

Table 33. Transportation Sector Energy Use by Mode and Type
(trillion Btu)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Energy Use by Mode														
Highway														
Light-Duty Vehicles	15901.8	16210.4	16277.3	16399.3	16746.4	17041.2	17366.8	17709.9	17989.6	18248.2	18491.8	18750.9	19001.7	19242.7
Automobiles	9030.1	8973.7	8861.9	8837.3	8920	8985.4	9037.9	9064	9074.7	9075.7	9074.5	9080.7	9085.1	9091.6
Light Trucks	6845.8	7211	7389.9	7536.6	7800.7	8030	8303	8619.9	8888.9	9146.5	9391.2	9644.1	9890.5	10125
Motorcycles	25.9	25.8	25.5	25.4	25.6	25.8	25.9	26	26	26	26	26	26	26.1
Commercial Light Trucks 1/	588.7	610.7	619.5	626.9	634.4	642.7	649.8	657.6	666.3	674.7	682.7	692	701.7	711.3
Buses	262.6	265.3	263.1	264.6	267.6	271.1	275	279.1	281.4	283.2	284.5	285.5	285.9	286.2
Transit	91.2	92.2	91.4	91.9	93	94.2	95.6	97	97.8	98.4	98.9	99.2	99.4	99.4
Intercity	47.4	47.9	47.5	47.8	48.3	48.9	49.7	50.4	50.8	51.1	51.4	51.5	51.6	51.7
School	123.9	125.2	124.2	124.9	126.3	128	129.8	131.7	132.8	133.7	134.3	134.7	135	135.1
Freight Trucks 2/	4504.1	4695.8	4770.2	4903.7	5048.8	5163.5	5286.4	5415.6	5541.7	5652.3	5745.8	5833.5	5919.3	6005.4
Medium (1000-26000 pounds)	731.5	748.6	745	748.6	759.6	768.5	782.1	798.4	817.6	835.8	853.1	871.8	892	912.8
Large (> 26000 pounds)	3772.6	3947.2	4025.2	4155.1	4289.2	4395	4504.3	4617.2	4724.2	4816.4	4892.6	4961.7	5027.3	5092.5
Non-Highway														
Air 3/	2756.4	2823.1	2813.8	2883.4	3001.2	3086.1	3185.1	3317.1	3442.5	3511.6	3572.6	3628.7	3679.7	3737.6
General Aviation	159.8	164	165.4	164.9	171.6	175.4	180	186.2	192	195.2	198.1	200.7	203.1	205.8
Domestic Air Carriers	1520.8	1530.4	1495.8	1486.9	1493.7	1526.9	1561.1	1609	1648.3	1655	1658.2	1662.9	1663.6	1663
International Air Carriers	490.5	515.6	551.5	590.5	623.5	659.1	695	730.3	762.9	775.2	786	792.6	800.2	809.1
Freight Carriers	585.2	613.1	601.1	641.1	712.4	724.6	749	791.7	839.2	886.1	930.4	972.4	1012.8	1059.7
Water 4/	952.3	1010	1061.7	1067.9	1060.9	1054.4	1048.7	1041.3	1046.3	1051	1056.5	1060.7	1066.2	1073
Freight	788.9	844.7	894.2	899.5	892.1	885	879	871.2	875.5	879.5	884.2	887.7	892.3	898.3
Domestic Shipping	281	295.7	303.9	308.3	310.2	312.3	315.5	317.1	320.6	323.8	327.7	330.4	334.1	339.3
International Shipping	507.8	549	590.3	591.1	581.9	572.7	563.5	554.1	554.9	555.7	556.5	557.3	558.1	559
Recreational Boats	163.4	165.3	167.4	168.4	168.8	169.3	169.8	170.1	170.8	171.5	172.2	173.1	173.9	174.8
Rail	646.2	664.2	667.4	682.1	696.8	706.7	720.3	729.3	742.5	750.8	756.3	761.9	768.1	780.4
Freight	513.2	530	533.9	547.9	561.4	569.9	581.8	588.9	600.8	607.8	612.2	616.4	621.3	632.3
Passenger	133	134.2	133.5	134.1	135.4	136.8	138.6	140.4	141.7	143	144.2	145.5	146.8	148
Intercity	41.6	42	41.7	41.9	42.3	42.8	43.3	43.9	44.3	44.7	45.1	45.5	45.9	46.3
Transit	49.6	50	49.9	50.1	50.5	51.1	51.7	52.3	52.8	53.3	53.7	54.2	54.7	55.2
Commuter	41.8	42.2	41.9	42.1	42.5	43	43.6	44.2	44.6	44.9	45.3	45.7	46.1	46.5
Lubricants	150	146	144	146	146.7	147.3	147.8	148.2	148.8	149.4	149.9	150.4	150.9	151.4
Pipeline Fuel Natural Gas	685.6	686.4	720.9	700.7	680.3	673.9	663.2	647.3	655.9	668.8	681	687	735.4	780.8
Military Use														
Aviation	538.6	562.9	581.1	594.7	599.7	602.2	604.1	605.8	609.2	612.6	615.8	619.2	622.7	626.6
Residual Fuel Use	20.2	21	23.2	23.8	23.6	23.3	22.9	22.6	22.7	22.8	22.9	23.1	23.2	23.4
Distillate Fuel Use	113.5	121.9	124.2	127.1	128.6	129.6	130.4	131.2	131.9	132.7	133.4	134.1	134.9	135.7
Total	27119.9	27817.8	28066.5	28420.1	29034.9	29541.9	30100.6	30705	31279	31758.1	32193.2	32627	33089.8	33554.4

