

Table 21. Residential Sector Supplement Table (1 of 2)

1998-

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020
Equipment Stock (million units)																							
Main Space Heaters																							
Electric Heat Pumps	9.58	10.05	10.26	10.47	10.67	10.88	11.02	11.15	11.28	11.41	11.53	11.65	11.77	11.89	12.03	12.18	12.32	12.45	12.59	12.72	12.85	12.98	1.4%
Electric Other	20.03	20.25	20.37	20.50	20.63	20.77	20.88	20.99	21.11	21.24	21.37	21.50	21.62	21.75	21.89	22.03	22.17	22.30	22.43	22.55	22.68	22.81	0.6%
Natural Gas Heat Pumps	0.02	0.06	0.08	0.10	0.12	0.14	0.17	0.19	0.21	0.24	0.26	0.28	0.31	0.33	0.35	0.37	0.42	0.46	0.51	0.55	0.60	0.64	16.7%
Natural Gas Other	54.34	56.02	56.83	57.63	58.45	59.27	60.20	61.12	62.04	62.94	63.79	64.63	65.42	66.21	67.00	67.82	68.60	69.34	70.07	70.81	71.54	72.26	1.3%
Distillate	9.42	9.35	9.30	9.25	9.21	9.16	9.11	9.06	9.01	8.95	8.90	8.84	8.79	8.73	8.68	8.62	8.57	8.51	8.45	8.39	8.33	8.27	-0.6%
Liquid Petroleum Gas	4.73	4.91	4.97	5.02	5.07	5.12	5.15	5.17	5.19	5.21	5.22	5.23	5.23	5.23	5.23	5.22	5.21	5.20	5.19	5.18	5.17	5.17	0.4%
Kerosene	0.97	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.86	0.85	0.84	0.83	0.82	0.82	0.81	0.80	0.79	0.79	0.78	0.77	-1.0%
Wood Stoves	2.18	2.17	2.17	2.16	2.16	2.16	2.15	2.14	2.13	2.13	2.12	2.12	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.12	-0.1%
Geothermal Heat Pumps	0.38	0.43	0.45	0.48	0.51	0.54	0.60	0.67	0.73	0.80	0.86	0.92	0.98	1.04	1.10	1.16	1.22	1.28	1.33	1.39	1.44	1.50	6.5%
Total	101.64	104.19	105.37	106.54	107.73	108.94	110.17	111.38	112.59	113.78	114.91	116.03	117.07	118.13	119.22	120.34	121.45	122.47	123.48	124.50	125.52	126.51	1.0%
Space Cooling (million units)																							
Electric Heat Pumps	9.58	10.05	10.26	10.47	10.67	10.88	11.02	11.15	11.28	11.41	11.53	11.65	11.77	11.89	12.03	12.18	12.32	12.45	12.59	12.72	12.85	12.98	1.4%
Natural Gas Heat Pumps	0.02	0.06	0.08	0.10	0.12	0.14	0.17	0.19	0.21	0.24	0.26	0.28	0.31	0.33	0.35	0.37	0.42	0.46	0.51	0.55	0.60	0.64	16.7%
Geothermal Heat Pumps	0.38	0.43	0.45	0.48	0.51	0.54	0.60	0.67	0.73	0.80	0.86	0.92	0.98	1.04	1.10	1.16	1.22	1.28	1.33	1.39	1.44	1.50	6.5%
Central Air Conditioners	40.10	42.14	43.08	44.02	44.97	45.92	46.89	47.85	48.80	49.73	50.62	51.50	52.33	53.17	54.01	54.87	55.70	56.48	57.25	58.02	58.79	59.53	1.8%
Room Air Conditioners	37.07	37.11	37.13	37.15	37.18	37.22	37.26	37.31	37.36	37.41	37.46	37.52	37.57	37.62	37.67	37.74	37.80	37.85	37.91	37.96	38.01	38.06	0.1%
Total	87.14	89.78	91.01	92.23	93.45	94.69	95.94	97.16	98.38	99.58	100.73	101.87	102.95	104.04	105.17	106.33	107.47	108.53	109.59	110.64	111.69	112.71	1.2%
Water Heaters (million units)																							
Electric	40.06	40.88	41.28	41.69	42.10	42.53	42.90	43.27	43.66	44.04	44.42	44.79	45.15	45.53	45.92	46.32	46.71	47.06	47.41	47.76	48.12	48.48	0.9%
Natural Gas	53.45	54.99	55.72	56.45	57.18	57.93	58.77	59.59	60.42	61.22	61.98	62.74	63.44	64.15	64.87	65.61	66.36	67.05	67.74	68.42	69.11	69.78	1.2%
Distillate	5.12	5.10	5.08	5.06	5.04	5.02	4.99	4.97	4.94	4.91	4.88	4.85	4.82	4.79	4.76	4.72	4.69	4.66	4.63	4.60	4.57	4.53	-0.6%
Liquid Petroleum Gas	3.35	3.55	3.62	3.68	3.73	3.79	3.82	3.86	3.89	3.91	3.93	3.95	3.96	3.96	3.97	3.98	3.98	3.99	3.99	3.99	3.99	3.99	0.8%
Solar Thermal	0.36	0.35	0.35	0.35	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.32	-0.4%
Total	102.34	104.88	106.05	107.22	108.40	109.60	110.83	112.04	113.25	114.43	115.55	116.67	117.71	118.76	119.85	120.97	122.07	123.09	124.10	125.11	126.12	127.11	1.0%
Cooking Equipment (million units) 1/																							
Electric	63.11	64.63	65.36	66.08	66.81	67.54	68.27	68.99	69.72	70.45	71.14	71.82	72.45	73.07	73.72	74.39	75.04	75.65	76.28	76.92	77.60	78.27	1.0%
Natural Gas	34.21	35.08	35.49	35.90	36.32	36.76	37.25	37.73	38.19	38.65	39.09	39.53	39.96	40.40	40.85	41.33	41.80	42.22	42.62	42.99	43.35	43.68	1.1%
Liquid Petroleum Gas	4.28	4.43	4.48	4.52	4.55	4.58	4.60	4.62	4.62	4.63	4.63	4.62	4.61	4.60	4.59	4.58	4.56	4.55	4.53	4.52	4.51	4.50	0.2%
Total	101.60	104.14	105.32	106.49	107.68	108.89	110.12	111.33	112.54	113.73	114.85	115.97	117.02	118.07	119.16	120.29	121.40	122.41	123.43	124.44	125.46	126.45	1.0%
Clothes Dryers (million units)																							
Electric	56.99	59.46	60.60	61.71	62.82	63.94	65.05	66.15	67.23	68.28	69.28	70.26	71.18	72.10	73.04	73.99	74.93	75.80	76.67	77.53	78.39	79.23	1.5%
Natural Gas	15.84	16.65	17.04	17.43	17.83	18.24	18.65	19.06	19.47	19.87	20.25	20.64	21.01	21.38	21.76	22.15	22.53	22.89	23.25	23.61	23.97	24.32	2.0%
Total	72.84	76.11	77.64	79.14	80.65	82.17	83.70	85.20	86.70	88.14	89.53	90.90	92.19	93.48	94.80	96.14	97.46	98.69	99.92	101.14	102.36	103.55	1.6%
Other Appliances (million units)																							
Refrigerators	116.47	119.11	120.33	121.54	122.76	124.01	125.29	126.54	127.80	129.02	130.18	131.33	132.40	133.48	134.60	135.75	136.89	137.93	138.97	140.01	141.05	142.07	0.9%
Freezers	33.69	33.69	33.64	33.59	33.56	33.52	33.51	33.51	33.52	33.51	33.48	33.47	33.46	33.48	33.53	33.62	33.73	33.82	33.93	34.05	34.20	34.36	0.1%

Table 21. Residential Sector Supplement Table (2 of 2)

1998-

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020	
Stock Average Equipment Efficiency																								
Main Space Heaters																								
Elec. Heat Pumps (HSPF)	6.94	7.10	7.15	7.19	7.22	7.23	7.24	7.25	7.25	7.25	7.24	7.24	7.25	7.25	7.26	7.27	7.30	7.33	7.36	7.38	7.40	7.43	0.3%	
NG Heat Pumps (HSPF)	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	N/A	
Geo. Heat Pumps (COP)	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.44	3.48	3.51	3.54	3.58	3.61	0.3%	
Natural Gas Furnace (AFUE)	0.75	0.76	0.77	0.77	0.78	0.78	0.79	0.80	0.80	0.81	0.81	0.82	0.82	0.82	0.83	0.83	0.83	0.83	0.84	0.84	0.84	0.84	0.5%	
Distillate Furnace (AFUE)	0.78	0.79	0.79	0.80	0.80	0.80	0.81	0.81	0.81	0.81	0.81	0.81	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.2%	
Space Cooling																								
Elec. Heat Pumps (SEER)	10.25	10.56	10.68	10.78	10.85	10.90	10.96	11.00	11.02	11.04	11.06	11.08	11.09	11.11	11.12	11.13	11.19	11.24	11.29	11.33	11.37	11.41	0.5%	
NG Heat Pumps (SEER)	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	15.60	0.0%	
Geo. Heat Pumps (EER)	13.50	13.50	13.50	13.50	13.50	13.50	14.68	15.33	15.96	16.56	17.13	17.68	18.20	18.73	19.25	19.71	19.48	19.07	18.64	18.19	17.74	17.28	1.1%	
Cent. Air Conditioners(SEER)	10.10	10.34	10.45	10.54	10.61	10.66	10.75	10.81	10.86	10.91	10.95	10.98	11.02	11.05	11.08	11.10	11.16	11.21	11.25	11.30	11.33	11.37	0.5%	
Room Air Conditioners (EER)	8.53	8.70	8.81	8.92	9.03	9.12	9.21	9.29	9.36	9.42	9.47	9.52	9.56	9.61	9.65	9.69	9.73	9.75	9.77	9.79	9.80	9.80	0.6%	
Water Heaters																								
Electric (EF)	0.87	0.87	0.87	0.87	0.87	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.89	0.1%	
Natural Gas (EF)	0.54	0.54	0.55	0.55	0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.3%	
Distillate (EF)	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.0%	
Liquid Petroleum Gas (EF)	0.54	0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.57	0.57	0.57	0.57	0.58	0.58	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.4%	
Other Appliances (kilowatthours per year)																								
Refrigerators	937.97	880.99	857.58	822.70	790.08	759.92	732.00	706.30	682.28	659.74	638.41	618.99	601.56	585.85	571.92	559.58	548.87	539.63	531.76	525.01	519.38	514.40	-2.7%	
Freezers	678.12	631.33	609.99	586.93	565.38	545.42	528.13	514.12	502.54	492.48	483.89	476.26	469.80	464.27	459.24	454.95	451.38	448.47	446.15	444.33	442.88	441.81	-1.9%	
Building Shell Efficiency Index																								
Space Heating																								
Pre-1998 Homes	0.95	0.94	0.93	0.93	0.93	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90	0.89	0.89	0.88	0.88	0.88	0.88	0.88	0.87	0.87	0.87	-0.4%
New Construction	0.86	0.86	0.86	0.86	0.86	0.85	0.85	0.85	0.85	0.85	0.84	0.84	0.84	0.83	0.83	0.83	0.82	0.82	0.81	0.81	0.80	0.80	0.80	-0.3%
All Homes	0.95	0.93	0.93	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.89	0.89	0.89	0.88	0.88	0.88	0.87	0.87	0.87	0.86	0.86	0.86	0.86	-0.4%
Space Cooling																								
Pre-1998 Homes	0.95	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90	0.89	0.89	0.89	0.88	0.88	0.88	0.88	-0.3%
New Construction	0.87	0.87	0.86	0.86	0.86	0.86	0.86	0.86	0.85	0.85	0.85	0.85	0.84	0.84	0.83	0.83	0.82	0.82	0.81	0.81	0.80	0.80	0.80	-0.4%
All Homes	0.95	0.94	0.93	0.93	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.89	0.89	0.89	0.88	0.88	0.88	0.87	0.87	0.87	0.87	0.87	-0.4%

1/ Does not include microwave ovens or outdoor grills.

