

Annual Energy Outlook 2006 with Projections to 2030

Release Date: December 2005

Next Release Date: December 2006

Table 2. Energy Consumption by Sector and Source
(quadrillion Btu, unless otherwise noted)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Energy Consumption										
Residential										
Distillate Fuel	0.91	0.94	0.96	0.87	0.85	0.84	0.84	0.84	0.83	0.82
Kerosene	0.08	0.09	0.09	0.10	0.09	0.09	0.09	0.09	0.09	0.09
Liquefied Petroleum Gas	0.52	0.54	0.53	0.53	0.53	0.54	0.55	0.56	0.56	0.57
Petroleum Subtotal	1.50	1.57	1.59	1.50	1.47	1.48	1.48	1.48	1.48	1.48
Natural Gas	5.25	5.03	5.08	5.16	5.17	5.24	5.28	5.33	5.38	5.43
Coal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Renewable Energy 1/	0.40	0.41	0.43	0.46	0.45	0.45	0.44	0.44	0.43	0.43
Electricity	4.34	4.41	4.58	4.62	4.70	4.81	4.90	4.99	5.07	5.16
Delivered Energy	11.51	11.44	11.69	11.74	11.80	11.99	12.11	12.25	12.37	12.52
Electricity Related Losses	9.51	9.60	9.92	10.04	10.22	10.43	10.59	10.74	10.77	10.97
Total	21.02	21.04	21.61	21.77	22.02	22.42	22.69	22.99	23.15	23.49
Commercial										
Distillate Fuel	0.48	0.50	0.51	0.47	0.46	0.47	0.48	0.48	0.48	0.49
Residual Fuel	0.11	0.12	0.11	0.12	0.13	0.12	0.12	0.12	0.12	0.12
Kerosene	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Liquefied Petroleum Gas	0.09	0.10	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10
Motor Gasoline 2/	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Petroleum Subtotal	0.75	0.79	0.79	0.74	0.76	0.75	0.76	0.77	0.77	0.78
Natural Gas	3.32	3.09	3.10	3.01	3.02	3.08	3.13	3.18	3.24	3.30
Coal	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Renewable Energy 3/	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Electricity	4.09	4.19	4.37	4.39	4.51	4.65	4.77	4.88	5.00	5.11
Delivered Energy	8.34	8.24	8.43	8.31	8.47	8.65	8.83	9.00	9.18	9.36
Electricity Related Losses	8.96	9.13	9.46	9.53	9.82	10.07	10.30	10.51	10.63	10.87
Total	17.30	17.37	17.89	17.84	18.29	18.72	19.13	19.51	19.81	20.23
Industrial 4/										
Distillate Fuel	1.14	1.19	1.25	1.22	1.21	1.20	1.20	1.20	1.19	1.19
Liquefied Petroleum Gas	2.12	2.19	2.16	2.18	2.24	2.22	2.21	2.21	2.22	2.24
Petrochemical Feedstocks	1.37	1.49	1.43	1.47	1.49	1.48	1.48	1.48	1.49	1.49
Residual Fuel	0.22	0.24	0.25	0.18	0.18	0.19	0.18	0.20	0.19	0.19
Motor Gasoline 2/	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Other Petroleum 5/	4.12	4.16	4.07	4.09	4.49	4.50	4.55	4.60	4.68	4.72
Petroleum Subtotal	9.28	9.58	9.48	9.45	9.92	9.93	9.94	10.01	10.10	10.16
Natural Gas	7.38	7.64	7.25	7.50	7.69	7.85	8.00	8.07	8.14	8.19
Lease and Plant Fuel 6/	1.16	1.14	1.14	1.13	1.11	1.12	1.12	1.12	1.13	1.14
Natural Gas Subtotal	8.54	8.78	8.40	8.63	8.80	8.97	9.12	9.19	9.28	9.33
Metallurgical Coal	0.67	0.65	0.66	0.63	0.63	0.63	0.62	0.62	0.62	0.62

