Total	1.012 .970 1.044 .940 1.006 .986 1.000 1.087 1.044 1.040 .988 .926 12.043	3.090 2.784 3.135 3.056 3.183 3.087 3.224 3.240 3.181 3.284 3.178 3.219	2.023 1.792 2.080 2.007 2.068 2.012 2.085 2.112 2.102 2.181 2.110 2.139 <b>24.710</b>	.610 .552 .660 .635 .661 .686 .672 .660 .684 .658 .621	6.736 6.098 6.919 6.637 6.917 6.730 6.995 7.110 6.987 7.188 6.935 6.905 <b>82.157</b>	.737 .646 .660 .578 .662 .687 .719 .720 .666 .616 .648 .722	.083 .073 .083 .068 .080 .089 .084 .072 .058 .049 .061 .070	.010 .009 .010 .010 .010 .010 .010 .010	.042 .047 .063 .071 .079 .083 .077 .070 .063 .047 .040	.128 .128 .147 .158 .144 .115 .101 .084 .093 .112 .141 .132	.435 .394 .430 .406 .430 .436 .429 .402 .425 .427 .429 <b>5.073</b>	.698 .652 .733 .712 .743 .726 .713 .672 .633 .659 .686 .680	8.171 7.396 8.312 7.928 8.322 8.143 8.428 8.503 8.286 8.463 8.269 8.307 <b>98.526</b>
Post of the component o	1.033 .927 1.053 .951 .976 .955 .945 1.025 .981 .994 .993 .925	E 3.273 E 2.958 E 3.304 E 3.190 E 3.326 E 3.209 E 3.320 E 3.327 E 3.247 RE 3.351 E 3.247 RE 3.351 E 3.242 E 3.419	RE 2.217 RE 1.996 RE 2.252 RE 2.159 RE 2.239 RE 2.201 RE 2.280 RE 2.300 RE 2.301 RE 2.331 E 2.331 E 2.3348 E 26.856	.648 .597 .688 R .683 R .706 .700 .714 .726 .724 .750 .725 .728 <b>8.389</b>	R7.170 R6.478 R7.297 R6.984 R7.247 R7.064 R7.259 R7.407 R7.214 7.426 R7.283 7.420 <b>86.248</b>	.740 .635 .656 .592 .642 .679 .730 .729 .685 .650 .720 <b>8.101</b>	.076 .064 .069 .060 .094 .066 .072 .072 .056 .062 .062	.011 .009 .010 .010 .010 .010 .010 .010	.044 .051 .067 .079 .090 .092 R .098 .093 .082 .074 .056 .051	.134 .144 .152 .147 .109 .094 .095 .097 .096 .124 .126 .131	.437 .393 .436 .404 .438 .430 .437 .440 .425 .430 .456 <b>5.155</b>	.702 .660 .735 .700 .741 .692 .712 .712 .716 .684 .714 <b>8.422</b>	R 8.612 R 7.773 R 8.688 R 8.276 R 8.631 R 8.435 R 8.701 R 8.848 R 8.567 R 8.768 R 8.618 8.854

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

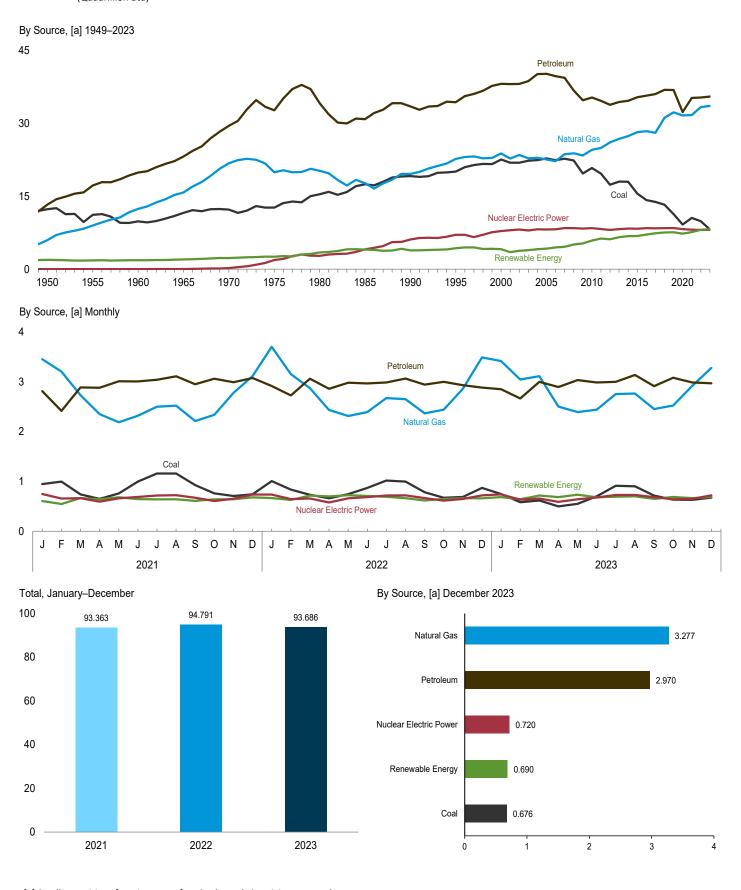
naphthas, and miscellaneous products).

© 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



[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

		Fossil Fuels <sup>a</sup>						Renewable	e Energy <sup>b</sup>			
	Coal	Natural Gas <sup>c</sup>	Petro- leum <sup>d</sup>	Total <sup>e</sup>	Nuclear Electric Power	Hydro- electric Power <sup>f</sup>	Geo- thermal	Solar	Wind	Bio- mass	Total	Total <sup>g</sup>
1950 Total 1955 Total 1955 Total 1960 Total 1965 Total 1970 Total 1977 Total 1975 Total 1988 Total 1999 Total 1999 Total 2000 Total 2000 Total 2005 Total 2007 Total 2008 Total 2017 Total 2011 Total 2012 Total 2013 Total 2014 Total 2015 Total 2016 Total 2017 Total 2017 Total 2018 Total 2019 Total 2019 Total 2017 Total 2017 Total 2018 Total 2019 Total 2017 Total 2018 Total 2019 Total	12.347 11.167 9.838 11.581 12.265 12.663 15.423 17.478 19.173 20.089 22.580 22.797 22.447 22.749 22.387 19.691 20.834 19.658 17.378 18.039 17.998 15.549 14.226 13.837 13.252 11.316 9.181	5.968 8.998 12.385 15.769 21.795 19.948 20.235 17.703 19.603 22.671 23.824 22.565 22.239 23.663 23.843 23.416 24.575 24.955 26.885 27.383 28.191 28.400 28.055 31.163 32.264 31.640	13.298 17.225 19.874 23.184 29.499 32.699 34.159 30.866 33.500 34.341 38.152 40.217 39.731 39.368 36.769 34.779 35.321 34.639 33.833 34.398 34.658 35.712 36.043 36.866 32.331	31.615 37.380 42.091 50.515 63.501 65.323 69.782 66.035 72.281 77.162 84.620 85.623 84.477 85.805 83.041 77.862 80.723 79.263 77.304 79.224 80.723 79.263 79.263 79.263 79.263 79.263 79.263 79.263 79.263 79.263 79.263 79.263 79.263 79.263 79.263 79.263 79.304 79.224 80.425 73.139	0.000 .000 .006 .043 .239 1.900 2.739 4.076 6.104 7.075 7.862 8.161 8.215 8.455 8.426 8.355 8.434 8.269 8.337 8.427 8.438 8.337 8.427 8.438	0.344 .397 .510 .672 .856 1.034 .953 .970 .999 1.061 .940 .922 .987 .845 .869 .933 .888 1.090 .943 .916 .885 .914 1.025 .914 1.025 .998 .998	NA NA (s) .001 .002 .011 .017 .032 .063 .060 .084 .086 .091 .115 .117 .117 .118 .117 .118 .118 .117	NA NA NA NA NA NA NA NA NA NA NA NA NA N	NA NA NA NA NA NA (s) .010 .011 .019 .061 .091 .118 .252 .323 .410 .480 .573 .620 .651 .774 .868 .930 1.010	1.562 1.424 1.320 1.335 1.431 1.499 2.475 3.016 2.735 3.101 3.008 3.114 3.262 3.485 13.940 4.506 4.616 4.517 4.861 5.015 5.045 5.045 5.045 5.045	1.907 1.821 1.830 2.008 2.289 2.544 3.445 4.018 3.863 4.297 4.096 4.233 4.480 4.595 5.068 5.293 5.896 6.308 6.150 6.587 6.799 6.829 7.120 7.383 7.535 7.594 7.301	33.527 39.215 43.942 52.565 66.036 69.788 76.038 74.268 82.256 88.669 98.101 97.235 98.965 96.647 91.626 95.142 93.966 91.677 94.253 95.3484 94.092 93.902 97.405 96.603 88.852
2021 January February March April May June July August September October November December Total	.947 .996 .741 .650 .759 .997 1.160 1.158 .927 .762 .708 .742	3.453 3.205 2.732 2.350 2.189 2.319 2.501 2.521 2.212 2.337 2.778 3.113 <b>31.711</b>	2.813 2.415 2.886 2.880 3.010 3.009 3.040 3.111 2.950 3.063 2.991 3.076 <b>35.243</b>	7.210 6.614 6.359 5.876 5.955 6.320 6.699 6.784 6.083 6.159 6.472 6.924 77.454	.748 .657 .664 .595 .661 .689 .718 .725 .673 .609 .654 .738	.084 .069 .072 .066 .080 .075 .069 .058 .058 .066 .080	.010 .009 .010 .010 .010 .010 .010 .010	.032 .036 .051 .059 .067 .066 .064 .059 .050 .042 .035	.103 .091 .134 .123 .115 .091 .074 .092 .099 .110 .122 .136	.379 .342 .399 .383 .410 .398 .413 .407 .385 .413 .403 .418	.607 .547 .667 .642 .682 .645 .639 .643 .611 .641 .683	8.579 7.827 7.703 7.124 7.310 7.669 8.070 8.163 7.375 7.419 7.774 8.349 93.363
Post September  October  November  December  Total	1.008 .838 .733 .663 .745 .870 1.018 .997 .783 .673 .690 .871 <b>9.888</b>	3.704 3.153 2.872 2.434 2.313 2.393 2.674 2.650 2.368 2.439 2.859 3.490 33.347	2,915 2,726 3,063 2,858 2,982 2,967 2,986 3,064 2,943 2,999 2,931 2,884 <b>35,319</b>	7.622 6.715 6.663 5.949 6.031 6.225 6.673 6.706 6.089 6.108 6.478 7.240 <b>78.498</b>	.737 .646 .660 .578 .662 .687 .719 .720 .666 .616 .648 .722	.083 .073 .083 .068 .080 .089 .084 .072 .058 .049 .061 .070	.010 .009 .010 .010 .010 .010 .010 .010	.042 .047 .063 .071 .079 .083 .077 .070 .063 .047 .040	.128 .128 .147 .158 .144 .115 .101 .084 .093 .112 .141 .132	.404 .370 .412 .393 .412 .414 .415 .421 .387 .413 .407 .409	.666 .628 .715 .700 .725 .710 .692 .664 .618 .647 .665 .661	9.036 7.995 8.044 7.235 7.427 7.637 8.103 8.111 7.386 7.380 7.800 8.636 <b>94.791</b>
2023 January February March April May June July August September October November December Total	R.749 .583 .619 .499 .552 .703 R.914 .902 R.716 .635 .636 .676 8.180	R 3.417 3.047 R 3.114 2.503 R 2.392 R 2.441 2.755 2.765 R 2.455 R 2.523 R 2.523 R 2.523 R 2.523 R 2.523 R 2.523	R 2.850 R 2.666 R 2.995 R 3.034 R 2.986 R 3.001 R 3.138 R 2.913 R 3.082 R 2.970 <b>35.519</b>	R 7.013 R 6.294 R 6.7294 R 5.896 R 5.975 R 6.127 R 6.666 R 6.803 R 6.238 R 6.238 R 6.236 G 9.19	.740 .635 .656 .592 .642 .679 .730 .729 .685 .642 .650 .720	.076 .064 .069 .060 .094 .066 .072 .072 .056 .062 .066 .818	.011 .009 .010 .010 .010 .010 .010 .010	.044 .051 .067 .079 .090 .092 R .098 .093 .082 .074 .056 .051	.134 .144 .152 .147 .109 .094 .095 .097 .096 .124 .126 .131	.420 .376 .420 .391 .432 R .420 .418 .431 .408 .420 .410 .432 <b>4.978</b>	.685 R.644 R.719 .687 .735 R.682 .693 .703 .652 .690 .664 .690	R 8.449 R 7.579 R 8.113 R 7.182 R 7.362 R 7.493 R 8.094 R 8.240 R 7.418 R 7.571 7.853 8.333 93.686