HSPF = Heating Seasonal Performance Factor: The total heating output of a heat pump in Btu during its normal annual usage period for heating divided by total electric input in watt-hours during the same period.

COP = Coefficient of Performance: Energy efficiency rating measure determined, under specific testing conditions, by dividing the energy output by the energy input.

AFUE = Annual Fuel Utilization Efficiency: Efficiency rating based on average usage, including on and off cycling, as set out in the standardized Department of Energy test procedures.

SEER = Seasonal Energy Efficiency Ratio: The total cooling of a central unitary air conditioner or a unitary heat pump in Btu during its normal annual usage period for cooling divided by the total electric energy input in watt-hours during the same period.

EER = Energy Efficiency Ratio: A ratio calculated by dividing the cooling capacity in Btu per hour by the power input in watts at any given set of rating conditions, expressed in Btu per hour per watt.

EF = Efficiency Factor: Efficiency (measured in Btu out / Btu in) of water heaters under certain test conditions specified by the Department of Energy.

kWh/y = Kilowatt hours per year to run the appliance under certain test conditions as specified by the Department of Energy.

Btu = British thermal unit.

N/A = Not applicable.

Elec. = Electric.

Geo. = Geothermal.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports.

Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: EIA, AEO2000 National Energy Modeling System run AEO2K.D100199A.

Table 22. Commercial Sector Supplement Table (1 of 2)

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	1998-2020
Commercial Building Delivered																							
Energy Consumption (quadrillion Btu) 1/																							
Assembly	0.50	0.52	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.55	0.55	0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.5%
Education	0.67	0.70	0.71	0.71	0.72	0.72	0.73	0.73	0.74	0.75	0.75	0.76	0.77	0.77	0.78	0.78	0.79	0.79	0.79	0.79	0.79	0.79	0.8%
Food Sales	0.14	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.8%
Food Service	0.37	0.38	0.38	0.39	0.39	0.40	0.40	0.41	0.41	0.41	0.42	0.42	0.43	0.43	0.44	0.44	0.44	0.44	0.45	0.45	0.45	0.45	0.8%
Health Care	0.51	0.54	0.55	0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.61	0.62	0.63	0.64	0.65	0.65	0.66	0.67	0.67	0.68	0.68	0.69	1.3%
Lodging	0.52	0.54	0.54	0.55	0.56	0.56	0.57	0.58	0.58	0.59	0.60	0.61	0.62	0.63	0.63	0.64	0.64	0.65	0.65	0.65	0.66	0.66	1.1%
Office - Large	0.66	0.68	0.69	0.69	0.70	0.71	0.72	0.72	0.73	0.74	0.75	0.76	0.77	0.78	0.78	0.79	0.79	0.80	0.80	0.80	0.80	0.81	0.9%
Office - Small	0.50	0.52	0.53	0.54	0.55	0.55	0.56	0.56	0.57	0.58	0.58	0.59	0.60	0.60	0.61	0.61	0.62	0.62	0.62	0.62	0.62	0.62	1.0%
Mercantile/Service	1.04	1.11	1.12	1.13	1.13	1.14	1.15	1.16	1.17	1.18	1.19	1.20	1.21	1.22	1.23	1.24	1.24	1.24	1.24	1.24	1.24	1.24	0.8%
Warehouse	0.35	0.38	0.38	0.39	0.40	0.40	0.41	0.42	0.42	0.43	0.44	0.44	0.45	0.45	0.46	0.46	0.46	0.46	0.47	0.47	0.47	0.47	1.3%
Other	0.45	0.48	0.49	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.64	0.65	0.65	0.66	1.8%
Total	5.71	5.98	6.07	6.15	6.20	6.27	6.34	6.41	6.47	6.55	6.63	6.70	6.78	6.85	6.91	6.96	7.00	7.03	7.06	7.08	7.10	7.11	1.0%
Commercial Building Floorspace (billion square feet)																							
Assembly	6.91	7.06	7.11	7.15	7.19	7.24	7.29	7.33	7.37	7.41	7.45	7.49	7.53	7.56	7.58	7.60	7.62	7.63	7.64	7.64	7.64	7.64	0.5%
Education	8.08	8.36	8.49	8.62	8.74	8.86	8.99	9.11	9.24	9.36	9.49	9.62	9.74	9.85	9.94	10.02	10.08	10.12	10.16	10.19	10.22	10.24	1.1%
Food Sales	0.68	0.70	0.70	0.71	0.72	0.73	0.74	0.75	0.75	0.76	0.77	0.78	0.79	0.79	0.80	0.80	0.81	0.81	0.81	0.81	0.82	0.82	0.9%
Food Service	1.41	1.45	1.46	1.47	1.48	1.50	1.51	1.53	1.54	1.56	1.57	1.58	1.60	1.61	1.62	1.62	1.63	1.63	1.63	1.63	1.63	1.63	0.6%
Health Care	1.73	1.80	1.82	1.85	1.88	1.91	1.94	1.96	1.98	2.00	2.02	2.04	2.07	2.08	2.10	2.11	2.13	2.14	2.15	2.16	2.17	2.18	1.1%
Lodging	3.81	4.01	4.09	4.15	4.20	4.26	4.33	4.39	4.44	4.50	4.56	4.62	4.68	4.73	4.77	4.81	4.84	4.87	4.89	4.90	4.91	4.92	1.2%
Office - Large	5.82	5.95	6.00	6.04	6.08	6.11	6.15	6.20	6.25	6.31	6.37	6.42	6.47	6.51	6.54	6.56	6.57	6.58	6.57	6.56	6.55	6.53	0.5%
Office - Small	5.50	5.63	5.69	5.73	5.77	5.81	5.85	5.90	5.96	6.01	6.07	6.13	6.18	6.22	6.25	6.28	6.29	6.30	6.30	6.29	6.28	6.27	0.6%
Mercantile/Service	13.30	13.71	13.86	13.98	14.09	14.23	14.38	14.54	14.69	14.85	15.00	15.14	15.27	15.39	15.50	15.59	15.66	15.71	15.75	15.77	15.78	15.78	0.8%
Warehouse	8.96	9.34	9.49	9.62	9.75	9.87	10.01	10.15	10.28	10.41	10.52	10.63	10.72	10.79	10.85	10.89	10.92	10.93	10.93	10.91	10.88	10.84	0.9%
Other	5.04	5.34	5.48	5.60	5.72	5.82	5.93	6.04	6.14	6.24	6.33	6.42	6.50	6.58	6.65	6.72	6.78	6.84	6.89	6.93	6.96	6.98	1.5%
Total	61.24	63.34	64.20	64.93	65.62	66.34	67.11	67.89	68.66	69.41	70.16	70.87	71.53	72.11	72.60	73.00	73.32	73.56	73.72	73.81	73.84	73.81	0.9%
Stock Average Equipment Efficiency 2/																							
Space Heating																							
Electricity	1.08	1.09	1.10	1.10	1.11	1.11	1.12	1.12	1.12	1.12	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	0.2%
Natural Gas	0.74	0.75	0.75	0.76	0.76	0.76	0.77	0.77	0.77	0.78	0.78	0.78	0.78	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.80	0.80	0.3%
Distillate	0.75	0.75	0.75	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.2%
Space Cooling																							
Electricity	2.49	2.57	2.61	2.65	2.68	2.72	2.76	2.80	2.83	2.87	2.90	2.93	2.96	2.99	3.01	3.03	3.06	3.08	3.10	3.13	3.15	3.16	1.1%
Natural Gas	0.88	0.92	0.94	0.95	0.96	0.97	0.99	1.01	1.03	1.04	1.06	1.07	1.08	1.09	1.10	1.11	1.12	1.13	1.14	1.14	1.15	1.16	1.2%

Table 22. Commercial Sector Supplement Table (2 of 2)

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	1998-2020	
Water Heating																								
Electricity	0.94	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.2%
Natural Gas	0.73	0.74	0.75	0.76	0.76	0.77	0.77	0.78	0.78	0.78	0.79	0.79	0.79	0.79	0.79	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.5%
Distillate	0.74	0.75	0.75	0.75	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.2%
Ventilation (cfm per Btu) 3/																								
Electricity	0.39	0.40	0.40	0.41	0.41	0.41	0.41	0.41	0.42	0.42	0.42	0.43	0.43	0.43	0.43	0.44	0.44	0.44	0.45	0.45	0.45	0.45	0.45	0.7%
Cooking																								
Electricity	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.1%
Natural Gas	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.0%
Lighting Efficacy 4/ (efficacy in lumens per watt)																								
Electricity	49.02	50.43	51.16	51.91	52.68	53.40	53.97	54.54	55.06	55.50	55.88	56.28	56.59	56.85	57.08	57.30	57.68	58.05	58.38	58.75	59.13	59.53	0.9%	
Refrigeration																								
Electricity	1.31	1.32	1.32	1.32	1.33	1.33	1.33	1.34	1.34	1.34	1.35	1.35	1.35	1.35	1.35	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	0.2%

1/ Excludes commercial sector energy consumption (from uses such as street lights) that is not attributable to buildings.

2/ Unless noted otherwise, the efficiency measures are in the terms of Btu of energy output divided by Btu of energy input.

3/ The efficiency measure for ventilation is in terms of cubic feet per minute (cfm) of ventilation air delivered divided by Btu of energy input.

4/ A measurement of the ratio of light produced by a light source to the electrical power used to produce that quality of light, expressed in lumens per watt.

Quad. = Quadrillion.

Btu = British thermal unit.

Avg. = Average.

Equip. = Equipment.

Cfm = Cubic feet per minute.

PC = Personal computer.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports. Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: EIA, AEO2000 National Energy Modeling System run AEO2K.D100199A.