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(trillion Btu)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Energy Use by Type														
Motor Gasoline	16624	16933	16987.7	17101.5	17429.8	17704.9	18009.2	18330.6	18594.1	18836.1	19062.9	19306	19542.5	19765.8
Distillate (diesel)	5666	5914	5997	6162.1	6345.7	6496.8	6660.7	6824.6	6985.6	7125.4	7246.1	7360.9	7475.8	7599.6
Jet Fuel (kerosene & naphtha)	3265	3355	3361.9	3449.1	3570.8	3658.4	3759.5	3893.3	4022.2	4094.8	4159.1	4218.6	4273.1	4335
Residual Oil	571	611	662	664.6	654.3	644	633.8	623.1	624.9	626.7	628.6	630.2	632.1	634.4
Aviation Gasoline	30	31	33	29	30.1	29.9	29.7	29.6	29.5	29.4	29.4	29.3	29.2	29.2
Liquefied Petroleum Gas	23	30	42.7	44.9	49	52.5	56	61.1	64.5	67.8	70.9	73.7	74.3	76.8
Lubricants	150	146	144	146	146.7	147.3	147.8	148.2	148.8	149.4	149.9	150.4	150.9	151.4
Petroleum Subtotal	26329	27020	27228.4	27597.1	28226.4	28733.8	29296.8	29910.5	30469.6	30929.6	31346.8	31769.1	32178	32592.2
Methanol	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethanol	1.1	1.1	1.7	1.9	2.1	2.2	2.4	2.5	2.7	3.1	3.3	3.5	3.7	3.9
Electricity	83.7	84.8	85.1	85.6	86.4	87.4	88.5	89.7	90.6	91.5	92.4	93.4	94.3	95.1
Compressed Natural Gas	20.5	25.3	30.5	34.7	39.6	44.6	49.7	54.9	60.1	65	69.5	73.9	78	81.9
Liquid Hydrogen	0	0	0	0	0	0	0	0	0.1	0.1	0.2	0.2	0.3	0.4
Pipeline Fuel Natural Gas	685.6	686.4	720.9	700.7	680.3	673.9	663.2	647.3	655.9	668.8	681	687	735.4	780.8
Total Consumption	27119.9	27817.8	28066.5	28420.1	29034.9	29541.9	30100.6	30705	31279	31758.1	32193.2	32627	33089.8	33554.4

