

VI. Energy and Electricity

Energy and Electricity discusses trends in energy productivity, total production and sources, and energy imports. The statistical tables cover key issues such as energy demand, supplies and uses of primary energy, and electricity consumption and generation.

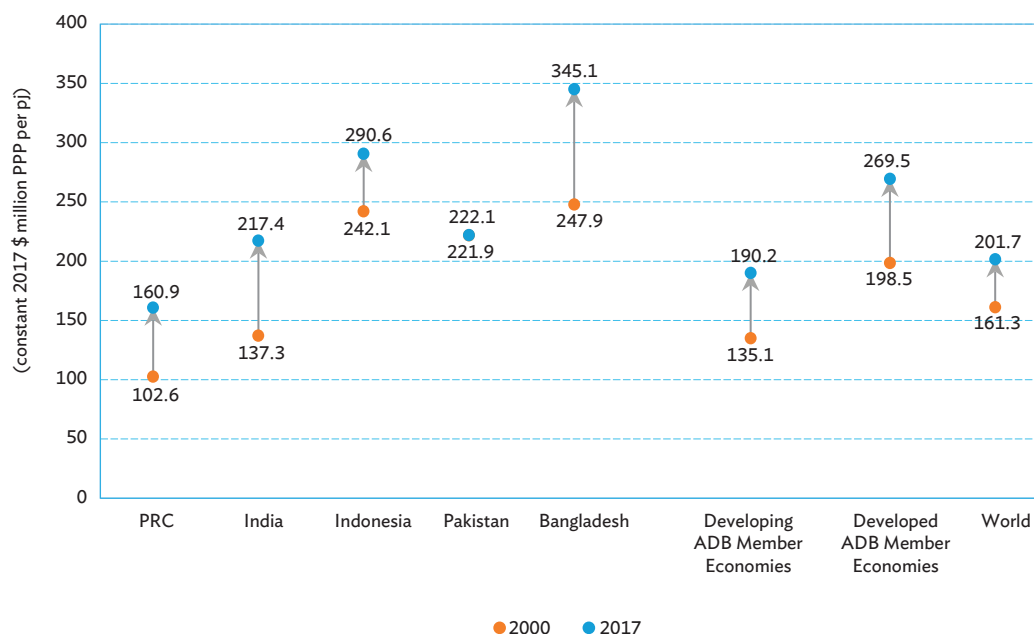
Energy efficiency is an increasing priority in the most populous economies of Asia and the Pacific

From 2000 to 2017, the five most populous economies in Asia and the Pacific all increased their energy efficiency, as measured by the amount of GDP per unit use of energy (i.e., one petajoule) as shown in Figure 2.6.1.³ Bangladesh led these economies with an increase in

GDP per unit of energy use of \$97.2 million in constant 2017 US dollars at purchasing power parity (constant 2017 \$ at PPP), followed by India at \$80.2 million.

By comparison, energy efficiency gains from 2000 to 2017 averaged \$71.0 million (constant 2017 \$ at PPP) among developed member economies, \$55.1 million among developing member economies, and \$40.4 million for the world average.

Figure 2.6.1: Energy Use by the Five Most Populous Economies in Asia and the Pacific
(GDP per unit of energy)



\$ = United States dollars, ADB = Asian Development Bank, GDP = gross domestic product, PJ = petajoule, PPP = purchasing power parity, PRC = People's Republic of China.
Source: Table 2.6.3, Key Indicators for Asia and the Pacific 2020.

³ Energy use refers to the consumption of both renewable and nonrenewable energy sources.

[Click here for figure data](#)

In absolute terms, the most energy efficient among the five most populous economies in 2017 were Bangladesh with GDP per unit use of energy at \$345.1 million (constant 2017 \$ at PPP) and Indonesia at \$290.6 million. Among developed member economies, the average for GDP per unit of energy use in 2017 was \$269.5 million. For developing member economies, the average was \$190.2 million. The global average was \$201.7 million.

The region's largest energy producers continue to expand their share of production

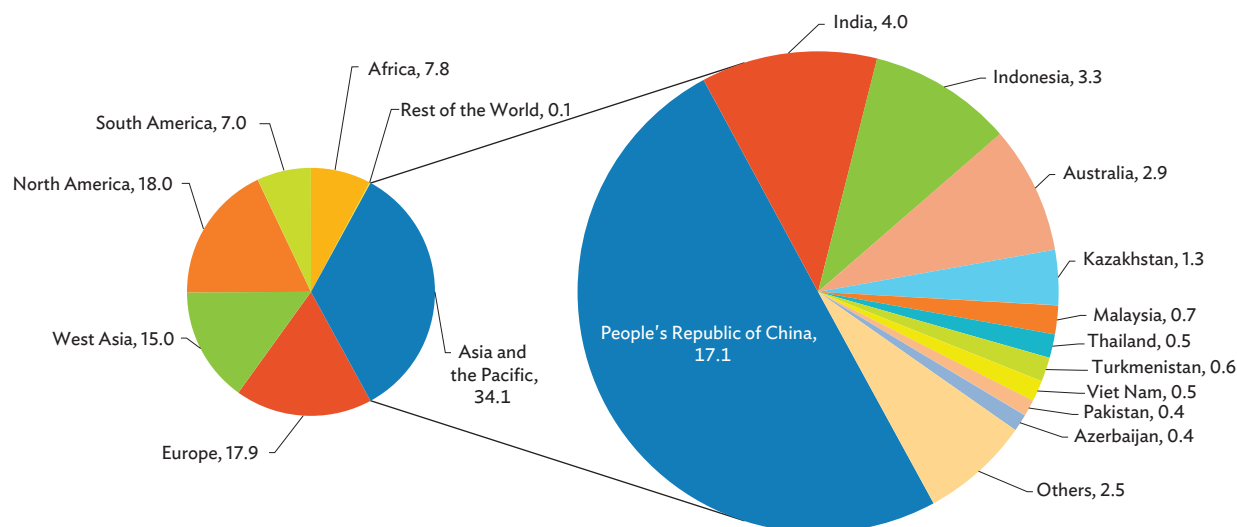
Asia and the Pacific's energy production as a share of the global total rose from 24.7% in 2000 to 34.1% in 2017 (Figure 2.6.2, Table 2.6.4). The increase was mainly driven by expanded energy production in the PRC, which saw its global share rise from 9.9% in 2000 to 17.1% in 2017. The PRC accounted for more than half (50.1%) of all energy production in Asia and the Pacific in 2017, up from 40.2% in 2000.