Table 23. Industrial Sector Macroeconomic Indicators (1 of 2)

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	1998-2020
GDP (billion 1992 dollars)	7552	7991	8191	8377	8596	8824	9056	9251	9449	9651	9840	10054	10218	10416	10648	10906	11147	11331	11533	11741	11959	12179	2.2%
Non-Agricultural Emp. (million)	126.2	129.7	130.2	131.2	132.6	133.9	135.3	136.5	137.5	138.5	139.2	140.1	140.8	141.5	142.3	143.4	144.6	145.4	145.9	146.5	147.1	147.8	0.7%
Value of Gross Output (billion 1987 dollars)																							
Nonmanufacturing Sector																							
Agricultural	258.4	264.4	267.1	270.8	273.8	277.3	280.6	283.3	286.1	289.0	291.2	294.6	297.4	300.5	304.5	308.7	312.6	315.2	318.7	322.4	326.0	329.7	1.1%
Mining	137.2	136.1	135.3	135.8	137.5	138.8	140.6	142.3	144.1	145.6	146.4	148.1	149.3	150.7	152.4	154.4	156.6	157.6	159.0	160.0	161.0	161.9	0.8%
Construction	439.5	456.9	461.9	473.3	483.0	496.9	510.8	520.3	528.5	534.8	539.1	546.4	550.2	558.4	568.5	583.5	597.7	603.2	609.1	617.6	629.3	638.9	1.7%
Manufacturing Sector																							
Food and Kindred Products	409.9	421.5	425.7	429.9	433.6	437.7	442.6	446.7	450.7	454.5	457.9	462.3	466.9	471.5	476.8	482.7	488.9	494.1	499.5	504.8	510.4	516.2	1.1%
Tobacco Products	28.1	27.6	27.3	27.2	27.1	26.9	26.7	26.3	26.0	25.7	25.3	25.0	24.6	24.3	24.2	24.0	23.8	23.4	23.2	22.9	22.6	22.3	-1.0%
Textile Mill Products	58.3	58.7	58.0	57.9	58.4	58.5	58.5	58.3	58.3	58.5	58.3	58.8	58.9	59.1	60.0	60.7	60.9	60.7	61.1	61.5	61.9	62.4	0.3%
Apparel and Other Textile Products	86.0	82.7	79.9	78.6	78.4	77.9	77.4	75.8	74.9	74.2	72.7	72.4	71.6	70.7	70.6	69.8	68.4	67.2	67.4	67.7	67.3	67.0	-1.1%
Lumber and Wood Products	79.1	82.5	83.3	84.5	86.2	87.3	88.6	89.3	89.8	90.0	90.1	90.8	90.8	91.4	91.9	93.4	94.6	94.6	94.8	95.3	96.0	96.7	0.9%
Furniture and Fixtures	46.5	50.2	50.2	51.0	52.2	52.9	53.5	53.2	53.5	53.9	54.0	54.7	55.0	55.5	56.7	58.1	59.4	59.9	60.6	61.2	62.0	63.1	1.4%
Paper and Allied Products	127.6	132.1	134.5	136.7	139.1	141.2	143.4	145.1	146.6	148.1	149.3	150.9	151.8	153.2	154.8	156.8	158.8	160.1	161.3	162.5	164.0	165.6	1.2%
Printing and Publishing	143.0	143.6	144.3	145.6	147.2	148.8	150.4	151.4	152.5	153.5	154.0	155.3	155.9	156.8	158.2	160.1	162.1	163.1	164.0	165.3	166.6	168.2	0.7%
Chemical and Allied Products	288.3	295.1	300.6	306.9	314.9	320.7	326.5	331.1	336.6	341.9	346.9	352.7	357.2	363.3	369.9	376.5	382.4	387.6	393.6	399.3	405.7	412.3	1.6%
Bulk Chemicals	155.6	156.0	158.1	160.1	163.6	165.9	168.1	170.1	172.3	174.5	176.4	178.5	179.9	182.5	185.0	187.3	189.1	190.4	192.1	193.6	195.6	197.8	1.1%
Other Chemicals and Allied Products	132.7	139.1	142.5	146.8	151.2	154.8	158.3	161.0	164.3	167.4	170.5	174.3	177.3	180.8	184.9	189.2	193.3	197.2	201.4	205.7	210.0	214.5	2.2%
Petroleum and Coal Products	156.3	159.6	160.8	163.3	164.4	167.1	169.7	172.0	174.7	175.5	176.2	176.9	176.9	177.5	178.2	179.0	180.1	180.3	181.1	181.6	182.3	183.1	0.7%
Petroleum Refining	140.6	143.5	144.5	146.8	147.6	150.1	152.6	154.6	157.2	157.9	158.4	159.0	158.9	159.4	159.9	160.4	161.2	161.4	162.0	162.4	163.0	163.6	0.7%
Other Petroleum and Coal Products	15.7	16.1	16.3	16.5	16.7	16.9	17.2	17.3	17.5	17.7	17.8	17.9	18.0	18.1	18.3	18.6	18.8	18.9	19.0	19.2	19.4	19.5	1.0%
Rubber and Miscellaneous																							
Plastic Products	132.9	138.8	142.3	147.3	153.8	159.4	165.1	169.7	174.8	179.9	184.2	189.2	193.0	197.9	203.8	209.9	215.3	218.7	223.2	227.8	232.8	237.9	2.7%
Leather and Leather Products	6.8	6.2	5.5	5.3	5.1	4.7	4.3	3.9	3.5	3.3	3.1	3.0	2.8	2.6	2.5	2.3	2.1	1.8	1.8	1.8	1.6	1.5	-6.7%
Stone, Clay, & Glass Products	71.6	73.9	74.3	75.0	76.2	77.4	78.6	79.2	79.9	80.3	80.3	80.9	80.5	81.1	81.9	83.0	83.8	83.6	83.7	84.2	84.7	85.1	0.8%
Glass and Glass Products	19.3	19.8	19.9	20.1	20.5	20.8	21.0	21.2	21.5	21.8	22.0	22.2	22.4	22.7	22.9	23.2	23.4	23.5	23.5	23.6	23.7	23.7	0.9%
Cement, Hydraulic	5.0	5.0	5.1	5.1	5.1	5.2	5.3	5.3	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.5	5.6	5.6	5.6	5.6	5.7	5.7	0.6%
Other Stone, Clay, & Glass Products	47.3	49.0	49.3	49.8	50.5	51.4	52.2	52.6	53.0	53.2	53.0	53.2	52.7	53.0	53.5	54.3	54.9	54.5	54.6	54.9	55.4	55.7	0.7%

Table 23. Industrial Sector Macroeconomic Indicators (2 of 2)

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	1998-2020
Primary Metals Industry	149.7	149.4	151.8	153.8	156.9	159.4	161.5	161.7	163.1	164.0	164.0	165.0	164.7	166.0	167.2	168.5	169.2	169.1	169.4	169.7	170.5	171.1	0.6%
Blast Furnace and Basic																							
Steel Products	68.1	66.9	68.4	69.2	70.9	72.3	73.4	73.2	74.0	74.3	74.1	74.5	74.2	74.8	75.3	75.8	76.1	76.0	76.0	76.3	76.8	77.0	0.6%
Aluminum	30.1	30.3	30.4	30.8	30.9	31.3	31.5	31.6	31.7	31.9	31.9	32.0	32.1	32.3	32.5	32.7	32.8	33.0	33.0	33.0	33.1	33.3	0.5%
Other Primary Metal Products	51.5	52.2	52.9	53.8	55.0	55.8	56.6	56.8	57.4	57.9	58.0	58.4	58.4	58.8	59.4	59.9	60.3	60.0	60.3	60.4	60.6	60.7	0.8%
Fabricated Metal Products	186.6	191.9	193.9	198.8	205.7	209.4	213.7	215.9	218.6	220.4	221.6	223.7	224.5	226.4	229.5	233.2	236.1	236.5	237.6	238.9	241.4	243.3	1.2%
Industrial Machinery and																							
Equipment	333.6	343.0	357.8	379.1	395.3	407.4	421.0	431.4	443.4	456.1	464.4	476.0	483.6	493.0	508.4	525.3	544.3	555.3	567.2	580.9	596.1	611.2	2.8%
Electronic and Other Electric																							
Equipment	389.0	431.0	458.5	494.8	529.4	559.3	588.7	620.8	654.0	686.1	713.5	741.2	769.1	802.2	833.3	861.8	892.4	919.5	952.6	981.6	1005.7	1027.5	4.5%
Transportation Equipment	425.0	418.2	413.5	422.3	443.3	452.7	465.9	473.3	486.7	499.5	509.4	522.6	531.9	542.6	559.5	574.9	588.0	590.6	599.7	610.3	623.2	636.6	1.9%
Instruments & Related Products	129.1	136.6	139.0	142.9	147.3	151.1	154.8	159.0	163.4	167.9	172.6	177.1	180.8	184.4	188.9	194.1	199.5	203.0	205.9	208.6	211.4	214.4	2.3%
Miscellaneous Manufacturing																							
Industries	43.3	44.4	44.7	45.5	45.9	46.6	47.2	47.3	47.6	47.8	48.1	48.7	49.2	49.8	51.0	52.1	53.2	53.4	53.5	53.8	54.3	54.9	1.1%
Total Industrial Gross Output	4125.9	4244.5	4309.9	4426.0	4554.6	4659.5	4769.9	4857.3	4957.4	5050.5	5122.8	5216.4	5286.7	5379.0	5493.0	5612.8	5730.1	5798.5	5888.1	5979.7	6076.8	6170.9	1.8%

GDP = Gross domestic product.

Emp. = Employment.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports. Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Sources: 1998: Standard & Poors DRI, Simulation T250899. Projections: Energy Information Administration, AEO2000 National Energy Modeling System run AEO2K.D100199A.

