

Table A6. Industrial sector key indicators and consumption

Shipments, prices, and consumption	Reference case							Annual growth 2013-2040 (percent)
	2012	2013	2020	2025	2030	2035	2040	
Key indicators								
Value of shipments (billion 2009 dollars)								
Manufacturing	5,009	5,146	6,123	6,771	7,330	8,012	8,751	2.0%
Agriculture, mining, and construction	1,813	1,858	2,344	2,441	2,540	2,601	2,712	1.4%
Total	6,822	7,004	8,467	9,212	9,870	10,614	11,463	1.8%
Energy prices								
(2013 dollars per million Btu)								
Propane	21.3	20.3	19.6	20.5	21.5	22.9	24.5	0.7%
Motor gasoline	17.5	17.5	22.5	24.2	26.3	29.1	32.3	2.3%
Distillate fuel oil	27.4	27.3	21.2	23.5	26.1	29.2	32.7	0.7%
Residual fuel oil	20.6	20.0	13.3	15.1	17.2	19.7	23.5	0.6%
Asphalt and road oil	10.1	9.8	8.9	10.3	11.9	13.5	15.7	1.8%
Natural gas heat and power	3.5	4.3	6.0	6.7	6.6	7.4	8.6	2.6%
Natural gas feedstocks	4.2	4.8	6.3	7.0	6.9	7.7	8.9	2.3%
Metallurgical coal	7.3	5.5	5.8	6.2	6.7	6.9	7.2	1.0%
Other industrial coal	3.3	3.2	3.3	3.5	3.6	3.7	3.9	0.7%
Coal to liquids	--	--	--	--	--	--	--	--
Electricity	19.8	20.2	21.3	22.4	22.6	23.3	24.7	0.7%
(nominal dollars per million Btu)								
Propane	21.0	20.3	22.3	25.2	28.8	33.7	39.7	2.5%
Motor gasoline	17.3	17.5	25.5	29.9	35.3	42.7	52.3	4.1%
Distillate fuel oil	27.0	27.3	24.1	29.0	35.0	42.9	53.0	2.5%
Residual fuel oil	20.3	20.0	15.1	18.6	23.1	29.0	38.0	2.4%
Asphalt and road oil	10.0	9.8	10.0	12.7	15.9	19.9	25.5	3.6%
Natural gas heat and power	3.5	4.3	6.8	8.2	8.9	10.8	13.9	4.4%
Natural gas feedstocks	4.1	4.8	7.2	8.6	9.3	11.3	14.5	4.2%
Metallurgical coal	7.2	5.5	6.6	7.7	8.9	10.2	11.6	2.8%
Other industrial coal	3.3	3.2	3.8	4.3	4.8	5.5	6.3	2.5%
Coal to liquids	--	--	--	--	--	--	--	--
Electricity	19.5	20.2	24.2	27.5	30.3	34.2	40.0	2.6%
Energy consumption (quadrillion Btu)¹								
Industrial consumption excluding refining								
Propane heat and power	0.25	0.28	0.32	0.36	0.38	0.38	0.38	1.1%
Liquefied petroleum gas and other feedstocks ² ..	2.16	2.22	2.89	3.21	3.35	3.31	3.30	1.5%
Motor gasoline	0.24	0.25	0.26	0.26	0.25	0.25	0.25	0.0%
Distillate fuel oil	1.28	1.31	1.42	1.38	1.36	1.34	1.35	0.1%
Residual fuel oil	0.07	0.06	0.10	0.14	0.13	0.13	0.13	3.1%
Petrochemical feedstocks	0.74	0.74	0.95	1.10	1.14	1.17	1.20	1.8%
Petroleum coke	0.17	0.11	0.20	0.23	0.22	0.21	0.22	2.5%
Asphalt and road oil	0.83	0.78	1.01	1.09	1.15	1.19	1.25	1.8%
Miscellaneous petroleum ³	0.37	0.61	0.42	0.42	0.44	0.46	0.47	-1.0%
Petroleum and other liquids subtotal	6.11	6.37	7.57	8.18	8.42	8.43	8.55	1.1%
Natural gas heat and power	5.26	5.42	5.86	5.93	6.07	6.13	6.20	0.5%
Natural gas feedstocks	0.58	0.59	0.97	1.05	1.05	1.04	1.03	2.1%
Lease and plant fuel ⁴	1.43	1.52	1.87	1.98	2.10	2.18	2.29	1.5%
Natural gas subtotal	7.27	7.54	8.70	8.96	9.22	9.35	9.53	0.9%
Metallurgical coal and coke ⁵	0.60	0.60	0.61	0.58	0.53	0.48	0.45	-1.0%
Other industrial coal	0.87	0.88	0.93	0.95	0.96	0.97	0.99	0.4%
Coal subtotal	1.47	1.48	1.54	1.53	1.48	1.44	1.44	-0.1%
Renewables ⁶	1.51	1.48	1.53	1.60	1.59	1.58	1.63	0.4%
Purchased electricity	3.16	3.05	3.58	3.83	3.89	3.90	3.95	1.0%
Delivered energy	19.52	19.92	22.92	24.10	24.60	24.70	25.10	0.9%
Electricity related losses	6.46	6.29	7.19	7.59	7.59	7.52	7.54	0.7%
Total	25.98	26.22	30.11	31.69	32.19	32.22	32.64	0.8%