The region's next four largest energy producers also increased their respective share of global energy production from 2000 to 2017: India (from 3.8% to 4.0%), Indonesia (from 2.0% to 3.3%), Australia (2.4% and 2.9%), and Kazakhstan (0.8% to 1.3%).

More than two-thirds of regional economies were net energy importers in 2017

In 2017, only 14 of 47 reporting economies from Asia and the Pacific were net energy exporters, with the remaining 33 dependent on energy imports (Table 2.6.4). From 2000 (or the earliest year for which data were available) to 2017, the Lao PDR, Mongolia, and Timor-Leste each switched from being a net energy importer to a net energy exporter. As a percentage of domestic energy use, Timor-Leste's energy exports were 592.9% in 2017, Mongolia's were 232.3%, and the Lao PDR's were 16.6%. Viet Nam, which had been a net energy exporter in 2000, with energy exports equivalent to 37.4% of domestic energy use, was importing 5.7% of its domestic energy needs by 2017.

Figure 2.6.2: Energy production by global region and by economy in Asia and the Pacific, 2017 (petajoules, %)

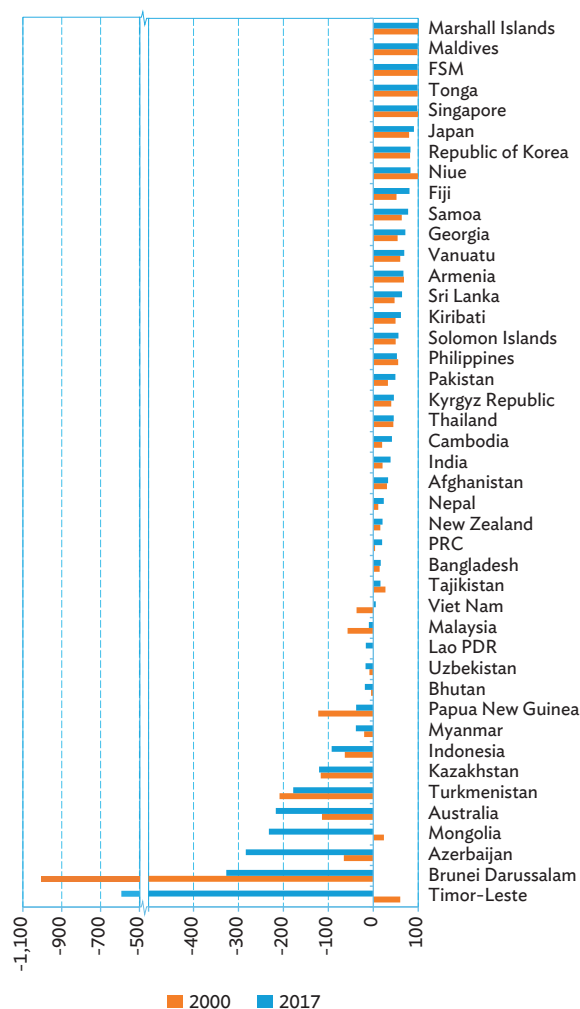


Source: Table 2.6.4, Key Indicators for Asia and the Pacific 2020.

[Click here for figure data](#)

Considering all reporting economies in 2017, Timor-Leste (figures as stated above), Brunei Darussalam, and Azerbaijan—all of which are rich in oil and gas deposits—led the region in energy exports as a share of domestic energy use (Figure 2.6.3). Energy exports from Brunei Darussalam in 2017 were equivalent to 327.2% of domestic energy use. For Azerbaijan, energy exports were equivalent to 283.6%.

Figure 2.6.3: Net Energy Imports as Share of Energy Use in Select Economies of Asia and the Pacific (%)



FSM = Federated States of Micronesia, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: The chart includes economies with available data for 2000 (or the earliest year) and 2017. For Timor-Leste, the earliest year for which data are available is 2002.

Source: Table 2.6.4, Key Indicators for Asia and the Pacific 2020.