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."

g Includes coal coke net imports. See Table 1.4c.

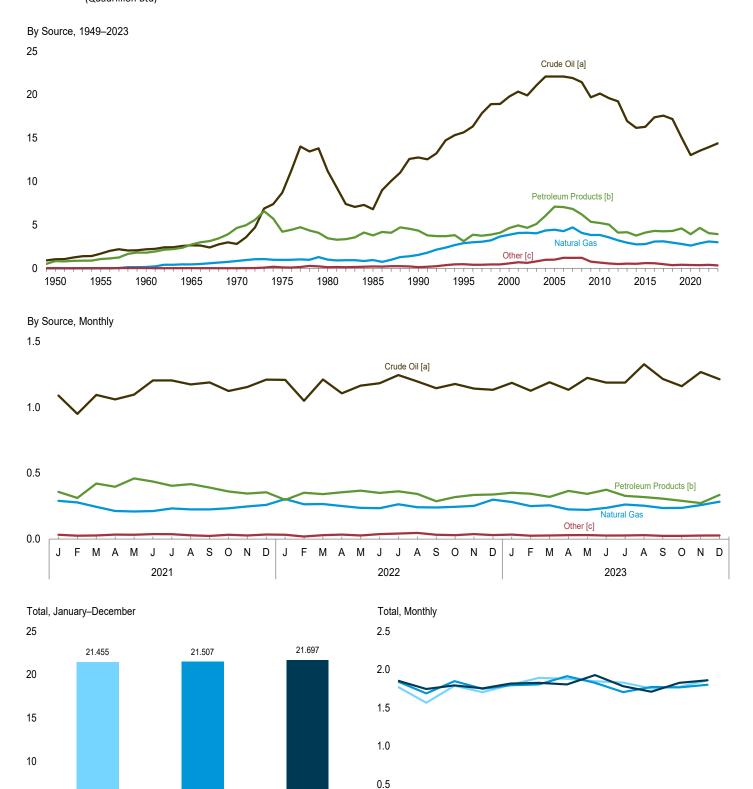
Includes coal coke net imports. See Table 1.4c. Conventional hydroelectric power.

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

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

beginning in 1973.
Sources: See end of section.

**Figure 1.4a Primary Energy Imports** 



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

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- [b] Petroleum products, unfinished oils, natural gasoline, and gasoline blending components. Does not include biofuels.
- $\hbox{[c] Coal, coal coke, biomass, and electricity.}\\$

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

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Source: Table 1.4a.

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Table 1.4a Primary Energy Imports by Source

					Imports				
					Petroleum				
	Coal	Coal Coke	Natural Gas	Crude Oil <sup>a</sup>	Petroleum Products <sup>b</sup>	Total	Biomass <sup>c</sup>	Electricity	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 .001	.002 .004	.471 .846	2.654 2.814	2.748 4.656	5.402 7.470	NA NA	.012 .021	5.892 8.342
1970 Total 1975 Total	.024	.045	.978	2.614 8.721	4.036	12.948	NA NA	.038	14.032
1980 Total	.030	.016	1.006	11.195	3.463	14.658	NA 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 2005 Total	.313 .762	.094 .088	3.869 4.450	19.783 22.091	4.641 7.108	24.424 29.198	(s) .012	.166 .150	28.865 34.659
2006 Total	.906	.101	4.291	22.085	7.108	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 2012 Total	.327 .212	.035 .028	3.555 3.216	19.595 19.239	5.038 4.122	24.633 23.361	.019 .049	.178 .202	28.748 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 2018 Total	.168 .122	.001 .003	3.109 2.961	17.597 17.192	4.277 4.309	21.874 21.501	.081 .048	.224 .199	25.458 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 June	.010 .010	(s) (s)	.210 .213	1.096 1.203	.460 .437	1.556 1.639	.006 .009	.016 .018	1.799 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 December	.009 .014	(s) .001	.248 .259	1.153 1.209	.345 .356	1.498 1.565	.008 .006	.010 .014	1.774 1.859
Total	.109	.003	2.878	13.539	4.661	18.200	.083	.181	21.455
2022 January	.011 .006	(s)	.304 .264	1.207 1.049	.298 .352	1.505 1.402	.006 .003	.015 .011	1.841 1.687
February March	.011	(s) (s)	.266	1.210	.341	1.552	.003	.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 August	.014 .017	(s) (s)	.264 .242	1.244 1.195	.363 .342	1.607 1.537	.005 .006	.023 .025	1.913 1.826
September	.017	(s)	.242	1.193	.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	R 1.185	R .352	R 1.537	.008	.015	R 1.854
February March	.006	(s) (s)	.250 .256	<sup>R</sup> 1.125 <sup>R</sup> 1.189	<sup>R</sup> .344 <sup>R</sup> .320	<sup>R</sup> 1.469 <sup>R</sup> 1.509	.008	.012	<sup>R</sup> 1.745 <sup>R</sup> 1.793
April	.006 .009	.001	.226	R 1.132	R.366	R 1.498	.009 .008	.013 .012	R 1.754
May	.007	(s)	.222	R 1.222	R .343	R 1.564	.011	.013	R 1.817
June	.006	.001	.237	<sup>R</sup> 1.187	R.375	<sup>R</sup> 1.562	.009	.010	<sup>R</sup> 1.826
July	.007	.001	.262	R 1.187	R .328	<sup>R</sup> 1.515	.008	.011	<sup>R</sup> 1.805
August	.008	(s)	.253	R 1.326	R .319	R 1.644	.012	.010	R 1.927
September October	.007 .009	(s) .001	.236 .237	<sup>R</sup> 1.214 <sup>R</sup> 1.159	<sup>R</sup> .307 <sup>R</sup> .291	<sup>R</sup> 1.521 <sup>R</sup> 1.449	.010 .007	.008 R .008	<sup>R</sup> 1.782 <sup>R</sup> 1.711
November	.009	.001	R .258	R 1.267	R.273	R 1.540	.011	R.008	R 1.826
December	.005	(s)	.284	1.212	.335	1.547	.012	.011	1.858
Total	.086	.òó5	3.003	14.404	3.952	18.356	.114	.133	21.697

 <sup>&</sup>lt;sup>a</sup> Crude oil and lease condensate. Includes imports into the Strategic Petroleum
 Reserve, which began in 1977.
 <sup>b</sup> Petroleum products, unfinished oils, natural gasoline, and gasoline blending

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 1973.

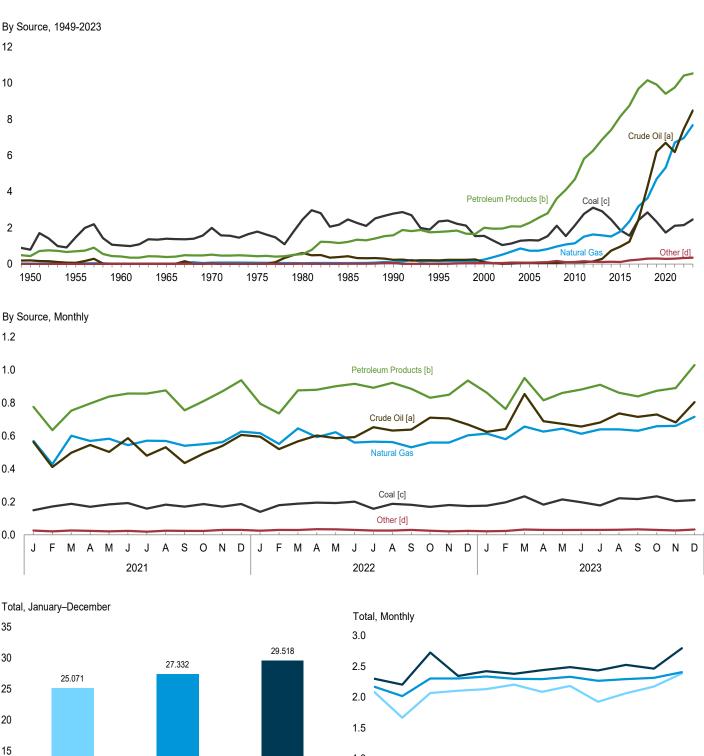
omponents. Does not include biofuels.

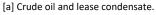
Beginning in 1993, includes fuel ethanol (minus denaturant). Beginning in 2001, also includes biodiesel. Beginning in 2011, also includes renewable diesel fuel. Beginning in 2021, also includes other biofuels.

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

beginning in 1973.
Sources: See end of section.

Figure 1.4b Primary Energy Exports



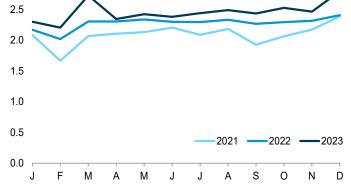


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[b] Petroleum products, unfinished oils, natural gasoline, and gasoline blending components. Does not include biofuels.

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[c] Includes coal coke.



[d] Biomass and electricity

Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary. Source: Table 1.4b.

