



China's energy demand growth slows to 1.1% p.a. through the Outlook, less than one fifth of its pace in the last 22 years (5.9% p.a.)

1. Despite slowing energy demand growth, China remains the world's largest energy consumer, accounting for 22% of world energy consumption in 2040.
2. China's energy intensity declines by 3.4% p.a. over the Outlook, slightly faster than the average decline of 3.0% p.a. between 1995 and 2017.
3. China's energy mix continues to evolve, with coal's share declining to 35% in 2040, from 60% in 2017.

+1.1%

Annual average growth in China's energy consumption

22%

Share of global energy consumption in 2040

+29%

Growth in China's energy production

18%

Share of global energy production in 2040

- ▶ Energy consumption and production rise by 28% and 29%, respectively, between 2017 and 2040, slightly slower than the global increases of 32% for both.
- ▶ China's share in global energy demand drops from 23% in 2017 to 22% in 2040, while it contributes 20% of the world's net increase.
- ▶ China's energy mix continues to evolve with coal's dominance declining from 60% in 2017 to 35% in 2040 and natural gas doubling to 14%; renewables' share rises from 3% in 2017 to 18% in 2040.
- ▶ Demand for almost all fuels expands: oil (+19%) and gas (+166%); renewables in power (+553%), nuclear (+405%) and hydro (+31%). Coal demand declines (-25%).
- ▶ Coal demand peaked in 2013. However, China remains the world's largest consumer of coal throughout the outlook, accounting for 39% of global coal demand in 2040.
- ▶ Nuclear increases by 7.3% p.a. from 2017 to 2040, and China accounts for 37% of global nuclear power generation in 2040.
- ▶ Renewables expand rapidly, rising by 8.5% p.a. to 2040, and accounting for 26% of global renewables by then.
- ▶ Energy production as a share of energy consumption drops to 75% in 2024 and then recovers to 80% by 2040.
- ▶ China's gas production grows by 218 Bcm (+146%) from 2017 to 2040.
- ▶ Oil import dependence rises from 67% in 2017 to 76% in 2040. Gas import dependence rises from 38% in 2017 to 43% in 2040.
- ▶ With the economy increasing by 181% from 2017 to 2040, China's energy intensity declines by 54%.
- ▶ Carbon emissions peak in 2022.



BP Energy Outlook – 2019

Insights from the Evolving transition scenario – China



	Level		Shares		Change (abs.)		Change (%)		Change (annual)*	
	2017	2040	2017	2040	1995-2017	2017-2040	1995-2017	2017-2040	1995-2017	2017-2040
Primary energy consumption (units in Mtoe unless otherwise noted)										
Total	3132	4017			2241	885	252%	28%	5.9%	1.1%
Oil† (Mb/d)	13	15	19%	18%	9	2	281%	18%	6.3%	0.7%
Gas (Bcm)	240	641	7%	14%	223	400	>1000%	166%	>10%	4.4%
Coal	1893	1410	60%	35%	1227	-482	184%	-25%	4.9%	-1.3%
Nuclear	56	284	2%	7%	53	227	>1000%	405%	>10%	7.3%
Hydro	262	342	8%	9%	218	80	506%	31%	8.5%	1.2%
Renewables (including biofuels)	109	711	3%	18%	109	602	>1000%	553%	>10%	8.5%
Transport^	363	544	12%	14%	314	180	639%	50%	9.5%	1.8%
Industry^	1947	2014	62%	50%	1350	67	226%	3%	5.5%	0.1%
Non-combusted^	176	298	6%	7%	134	122	322%	69%	6.8%	2.3%
Buildings^	646	1162	21%	29%	442	516	218%	80%	5.4%	2.6%
Power	1456	2339	46%	58%	1181	883	429%	61%	7.9%	2.1%
Production										
Oil† (Mb/d)	4	4			1	0	46%	-9%	1.7%	-0.4%
Gas (Bcm)	149	367			131	218	725%	146%	10.1%	4.0%
Coal	1747	1396			1067	-351	157%	-20%	4.4%	-1.0%

* Compound annual growth rate.

† Oil supply includes crude oil, shale oil, oil sands, natural gas liquids, liquid fuels derived from coal and gas, and refinery gains, but excludes biofuels. Oil demand includes consumption of all liquid hydrocarbons but excludes biofuels.

^ Includes electricity and the associated conversion losses in power generation.



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