In 2017, the economies of Asia and the Pacific that relied on imports to meet 90.0% or more of domestic energy demand included the Marshall Islands (100.0%), Palau (100.0%), Nauru (99.3%), Maldives (99.0%), the Cook Islands (98.7%), the Federal States of Micronesia (98.6%), Tonga (98.4%), Singapore (97.6%), Tuvalu (91.5%), and Japan (90.5%) (Table 2.6.4).

Data Issues and Comparability

Energy data are compiled by the United Nations Statistics Division (UNSD) using standard procedures that follow the definitions of the United Nations International Recommendations for Energy Statistics.⁴ The UNSD Annual Questionnaire on Energy Statistics to the UN member economies is the primary source of information for the UNSD energy database. Additional sources of information include national, regional, and international statistical publications. These include, but are not limited to, publications from the International Energy Agency, the Statistical Office of the European Communities (Eurostat), the International Atomic Energy Agency, the Organization of the Petroleum Exporting Countries, and the Organización Latinoamericana de Energía. The UNSD sometimes prepares estimates where official data are incomplete or inconsistent. For the indicator on GDP per unit use of energy, the energy statistics adopt the territory principle, while national accounts are being compiled on the residency principle, which could be a potential source of inconsistency, although in practice differences are not huge (UN 2016).

Data for the household electrification indicator are lacking. Data are posted over a varied range of years (i.e., different starting and ending years) depending on data availability. These data may therefore not be comparable, limiting possibilities for analysis.

⁴ The full definitions can be found at <https://unstats.un.org/UNSD/energy/ires/>.

Electricity

Table 2.6.1: Electricity Production and Sources

ADB Regional Member	Total Electricity Production (billion kWh)		Sources of Electricity (% of total)							
	2000	2017	Combustible Fuels ^a		Hydropower		Solar		Others ^b	
			2000	2017	2000	2017	2000	2017	2000	2017
Developing ADB Member Economies										
Central and West Asia^c	237.1	388.6	69.7	71.8	29.3	25.0	-	0.2	1.0	2.9
Afghanistan	0.7	1.0 (2018)	25.0	15.3 (2018)	75.0	84.7 (2018)	-	-	-	-
Armenia	6.0	7.8	45.2	37.0	21.2	29.2	-	0.0	33.7	33.8
Azerbaijan	18.7	24.3	91.8	92.6	8.2	7.2	-	0.2	-	0.1
Georgia	7.4	12.1 (2018)	21.1	17.4 (2018)	78.9	81.9 (2018)	-	-	-	0.7 (2018)
Kazakhstan	51.6	103.1	85.4	88.7	14.6	10.9	-	0.1	-	0.3
Kyrgyz Republic	16.0	15.5	14.4	8.5	85.6	91.5	-	-	-	-
Pakistan	65.8	135.0 (2018)	70.1	70.1 (2018)	29.3	20.5 (2018)	-	0.5 (2018)	0.6	8.9 (2018)
Tajikistan	14.2	19.7 (2018)	2.3	6.8 (2018)	97.7	93.2 (2018)	-	-	-	-