**Table 2. Energy Consumption by Sector and Source
(quadrillion Btu, unless otherwise noted)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Other Industrial Coal	1.38	1.38	1.39	1.41	1.43	1.43	1.43	1.43	1.43	1.43
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.08
Net Coal Coke Imports	0.05	0.14	0.08	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Coal Subtotal	2.09	2.16	2.13	2.06	2.08	2.08	2.07	2.07	2.11	2.15
Renewable Energy 7/	1.59	1.68	1.64	1.68	1.71	1.74	1.77	1.79	1.82	1.84
Electricity	3.44	3.48	3.51	3.54	3.55	3.58	3.59	3.62	3.66	3.68
Delivered Energy	24.94	25.68	25.15	25.36	26.08	26.30	26.49	26.67	26.96	27.16
Electricity Related Losses	7.53	7.58	7.59	7.68	7.73	7.75	7.76	7.79	7.78	7.84
Total	32.46	33.27	32.75	33.04	33.81	34.06	34.24	34.46	34.73	34.99
Transportation										
Distillate Fuel 8/	5.67	5.91	6.00	6.16	6.35	6.50	6.66	6.82	6.99	7.13
Jet Fuel 9/	3.26	3.35	3.36	3.45	3.57	3.66	3.76	3.89	4.02	4.09
Motor Gasoline 2/	16.62	16.93	16.99	17.10	17.43	17.70	18.01	18.33	18.59	18.84
Residual Fuel	0.57	0.61	0.66	0.66	0.65	0.64	0.63	0.62	0.62	0.63
Liquefied Petroleum Gas	0.02	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.06	0.07
Other Petroleum 10/	0.15	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Petroleum Subtotal	26.30	27.02	27.23	27.60	28.23	28.73	29.30	29.91	30.47	30.93
Pipeline Fuel Natural Gas	0.69	0.69	0.72	0.70	0.68	0.67	0.66	0.65	0.66	0.67
Compressed Natural Gas	0.02	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06
Renewable Energy (E85) 11/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Delivered Energy	27.09	27.82	28.07	28.42	29.03	29.54	30.10	30.70	31.28	31.76
Electricity Related Losses	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Total	27.27	28.00	28.25	28.61	29.22	29.73	30.29	30.90	31.47	31.95
Delivered Energy Consumption, All Sectors										
Distillate Fuel	8.19	8.55	8.72	8.72	8.86	9.01	9.17	9.34	9.49	9.63
Kerosene	0.11	0.13	0.13	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Jet Fuel 9/	3.26	3.35	3.36	3.45	3.57	3.66	3.76	3.89	4.02	4.09
Liquefied Petroleum Gas	2.76	2.85	2.83	2.84	2.92	2.91	2.91	2.92	2.95	2.97
Motor Gasoline 2/	16.98	17.30	17.35	17.47	17.80	18.07	18.38	18.70	18.96	19.20
Petrochemical Feedstocks	1.37	1.49	1.43	1.47	1.49	1.48	1.48	1.48	1.49	1.49
Residual Fuel	0.90	0.97	1.03	0.96	0.96	0.96	0.93	0.94	0.94	0.94
Other Petroleum 12/	4.26	4.32	4.23	4.24	4.65	4.66	4.70	4.75	4.83	4.88
Petroleum Subtotal	37.83	38.96	39.09	39.29	40.39	40.90	41.47	42.17	42.82	43.35
Natural Gas	15.96	15.79	15.47	15.70	15.92	16.21	16.45	16.63	16.82	16.99
Lease and Plant Fuel 6/	1.16	1.14	1.14	1.13	1.11	1.12	1.12	1.12	1.13	1.14
Pipeline Natural Gas	0.69	0.69	0.72	0.70	0.68	0.67	0.66	0.65	0.66	0.67
Natural Gas Subtotal	17.81	17.62	17.33	17.53	17.71	18.01	18.24	18.40	18.61	18.80
Metallurgical Coal	0.67	0.65	0.66	0.63	0.63	0.63	0.62	0.62	0.62	0.62
Other Industrial Coal	1.47	1.47	1.49	1.51	1.53	1.53	1.53	1.53	1.53	1.53
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.08
Net Coal Coke Imports	0.05	0.14	0.08	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Coal Subtotal	2.19	2.26	2.23	2.16	2.18	2.18	2.17	2.17	2.21	2.24
Renewable Energy 13/	2.08	2.17	2.16	2.22	2.25	2.28	2.30	2.32	2.34	2.36
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	11.96	12.17	12.54	12.62	12.85	13.13	13.34	13.57	13.81	14.04
Delivered Energy	71.87	73.18	73.34	73.83	75.39	76.48	77.53	78.62	79.79	80.80
Electricity Related Losses	26.18	26.50	27.16	27.44	27.96	28.44	28.83	29.24	29.37	29.87
Total	98.05	99.68	100.49	101.27	103.35	104.93	106.36	107.87	109.16	110.67