Table 33. Transportation Sector Energy Use by Mode and Type
(trillion Btu)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2004- 2030
Energy Use by Mode															
Highway															
Light-Duty Vehicles	19503.6	19782.2	20045.1	20298.7	20543.5	20788	21041	21298.2	21564.4	21840.2	22124.3	22406.4	22694.9	22982.5	1.40%
Automobiles	9110.2	9139.3	9164.2	9188.9	9213.7	9238.1	9290.3	9342.7	9398.1	9457.5	9519.3	9580	9643.6	9706.6	0.30%
Light Trucks	10367.3	10616.7	10854.7	11083.5	11303.3	11523.5	11724.2	11928.8	12139.5	12355.7	12577.8	12799	13023.8	13248.2	2.40%
Motorcycles	26.1	26.2	26.2	26.3	26.4	26.4	26.6	26.7	26.9	27	27.2	27.4	27.5	27.7	0.30%
Commercial Light Trucks 1/	721.6	731.9	740.8	749.6	758.6	768	777.7	788.3	800	812.5	825	837.1	850	864	1.30%
Buses	286.5	286.8	287.2	287.7	288.4	289	289.8	290.8	291.4	292.2	293.3	294.2	295.4	296.5	0.40%
Transit	99.5	99.6	99.8	100	100.2	100.4	100.7	101	101.3	101.5	101.9	102.2	102.6	103	0.40%
Intercity	51.7	51.8	51.8	51.9	52.1	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.3	53.5	0.40%
School	135.2	135.3	135.5	135.8	136.1	136.4	136.8	137.2	137.6	137.9	138.4	138.9	139.4	140	0.40%
Freight Trucks 2/	6100.2	6197.6	6283.5	6370.2	6465.6	6565.5	6671.6	6784.9	6898.4	7025	7157.6	7287.8	7424.4	7566.3	1.90%
Medium (1000-26000 pounds)	935.4	959.1	981.9	1005.9	1031.2	1058	1085.5	1113.6	1140.9	1169.6	1198.8	1224.8	1251.7	1279.2	2.10%
Large (> 26000 pounds)	5164.8	5238.6	5301.6	5364.4	5434.4	5507.5	5586.1	5671.3	5757.4	5855.4	5958.8	6063	6172.7	6287.1	1.80%
Non-Highway															
Air 3/	3805.8	3860.8	3907.8	3919.1	3931.7	3943.9	3957	3969.9	3984.8	4003.3	4026.6	4057.1	4097	4146.7	1.50%
General Aviation	209	211.6	213.8	214.3	214.9	215.5	216.1	216.7	217.4	218.3	219.4	220.8	222.7	225.1	1.20%
Domestic Air Carriers	1660.6	1656.7	1650.6	1622.6	1594.5	1567.2	1541.1	1515.6	1491.6	1470.3	1451.3	1435.4	1423.2	1414.7	-0.30%
International Air Carriers	819.7	832.5	850	859.9	870.4	881	891.5	901.3	910.9	920.4	930	940.2	951.6	964.2	2.40%
Freight Carriers	1116.5	1160	1193.3	1222.3	1251.9	1280.2	1308.3	1336.3	1364.9	1394.4	1425.9	1460.6	1499.5	1542.7	3.60%
Water 4/	1077.9	1082.8	1086.5	1089.6	1092.7	1095.8	1099.5	1102.5	1105.6	1109.8	1113.2	1117	1120.5	1124.3	0.40%
Freight	902.2	906.1	908.9	911	913.2	915.5	918.3	920.5	922.7	926	928.5	931.5	934.2	937.1	0.40%
Domestic Shipping	342.3	345.4	347.4	348.8	350.2	351.8	353.8	355.2	356.6	359.1	360.8	363	364.9	367.1	0.80%
International Shipping	559.9	560.7	561.5	562.2	563	563.8	564.5	565.3	566.1	566.9	567.7	568.5	569.3	570.1	0.10%
Recreational Boats	175.7	176.7	177.6	178.6	179.4	180.3	181.2	182	182.9	183.8	184.6	185.5	186.4	187.2	0.50%
Rail	790.2	799.5	808.7	824.5	838.1	852.5	866.2	881.5	896.1	912.4	928.5	943.7	958.4	970.6	1.50%
Freight	640.8	648.8	656.7	671.3	683.7	696.8	709.3	723.3	736.6	751.7	766.6	780.4	793.9	804.9	1.60%
Passenger	149.4	150.7	152	153.2	154.5	155.7	156.9	158.2	159.4	160.7	162	163.2	164.5	165.7	0.80%
Intercity	46.7	47.1	47.6	47.9	48.3	48.7	49.1	49.5	49.9	50.3	50.7	51.1	51.4	51.8	0.80%
Transit	55.7	56.2	56.7	57.1	57.6	58.1	58.5	59	59.4	59.9	60.4	60.9	61.3	61.8	0.80%
Commuter	47	47.4	47.8	48.2	48.6	48.9	49.3	49.7	50.1	50.5	50.9	51.3	51.7	52.1	0.80%
Lubricants	152	152.6	153.2	153.8	154.5	155.1	155.8	156.5	157.3	158.1	158.9	159.6	160.4	161.1	0.40%
Pipeline Fuel Natural Gas	791.1	802.4	805	802.3	800.6	798	797	795.4	790.8	787.8	784.3	782	778.4	777.4	0.50%
Military Use															
Aviation	630.8	634.8	638.6	642.1	645.4	648.6	651.6	654.5	657.3	660	662.6	665.1	667.6	670	0.70%
Residual Fuel Use	23.5	23.7	23.8	23.9	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	25	0.70%
Distillate Fuel Use	136.7	137.6	138.4	139.2	139.9	140.6	141.3	142	142.6	143.2	143.8	144.3	144.9	145.4	0.70%
Total	34019.8	34492.5	34918.6	35300.8	35682.9	36069.3	36472.9	36888.9	37313.2	37769.2	38242.7	38719.2	39216.7	39729.9	1.40%