Turkmenistan	9.8	22.5	100.0	100.0	-	-	-	-	-	-
Uzbekistan	46.9	61.0	87.5	86.2	12.5	13.8	-	0.0	-	-
East Asia^c	1,864.8	7,375.3	78.9	71.9	13.6	16.8	0.0	1.5	7.5	9.8
China, People's Republic of	1,355.6	6,495.1	82.4	71.8	16.4	18.3	-	1.5	1.2	8.4
Hong Kong, China	31.3	36.6 (2018)	100.0	100.0 (2018)	-	-	-	-	-	-
Korea, Republic of	290.1	566.9	60.5	70.6	1.9	1.2	0.0	1.2	37.6	26.9
Mongolia	2.9	6.5 (2018)	100.0	100.0 (2018)	-	-	-	-	-	-
Taipei, China	184.8	274.1 (2019)	...	...	...	...	...	...	...	...
South Asia^c	587.2	1,591.5	82.9	81.7	14.0	9.0	0.0	1.6	3.1	7.7
Bangladesh	15.8	73.2	94.0	98.3	6.0	1.4	-	0.2	-	0.0
Bhutan	1.8	7.7	0.0 (2001)	0.0	100.0	100.0	-	-	-	0.0
India	560.8	1,490.3	83.4	81.7	13.3	8.5	-	1.7	3.3	8.2
Maldives	0.1	0.7	100.0	97.6	-	-	-	2.1	-	0.3
Nepal	1.7	4.6	1.6	-	98.4	99.8	-	0.0	-	0.1
Sri Lanka	7.0	15.0	54.0	69.2	46.0	26.9	0.0	1.4	0.0	2.4
Southeast Asia^c	380.3	1,044.0	81.7	79.0	14.5	17.9	-	0.6	3.8	2.5
Brunei Darussalam	2.5	4.3 (2018)	100.0	100.0 (2018)	-	-	-	0.0 (2018)	-	-
Cambodia	0.3	7.0	85.9	60.9	14.1	39.1	-	0.1	-	-
Indonesia	99.5	283.6	83.5	88.8	13.8	6.6	-	0.0	2.7	4.7
Lao People's Democratic Republic	4.0	31.6	9.1	37.0	90.9	62.9	-	0.0	-	-
Malaysia	69.2	164.5	89.3	83.6	10.7	16.2	-	0.2	-	-
Myanmar	5.1	19.5	63.0	43.9	37.0	56.1	-	-	-	-
Philippines	45.3	95.7	57.1	76.8	17.2	10.1	-	1.3	25.6	11.9
Singapore	31.7	53.1 (2018)	100.0	99.7 (2018)	-	-	-	0.3 (2018)	-	-
Thailand	96.0	186.5	93.7	91.9	6.3	5.1	-	2.4	0.0	0.6
Timor-Leste	0.1 (2002)	0.4	100.0 (2002)	100.0	-	-	-	-	-	-
Viet Nam	26.6	198.5	45.2	55.1	54.8	44.8	-	-	-	0.1
The Pacific^c	3.7	6.3	57.0	70.1	38.0	22.4	0.0	0.7	5.1	6.8
Cook Islands	0.0	0.0	100.0	90.2	-	-	-	9.8	-	-
Fiji	0.7	1.0 (2018)	39.8	44.9 (2018)	60.2	54.9 (2018)	-	-	-	0.2 (2018)
Kiribati	0.0	0.0	100.0	84.0	-	-	-	16.0	-	-
Marshall Islands	0.1	0.1	100.0	97.8	-	-	-	2.2	-	-
Micronesia, Federated States of	0.1	0.1	96.0	97.2	3.9	0.2	0.1	2.6	-	-
Nauru	0.0	0.0	100.0	96.6	-	-	-	3.4	-	-
Niue	0.0	0.0	100.0	97.9	-	-	-	2.1	-	-
Palau	0.1	0.1	100.0	99.8	-	-	-	0.2	-	-
Papua New Guinea	2.4	4.5	52.9	71.3	39.2	19.4	-	0.0	7.8	9.3
Samoa	0.1	0.1	50.4	66.2	49.6	22.3	-	10.8	-	0.7
Solomon Islands	0.1	0.1 (2018)	100.0	98.7 (2018)	-	0.4 (2018)	-	0.8 (2018)	-	-
Tonga	0.0	0.1	100.0	93.3	-	-	-	6.7	-	0.0
Tuvalu	0.0	0.0	100.0	59.3	-	-	-	38.4	-	2.3
Vanuatu	0.0	0.1	100.0	79.5	-	9.6	-	3.4	-	7.5
Developed ADB Member Economies	1,317.3	1,370.6	63.0	79.6	10.5	9.6	0.0	4.6	26.5	6.2
Australia	210.2	258.0	92.0	85.7	8.0	6.3	0.0	3.1	0.0	4.9
Japan	1,067.8	1,068.3	58.5	80.6	9.1	8.4	0.0	5.2	32.4	5.8
New Zealand	39.2	44.2	29.8	20.0	62.3	57.0	-	0.2	7.9	22.8
DEVELOPING ADB MEMBER ECONOMIES^c	3,073.1	10,405.6	79.3	74.1	15.1	16.0	0.0	1.3	5.6	8.5
ALL ADB REGIONAL MEMBERS^c	4,390.4	11,776.2	74.2	74.8	13.6	15.3	0.0	1.7	12.1	8.2