**Table 2. Energy Consumption by Sector and Source
(quadrillion Btu, unless otherwise noted)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Electric Power 14/										
Distillate Fuel	0.29	0.17	0.23	0.20	0.20	0.21	0.22	0.23	0.23	0.23
Residual Fuel	0.84	0.95	0.91	0.88	0.73	0.74	0.73	0.74	0.73	0.76
Petroleum Subtotal	1.13	1.12	1.14	1.08	0.93	0.94	0.96	0.97	0.96	0.98
Natural Gas	5.23	5.45	5.53	5.29	5.33	5.54	5.49	5.65	5.93	6.34
Steam Coal	20.19	20.26	21.14	21.28	21.65	22.11	22.65	22.92	22.98	23.28
Nuclear Power	7.96	8.23	8.08	8.22	8.41	8.42	8.44	8.44	8.45	8.46
Renewable Energy/Other 15/	3.62	3.57	3.72	4.14	4.45	4.50	4.57	4.76	4.77	4.77
Electricity Imports	0.02	0.04	0.08	0.05	0.03	0.06	0.07	0.07	0.08	0.08
Total	38.14	38.67	39.69	40.06	40.81	41.57	42.18	42.82	43.18	43.91
Total Energy Consumption										
Distillate Fuel	8.48	8.72	8.95	8.92	9.07	9.22	9.40	9.57	9.72	9.85
Kerosene	0.11	0.13	0.13	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Jet Fuel 9/	3.26	3.35	3.36	3.45	3.57	3.66	3.76	3.89	4.02	4.09
Liquefied Petroleum Gas	2.76	2.85	2.83	2.84	2.92	2.91	2.91	2.92	2.95	2.97
Motor Gasoline 2/	16.98	17.30	17.35	17.47	17.80	18.07	18.38	18.70	18.96	19.20
Petrochemical Feedstocks	1.37	1.49	1.43	1.47	1.49	1.48	1.48	1.48	1.49	1.49
Residual Fuel	1.74	1.91	1.93	1.84	1.69	1.69	1.67	1.68	1.67	1.70
Other Petroleum 12/	4.26	4.32	4.23	4.24	4.65	4.66	4.70	4.75	4.83	4.88
Petroleum Subtotal	38.96	40.08	40.22	40.37	41.32	41.84	42.43	43.14	43.78	44.33
Natural Gas	21.19	21.24	21.00	20.99	21.25	21.75	21.95	22.28	22.76	23.33
Lease and Plant Fuel 6/	1.16	1.14	1.14	1.13	1.11	1.12	1.12	1.12	1.13	1.14
Pipeline Natural Gas	0.69	0.69	0.72	0.70	0.68	0.67	0.66	0.65	0.66	0.67
Natural Gas Subtotal	23.04	23.07	22.86	22.83	23.04	23.55	23.73	24.04	24.54	25.14
Metallurgical Coal	0.67	0.65	0.66	0.63	0.63	0.63	0.62	0.62	0.62	0.62
Other Coal	21.66	21.74	22.63	22.79	23.18	23.64	24.18	24.45	24.51	24.81
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.08
Net Coal Coke Imports	0.05	0.14	0.08	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Coal Subtotal	22.38	22.53	23.37	23.44	23.84	24.29	24.82	25.09	25.19	25.52
Nuclear Power	7.96	8.23	8.08	8.22	8.41	8.42	8.44	8.44	8.45	8.46
Renewable Energy 16/	5.70	5.74	5.88	6.36	6.71	6.77	6.86	7.08	7.11	7.13
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Imports	0.02	0.04	0.08	0.05	0.03	0.06	0.07	0.07	0.08	0.08
Total	98.05	99.68	100.49	101.27	103.35	104.93	106.36	107.87	109.16	110.67
Energy Use & Related Statistics										
Delivered Energy Use	71.87	73.18	73.34	73.83	75.39	76.48	77.53	78.62	79.79	80.80
Total Energy Use	98.05	99.68	100.49	101.27	103.35	104.93	106.36	107.87	109.16	110.67
Population (millions)	291.39	294.10	296.79	299.48	302.15	304.79	307.45	310.12	312.78	315.46
US GDP (billion 2000 dollars)	10321	10756	11147	11513	11875	12288	12671	13043	13417	13793
Carbon Dioxide Emissions (million metric tons)	5795.5	5899.9	5967.0	5977.8	6079.8	6182.2	6280.5	6364.9	6440.0	6535.5

**Table 2. Energy Consumption by Sector and Source
(quadrillion Btu, unless otherwise noted)**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Energy Consumption										
Residential										
Distillate Fuel	0.81	0.80	0.79	0.78	0.77	0.76	0.74	0.73	0.72	0.71
Kerosene	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08
Liquefied Petroleum Gas	0.57	0.58	0.59	0.59	0.60	0.60	0.61	0.61	0.61	0.62
Petroleum Subtotal	1.47	1.47	1.47	1.46	1.45	1.45	1.44	1.43	1.41	1.40
Natural Gas	5.45	5.48	5.52	5.58	5.60	5.62	5.64	5.68	5.68	5.70
Coal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Renewable Energy 1/ Electricity	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.42	0.42
Delivered Energy	5.22	5.29	5.38	5.47	5.53	5.61	5.68	5.77	5.82	5.89
Electricity Related Losses	12.58	12.69	12.81	12.95	13.02	13.11	13.19	13.31	13.35	13.42
Total	11.04	11.14	11.26	11.40	11.50	11.61	11.74	11.85	11.90	11.98
Total	23.62	23.82	24.07	24.35	24.52	24.72	24.93	25.17	25.25	25.40
Commercial										
Distillate Fuel	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.50	0.50
Residual Fuel	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Kerosene	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Liquefied Petroleum Gas	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Motor Gasoline 2/ Petroleum Subtotal	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Total	0.78	0.78	0.78	0.79	0.79	0.79	0.79	0.79	0.80	0.80
Natural Gas	3.35	3.40	3.46	3.52	3.57	3.61	3.64	3.68	3.73	3.77
Coal	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Renewable Energy 3/ Electricity	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Delivered Energy	5.22	5.32	5.43	5.55	5.66	5.78	5.89	6.01	6.13	6.25
Electricity Related Losses	9.52	9.68	9.85	10.03	10.20	10.35	10.50	10.66	10.82	10.99
Total	11.04	11.20	11.37	11.57	11.77	11.97	12.18	12.35	12.53	12.72
Total	20.56	20.88	21.23	21.60	21.97	22.33	22.68	23.02	23.36	23.71
Industrial 4/										
Distillate Fuel	1.20	1.20	1.20	1.21	1.21	1.22	1.22	1.23	1.23	1.24
Liquefied Petroleum Gas	2.25	2.25	2.26	2.27	2.30	2.32	2.34	2.34	2.37	2.39
Petrochemical Feedstocks	1.49	1.49	1.49	1.49	1.50	1.50	1.51	1.51	1.51	1.51
Residual Fuel	0.20	0.19	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.20
Motor Gasoline 2/ Other Petroleum 5/ Petroleum Subtotal	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Total	4.76	4.81	4.83	4.91	4.94	4.98	5.01	5.05	5.08	5.12
Natural Gas	10.21	10.26	10.29	10.39	10.46	10.54	10.59	10.65	10.71	10.79
Lease and Plant Fuel 6/ Natural Gas Subtotal	8.21	8.25	8.33	8.36	8.38	8.40	8.47	8.52	8.54	8.59
Total	1.17	1.17	1.22	1.27	1.28	1.29	1.29	1.28	1.27	1.27
Total	9.38	9.42	9.55	9.62	9.66	9.69	9.76	9.80	9.81	9.86
Metallurgical Coal	0.61	0.61	0.61	0.60	0.60	0.60	0.60	0.59	0.59	0.58