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	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2004- 2030
Energy Use by Type															
Motor Gasoline	20007.5	20264.6	20501.9	20726.8	20938	21147.7	21365.3	21584.8	21811.1	22045.7	22284.9	22519.5	22755.5	22989.8	1.20%
Distillate (diesel)	7730.5	7866	7992.5	8129.1	8275.5	8431.3	8594.1	8768.6	8945.7	9141	9344.9	9548.6	9763.7	9983.9	2.00%
Jet Fuel (kerosene & naphtha)	4407.4	4466.4	4517.2	4532.1	4548	4563.4	4579.6	4595.3	4613.1	4634.3	4660.2	4693.2	4735.6	4787.7	1.40%
Residual Oil	636.2	638	639.4	640.6	641.9	643.1	644.5	645.7	647	648.5	649.8	651.2	652.6	654	0.30%
Aviation Gasoline	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29	29	29	29	29	29	29	-0.30%
Liquefied Petroleum Gas	79.4	82	84.3	86.6	91.1	93.3	95.4	97.3	99.2	101	102.8	104.5	106.1	107.8	5.00%
Lubricants	152	152.6	153.2	153.8	154.5	155.1	155.8	156.5	157.3	158.1	158.9	159.6	160.4	161.1	0.40%
Petroleum Subtotal	33042.2	33498.8	33917.8	34298.2	34678	35062.9	35463.7	35877.3	36302.4	36757.6	37230.5	37705.6	38202.9	38713.4	1.40%
Methanol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-11.50%
Ethanol	4.1	4.3	4.4	4.7	4.9	5	5.2	5.3	5.4	5.4	5.6	5.6	5.7	5.8	6.40%
Electricity	96.1	97	97.9	98.8	99.6	100.4	101.3	102.2	103	103.9	104.8	105.7	106.6	107.5	0.90%
Compressed Natural Gas	85.7	89.3	92.5	95.5	98.3	101	103.7	106.3	108.9	111.6	114.3	116.8	119.3	121.9	6.20%
Liquid Hydrogen	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.2	3.5	3.8	4	N/A
Pipeline Fuel Natural Gas	791.1	802.4	805	802.3	800.6	798	797	795.4	790.8	787.8	784.3	782	778.4	777.4	0.50%
Total Consumption	34019.8	34492.5	34918.6	35300.8	35682.9	36069.3	36472.9	36888.9	37313.2	37769.2	38242.7	38719.2	39216.7	39729.9	1.40%

Table 33. Transportation Sector Energy Use by Mode and Type
(trillion Btu)

1/ Commercial light trucks from 8,500 to 10,000 pounds.

2/ Does not include commercial bus and military use.

3/ Does not include military jet fuel use.

4/ Does not include military residual oil.

Btu = British thermal unit.

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

Sources: 2003 and 2004 values derived using: Energy Information Administration (EIA), Fuel Oil and Kerosene Sales 2003, DOE/EIA-0535(2003) (Washington, DC, November 2004); EIA, State Energy Data Report 2001, DOE/EIA-0214(2001) (Washington, DC, December 2004); Oak Ridge National Laboratory, Transportation Energy Data Book: Edition 24 and Annual (Oak Ridge, TN, December 2004); Department of Defense, Defense Fuel Supply Center; and EIA, AEO2006 National Energy Modeling System run aeo2006.d111905a. Projections: EIA, AEO2006 National Energy Modeling System run aeo2006.d111905a.