Table 24. Refining Industry Energy Consumption (1 of 1)

1998-

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020	
Industry Output (billion 1987 \$)	140.64	143.49	144.48	146.78	147.63	150.14	152.56	154.62	157.23	157.87	158.44	159.01	158.93	159.44	159.87	160.43	161.25	161.43	162.03	162.42	162.95	163.63	0.7%	
Energy Consumption (trillion Btu)																								
Residual Oil	31.2	12.0	12.1	12.0	12.0	12.0	11.9	25.9	21.8	38.7	40.5	40.6	38.0	41.0	41.1	41.4	41.6	41.8	42.2	42.5	42.7	43.0	1.5%	
Distillate Oil	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	
Liquefied Petroleum Gas	14.0	0.0	4.0	6.2	0.0	0.0	0.0	0.0	7.3	13.2	14.5	15.7	6.9	7.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	-3.2%
Petroleum Coke	589.2	568.8	621.0	621.8	612.7	669.9	713.3	735.3	758.8	771.8	802.5	818.5	832.8	838.3	843.4	835.9	841.4	838.3	823.2	828.1	834.7	838.8	1.6%	
Still Gas	1431.0	1625.6	1614.5	1603.4	1602.3	1572.4	1554.1	1548.3	1557.4	1530.6	1500.3	1487.4	1483.3	1473.7	1459.2	1471.5	1471.4	1473.5	1489.1	1475.8	1469.6	1463.8	0.1%	
Other Petroleum 2/	32.8	32.1	35.5	33.9	32.7	32.4	31.6	31.1	23.4	18.3	17.6	15.2	24.7	27.1	27.0	17.7	26.0	12.8	27.4	11.5	10.0	24.6	-1.3%	
Petroleum Subtotal	2102.6	2238.5	2287.1	2277.3	2259.7	2286.7	2310.9	2340.6	2368.6	2372.6	2375.5	2377.4	2385.7	2387.1	2377.5	2373.3	2387.3	2373.3	2388.9	2364.9	2364.0	2377.1	0.6%	
Natural Gas	902.6	900.7	903.5	906.2	920.8	930.5	942.2	954.8	964.2	972.9	972.5	971.3	969.5	966.3	964.0	961.8	960.0	957.5	955.2	953.6	951.6	950.2	0.2%	
Steam Coal	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	
Purchased Electricity	111.2	123.7	126.5	128.1	129.0	128.1	128.2	131.4	136.9	135.0	131.6	128.9	125.0	122.4	119.7	119.1	123.2	122.8	122.4	121.0	119.0	117.4	0.2%	
Total	3117.2	3262.9	3317.1	3311.6	3309.5	3345.3	3381.4	3426.8	3469.8	3480.6	3479.6	3477.6	3480.1	3475.8	3461.2	3454.2	3470.4	3453.6	3466.5	3439.5	3434.5	3444.7	0.5%	
Energy Consumption per Unit of																								
Output (thousand Btu per 1987 dollar of output)																								
Residual Oil	0.22	0.08	0.08	0.08	0.08	0.08	0.08	0.17	0.14	0.25	0.26	0.26	0.24	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.8%	
Distillate Oil	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Liquefied Petroleum Gas	0.10	0.00	0.03	0.04	0.00	0.00	0.00	0.00	0.05	0.08	0.09	0.10	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	-3.8%
Petroleum Coke	4.19	3.96	4.30	4.24	4.15	4.46	4.68	4.76	4.83	4.89	5.07	5.15	5.24	5.26	5.28	5.21	5.22	5.19	5.08	5.10	5.12	5.13	0.9%	
Still Gas	10.18	11.33	11.17	10.92	10.85	10.47	10.19	10.01	9.91	9.70	9.47	9.35	9.33	9.24	9.13	9.17	9.13	9.13	9.19	9.09	9.02	8.95	-0.6%	
Other Petroleum 2/	0.23	0.22	0.25	0.23	0.22	0.22	0.21	0.20	0.15	0.12	0.11	0.10	0.16	0.17	0.17	0.11	0.16	0.08	0.17	0.07	0.06	0.15	-2.0%	
Petroleum Subtotal	14.95	15.60	15.83	15.52	15.31	15.23	15.15	15.14	15.07	15.03	14.99	14.95	15.01	14.97	14.87	14.79	14.80	14.70	14.74	14.56	14.51	14.53	-0.1%	
Natural Gas	6.42	6.28	6.25	6.17	6.24	6.20	6.18	6.18	6.13	6.16	6.14	6.11	6.10	6.06	6.03	5.99	5.95	5.93	5.89	5.87	5.84	5.81	-0.5%	
Steam Coal	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Purchased Electricity	0.79	0.86	0.88	0.87	0.87	0.85	0.84	0.85	0.87	0.86	0.83	0.81	0.79	0.77	0.75	0.74	0.76	0.76	0.76	0.75	0.73	0.72	-0.4%	
Total	22.17	22.74	22.96	22.56	22.42	22.28	22.16	22.16	22.07	22.05	21.96	21.87	21.90	21.80	21.65	21.53	21.52	21.39	21.39	21.18	21.08	21.05	-0.2%	
Carbon Emissions (billion kg.)	53.3	56.5	57.4	57.3	57.3	57.7	58.1	59.0	59.7	59.8	59.5	59.3	59.2	59.0	58.7	58.5	59.0	58.7	59.0	58.4	58.2	58.4	0.4%	

1/ Fuel consumption includes consumption for cogeneration.

2/ Includes lubricants and miscellaneous petroleum products.

Btu = British thermal unit.

N/A = Not applicable.

\$ = Dollars

KG. = Kilograms.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports. Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: Energy Information Administration, AEO2000 National Energy Modeling System run AEO2K.D100199A.

Table 25. Food Industry Energy Consumption (1 of 1)

1998-

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020	
Industry Output (billion 1987 \$)	409.86	421.54	425.65	429.94	433.59	437.69	442.61	446.68	450.72	454.50	457.95	462.30	466.85	471.50	476.77	482.71	488.87	494.05	499.51	504.81	510.39	516.25	1.1%	
Energy Consumption (trillion Btu)																								
Residual Oil	26.5	24.7	25.9	26.2	26.4	26.7	27.1	27.5	27.8	28.0	28.1	28.2	28.4	28.6	28.8	29.2	29.5	29.7	30.1	30.4	30.7	30.9	0.7%	
Distillate Oil	19.9	18.3	19.2	19.4	19.6	19.9	20.2	20.4	20.6	20.8	20.8	20.9	21.0	21.2	21.3	21.6	21.8	22.0	22.2	22.4	22.6	22.8	0.6%	
Liquefied Petroleum Gas	5.4	4.9	5.1	5.2	5.2	5.4	5.5	5.6	5.7	5.7	5.7	5.7	5.8	5.8	5.8	5.9	5.9	6.0	6.0	6.1	6.1	6.2	0.6%	
Other Petroleum 2/	92.6	89.6	93.6	94.8	96.1	97.7	99.7	101.5	103.1	104.6	105.5	106.7	108.1	109.6	111.2	113.2	115.1	116.8	118.6	120.3	122.1	124.3	1.3%	
Petroleum Subtotal	144.5	137.5	143.9	145.5	147.4	149.6	152.5	155.0	157.2	159.0	160.0	161.6	163.2	165.1	167.2	169.8	172.3	174.5	176.9	179.1	181.5	184.2	1.1%	
Natural Gas	654.5	678.8	678.2	682.0	684.3	686.4	689.3	691.2	693.4	695.9	699.1	704.1	709.6	715.3	722.3	730.4	739.3	746.6	754.7	762.7	770.7	778.7	0.8%	
Steam Coal	156.9	158.1	158.3	158.6	158.9	159.3	159.8	160.2	160.6	160.8	161.0	161.3	161.6	161.8	162.1	162.3	162.6	162.9	163.1	163.4	163.8	164.4	0.2%	
Renewables	12.3	12.8	12.9	13.1	13.2	13.3	13.5	13.6	13.8	13.9	14.0	14.1	14.3	14.4	14.6	14.8	15.0	15.2	15.4	15.5	15.7	15.9	1.2%	
Purchased Electricity	209.8	216.2	217.9	220.2	222.1	224.2	227.1	229.1	231.1	233.0	234.6	236.4	238.8	241.0	243.5	246.3	249.3	252.0	254.8	257.5	260.6	263.8	1.0%	
Total	1178.0	1203.4	1211.1	1219.3	1225.8	1232.9	1242.1	1249.2	1256.0	1262.6	1268.8	1277.5	1287.4	1297.8	1309.7	1323.6	1338.5	1351.2	1364.9	1378.2	1392.3	1407.0	0.8%	
Energy Consumption per Unit of Output (thousand Btu per 1987 dollar of output)																								
Residual Oil	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	-0.3%	
Distillate Oil	0.05	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	-0.4%
Liquefied Petroleum Gas	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-0.5%
Other Petroleum 2/	0.23	0.21	0.22	0.22	0.22	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.3%
Petroleum Subtotal	0.35	0.33	0.34	0.34	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.1%	
Natural Gas	1.60	1.61	1.59	1.59	1.58	1.57	1.56	1.55	1.54	1.53	1.53	1.52	1.52	1.52	1.52	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	-0.3%
Steam Coal	0.38	0.38	0.37	0.37	0.37	0.36	0.36	0.36	0.36	0.35	0.35	0.35	0.35	0.34	0.34	0.33	0.33	0.33	0.33	0.32	0.32	0.32	0.32	-0.8%
Renewables	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1%
Purchased Electricity	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.0%
Total	2.87	2.85	2.85	2.84	2.83	2.82	2.81	2.80	2.79	2.78	2.77	2.76	2.76	2.75	2.75	2.74	2.74	2.73	2.73	2.73	2.73	2.73	2.73	-0.2%
Carbon Emissions (bill. Kg.)	26.8	27.7	27.9	28.1	28.4	28.6	28.8	29.0	29.2	29.3	29.4	29.6	29.8	30.0	30.2	30.6	31.0	31.3	31.6	31.9	32.2	32.6	0.9%	

1/ Fuel consumption includes consumption for cogeneration.

2/ Includes petroleum coke, lubricants, and miscellaneous petroleum products.

Btu = British thermal unit.

Bill = Billion

N/A = Not applicable.

\$ = Dollars.

KG = Kilograms.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports. Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: Energy Information Administration, AEO2000 National Energy Modeling System run AEO2K.D100199A.

Table 26. Paper Industry Energy Consumption (1 of 1)