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Table 1.4b Primary Energy Exports by Source

					Exports				
					Petroleum				
		Coal	Natural Natural	Crude	Petroleum				
	Coal	Coke	Gas	Oila	Productsb	Total	Biomassc	Electricity	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 1965 Total	1.023 1.376	.009 .021	.012 .027	.018 .006	.413 .386	.431 .392	NA NA	.003 .013	1.477 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 1990 Total	2.438 2.772	.028 .014	.056 .087	.432 .230	1.225 1.594	1.657 1.824	NA NA	.017 .055	4.196 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 1.264	.043 .040	.735 .730	.067 .052	2.276	2.344 2.606	(s)	.065	4.462 4.727
2006 Total 2007 Total	1.507	.036	.830	.052	2.554 2.803	2.861	(s) .036	.083 .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 2011 Total	2.101 2.751	.036 .024	1.147 1.519	.088 .100	4.691 5.820	4.780 5.919	.047 .108	.065 .051	8.176 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 .964	7.414	8.158	.081	.045	12.270
2015 Total 2016 Total	1.852 1.546	.021 .025	1.800 2.356	.964 1.238	8.153 8.752	9.118 9.990	.080 .181	.031 .021	12.902 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 1.725	.024 .017	4.700 5.332	6.212 6.699	9.926 9.410	16.139 16.108	.240 .234	.068 .048	23.476 23.464
2020 Total	1.723	.017	5.552	0.099	9.410	10.108	.234	.046	23.404
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 April	.187 .166	(s) .004	.601 .569	.498 .545	.753 .796	1.252 1.341	.024 .021	.003 .004	2.067 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 .178	.003 .005	.571 .569	.480 .531	.856 .876	1.336 1.407	.015 .021	.004 .004	2.085 2.183
August September	.165	.005	.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 Total	.180 <b>2.061</b>	.008 <b>.052</b>	.626 <b>6.712</b>	.606 <b>6.191</b>	.937 <b>9.761</b>	1.543 <b>15.952</b>	.024 <b>.247</b>	.005 <b>.047</b>	2.386 <b>25.071</b>
Total	2.001	.032	0.712	0.131	3.701	13.332	.247	.047	25.071
<b>2022</b> January	.134	.005	.616	.595	.795	1.390	.020	.005	2.170
February March	.178 .184	.002 .005	.551 .645	.520 .567	.736 .876	1.255 1.443	.024 .023	.005 .006	2.016 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 .005	.559	.593	.915 .892	1.508	.026 .022	.004 .004	2.297 2.294
July August	.153 .184	.003	.565 .563	.653 .632	.922	1.545 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 December	.177 .169	.003 .005	.559 .603	.705 .669	.850 .936	1.554 1.605	.018 .022	.003 .003	2.314 2.407
Total	2.093	.057	6.966	7.468	10.417	17.885	.278	.054	27.332
	474	000	044	B 004	B 000	R 4 400	040	004	B o 000
2023 January February	.174 .195	.003 .002	.614 .580	<sup>R</sup> .624 <sup>R</sup> .641	<sup>R</sup> .862 <sup>R</sup> .763	<sup>R</sup> 1.486 <sup>R</sup> 1.404	.018 .018	.004 .005	R 2.299 R 2.204
March	.231	.002	.657	R 854	R.951	R 1.804	.027	.003	R 2.726
April	.180	.002	.626	R 689	R 816	<sup>R</sup> 1.505	.024	.006	R 2.344
May	.212	.003	.644	R .673 R .657	R .860 R .881	R 1.533	.024	.004	R 2.421
June July	.195 .174	.003 .004	.613 .640	R 681	R 910	R 1.538 R 1.591	.026 .023	.005 .007	<sup>R</sup> 2.379 <sup>R</sup> 2.439
August	.219	.003	.640	H.736	R 861	<sup>R</sup> 1.597	.025	.005	<sup>R</sup> 2.489
September	.213	.004	631	R 715	R 839	R 1.553	.026	.008	R 2.435
October	.230	.002	R.658	R.730	R .873	R 1.603	.024 B.021	R.007	R 2.524
November December	.201 .206	.003 .005	R .661 .716	R .682 .804	<sup>R</sup> .890 1.030	R 1.572 1.834	R.021 .026	R.006 .006	<sup>R</sup> 2.464 2.794
Total	2. <b>430</b>	.005 . <b>037</b>	7.680	8.486	10.536	19.022	.282	.008 . <b>068</b>	29.518

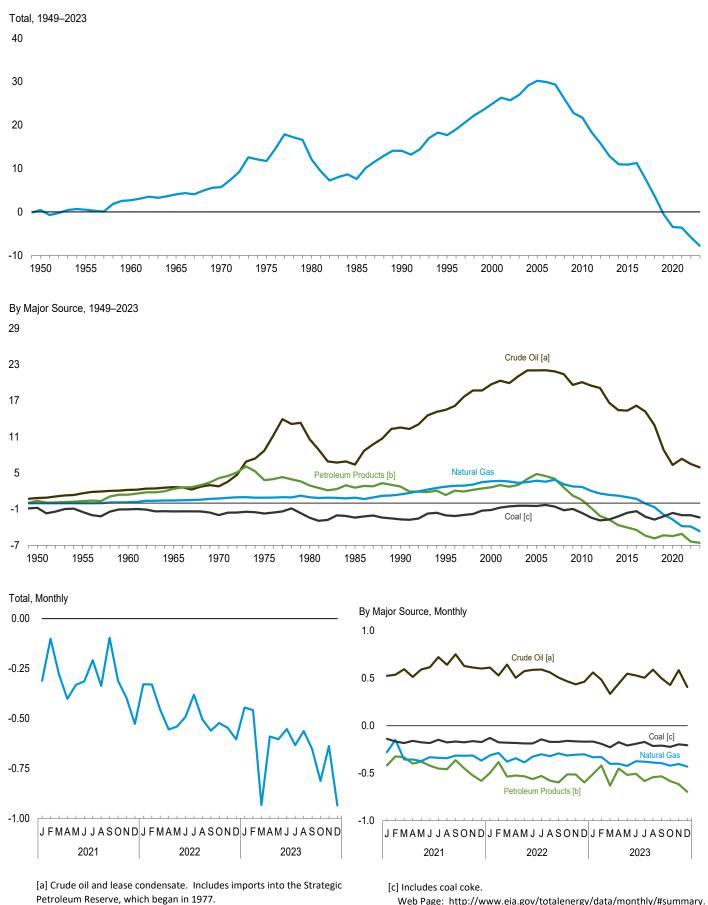
a Crude oil and lease condensate.
 b Petroleum products, unfinished oils, natural gasoline, and gasoline blending components. Does not include biofuels.
 c Beginning in 2001, includes biodiesel. Beginning in 2010, also includes fuel ethanol (minus denaturant). Beginning in 2016, also includes wood and wood-derived fuels.
 R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

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

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

Sources: See end of section.

**Figure 1.4c Primary Energy Net Imports** 



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

Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary. Source: Table 1.4c.

Table 1.4c Primary Energy Net Imports by Source

					Net Importsa				
					Petroleum				
	Coal	Coal Coke	Natural Gas	Crude Oil <sup>b</sup>	Petroleum Products <sup>c</sup>	Total	Biomass <sup>d</sup>	Electricity	Total
1950 Total	-0.777	0.001	-0.027	0.854	0.390	1.244	NA 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 1975 Total	-1.935 -1.738	058 .014	.774 .904	2.785 8.708	4.136 3.800	6.921 12.508	NA NA	.007 .021	5.709 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	-1.215 510	.065	3.623	19.676	2.638 4.831	22.314	NA .011	.115	24.904
2005 Total 2006 Total	512 358	.044 .061	3.714 3.560	22.023 22.032	4.501	26.855 26.533	.062	.085 .063	30.197 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 2012 Total	-2.423 -2.875	.011 .004	2.036 1.583	19.495 19.096	781 -2.139	18.714 16.957	089 029	.127 .161	18.375 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 5.40	9.766	124	.192	7.512
2018 Total 2019 Total	-2.702 -2.167	026 021	679 -1.889	12.915 8.833	-5.849 -5.331	7.066 3.502	201 168	.152 .133	3.610 610
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 April	182 155	(s) 004	356 356	.596 .514	332 399	.264 .115	018 012	.013 .011	279 402
May	171	004	373	.514	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	160 171	006 004	315 316	.753 .630	363 449	.389 .181	013 010	.009 .010	096 311
October November	171 157	004	314	.614	525	.089	016	.004	311
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 March	172 173	002 005	287 379	.530 .644	383 535	.147 .109	022 016	.006 .007	330 457
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	017	.019	381
August September	167 166	004 005	321 291	.562 .507	579 598	017 091	016 021	.020 .013	505 561
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 February	164 189	003 002	332 330	.561 <sup>R</sup> .484	<sup>R</sup> 510 <sup>R</sup> 419	R .052 R .065	010 010	.011 .007	R445 R459
March	225	002	401	.335	R631	R296	018	.007	R933
April	171	002	400	.443	R450	R007	016	.007	R590
May	205	003	423	R.549	R518	R .031	014	.009	<sup>R</sup> 604
June	189	002	375	.530	R506	R.024	016	.006	R553
July	167 211	003 003	378 388	.506 .590	<sup>R</sup> 582 <sup>R</sup> 542	<sup>R</sup> 076 <sup>R</sup> .048	015 013	.004 .005	R634 R563
August September	211 206	003 004	395 395	.499	R532	R033	013 015		R653
October	221	002	R421	.428	<sup>R</sup> 582	R 154	016	(s) R .001	<sup>R</sup> 813
November	194	002	403	.585	<sup>R</sup> 617	R032	R010	R.002	<sup>R</sup> 638
December	201	005	431	.408	696	288	015	.005	935
Total	-2.344	032	-4.677	5.918	-6.584	666	167	.065	-7.821

biofuels imports.

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

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

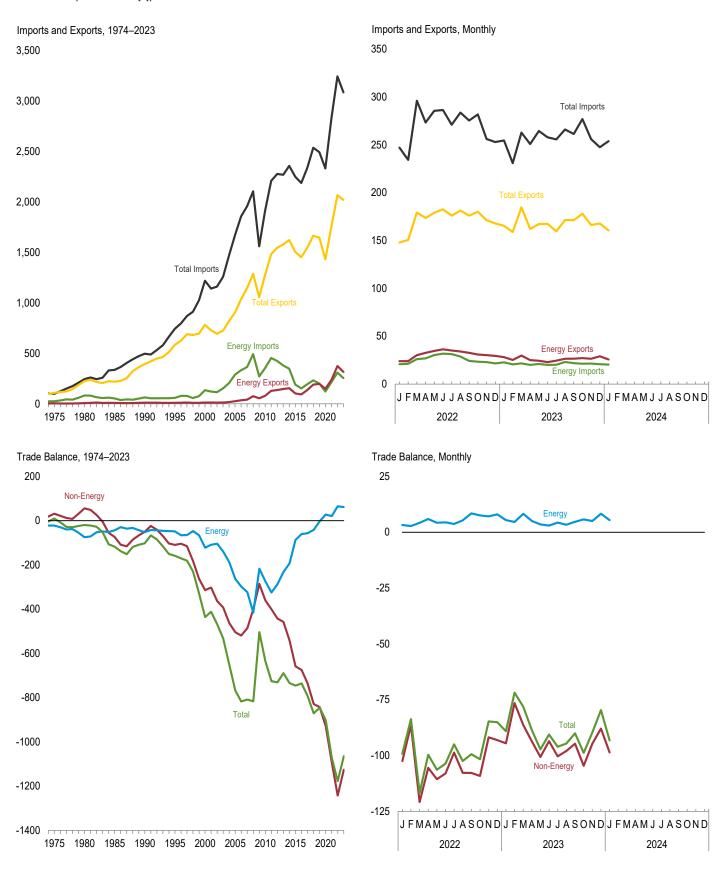
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary (Excel and CSV files) for all available annual data beginning in 1973.

beginning in 1973. Sources: Tables 1.4a and 1.4b.