... = data not available, 0.0 = magnitude is less than half of unit employed, ADB = Asian Development Bank, kWh = kilowatt-hour.

- a Electricity from combustible fuels refers to the production of electricity from the combustion of fuels that are capable of igniting or burning, which would include coal, natural gas, oil, and other combustible fuels.
- b Includes chemical heat, geothermal, nuclear, tide, other marine electricity, wind, wave, and other sources of energy.
- c Includes only reporting economies with data corresponding to the year heading.

Sources: United Nations Statistics Division. Energy Statistics Database. <http://data.un.org/Data.aspx?d=EDATA&f=cmID%3aEL> (accessed 14 July 2020). For Taipei, China: Government of Taipei, China; Directorate-General of Budget, Accounting and Statistics; Official communication, 20 April 2020.

Table 2.6.2: Electric Power Consumption and Electrification

ADB Regional Member	Electric Power Consumption (per capita kWh)		Household Electrification Rate (% of households)	
	2000	2017	2000	2016
Developing ADB Member Economies				
Central and West Asia^a	785.5	946.7		
Afghanistan	29.7	127.5 (2018)	25.0 (2005)	71.5 (2015)
Armenia	1,169.9	1,912.5	98.9	100.0
Azerbaijan	1,913.7	2,028.3	99.5 (2006)	...
Georgia	1,541.8	3,010.6	...	...
Kazakhstan	2,773.0	4,409.2	...	...
Kyrgyz Republic	1,891.2	1,805.4	100.0 (2002)	99.8 (2012)
Pakistan	320.3	496.8	89.2 (2006)	92.7 (2018)
Tajikistan	2,145.8	1,526.2 (2018)	99.0 (2002)	99.2 (2017)
Turkmenistan	1,525.6	2,559.2	99.6	...
Uzbekistan	1,669.3	1,908.5 (2018)	99.7 (2002)	...
East Asia^a	1,297.7	4,424.0		
China, People's Republic of	992.7	4,077.4	...	...
Hong Kong, China	5,446.2	5,946.2 (2018)	...	...
Korea, Republic of	5,597.4	10,482.2	...	...
Mongolia	970.2	2,034.5 (2018)	67.3	...
Taipei, China	8,332.0	11,614.6 (2019)	...	...
South Asia	273.9	786.1		
Bangladesh	97.7	376.9	32.0	62.4 (2014)
Bhutan	675.1	2,931.7	41.1 (2003)	...
India	299.6	848.1	67.9 (2006)	88.2
Maldives	486.8	1,202.7	83.8	99.8 (2017)
Nepal	54.3	206.7	24.6 (2001)	90.5
Sri Lanka	289.9	629.0	...	...
Southeast Asia^a	617.1	1,404.9		
Brunei Darussalam	7,560.8	8,585.8 (2018)	...	...
Cambodia	29.2	423.1	16.6	56.1 (2014)
Indonesia	374.4	924.4	90.7 (2003)	96.0 (2012)
Lao People's Democratic Republic	120.2	714.3	46.3 (2002)	...
Malaysia	2,636.7	4,710.5	...	...
Myanmar	70.0	313.5	47.0 (2002)	55.6
Philippines	468.7	739.7	76.6 (2003)	92.7 (2017)
Singapore	7,232.6	8,946.9 (2018)	...	...
Thailand	1,396.8	2,677.6	...	...
Timor-Leste	51.8 (2002)	275.2	27.0 (2002)	...
Viet Nam	284.0	2,017.0 (2018)	89.1 (2002)	...
The Pacific^a	437.9	510.1		
Cook Islands	1,393.9	2,368.9 (2018)	97.0 (2006)	99.5
Fiji	749.2	1,026.6 (2018)	84.0 (2009)	...
Kiribati	169.4	214.6	...	92.6 (2015)
Marshall Islands	1,517.2	1,336.6	...	90.0 (2011)
Micronesia, Federated States of	737.4	420.4	...	72.8 (2013)
Nauru	2,902.2	2,485.2	100.0 (2002)	100.0 (2013)
Niue	1,577.3	1,898.3	...	98.7
Palau	4,480.5	4,161.1	99.0 (2005)	98.3 (2015)
Papua New Guinea	389.7	473.8	...	19.5 (2010)
Samoa	515.9	680.8	98.0 (2006)	96.4
Solomon Islands	138.9	137.7 (2018)	14.0 (2005)	19.5 (2015)
Tonga	369.5	539.2	89.0 (2006)	97.0
Tuvalu	308.7	756.4	94.0 (2005)	97.3
Vanuatu	224.1	223.8 (2018)	...	57.8
Developed ADB Member Economies	8,007.2	7,987.3		
Australia	9,390.3	9,326.2	...	...
Japan	7,768.3	7,716.6	...	...
New Zealand	8,994.2	8,274.9	...	...
DEVELOPING ADB MEMBER ECONOMIES^a	775.8	2,233.3		
ALL ADB REGIONAL MEMBERS^a	1,086.8	2,449.0		

... = data not available, ADB = Asian Development Bank, kWh = kilowatt-hour.

a Includes only reporting economies with data corresponding to the year heading.

Sources: For electric power consumption: United Nations. Energy Statistics Database. <http://data.un.org/Explorer.aspx?d=EDATA> (accessed 7 August 2020); and World Bank. World Development Indicators. <https://data.worldbank.org/indicator/SP.POP.TOTL> (accessed 7 August 2020); for Taipei, China: Asian Development Bank estimates using economy source. For household electrification rate: International Development Association. Results Measurement System Online. <http://data.worldbank.org/data-catalog/IDA-results-measurement> (accessed 17 July 2019); United States Agency for International Development, Demographic and Health Surveys Program. DHS Program STAT compiler. <http://www.statcompiler.com/> (accessed 7 August 2020); and Secretariat of the Pacific Community, Statistics for Development Division. National Minimum Development Indicator Database. <http://www.spc.int/nmdi/MdiHome.aspx> (accessed 7 August 2020).