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020
Industry Output (billion 1987 \$)	127.62	132.09	134.52	136.66	139.09	141.24	143.41	145.05	146.64	148.14	149.33	150.89	151.83	153.18	154.83	156.81	158.78	160.10	161.31	162.55	164.00	165.56	1.2%
Energy Consumption (trillion Btu)																							
Residual Oil	159.2	146.2	152.9	153.3	154.6	156.0	157.8	158.9	159.6	159.9	159.0	158.7	157.7	157.5	157.8	159.2	160.9	161.9	163.0	163.9	165.3	166.7	0.2%
Distillate Oil	12.1	11.2	11.6	11.7	11.8	12.0	12.1	12.2	12.3	12.4	12.3	12.3	12.2	12.2	12.2	12.4	12.5	12.6	12.7	12.7	12.9	13.0	0.3%
Liquefied Petroleum Gas	3.7	3.4	3.5	3.6	3.6	3.7	3.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.1	0.5%
Other Petroleum 2/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Petroleum Subtotal	175.0	160.8	168.1	168.6	170.1	171.7	173.7	175.0	175.8	176.1	175.1	174.9	173.8	173.6	173.9	175.5	177.4	178.5	179.6	180.7	182.2	183.7	0.2%
Natural Gas	648.0	669.3	668.1	670.8	674.8	676.0	676.7	674.3	671.6	669.2	666.3	665.3	661.0	659.7	660.8	665.6	671.6	674.6	677.5	681.3	686.5	693.1	0.3%
Steam Coal	305.9	302.4	300.3	298.3	296.3	294.3	292.4	290.5	288.5	286.6	284.7	282.9	281.1	279.6	278.2	277.5	277.2	277.0	276.8	276.7	276.6	276.6	-0.5%
Renewables	1373.6	1412.7	1436.9	1458.5	1482.7	1504.6	1526.8	1543.6	1559.9	1575.7	1588.3	1604.2	1614.4	1628.1	1644.8	1664.8	1684.8	1697.9	1710.0	1722.4	1737.0	1753.4	1.1%
Purchased Electricity	252.3	261.4	262.8	265.6	268.8	271.7	274.9	277.0	279.0	280.9	282.3	284.1	285.4	287.2	289.5	292.4	295.6	297.9	300.1	302.4	305.3	308.5	0.9%
Total	2754.8	2806.6	2836.2	2861.8	2892.6	2918.3	2944.5	2960.4	2974.8	2988.6	2996.7	3011.4	3015.7	3028.3	3047.3	3075.9	3106.5	3125.9	3144.2	3163.5	3187.6	3215.3	0.7%
Energy Consumption per Unit of Output (thousand Btu per 1987 dollar of output)																							
Residual Oil	1.25	1.11	1.14	1.12	1.11	1.10	1.10	1.10	1.09	1.08	1.06	1.05	1.04	1.03	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01	-1.0%
Distillate Oil	0.09	0.08	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	-0.9%
Liquefied Petroleum Gas	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	-0.7%
Other Petroleum 2/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Petroleum Subtotal	1.37	1.22	1.25	1.23	1.22	1.22	1.21	1.21	1.20	1.19	1.17	1.16	1.14	1.13	1.12	1.12	1.12	1.12	1.11	1.11	1.11	1.11	-1.0%
Natural Gas	5.08	5.07	4.97	4.91	4.85	4.79	4.72	4.65	4.58	4.52	4.46	4.41	4.35	4.31	4.27	4.24	4.23	4.21	4.20	4.19	4.19	4.19	-0.9%
Steam Coal	2.40	2.29	2.23	2.18	2.13	2.08	2.04	2.00	1.97	1.93	1.91	1.87	1.85	1.83	1.80	1.77	1.75	1.73	1.72	1.70	1.69	1.67	-1.6%
Renewables	10.76	10.69	10.68	10.67	10.66	10.65	10.65	10.64	10.64	10.64	10.64	10.63	10.63	10.63	10.62	10.62	10.61	10.60	10.60	10.60	10.59	10.59	-0.1%
Purchased Electricity	1.98	1.98	1.95	1.94	1.93	1.92	1.92	1.91	1.90	1.90	1.89	1.88	1.88	1.88	1.87	1.86	1.86	1.86	1.86	1.86	1.86	1.86	-0.3%
Total	21.59	21.25	21.08	20.94	20.80	20.66	20.53	20.41	20.29	20.17	20.07	19.96	19.86	19.77	19.68	19.62	19.56	19.52	19.49	19.46	19.44	19.42	-0.5%
Carbon Emissions (bill. kg)	33.3	34.1	34.4	34.5	34.8	34.9	35.1	35.1	35.1	35.1	35.0	34.9	34.8	34.8	34.9	35.2	35.6	35.7	35.9	36.1	36.4	36.6	0.4%

1/ Fuel consumption includes consumption for cogeneration.

2/ Includes petroleum coke, lubricants, and miscellaneous petroleum products.

Btu = British thermal unit.

Bill. = Billion.

N/A = Not applicable.

\$ = Dollars.

KG = Kilograms.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports. Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: Energy Information Administration, AEO99 National Energy Modeling System run AEO2000.D100198A.

Table 27. Bulk Chemical Industry Energy Consumption (1 of 1)

1998-

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020
Industry Output (billion 1987 \$)	155.59	156.05	158.08	160.07	163.61	165.88	168.14	170.09	172.32	174.47	176.38	178.46	179.89	182.47	184.98	187.26	189.06	190.41	192.15	193.59	195.62	197.83	1.1%
Energy Consumption (trillion Btu)																							
Heat and Power																							
Residual Oil	53.3	48.6	50.8	51.2	52.3	53.2	54.3	55.3	56.3	57.2	57.6	58.2	58.6	59.4	60.1	61.0	61.6	62.1	62.7	63.2	63.9	64.6	0.9%
Distillate Oil	6.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.4	6.4	6.5	6.6	6.6	6.7	6.7	6.8	6.8	6.8	6.9	6.9	0.3%
Liquefied Petroleum Gas	1.9	1.7	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	0.7%
Other Petroleum 2/	477.8	449.5	466.1	470.8	481.3	489.9	500.3	510.0	520.2	528.4	533.3	538.6	542.6	550.3	558.2	566.9	573.6	578.9	585.4	590.4	597.6	606.9	1.1%
Petroleum Subtotal	539.4	505.3	524.3	529.5	541.2	550.9	562.5	573.4	584.8	593.9	599.3	605.2	609.8	618.3	627.1	636.6	644.0	649.9	657.1	662.6	670.6	680.6	1.1%
Natural Gas	1794.3	1814.4	1817.9	1833.4	1865.0	1879.0	1889.9	1897.5	1908.4	1920.2	1932.7	1947.8	1953.6	1971.4	1991.8	2011.9	2027.6	2038.3	2053.2	2066.4	2085.0	2103.9	0.7%
Steam Coal	207.1	207.9	208.1	208.3	208.4	208.6	208.8	209.1	209.3	209.5	209.6	209.8	209.9	210.1	210.2	210.3	210.4	210.6	210.7	210.9	211.0	211.2	0.1%
Purchased Electricity	474.6	477.9	484.2	492.2	506.0	515.5	525.8	534.0	543.1	551.8	559.4	566.7	573.0	583.3	593.2	601.8	609.2	615.2	622.5	628.7	637.7	647.5	1.4%
Total Heat and Power	3015.4	3005.5	3034.5	3063.4	3120.6	3154.0	3187.0	3214.0	3245.7	3275.5	3301.1	3329.5	3346.3	3383.1	3422.2	3460.7	3491.2	3514.0	3543.6	3568.5	3604.3	3643.3	0.9%
Feedstock																							
Liquefied Petroleum Gas	1625.2	1626.7	1645.4	1663.8	1697.8	1718.9	1740.1	1758.3	1779.3	1799.5	1817.4	1836.9	1850.1	1874.6	1898.6	1920.2	1937.1	1949.5	1965.7	1979.0	1998.2	2019.2	1.0%
Petrochemical Feedstocks	1313.1	1314.3	1329.5	1344.4	1371.8	1388.9	1406.0	1420.7	1437.7	1454.0	1468.4	1484.2	1494.9	1514.7	1534.1	1551.6	1565.2	1575.2	1588.3	1599.0	1614.5	1631.5	1.0%
Natural Gas	715.8	716.4	724.7	732.8	747.8	757.1	766.4	774.4	783.7	792.6	800.4	809.0	814.9	825.7	836.2	845.7	853.2	858.6	865.8	871.6	880.1	889.3	1.0%
Total Feedstocks	3654.1	3657.4	3699.7	3741.0	3817.3	3864.8	3912.5	3953.4	4000.6	4046.1	4086.3	4130.1	4159.8	4214.9	4268.8	4317.5	4355.4	4383.3	4419.7	4449.6	4492.8	4540.0	1.0%
Total	6669.5	6663.0	6734.2	6804.4	6937.9	7018.8	7099.6	7167.4	7246.3	7321.6	7387.3	7459.6	7506.1	7598.0	7691.0	7778.2	7846.5	7897.3	7963.3	8018.1	8097.1	8183.3	0.9%
Consumption per Unit of Output (thousand Btu per 1987 dollar of output)																							
Heat and Power																							
Residual Oil	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-0.2%
Distillate Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8%
Liquefied Petroleum Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4%
Other Petroleum	3.1	2.9	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.1	0.0%
Petroleum Subtotal	3.5	3.2	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	0.0%
Natural Gas 2/	11.5	11.6	11.5	11.5	11.4	11.3	11.2	11.1	11.0	11.0	10.9	10.9	10.8	10.8	10.8	10.7	10.7	10.7	10.7	10.7	10.7	10.6	-0.4%
Steam Coal	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	-1.0%
Purchased Electricity	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	0.3%
Total Heat and Power	19.4	19.3	19.2	19.1	19.1	19.0	19.0	18.9	18.8	18.8	18.7	18.7	18.6	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.4	18.4	-0.2%
Feedstock																							
Liquefied Petroleum Gas	10.4	10.4	10.4	10.4	10.4	10.4	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.2	10.2	10.2	10.2	10.2	10.2	-0.1%
Petrochemical Feedstocks	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.2	-0.1%
Natural Gas 2/	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	-0.1%
Total Feedstocks	23.5	23.4	23.4	23.4	23.3	23.3	23.3	23.2	23.2	23.2	23.2	23.1	23.1	23.1	23.1	23.0	23.0	23.0	23.0	23.0	23.0	22.9	-0.1%
Total	42.9	42.7	42.6	42.5	42.4	42.3	42.2	42.1	42.1	42.0	41.9	41.8	41.7	41.6	41.6	41.5	41.5	41.5	41.4	41.4	41.4	41.4	-0.2%
Carbon Emissions (bill. kg)	84.2	84.8	85.9	86.8	88.7	89.9	91.0	92.0	93.1	94.0	94.7	95.5	96.1	97.2	98.5	99.7	100.9	101.5	102.6	103.3	104.4	105.5	1.0%

1/ Fuel consumption includes consumption for cogeneration.

2/ Includes petroleum coke, lubricants, and miscellaneous petroleum products.

Btu = British thermal unit. N/A = Not applicable. \$ = Dollars Bill. = Billion

KG = Kilograms.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports.

Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: Energy Information Administration, AEO2000 National Energy Modeling System run AEO2K.D100199A.

Table 28. Glass Industry Energy Consumption (1 of 1)

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	1998-2020
Industry Output (billion 1987 \$)	19.32	19.80	19.91	20.07	20.48	20.79	21.04	21.24	21.53	21.81	22.02	22.25	22.40	22.66	22.93	23.19	23.39	23.45	23.54	23.59	23.65	23.68	0.9%
Energy Consumption (trillion Btu)																							
Residual Oil	4.9	4.3	4.6	4.6	4.7	4.8	4.9	5.0	5.1	5.1	5.1	5.2	5.2	5.2	5.2	5.2	5.3	5.2	5.2	5.2	5.2	5.3	0.3%
Distillate Oil	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.6	-0.3%
Liquefied Petroleum Gas	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.4%
Petroleum Subtotal	6.1	5.3	5.6	5.6	5.8	5.9	6.0	6.1	6.2	6.3	6.3	6.3	6.3	6.4	6.4	6.5	6.5	6.5	6.5	6.4	6.5	6.5	0.3%
Natural Gas	169.1	171.5	171.0	171.2	173.3	174.5	175.1	175.4	176.5	177.4	177.9	178.6	178.7	179.6	180.6	181.7	182.3	181.9	181.7	181.3	181.1	180.8	0.3%
Purchased Electricity	32.7	33.6	33.7	34.0	34.7	35.3	35.8	36.1	36.6	37.0	37.3	37.6	37.8	38.2	38.5	38.8	39.1	39.1	39.2	39.2	39.3	39.4	0.8%
Total	207.9	210.4	210.4	210.9	213.8	215.6	216.9	217.6	219.3	220.7	221.5	222.5	222.8	224.1	225.5	227.0	227.8	227.5	227.4	227.0	226.9	226.7	0.4%
Energy Consumption per Unit of Output (thousand Btu per 1987 dollar of output)																							
Residual Oil	0.26	0.22	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.22	-0.6%
Distillate Oil	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	-1.2%
Liquefied Petroleum Gas	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	-0.5%
Petroleum Subtotal	0.32	0.27	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.27	0.27	0.27	-0.7%
Natural Gas	8.75	8.66	8.59	8.53	8.46	8.39	8.32	8.26	8.19	8.13	8.08	8.03	7.98	7.92	7.88	7.83	7.79	7.76	7.72	7.69	7.66	7.64	-0.6%
Purchased Electricity	1.69	1.70	1.69	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.69	1.69	1.69	1.68	1.68	1.67	1.67	1.67	1.67	1.66	1.66	1.66	-0.1%
Total	10.76	10.63	10.57	10.51	10.44	10.37	10.31	10.25	10.18	10.12	10.06	10.00	9.95	9.89	9.84	9.79	9.74	9.70	9.66	9.62	9.59	9.57	-0.5%
Carbon Emissions (bill. kg)	4.2	4.3	4.3	4.3	4.4	4.5	4.5	4.5	4.6	4.6	4.6	4.6	4.6	4.7	4.7	4.7	4.8	4.8	4.8	4.8	4.8	4.7	0.6%

1/ Fuel consumption includes consumption for cogeneration.

