

Table A6. Industrial sector key indicators and consumption

Key indicators and consumption	Reference case							Annual growth 2011-2040 (percent)
	2010	2011	2020	2025	2030	2035	2040	
Key indicators								
Value of shipments (billion 2005 dollars)								
Manufacturing	4,257	4,438	5,683	6,253	6,712	7,285	7,972	2.0%
Nonmanufacturing	1,585	1,582	2,211	2,295	2,375	2,494	2,644	1.8%
Total	5,842	6,019	7,894	8,548	9,087	9,779	10,616	2.0%
Energy prices								
(2011 dollars per million Btu)								
Liquefied petroleum gases.....	23.73	22.54	20.51	22.33	23.64	24.97	26.78	0.6%
Motor gasoline	17.16	17.14	27.71	29.11	30.56	32.80	35.98	2.6%
Distillate fuel oil.....	21.87	26.50	24.67	27.02	28.91	31.31	34.16	0.9%
Residual fuel oil	11.30	18.86	17.19	18.96	21.09	23.25	25.78	1.1%
Asphalt and road oil	5.74	9.66	11.94	13.28	14.64	16.19	18.05	2.2%
Natural gas heat and power.....	5.18	4.54	5.19	5.84	6.28	7.18	8.64	2.2%
Natural gas feedstocks	5.81	5.28	5.87	6.47	6.86	7.73	9.15	1.9%
Metallurgical coal	5.96	7.01	8.75	9.36	10.09	10.69	11.11	1.6%
Other industrial coal.....	2.77	3.43	3.44	3.56	3.71	3.88	4.06	0.6%
Coal to liquids	--	--	--	2.30	2.55	2.76	2.95	--
Electricity	20.26	19.98	18.72	19.18	19.73	20.80	22.74	0.4%
(nominal dollars per million Btu)								
Liquefied petroleum gases.....	23.23	22.54	23.65	28.14	32.62	37.74	44.20	2.3%
Motor gasoline	16.80	17.14	31.95	36.69	42.17	49.57	59.39	4.4%
Distillate fuel oil.....	21.42	26.50	28.45	34.05	39.89	47.31	56.39	2.6%
Residual fuel oil	11.06	18.86	19.82	23.89	29.10	35.13	42.55	2.8%
Asphalt and road oil	5.62	9.66	13.77	16.73	20.20	24.46	29.78	4.0%
Natural gas heat and power.....	5.07	4.54	5.99	7.36	8.66	10.85	14.25	4.0%
Natural gas feedstocks	5.69	5.28	6.77	8.15	9.46	11.68	15.10	3.7%
Metallurgical coal	5.84	7.01	10.09	11.79	13.92	16.15	18.34	3.4%
Other industrial coal.....	2.71	3.43	3.97	4.48	5.12	5.86	6.70	2.3%
Coal to liquids	--	--	--	2.90	3.52	4.17	4.87	--
Electricity	19.84	19.98	21.59	24.17	27.22	31.42	37.54	2.2%
Energy consumption (quadrillion Btu)¹								
Industrial consumption excluding refining								
Liquefied petroleum gases heat and power	0.09	0.07	0.06	0.06	0.06	0.06	0.07	-0.2%
Liquefied petroleum gases feedstocks.....	2.02	2.02	2.40	2.48	2.41	2.34	2.24	0.4%
Propylene.....	0.41	0.40	0.56	0.56	0.52	0.49	0.46	0.6%
Motor gasoline	0.28	0.27	0.32	0.32	0.32	0.32	0.32	0.6%
Distillate fuel oil.....	1.19	1.20	1.22	1.19	1.18	1.19	1.22	0.0%
Residual fuel oil	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.0%
Petrochemical feedstocks	0.94	0.88	1.03	1.08	1.08	1.08	1.09	0.7%
Petroleum coke.....	0.16	0.15	0.33	0.35	0.34	0.34	0.34	3.0%
Asphalt and road oil	0.88	0.86	1.11	1.13	1.16	1.21	1.30	1.4%
Miscellaneous petroleum ²	0.71	0.67	0.43	0.41	0.37	0.36	0.37	-2.0%
Petroleum subtotal.....	6.80	6.62	7.57	7.69	7.55	7.50	7.52	0.4%
Natural gas heat and power.....	4.81	5.03	5.74	5.84	5.84	5.93	6.04	0.6%
Natural gas feedstocks	0.48	0.46	0.55	0.55	0.51	0.48	0.45	-0.1%
Lease and plant fuel ³	1.31	1.42	1.57	1.68	1.73	1.84	1.97	1.1%
Natural gas subtotal.....	6.60	6.91	7.86	8.07	8.09	8.25	8.45	0.7%
Metallurgical coal and coke ⁴	0.55	0.57	0.59	0.55	0.48	0.42	0.41	-1.1%
Other industrial coal.....	1.00	1.04	1.00	1.00	1.00	1.02	1.05	0.0%
Coal subtotal	1.54	1.62	1.58	1.56	1.48	1.44	1.46	-0.3%
Renewables ⁵	1.47	1.51	1.72	1.85	1.97	2.11	2.28	1.4%
Purchased electricity.....	3.10	3.12	3.74	3.84	3.75	3.68	3.68	0.6%
Delivered energy.....	19.52	19.78	22.47	23.00	22.83	22.97	23.39	0.6%
Electricity related losses	6.51	6.55	7.46	7.59	7.30	7.07	7.02	0.2%
Total	26.03	26.33	29.93	30.59	30.14	30.05	30.41	0.5%