Energy

Table 2.6.3: Use of Energy

ADB Regional Member	Energy Use (PJ)				GDP per Unit Use of Energy (constant 2017 \$ million PPP per PJ)			
	2000	2005	2010	2017	2000	2005	2010	2017
Developing ADB Member Economies								
Central and West Asia^a	7,338.6	8,955.8	10,141.2	12,067.4	108.4	127.0	148.9	170.4
Afghanistan	25.3	36.1	136.2	122.9	904.6 (2002)	978.1	448.7	650.4
Armenia	84.4	104.9	119.4	136.8	147.2	210.8	223.8	260.8
Azerbaijan	485.5	572.9	485.9	601.7	67.4	105.8	266.7	231.3
Georgia	120.3	134.6	139.8	204.3	166.7	212.1	263.8	248.0
Kazakhstan	1,551.0	2,352.0	3,363.4	3,335.4	98.6	106.5	100.7	134.5
Kyrgyz Republic	100.7	113.9	115.5	161.6	149.8	159.4	193.3	193.6
Pakistan	2,082.2	2,642.4	2,880.3	4,279.9	221.9	224.9	243.4	222.1
Tajikistan	141.0	148.4	143.4	186.5	55.2	83.2	118.6	147.1
Turkmenistan	624.6	804.9	951.4	1,158.2	33.4	33.3	46.1	70.6
Uzbekistan	2,123.5	2,045.7	1,806.0	1,880.1	32.3	43.6	73.6	112.3
East Asia^a	51,028.2	78,338.2	112,824.1	136,399.9	111.5	110.4	123.8	164.7
China, People's Republic of	42,460.5	68,832.9	101,618.2	123,597.5	102.6	101.0	117.0	160.9
Hong Kong, China	569.5	579.5	544.0	587.0	425.0	513.7	663.2	753.6
Korea, Republic of	7,911.5	8,822.2	10,497.6	11,820.8	136.6	156.6	162.5	178.2
Mongolia	86.6	103.6	164.4	394.6	125.4	143.4	123.8	89.3
Taipei, China	...	...	...	...	...	...	...	...
South Asia	21,502.0	24,664.8	31,562.3	41,129.1	145.5	171.5	187.0	226.6
Bangladesh	997.8	1,191.0	1,493.3	1,925.3	247.9	266.1	285.0	345.1
Bhutan	44.2	48.2	56.8	67.0	54.3	73.5	98.9	124.1
India	19,808.1	22,705.6	29,193.2	38,083.2	137.3	163.7	178.7	217.4
Maldives	6.5	8.7	13.4	21.5	575.0	462.1	444.9	415.2
Nepal	349.0	387.8	445.6	570.9	124.2	132.1	142.8	150.0
Sri Lanka	296.4	323.5	360.1	461.2	376.9	419.5	513.5	585.1
Southeast Asia^a	14,387.8	18,934.2	22,410.1	27,275.9	216.0	211.7	232.5	270.9
Brunei Darussalam	73.4	76.4	135.7	152.6	313.3	333.5	194.1	169.7
Cambodia	142.1	143.6	223.3	338.9	127.5	196.0	174.1	185.6
Indonesia	4,969.5	7,087.4	8,331.1	9,958.8	242.1	213.9	240.5	290.6
Lao People's Democratic Republic	57.6	68.5	100.2	237.1	264.3	301.1	302.4	212.9
Malaysia	1,959.1	2,745.4	2,965.0	3,482.2	188.5	169.5	195.4	238.0
Myanmar	537.6	618.1	661.8	854.1	95.1	151.4	239.3	296.2
Philippines	1,551.2	1,469.4	1,631.1	2,320.8	223.9	296.9	341.0	368.0
Singapore	760.6	898.8	1,079.0	1,166.4	296.6	318.0	367.7	456.8
Thailand	3,074.7	4,066.9	4,944.8	5,777.2	201.0	198.1	195.9	208.7
Timor-Leste	3.8 (2002)	3.8	4.4	7.9	590.2 (2002)	592.0	723.2	500.5
Viet Nam	1,261.8	1,755.7	2,333.6	2,980.0	187.1	187.7	191.9	227.1
The Pacific^a	143.4	174.2	187.8	230.6	200.2	183.0	207.0	236.0
Cook Islands	0.7	0.8	0.7	1.0	...	...	...	...
Fiji	21.6	23.8	21.5	34.4	358.5	366.6	421.1	342.2
Kiribati	0.9	1.3	1.3	1.5	200.1	153.5	148.6	175.9
Marshall Islands	2.0	2.0	2.0	2.0	86.9	97.8	103.0	109.8
Micronesia, Federated States of	1.9	1.8	1.5	2.2	191.8	216.9	244.3	180.5
Nauru	1.2	0.8	0.6	0.6	...	65.3	114.9	222.0
Niue	0.1	0.1	0.1	0.1	...	...	...	...
Palau	2.9	3.1	2.9	3.2	89.8	98.1	93.7	98.4
Papua New Guinea	98.8	126.2	140.9	168.1	170.3	148.4	177.2	218.5
Samoa	3.2	3.5	3.9	4.9	262.4	307.2	288.2	260.2
Solomon Islands	6.5	7.3	7.9	7.4	127.0	119.1	136.9	200.9
Tonga	1.5	1.7	1.7	2.1	339.2	330.5	342.4	300.0
Tuvalu	0.1	0.1	0.1	0.1	327.2	258.0	281.7	299.1
Vanuatu	2.1	1.7	2.7	2.9	276.6	352.3	284.1	302.8
Developed ADB Member Economies	27,048.2	27,469.7	27,277.1	24,423.8	198.5	211.0	218.6	269.5
Australia	4,567.3	4,790.0	5,440.7	5,352.7	162.1	181.2	183.7	224.8
Japan	21,731.5	21,931.6	20,997.4	18,115.7	207.3	217.8	228.6	286.0
New Zealand	749.5	748.2	838.9	955.4	166.2	202.6	192.2	208.2
DEVELOPING ADB MEMBER ECONOMIES^a	94,398.0	131,065.2	177,123.6	217,101.0	135.1	137.8	150.4	190.2
ALL ADB REGIONAL MEMBERS^a	121,446.2	158,534.9	204,400.7	241,524.8	149.2	150.5	159.5	198.2
WORLD^a	400,572.2	459,255.2	512,382.3	558,732.1	161.3	161.0	170.7	201.7

... = data not available, - = magnitude equals zero, \$ = United States dollars, ADB = Asian Development Bank, GDP = gross domestic product, PJ = petajoule, PPP = purchasing power parity.

a Aggregates include only reporting economies with data corresponding to the year heading.

Sources: For Energy Use: United Nations. Energy Statistics Database. <https://data.un.org/SdmxBrowser/start> (accessed 09 July 2020). For GDP per Unit Use of Energy: Asian Development Bank estimates.