**Table 2. Energy Consumption by Sector and Source
(quadrillion Btu, unless otherwise noted)**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Other Industrial Coal	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43
Coal-to-Liquids Heat and Power	0.12	0.14	0.16	0.18	0.22	0.25	0.29	0.49	0.69	0.88
Net Coal Coke Imports	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Coal Subtotal	2.18	2.19	2.21	2.23	2.26	2.30	2.33	2.53	2.73	2.91
Renewable Energy 7/	1.86	1.87	1.90	1.92	1.94	1.97	1.99	2.01	2.04	2.06
Electricity	3.71	3.73	3.76	3.80	3.83	3.87	3.90	3.91	3.95	3.97
Delivered Energy	27.33	27.49	27.72	27.96	28.16	28.38	28.57	28.91	29.24	29.59
Electricity Related Losses	7.85	7.86	7.88	7.92	7.97	8.02	8.05	8.04	8.07	8.08
Total	35.18	35.35	35.60	35.88	36.12	36.40	36.63	36.95	37.31	37.67
Transportation										
Distillate Fuel 8/	7.25	7.36	7.48	7.60	7.73	7.87	7.99	8.13	8.28	8.43
Jet Fuel 9/	4.16	4.22	4.27	4.33	4.41	4.47	4.52	4.53	4.55	4.56
Motor Gasoline 2/	19.06	19.31	19.54	19.77	20.01	20.26	20.50	20.73	20.94	21.15
Residual Fuel	0.63	0.63	0.63	0.63	0.64	0.64	0.64	0.64	0.64	0.64
Liquefied Petroleum Gas	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09	0.09
Other Petroleum 10/	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Petroleum Subtotal	31.35	31.77	32.18	32.59	33.04	33.50	33.92	34.30	34.68	35.06
Pipeline Fuel Natural Gas	0.68	0.69	0.74	0.78	0.79	0.80	0.80	0.80	0.80	0.80
Compressed Natural Gas	0.07	0.07	0.08	0.08	0.08	0.09	0.09	0.09	0.10	0.10
Renewable Energy (E85) 11/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Delivered Energy	32.19	32.63	33.09	33.55	34.02	34.49	34.92	35.30	35.68	36.07
Electricity Related Losses	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Total	32.39	32.82	33.29	33.75	34.22	34.69	35.12	35.50	35.88	36.27
Delivered Energy Consumption, All Sectors										
Distillate Fuel	9.74	9.85	9.96	10.09	10.21	10.34	10.46	10.59	10.73	10.88
Kerosene	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12
Jet Fuel 9/	4.16	4.22	4.27	4.33	4.41	4.47	4.52	4.53	4.55	4.56
Liquefied Petroleum Gas	2.99	3.00	3.02	3.04	3.08	3.11	3.13	3.14	3.17	3.20
Motor Gasoline 2/	19.43	19.67	19.91	20.13	20.38	20.63	20.87	21.10	21.31	21.52
Petrochemical Feedstocks	1.49	1.49	1.49	1.49	1.50	1.50	1.51	1.51	1.51	1.51
Residual Fuel	0.95	0.95	0.94	0.95	0.95	0.96	0.96	0.96	0.96	0.97
Other Petroleum 12/	4.92	4.97	4.99	5.07	5.10	5.14	5.17	5.21	5.25	5.29
Petroleum Subtotal	43.81	44.29	44.72	45.24	45.75	46.28	46.74	47.17	47.60	48.05
Natural Gas	17.08	17.20	17.39	17.54	17.63	17.72	17.84	17.97	18.04	18.16
Lease and Plant Fuel 6/	1.17	1.17	1.22	1.27	1.28	1.29	1.29	1.28	1.27	1.27
Pipeline Natural Gas	0.68	0.69	0.74	0.78	0.79	0.80	0.80	0.80	0.80	0.80
Natural Gas Subtotal	18.93	19.06	19.35	19.58	19.70	19.82	19.94	20.06	20.12	20.22
Metallurgical Coal	0.61	0.61	0.61	0.60	0.60	0.60	0.60	0.59	0.59	0.58
Other Industrial Coal	1.53	1.52	1.52	1.53	1.53	1.53	1.53	1.53	1.53	1.53
Coal-to-Liquids Heat and Power	0.12	0.14	0.16	0.18	0.22	0.25	0.29	0.49	0.69	0.88
Net Coal Coke Imports	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Coal Subtotal	2.28	2.29	2.31	2.33	2.36	2.40	2.43	2.63	2.83	3.01
Renewable Energy 13/	2.38	2.40	2.41	2.44	2.46	2.49	2.51	2.53	2.56	2.58
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	14.24	14.45	14.67	14.91	15.12	15.36	15.57	15.79	16.00	16.21
Delivered Energy	81.63	82.48	83.46	84.49	85.40	86.34	87.19	88.19	89.10	90.07
Electricity Related Losses	30.12	30.39	30.71	31.09	31.44	31.81	32.17	32.45	32.71	32.98
Total	111.75	112.87	114.18	115.58	116.83	118.14	119.36	120.63	121.80	123.05

