

Table A1. World total primary energy consumption by region, Low Oil Price case

quadrillion British thermal units

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	118.2	125.3	126.3	129.4	132.8	136.8	141.2	0.6
United States	92.9	97.9	98.2	100.0	102.5	105.2	108.7	0.5
Canada	14.6	15.3	15.6	16.0	16.4	16.7	17.0	0.5
Mexico and other OECD Americas	10.6	12.1	12.5	13.3	14.0	14.8	15.5	1.3
OECD Europe	77.6	81.4	81.7	82.2	82.8	84.1	85.2	0.3
OECD Asia	37.2	39.6	39.4	39.1	38.4	37.9	37.5	0.0
Japan	18.3	18.6	18.0	17.3	16.7	16.1	15.6	-0.5
South Korea	12.0	13.4	13.6	13.6	13.4	13.3	13.2	0.3
Australia and New Zealand	6.9	7.6	7.8	8.2	8.4	8.5	8.6	0.8
Total OECD	232.9	246.2	247.5	250.6	254.0	258.9	263.9	0.4
Non-OECD								
Non-OECD Europe and Eurasia	52.6	53.2	53.5	54.3	54.6	54.8	54.8	0.1
Russia	34.4	35.1	35.2	35.4	35.3	35.0	34.6	0.0
Other Europe and Eurasia	18.2	18.1	18.3	18.8	19.3	19.8	20.2	0.3
Non-OECD Asia	230.3	259.5	274.1	288.1	302.3	315.9	324.1	1.1
China	156.4	164.8	164.4	163.2	164.0	164.4	162.2	0.1
India	31.5	44.8	55.3	65.5	74.9	84.7	92.7	3.7
Other Asia	42.5	49.8	54.4	59.4	63.4	66.8	69.2	1.6
Middle East	35.2	39.2	38.9	38.9	39.6	39.6	39.0	0.3
Africa	22.9	25.7	27.9	30.3	32.7	35.4	38.0	1.7
Non-OECD Americas	27.6	30.1	31.0	31.9	33.1	34.6	36.3	0.9
Brazil	14.9	16.3	16.7	16.8	17.0	17.3	17.6	0.6
Other Non-OECD Americas	12.7	13.8	14.3	15.1	16.1	17.3	18.8	1.3
Total Non-OECD	368.6	407.6	425.4	443.5	462.4	480.3	492.1	1.0
Total World	601.5	653.8	672.9	694.1	716.4	739.1	756.1	0.8

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

Table A2. World total energy consumption by region and fuel, Low Oil Price case

quadrillion British thermal units

Region and fuel	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas								
Liquid fuels	42.4	47.6	47.6	48.3	49.4	50.7	52.2	0.7
Natural gas	39.7	38.9	39.2	40.2	41.9	43.3	44.8	0.4
Coal	10.2	9.1	8.5	8.0	7.8	7.9	7.6	-1.0
Nuclear	9.4	8.7	7.9	7.7	7.3	6.9	6.6	-1.2
Other	16.6	21.0	23.1	25.1	26.4	28.1	30.0	2.0
Total	118.2	125.3	126.3	129.4	132.8	136.8	141.2	0.6
OECD Europe								
Liquid fuels	26.0	28.7	27.7	26.8	26.4	26.4	26.5	0.1
Natural gas	19.5	20.3	20.3	19.9	19.7	19.6	19.9	0.1
Coal	8.1	6.7	6.1	6.1	6.1	7.4	6.8	-0.6
Nuclear	7.9	8.1	7.5	7.3	6.7	5.1	4.0	-2.2
Other	16.1	17.6	20.2	22.0	23.9	25.6	27.9	1.9
Total	77.6	81.4	81.7	82.2	82.8	84.1	85.2	0.3
OECD Asia								
Liquid fuels	13.9	14.7	14.1	13.5	13.0	12.5	12.1	-0.5
Natural gas	8.7	8.4	8.3	7.7	7.2	6.8	6.6	-0.9
Coal	8.5	8.3	8.0	8.2	8.2	7.8	7.4	-0.4
Nuclear	2.1	3.7	4.0	4.0	3.5	3.1	3.1	1.3
Other	4.0	4.5	5.1	5.7	6.6	7.6	8.2	2.4
Total	37.2	39.6	39.4	39.1	38.4	37.9	37.5	0.0
Total OECD								
Liquid fuels	82.3	91.0	89.4	88.7	88.8	89.6	90.9	0.3
Natural gas	67.9	67.6	67.8	67.8	68.8	69.7	71.4	0.2
Coal	26.8	24.0	22.5	22.3	22.1	23.1	21.8	-0.7
Nuclear	19.3	20.5	19.4	19.0	17.5	15.1	13.7	-1.1
Other	36.7	43.0	48.4	52.8	56.9	61.3	66.1	2.0
Total	232.9	246.2	247.5	250.6	254.0	258.9	263.9	0.4
Non-OECD								
Non-OECD Europe and Eurasia								
Liquid fuels	11.1	12.0	11.9	12.0	12.0	12.0	12.0	0.3
Natural gas	25.0	24.9	25.2	25.2	25.1	24.9	24.7	0.0
Coal	9.6	8.9	8.8	9.1	9.3	9.3	9.4	-0.1
Nuclear	3.4	3.9	4.1	4.2	4.2	4.2	4.2	0.7
Other	3.5	3.5	3.5	3.8	4.1	4.4	4.5	0.8
Total	52.6	53.2	53.5	54.3	54.6	54.8	54.8	0.1
Non-OECD Asia								
Liquid fuels	54.2	65.7	70.7	74.3	77.0	79.2	80.5	1.3
Natural gas	23.8	25.8	28.5	30.1	30.6	30.5	30.6	0.8
Coal	114.6	115.5	111.9	111.9	112.5	114.0	112.5	-0.1
Nuclear	4.3	5.6	7.1	8.6	10.2	11.6	12.9	3.7
Other	33.4	46.8	55.9	63.2	71.9	80.7	87.5	3.3
Total	230.3	259.5	274.1	288.1	302.3	315.9	324.1	1.1
Middle East								
Liquid fuels	15.5	16.8	15.6	15.3	15.1	14.8	14.2	-0.3
Natural gas	19.2	21.2	21.7	21.1	20.5	20.1	19.5	0.1
Coal	0.1	0.1	0.1	0.1	0.3	0.1	0.5	4.3
Nuclear	0.1	0.4	0.6	0.8	0.9	0.9	0.9	9.0

