

Table A2. World total energy consumption by region and fuel, Reference 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	47.0	46.9	47.4	48.2	49.5	51.0	0.6
Natural gas	39.7	41.0	41.8	43.1	45.2	47.3	49.0	0.7
Coal	10.1	8.8	8.4	7.9	7.6	7.5	7.5	-1.0
Nuclear	9.4	8.7	7.7	7.5	7.0	6.9	6.7	-1.1
Other	16.6	20.5	22.7	24.8	26.5	28.6	31.0	2.1
Total	118.2	126.0	127.5	130.9	134.6	139.7	145.2	0.7
OECD Europe								
Liquid fuels	26.0	28.6	27.8	27.3	27.0	27.1	27.4	0.2
Natural gas	19.5	20.6	20.9	20.9	20.8	21.3	22.0	0.4
Coal	8.1	7.1	6.2	6.3	6.6	6.5	6.7	-0.6
Nuclear	7.9	8.1	7.5	7.3	6.8	5.1	4.0	-2.2
Other	16.1	17.7	20.9	24.1	26.8	30.7	34.0	2.5
Total	77.6	82.1	83.3	85.9	88.0	90.7	94.1	0.6
OECD Asia								
Liquid fuels	13.9	14.6	14.2	13.9	13.7	13.5	13.4	-0.1
Natural gas	8.7	8.5	8.5	8.1	7.7	7.3	7.4	-0.5
Coal	8.5	8.5	8.5	8.8	8.9	8.5	8.1	-0.2
Nuclear	2.1	3.7	4.0	4.0	3.5	3.1	3.1	1.3
Other	4.0	4.6	5.2	6.1	7.4	9.0	9.9	3.1
Total	37.2	39.9	40.5	41.0	41.2	41.5	42.0	0.4
Total OECD								
Liquid fuels	82.3	90.2	89.0	88.7	88.9	90.2	91.9	0.4
Natural gas	68.0	70.0	71.2	72.1	73.8	75.9	78.4	0.5
Coal	26.7	24.4	23.1	23.1	23.1	22.5	22.3	-0.6
Nuclear	19.3	20.5	19.2	18.8	17.2	15.1	13.8	-1.1
Other	36.7	42.8	48.8	55.1	60.8	68.3	74.9	2.4
Total	232.9	248.0	251.3	257.7	263.8	272.0	281.3	0.6
Non-OECD								
Non-OECD Europe and Eurasia								
Liquid fuels	11.1	12.3	12.5	13.0	13.5	13.9	14.3	0.8
Natural gas	25.0	25.8	27.0	27.7	28.4	29.2	29.9	0.6
Coal	9.6	9.2	9.3	10.1	10.5	10.9	11.3	0.5
Nuclear	3.4	3.9	4.1	4.2	4.2	4.2	4.2	0.7
Other	3.5	3.6	4.0	4.6	5.3	5.9	6.3	2.0
Total	52.6	54.8	56.9	59.5	61.9	64.1	66.0	0.8
Non-OECD Asia								
Liquid fuels	54.2	66.5	73.5	79.5	84.5	89.0	92.4	1.8
Natural gas	23.8	28.7	32.6	35.1	38.0	40.9	44.1	2.1
Coal	114.6	118.9	117.7	123.0	128.1	134.3	136.7	0.6
Nuclear	4.3	5.6	7.1	8.6	10.2	11.6	12.9	3.7
Other	33.4	47.7	61.9	74.7	88.6	102.6	116.7	4.3
Total	230.3	267.2	292.8	320.8	349.4	378.5	402.8	1.9
Middle East								
Liquid fuels	15.5	17.3	16.6	16.7	17.1	17.4	17.5	0.4
Natural gas	19.2	21.8	22.9	22.8	23.7	24.2	24.5	0.8
Coal	0.1	0.1	0.2	0.2	0.3	0.5	0.4	4.2
Nuclear	0.1	0.4	0.6	0.8	0.9	0.9	0.9	9.0
Other	0.2	0.6	1.3	2.8	4.1	4.7	5.0	11.0
Total	35.2	40.3	41.7	43.3	46.1	47.6	48.3	1.1

Africa								
Liquid fuels	8.4	9.9	10.5	11.5	12.7	14.1	15.7	2.1
Natural gas	5.7	6.2	6.8	7.6	8.0	8.3	9.2	1.6
Coal	3.9	4.3	4.6	5.0	5.2	5.0	5.0	0.9
Nuclear	0.1	0.1	0.3	0.5	0.6	0.6	0.6	5.4
Other	4.8	6.1	7.3	8.6	10.6	13.1	15.5	4.0
Total	22.9	26.6	29.6	33.2	37.0	41.1	46.0	2.4
Non-OECD Americas								
Liquid fuels	10.9	12.7	13.4	14.1	14.9	15.9	16.8	1.5
Natural gas	5.7	5.9	6.0	6.2	6.4	6.6	7.1	0.8
Coal	0.7	0.9	0.9	0.9	1.1	1.2	1.0	1.2
Nuclear	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.6
Other	10.1	11.0	12.2	13.4	14.5	15.6	16.7	1.7
Total	27.6	30.8	32.9	35.0	37.2	39.5	42.0	1.4
Total Non-OECD								
Liquid fuels	100.1	118.6	126.6	134.7	142.7	150.4	156.7	1.5
Natural gas	79.3	88.4	95.3	99.3	104.4	109.1	114.8	1.2
Coal	128.9	133.4	132.7	139.2	145.2	151.9	154.4	0.6
Nuclear	8.2	10.3	12.5	14.4	16.2	17.6	18.9	2.8
Other	52.1	68.9	86.8	104.1	123.1	141.8	160.2	3.8
Total	368.6	419.6	453.9	491.7	531.7	570.8	605.1	1.7
World								
Liquid fuels	182.4	208.8	215.6	223.4	231.6	240.5	248.5	1.0
Natural gas	147.3	158.4	166.5	171.4	178.1	185.1	193.2	0.9
Coal	155.6	157.8	155.8	162.3	168.3	174.4	176.7	0.4
Nuclear	27.5	30.9	31.7	33.2	33.5	32.7	32.7	0.6
Other	88.7	111.7	135.6	159.3	183.9	210.1	235.2	3.3
Total	601.5	667.5	705.2	749.5	795.4	842.8	886.3	1.3

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run r_210719.163829; 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 kilowatthour, which reflects the average projected conversion efficiency of the U.S. fossil-fueled generating fleet in the Annual Energy Outlook 2021.