



Statistical Review of World Energy – 2021

China's energy market in 2020

China's primary energy demand rose 2.1% in 2020, driven by a rapid economic recovery from the pandemic. China was one of the few countries to grow its energy demand in 2020 and saw the largest absolute rise globally

1. China's renewables consumption growth accounted for more than a third of global growth in renewable energy consumption in 2020
2. While China's carbon emissions continued to grow for a fourth consecutive year, rising by 0.6% in 2020, its carbon intensity decreased by 1%

+2.1%

Growth in primary energy consumption

+6.9%

Growth in China's gas consumption

+15%

Growth in China's renewables consumption

+0.6%

Growth in China's CO₂ emission

- ▶ Energy consumption increased by 2.1%, down from the 10-year average of 3.8%.
- ▶ China's energy mix continues to shift to a greener one, with coal's share decreasing to 57% in 2020, compared to 58% in 2019.
- ▶ China's coal demand rose 0.3% in 2020, driven by rising demand from several sectors including power, steel, construction materials manufacturing and chemicals.
- ▶ Coal imports rose above 6.6 EJ in 2020, their highest level since 2014.
- ▶ Despite the shock of COVID-19, natural gas consumption grew by 6.9%, against a 2.3% decline in gas consumption globally.
- ▶ China's renewables consumption grew by 15% in 2020, accounting for 25% of global renewables demand and 36% of global growth.
- ▶ China nuclear power generation increased by 4.7% in 2020, in contrast to a 3.7% decline globally.
- ▶ Among non-fossil fuels, other renewables grew the fastest (+16.2%), followed by solar (+15.8%), and wind (+14%). Hydro grew by 3.2%, less than half the 10-year average growth of 6.9%.
- ▶ The output of fossil fuels continued to edge up. Oil (+1.7%), gas (+9.0%) and coal (+1.2%) production increased in 2020.
- ▶ China's oil import dependency ratio was stable at 73%, while its gas import dependency ratio fell to 41% in 2020.
- ▶ China's wind power capacity additions reached 72 GW in 2020, more than the total number of additions in the previous three years combined.
- ▶ China's carbon emissions increased by 0.6% in 2020, one of the few regions to see an increase. China's share in the world's total carbon emissions rose to 31% in 2020.





Units in EJ unless otherwise stated	Level			Growth rate per annum				Share (%)		
				(%)		(EJ)				
	2009	2019	2020	2009-19	2020	2009-19	2020	2009	2019	2020
Consumption										
Primary energy	98	142	145	3.8	2.1	4.4	3.4	100	100	100
Oil	17	28	28	5.3	1.7	1.1	0.6	17	20	20
Natural gas	3.2	11	12	13	6.9	0.8	0.8	3.3	7.8	8.2
Coal	71	82	82	1.5	0.3	1.1	0.5	72	58	57
Nuclear	0.7	3.1	3.3	17	4.3	0.2	0.1	0.7	2.2	2.2
Hydro	5.8	11	12	6.9	3.2	0.6	0.4	6.0	8.0	8.1
Renewables	0.5	6.8	7.8	29	15	0.6	1.0	0.5	4.8	5.4
Wind	0.3	3.6	4.1	30	14	0.3	0.5	0.3	2.5	2.8
Solar	0	2.0	2.3	94	16	0.2	0.3	0	1.4	1.6
Other renewables*	0.3	1.1	1.3	16	16	0.1	0.2	0.3	0.8	0.9
Native units										
Oil (Mb/d)	8.2	14	14	5.4	1.6	0.6	0.2			
Natural gas (bcm)	90	308	331	13	6.9	22	22			
Electricity generation (TWh)										
Total	3,715	7,503	7,779	7.3	3.4	379	276	100	100	100
Oil	12	11	11	-1.2	5.9	-0.1	0.7	0.3	0.1	0.1
Natural gas	57	233	247	15	5.9	18	14	1.5	3.1	3.2
Coal	2,912	4,850	4,918	5.2	1.1	194	68	78	65	63
Nuclear	70	349	366	17	4.7	28	18	1.9	4.6	4.7
Hydro	616	1,273	1,322	7.5	3.6	66	49	17	17	17
Renewables	49	742	863	31	16	69	121	1.3	9.9	11
Production										
Oil (Mb/d)	3.8	3.8	3.9	0.1	1.7	0	0.1			
Biofuels (Kboe/d)	29	55	63	6.4	16	2.5	8.7			
Natural gas (bcm)	86	178	194	7.5	9.0	9.2	16			
Coal	64	80	81	2.2	1.2	1.5	1.2			
Carbon										
CO ₂ emissions (billion tonnes)	7.7	9.8	9.9	2.4	0.6	0.2	0.1			
Macro										
Population (millions)	1,361	1,434	1,439	0.5	0.4	7.3	5.5			
GDP (USD billion – PPP, 2015)	11,056	23,130	23,672	7.7	2.3	1,207	542			

EJ = exajoules

*includes biomass, geothermal and biofuels