Table A6. Industrial sector key indicators and consumption (continued)

Key indicators and consumption	Reference case							Annual growth 2011-2040 (percent)
	2010	2011	2020	2025	2030	2035	2040	
Refining consumption								
Liquefied petroleum gases heat and power	0.01	0.00	0.00	0.00	0.00	0.00	0.00	--
Distillate fuel oil	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Residual fuel oil	0.01	0.00	0.00	0.00	0.00	0.00	0.00	--
Petroleum coke	0.52	0.53	0.42	0.40	0.40	0.40	0.41	-0.9%
Still gas	1.41	1.40	1.25	1.19	1.19	1.21	1.23	-0.4%
Miscellaneous petroleum ²	0.01	0.01	0.00	0.00	0.00	0.00	0.00	-22.9%
Petroleum subtotal	1.96	1.95	1.67	1.59	1.59	1.61	1.64	-0.6%
Natural gas heat and power	1.38	1.43	1.57	1.60	1.62	1.61	1.60	0.4%
Natural-gas-to-liquids heat and power	0.00	0.00	0.13	0.16	0.21	0.27	0.33	--
Natural gas subtotal	1.38	1.43	1.70	1.77	1.83	1.88	1.93	1.0%
Other industrial coal	0.06	0.00	0.00	0.00	0.00	0.00	0.00	--
Coal-to-liquids heat and power	0.00	0.00	0.00	0.07	0.09	0.12	0.15	--
Coal subtotal	0.06	0.00	0.00	0.07	0.09	0.12	0.15	--
Biofuels heat and coproducts	0.85	0.67	0.82	0.82	0.85	0.97	1.37	2.5%
Purchased electricity	0.21	0.21	0.21	0.21	0.21	0.22	0.23	0.3%
Delivered energy	4.46	4.26	4.40	4.46	4.57	4.80	5.31	0.8%
Electricity related losses	0.44	0.44	0.42	0.41	0.41	0.41	0.43	-0.0%
Total	4.90	4.70	4.82	4.87	4.98	5.21	5.75	0.7%
Total industrial sector consumption								
Liquefied petroleum gases heat and power	0.10	0.08	0.06	0.06	0.06	0.06	0.07	-0.5%
Liquefied petroleum gases feedstocks	2.02	2.02	2.40	2.48	2.41	2.34	2.24	0.4%
Propylene	0.41	0.40	0.56	0.56	0.52	0.49	0.46	0.6%
Motor gasoline	0.28	0.27	0.32	0.32	0.32	0.32	0.32	0.6%
Distillate fuel oil	1.19	1.21	1.22	1.19	1.18	1.19	1.22	0.0%
Residual fuel oil	0.12	0.11	0.11	0.11	0.11	0.11	0.11	-0.1%
Petrochemical feedstocks	0.94	0.88	1.03	1.08	1.08	1.08	1.09	0.7%
Petroleum coke	0.68	0.67	0.75	0.75	0.73	0.74	0.75	0.4%
Asphalt and road oil	0.88	0.86	1.11	1.13	1.16	1.21	1.30	1.4%
Still gas	1.41	1.40	1.25	1.19	1.19	1.21	1.23	-0.4%
Miscellaneous petroleum ²	0.73	0.68	0.43	0.41	0.37	0.36	0.37	-2.1%
Petroleum subtotal	8.76	8.57	9.25	9.28	9.14	9.11	9.16	0.2%
Natural gas heat and power	6.19	6.46	7.31	7.44	7.46	7.54	7.63	0.6%
Natural-gas-to-liquids heat and power	0.00	0.00	0.13	0.16	0.21	0.27	0.33	--
Natural gas feedstocks	0.48	0.46	0.55	0.55	0.51	0.48	0.45	-0.1%
Lease and plant fuel ³	1.31	1.42	1.57	1.68	1.73	1.84	1.97	1.1%
Natural gas subtotal	7.98	8.34	9.56	9.84	9.91	10.13	10.38	0.8%
Metallurgical coal and coke ⁴	0.55	0.57	0.59	0.55	0.48	0.42	0.41	-1.1%
Other industrial coal	1.06	1.04	1.00	1.00	1.00	1.02	1.05	0.0%
Coal-to-liquids heat and power	0.00	0.00	0.00	0.07	0.09	0.12	0.15	--
Coal subtotal	1.60	1.62	1.58	1.63	1.57	1.56	1.61	-0.0%
Biofuels heat and coproducts	0.85	0.67	0.82	0.82	0.85	0.97	1.37	2.5%
Renewables ⁵	1.47	1.51	1.72	1.85	1.97	2.11	2.28	1.4%
Purchased electricity	3.31	3.33	3.95	4.05	3.96	3.90	3.91	0.6%
Delivered energy	23.98	24.04	26.87	27.46	27.40	27.77	28.71	0.6%
Electricity related losses	6.95	6.99	7.89	8.00	7.72	7.49	7.45	0.2%
Total	30.93	31.03	34.76	35.46	35.11	35.26	36.16	0.5%