**Table 2. Energy Consumption by Sector and Source
(quadrillion Btu, unless otherwise noted)**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Electric Power 14/										
Distillate Fuel	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Residual Fuel	0.76	0.77	0.73	0.72	0.71	0.72	0.74	0.73	0.75	0.74
Petroleum Subtotal	0.99	1.00	0.96	0.95	0.95	0.96	0.98	0.97	0.99	0.99
Natural Gas	6.73	7.01	7.32	7.50	7.55	7.62	7.70	7.65	7.60	7.49
Steam Coal	23.27	23.30	23.35	23.57	23.87	24.25	24.59	25.02	25.41	25.91
Nuclear Power	8.47	8.54	8.66	8.80	8.94	9.04	9.09	9.09	9.09	9.09
Renewable Energy/Other 15/	4.84	4.92	5.01	5.11	5.18	5.24	5.34	5.47	5.56	5.67
Electricity Imports	0.07	0.07	0.08	0.07	0.06	0.06	0.05	0.05	0.05	0.05
Total	44.36	44.84	45.38	46.00	46.56	47.16	47.74	48.24	48.70	49.19
Total Energy Consumption										
Distillate Fuel	9.97	10.08	10.19	10.32	10.45	10.58	10.70	10.83	10.97	11.12
Kerosene	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12
Jet Fuel 9/	4.16	4.22	4.27	4.33	4.41	4.47	4.52	4.53	4.55	4.56
Liquefied Petroleum Gas	2.99	3.00	3.02	3.04	3.08	3.11	3.13	3.14	3.17	3.20
Motor Gasoline 2/	19.43	19.67	19.91	20.13	20.38	20.63	20.87	21.10	21.31	21.52
Petrochemical Feedstocks	1.49	1.49	1.49	1.49	1.50	1.50	1.51	1.51	1.51	1.51
Residual Fuel	1.71	1.71	1.67	1.66	1.66	1.67	1.70	1.69	1.71	1.71
Other Petroleum 12/	4.92	4.97	4.99	5.07	5.10	5.14	5.17	5.21	5.25	5.29
Petroleum Subtotal	44.80	45.28	45.69	46.19	46.70	47.24	47.72	48.14	48.59	49.04
Natural Gas	23.81	24.21	24.71	25.04	25.18	25.34	25.54	25.62	25.65	25.65
Lease and Plant Fuel 6/	1.17	1.17	1.22	1.27	1.28	1.29	1.29	1.28	1.27	1.27
Pipeline Natural Gas	0.68	0.69	0.74	0.78	0.79	0.80	0.80	0.80	0.80	0.80
Natural Gas Subtotal	25.66	26.07	26.67	27.09	27.25	27.44	27.64	27.70	27.72	27.71
Metallurgical Coal	0.61	0.61	0.61	0.60	0.60	0.60	0.60	0.59	0.59	0.58
Other Coal	24.79	24.83	24.88	25.09	25.40	25.77	26.12	26.55	26.94	27.43
Coal-to-Liquids Heat and Power	0.12	0.14	0.16	0.18	0.22	0.25	0.29	0.49	0.69	0.88
Net Coal Coke Imports	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Coal Subtotal	25.54	25.59	25.66	25.90	26.23	26.64	27.02	27.65	28.24	28.91
Nuclear Power	8.47	8.54	8.66	8.80	8.94	9.04	9.09	9.09	9.09	9.09
Renewable Energy 16/	7.21	7.31	7.43	7.55	7.64	7.73	7.85	8.00	8.11	8.25
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Imports	0.07	0.07	0.08	0.07	0.06	0.06	0.05	0.05	0.05	0.05
Total	111.75	112.87	114.18	115.58	116.83	118.14	119.36	120.63	121.80	123.05
Energy Use & Related Statistics										
Delivered Energy Use	81.63	82.48	83.46	84.49	85.40	86.34	87.19	88.19	89.10	90.07
Total Energy Use	111.75	112.87	114.18	115.58	116.83	118.14	119.36	120.63	121.80	123.05
Population (millions)	318.16	320.85	323.55	326.25	328.94	331.63	334.31	336.99	339.68	342.38
US GDP (billion 2000 dollars)	14191	14622	15082	15575	16092	16599	17064	17541	18021	18515
Carbon Dioxide Emissions (million metric tons)	6595.1	6653.7	6717.6	6794.0	6868.7	6951.8	7029.8	7119.0	7205.7	7296.3