Other	0.2	0.6	0.8	1.6	2.9	3.7	3.9	10.1
Total	35.2	39.2	38.9	38.9	39.6	39.6	39.0	0.3
Africa								
Liquid fuels	8.4	9.8	10.2	10.9	11.7	12.7	13.6	1.6
Natural gas	5.7	5.9	6.2	6.7	6.8	6.9	7.2	0.8
Coal	3.9	3.9	4.3	4.5	4.7	4.8	4.7	0.6
Nuclear	0.1	0.1	0.3	0.5	0.6	0.6	0.6	5.4
Other	4.8	5.9	7.0	7.8	9.0	10.4	12.0	3.1
Total	22.9	25.7	27.9	30.3	32.7	35.4	38.0	1.7
Non-OECD Americas								
Liquid fuels	10.9	12.5	12.8	13.1	13.5	14.1	14.7	1.0
Natural gas	5.7	5.8	5.7	5.5	5.6	5.7	6.0	0.2
Coal	0.7	0.9	0.8	0.8	0.9	1.0	1.0	1.4
Nuclear	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.6
Other	10.1	10.7	11.3	12.1	12.8	13.4	14.2	1.1
Total	27.6	30.1	31.0	31.9	33.1	34.6	36.3	0.9
Total Non-OECD								
Liquid fuels	100.1	116.8	121.2	125.6	129.3	132.7	135.0	1.0
Natural gas	79.3	83.7	87.2	88.6	88.6	88.1	88.1	0.3
Coal	128.9	129.4	125.9	126.4	127.6	129.3	128.0	0.0
Nuclear	8.2	10.3	12.5	14.4	16.2	17.6	18.9	2.8
Other	52.1	67.5	78.5	88.5	100.7	112.5	122.1	2.9
Total	368.6	407.6	425.4	443.5	462.4	480.3	492.1	1.0
World								
Liquid fuels	182.4	207.8	210.6	214.2	218.1	222.3	225.9	0.7
Natural gas	147.2	151.3	155.0	156.4	157.3	157.9	159.5	0.3
Coal	155.7	153.4	148.5	148.7	149.7	152.5	149.8	-0.1
Nuclear	27.5	30.9	32.0	33.4	33.7	32.7	32.6	0.6
Other	88.7	110.5	126.9	141.3	157.6	173.8	188.2	2.5
Total	601.5	653.8	672.9	694.1	716.4	739.1	756.1	0.8

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run lp_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

* Electricity generation from renewable sources such as hydroelectric, wind, or solar is converted to British thermal units at a rate of 8,124 British thermal units per kilowatt-hour, which reflects the average projected conversion efficiency of the U.S. fossil-fueled generating fleet in the Annual Energy Outlook 2021.

Table A3. World gross domestic product (GDP) by region expressed in purchasing power parity, Low Oil Price case

billion 2015 dollars

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	\$23,951	\$27,897	\$30,457	\$33,601	\$36,765	\$40,040	\$43,519	2.0
United States	\$19,014	\$22,208	\$24,342	\$27,021	\$29,727	\$32,569	\$35,635	2.1
Canada	\$1,638	\$1,853	\$1,961	\$2,086	\$2,209	\$2,337	\$2,468	1.4
Mexico and other OECD Americas	\$3,298	\$3,837	\$4,154	\$4,494	\$4,829	\$5,134	\$5,416	1.7
OECD Europe	\$22,770	\$25,729	\$26,814	\$27,781	\$28,790	\$29,874	\$30,999	1.0
OECD Asia	\$8,568	\$9,308	\$9,589	\$9,670	\$9,692	\$9,713	\$9,743	0.4
Japan	\$5,043	\$5,356	\$5,339	\$5,219	\$5,098	\$4,982	\$4,890	-0.1
South Korea	\$2,136	\$2,389	\$2,520	\$2,561	\$2,562	\$2,567	\$2,561	0.6
Australia and New Zealand	\$1,389	\$1,564	\$1,729	\$1,890	\$2,032	\$2,164	\$2,293	1.7
Total OECD	\$55,289	\$62,934	\$66,860	\$71,052	\$75,247	\$79,627	\$84,262	1.4
Non-OECD								
Non-OECD Europe and Eurasia	\$6,489	\$7,247	\$7,710	\$8,346	\$8,912	\$9,426	\$9,910	1.4
Russia	\$3,600	\$3,792	\$3,834	\$3,963	\$4,017	\$4,023	\$4,017	0.4
Other Europe and Eurasia	\$2,889	\$3,455	\$3,876	\$4,383	\$4,895	\$5,403	\$5,893	2.4
Non-OECD Asia	\$44,263	\$56,402	\$67,673	\$78,328	\$88,136	\$97,547	\$105,702	2.9
China	\$23,672	\$29,737	\$34,367	\$38,375	\$41,634	\$44,500	\$46,481	2.3
India	\$8,634	\$11,918	\$15,838	\$19,761	\$23,515	\$27,236	\$30,689	4.3
Other Asia	\$11,957	\$14,747	\$17,469	\$20,193	\$22,987	\$25,811	\$28,532	2.9
Middle East	\$4,659	\$5,241	\$5,602	\$5,885	\$6,111	\$6,309	\$6,464	1.1
Africa	\$6,270	\$7,289	\$8,292	\$9,341	\$10,452	\$11,619	\$12,871	2.4
Non-OECD Americas	\$5,470	\$6,287	\$6,868	\$7,350	\$7,844	\$8,402	\$9,018	1.7
Brazil	\$2,912	\$3,151	\$3,255	\$3,293	\$3,301	\$3,309	\$3,320	0.4
Other Non-OECD Americas	\$2,558	\$3,137	\$3,613	\$4,056	\$4,543	\$5,093	\$5,699	2.7
Total Non-OECD	\$67,151	\$82,467	\$96,146	\$109,249	\$121,455	\$133,304	\$143,966	2.6
Total World	\$122,440	\$145,402	\$163,005	\$180,302	\$196,703	\$212,931	\$228,228	2.1

Sources: Table by the U.S. Energy Information Administration (EIA), based on the Oxford Global Economic Model, (February 2021), www.oxfordeconomics.com (subscription site); EIA, World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