Btu = British thermal unit.

Bill. = Billion.

N/A = Not applicable.

\$ = Dollars.

KG = Kilograms.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports. Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: Energy Information Administration, AEO2000 National Energy Modeling System run AEO2K.D100199A.

Table 29. Cement Industry Energy Consumption (1 of 1)

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020	
Industry Output (billion 1987 \$)	4.96	5.04	5.07	5.08	5.14	5.21	5.29	5.32	5.35	5.37	5.36	5.41	5.38	5.44	5.48	5.54	5.57	5.57	5.60	5.63	5.66	5.71	0.6%	
Energy Consumption (trillion Btu)																								
Residual Oil	1.5	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	-1.7%	
Distillate Oil	3.5	2.6	2.7	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	-2.2%	
Other Petroleum 2/	73.8	74.1	74.1	73.7	74.2	74.6	75.3	75.2	75.2	74.9	74.5	74.6	73.9	74.2	74.4	74.7	74.6	74.4	74.4	74.4	74.5	74.6	74.9	0.1%
Petroleum Subtotal	78.8	77.9	78.0	77.6	78.0	78.4	79.0	78.9	78.9	78.6	78.0	78.1	77.4	77.7	77.8	78.0	78.0	77.7	77.7	77.7	77.8	78.1	0.0%	
Natural Gas	27.3	25.7	25.4	24.8	24.5	23.9	23.3	22.7	22.1	21.6	21.2	21.0	20.6	20.4	20.2	20.2	19.9	19.6	19.4	19.3	19.1	18.9	-1.7%	
Steam Coal	262.0	265.3	265.0	263.6	265.1	267.0	269.6	269.8	269.9	268.9	267.3	267.6	264.9	265.8	266.2	267.0	266.9	266.0	266.4	266.5	267.1	268.4	0.1%	
Purchased Electricity	47.7	48.3	48.5	48.6	49.1	49.7	50.4	50.5	50.7	50.7	50.6	50.8	50.6	51.0	51.3	51.6	51.7	51.6	51.8	51.9	52.2	52.5	0.4%	
Total	415.8	417.2	416.9	414.5	416.6	419.0	422.4	421.9	421.6	419.8	417.1	417.5	413.4	414.8	415.5	416.8	416.5	414.9	415.3	415.5	416.2	417.8	0.0%	
Energy Consumption per Unit of Output (thousand Btu per 1987 dollar of output)																								
Residual Oil	0.29	0.23	0.24	0.24	0.24	0.23	0.23	0.22	0.22	0.21	0.21	0.21	0.20	0.20	0.20	0.19	0.19	0.19	0.18	0.18	0.18	0.18	-2.3%	
Distillate Oil	0.71	0.52	0.52	0.52	0.50	0.49	0.48	0.48	0.47	0.46	0.44	0.44	0.44	0.43	0.42	0.42	0.41	0.41	0.40	0.40	0.39	0.38	-2.8%	
Other Petroleum 2/	14.89	14.70	14.61	14.53	14.43	14.32	14.22	14.13	14.05	13.97	13.89	13.81	13.74	13.65	13.56	13.47	13.39	13.34	13.29	13.23	13.18	13.12	-0.6%	
Petroleum Subtotal	15.90	15.45	15.38	15.28	15.17	15.05	14.93	14.83	14.73	14.64	14.55	14.45	14.38	14.28	14.18	14.09	14.00	13.94	13.87	13.81	13.75	13.68	-0.7%	
Natural Gas	5.51	5.09	5.00	4.89	4.76	4.59	4.41	4.26	4.13	4.03	3.96	3.89	3.82	3.75	3.69	3.64	3.58	3.52	3.47	3.43	3.37	3.31	-2.3%	
Steam Coal	52.87	52.60	52.22	51.92	51.57	51.26	50.94	50.68	50.41	50.12	49.83	49.50	49.22	48.87	48.54	48.20	47.90	47.73	47.54	47.36	47.17	47.03	-0.5%	
Purchased Electricity	9.62	9.59	9.56	9.57	9.55	9.53	9.52	9.50	9.47	9.45	9.44	9.40	9.40	9.37	9.35	9.31	9.28	9.27	9.24	9.23	9.21	9.20	-0.2%	
Total	83.91	82.73	82.17	81.66	81.05	80.43	79.80	79.27	78.74	78.25	77.78	77.24	76.81	76.27	75.76	75.23	74.76	74.46	74.13	73.82	73.50	73.22	-0.6%	
Carbon Emissions (bill. kg)	11.0	11.1	11.2	11.1	11.2	11.3	11.4	11.4	11.4	11.3	11.2	11.3	11.1	11.2	11.2	11.2	11.3	11.2	11.2	11.3	11.3	11.3	0.1%	

1/ Fuel consumption includes consumption for cogeneration.
 2/ Includes petroleum coke, lubricants, and miscellaneous petroleum products.
 Btu = British thermal unit.
 Bill. = Billion.
 N/A = Not applicable.
 \$ = Dollars.
 KG = Kilograms.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports. Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: Energy Information Administration, AEO2000 National Energy Modeling System run AEO2K.D100199A.

Table 30. Iron and Steel Industries Energy Consumption (1 of 1)

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	1998-2020
Industry Output (billion 1987 \$)	68.06	66.92	68.43	69.16	70.94	72.34	73.39	73.22	73.98	74.33	74.05	74.54	74.24	74.83	75.33	75.83	76.10	76.03	76.01	76.28	76.76	77.03	0.6%
Energy Consumption (trillion Btu)																							
Residual Oil	44.9	39.2	41.5	41.5	42.4	43.1	43.8	43.6	43.9	43.7	42.9	42.7	42.0	41.9	41.8	41.7	41.5	41.1	40.8	40.7	40.8	41.0	-0.4%
Other Petroleum 2/	52.7	47.4	48.8	48.8	50.2	51.2	51.8	51.0	51.1	50.8	49.7	49.4	48.3	48.1	47.9	47.8	47.3	46.5	45.8	45.5	45.5	45.3	-0.7%
Petroleum Subtotal	97.7	86.5	90.3	90.2	92.6	94.4	95.6	94.6	95.0	94.5	92.6	92.0	90.3	90.0	89.7	89.5	88.9	87.7	86.6	86.2	86.3	86.3	-0.6%
Natural Gas	495.1	486.3	488.7	489.3	494.6	497.7	498.3	493.8	493.7	492.5	489.0	489.3	485.6	486.2	486.8	487.8	487.9	486.2	485.1	485.4	486.7	486.8	-0.1%
Metallurgical Coal	795.0	767.9	754.5	741.3	728.3	715.6	703.1	690.8	678.7	666.8	655.1	643.6	632.3	621.2	610.3	599.5	589.0	578.9	569.0	559.3	549.7	540.4	-1.7%
Net Coke Imports	89.8	96.4	113.0	124.0	141.3	156.4	169.2	174.0	184.6	192.7	196.7	205.3	209.1	218.1	226.6	234.9	241.7	246.5	251.5	258.4	266.5	273.2	5.2%
Steam Coal	83.4	85.1	85.8	86.2	87.1	88.2	89.3	89.4	90.2	90.4	90.0	90.4	90.0	90.5	90.8	91.1	91.3	91.2	91.1	91.4	92.0	92.6	0.5%
Coal Subtotal	968.2	949.4	953.3	951.5	956.8	960.2	961.6	954.2	953.5	949.9	941.7	939.3	931.4	929.8	927.7	925.5	921.9	916.6	911.7	909.1	908.2	906.3	-0.3%
Purchased Electricity	161.6	159.1	163.2	165.8	171.4	176.1	180.1	179.9	182.5	183.8	183.4	184.7	184.3	186.3	187.9	189.4	190.2	190.4	190.5	191.6	193.6	195.0	0.9%
Total	1722.6	1681.3	1695.5	1696.8	1715.4	1728.5	1735.7	1722.4	1724.7	1720.7	1706.7	1705.3	1691.6	1692.3	1692.1	1692.1	1688.9	1680.9	1673.9	1672.4	1674.8	1674.4	-0.1%
Energy Consumption per Unit of Output (thousand Btu per 1987 dollar of output)																							
Residual Oil	0.66	0.59	0.61	0.60	0.60	0.60	0.60	0.60	0.59	0.59	0.58	0.57	0.57	0.56	0.55	0.55	0.55	0.54	0.54	0.53	0.53	0.53	-1.0%
Other Petroleum 2/	0.77	0.71	0.71	0.71	0.71	0.71	0.71	0.70	0.69	0.68	0.67	0.66	0.65	0.64	0.64	0.63	0.62	0.61	0.60	0.60	0.59	0.59	-1.2%
Petroleum Subtotal	1.44	1.29	1.32	1.30	1.30	1.30	1.30	1.29	1.28	1.27	1.25	1.23	1.22	1.20	1.19	1.18	1.17	1.15	1.14	1.13	1.12	1.12	-1.1%
Natural Gas	7.27	7.27	7.14	7.07	6.97	6.88	6.79	6.74	6.67	6.63	6.60	6.56	6.54	6.50	6.46	6.43	6.41	6.39	6.38	6.36	6.34	6.32	-0.6%
Metallurgical Coal	11.68	11.47	11.03	10.72	10.27	9.89	9.58	9.44	9.17	8.97	8.85	8.63	8.52	8.30	8.10	7.91	7.74	7.61	7.49	7.33	7.16	7.02	-2.3%
Net Coke Imports	1.32	1.44	1.65	1.79	1.99	2.16	2.31	2.38	2.50	2.59	2.66	2.75	2.82	2.91	3.01	3.10	3.18	3.24	3.31	3.39	3.47	3.55	4.6%
Steam Coal	1.23	1.27	1.25	1.25	1.23	1.22	1.22	1.22	1.22	1.22	1.21	1.21	1.21	1.21	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	-0.1%
Coal Subtotal	14.23	14.19	13.93	13.76	13.49	13.27	13.10	13.03	12.89	12.78	12.72	12.60	12.55	12.43	12.31	12.21	12.11	12.06	11.99	11.92	11.83	11.76	-0.9%
Purchased Electricity	2.37	2.38	2.38	2.40	2.42	2.43	2.45	2.46	2.47	2.47	2.48	2.48	2.48	2.49	2.49	2.50	2.50	2.50	2.51	2.51	2.52	2.53	0.3%
Total	25.31	25.12	24.78	24.53	24.18	23.89	23.65	23.52	23.31	23.15	23.05	22.88	22.78	22.62	22.46	22.32	22.19	22.11	22.02	21.93	21.82	21.74	-0.7%
Carbon Emissions (bill. kg)	41.7	41.0	41.5	41.5	42.1	42.6	42.8	42.5	42.7	42.6	42.2	42.1	41.8	41.8	41.9	41.9	41.9	41.7	41.6	41.6	41.7	41.7	0.0%

1/ Fuel consumption includes consumption for cogeneration.
 2/ Includes petroleum coke, lubricants, and miscellaneous petroleum products.
 Btu = British thermal unit.
 Bill. = Billion.
 N/A = Not applicable.
 \$ = Dollars.
 KG = Kilograms.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports. Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: Energy Information Administration, AEO2000 National Energy Modeling System run AEO2K.D100199A.