**Table 2. Energy Consumption by Sector and Source
(quadrillion Btu, unless otherwise noted)**

	2023	2024	2025	2026	2027	2028	2029	2030	2004- 2030
Energy Consumption									
Residential									
Distillate Fuel	0.69	0.68	0.67	0.65	0.64	0.63	0.62	0.61	-1.7%
Kerosene	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	-1.0%
Liquefied Petroleum Gas	0.62	0.63	0.63	0.63	0.64	0.64	0.64	0.65	0.7%
Petroleum Subtotal	1.39	1.38	1.37	1.36	1.35	1.34	1.33	1.32	-0.7%
Natural Gas	5.72	5.75	5.74	5.76	5.78	5.81	5.81	5.82	0.6%
Coal	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-0.5%
Renewable Energy 1/ Electricity	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.41	0.1%
Delivered Energy	5.96	6.04	6.10	6.17	6.25	6.34	6.40	6.47	1.5%
Electricity Related Losses	13.50	13.60	13.64	13.72	13.80	13.92	13.96	14.04	0.8%
Electricity Related Losses	12.06	12.19	12.24	12.31	12.40	12.50	12.52	12.60	1.1%
Total	25.56	25.79	25.88	26.03	26.20	26.41	26.48	26.64	0.9%
Commercial									
Distillate Fuel	0.50	0.51	0.51	0.51	0.51	0.51	0.52	0.52	0.1%
Residual Fuel	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.1%
Kerosene	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.3%
Liquefied Petroleum Gas	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.2%
Motor Gasoline 2/ Petroleum Subtotal	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.3%
Petroleum Subtotal	0.80	0.80	0.80	0.81	0.81	0.81	0.81	0.82	0.1%
Natural Gas	3.81	3.85	3.89	3.93	3.98	4.02	4.07	4.11	1.1%
Coal	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.0%
Renewable Energy 3/ Electricity	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.0%
Delivered Energy	6.38	6.51	6.63	6.77	6.90	7.05	7.20	7.34	2.2%
Delivered Energy	11.16	11.33	11.50	11.68	11.86	12.05	12.25	12.44	1.6%
Electricity Related Losses	12.92	13.12	13.32	13.51	13.70	13.90	14.09	14.29	1.7%
Total	24.08	24.46	24.82	25.19	25.56	25.95	26.34	26.73	1.7%
Industrial 4/									
Distillate Fuel	1.24	1.25	1.26	1.27	1.29	1.29	1.31	1.32	0.4%
Liquefied Petroleum Gas	2.41	2.43	2.44	2.46	2.49	2.50	2.51	2.54	0.6%
Petrochemical Feedstocks	1.52	1.52	1.53	1.53	1.54	1.54	1.55	1.55	0.2%
Residual Fuel	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.21	-0.4%
Motor Gasoline 2/ Other Petroleum 5/ Petroleum Subtotal	0.33	0.33	0.33	0.33	0.33	0.33	0.34	0.34	0.2%
Petroleum Subtotal	5.13	5.27	5.34	5.41	5.52	5.63	5.69	5.69	1.2%
Petroleum Subtotal	10.83	10.99	11.10	11.22	11.38	11.51	11.61	11.66	0.8%
Natural Gas	8.68	8.71	8.77	8.84	8.88	8.91	8.98	9.08	0.7%
Lease and Plant Fuel 6/ Natural Gas Subtotal	1.26	1.26	1.24	1.23	1.23	1.22	1.21	1.21	0.2%
Natural Gas Subtotal	9.94	9.96	10.02	10.08	10.10	10.13	10.19	10.29	0.6%
Metallurgical Coal	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	-0.4%