Table A4. World gross domestic product (GDP) by region expressed in market exchange rates, Low Oil Price case

billion 2015 dollars

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	\$22,393	\$26,086	\$28,497	\$31,475	\$34,477	\$37,604	\$40,947	2.0
United States	\$19,014	\$22,208	\$24,342	\$27,021	\$29,727	\$32,569	\$35,635	2.1
Canada	\$1,599	\$1,808	\$1,914	\$2,036	\$2,156	\$2,281	\$2,409	1.4
Mexico and other OECD Americas	\$1,780	\$2,070	\$2,240	\$2,419	\$2,594	\$2,754	\$2,904	1.6
OECD Europe	\$18,705	\$21,075	\$21,861	\$22,553	\$23,288	\$24,102	\$24,949	1.0
OECD Asia	\$7,505	\$8,160	\$8,427	\$8,531	\$8,583	\$8,631	\$8,688	0.5
Japan	\$4,363	\$4,634	\$4,619	\$4,515	\$4,411	\$4,310	\$4,230	-0.1
South Korea	\$1,619	\$1,811	\$1,911	\$1,942	\$1,943	\$1,947	\$1,941	0.6
Australia and New Zealand	\$1,523	\$1,715	\$1,897	\$2,074	\$2,229	\$2,374	\$2,516	1.7
Total OECD	\$48,604	\$55,321	\$58,785	\$62,559	\$66,348	\$70,336	\$74,584	1.4
Non-OECD								
Non-OECD Europe and Eurasia	\$2,482	\$2,775	\$2,956	\$3,203	\$3,423	\$3,625	\$3,816	1.4
Russia	\$1,393	\$1,467	\$1,484	\$1,534	\$1,555	\$1,557	\$1,555	0.4
Other Europe and Eurasia	\$1,088	\$1,308	\$1,472	\$1,669	\$1,869	\$2,068	\$2,261	2.5
Non-OECD Asia	\$21,669	\$27,376	\$32,311	\$36,846	\$40,886	\$44,673	\$47,788	2.7
China	\$14,503	\$18,219	\$21,056	\$23,511	\$25,508	\$27,264	\$28,478	2.3
India	\$2,522	\$3,474	\$4,617	\$5,760	\$6,855	\$7,940	\$8,946	4.3
Other Asia	\$4,644	\$5,682	\$6,638	\$7,575	\$8,523	\$9,469	\$10,364	2.7
Middle East	\$2,076	\$2,333	\$2,495	\$2,618	\$2,711	\$2,788	\$2,839	1.0
Africa	\$2,379	\$2,782	\$3,160	\$3,552	\$3,967	\$4,404	\$4,878	2.4
Non-OECD Americas	\$3,279	\$3,741	\$4,050	\$4,317	\$4,587	\$4,890	\$5,223	1.6
Brazil	\$1,739	\$1,881	\$1,943	\$1,967	\$1,971	\$1,976	\$1,982	0.4
Other Non-OECD Americas	\$1,541	\$1,859	\$2,107	\$2,351	\$2,616	\$2,914	\$3,241	2.5
Total Non-OECD	\$31,885	\$39,007	\$44,971	\$50,536	\$55,573	\$60,380	\$64,544	2.4
Total World	\$80,489	\$94,328	\$103,756	\$113,095	\$121,921	\$130,716	\$139,128	1.8

Sources: Table by the U.S. Energy Information Administration (EIA), based on the Oxford Global Economic Model, (February 2021), www.oxfordeconomics.com (subscription site); EIA, World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

Table A5. World liquids consumption by region, Low Oil Price case

million barrels per day

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	22.5	25.5	25.6	26.0	26.6	27.3	28.1	0.7
United States	18.1	20.5	20.6	21.0	21.4	21.9	22.5	0.7
Canada	2.1	2.4	2.4	2.4	2.4	2.4	2.5	0.5
Mexico and other OECD Americas	2.3	2.7	2.6	2.7	2.8	2.9	3.1	1.0
OECD Europe	12.7	14.0	13.5	13.1	12.9	12.9	12.9	0.1
OECD Asia	6.9	7.2	6.9	6.6	6.4	6.2	6.0	-0.5
Japan	3.3	3.3	3.0	2.7	2.5	2.3	2.2	-1.4
South Korea	2.4	2.6	2.5	2.5	2.4	2.3	2.3	-0.2
Australia and New Zealand	1.2	1.4	1.4	1.5	1.5	1.5	1.5	0.9
Total OECD	42.0	46.7	46.0	45.7	45.8	46.3	47.0	0.4
Non-OECD								
Non-OECD Europe and Eurasia	5.7	6.1	6.1	6.1	6.1	6.1	6.1	0.3
Russia	3.7	4.0	4.0	3.9	3.9	3.8	3.8	0.1
Other Europe and Eurasia	1.9	2.1	2.1	2.2	2.2	2.3	2.3	0.6
Non-OECD Asia	27.1	32.8	35.3	37.1	38.5	39.5	40.2	1.3
China	14.3	16.6	17.0	16.8	16.3	15.9	15.4	0.2
India	4.4	6.1	7.5	8.8	10.0	11.1	11.9	3.4
Other Asia	8.4	10.2	10.8	11.5	12.1	12.6	12.9	1.5
Middle East	7.8	8.4	7.8	7.7	7.6	7.4	7.1	-0.3
Africa	4.1	4.8	5.0	5.4	5.8	6.3	6.7	1.6
Non-OECD Americas	5.5	6.3	6.5	6.6	6.8	7.1	7.4	1.0
Brazil	2.9	3.3	3.3	3.3	3.2	3.2	3.2	0.3
Other Non-OECD Americas	2.6	3.0	3.2	3.3	3.6	3.9	4.2	1.6
Total Non-OECD	50.1	58.5	60.7	62.8	64.7	66.4	67.6	1.0
Total World	92.1	105.2	106.6	108.5	110.5	112.7	114.5	0.7

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

; and EIA, *Short-Term Energy Outlook*, (April 2021),

Notes:

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

* *Liquid fuels* includes motor gasoline, distillate, residual, kerosene, jet fuel, liquid petroleum gases, sequestered petroleum, other petroleum, petroleum coke, crude oil (including lease and plant condensate), ethanol, and other biofuels across all demand sectors. Refer to EIA's glossary for descriptions of individual liquids components.

