



BP Statistical Review – 2019

China's energy market in 2018

Despite slower economic growth, China's primary energy demand rose by 4.3% in 2018, the highest since 2012. China's energy mix continued to evolve

1. China accounted for 24% of global energy consumption and 34% of global energy consumption growth in 2018; China was the largest contributor to global growth for the 18th consecutive year.
2. China's gas consumption increased by 18% in 2018, accounting for 22% of global gas consumption net growth.
3. The share of coal in China's primary energy mix declined to 58% in 2018 from 60% in 2017 and 72% just 10 years ago.

+4.3%

Growth in China's energy consumption

+18%

Growth in China's gas consumption

+51%

Growth in China's solar power consumption

+2.2%

Growth in China's CO₂ emissions

- ▶ Energy consumption increased at 4.3% in 2018, from 3.3% in 2017 and a 10-year average of 3.9%.
- ▶ China remained the world's largest energy consumer, accounting for 24% of global energy consumption and contributing 34% of global energy demand growth in 2018.
- ▶ Among the fossil fuels, consumption growth was led by natural gas (+18%) and oil (+5.0%), while coal use rose (+0.9%), the second consecutive year of growth.
- ▶ China's energy mix continued to evolve. While coal remained the dominant fuel, its share of total energy consumption in 2018 (58%) hit a historical low.
- ▶ China's renewables consumption grew by 29% in 2018, accounting for 45% of global renewables consumption growth.
- ▶ China is the largest importer of oil and natural gas in the world. The import dependency on oil rose to 72% in 2018, the highest in the past half century. The import dependency on gas increased to 43% in 2018. Concerns about energy security are increasing.
- ▶ Coal supply continued to grow (+4.7%), the second year of expansion since supply side reforms started in 2016.
- ▶ To meet strong domestic demand, coal imports expanded for the second consecutive year.
- ▶ Natural gas production increased by 12 Bcm (+8.3%) to 162 Bcm.
- ▶ Among non-fossil fuels, solar consumption grew the fastest (+51%), followed by wind (+24%) and biomass & geothermal (+14%). Hydro grew by 3.2%, nearly one third the 10-year average growth of 9.2%.
- ▶ China's nuclear power generation increased by 19%, above the 10-year average growth of 15%. China accounted for 74% of the global nuclear power increment.
- ▶ China's CO₂ emissions from energy use increased by 2.2% in 2018, a significant rebound from the 0.5% p.a. growth of previous five years.
- ▶ China's energy intensity fell by 2.2% in 2018, slower than the 10-year average growth of -4.0%.





Units in Mtoe unless otherwise stated	Level			Growth rate per annum				Share (%)		
	2008	2017	2018	(%)		(Mtoe)		2008	2017	2018
				2007-17	2018	2007-17	2018			
Consumption										
Primary energy	2,230	3,139	3,273	3.9	4.3	99	134	100	100	100
Oil	385	611	641	4.9	5.0	23	31	17	19	20
Natural gas	70	207	243	13	18	15	37	3.2	6.6	7.4
Coal	1,609	1,890	1,907	1.8	0.9	31	16	72	60	58
Nuclear	15	56	67	15	19	4.2	10	0.7	1.8	2.0
Hydro	144	264	272	9.2	3.2	15	8.5	6.5	8.4	8.3
Renewables (in power)	6.4	111	144	41	29	11	32	0.3	3.5	4.4
Wind	3.0	67	83	49	24	6.6	16	0.1	2.1	2.5
Solar	0.0	27	40	100	51	2.7	14	0.0	0.8	1.2
Biomass & geothermal	3.4	18	21	23	14	1.6	2.5	0.2	0.6	0.6
Native units										
Oil (Mb/d)	7.9	13	14	5.1	5.3	0.5	0.7			
Natural gas (Bcm)	82	240	283	13	18	17	43			
Electricity generation (TWh)										
Total	3,496	6,604	7,112	7.2	7.7	332	507	100	100	100
Oil	19	11	11	-9.2	0.0	-1.7	0.0	0.5	0.2	0.2
Natural gas	35	203	224	20	10	17	21	1.0	3.1	3.1
Coal	2,709	4,445	4,732	5.3	6.5	179	287	77	67	67
Nuclear	68	248	294	15	19	19	46	2.0	3.8	4.1
Hydro	637	1,165	1,202	9.2	3.2	68	37	18	18	17
Renewables	28	492	634	41	29	48	142	0.8	7.5	8.9
Production										
Oil (Mb/d)	3.8	3.8	3.8	0.3	-1.3	0.0	0.0			
Biofuels (Mb/d)	28	40	58	5.9	44	1.8	18			
Natural gas (Bcm)	81	149	162	7.9	8.3	7.9	12			
Coal	1,492	1,747	1,829	2.0	4.7	31	82			
Carbon										
CO ₂ emissions (million tonnes)	7,379	9,230	9,429	2.5	2.2	199	199			
Macro										
GDP (USD billion – PPP, 2010)	10,269	20,690	22,052	8.2	6.6	1,132	1,362			
Population (millions)	1,344	1,410	1,415	0.5	0.4	7.3	5.5			