Table 2.6.4: Energy Production and Imports

ADB Regional Member	Energy Production (PJ)				Energy Imports, Net (% of energy use)			
	2000	2005	2010	2017	2000	2005	2010	2017
Developing ADB Member Economies								
Central and West Asia	10,070.1	13,622.8	16,177.8	17,700.1	-37.2	-52.1	-59.5	-46.7
Afghanistan	17.7	22.7	41.4	82.3	30.3	37.1	69.6	33.0
Armenia	26.7	36.1	52.1	45.2	68.4	65.6	56.3	66.9
Azerbaijan	803.2	1,155.4	2,758.9	2,308.1	-65.4	-101.7	-467.8	-283.6
Georgia	55.3	52.9	57.5	58.3	54.1	60.7	58.8	71.4
Kazakhstan	3,366.8	5,131.1	6,769.9	7,359.3	-117.1	-118.2	-101.3	-120.6
Kyrgyz Republic	60.4	60.6	53.1	87.7	40.0	46.8	54.1	45.7
Pakistan	1,402.8	2,019.7	2,039.6	2,174.7	32.6	23.6	29.2	49.2
Tajikistan	102.8	114.9	114.7	156.7	27.1	22.5	20.0	16.0
Turkmenistan	1,927.9	2,583.6	1,981.9	3,222.5	-208.6	-221.0	-108.3	-178.2
Uzbekistan	2,306.6	2,445.7	2,308.7	2,205.2	-8.6	-19.6	-27.8	-17.3
East Asia^a	42,276.8	65,750.5	91,160.0	102,557.1	16.2	15.4	18.8	24.5
China, People's Republic of	40,783.1	63,831.3	88,642.0	99,218.1	4.0	7.3	12.8	19.7
Hong Kong, China	...	...	...	...	...	...	...	...
Korea, Republic of	1,427.6	1,781.3	1,863.1	2,027.9	82.0	79.8	82.3	82.8
Mongolia	66.1	137.9	654.8	1,311.0	23.7	-33.1	-298.4	-232.3
Taipei, China	...	...	...	...	...	...	...	...
South Asia	17,132.9	19,804.5	24,833.8	25,700.3	20.3	19.7	21.3	37.5
Bangladesh	857.3	1,027.5	1,304.1	1,605.1	14.1	13.7	12.7	16.6
Bhutan	46.4	53.3	72.9	79.5	-4.8	-10.5	-28.4	-18.7
India	15,762.6	18,211.7	22,888.0	23,410.1	20.4	19.8	21.6	38.5
Maldives	0.1	0.1	0.2	0.2	98.1	98.5	98.9	99.0
Nepal	310.2	348.5	384.4	438.5	11.1	10.1	13.7	23.2
Sri Lanka	156.3	163.4	184.3	166.9	47.3	49.5	48.8	63.8
Southeast Asia^a	16,974.2	22,790.1	29,140.3	32,471.0	-18.0	-20.4	-30.0	-19.0
Brunei Darussalam	813.0	848.4	775.2	651.9	-1,007.7	-1,010.3	-471.3	-327.2
Cambodia	114.0	104.5	151.7	197.9	19.8	27.2	32.1	41.6
Indonesia	8,128.5	11,350.8	16,863.4	19,187.4	-63.6	-60.2	-102.4	-92.7
Lao People's Democratic Republic	57.5	64.1	97.7	276.5	0.3	6.4	2.6	-16.6
Malaysia	3,081.9	3,769.6	3,450.0	3,829.6	-57.3	-37.3	-16.4	-10.0
Myanmar	647.7	926.1	968.5	1,185.8	-20.5	-49.8	-46.3	-38.8
Philippines	694.7	762.4	923.7	1,097.9	55.2	48.1	43.4	52.7
Singapore	4.2	8.3	24.9	27.6	99.4	99.1	97.7	97.6
Thailand	1,699.6	2,143.8	2,951.7	3,150.3	44.7	47.3	40.3	45.5
Timor-Leste	1.5 (2002)	200.6	186.3	54.5	60.0 (2002)	-5,149.9	-4,105.9	-592.9
Viet Nam	1,733.1	2,611.7	2,747.2	2,811.6	-37.4	-48.8	-17.7	5.7
The Pacific^a	236.0	188.9	106.4	244.9	-72.8	-12.9	41.6	-7.1
Cook Islands	...	...	0.0 (2011)	0.0	...	...	99.6 (2011)	98.7
Fiji	10.4	8.8	5.2	6.6	51.8	62.9	75.9	80.7
Kiribati	0.5	0.5	0.5	0.6	49.6	64.1	62.4	61.6
Marshall Islands	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Micronesia, Federated States of	0.0	0.0	0.0	0.0	98.3	98.8	98.4	98.6
Nauru	...	0.0 (2006)	0.0	0.0	...	99.9 (2006)	99.9	99.3
Niue	0.0	0.0	0.0	0.0	99.4	99.3	80.3	82.7
Palau	...	...	...	0.0	...	...	...	100.0
Papua New Guinea	219.8	174.3	95.4	232.3	-122.5	-38.1	32.3	-38.2
Samoa	1.2	1.2	1.2	1.1	63.4	65.3	68.5	77.5
Solomon Islands	3.3	3.3	3.2	3.3	49.8	55.3	59.8	55.9
Tonga	0.0	0.0	0.0	0.0	98.6	98.8	98.8	98.4
Tuvalu	...	...	...	0.0	...	...	...	91.5
Vanuatu	0.8	0.8	0.9	0.9	60.0	51.0	67.2	69.0
Developed ADB Member Economies	14,812.9	16,377.2	18,649.2	19,448.3	45.2	40.4	31.6	20.4
Australia	9,778.7	11,490.5	13,646.0	16,963.0	-114.1	-139.9	-150.8	-216.9
Japan	4,402.0	4,312.9	4,227.9	1,727.2	79.7	80.3	79.9	90.5
New Zealand	632.2	573.8	775.3	758.2	15.6	23.3	7.6	20.6
DEVELOPING ADB MEMBER ECONOMIES^a	86,690.1	122,156.8	161,418.3	178,673.4	7.6	6.4	8.6	17.5
ALL ADB REGIONAL MEMBERS^a	101,503.0	138,534.1	180,067.5	198,121.7	16.0	12.3	11.7	17.8
WORLD^a	411,029.6	475,724.4	528,908.7	581,312.2	-2.8	-3.7	-3.3	-4.2