Table A6. World natural gas consumption by region, Low Oil Price case

trillion cubic feet

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	38.3	37.7	38.0	38.9	40.5	41.9	43.4	0.4
United States	30.7	29.0	29.0	29.5	30.8	32.1	33.4	0.3
Canada	4.3	4.5	4.6	4.8	5.1	5.2	5.3	0.7
Mexico and other OECD Americas	3.4	4.2	4.3	4.7	4.7	4.6	4.7	1.1
OECD Europe	19.0	19.7	19.7	19.4	19.1	19.0	19.3	0.1
OECD Asia	7.8	7.6	7.5	6.9	6.5	6.2	6.0	-0.9
Japan	3.8	3.5	3.5	3.1	2.9	2.6	2.5	-1.4
South Korea	2.2	2.1	2.1	2.0	1.9	1.8	1.8	-0.6
Australia and New Zealand	1.8	1.9	1.9	1.8	1.8	1.7	1.7	-0.3
Total OECD	65.1	65.0	65.1	65.2	66.2	67.1	68.8	0.2
Non-OECD								
Non-OECD Europe and Eurasia	24.4	24.3	24.5	24.6	24.4	24.3	24.1	0.0
Russia	17.6	17.3	17.5	17.5	17.5	17.4	17.2	-0.1
Other Europe and Eurasia	6.8	7.1	7.0	7.1	6.9	6.9	6.8	0.0
Non-OECD Asia	23.0	24.9	27.5	29.0	29.6	29.4	29.5	0.8
China	11.0	11.8	13.4	14.6	14.7	14.3	14.0	0.8
India	2.0	2.6	3.1	3.6	3.9	4.3	4.6	2.9
Other Asia	10.1	10.6	11.0	10.9	10.9	10.8	10.9	0.3
Middle East	18.3	20.2	20.6	20.0	19.5	19.2	18.6	0.1
Africa	5.4	5.6	5.9	6.4	6.4	6.5	6.9	0.8
Non-OECD Americas	5.4	5.5	5.4	5.3	5.4	5.5	5.7	0.2
Brazil	1.3	1.6	1.5	1.4	1.3	1.2	1.2	-0.3
Other Non-OECD Americas	4.2	3.9	3.9	3.9	4.1	4.3	4.6	0.3
Total Non-OECD	76.5	80.6	84.0	85.3	85.3	84.9	84.8	0.3
Total World	141.6	145.6	149.1	150.5	151.4	152.0	153.5	0.3

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

* Natural gas consumption excludes non-hydrocarbon gases.

Table A7. World coal consumption by region, Low Oil Price case

million short tons

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	526	465	436	412	395	392	379	-1.1
United States	469	417	400	380	362	348	344	-1.0
Canada	27	25	12	7	7	7	7	-4.2
Mexico and other OECD Americas	30	23	24	25	25	37	28	-0.2
OECD Europe	528	407	361	361	362	465	415	-0.8
OECD Asia	421	395	375	382	386	370	352	-0.6
Japan	186	199	185	185	183	168	149	-0.7
South Korea	126	125	132	133	138	140	142	0.4
Australia and New Zealand	109	71	59	64	65	62	61	-1.9
Total OECD	1,474	1,268	1,172	1,155	1,142	1,227	1,146	-0.8
Non-OECD								
Non-OECD Europe and Eurasia	518	459	446	466	471	474	476	-0.3
Russia	244	246	246	258	254	249	242	0.0
Other Europe and Eurasia	274	213	200	208	216	225	233	-0.5
Non-OECD Asia	5,730	5,815	5,672	5,741	5,824	5,938	5,874	0.1
China	4,382	4,165	3,790	3,508	3,388	3,326	3,216	-1.0
India	892	1,097	1,239	1,465	1,640	1,800	1,818	2.4
Other Asia	456	552	643	768	795	812	840	2.1
Middle East	5	6	6	5	10	5	19	4.3
Africa	190	192	209	219	230	237	227	0.6
Non-OECD Americas	30	37	34	31	35	42	42	1.1
Brazil	23	26	25	27	22	22	22	-0.2
Other Non-OECD Americas	7	11	9	5	13	19	20	3.7
Total Non-OECD	6,474	6,509	6,367	6,462	6,570	6,695	6,638	0.1
Total World	7,947	7,776	7,539	7,617	7,712	7,923	7,785	-0.1

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

Table A8. World nuclear energy consumption by region (net nuclear electricity generation), Low Oil Price case

billion kilowatthours

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	883	827	752	734	694	655	629	-1.1
United States	785	745	655	634	620	599	585	-1.0
Canada	87	71	77	72	51	39	28	-3.7
Mexico and other OECD Americas	11	11	20	28	23	17	17	1.3
OECD Europe	741	728	674	658	607	459	363	-2.3
OECD Asia	236	343	367	365	317	289	285	0.6
Japan	58	115	139	139	121	102	102	1.9
South Korea	178	228	228	226	196	186	183	0.1
Australia and New Zealand	0	0	0	0	0	0	0	0.0
Total OECD	1,859	1,898	1,793	1,757	1,619	1,402	1,277	-1.2
Non-OECD								
Non-OECD Europe and Eurasia	321	355	374	380	380	380	383	0.6
Russia	204	229	234	234	234	234	227	0.4
Other Europe and Eurasia	118	126	140	146	146	146	156	0.9
Non-OECD Asia	405	504	643	786	937	1,068	1,188	3.7
China	331	416	538	674	795	905	1,002	3.8
India	36	52	69	76	106	128	151	4.9
Other Asia	37	36	36	36	36	36	36	-0.1
Middle East	6	41	58	73	83	83	83	9.2
Africa	13	13	30	43	52	52	52	4.8
Non-OECD Americas	26	26	41	38	38	33	33	0.8
Brazil	14	14	23	23	23	18	18	0.9
Other Non-OECD Americas	12	12	18	15	15	15	15	0.8
Total Non-OECD	771	939	1,146	1,320	1,490	1,617	1,739	2.7
Total World	2,630	2,836	2,939	3,078	3,109	3,019	3,016	0.5