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

Figure 1.5 Merchandise Trade Value





[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 Dollarsa)

		Petroleum	)		Energy <sup>c</sup>		Non-		Total Merchand	ise
	Exports	Imports	Balance	Exports	Imports	Balance	Energy Balance	Exports	Imports	Balance
1974 Total 1975 Total 1980 Total 1985 Total 1990 Total 1990 Total 2000 Total 2005 Total 2006 Total 2007 Total 2010 Total 2011 Total 2011 Total 2012 Total 2013 Total 2014 Total 2015 Total 2017 Total 2017 Total 2017 Total 2018 Total 2019 Total	111,949 123,244	24,668 25,197 78,637 50,475 61,583 54,368 102,663 250,068 299,714 327,620 449,847 251,833 333,472 b431,866 408,509 363,141 326,709 177,455 142,920 181,672 219,493 189,040 113,077	-23,876 -24,289 -75,803 -45,768 -54,682 -48,047 -94,094 -230,913 -271,543 -294,327 -388,152 -207,324 -268,719 b-329,686 -296,560 -239,897 -198,891 -91,565 -67,999 -76,697 -69,778 -32,650 -2,704	3,444 4,470 7,982 9,971 12,233 10,358 11,541 26,488 34,711 41,725 76,075 54,536 80,625 128,989 136,054 147,572 154,498 103,612 92,971 137,920 190,888 197,740 150,074	25,454 26,476 82,924 53,917 64,661 59,109 115,748 289,723 332,500 364,987 491,885 271,739 354,982 453,860 379,758 347,474 190,501 153,800 194,790 232,746 200,829 122,486	-22,010 -22,006 -74,942 -43,946 -52,428 47,51 -104,207 -263,235 -297,789 -323,262 -415,810 -217,203 -274,357 -324,850 -287,806 -232,186 -192,976 -86,889 -60,829 -56,670 -41,858 -3,089 27,588	18,126 31,557 55,246 -73,765 -50,068 -110,050 -364,056 -504,242 -519,515 -485,501 -400,389 -286,379 -361,005 -400,597 -442,640 -457,284 -541,506 -658,594 -674,497 -735,526 -828,500 -842,670 -929,070	99,437 108,856 225,566 218,815 393,592 584,742 693,103 905,978 1,036,635 1,148,199 1,287,442 1,056,043 1,278,495 1,482,508 1,545,821 1,578,517 1,621,874 1,503,328 1,451,460 1,547,195 1,665,787 1,645,940 1,429,995	103,321 99,305 245,262 336,526 496,088 743,543 1,161,366 1,673,455 1,853,982 1,956,962 2,103,641 1,559,625 1,913,857 2,207,954 2,276,267 2,267,987 2,356,356 2,248,811 2,186,786 2,339,591 2,536,145 2,491,700 2,331,477	-3,884 9,551 -19,696 -117,712 -102,496 -158,801 -468,263 -767,477 -817,304 -808,763 -816,199 -503,582 -635,362 -725,447 -730,446 -689,470 -734,482 -745,483 -735,326 -792,396 -870,358 -845,759 -901,482
Pebruary	10,253 8,976 10,837 12,062 12,779 14,762 13,639 14,485 12,197 14,754 16,105 16,600 157,448	11,035 10,724 14,708 15,133 16,813 18,254 18,564 18,642 18,528 18,041 19,854 18,352 198,648	-782 -1,748 -3,871 -3,071 -4,034 -3,492 -4,925 -4,157 -6,331 -3,287 -3,749 -1,752 -41,200	15,160 16,376 16,491 17,352 18,179 20,370 19,578 21,191 19,030 22,861 24,652 24,910 <b>236,151</b>	12,361 12,681 15,937 16,059 17,803 19,390 19,936 19,994 19,714 21,708 20,218 <b>215,734</b>	2,799 3,695 554 1,293 376 980 -358 1,197 -904 3,147 2,944 4,692 <b>20,417</b>	-79,276 -72,958 -84,804 -83,730 -84,966 -95,241 -92,670 -98,107 -101,132 -90,307 -105,825 -102,453 -1,091,470	128,162 124,182 152,671 144,018 145,815 148,067 144,295 142,339 164,138 156,533 159,332 1,757,822	204,639 193,445 236,921 226,454 230,405 242,329 237,297 245,205 244,375 251,297 259,414 257,093 <b>2,828,875</b>	-76,477 -69,263 -84,250 -82,437 -84,590 -94,261 -93,028 -96,910 -102,036 -87,160 -102,881 -97,761 -1,071,053
Pebruary February March April May June July August September October November December Total	16,213 15,898 20,953 22,813 23,559 25,009 25,364 23,183 21,934 21,317 21,572 20,525 258,342	18,180 19,117 24,082 24,904 28,205 29,559 29,009 26,196 22,030 21,686 21,006 19,334 283,306	-1,967 -3,219 -3,129 -2,091 -4,646 -4,550 -3,645 -3,013 -96 -369 5,666 1,191 -24,964	23,981 23,981 30,134 32,722 34,610 36,284 35,002 34,022 32,686 30,853 30,149 29,501 <b>373,924</b>	20,737 21,207 25,978 26,847 30,388 31,859 31,322 28,738 24,256 23,322 23,029 21,516 <b>309,198</b>	3,244 2,774 4,156 5,875 4,222 4,425 3,680 5,284 8,430 7,531 7,120 7,985 <b>64,726</b>	-102,461 -86,437 -120,818 -105,518 -110,563 -108,047 -98,691 -107,737 -107,793 -109,166 -91,807 -93,060 -1,242,099	147,848 150,555 179,314 173,534 179,048 182,663 175,897 181,182 175,980 180,101 171,280 167,755 <b>2,065,157</b>	247,065 234,219 295,975 273,177 285,388 286,285 270,907 283,635 275,343 281,737 255,967 252,830 <b>3,242,530</b>	-99,217 -83,663 -116,662 -99,643 -106,341 -103,622 -95,011 -102,453 -99,363 -101,635 -84,687 -85,075 -1,177,373
Pebruary February March April May June July August September October November December Total	18,737 17,530 21,600 18,214 17,751 17,121 18,440 20,088 20,215 20,064 19,379 21,868 231,007	20,164 17,921 18,959 18,527 19,804 18,991 19,049 22,045 20,768 20,099 20,265 19,204 235,796	-1,427 -391 2,641 -313 -2,053 -1,870 -609 -1,957 -553 -35 -886 2,664 <b>-4,789</b>	28,103 25,213 29,762 25,019 24,398 23,032 24,519 26,465 26,560 27,109 26,490 29,081 <b>315,750</b>	22,703 20,601 21,517 20,013 20,960 20,046 20,205 23,101 21,927 21,363 21,501 20,782 254,718	5,400 4,612 8,245 5,006 3,438 2,986 4,314 4,633 5,746 4,989 8,299 <b>61,032</b>	-94,496 -76,468 -86,381 -93,694 -100,659 -93,570 -100,361 -97,986 -94,667 -104,557 -94,705 R -87,937	165,342 158,851 184,621 162,064 167,128 167,303 159,619 171,405 171,272 178,021 166,193 R 167,788 R 2,020,606	254,438 230,707 262,756 250,752 264,349 257,887 255,666 266,027 261,306 276,832 255,909 R 247,426 R 3,084,055	-89,096 -71,856 -78,136 -88,688 -97,221 -90,584 -96,047 -94,622 -90,034 -98,811 -89,716 R-79,638
<b>2024</b> January	18,784	18,422	362	25,789	20,382	5,407	-98,621	160,582	253,797	-93,214

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.

<sup>&</sup>lt;sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
<sup>b</sup> Through 2010, data are for crude oil, petroleum preparations, liquefied propane and butane, and other mineral fuels. Beginning in 2011, data are for petroleum products and preparations.

<sup>c</sup> Petroleum, coal, natural gas, and electricity.
R=Revised.

Notes: • Monthly data are not adjusted for seasonal variations. • See Note 1, "Merchandise Trade Value," at end of section. • Totals may not equal sum of