... = data not available, - = magnitude equals zero, ADB = Asian Development Bank, PJ = petajoule.

a The aggregates for energy production include only economies with available data. The aggregates for net energy imports include only economies with available data for both energy use and energy production. Net energy imports are calculated as the difference between total energy use and total energy production divided by total energy use.

Sources: For Energy Production: United Nations. Energy Statistics Database. <https://data.un.org/SdmxBrowser/start> (accessed 09 July 2020). For Net Energy Imports: Asian Development Bank estimates.

Retail Prices

Table 2.6.5: Retail Prices of Fuel Energy
(\$/L)

ADB Regional Member	Gasoline (Premium)				Diesel			
	2000	2005	2010	2019	2000	2005	2010	2019
Developing ADB Member Economies								
Central and West Asia								
Afghanistan	...	...	...	...	...	...	...	...
Armenia	0.51	0.73	1.01	0.87	0.34	0.60	0.92	0.92
Azerbaijan	...	...	...	...	...	...	...	...
Georgia	0.52	0.46 (2003)	1.03	0.89	0.38	0.70	1.00	0.92
Kazakhstan	0.35	0.47	0.58	0.38	0.30	0.39	0.53	0.50
Kyrgyz Republic	...	...	...	...	...	...	...	...
Pakistan	0.48	0.82	0.80	0.71	0.22	0.54	0.83	0.81
Tajikistan	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...	...	...
Uzbekistan	0.44	0.33 (2004)	...	...	...	...	...	...
East Asia								
China, People's Republic of	...	...	...	...	...	...	...	...
Hong Kong, China	1.32	1.60	1.75	2.00	0.80	1.00	1.25	1.82
Korea, Republic of	1.10	1.40	1.48	1.26	0.54	1.05	1.30	1.15
Mongolia	0.33	0.56	1.01	0.64	0.38	0.81 (2006)	0.96	0.88
Taipei, China	0.57	0.73	0.94	0.87	0.44	0.60	0.82	0.81
South Asia								
Bangladesh	...	...	...	...	...	...	...	...
Bhutan	...	...	...	...	...	...	...	...
India	0.58	0.86	1.05	...	0.32	0.64	0.83	...
Maldives	...	...	...	...	...	...	...	...
Nepal	0.58	0.87	1.22	0.98	0.33	0.58	0.95	0.86
Sri Lanka	0.65	0.80	1.02	0.77	0.32	0.50	0.65	0.58
Southeast Asia								
Brunei Darussalam	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...
Indonesia	0.14	0.30	0.50	0.65 (2018)	0.07	0.27	0.50	0.55 (2018)
Lao People's Democratic Republic	...	...	...	...	...	...	...	...
Malaysia	0.29	0.40	0.67	0.52	0.18	0.29	0.57	0.53
Myanmar	...	...	1.69 (2012)	0.59	...	...	1.54 (2012)	0.65
Philippines	0.37	0.57	0.96	1.02	0.28	0.51	0.76	0.81
Singapore	0.82	0.92	1.35	1.83	0.33	0.56	0.89	1.23
Thailand	0.39	0.59	1.02	0.89	0.32	0.50	0.91	0.85
Timor-Leste	...	...	...	...	...	...	...	...
Viet Nam	...	...	0.99 (2011)	0.85 (2015)	...	...	0.93 (2011)	0.68 (2015)
The Pacific								
Cook Islands	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...
Micronesia, Federated States of	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...
Niue	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...
Solomon Islands	...	0.86 (2007)	1.14	1.05	...	0.86 (2007)	1.15	1.11
Tonga	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...
Vanuatu	0.78	1.23	1.50	...	...	...	...	...
Developed ADB Member Economies								
Australia	0.49	0.82	1.09	0.90	...	0.87	1.09	0.94
Japan	1.05	1.23	1.64	1.44	0.76	0.91	1.28	1.16
New Zealand	0.51	0.97	1.34	1.49	0.33	0.64	0.85	0.96

... = data not available, \$ = United States dollars, ADB = Asian Development Bank, L = liter.

Sources: Economy sources.