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

Table A9. World consumption of hydroelectricity and other renewable energy by region, Low Oil Price case

quadrillion British thermal units

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	16.6	21.0	23.1	25.1	26.4	28.1	30.0	2.0
United States	10.3	14.4	16.0	17.3	18.0	18.9	20.0	2.2
Canada	4.4	4.5	4.9	5.2	5.5	5.8	6.1	1.1
Mexico and other OECD Americas	1.8	2.0	2.2	2.6	2.9	3.4	3.9	2.5
OECD Europe	16.1	17.6	20.2	22.0	23.9	25.6	27.9	1.9
OECD Asia	4.0	4.5	5.1	5.7	6.6	7.6	8.2	2.4
Japan	2.5	2.3	2.3	2.5	2.8	3.4	3.9	1.4
South Korea	0.4	0.5	0.6	0.9	1.3	1.4	1.5	4.7
Australia and New Zealand	1.1	1.8	2.1	2.3	2.5	2.7	2.8	3.3
Total OECD	36.7	43.0	48.4	52.8	56.9	61.3	66.1	2.0
Non-OECD								
Non-OECD Europe and Eurasia	3.5	3.5	3.5	3.8	4.1	4.4	4.5	0.8
Russia	2.0	1.9	1.8	1.9	1.9	2.0	2.0	-0.1
Other Europe and Eurasia	1.5	1.5	1.7	1.9	2.2	2.4	2.5	1.8
Non-OECD Asia	33.4	46.8	55.9	63.2	71.9	80.7	87.5	3.3
China	22.1	28.7	32.2	34.8	37.8	39.9	40.4	2.0
India	5.2	10.7	15.0	18.3	21.8	26.2	31.5	6.2
Other Asia	6.2	7.4	8.7	10.1	12.3	14.5	15.6	3.1
Middle East	0.2	0.6	0.8	1.6	2.9	3.7	3.9	10.1
Africa	4.8	5.9	7.0	7.8	9.0	10.4	12.0	3.1
Non-OECD Americas	10.1	10.7	11.3	12.1	12.8	13.4	14.2	1.1
Brazil	7.2	7.4	7.7	8.1	8.5	8.9	9.2	0.9
Other Non-OECD Americas	2.9	3.3	3.5	4.1	4.2	4.5	5.0	1.8
Total Non-OECD	52.1	67.5	78.5	88.5	100.7	112.5	122.1	2.9
Total World	88.7	110.5	126.9	141.3	157.6	173.8	188.2	2.5

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

Table A10. World carbon dioxide emissions by region, Low Oil Price case

million metric tons carbon dioxide

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	5,655	5,794	5,731	5,764	5,892	6,047	6,195	0.3
United States	4,557	4,573	4,521	4,529	4,618	4,722	4,853	0.2
Canada	547	593	576	579	594	606	614	0.4
Mexico and other OECD Americas	552	629	633	657	681	718	728	0.9
OECD Europe	3,593	3,690	3,555	3,476	3,431	3,553	3,522	-0.1
OECD Asia	2,252	2,269	2,191	2,138	2,075	1,989	1,911	-0.5
Japan	1,089	1,098	1,024	976	925	852	781	-1.1
South Korea	756	779	786	769	756	748	741	-0.1
Australia and New Zealand	407	392	381	393	394	388	389	-0.2
Total OECD	11,501	11,753	11,477	11,378	11,399	11,589	11,629	0.0
Non-OECD								
Non-OECD Europe and Eurasia	2,930	2,915	2,907	2,942	2,947	2,943	2,931	0.0
Russia	1,861	1,887	1,888	1,899	1,884	1,860	1,829	-0.1
Other Europe and Eurasia	1,068	1,029	1,020	1,044	1,062	1,083	1,101	0.1
Non-OECD Asia	15,534	16,465	16,585	16,913	17,182	17,464	17,421	0.4
China	10,910	10,796	10,205	9,675	9,368	9,146	8,841	-0.7
India	2,136	2,740	3,192	3,745	4,191	4,608	4,771	2.7
Other Asia	2,488	2,929	3,189	3,494	3,623	3,710	3,809	1.4
Middle East	2,027	2,211	2,143	2,089	2,058	2,003	1,973	-0.1
Africa	1,250	1,363	1,435	1,530	1,610	1,697	1,762	1.2
Non-OECD Americas	1,106	1,241	1,250	1,249	1,289	1,349	1,406	0.8
Brazil	503	581	578	565	548	542	539	0.2
Other Non-OECD Americas	603	660	672	684	740	807	867	1.2
Total Non-OECD	22,847	24,195	24,321	24,723	25,084	25,457	25,492	0.4
Total World	34,348	35,949	35,798	36,101	36,483	37,046	37,121	0.3

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

* Values presented are gross CO₂ emissions; CO₂ captured by CCS, accounting for less than 0.2% of the 2050 world total, is not subtracted

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

Table A11. World carbon dioxide emissions from liquids use by region, Low Oil Price case

million metric tons carbon dioxide

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	2,590	2,881	2,861	2,886	2,947	3,022	3,115	0.6
United States	2,016	2,222	2,210	2,230	2,272	2,323	2,389	0.6
Canada	261	296	294	294	295	298	302	0.5
Mexico and other OECD Americas	313	363	356	362	380	401	423	1.0
OECD Europe	1,790	1,980	1,902	1,842	1,810	1,810	1,820	0.1
OECD Asia	991	1,044	1,000	958	919	887	858	-0.5
Japan	464	462	419	381	351	327	308	-1.4
South Korea	368	392	385	373	361	351	340	-0.3
Australia and New Zealand	160	190	196	203	207	209	211	0.9
Total OECD	5,372	5,905	5,763	5,686	5,676	5,719	5,794	0.3
Non-OECD								
Non-OECD Europe and Eurasia	696	749	742	741	741	740	737	0.2
Russia	435	466	453	445	436	427	419	-0.1
Other Europe and Eurasia	262	283	289	296	305	313	317	0.6
Non-OECD Asia	3,372	4,095	4,405	4,634	4,804	4,947	5,037	1.3
China	1,723	1,995	2,053	2,030	1,975	1,926	1,869	0.3
India	564	782	960	1,127	1,274	1,409	1,514	3.3
Other Asia	1,085	1,319	1,392	1,478	1,554	1,611	1,654	1.4
Middle East	994	1,070	978	958	943	922	890	-0.4
Africa	584	679	706	752	809	876	940	1.6
Non-OECD Americas	734	846	864	878	904	942	983	1.0
Brazil	382	433	434	427	424	421	420	0.3
Other Non-OECD Americas	352	413	430	450	480	521	564	1.6
Total Non-OECD	6,381	7,439	7,695	7,963	8,201	8,427	8,586	1.0
Total World	11,753	13,344	13,458	13,648	13,877	14,146	14,380	0.7