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

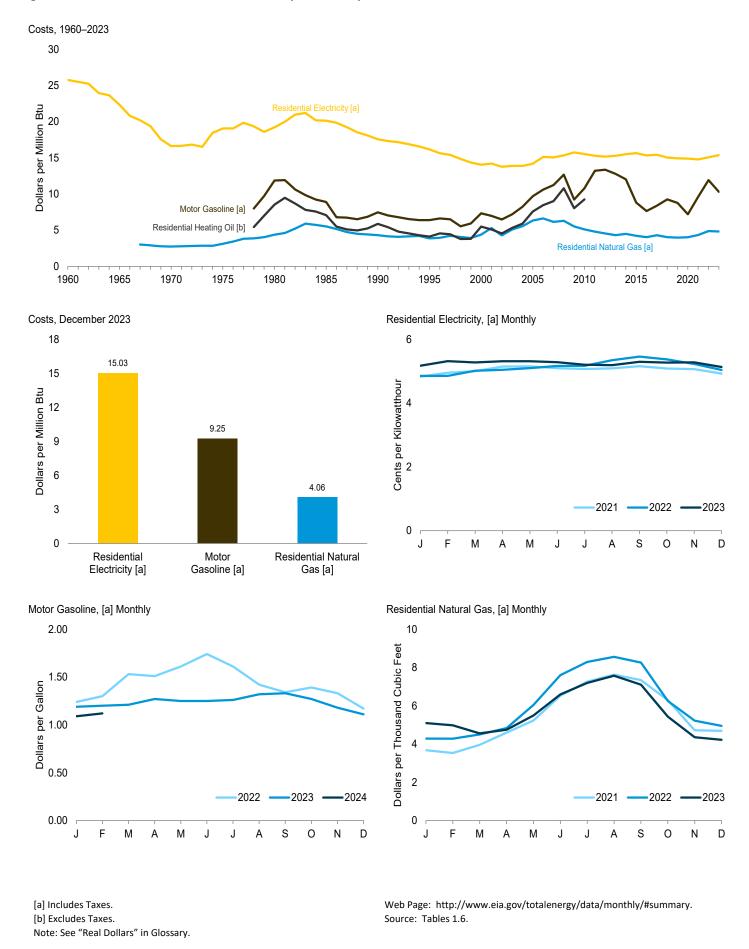


Table 1.6 Cost of Fuels to End Users in Real (1982–1984) Dollars

	Consumer Price Index, All Urban Consumers <sup>a</sup>	Motor C	asoline <sup>b</sup>		dential ng Oil <sup>c</sup>	Resid Natura	ientiai al Gas <sup>b</sup>	Electi	ential ricity <sup>b</sup>
	Index 1982–1984=100	Dollars per Gallon	Dollars per Million Btu	Dollars per Gallon	Dollars per Million Btu	Dollars per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatthour	Dollars pe Million Bt
60 Average	29.6	NA	NA	NA	NA	NA	NA	8.8	25.74
65 Average	31.5	NA	NA	NA	NA	NA	NA	7.6	22.33
70 Average	38.8	NA	NA	NA	NA	2.81	2.72	5.7	16.62
75 Average	53.8	NA	NA	NA	NA	3.18	3.12	6.5	19.07
80 Average	82.4	1.482	11.85	1.182	8.52	4.47	4.36	6.6	19.21
85 Average	107.6	1.112	8.89	0.979	7.06	5.69	5.52	6.87	20.13
90 Average	130.7	0.931	7.44	0.813	5.86	4.44	4.31	5.99	17.56
95 Average	152.4	0.791	6.38	0.569	4.10	3.98	3.87	5.51	16.15
00 Average	172.2	0.908	7.33	0.761	5.49	4.51	4.39	4.79	14.02
01 Average	177.1	0.864	6.98	0.706	5.09	5.44	5.28	4.84	14.20
02 Average	179.9	0.801	6.47	0.628	4.52	4.39	4.28	4.69	13.75
03 Average	184.0	0.890	7.19	0.736	5.31	5.23	5.09	4.74	13.89
04 Average	188.9	1.018	8.23	0.819	5.91	5.69	5.55	4.74	13.89
05 Average	195.3	1.197	9.68	1.051	7.58	6.50	6.33	4.84	14.18
06 Average	201.6	1.307	10.59	1.173	8.46	6.81	6.63	5.16	15.12
07 Average	207.342	1.374	11.22	1.250	9.01	6.31	6.14	5.14	15.05
08 Average	215.303	1.541	12.67	1.495	10.78	6.45	6.28	5.23	15.33
09 Average	214.537 218.056	1.119 1.301	9.23 10.78	1.112 1.283	8.02 9.25	5.66 5.22	5.52 5.11	5.37 5.29	15.72 15.51
10 Average11 Average	218.036	1.590	13.19	1.283 NA	9.25 NA	5.22 4.90	5.11 4.80	5.29 5.21	15.51
12 Average	224.939 229.594	1.609	13.19	NA NA	NA NA	4.64	4.53	5.21 5.17	15.27
13 Average	229.59 <del>4</del> 232.957	1.538	12.77	NA NA	NA NA	4.64 4.43	4.33 4.31	5.17 5.21	15.17
14 Average	236.736	1.447	12.01	NA	NA	4.63	4.49	5.29	15.50
15 Average	237.017	1.059	8.80	NA	NA	4.38	4.22	5.34	15.64
16 Average	240.007	0.918	7.63	NA	NA	4.19	4.03	5.23	15.33
17 Average	245.120	1.007	8.37	NA	NA	4.45	4.29	5.26	15.41
18 Average	251.107	1.113	9.25	NA	NA	4.18	4.03	5.13	15.02
19 Average	255.657	1.055	8.77	NA	NA	4.11	3.95	5.09	14.91
20 Average	258.811	0.866	7.20	NA	NA	4.17	4.01	5.08	14.89
21 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 NA	3.95	3.80	5.00	14.65
April	267.054	1.089	9.05 9.40	NA	NA	4.60	4.42	5.14	15.07
May	269.195 271.696	1.130 1.194	9.40	NA NA	NA NA	5.23 6.53	5.03 6.28	5.15 5.09	15.09 14.92
June July	273.003	1.218	10.13	NA NA	NA	7.26	6.98	5.07	14.85
August	273.567	1.225	10.13	NA	NA	7.63	7.34	5.09	14.91
September	274.310	1.225	10.19	NA	ŇÁ	7.34	7.06	5.15	15.11
October	276.589	1.257	10.46	NA	ŇÁ	6.29	6.05	5.08	14.90
November	277.948	1.287	10.70	NA	ŇA	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
22 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	NA NA	4.50	4.34 4.66	5.01 5.04	14.69
April May	289.109 292.296	1.511 1.606	12.57 13.36	NA NA	NA NA	4.83 6.05	5.82	5.04 5.09	14.77 14.93
May June	296.311	1.738	14.46	NA NA	NA NA	7.59	7.32	5.16	15.13
July	296.276	1.609	13.39	NA NA	NA	8.29	7.98	5.17	15.15
August	296.171	1.420	11.81	NA NA	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
23 January	299.170 300.840	1.188	9.88	NA NA	NA NA	5.10 4.98	4.91	5.17 5.21	15.16 15.57
February		1.204	10.02 10.09	NA NA	NA NA	4.98 4.56	4.80 4.39	5.31 5.27	15.57
March April	301.836 303.363	1.213 1.265	10.53	NA NA	NA NA	4.56 4.75	4.39 4.57	5.27 5.31	15.45
May	303.363	1.265	10.33	NA NA	NA NA	4.75 5.49	4.57 5.29	5.31 5.31	15.56
June	305.109	1.252	10.36	NA NA	NA NA	6.59	6.35	5.28	15.48
July	305.691	1.252	10.42	NA NA	NA NA	7.19	6.93	5.20 5.20	15.46
August	307.026	1.324	11.01	NA NA	NA NA	7.19 7.57	7.29	5.19	15.23
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	R 15.43
November	307.071	1.180	9.82	NA	NA	4 35	4.19	5.27	15.45
December	306.746	1.112	9.25	NA	NA	R 4.22	R 4.06	R 5.13	R 15.03
Average	304.702	1.238	10.29	NA	NA	R 5.00	R 4.82	R <b>5.24</b>	R 15.37
24 January	308.417	1.087	9.04	NA	NA	NA	NA	NA	NA

<sup>&</sup>lt;sup>a</sup> Data are U.S. city averages for all items, and are not seasonally adjusted.

Excludes taxes.

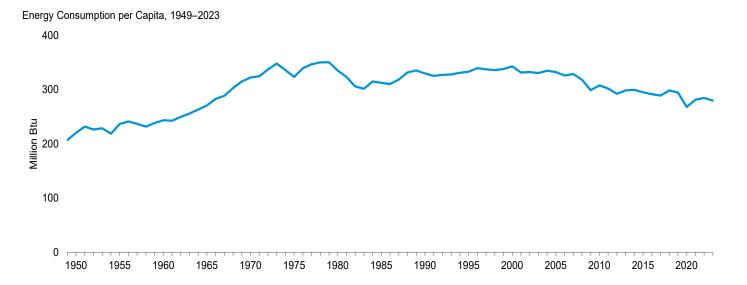
R=Revised. NA=Not available.

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.

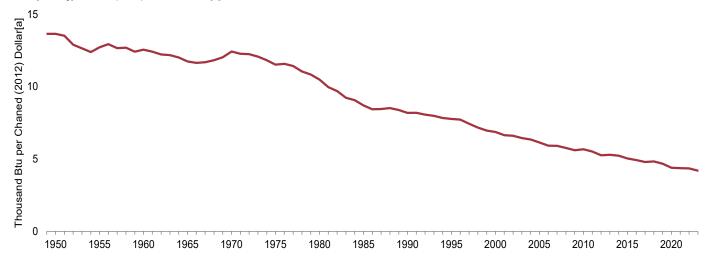
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary (Excel and CSV files) for all available annual data beginning in 1960 and monthly data beginning in 1995.
Sources: • Fuel Prices: Tables 9.4 (All Grades), 9.8, and 9.10, adjusted by the CPI; and Monthy Energy Review, September 2012, Table 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.

b Includes taxes. Excludes taxes.

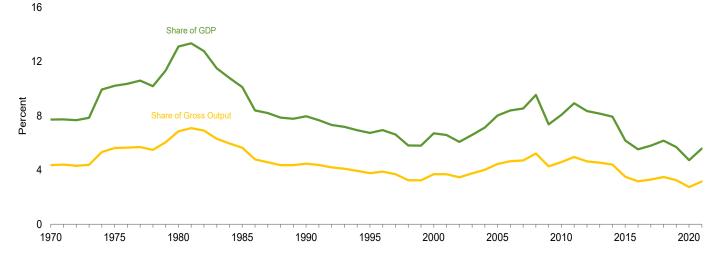
Figure 1.7 Primary Energy Consumption and Energy Expenditures Indicators



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



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



[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

	Primar	y Energy Cons	sumptiona		Energy E	xpenditures <sup>b</sup>		Carbo	on Dioxide Em	issions <sup>c</sup>
	Consump- tion	Consump- tion per Capita	Consumption per Real Dollar <sup>d</sup> of GDP <sup>e</sup>	Expendi- tures	Expendi- tures per Capita	Expenditures as Share of GDP <sup>e</sup>	Expenditures as Share of Gross Output <sup>f</sup>	Emissions	Emissions per Capita	Emissions per Real Dollar <sup>d</sup> of GDP <sup>e</sup>
	Quadrillion Btu	Million Btu	Thousand Btu per Chained (2017) Dollar <sup>d</sup>	Million Nominal Dollars <sup>g</sup>	Nominal Dollars <sup>g</sup>	Percent	Percent	Million Metric Tons Carbon Dioxide	Metric Tons Carbon Dioxide	Metric Tons Carbon Dioxide per Million Chained (2017) Dollars <sup>d</sup>
1950	33.527 39.215 43.942 52.565 66.036 69.788 76.038 74.159 70.812 70.489 74.237 74.268 77.161 81.025 82.711 82.256 82.711 82.256 82.711 82.256 82.214 83.836 85.191 87.053 88.668 91.404 91.956 92.602 94.232 96.694 94.416 95.575 95.806 98.033 98.101 97.235 98.965 96.647 91.626 95.142	220 236 243 271 322 323 335 323 306 302 315 312 310 318 331 335 327 328 331 335 327 328 331 333 325 327 328 331 333 339 337 336 338 331 332 339 339 339 339 339 339 339 339 339	13.64 12.72 12.55 11.74 12.42 11.51 10.48 9.97 9.69 9.22 9.06 8.70 8.43 8.44 8.51 8.38 8.19 8.06 7.97 7.83 7.77 7.72 7.43 7.16 6.96 6.86 6.63 6.60 6.44 6.35 6.14 5.92 5.90 5.76 5.60 5.67	NA NA NA NA 82,875 171,854 374,350 427,901 426,482 417,622 435,313 438,343 384,091 397,627 411,568 439,051 474,652 472,440 476,845 492,275 504,856 514,624 560,293 567,962 526,283 558,627 687,711 696,242 663,964 755,070 871,210 1,045,730 1,158,821 1,233,869 1,408,759 1,066,528 1,214,278	NA NA NA NA 404 796 1,647 1,865 1,846 1,846 1,846 1,842 1,599 1,641 1,683 1,779 1,901 1,867 1,859 1,894 1,919 1,933 2,080 2,083 1,908 2,002 2,437 2,308 2,603 2,975 3,539 3,884 4,096 4,633 3,477 3,926	NA NA NA NA 10.2 13.1 13.3 12.8 11.5 10.8 10.1 8.4 8.2 7.9 7.8 8.0 7.7 7.3 7.2 6.9 6.7 6.9 6.6 5.8 5.8 6.7 6.6 6.1 6.6 7.1 8.4 8.5 9.5 7.4	NA NA NA NA 4.4 5.6 6.9 7.1 6.9 6.0 5.6 4.8 4.4 4.5 4.4 4.5 4.1 3.9 3.8 3.7 3.2 3.7 3.7 3.5 3.7 4.0 4.4 4.6 4.7 5.2 4.6	2,382 2,685 2,914 3,462 4,261 4,428 4,756 4,637 4,404 4,384 4,613 4,605 4,616 4,776 4,998 5,085 5,085 5,085 5,085 5,085 5,085 5,085 5,089 5,182 5,262 5,324 5,518 5,589 5,637 5,700 5,889 5,778 5,820 5,820 5,820 5,820 5,929 6,016 5,823 5,929 6,016 5,823 5,929 6,016 5,823 5,404 5,594	15.6 16.2 16.1 17.8 20.8 20.5 20.9 20.2 19.0 18.8 19.6 19.4 19.2 19.7 20.4 20.6 20.2 19.7 19.8 19.9 20.0 20.5 20.5 20.4 20.4 20.9 20.5 20.4 20.9 20.3 20.2 20.3 20.2 20.3 19.9 20.0 19.1 17.6 18.1	969 871 833 773 802 731 655 623 603 574 563 539 523 525 515 501 497 489 485 473 467 466 421 418 406 402 396 388 376 361 359 347 331 333
2011	93.966 91.677 94.253 95.335 94.484 94.092 93.902 97.405 96.603 88.852 93.363 94.791 93.686	302 292 298 300 295 291 289 298 294 268 281 284 280	5.51 R 5.25 5.29 5.22 5.03 4.92 4.79 4.82 4.67 4.39 4.36 4.34 4.19	1,392,468 1,355,175 1,376,402 1,395,430 1,128,447 1,038,884 1,136,379 1,271,931 1,223,985 1,007,785 1,317,098 NA	4,469 4,318 4,356 4,384 3,519 3,217 3,497 3,893 3,729 3,040 3,967 NA NA	8.9 8.3 8.2 7.9 6.2 5.5 5.8 6.2 5.7 4.7 5.6 NA	3.5 4.4 3.5 3.2 3.3 3.5 3.2 2.7 3.2 NA	5,455 5,236 5,359 5,414 5,262 5,169 5,132 5,278 5,147 4,584 4,905 4,941 4,807	17.5 16.7 17.0 17.0 16.4 16.0 15.8 16.2 15.7 13.8 14.8 14.8	320 300 301 296 280 270 262 261 249 227 229 226 215