Table 31. Aluminum Industry Energy Consumption (1 of 1)

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	1998-2020
Industry Output (billion 1987 \$)	30.12	30.32	30.43	30.78	30.92	31.26	31.55	31.64	31.73	31.85	31.91	32.00	32.09	32.31	32.49	32.70	32.82	32.98	33.04	33.05	33.12	33.34	0.5%
Energy Consumption (trillion Btu)																							
Distillate Oil	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0%
Liquefied Petroleum Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1%
Petroleum Coke	14.2	14.1	14.1	14.2	14.2	14.2	14.3	14.3	14.2	14.2	14.2	14.2	14.2	14.2	14.3	14.3	14.3	14.4	14.4	14.3	14.4	14.4	0.1%
Other Petroleum	30.8	30.8	30.7	30.9	30.9	31.1	31.3	31.2	31.2	31.2	31.1	31.0	31.0	31.1	31.1	31.2	31.2	31.2	31.2	31.1	31.1	31.2	0.1%
Petroleum Subtotal	45.2	45.0	45.0	45.2	45.2	45.5	45.7	45.6	45.5	45.5	45.4	45.4	45.3	45.4	45.5	45.6	45.6	45.7	45.7	45.6	45.6	45.8	0.1%
Natural Gas	82.5	82.0	81.9	82.3	82.3	82.6	82.9	82.7	82.5	82.3	82.1	81.9	81.7	81.9	82.1	82.2	82.3	82.4	82.4	82.3	82.3	82.6	0.0%
Purchased Electricity	215.7	215.3	215.3	217.1	217.5	219.4	220.8	220.8	220.9	221.2	221.1	221.2	221.3	222.3	223.1	224.0	224.6	225.3	225.5	225.3	225.6	226.8	0.2%
Total	343.4	342.3	342.1	344.7	345.0	347.5	349.3	349.1	348.9	349.1	348.6	348.5	348.3	349.6	350.6	351.9	352.5	353.5	353.7	353.2	353.5	355.3	0.2%
Energy Consumption per Unit of Output (thousand Btu per 1987 dollar of output)																							
Distillate Oil	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.4%
Liquefied Petroleum Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.4%
Petroleum Coke	0.47	0.47	0.46	0.46	0.46	0.46	0.45	0.45	0.45	0.45	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.43	0.43	0.43	0.43	-0.4%
Other Petroleum	1.02	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.98	0.98	0.97	0.97	0.97	0.96	0.96	0.95	0.95	0.95	0.94	0.94	0.94	0.94	-0.4%
Petroleum Subtotal	1.50	1.48	1.48	1.47	1.46	1.46	1.45	1.44	1.44	1.43	1.42	1.42	1.41	1.41	1.40	1.40	1.39	1.39	1.38	1.38	1.38	1.37	-0.4%
Natural Gas	2.74	2.71	2.69	2.67	2.66	2.64	2.63	2.61	2.60	2.58	2.57	2.56	2.55	2.54	2.53	2.52	2.51	2.50	2.49	2.49	2.48	2.48	-0.5%
Purchased Electricity	7.16	7.10	7.07	7.05	7.04	7.02	7.00	6.98	6.96	6.95	6.93	6.91	6.90	6.88	6.87	6.85	6.84	6.83	6.83	6.82	6.81	6.80	-0.2%
Total	11.40	11.29	11.24	11.20	11.16	11.11	11.07	11.03	11.00	10.96	10.92	10.89	10.85	10.82	10.79	10.76	10.74	10.72	10.70	10.69	10.67	10.66	-0.3%
Carbon Emissions (bill. kg)	12.8	13.1	13.1	13.2	13.3	13.4	13.5	13.5	13.5	13.4	13.3	13.3	13.3	13.3	13.3	13.4	13.5	13.5	13.6	13.6	13.6	13.6	0.3%

1/ Fuel consumption includes consumption for cogeneration.

Btu = British thermal unit.

Bill. = Billion.

N/A = Not applicable.

\$ = Dollars.

KG = Kilograms.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports. Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: Energy Information Administration, AEO2000 National Energy Modeling System run AEO2K.D100199A.

**Table 32. Other Industrial Sector Energy Consumption (1 of 2)
(Trillion Btu)**

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	1998-2020
Agriculture																							
Distillate Oil	564.0	578.1	584.1	594.2	601.3	609.6	617.5	624.1	631.2	638.4	643.9	652.4	659.4	667.1	677.3	687.0	695.8	701.5	710.2	719.1	727.7	736.3	1.2%
Liquid Petroleum Gas	77.8	79.8	80.6	82.0	83.0	84.1	85.2	86.1	87.1	88.1	88.9	90.1	91.0	92.1	93.5	94.8	96.1	96.8	98.0	99.3	100.5	101.7	1.2%
Motor Gasoline	92.4	94.7	95.7	97.3	98.5	99.9	101.2	102.3	103.4	104.6	105.5	106.9	108.0	109.3	111.0	112.6	114.0	114.9	116.4	117.8	119.2	120.7	1.2%
Other Petroleum	16.4	16.9	17.0	17.3	17.5	17.8	18.0	18.2	18.4	18.6	18.8	19.0	19.2	19.4	19.7	20.0	20.3	20.4	20.7	20.9	21.2	21.4	1.2%
Petroleum Subtotal	750.7	769.4	777.4	790.8	800.3	811.4	821.9	830.7	840.1	849.8	857.1	868.3	877.7	888.0	901.5	914.4	926.2	933.7	945.3	957.2	968.7	980.1	1.2%
Natural Gas	48.9	50.1	50.6	51.5	52.1	52.9	53.6	54.1	54.8	55.4	55.9	56.6	57.2	57.9	58.8	59.6	60.4	60.9	61.7	62.5	63.2	64.0	1.2%
Steam Coal	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5%
Renewables	19.4	19.9	20.1	20.5	20.7	21.0	21.3	21.6	21.8	22.1	22.3	22.6	22.8	23.1	23.4	23.8	24.1	24.3	24.6	24.9	25.2	25.5	1.2%
Purchased Electricity	134.5	137.9	139.3	141.7	143.4	145.4	147.3	148.8	150.5	152.2	153.5	155.5	157.2	159.1	161.5	163.8	165.9	167.2	169.3	171.4	173.5	175.5	1.2%
Total	954.0	977.8	988.0	1005.0	1017.1	1031.1	1044.6	1055.7	1067.7	1080.0	1089.2	1103.5	1115.5	1128.5	1145.7	1162.1	1177.1	1186.7	1201.4	1216.5	1231.1	1245.6	1.2%
Industry Output (billion 1987 \$)	258.42	264.40	267.06	270.80	273.83	277.27	280.58	283.30	286.12	288.96	291.19	294.55	297.37	300.48	304.53	308.68	312.61	315.20	318.74	322.37	326.02	329.73	1.1%
Energy Consumption per Unit of Output																							
(thous. Btu/1987 \$ of output)	3.69	3.70	3.70	3.71	3.71	3.72	3.72	3.73	3.73	3.74	3.74	3.75	3.75	3.76	3.76	3.76	3.77	3.76	3.77	3.77	3.78	3.78	0.1%
Carbon Emissions (bill. Kg.)	22.0	22.8	23.0	23.4	23.7	24.1	24.4	24.6	24.9	25.1	25.3	25.6	25.9	26.1	26.5	26.9	27.4	27.6	27.9	28.3	28.6	28.9	1.3%
Construction																							
Distillate Oil	191.8	199.0	201.0	205.7	209.7	215.5	221.2	225.1	228.4	231.0	232.8	235.7	237.3	240.6	244.8	251.0	256.9	259.1	261.5	265.0	269.9	273.8	1.6%
Motor Gasoline	118.0	122.4	123.6	126.5	129.0	132.5	136.0	138.4	140.5	142.1	143.2	145.0	145.9	148.0	150.6	154.4	158.0	159.4	160.9	163.0	166.0	168.4	1.6%
Asphalt and Road Oil	1314.0	1360.2	1372.5	1403.3	1429.8	1468.5	1507.0	1533.8	1556.8	1574.9	1587.3	1607.9	1618.9	1641.9	1670.6	1712.8	1753.3	1769.6	1786.9	1811.3	1844.7	1873.3	1.6%
Petroleum Subtotal	1623.9	1681.6	1697.2	1735.5	1768.6	1816.5	1864.2	1897.3	1925.8	1948.1	1963.2	1988.6	2002.1	2030.5	2066.1	2118.2	2168.2	2188.1	2209.3	2239.3	2280.6	2315.6	1.6%
Natural Gas	191.4	198.6	200.6	205.3	209.2	215.0	220.7	224.6	227.9	230.5	232.2	235.2	236.7	240.1	244.3	250.4	256.3	258.5	260.9	264.4	269.2	273.2	1.6%
Steam Coal	144.0	149.4	150.9	154.4	157.4	161.7	166.0	169.0	171.5	173.4	174.7	176.9	178.1	180.6	183.8	188.4	192.8	194.5	196.3	198.9	202.6	205.5	1.6%
Purchased Electricity	124.5	129.2	130.5	133.5	136.1	139.9	143.6	146.1	148.3	150.0	151.1	153.0	154.0	156.2	158.9	162.9	166.7	168.2	169.7	172.0	175.1	177.7	1.6%
Total	2083.8	2158.8	2179.1	2228.7	2271.3	2333.0	2394.5	2436.9	2473.4	2502.0	2521.3	2553.7	2570.9	2607.3	2653.0	2720.0	2784.1	2809.4	2836.2	2874.7	2927.5	2972.0	1.6%
Industry Output (billion 1987 \$)	439.53	456.87	461.88	473.27	483.01	496.95	510.78	520.31	528.48	534.83	539.15	546.37	550.20	558.35	568.54	583.49	597.73	603.24	609.13	617.62	629.25	638.86	1.7%
Energy Consumption per Unit of Output																							
(thous. Btu/1987 \$ of output)	4.74	4.73	4.72	4.71	4.70	4.69	4.69	4.68	4.68	4.68	4.68	4.67	4.67	4.67	4.67	4.66	4.66	4.66	4.66	4.66	4.65	4.65	-0.1%
Carbon Emissions (bill. Kg.)	18.7	19.6	19.8	20.2	20.7	21.3	21.8	22.2	22.5	22.7	22.9	23.1	23.2	23.5	24.0	24.6	25.2	25.4	25.7	26.0	26.5	26.8	1.7%
Mining																							
Residual Oil	25.3	25.3	25.4	25.8	26.2	26.5	26.8	27.0	27.3	27.4	27.5	27.7	27.7	27.9	28.1	28.4	28.6	28.7	28.8	29.0	29.1	29.3	0.7%
Distillate Oil	174.4	174.1	175.2	177.4	180.4	182.8	184.7	186.2	187.7	189.0	189.5	190.5	191.1	192.1	193.6	195.4	197.2	197.6	198.8	199.7	200.8	201.9	0.7%
Motor Gasoline	14.3	14.1	14.0	14.0	14.1	14.2	14.3	14.5	14.7	14.9	14.9	15.1	15.3	15.4	15.6	15.8	16.0	16.1	16.3	16.4	16.5	16.6	0.7%
Other Petroleum	7.9	7.7	7.5	7.5	7.5	7.5	7.6	7.8	7.9	8.0	8.0	8.2	8.3	8.4	8.5	8.7	8.8	8.9	9.0	9.1	9.1	9.2	0.7%
Petroleum Subtotal	221.9	221.2	222.2	224.6	228.2	231.0	233.5	235.5	237.5	239.3	240.0	241.5	242.4	243.8	245.8	248.2	250.6	251.3	252.9	254.1	255.5	256.9	0.7%
Natural Gas	357.3	350.9	343.0	340.4	342.0	343.0	347.4	352.6	358.3	362.8	365.5	372.2	376.8	381.4	386.6	392.7	399.6	403.3	407.5	410.8	413.1	414.8	0.7%
Lease and Plant Fuel	1275.5	1277.4	1256.0	1253.4	1267.8	1275.8	1298.8	1332.7	1370.9	1402.9	1424.7	1466.7	1494.4	1520.3	1546.9	1577.9	1613.9	1632.5	1654.8	1676.2	1694.9	1712.7	1.3%
Steam Coal	93.2	94.5	95.5	96.9	98.7	100.0	101.0	101.6	102.1	102.6	102.8	103.1	102.9	103.3	103.9	104.7	105.1	104.7	105.0	105.3	105.7	106.1	0.6%
Renewables	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	0.7%
Purchased Electricity	293.3	291.4	290.9	293.2	297.5	300.8	304.5	307.6	310.9	313.6	314.9	317.9	319.5	321.9	325.2	329.0	332.7	333.7	336.0	337.8	339.8	341.5	0.7%
Total	2242.3	2236.5	2208.7	2209.6	2235.1	2251.6	2286.2	2331.1	2380.9	2422.4	2449.1	2502.6	2537.1	2571.8	2609.7	2653.7	2703.2	2726.8	2757.5	2785.4	2810.2	2833.4	1.1%