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

Table A12. World carbon dioxide emissions from natural gas use by region, Low Oil Price case

million metric tons carbon dioxide

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	2,087	2,045	2,060	2,110	2,199	2,274	2,356	0.4
United States	1,671	1,577	1,576	1,599	1,669	1,742	1,816	0.3
Canada	237	250	256	267	281	290	293	0.7
Mexico and other OECD Americas	179	218	228	244	248	243	247	1.1
OECD Europe	1,037	1,078	1,078	1,058	1,044	1,040	1,057	0.1
OECD Asia	461	445	438	407	383	362	353	-0.9
Japan	232	215	211	191	175	161	151	-1.4
South Korea	130	127	125	117	112	109	110	-0.6
Australia and New Zealand	99	103	102	100	96	92	92	-0.3
Total OECD	3,585	3,568	3,576	3,576	3,626	3,677	3,766	0.2
Non-OECD								
Non-OECD Europe and Eurasia	1,326	1,323	1,336	1,337	1,330	1,321	1,309	0.0
Russia	956	940	952	954	954	947	938	-0.1
Other Europe and Eurasia	370	383	383	384	377	374	372	0.0
Non-OECD Asia	1,261	1,369	1,512	1,596	1,625	1,618	1,625	0.8
China	610	653	740	809	816	792	775	0.8
India	110	145	178	202	223	244	262	2.9
Other Asia	541	571	593	585	586	582	588	0.3
Middle East	1,020	1,126	1,151	1,117	1,088	1,069	1,036	0.1
Africa	300	315	328	356	358	364	383	0.8
Non-OECD Americas	301	305	300	293	297	304	318	0.2
Brazil	65	83	80	71	66	62	60	-0.3
Other Non-OECD Americas	236	222	220	222	231	242	258	0.3
Total Non-OECD	4,209	4,438	4,626	4,700	4,699	4,676	4,672	0.3
Total World	7,793	8,007	8,202	8,276	8,325	8,354	8,438	0.3

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

* Values presented are gross CO₂ emissions; CO₂ captured by CCS, accounting for less than 0.2% of the 2050 world total, is not subtracted

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

Table A13. World carbon dioxide emissions from coal use by region, Low Oil Price case

million metric tons carbon dioxide

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	978	868	810	768	746	751	725	-1.0
United States	870	774	736	700	676	657	648	-1.0
Canada	48	46	26	17	18	18	19	-3.0
Mexico and other OECD Americas	60	48	49	51	53	75	58	-0.1
OECD Europe	766	632	575	576	577	703	645	-0.6
OECD Asia	800	780	753	773	773	739	700	-0.4
Japan	393	421	394	404	399	364	322	-0.7
South Korea	259	260	276	278	283	288	292	0.4
Australia and New Zealand	148	99	83	90	91	87	87	-1.8
Total OECD	2,545	2,280	2,138	2,116	2,097	2,193	2,070	-0.7
Non-OECD								
Non-OECD Europe and Eurasia	908	844	830	864	875	882	885	-0.1
Russia	471	481	482	500	495	485	473	0.0
Other Europe and Eurasia	437	362	348	364	380	396	412	-0.2
Non-OECD Asia	10,901	11,001	10,669	10,683	10,753	10,899	10,759	0.0
China	8,578	8,148	7,412	6,837	6,577	6,428	6,197	-1.1
India	1,461	1,814	2,053	2,416	2,694	2,955	2,995	2.4
Other Asia	862	1,039	1,204	1,431	1,482	1,516	1,567	2.0
Middle East	13	14	14	14	26	13	47	4.3
Africa	365	369	402	422	442	457	439	0.6
Non-OECD Americas	71	90	85	78	88	103	104	1.3
Brazil	55	66	64	67	59	59	59	0.2
Other Non-OECD Americas	15	24	21	11	29	44	45	3.7
Total Non-OECD	12,257	12,318	12,001	12,061	12,184	12,353	12,234	0.0
Total World	14,802	14,598	14,139	14,177	14,280	14,546	14,304	-0.1

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

Table A14. World population by region, Low Oil Price case

million persons

Region	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
OECD Americas	570	591	611	629	644	657	669	0.5
United States	330	342	353	362	371	379	386	0.5
Canada	38	40	42	44	46	47	49	0.8
Mexico and other OECD Americas	202	210	217	223	228	232	234	0.5
OECD Europe	590	597	602	607	611	613	613	0.1
OECD Asia	208	208	207	205	202	199	195	-0.2
Japan	126	124	121	117	114	110	106	-0.6
South Korea	51	51	51	51	50	48	47	-0.3
Australia and New Zealand	31	32	34	37	39	41	42	1.1
Total OECD	1,369	1,396	1,420	1,441	1,457	1,469	1,478	0.3
Non-OECD								
Non-OECD Europe and Eurasia	342	344	343	343	343	342	341	0.0
Russia	146	145	143	141	139	137	136	-0.2
Other Europe and Eurasia	196	199	200	202	204	205	206	0.2
Non-OECD Asia	3,972	4,120	4,242	4,339	4,409	4,453	4,473	0.4
China	1,440	1,458	1,464	1,461	1,449	1,429	1,402	-0.1
India	1,382	1,447	1,505	1,555	1,594	1,621	1,640	0.6
Other Asia	1,151	1,215	1,273	1,323	1,367	1,403	1,432	0.7
Middle East	287	315	339	360	379	396	411	1.2
Africa	1,302	1,465	1,638	1,822	2,014	2,212	2,413	2.1
Non-OECD Americas	452	472	489	503	514	522	528	0.5
Brazil	213	219	224	227	229	230	229	0.2
Other Non-OECD Americas	239	253	265	276	285	292	299	0.7
Total Non-OECD	6,354	6,715	7,052	7,367	7,658	7,925	8,166	0.8
Total World	7,723	8,111	8,472	8,808	9,116	9,395	9,643	0.7

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run Ip_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