a See "Primary Energy Consumption" in Glossary.

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 divided by U.S. gross domestic product in nominal dollars (see Table C1).

• 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 odmestic product in chained (2017) dollars (see Table C1).

b Expenditures include taxes where data are available.

<sup>&</sup>lt;sup>c</sup> Carbon dioxide emissions from energy consumption. See Table 11.1.

Gee "Chained Dollars" and "Real Dollars" in Glossary.

<sup>&</sup>lt;sup>e</sup> See "Gross Domestic Product (GDP)" in Glossary.

<sup>&</sup>lt;sup>f</sup> Gross output is the value of GDP plus the value of intermediate inputs used to produce GDP. Through 1996, data have been adjusted by EIA based on DOC/BEA's 2012 comprehensive revision.

 $<sup>^{\</sup>rm g}\,$  See "Nominal Dollars" in Glossary.

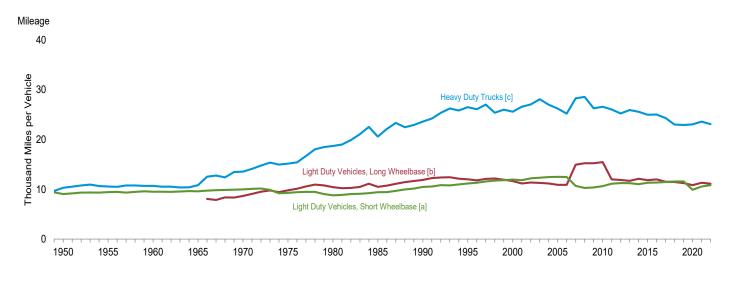
R=Revised. NA=Not available.

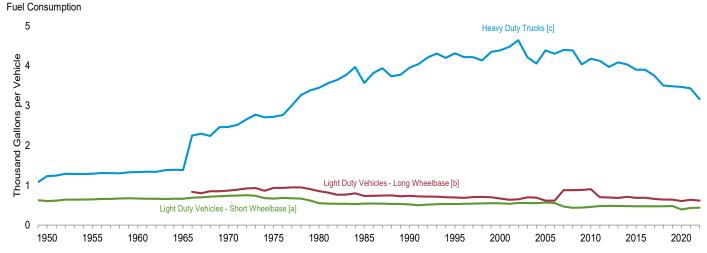
Notes:  $\bullet$  Data are estimates.  $\bullet$  Geographic coverage is the 50 states and the District of Columbia.

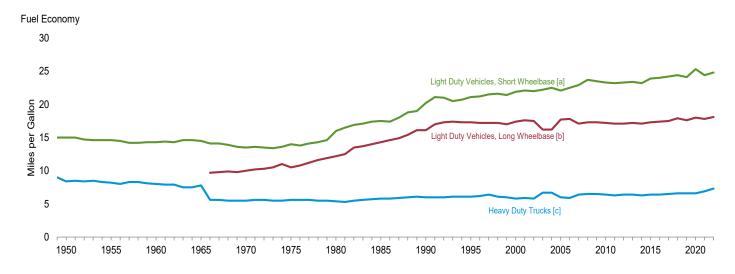
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary (Excel and CSV files) for all available annual data beginning in 1949.

Sources: • Consumption: Table 1.3. • Consumption per Capita:

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







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

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

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

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

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

Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary. Source: Table 1.8.

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

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

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

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.

<sup>c</sup> For 1949–1965, data are for single-unit trucks with 2 axles and 6 or more tires,

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

<sup>10,000</sup> pounds), and combination trucks.

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

Included in "Heavy-Duty Trucks."

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

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

Sources: • Light-Duty Vehicles, Short Wheelbase: 1990–1994–0.5.

Department of Transportation Bureau of Transportation Statistics, National All Other Data:

Statistics 1998, Table 4-13. • All Other Data:

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

	EI	ectric Light-Duty Vehicles	3			Floats Valida
	Battery Electric Vehicles <sup>a</sup>	Plug-In Hybrid Electric Vehicles <sup>b</sup>	Total	Fuel Cell Electric Vehicles <sup>c</sup>	All Light-Duty Vehicles <sup>d</sup>	Electric Vehicle Share of All Light-Duty Vehicles
		Thousa	nds of Registered V	ehicles		Percent
2012	29.7	64.7	94.4	0.1	231,872.8	(s)
2013	<sup>E</sup> 85.7	E 108.9	E 194.7	<sup>€</sup> 0.2	E 237,326.1	(s) E 0.1
2014	127.4	158.8	286.2	0.1	240,796.6	0.1
2015	<sup>E</sup> 194.8	<sup>E</sup> 196.7	E 391.5	<sup>€</sup> 0.2	E 248,926.1	E 0.2
2016	272.6	239.0	511.7	1.1	251,219.0	0.2
2017	E 353.3	E 368.3	E 721.6	<sup>E</sup> 4.6	E 257,206.5	<sup>E</sup> 0.3
2018	573.0	491.2	1,064.2	5.9	259,182.4	0.4
2019	755.7	561.2	1.316.9	7.6	261,451.1	0.5
2020	973.5	613.0	1,586.5	8.2	259,976.0	0.6
2021	1,422.0	774.9	2,196.9	11.4	263,152.3	0.8
2022	2,115.6	936.9	3.052.5	13.9	263,764.2	1.2

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.

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.

Table 1.10 Heating Degree Days by Census Division

	New England <sup>a</sup>	Middle Atlantic <sup>b</sup>	East North Central <sup>c</sup>	West North Central <sup>d</sup>	South Atlantic <sup>e</sup>	East South Central <sup>f</sup>	West South Central <sup>9</sup>	Mountain <sup>h</sup>	Pacific <sup>i</sup>	United States
1950 Total 1955 Total 1965 Total 1965 Total 1965 Total 1970 Total 1970 Total 1970 Total 1985 Total 1985 Total 1990 Total 1990 Total 2000 Total 2005 Total 2006 Total 2007 Total 2008 Total 2010 Total 2011 Total 2011 Total 2012 Total 2013 Total 2014 Total 2015 Total 2016 Total 2017 Total 2017 Total 2018 Total 2019 Total 2017 Total 2018 Total 2017 Total 2018 Total 2017 Total 2018 Total 2017 Total 2018 Total 2019 Total	6,874 6,828 7,030 7,023 6,548 7,071 6,751 5,988 6,688 6,626 6,646 5,886 6,539 6,436 6,645 5,935 6,115 5,564 6,647 6,677 6,521 5,929 6,037 6,325 6,538	6,326 6,234 6,391 6,395 6,390 5,895 6,480 5,972 5,254 6,094 5,951 5,213 5,757 5,784 5,924 5,924 5,985 5,985 5,977 5,784 5,973 5,777 5,333 5,777 5,333 5,775 5,784 5,775 5,214	7,029 6,488 6,909 6,721 6,408 6,976 6,668 5,780 6,741 6,316 6,223 5,706 6,075 6,679 6,513 6,187 6,174 5,357 6,662 7,196 6,166 5,701 5,684 6,428 5,854	7,457 6,914 7,186 6,934 7,092 6,881 6,837 7,264 6,138 6,911 6,502 6,214 5,822 6,385 7,120 6,842 6,566 6,566 5,517 7,305 6,090 5,788 6,000 6,971 7,078 6,322	3,491 3,484 3,760 3,354 3,434 2,948 3,357 2,890 2,299 2,981 2,898 2,769 2,470 2,561 2,302 2,704 2,561 2,302 2,732 2,957 2,493 2,461 2,237 2,634 2,390 2,259	3,548 3,515 4,136 3,502 3,824 3,439 3,966 3,662 2,943 3,652 3,381 3,212 3,188 3,601 3,538 3,944 2,876 3,649 3,933 3,221 3,093 2,834 3,477 3,180 3,477 3,180	2,277 2,295 2,767 2,2561 2,313 2,495 2,536 1,968 2,149 2,154 1,986 1,802 2,1154 2,450 2,115 1,651 2,326 2,450 2,115 1,651 2,326 2,423 2,087 1,752 1,582 2,252 2,145 1,815	6,342 6,706 6,282 6,088 6,120 6,261 5,566 6,392 5,102 4,972 4,896 4,914 4,941 5,333 5,145 5,327 4,583 5,285 4,616 4,640 4,593 4,830 5,333 4,830	3,908 4,321 3,801 3,727 4,118 3,540 3,937 3,605 3,273 3,463 3,380 3,558 3,557 3,567 3,539 3,625 3,821 3,414 3,414 3,625 2,775 2,899 3,030 3,186 3,168 3,545 3,215	5,364 5,244 5,402 5,145 5,216 4,903 5,077 4,888 4,180 4,640 4,493 4,348 4,040 4,268 4,494 4,480 4,463 4,314 3,773 4,472 4,560 4,096 3,889 3,840 4,293 4,320 3,916
2021 January	837 520 247 15 13 4 68 279 727 914	1,065 1,016 736 440 215 10 4 250 206 708 809 5,262	1,147 1,249 690 448 243 14 7 55 77 227 780 880 5,747	1,181 1,375 673 478 225 14 8 12 68 295 738 995 <b>6,061</b>	579 485 283 154 56 1 0 10 70 378 351 2,366	738 716 338 231 83 1 0 0 20 104 522 414 3,166	515 580 200 102 18 0 0 1 32 258 205 1,911	875 780 643 404 221 35 5 23 82 344 491 792 8 <b>4,694</b>	550 493 524 286 175 28 10 14 53 246 324 634 <b>3,338</b>	805 794 508 308 151 12 5 6 40 180 509 616 <b>3,934</b>
2022 January February March April May June July August September October November December Total	994 841 544 187 53 3 108 386 614 983	1,242 933 758 495 146 27 2 3 67 393 588 980 <b>5,636</b>	1,391 1,084 791 567 159 26 3 14 82 425 695 1,105 <b>6,344</b>	1,442 1,194 847 578 185 30 9 18 84 405 825 1,289 8 6,905	R 644 412 286 156 31 1 0 0 13 177 267 536 <b>2,523</b>	847 591 388 217 32 1 0 0 23 240 429 671 <b>3,438</b>	578 498 263 52 4 0 0 2 66 298 439 <b>2,200</b>	888 806 608 422 240 69 7 11 66 311 770 926 <b>5,125</b>	549 478 401 337 213 566 10 8 31 140 516 627 <b>3,366</b>	914 712 525 342 122 26 4 6 44 258 511 781 4,245
2023 January	938 849 466 R 280 R 65 1 R 24 R 63 R 285 788 851	R 844 R 814 R 796 368 R 243 R 43 1 13 R 58 275 R 716 791 <b>4,963</b>	R 997 881 850 R 441 R 215 43 7 21 68 R 338 736 826 <b>5,424</b>	R 1,183 1,031 955 488 145 23 17 17 8 58 362 8 745 903 5,927	R 449 306 R 301 117 65 9 0 10 R 111 R 326 452 <b>2,145</b>	R 576 414 R 397 R 187 R 62 R 7 0 0 R 13 R 146 415 600 <b>2,818</b>	R 400 R 331 R 200 85 6 0 0 1 47 R 256 391	R 960 R 824 R 771 445 R 182 R 100 11 R 18 R 97 317 R 574 770 <b>5,068</b>	R 631 R 590 R 610 R 352 R 194 R 111 12 10 R 77 R 171 R 382 478 <b>3,618</b>	R 714 621 R 586 R 296 145 43 5 10 46 207 R 504 624 3,802

