



# BP Statistical Review – 2019

## Global energy market in 2018

Global primary energy consumption grew rapidly in 2018, led by natural gas and renewables. Carbon emissions rose at their highest rate for seven years

1. Primary energy consumption grew at a rate of 2.9% last year, almost double its 10-year average of 1.5% p.a., and the fastest since 2010.
2. Energy consumption growth was driven by natural gas, which accounted for 43% of the increase.
3. Renewable power grew by 14%. Its increase in energy terms (71 mtoe) was the second largest on record.
4. Carbon emissions grew by 2.0%, the fastest growth for seven years.

**+2.9%**

Growth in primary energy consumption in 2018

**+2.0%**

Growth in CO<sub>2</sub> emission in 2018

**+14%**

Growth in renewables in 2018

**15.3%**

Share of non-fossil fuels in 2018, the highest in recent history

- ▶ Energy consumption increased by 2.9% in 2018, almost double its 10-year average growth, and the fastest since 2010.
- ▶ Coal consumption grew by 1.4%, double its 10-year average rate. Its share in primary energy fell to 27.2%, the lowest in 15 years.
- ▶ CO<sub>2</sub> emissions increased by 2.0% in 2018, their highest rate for seven years and double its 10-year average growth.
- ▶ Renewables increased by 14% in 2018, to record its second largest increase on record. Moreover, renewables accounted for the second largest increment to energy growth in 2018, behind natural gas.
- ▶ Energy intensity (the amount of energy required per unit of GDP) declined at its slowest rate since 2010.
- ▶ Solar generation grew by 30 mtoe in 2018, a record high, just below the increase in wind (32 mtoe), the growth of which decelerated compared to 2017.
- ▶ China, US and India accounted for 70% of energy demand growth in 2018. Demand growth in each of the three countries was higher than its 10-year average.
- ▶ Electricity generation increased by 3.7%, above its 10-year average growth. By country, China accounted for more than half of the increase. By fuel, renewables accounted for one third.
- ▶ Oil consumption grew by 1.4 Mb/d with China and the US accounting for over 80% of global growth.
- ▶ Global oil production rose by 2.2 Mb/d. Almost all of the net increase was accounted for by the US, recoding the largest growth for any country in any year.
- ▶ Natural gas consumption increased by 5.3% (195 bcm), the second largest annual volume increase on record. It accounted for 43% of the increase in energy demand.
- ▶ Non-fossil fuels' share in primary energy in 2018 was 15.3%, the highest in recent history.
- ▶ Natural gas production increased by 190 bcm. Almost half of this came from the US which recorded the largest annual growth seen by any country in history.





Units in Mtoe unless otherwise stated	Level			Growth rate per annum				Share		
	2008	2017	2018	(%)		(Mtoe)		(%)		
				2007-17	2018	2007-17	2018	2008	2017	2018
<b>Consumption</b>										
Primary energy	11,705	13,475	13,865	1.5%	2.9%	191	390	100%	100%	100%
Oil	4,143	4,607	4,662	1.0%	1.2%	44	55	35%	34%	34%
Natural gas	2,578	3,142	3,309	2.2%	5.3%	62	168	22%	23%	24%
Coal	3,503	3,718	3,772	0.7%	1.4%	26	54	30%	28%	27%
Nuclear	620	597	611	-0.4%	2.4%	-2.4	14	5.3%	4.4%	4.4%
Hydro	737	920	949	2.8%	3.1%	22	29	6.3%	6.8%	6.8%
Renewables (in power)	124	490	561	16%	14%	38	71	1.1%	3.6%	4.0%
Wind	50	255	287	21%	13%	22	32	0.4%	1.9%	2.1%
Solar	2.9	103	132	50%	29%	10	30	0.0%	0.8%	1.0%
Biomass & geothermal	71	132	142	7.1%	7.0%	6.6	9.2	0.6%	1.0%	1.0%
<b>Native units</b>										
Oil (Mb/d)	87	98	100	1.2%	1.5%	1.1	1.4			
Natural gas (Bcm)	2,999	3,654	3,849	2.2%	5.3%	73	195			
<b>Electricity generation (TWh)</b>										
Total	20,433	25,677	26,615	2.5%	3.7%	564	938	100%	100%	100%
Oil	1,058	870	803	-2.1%	-7.7%	-21	-67	5.2%	3.4%	3.0%
Natural gas	4,432	5,953	6,183	3.4%	3.9%	168	230	22%	23%	23%
Coal	8,278	9,806	10,101	1.7%	3.0%	154	294	41%	38%	38.0%
Nuclear	2,738	2,639	2,701	-0.4%	2.4%	-11	62	13%	10%	10%
Hydro	3,256	4,065	4,193	2.8%	3.1%	99	128	16%	16%	16%
Renewables	548	2,166	2,480	16%	14%	169	314	2.7%	8.4%	9.3%
<b>Production</b>										
Oil (Mb/d)	83	93	95	1.2%	2.4%	1.0	2.2			
Biofuels (Kboe/d)	924	1,629	1,788	9.0%	9.7%	94	158			
Natural gas (Bcm)	3,030	3,678	3,868	2.3%	5.2%	76	190			
Coal	3,410	3,755	3,917	1.3%	4.3%	45	162			
<b>Carbon</b>										
CO <sub>2</sub> emissions (million tonnes)	30,337	33,243	33,891	1.0%	2.0%	319	648			
<b>Macro</b>										
GDP (USD billion – PPP, 2010)	85,506	113,990	118,142	3.2%	3.6%	3,103	4,152			
Population (millions)	6,780	7,537	7,619	1.2%	1.1%	84	82			