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

Shipments, prices, and consumption	Reference case							Annual growth 2013-2040 (percent)
	2012	2013	2020	2025	2030	2035	2040	
Refining consumption								
Liquefied petroleum gas heat and power ²	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.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Petroleum coke.....	0.54	0.53	0.39	0.42	0.41	0.42	0.43	-0.8%
Still gas.....	1.41	1.47	1.61	1.63	1.59	1.61	1.60	0.3%
Miscellaneous petroleum ³	0.01	0.01	0.03	0.01	0.02	0.01	0.02	2.1%
Petroleum and other liquids subtotal.....	1.97	2.03	2.04	2.06	2.02	2.03	2.04	0.0%
Natural gas heat and power.....	1.23	1.30	1.19	1.17	1.20	1.25	1.31	0.0%
Natural gas feedstocks.....	0.32	0.31	0.31	0.31	0.32	0.34	0.35	0.5%
Natural-gas-to-liquids heat and power.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Natural gas subtotal.....	1.55	1.60	1.50	1.48	1.52	1.59	1.66	0.1%
Other industrial coal.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Coal-to-liquids heat and power.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Coal subtotal.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Biofuels heat and coproducts.....	0.73	0.72	0.80	0.80	0.80	0.81	0.86	0.6%
Purchased electricity.....	0.20	0.21	0.16	0.15	0.15	0.16	0.16	-0.8%
Delivered energy	4.45	4.56	4.50	4.48	4.49	4.59	4.73	0.1%
Electricity related losses.....	0.41	0.42	0.31	0.29	0.29	0.30	0.31	-1.1%
Total	4.86	4.98	4.81	4.78	4.78	4.90	5.04	0.0%
Total industrial sector consumption								
Liquefied petroleum gas heat and power ²	0.26	0.29	0.32	0.36	0.38	0.38	0.38	1.0%
Liquefied petroleum gas and other feedstocks ² ..	2.16	2.22	2.89	3.21	3.35	3.31	3.30	1.5%
Motor gasoline.....	0.24	0.25	0.26	0.26	0.25	0.25	0.25	0.0%
Distillate fuel oil.....	1.28	1.31	1.42	1.38	1.36	1.34	1.35	0.1%
Residual fuel oil.....	0.07	0.06	0.10	0.14	0.13	0.13	0.13	2.9%
Petrochemical feedstocks.....	0.74	0.74	0.95	1.10	1.14	1.17	1.20	1.8%
Petroleum coke.....	0.70	0.65	0.59	0.65	0.63	0.63	0.65	0.0%
Asphalt and road oil.....	0.83	0.78	1.01	1.09	1.15	1.19	1.25	1.8%
Still gas.....	1.41	1.47	1.61	1.63	1.59	1.61	1.60	0.3%
Miscellaneous petroleum ³	0.38	0.63	0.46	0.43	0.46	0.47	0.49	-0.9%
Petroleum and other liquids subtotal.....	8.08	8.40	9.61	10.24	10.44	10.47	10.59	0.9%
Natural gas heat and power.....	6.50	6.72	7.05	7.11	7.27	7.38	7.51	0.4%
Natural gas feedstocks.....	0.89	0.90	1.28	1.36	1.37	1.38	1.39	1.6%
Natural-gas-to-liquids heat and power.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Lease and plant fuel ⁴	1.43	1.52	1.87	1.98	2.10	2.18	2.29	1.5%
Natural gas subtotal.....	8.82	9.14	10.20	10.44	10.75	10.94	11.19	0.8%
Metallurgical coal and coke ⁵	0.60	0.60	0.61	0.58	0.53	0.48	0.45	-1.0%
Other industrial coal.....	0.87	0.88	0.93	0.95	0.96	0.97	0.99	0.4%
Coal-to-liquids heat and power.....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Coal subtotal.....	1.47	1.48	1.54	1.53	1.48	1.44	1.44	-0.1%
Biofuels heat and coproducts.....	0.73	0.72	0.80	0.80	0.80	0.81	0.86	0.6%
Renewables ⁶	1.51	1.48	1.53	1.60	1.59	1.58	1.63	0.4%
Purchased electricity.....	3.36	3.26	3.74	3.98	4.04	4.05	4.12	0.9%
Delivered energy	23.97	24.48	27.42	28.58	29.10	29.29	29.82	0.7%
Electricity related losses.....	6.87	6.72	7.51	7.88	7.88	7.83	7.85	0.6%
Total	30.84	31.20	34.93	36.46	36.98	37.12	37.68	0.7%