Table A15. Gross output by region and sector, Low Oil Price case

billion 2015 dollars

Region and sector	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
United States								
Energy-intensive manufacturing	\$2,575	\$3,002	\$3,251	\$3,541	\$3,816	\$4,099	\$4,401	1.8
Non-energy-intensive manufacturing	\$3,666	\$4,611	\$5,084	\$5,739	\$6,420	\$7,168	\$8,018	2.6
Nonmanufacturing	\$2,456	\$2,944	\$3,234	\$3,575	\$3,924	\$4,299	\$4,724	2.2
Services	\$25,509	\$30,536	\$33,442	\$37,122	\$40,818	\$44,665	\$48,762	2.2
Total	\$34,206	\$41,093	\$45,010	\$49,977	\$54,979	\$60,232	\$65,904	2.2
Canada								
Energy-intensive manufacturing	\$245	\$292	\$315	\$341	\$365	\$391	\$416	1.8
Non-energy-intensive manufacturing	\$311	\$388	\$412	\$440	\$467	\$495	\$525	1.8
Nonmanufacturing	\$458	\$519	\$554	\$591	\$623	\$653	\$683	1.3
Services	\$1,577	\$1,935	\$2,041	\$2,159	\$2,281	\$2,407	\$2,535	1.6
Total	\$2,590	\$3,134	\$3,322	\$3,531	\$3,735	\$3,946	\$4,159	1.6
Mexico and other OECD Americas								
Energy-intensive manufacturing	\$811	\$917	\$988	\$1,063	\$1,134	\$1,205	\$1,278	1.5
Non-energy-intensive manufacturing	\$926	\$1,141	\$1,215	\$1,306	\$1,406	\$1,522	\$1,664	2.0
Nonmanufacturing	\$755	\$867	\$940	\$1,020	\$1,097	\$1,158	\$1,199	1.6
Services	\$2,888	\$3,476	\$3,787	\$4,122	\$4,454	\$4,755	\$5,029	1.9
Total	\$5,380	\$6,401	\$6,930	\$7,512	\$8,091	\$8,639	\$9,171	1.8
OECD Europe								
Energy-intensive manufacturing	\$4,488	\$4,936	\$5,070	\$5,198	\$5,313	\$5,429	\$5,554	0.7
Non-energy-intensive manufacturing	\$7,156	\$8,522	\$8,912	\$9,354	\$9,814	\$10,312	\$10,833	1.4
Nonmanufacturing	\$4,159	\$4,696	\$4,871	\$4,999	\$5,112	\$5,219	\$5,317	0.8
Services	\$27,308	\$30,886	\$32,289	\$33,517	\$34,804	\$36,189	\$37,632	1.1
Total	\$43,111	\$49,041	\$51,142	\$53,068	\$55,043	\$57,149	\$59,337	1.1
Japan								
Energy-intensive manufacturing	\$1,013	\$1,089	\$1,052	\$999	\$946	\$899	\$858	-0.6
Non-energy-intensive manufacturing	\$2,584	\$3,060	\$3,075	\$3,039	\$2,999	\$2,958	\$2,928	0.4
Nonmanufacturing	\$630	\$663	\$639	\$612	\$588	\$564	\$543	-0.5
Services	\$5,566	\$5,864	\$5,877	\$5,768	\$5,658	\$5,553	\$5,476	-0.1
Total	\$9,793	\$10,677	\$10,644	\$10,417	\$10,191	\$9,975	\$9,805	0.0
South Korea								
Energy-intensive manufacturing	\$1,084	\$1,195	\$1,245	\$1,262	\$1,261	\$1,263	\$1,262	0.5
Non-energy-intensive manufacturing	\$1,508	\$1,799	\$1,924	\$1,973	\$1,984	\$2,001	\$2,009	1.0
Nonmanufacturing	\$372	\$417	\$439	\$456	\$465	\$473	\$481	0.9
Services	\$2,345	\$2,596	\$2,736	\$2,775	\$2,773	\$2,775	\$2,764	0.6
Total	\$5,309	\$6,007	\$6,344	\$6,465	\$6,483	\$6,512	\$6,516	0.7
Australia and New Zealand								
Energy-intensive manufacturing	\$175	\$180	\$189	\$197	\$204	\$210	\$214	0.7
Non-energy-intensive manufacturing	\$123	\$131	\$138	\$145	\$151	\$156	\$160	0.9
Nonmanufacturing	\$527	\$619	\$668	\$726	\$771	\$807	\$836	1.6
Services	\$1,801	\$2,041	\$2,272	\$2,488	\$2,685	\$2,873	\$3,060	1.8
Total	\$2,626	\$2,971	\$3,267	\$3,556	\$3,811	\$4,046	\$4,270	1.6
Total OECD								
Energy-intensive manufacturing	\$10,390	\$11,613	\$12,110	\$12,600	\$13,041	\$13,496	\$13,984	1.0
Non-energy-intensive manufacturing	\$16,274	\$19,652	\$20,759	\$21,995	\$23,241	\$24,612	\$26,138	1.6
Nonmanufacturing	\$9,358	\$10,725	\$11,346	\$11,979	\$12,579	\$13,173	\$13,783	1.3
Services	\$66,994	\$77,334	\$82,443	\$87,951	\$93,470	\$99,218	\$105,259	1.5
Total	\$103,015	\$119,324	\$126,658	\$134,526	\$142,332	\$150,498	\$159,163	1.5
Non-OECD								
Russia								