Table A6. Industrial sector key indicators and consumption (continued)

Key indicators and consumption	Reference case							Annual growth 2011-2040 (percent)
	2010	2011	2020	2025	2030	2035	2040	
Energy consumption per dollar of shipments (thousand Btu per 2005 dollar)								
Liquid fuels and other petroleum.....	1.50	1.42	1.17	1.09	1.01	0.93	0.86	-1.7%
Natural gas	1.37	1.39	1.23	1.17	1.11	1.06	1.01	-1.1%
Coal	0.27	0.27	0.20	0.19	0.17	0.16	0.15	-1.9%
Renewable fuels ⁵	0.40	0.36	0.32	0.31	0.31	0.32	0.34	-0.2%
Purchased electricity.....	0.57	0.55	0.50	0.47	0.44	0.40	0.37	-1.4%
Delivered energy.....	4.11	3.99	3.42	3.23	3.04	2.87	2.74	-1.3%
Industrial combined heat and power¹								
Capacity (gigawatts)	25.07	25.63	29.47	32.44	36.48	41.55	45.07	2.0%
Generation (billion kilowatthours).....	123.76	122.05	164.19	182.40	206.62	237.92	260.03	2.6%

¹Includes energy for combined heat and power plants that have a regulatory status, and small on-site generating systems.

²Includes lubricants and miscellaneous petroleum products.

³Represents natural gas used in well, field, and lease operations, in natural gas processing plant machinery, and for liquefaction in export facilities.

⁴Includes net coal coke imports.

⁵Includes consumption of energy produced from hydroelectric, wood and wood waste, municipal waste, and other biomass sources.

Btu = British thermal unit.

-- = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2010 and 2011 are model results and may differ slightly from official EIA data reports.

Sources: 2010 and 2011 prices for motor gasoline and distillate fuel oil are based on: U.S. Energy Information Administration (EIA), *Petroleum Marketing Monthly*, DOE/EIA-0380(2012/08) (Washington, DC, August 2012). 2010 and 2011 petrochemical feedstock and asphalt and road oil prices are based on: EIA, *State Energy Data Report 2010*, DOE/EIA-0214(2010) (Washington, DC, June 2012). 2010 and 2011 coal prices are based on: EIA, *Quarterly Coal Report, October-December 2011*, DOE/EIA-0121(2011/4Q) (Washington, DC, March 2012) and EIA, AEO2013 National Energy Modeling System run REF2013.D102312A. 2010 and 2011 electricity prices: EIA, *Annual Energy Review 2011*, DOE/EIA-0384(2011) (Washington, DC, September 2012). 2010 natural gas prices: EIA, *Natural Gas Annual 2010*, DOE/EIA-0131(2010) (Washington, DC, December 2011). 2011 natural gas prices: *Natural Gas Monthly*, DOE/EIA-0130(2012/07) (Washington, DC, July 2012). 2010 refining consumption values are based on: *Petroleum Supply Annual 2010*, DOE/EIA-0340(2010)/1 (Washington, DC, July 2011). 2011 refining consumption based on: *Petroleum Supply Annual 2011*, DOE/EIA-0340(2011)/1 (Washington, DC, August 2012). Other 2010 and 2011 consumption values are based on: EIA, *Annual Energy Review 2011*, DOE/EIA-0384(2011) (Washington, DC, September 2012). 2010 and 2011 shipments: IHS Global Insight, Global Insight Industry model, August 2012. **Projections:** EIA, AEO2013 National Energy Modeling System run REF2013.D102312A.