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

Key indicators and consumption	Reference case							Annual growth 2013-2040 (percent)
	2012	2013	2020	2025	2030	2035	2040	
Energy consumption per dollar of shipments (thousand Btu per 2009 dollar)								
Petroleum and other liquids	1.18	1.20	1.13	1.11	1.06	0.99	0.92	-1.0%
Natural gas	1.29	1.31	1.21	1.13	1.09	1.03	0.98	-1.1%
Coal	0.21	0.21	0.18	0.17	0.15	0.14	0.13	-1.9%
Renewable fuels ⁵	0.33	0.31	0.28	0.26	0.24	0.23	0.22	-1.4%
Purchased electricity	0.49	0.47	0.44	0.43	0.41	0.38	0.36	-1.0%
Delivered energy	3.51	3.50	3.24	3.10	2.95	2.76	2.60	-1.1%
Industrial combined heat and power¹								
Capacity (gigawatts)	26.9	27.6	30.6	32.8	35.8	38.9	40.7	1.5%
Generation (billion kilowatthours)	144	147	170	181	195	211	221	1.5%

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

²Includes ethane, natural gasoline, and refinery olefins.

³Includes lubricants and miscellaneous petroleum products.

⁴Represents natural gas used in well, field, and lease operations, in natural gas processing plant machinery, and for liquefaction in export facilities.

⁵Includes net coal coke imports.

⁶Includes consumption of energy produced from hydroelectric, wood and wood waste, municipal waste, and other biomass sources.

Btu = British thermal unit.

-- = Not applicable.

Note: Includes estimated consumption for petroleum and other liquids. Totals may not equal sum of components due to independent rounding. Data for 2012 and 2013 are model results and may differ from official EIA data reports.

Sources: 2012 and 2013 prices for motor gasoline and distillate fuel oil are based on: U.S. Energy Information Administration (EIA), *Petroleum Marketing Monthly*, DOE/EIA-0380(2014/08) (Washington, DC, August 2014). 2012 and 2013 petrochemical feedstock and asphalt and road oil prices are based on: EIA, *State Energy Data Report 2012*, DOE/EIA-0214(2012) (Washington, DC, June 2014). 2012 and 2013 coal prices are based on: EIA, *Quarterly Coal Report, October-December 2013*, DOE/EIA-0121(2013/4Q) (Washington, DC, March 2014) and EIA, AEO2015 National Energy Modeling System run REF2015.D021915A. 2012 and 2013 electricity prices: EIA, *Monthly Energy Review*, DOE/EIA-0035(2014/11) (Washington, DC, November 2014). 2012 natural gas prices: EIA, *Natural Gas Annual 2013*, DOE/EIA-0131(2013) (Washington, DC, October 2014). 2013 natural gas prices: *Natural Gas Monthly*, DOE/EIA-0130(2014/07) (Washington, DC, July 2014). 2012 refining consumption values are based on: *Petroleum Supply Annual 2012*, DOE/EIA-0340(2012)/1 (Washington, DC, September 2013). 2013 refining consumption based on: *Petroleum Supply Annual 2013*, DOE/EIA-0340(2013)/1 (Washington, DC, September 2014). Other 2012 and 2013 consumption values are based on: EIA, *Monthly Energy Review*, DOE/EIA-0035(2014/11) (Washington, DC, November 2014). 2012 and 2013 shipments: IHS Economics, Industry model, November 2014. Projections: EIA, AEO2015 National Energy Modeling System run REF2015.D021915A.