**Table 32. Other Industrial Sector Energy Consumption (2 of 2)
(Trillion Btu)**

	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	1998-2020
Industry Output (billion 1987 \$)	137.15	136.14	135.30	135.81	137.50	138.83	140.57	142.29	144.08	145.56	146.38	148.13	149.34	150.72	152.43	154.40	156.59	157.58	158.97	160.05	161.03	161.91	0.8%
Energy Consumption per Unit of Output (thous. Btu/1987 \$ of output)	16.35	16.43	16.32	16.27	16.26	16.22	16.26	16.38	16.53	16.64	16.73	16.89	16.99	17.06	17.12	17.19	17.26	17.30	17.35	17.40	17.45	17.50	0.3%
Carbon Emissions (bill. Kg.)	26.5	26.8	26.8	27.0	27.4	27.7	28.0	28.3	28.6	28.7	28.8	29.0	29.1	29.3	29.6	30.0	30.4	30.5	30.8	31.0	31.1	31.2	0.7%
Metal-Based Durables Consumption																							
Residual Oil	30.2	28.9	31.3	33.0	34.9	36.4	38.1	39.7	41.5	43.0	44.2	45.6	46.6	47.9	49.5	51.1	52.8	53.9	55.2	56.4	57.6	58.2	3.0%
Distillate Oil	21.6	19.7	21.0	22.1	23.4	24.4	25.5	26.6	27.7	28.7	29.3	30.2	30.8	31.7	32.6	33.7	34.7	35.4	36.2	36.9	37.7	38.4	2.7%
Liquid Petroleum Gas	4.2	3.9	4.1	4.2	4.5	4.7	4.9	5.2	5.4	5.6	5.7	5.8	6.0	6.1	6.3	6.5	6.7	6.8	7.0	7.1	7.2	7.3	2.5%
Other Petroleum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Petroleum Subtotal	56.0	52.4	56.4	59.4	62.8	65.4	68.6	71.4	74.6	77.3	79.2	81.6	83.4	85.6	88.4	91.4	94.2	96.0	98.4	100.4	102.5	103.8	2.8%
Natural Gas	781.9	809.7	824.9	859.3	899.2	925.8	954.5	979.3	1008.7	1037.5	1060.4	1087.8	1108.8	1134.7	1167.3	1199.5	1232.2	1250.6	1275.8	1300.4	1324.8	1348.5	2.5%
Steam Coal	83.0	83.1	83.2	83.3	83.4	83.4	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3	84.3	84.3	84.3	84.4	84.5	84.6	84.6	0.1%
Renewables	0.9	0.9	1.0	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.5	2.3%
Purchased Electricity	604.9	625.2	639.5	667.4	698.9	721.2	746.0	766.5	790.7	813.8	832.4	852.8	870.5	891.2	916.2	940.7	965.6	981.0	1000.9	1020.9	1041.4	1061.2	2.6%
Total	1526.8	1571.4	1604.9	1670.4	1745.4	1796.9	1853.7	1902.0	1958.8	2013.6	2057.1	2107.3	2147.9	2196.9	2257.4	2317.1	2377.5	2413.4	2460.9	2507.6	2554.8	2599.7	2.4%
Industry Output (billion 1987 \$)	1463.4	1520.8	1562.6	1637.8	1721.0	1779.9	1844.1	1900.4	1966.1	2030.0	2081.6	2140.7	2190.0	2248.7	2319.6	2389.3	2460.3	2505.0	2562.9	2620.3	2677.8	2733.0	2.9%
Energy Consumption per Unit of Output (thous. Btu/1987 \$ of output)	1.04	1.03	1.03	1.02	1.01	1.01	1.01	1.00	1.00	0.99	0.99	0.98	0.98	0.98	0.97	0.97	0.97	0.96	0.96	0.96	0.95	0.95	-0.4%
Carbon Emissions (bill. Kg.)	44.6	47.0	48.2	50.1	52.6	54.3	56.0	57.4	59.1	60.6	61.7	63.0	64.1	65.4	67.2	69.0	71.2	72.2	73.8	75.2	76.6	77.9	2.6%
Other Manufacturing Consumption																							
Residual Oil	46.7	42.0	43.9	44.3	45.2	46.1	47.1	47.9	48.8	49.4	49.6	50.1	50.4	50.9	51.5	52.3	52.9	53.2	53.7	54.1	54.7	55.3	0.8%
Distillate Oil	57.1	48.3	50.0	51.0	52.3	53.7	55.2	56.3	57.4	58.3	58.0	59.0	59.6	60.4	61.3	62.4	63.2	63.7	64.4	64.9	65.5	66.4	0.7%
Liquid Petroleum Gas	16.6	15.4	16.0	16.3	16.7	17.1	17.7	18.2	18.6	18.9	18.9	19.2	19.4	19.5	19.9	20.3	20.6	20.8	21.0	21.2	21.4	21.7	1.2%
Petroleum Subtotal	120.3	105.7	109.9	111.6	114.2	116.9	120.0	122.5	124.7	126.6	126.6	128.3	129.4	130.7	132.8	135.1	136.7	137.6	139.1	140.2	141.6	143.4	0.8%
Natural Gas	1667.8	1713.0	1716.7	1738.2	1769.4	1791.9	1812.2	1821.2	1835.2	1849.9	1858.7	1880.3	1888.4	1905.4	1933.1	1963.0	1987.9	1996.6	2015.5	2036.1	2057.0	2079.1	1.0%
Steam Coal	154.9	156.5	156.6	157.6	159.2	160.3	161.3	161.7	162.3	162.9	163.1	164.0	164.2	164.8	165.9	167.1	168.0	168.1	168.8	169.5	170.2	171.0	0.5%
Renewables	303.9	311.9	313.9	318.7	325.3	330.4	335.5	338.2	341.8	345.5	347.7	352.4	354.8	358.8	364.8	371.1	376.5	378.9	383.2	387.8	392.6	397.6	1.2%
Purchased Electricity	746.3	765.0	768.3	779.5	794.9	807.3	820.3	826.7	835.0	843.4	848.9	858.4	864.4	873.5	886.7	900.4	911.9	917.3	926.6	936.5	947.7	959.5	1.1%
Total	2993.3	3052.0	3065.3	3105.6	3162.9	3206.8	3249.3	3270.2	3299.1	3328.3	3345.1	3383.3	3401.3	3433.2	3483.3	3536.6	3580.9	3598.5	3633.2	3670.1	3709.2	3750.7	1.0%
Industry Output (billion 1987 \$)	871.2	891.0	896.4	909.7	927.8	942.0	955.8	963.2	973.0	982.9	989.1	1001.7	1008.1	1018.9	1035.2	1052.4	1067.0	1073.5	1085.1	1097.4	1110.5	1124.4	1.2%
Energy Consumption per Unit of Output (thous. Btu/1987 \$ of output)	3.44	3.43	3.42	3.41	3.41	3.40	3.40	3.40	3.39	3.39	3.38	3.38	3.37	3.37	3.36	3.36	3.36	3.35	3.35	3.34	3.34	3.34	-0.1%
Carbon Emissions (bill. Kg.)	67.5	70.1	70.6	71.5	73.0	74.2	75.1	75.6	76.3	76.8	76.9	77.6	77.9	78.5	79.7	80.9	82.3	82.6	83.6	84.4	85.3	86.1	1.1%

Note: Totals may not equal sum of components due to independent rounding. Data for 1998 are model results and may differ slightly from official EIA data reports.

Bill. = Billion.

Thous. = Thousand.

\$ = Dollar.

KG = Kilograms.

Note: Totals may not equal sum of components due to independent rounding. The historical data used for the projections were the most available as of July 31, 1999. The numbers presented for 1998 are estimates and may differ from official EIA data reports.

Also, please see EIA data publications and the Short-Term Energy Outlook for the latest estimates for 1999.

Source: Energy Information Administration, AEO2000 National Energy Modeling System run AEO2K.D100199A.