Energy-intensive manufacturing	\$721	\$804	\$826	\$847	\$856	\$853	\$839	0.5
Non-energy-intensive manufacturing	\$578	\$669	\$670	\$686	\$696	\$699	\$702	0.7
Nonmanufacturing	\$1,192	\$1,317	\$1,313	\$1,306	\$1,278	\$1,239	\$1,202	0.0
Services	\$3,553	\$3,885	\$3,673	\$3,542	\$3,309	\$3,024	\$2,737	-0.9
Total	\$6,044	\$6,675	\$6,482	\$6,380	\$6,139	\$5,814	\$5,480	-0.3
Other Europe and Eurasia								
Energy-intensive manufacturing	\$584	\$641	\$669	\$716	\$762	\$801	\$837	1.2
Non-energy-intensive manufacturing	\$460	\$530	\$552	\$583	\$614	\$642	\$666	1.2
Nonmanufacturing	\$996	\$1,089	\$1,150	\$1,205	\$1,246	\$1,272	\$1,301	0.9
Services	\$2,672	\$3,128	\$3,330	\$3,545	\$3,705	\$3,815	\$3,891	1.3
Total	\$4,712	\$5,389	\$5,700	\$6,049	\$6,326	\$6,530	\$6,695	1.2
China								
Energy-intensive manufacturing	\$13,218	\$15,412	\$16,310	\$16,673	\$16,643	\$16,431	\$15,979	0.6
Non-energy-intensive manufacturing	\$23,190	\$28,830	\$32,148	\$34,857	\$36,493	\$37,506	\$37,487	1.6
Nonmanufacturing	\$10,745	\$12,563	\$13,574	\$14,249	\$14,608	\$14,782	\$14,905	1.1
Services	\$29,694	\$39,805	\$48,440	\$56,657	\$64,183	\$71,482	\$77,481	3.2
Total	\$76,846	\$96,610	\$110,471	\$122,437	\$131,928	\$140,201	\$145,853	2.2
India								
Energy-intensive manufacturing	\$3,311	\$4,553	\$6,136	\$7,724	\$9,178	\$10,549	\$11,703	4.3
Non-energy-intensive manufacturing	\$2,526	\$3,836	\$5,251	\$6,668	\$8,072	\$9,482	\$10,832	5.0
Nonmanufacturing	\$3,750	\$5,157	\$6,509	\$7,795	\$9,024	\$10,170	\$11,025	3.7
Services	\$6,692	\$9,403	\$12,888	\$16,443	\$19,890	\$23,356	\$26,703	4.7
Total	\$16,278	\$22,948	\$30,785	\$38,631	\$46,164	\$53,557	\$60,263	4.5
Other Asia								
Energy-intensive manufacturing	\$3,226	\$3,890	\$4,483	\$5,161	\$5,861	\$6,569	\$7,264	2.7
Non-energy-intensive manufacturing	\$6,062	\$7,428	\$8,456	\$9,398	\$10,269	\$11,019	\$11,643	2.2
Nonmanufacturing	\$4,109	\$4,991	\$5,885	\$6,788	\$7,736	\$8,677	\$9,565	2.9
Services	\$11,758	\$14,388	\$16,901	\$19,243	\$21,521	\$23,707	\$25,659	2.6
Total	\$25,156	\$30,698	\$35,725	\$40,590	\$45,387	\$49,972	\$54,132	2.6
Middle East								
Energy-intensive manufacturing	\$1,392	\$1,633	\$1,767	\$1,869	\$1,933	\$1,951	\$1,941	1.1
Non-energy-intensive manufacturing	\$383	\$475	\$525	\$556	\$579	\$595	\$609	1.6
Nonmanufacturing	\$2,435	\$2,733	\$2,921	\$3,093	\$3,267	\$3,450	\$3,638	1.3
Services	\$4,545	\$5,241	\$5,757	\$6,194	\$6,554	\$6,908	\$7,228	1.6
Total	\$8,755	\$10,082	\$10,970	\$11,712	\$12,332	\$12,903	\$13,417	1.4
Africa								
Energy-intensive manufacturing	\$1,256	\$1,419	\$1,615	\$1,829	\$2,053	\$2,281	\$2,511	2.3
Non-energy-intensive manufacturing	\$921	\$1,087	\$1,228	\$1,380	\$1,531	\$1,678	\$1,820	2.3
Nonmanufacturing	\$3,114	\$3,507	\$3,988	\$4,473	\$4,972	\$5,484	\$6,012	2.2
Services	\$6,095	\$6,904	\$7,709	\$8,484	\$9,266	\$9,990	\$10,684	1.9
Total	\$11,386	\$12,917	\$14,540	\$16,166	\$17,823	\$19,433	\$21,028	2.1
Brazil								
Energy-intensive manufacturing	\$777	\$862	\$907	\$920	\$922	\$923	\$923	0.6
Non-energy-intensive manufacturing	\$481	\$603	\$634	\$645	\$651	\$660	\$670	1.1
Nonmanufacturing	\$668	\$748	\$775	\$789	\$816	\$865	\$929	1.1
Services	\$2,997	\$3,205	\$3,297	\$3,331	\$3,320	\$3,292	\$3,253	0.3
Total	\$4,922	\$5,418	\$5,612	\$5,685	\$5,709	\$5,740	\$5,776	0.5
Other Non-OECD Americas								
Energy-intensive manufacturing	\$449	\$509	\$572	\$619	\$670	\$727	\$786	1.9
Non-energy-intensive manufacturing	\$473	\$559	\$624	\$683	\$753	\$837	\$938	2.3
Nonmanufacturing	\$677	\$792	\$877	\$945	\$1,014	\$1,087	\$1,161	1.8
Services	\$2,295	\$2,656	\$2,945	\$3,130	\$3,320	\$3,519	\$3,718	1.6
Total	\$3,895	\$4,516	\$5,018	\$5,377	\$5,758	\$6,169	\$6,603	1.8
Total Non-OECD								
Energy-intensive manufacturing	\$24,934	\$29,723	\$33,285	\$36,358	\$38,878	\$41,085	\$42,784	1.8
Non-energy-intensive manufacturing	\$35,074	\$44,017	\$50,087	\$55,456	\$59,657	\$63,117	\$65,368	2.1
Nonmanufacturing	\$27,685	\$32,898	\$36,991	\$40,643	\$43,962	\$47,026	\$49,738	2.0
Services	\$70,300	\$88,616	\$104,941	\$120,569	\$135,068	\$149,093	\$161,353	2.8

Total	\$157,994	\$195,254	\$225,304	\$253,026	\$277,566	\$300,320	\$319,244	2.4
World								
Energy-intensive manufacturing	\$35,323	\$41,335	\$45,394	\$48,958	\$51,919	\$54,580	\$56,768	1.6
Non-energy-intensive manufacturing	\$51,348	\$63,669	\$70,846	\$77,451	\$82,899	\$87,729	\$91,506	1.9
Nonmanufacturing	\$37,043	\$43,623	\$48,338	\$52,623	\$56,542	\$60,199	\$63,521	1.8
Services	\$137,294	\$165,950	\$187,384	\$208,520	\$228,538	\$248,310	\$266,612	2.2
Total	\$261,009	\$314,578	\$351,962	\$387,552	\$419,898	\$450,818	\$478,407	2.0

Sources: Table by the U.S. Energy Information Administration (EIA), based on Oxford Global Industry Model, (March 2021), www.oxfordeconomics.com (subscription site); EIA, World Energy Projection System (2021), run lp_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

* *Gross output* is sales or revenue, including final and intermediate goods and services, measured in purchasing power parity (PPP).