**Table 2. Energy Consumption by Sector and Source
(quadrillion Btu, unless otherwise noted)**

	2023	2024	2025	2026	2027	2028	2029	2030	2004-2030
Other Industrial Coal	1.43	1.43	1.43	1.44	1.44	1.44	1.45	1.45	0.2%
Coal-to-Liquids Heat and Power	1.00	1.13	1.22	1.35	1.43	1.51	1.61	1.61	33.8%
Net Coal Coke Imports	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	-8.1%
Coal Subtotal	3.03	3.15	3.25	3.38	3.47	3.55	3.65	3.65	2.0%
Renewable Energy 7/	2.09	2.11	2.14	2.17	2.20	2.23	2.26	2.29	1.2%
Electricity	4.00	4.04	4.08	4.13	4.18	4.22	4.27	4.31	0.8%
Delivered Energy	29.89	30.26	30.58	30.98	31.32	31.65	31.98	32.19	0.9%
Electricity Related Losses	8.09	8.15	8.19	8.23	8.29	8.33	8.36	8.39	0.4%
Total	37.98	38.41	38.77	39.21	39.61	39.97	40.33	40.58	0.8%
Transportation									
Distillate Fuel 8/	8.59	8.77	8.95	9.14	9.34	9.55	9.76	9.98	2.0%
Jet Fuel 9/	4.58	4.60	4.61	4.63	4.66	4.69	4.74	4.79	1.4%
Motor Gasoline 2/	21.37	21.58	21.81	22.05	22.28	22.52	22.76	22.99	1.2%
Residual Fuel	0.64	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.3%
Liquefied Petroleum Gas	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	5.0%
Other Petroleum 10/	0.18	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.3%
Petroleum Subtotal	35.46	35.88	36.30	36.76	37.23	37.71	38.20	38.71	1.4%
Pipeline Fuel Natural Gas	0.80	0.80	0.79	0.79	0.78	0.78	0.78	0.78	0.5%
Compressed Natural Gas	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.12	6.0%
Renewable Energy (E85) 11/	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	6.4%
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Electricity	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.9%
Delivered Energy	36.47	36.89	37.31	37.77	38.24	38.71	39.21	39.72	1.4%
Electricity Related Losses	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.5%
Total	36.68	37.09	37.52	37.97	38.45	38.92	39.42	39.93	1.4%
Delivered Energy Consumption, All Sectors									
Distillate Fuel	11.03	11.20	11.38	11.58	11.78	11.99	12.21	12.43	1.5%
Kerosene	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	-0.6%
Jet Fuel 9/	4.58	4.60	4.61	4.63	4.66	4.69	4.74	4.79	1.4%
Liquefied Petroleum Gas	3.23	3.25	3.27	3.30	3.33	3.35	3.36	3.40	0.7%
Motor Gasoline 2/	21.74	21.96	22.19	22.43	22.67	22.90	23.14	23.38	1.2%
Petrochemical Feedstocks	1.52	1.52	1.53	1.53	1.54	1.54	1.55	1.55	0.2%
Residual Fuel	0.97	0.97	0.98	0.98	0.98	0.98	0.99	0.99	0.1%
Other Petroleum 12/	5.30	5.43	5.50	5.58	5.69	5.79	5.86	5.86	1.2%
Petroleum Subtotal	48.48	49.06	49.57	50.15	50.77	51.37	51.95	52.51	1.2%
Natural Gas	18.31	18.41	18.51	18.64	18.74	18.86	18.97	19.13	0.7%
Lease and Plant Fuel 6/	1.26	1.26	1.24	1.23	1.23	1.22	1.21	1.21	0.2%
Pipeline Natural Gas	0.80	0.80	0.79	0.79	0.78	0.78	0.78	0.78	0.5%
Natural Gas Subtotal	20.37	20.46	20.55	20.66	20.75	20.86	20.96	21.11	0.7%
Metallurgical Coal	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	-0.4%
Other Industrial Coal	1.53	1.53	1.53	1.53	1.54	1.54	1.54	1.54	0.2%
Coal-to-Liquids Heat and Power	1.00	1.13	1.22	1.35	1.43	1.51	1.61	1.61	33.8%
Net Coal Coke Imports	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	-8.1%
Coal Subtotal	3.13	3.25	3.35	3.48	3.56	3.65	3.74	3.74	2.0%
Renewable Energy 13/	2.60	2.63	2.66	2.69	2.71	2.74	2.77	2.80	1.0%
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Electricity	16.43	16.69	16.91	17.17	17.43	17.71	17.97	18.22	1.6%
Delivered Energy	91.02	92.09	93.04	94.15	95.22	96.33	97.40	98.40	1.1%
Electricity Related Losses	33.27	33.66	33.95	34.27	34.59	34.93	35.17	35.48	1.1%
Total	124.29	125.75	126.99	128.41	129.82	131.26	132.58	133.88	1.1%

Table 2. Energy Consumption by Sector and Source
(quadrillion Btu, unless otherwise noted)