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

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

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.

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.ela.gov/forecasts/steo/special/pdf/2012\_sp\_04.pdf.

b New Jersey, New York, and Pennsylvania.
 Illinois, Indiana, Michigan, Ohio, and Wisconsin.
 lowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South

Dakota.

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

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

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

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

Wyoming.
i Alaska, California, Hawaii, Oregon, and Washington.

Table 1.11 Cooling Degree Days by Census Division

	New England <sup>a</sup>	Middle Atlantic <sup>b</sup>	East North Central <sup>c</sup>	West North Central <sup>d</sup>	South Atlantic <sup>e</sup>	East South Central <sup>f</sup>	West South Central <sup>g</sup>	Mountain <sup>h</sup>	Pacific <sup>i</sup>	United States
1950 Total 1955 Total 1960 Total 1965 Total 1965 Total 1970 Total 1975 Total 1975 Total 1980 Total 1980 Total 1980 Total 1980 Total 1995 Total 2000 Total 2006 Total 2007 Total 2008 Total 2010 Total 2011 Total 2011 Total 2011 Total 2012 Total 2013 Total 2014 Total 2015 Total 2016 Total 2017 Total 2017 Total 2018 Total 2017 Total 2018 Total 2017 Total 2018 Total 2018 Total 2019 Total 2019 Total 2019 Total 2019 Total 2019 Total	296 531 318 310 423 422 439 324 429 471 278 598 484 445 462 349 634 553 563 540 419 555 626 450 667 535 644	401 761 486 498 615 583 679 509 561 703 458 892 693 693 693 666 523 908 835 815 681 596 804 887 661 885 783 844	505 922 626 617 746 720 769 601 602 877 630 944 733 881 683 534 963 858 974 689 610 729 958 709 972 831 831	646 1,138 870 831 979 937 1,158 780 912 927 983 1,063 1,033 1,102 818 698 1,095 1,074 1,221 891 812 941 1,072 910 1,133 951 964	1,429 1,647 1,599 1,626 1,759 1,805 1,925 1,885 2,061 2,033 1,928 2,056 2,222 1,998 2,032 2,274 2,263 2,166 2,005 2,005 2,401 2,409 2,250 2,414 2,508 2,338	1,420 1,673 1,531 1,551 1,551 1,571 1,440 1,753 1,562 1,613 1,673 1,675 1,647 1,892 1,537 1,479 1,975 1,727 1,761 1,440 1,493 1,718 1,957 1,585 1,957 1,585 1,957 1,585 1,957 1,585 1,957 1,886 1,637	2,281 2,366 2,366 2,460 2,282 2,161 2,551 2,519 2,526 2,398 2,773 2,646 2,477 2,500 2,588 2,756 3,112 2,914 2,535 2,474 2,535 2,474 2,535 2,474 2,535 2,474 2,535 2,740 2,882 2,718 2,758 2,758 2,758 2,758 2,758 2,758 2,758 2,758 2,758 2,758 2,758 2,758 2,758 2,758 2,773 2,656 2,773 2,740 2,882 2,773 2,786 2,773 2,740 2,882 2,773 2,758 2,758 2,758 2,758 2,773 2,758 2,773 2,740 2,758 2,773 2,758 2,773 2,774 2,780 2,781 2,773 2,781 2,774 2,781 2,781 2,773 2,774 2,781 2,781 2,773 2,773 2,774 2,774 2,782 2,775	681 779 973 779 970 903 1,071 1,095 1,211 1,213 1,479 1,372 1,465 1,562 1,385 1,392 1,356 1,447 1,567 1,423 1,469 1,423 1,469 1,485 1,534 1,534 1,534 1,538	628 556 795 576 732 596 652 759 835 791 772 777 920 828 917 894 674 734 918 891 1,070 1,069 930 1,055 1,005 843 1,071	872 1,145 1,002 980 1,081 1,051 1,216 1,122 1,200 1,261 1,232 1,389 1,360 1,392 1,283 1,241 1,456 1,469 1,493 1,304 1,295 1,493 1,304 1,553 1,422 1,553 1,422 1,495 1,495 1,495 1,518
2021 January	0 0 0 8 133 159 238 60 7 0 0	0 0 0 17 165 250 286 94 23 0 0	0 0 2 0 35 215 238 285 105 29 0 0	0 0 8 3 43 267 302 300 147 22 0 1	30 50 73 81 188 347 437 456 280 178 41 66 <b>2,226</b>	5 1 34 17 108 306 397 410 207 98 2 25 <b>1,611</b>	15 4 70 84 229 457 514 555 401 209 31 75 <b>2,644</b>	0 3 7 59 126 8 348 8 418 331 222 45 24 0	10 7 8 24 51 175 296 252 158 27 25 8 1,040	10 12 28 36 100 274 347 357 200 84 18 26 1,492
Petron June July August September October November December Total	0 18 63 260 273 33 0	0 0 0 40 114 311 302 72 1 0 0	0 0 1 0 79 177 264 219 74 2 0 0	0 0 3 2 72 232 338 376 121 7 0 0	28 45 84 98 240 376 482 440 278 8 106 88 37	3 3 22 25 206 367 480 385 200 29 5 3 1,728	9 5 41 158 386 554 682 583 404 131 26 13 2,992	0 2 13 52 127 290 431 358 245 67 1 0 1,586	9 7 14 23 42 146 247 297 222 59 11 9	8 11 27 49 147 270 359 202 55 23 11 <b>1,556</b>
2023 January	0 0 0 4 8 50 8 135 8 60 5 0	0 0 0 12 78 78 9307 190 80 10 0 0	0 0 1 48 130 247 R 188 88 10 0 0	0 0 1 5 89 226 283 280 146 14 0 0	R 50 70 84 117 176 294 R 488 R 461 R 291 138 R 66 38 2,272	R 20 17 R 28 30 142 271 R 431 R 419 R 248 66 4 3 1,677	35 27 8 87 8 93 292 515 647 709 8 506 8 172 8 28 16 3,128	0 0 3 41 8 116 194 8 460 8 362 8 203 8 86 13 0 1,479	8 8 10 8 18 8 33 8 57 8 282 8 239 8 90 8 57 8 15 8 824	17 20 32 44 109 210 8 391 8 348 8 202 73 8 21 11 1,477

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

b New Jersey, New York, and Pennsylvania.

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.

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.

Illinois, Indiana, Michigan, Ohio, and Wisconsin.
Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

Darkota.

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

Alabama, Kentucky, Mississippi, and Tennessee.

Arkansas, Louisiana, Oklahoma, and Texas.

Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and

Wyoming.
Alaska, California, Hawaii, Oregon, and Washington.

