



Statistical Review of World Energy – 2021

EU's energy market in 2020

Primary energy consumption dropped by a record of 8.5% in 2020, with coal and oil declining by 19% and 14% respectively

1. Primary energy consumption in the EU fell by 8.5% in 2020 and reached its lowest level since 1984
2. The 13% drop in CO₂ emissions from energy use puts these at their lowest level since at least 1965
3. While the consumption of oil and gas dropped (14% and 3% respectively), the largest fall was recorded by coal (19%), the share of which dropped to 11%, lower than that of renewables

-8.5%

Fall in primary energy consumption

-14%

Drop in oil consumption

-19%

Drop in coal consumption

+6.7%

Increase in renewables

- ▶ Primary energy consumption fell by 8.5% in 2020, the largest fall ever recorded for the region.
- ▶ The consumption of coal, oil, gas and nuclear declined. The drop in oil consumption (-14%) was largely due to the impact of restrictions on the transport sector.
- ▶ The decrease in coal consumption (-19%) was mostly driven by the power sector where coal now accounts for 13% of total generation, half of its share in 2009.
- ▶ In contrast, gas demand fell by only 3%, helped by resilient demand in buildings and a moderate drop in the power sector due to low gas prices.
- ▶ Nuclear generation dropped by 78 TWh: 58% of this drop was due to lower French nuclear generation. This is the lowest level of EU nuclear generation since 1988.
- ▶ Renewables' output increased by 6.7% in 2020 to 7.0 EJ and accounts for 13% of primary energy consumption, up from 11% in 2019.
- ▶ The growth in renewables was driven by increases in wind (+8%) and solar (+16%).
- ▶ Total power generation declined by 4% to 2,771 TWh. Renewables reached a 26% share of the generation mix. Along with hydro and nuclear, they represent 63% of total generation, up from 49% in 2009.
- ▶ Domestic fuel production fell, especially natural gas which declined by 22% to reach 48 bcm.
- ▶ Net CO₂ emissions from energy use dropped by 13% to 2.5 Gt. They were 32% lower than 1990 levels against a target of 20% reduction for GHG emissions for 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	63	61	56	-0.3	-8.5	-0.2	-5.0	100	100	100
Oil	25	23	20	-0.8	-14	-0.2	-3.1	40	38	36
Natural gas	14	14	14	-0.1	-3.1	0.0	-0.4	23	23	25
Coal	10	7.3	5.9	-3.0	-19	-0.3	-1.4	16	12	11
Nuclear	7.8	6.8	6.1	-1.3	-11	-0.1	-0.7	12	11	11
Hydro	3.1	2.8	3.0	-1.0	7.2	0.0	0.2	5.0	4.7	5.5
Renewables	2.7	6.5	7.0	9.3	6.7	0.4	0.5	4.3	11	13
Wind	1.2	3.2	3.5	11	7.6	0.2	0.3	1.9	5.3	6.3
Solar	0.1	1.1	1.3	24	16	0.1	0.2	0.2	1.8	2.3
Other renewables*	1.4	2.1	2.2	4.5	0.5	0.1	0.0	2.2	3.5	3.9
Native units										
Oil (Mb/d)	12	11	9.8	-0.7	-13	-0.1	-1.5			
Natural gas (bcm)	393	391	380	-0.1	-3.1	-0.2	-11			
Electricity generation (TWh)										
Total	2,848	2,892	2,771	0.2	-4.5	4.5	-122	100	100	100
Oil	94	49	43	-6.2	-13	-4.5	-6.5	3.3	1.7	1.5
Natural gas	567	567	553	0.0	-2.7	0.0	-14	20	20	20
Coal	733	475	373	-4.2	-22	-26	-102	26	16	13
Nuclear	825	766	688	-0.7	-10	-6.0	-78	29	26	25
Hydro	330	317	342	-0.4	7.6	-1.3	25	12	11	12
Renewables	241	659	710	11	7.6	42	52	8.5	23	26
Production										
Oil (Mb/d)	0.6	0.4	0.4	-4.4	-4.9	0.0	0.0			
Biofuels (Kboe/d)	174	293	279	5.4	-4.7	12	-14			
Natural gas (bcm)	118	61	48	-6.3	-22	-5.7	-13			
Coal	6.6	4.6	3.8	-3.6	-17	-0.2	-0.8			
CO₂ emissions (billion tonnes)										
	3.3	2.9	2.5	-1.2	-13	0.0	-0.4			
Macro										
Population (millions)	439	445	445	0.1	0.1	0.6	0.3			
GDP (USD billion – PPP, 2015)	15,812	18,605	17,452	1.6	-6.2	279	-1,152			

EJ = exajoules

*includes biomass, geothermal and biofuels