	2023	2024	2025	2026	2027	2028	2029	2030	2004-2030
Electric Power 14/									
Distillate Fuel	0.25	0.26	0.26	0.26	0.26	0.27	0.27	0.27	1.8%
Residual Fuel	0.73	0.73	0.74	0.77	0.79	0.79	0.80	0.80	-0.6%
Petroleum Subtotal	0.98	0.99	1.00	1.03	1.05	1.06	1.07	1.07	-0.2%
Natural Gas	7.41	7.33	7.23	7.12	6.96	6.78	6.58	6.54	0.7%
Steam Coal	26.42	27.02	27.54	28.09	28.77	29.50	30.19	30.74	1.6%
Nuclear Power	9.09	9.09	9.09	9.09	9.09	9.09	9.09	9.09	0.4%
Renewable Energy/Other 15/	5.76	5.88	5.95	6.06	6.11	6.16	6.18	6.22	2.2%
Electricity Imports	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.9%
Total	49.71	50.35	50.86	51.44	52.02	52.64	53.14	53.71	1.3%
Total Energy Consumption									
Distillate Fuel	11.28	11.46	11.64	11.84	12.05	12.25	12.47	12.70	1.5%
Kerosene	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	-0.6%
Jet Fuel 9/	4.58	4.60	4.61	4.63	4.66	4.69	4.74	4.79	1.4%
Liquefied Petroleum Gas	3.23	3.25	3.27	3.30	3.33	3.35	3.36	3.40	0.7%
Motor Gasoline 2/	21.74	21.96	22.19	22.43	22.67	22.90	23.14	23.38	1.2%
Petrochemical Feedstocks	1.52	1.52	1.53	1.53	1.54	1.54	1.55	1.55	0.2%
Residual Fuel	1.70	1.70	1.72	1.75	1.77	1.78	1.79	1.79	-0.3%
Other Petroleum 12/	5.30	5.43	5.50	5.58	5.69	5.79	5.86	5.86	1.2%
Petroleum Subtotal	49.46	50.04	50.57	51.18	51.82	52.43	53.02	53.58	1.1%
Natural Gas	25.72	25.74	25.75	25.76	25.70	25.64	25.55	25.67	0.7%
Lease and Plant Fuel 6/	1.26	1.26	1.24	1.23	1.23	1.22	1.21	1.21	0.2%
Pipeline Natural Gas	0.80	0.80	0.79	0.79	0.78	0.78	0.78	0.78	0.5%
Natural Gas Subtotal	27.78	27.79	27.78	27.78	27.71	27.64	27.54	27.66	0.7%
Metallurgical Coal	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	-0.4%
Other Coal	27.95	28.55	29.07	29.63	30.31	31.04	31.73	32.29	1.5%
Coal-to-Liquids Heat and Power	1.00	1.13	1.22	1.35	1.43	1.51	1.61	1.61	33.8%
Net Coal Coke Imports	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	-8.1%
Coal Subtotal	29.54	30.27	30.89	31.57	32.33	33.15	33.93	34.49	1.7%
Nuclear Power	9.09	9.09	9.09	9.09	9.09	9.09	9.09	9.09	0.4%
Renewable Energy 16/	8.36	8.51	8.61	8.74	8.82	8.91	8.95	9.02	1.8%
Liquid Hydrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Electricity Imports	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.9%
Total	124.29	125.75	126.99	128.41	129.82	131.26	132.58	133.88	1.1%
Energy Use & Related Statistics									
Delivered Energy Use	91.02	92.09	93.04	94.15	95.22	96.33	97.40	98.40	1.1%
Total Energy Use	124.29	125.75	126.99	128.41	129.82	131.26	132.58	133.88	1.1%
Population (millions)	345.11	347.86	350.64	353.43	356.24	359.07	361.92	364.79	0.8%
US GDP (billion 2000 dollars)	19026	19562	20123	20701	21286	21871	22482	23112	3.0%
Carbon Dioxide Emissions (million metric tons)	7387.3	7493.7	7586.7	7689.6	7799.4	7911.9	8019.2	8114.5	1.2%

**Table 2. Energy Consumption by Sector and Source
(quadrillion Btu, unless otherwise noted)**

1/ Includes wood used for residential heating. See Table 4 and/or 17 for estimates of nonmarketed renewable energy consumption for geothermal heat pumps solar thermal hot water heating, and solar photovoltaic electricity generation

2/ Includes ethanol (blends of 10 percent or less) and ethers blended into gasoline

3/ Includes commercial sector consumption of wood and wood waste, landfill gas, municipal solid waste, and other biomass for combined heat and power. See Table 17 for estimates of nonmarketed renewable energy consumption for solar thermal hot water heating and solar photovoltaic electricity generation

4/ Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public

5/ Includes petroleum coke, asphalt, road oil, lubricants, still gas, and miscellaneous petroleum products

6/ Represents natural gas used in the field gathering and processing plant machinery

7/ Includes consumption of energy from hydroelectric, wood and wood waste, municipal solid waste, and other biomass

8/ Diesel fuel for on- and off-road use.

9/ Includes only kerosene type.

10/ Includes aviation gasoline and lubricants.

11/ E85 refers to a blend of 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable). To address cold starting issues, the percentage of ethanol actually varies seasonally. The annual average ethanol content of 74 percent is used for this forecast

12/ Includes unfinished oils, natural gasoline, motor gasoline blending components, aviation gasoline, lubricants, still gas, asphalt, road oil, petroleum coke and miscellaneous petroleum products.

13/ Includes electricity generated for sale to the grid and for own use from renewable sources, and non-electric energy from renewable sources. Exclude nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal hot water heaters

14/ Includes consumption of energy by electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators

15/ Includes conventional hydroelectric, geothermal, wood and wood waste, municipal solid waste, other biomass, petroleum coke, wind, photovoltaic and solar thermal sources. Excludes net electricity imports.

16/ Includes hydroelectric, geothermal, wood and wood waste, municipal solid waste, other biomass, wind, photovoltaic and solar thermal sources. Include ethanol components of E85; excludes ethanol blends (10 percent or less) in motor gasoline. Excludes net electricity imports and nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal hot water heaters

Btu = British thermal unit.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2003 and 2004 are model results and may differ slightly from official EIA data reports. Consumption values of 0.00 are values that round to 0.00, because they are less than 0.005

Sources: 2003 and 2004 consumption based on: Energy Information Administration (EIA), Annual Energy Review 2004, DOE/EIA-0384(2004) (Washington, DC August 2005) 2003 and 2004 population and gross domestic product: Global Insight macroeconomic model CTL0805. 2003 and 2004 carbon dioxide emissions EIA, Emissions of Greenhouse Gases in the United States 2004, DOE/EIA-0573(2004) (Washington, DC, December 2005). Projections: EIA, AEO2006 National Energy Modeling System run aeo2006.d111905a