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

			Petroleum									
	Coal	Natural Gas	Asphalt and Road Oil	Hydrocarbon Gas Liquids <sup>a</sup>	Lubricants	Petro- chemical Feedstocks <sup>b</sup>	Petroleum Coke	Special Naphthas	Other <sup>c</sup>	Total		
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels per Day									
1973 Total 1975 Total 1980 Total 1985 Total 1990 Total 1995 Total 2000 Total 2005 Total 2007 Total 2007 Total 2017 Total 2011 Total 2012 Total 2014 Total 2015 Total 2015 Total 2016 Total 2017 Total 2017 Total 2018 Total 2019 Total 2019 Total 2019 Total 2010 Total 2011 Total 2011 Total 2012 Total 2013 Total 2014 Total 2015 Total 2016 Total 2017 Total 2018 Total 2019 Total 2019 Total	3,523 3,105 2,612 1,536 758 921 674 929 562 556 541 375 719 730 707 732 562 520 435 463 531 520 418	898 761 759 642 675 868 918 761 573 587 597 513 654 680 706 721 725 703 727 746 1,118 1,114	522 419 396 425 483 486 525 546 521 494 417 360 362 355 340 323 327 343 351 351 351 327 348 343	684 890 982 1,071 1,357 1,543 1,369 1,424 1,429 1,401 1,597 1,639 1,747 1,870 1,780 1,918 1,943 2,023 2,309 2,342 2,479	162 137 159 145 164 156 166 141 137 142 131 118 131 125 114 121 126 138 130 121 117	356 320 692 395 546 590 662 729 726 664 574 507 539 520 444 448 410 378 371 394 393 349 329	45 43 41 46 57 58 78 106 111 108 103 95 42 40 43 40 20 21 20 21 22 21	88 75 100 83 56 37 51 33 37 41 44 24 12 8 52 55 52 49 52 49	88 122 143 95 85 70 78 75 86 82 85 89 91 88 93 97 99 100 103 103 103 88	1,945 1,770 2,422 2,173 2,462 2,754 3,103 2,997 3,041 2,974 2,634 2,591 2,773 2,781 2,785 2,948 2,948 2,966 3,062 3,320 3,318 3,403		
February February March April May June July August September October November December Total	43 39 44 43 44 43 43 43 41 43 42 42 <b>509</b>	103 90 92 88 85 81 84 85 82 88 95 101	239 206 275 345 388 512 473 492 473 453 364 221	2,775 1,867 2,282 2,538 2,787 2,822 2,764 2,815 2,730 2,741 2,649 2,987 <b>2,652</b>	114 110 97 108 107 113 109 97 94 104 112 96	325 256 301 349 380 371 361 356 348 298 320 362 336	18 8 17 14 25 22 14 23 18 16 17 24	44 29 38 51 51 41 43 39 46 46 48 42	80 81 91 91 88 96 90 94 90 99	3,594 2,556 3,092 3,495 3,828 3,969 3,861 3,913 3,803 3,747 3,599 3,834 <b>3,615</b>		
Pebruary February March April May June July August September October November December Total	41 38 41 38 39 37 39 39 37 40 37 38 464	108 95 99 92 88 83 84 85 83 89 94 99	243 264 272 335 401 493 465 510 472 453 369 256 <b>378</b>	2,863 2,711 2,801 2,664 2,603 2,847 2,953 2,608 2,697 2,647 2,619 R 2,351 <b>2,697</b>	125 114 139 123 112 93 46 134 99 130 107 105 111	237 203 249 267 276 236 266 252 233 252 228 243 <b>246</b>	16 15 17 16 13 15 27 20 18 12 21 14	41 49 53 45 37 48 51 69 52 45 34 34	98 107 95 94 91 103 99 98 99 92 94 93 <b>97</b>	3,624 3,463 3,625 3,544 3,533 3,834 3,907 3,691 3,670 3,631 3,472 3,096 <b>3,592</b>		
2023 January February March April June July August September October November December Total	39 37 41 37 38 37 39 39 38 40 36 37 <b>457</b>	100 92 98 92 88 83 85 88 8 91 96 102 <b>1,097</b>	231 239 258 328 406 472 461 512 476 451 331 253 <b>369</b>	R 2,528 R 2,508 R 2,528 R 2,749 R 2,901 R 2,973 R 3,000 R 2,776 R 2,746 R 2,931 R 2,991 3,200 2,821	117 112 57 84 97 95 94 74 81 94 55 37 <b>83</b>	268 221 220 302 294 228 258 240 226 225 259 241 <b>249</b>	8 16 22 23 16 13 8 22 28 18 33 10 18	47 36 48 48 39 45 55 44 45 58 52 43	85 R 94 95 R 88 89 92 99 R 91 101 R 89 R 89 90	R 3,284 R 3,225 R 3,229 R 3,622 R 3,843 R 3,974 R 3,758 R 3,702 R 3,865 R 3,809 3,875 3,678		

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 continual continual

section.

R=Revised.

Table 1.12b Heat Content of Non-Combustion Use of Fossil Fuels

			Petroleum									Davaget of
	Coal	Natural Gas	Asphalt and Road Oil	Hydro- carbon Gas Liquids <sup>a</sup>	Lubri- cants	Petro- chemical Feed- stocks <sup>b</sup>	Petro- leum Coke	Special Naphthas	Other <sup>c</sup>	Total	Total	Percent of Total Energy Consump- tion
1973 Total 1975 Total 1980 Total 1985 Total 1990 Total 1990 Total 2000 Total 2005 Total 2007 Total 2007 Total 2017 Total 2011 Total 2012 Total 2013 Total 2015 Total 2015 Total 2017 Total 2017 Total 2018 Total 2019 Total	0.113 .099 .084 .049 .024 .029 .022 .030 .018 .017 .012 .023 .023 .023 .023 .023 .023 .017 .014 .017	0.916 .777 .777 .662 .695 .892 .942 .782 .589 .603 .613 .526 .669 .724 .741 .749 .730 .755 .774 1.160 1.159	1.264 1.014 .962 1.029 1.170 1.178 1.276 1.323 1.261 1.197 1.012 .873 .878 .859 .827 .783 .793 .832 .853 .849 .793 .844 .832	0.872 .822 1.128 1.194 1.345 1.716 1.928 1.701 1.758 1.564 1.676 1.931 1.947 2.109 2.270 2.125 2.317 2.330 2.393 2.708 2.746 2.870	0.359 .304 .354 .322 .362 .346 .369 .312 .303 .291 .262 .291 .276 .254 .268 .305 .289 .267 .259 .259	0.726 .652 1.426 .817 1.123 1.214 1.344 1.477 1.351 1.172 1.031 1.057 .901 .901 .901 .901 .754 .797 .794 .704	0.093 .090 .086 .096 .119 .163 .221 .225 .216 .199 .083 .090 .083 .043 .043 .043 .044 .044 .046	0.169 .144 .193 .159 .107 .071 .097 .063 .070 .085 .046 .023 .015 .100 .106 .099 .094 .100 .092	0.185 .256 .303 .201 .179 .145 .164 .157 .180 .173 .180 .179 .188 .193 .187 .197 .205 .208 .212 .218 .198 .198	3.668 3.283 4.451 3.818 4.406 4.790 5.342 5.250 4.265 4.496 4.437 4.382 4.601 4.379 4.564 4.575 4.663 4.910 4.882 4.908	4.696 4.159 5.312 4.529 5.125 5.711 6.306 6.062 5.885 5.726 5.150 4.804 5.187 5.156 5.128 5.366 5.146 5.310 5.344 5.452 6.087 6.057 6.013	6.4 6.0 6.1 6.4 6.5 6.2 6.5 6.2 6.3 5.5 5.5 5.5 5.7 5.7 5.3 5.5 5.6 7.8 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3
Pebruary February March April May June July August September October November December Total	.001 .001 .001 .001 .001 .001 .001 .001	.107 .094 .096 .092 .088 .084 .087 .088 .085 .091 .099 .105	.049 .038 .057 .069 .080 .102 .097 .101 .094 .093 .072 .046 .898	.277 .166 .227 .239 .275 .273 .276 .281 .263 .268 .248 .291	.022 .019 .018 .020 .020 .021 .021 .018 .017 .019 .020 .018 .233	.056 .040 .052 .058 .066 .062 .062 .052 .058 .053 .062 .684	.003 .001 .003 .002 .004 .003 .004 .003 .003 .003 .004	.007 .004 .006 .008 .008 .007 .007 .007 .007 .006 .007	.014 .013 .015 .016 .016 .017 .016 .016 .017 .018 .190	.428 .282 .378 .411 .470 .483 .482 .489 .459 .459 .421 .447	.537 .377 .475 .504 .560 .569 .571 .578 .545 .551 .521 .553 <b>6.340</b>	6.3 4.8 6.2 7.1 7.7 7.4 7.1 7.4 6.7 6.6 <b>6.8</b>
Pebruary February February March April May June July August September October November December Total	.001 .001 .001 .001 .001 .001 .001 .001	.112 .099 .103 .095 .091 .087 .088 .086 .092 .098 .103	.050 .049 .056 .067 .083 .098 .096 .105 .094 .093 .073 .053	.272 .232 .268 .243 .247 .264 .283 .253 .251 .251 .242 .221 <b>3.027</b>	.024 .019 .026 .022 .021 .017 .009 .025 .018 .024 .020	.041 .031 .043 .045 .048 .040 .046 .044 .039 .044 .038 .042	.003 .002 .003 .003 .002 .003 .005 .003 .003 .002 .004	.007 .007 .009 .007 .006 .008 .008 .011 .008 .007 .005	.017 .017 .017 .016 .016 .018 .018 .018 .017 .016 .017	.413 .359 .421 .403 .423 .446 .464 .460 .431 .439 .398 .360 <b>5.017</b>	.526 .459 .525 .500 .516 .534 .552 .549 .519 .533 .497 .464 <b>6.174</b>	5.8 5.7 6.5 6.9 7.0 6.8 7.0 7.2 6.4 5.4 <b>6.5</b>
Pebruary February March April May June July August September October November December Total	.001 .001 .001 .001 .001 .001 .001 .001	.103 .095 .101 .096 .091 .086 .088 .091 .088 .095 .100	.048 .044 .053 .065 .084 .094 .095 .105 .095 .093 .066 .052	R .240 R .210 R .237 .251 .275 R .276 R .289 R .267 .255 .283 R .280 .303 <b>3.166</b>	.022 .019 .011 .015 .018 .017 .018 .015 .018 .010 .007	.046 .035 .038 .051 .051 .038 .045 .042 .037 .039 .043	.001 .003 .004 .004 .003 .002 .001 .004 .005 .003 .006 .002	.008 .005 .008 .008 .006 .007 .009 .007 .009 .008 .007	.015 .015 .017 .015 .016 .016 .018 .016 .018 .016 .015 .016	R .380 R .331 R .368 .409 .453 R .451 R .474 R .455 R .432 .461 R .428 .429 <b>5.070</b>	R .484 R .427 R .470 R .506 S .545 R .538 R .563 .547 R .521 .557 R .529 .535 <b>6.224</b>	R 5.7 R 5.6 5.8 7.1 7.4 7.2 7.0 6.6 7.0 7.4 6.7 6.4 <b>6.6</b>

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) (see Table 1.3).

# **Energy Overview**

**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.

Renewable Energy

1949 forward: Table 10.1.

# Total Primary Energy Production

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

# **Table 1.3 Sources**

#### Coal

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

#### Natural Gas

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

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

#### Petroleum

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

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

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

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

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

Coal Coke Net Imports 1949 forward: Table 1.4c.

#### Fossil Fuels Total

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

#### Nuclear Electric Power

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

# Renewable Energy

1949 forward: Table 10.1.

# Electricity Net Imports 1949 forward: Table 1.4c.

# Total Primary Energy Consumption

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

# **Table 1.4a Sources**

#### Coal

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

#### Coal Coke

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

#### Natural Gas

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

# Crude Oil

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

# Petroleum Products

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

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

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

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

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

#### Total Petroleum

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

# Biomass—Fuel Ethanol (Minus Denaturant)

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

#### Biomass—Biodiesel

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

#### Biomass—Renewable Diesel Fuel

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

# Biomass—Other Biofuels

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

#### Total Biomass

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

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

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

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

#### *Electricity*

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

#### Total Primary Energy Imports

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

# **Table 1.4b Sources**

# Coal

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

# Coal Coke

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

# Natural Gas

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

#### Crude Oil

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

# Petroleum Products

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

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

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

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

#### Total Petroleum

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

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

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

#### Biomass—Biodiesel

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

# Biomass—Densified Biomass

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

## Total Biomass

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

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

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

# **Electricity**

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

# Total Primary Energy Exports

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

#### **Table 1.5 Sources**

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

## Petroleum Exports

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

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

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

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

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

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

# Petroleum Imports

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

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

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

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

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

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

# Energy Exports and Imports

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

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

1989: Monthly FT-900, 1990 issues.

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

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

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

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

# Petroleum Balance

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

#### Energy Balance

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

# Non-Energy Balance

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

# Total Merchandise

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

1988: "Report on U.S. Merchandise Trade, 1988 final revisions," August 18, 1989.

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

1990: "U.S. Merchandise Trade, 1990 final report," May 10, 1991, and "U.S. Merchandise Trade, December 1992,"

February 18, 1993, page 3.

1991: "U.S. Merchandise Trade, 1992 final report," May 12, 1993.

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

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

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

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