



# Statistical Review of World Energy – 2021

## Indonesia's energy market in 2020

In 2020, oil accounted for almost two-thirds of the decline in primary energy consumption with its share dropping to 35% of the energy mix

1. Indonesia was the second largest coal producer globally (14 EJ) with coal used for export and increasingly in domestic power generation (66% share)
2. Indonesia was the largest global biodiesel producer at 126 kboe/d. Biodiesel production increased 2.3% in 2020 while all forms of fossil fuel production fell
3. CO<sub>2</sub> emissions per unit of GDP fell 5.2% in 2020, significantly faster than the 0.7% average annual decline over the previous decade

**-6.7%**

Change in primary energy consumption in 2020

**-12%**

Decline in oil consumption

**+6.3%**

Growth in renewables consumption

**-7.4%**

Reduction in carbon emissions

- ▶ Energy consumption decreased by 0.6 EJ in 2020. The largest decline was in oil (-0.4 EJ) which accounts for 65% of the decline in primary energy, with additional declines in natural gas (-0.1 EJ) and coal (-0.2 EJ).
- ▶ Fossil fuels contributed to 93% of Indonesia's 8.1 EJ primary energy demand, with coal (40%), oil (35%) and natural gas (18%) the three dominant sources.
- ▶ Coal continued to increase as a fraction of primary energy by displacing oil and natural gas, increasing from 39% in 2019 to 43% in 2020.
- ▶ The use of renewables increased by 6.3%, led by other renewables (5.3%). Together, renewables provided 4.5% of primary energy, up from only 1.6% in 2009.
- ▶ Oil consumption fell by 12% to 1.4 Mb/d, its lowest level since 2009.
- ▶ Last year electricity generation fell by 1.6%, down relative to the prior 10-year average growth rate (5.9% pa).
- ▶ The bulk of the decline in electricity generation was in natural gas (-18%) and oil (-36%) with an increase in the use of coal (3.4%), hydro (17%), and renewables (13%).
- ▶ Coal (-9.0%), natural gas (-6.8%), and oil (-4.9%) production all decreased in 2020.
- ▶ Net CO<sub>2</sub> emissions from energy use fell by 7.4% in 2020 to levels last seen in 2018.
- ▶ CO<sub>2</sub> emissions per unit of GDP fell by 5.2% in 2020, significantly faster than the 0.7% average yearly decline in the previous decade.





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
<b>Consumption</b>										
Primary energy	5.8	8.7	8.1	4.0	-6.7	0.3	-0.6	100	100	100
Oil	2.7	3.2	2.8	1.5	-12	0	-0.4	47	37	35
Natural gas	1.5	1.6	1.5	0.4	-5.7	0	-0.1	26	18	20
Coal	1.4	3.4	3.3	9.4	-4.9	0.2	-0.2	24	39	43
Nuclear	0	0	0	n/a	n/a	0	0	0	0	0
Hydro	0.1	0.1	0.2	3.2	17	0	0	1.8	1.7	2.3
Renewables	0.1	0.3	0.4	14	6.3	0	0	1.6	4.0	4.8
Wind	0	0	0	62	-2.6	0	0	0	0	0.1
Solar	0	0	0	87	770	0	0	0	0	0.1
Other renewables*	0.1	0.3	0.4	14	5.3	0	0	1.6	3.9	4.7
<b>Native units</b>										
Oil (Mb/d)	1.4	1.6	1.2	1.9	-24	0	-0.4			
Natural gas (bcm)	42	44	42	0.4	-5.7	0.2	-2.4			
<b>Electricity generation (TWh)</b>										
Total	157	279	275	5.9	-1.6	12	-3.7	100	100	100
Oil	20	11	6.8	-6.1	-36	-0.9	-3.8	13	3.8	2.5
Natural gas	50	62	51	2.2	-18	1.2	-11	32	22	19
Coal	66	174	181	10	3.4	11	6.4	42	63	66
Nuclear	0	0	0	n/a	n/a	0	0	0	0	0
Hydro	11	17	19	3.8	17	0.5	2.9	7.3	5.9	7.1
Renewables	9.3	15	17	4.8	13	0.6	1.9	6.0	5.3	6.1
<b>Production</b>										
Oil (Mb/d)	1.0	0.8	0.7	-2.4	-4.9	0	0			
Biofuels (Kboe/d)	2.8	124	126	46	2.1	12	2.6			
Natural gas (bcm)	78	68	63	-1.4	-6.8	-1.0	-4.4			
Coal	6.3	15	14	9.2	-9.0	0.9	-1.3			
<b>Carbon</b>										
CO <sub>2</sub> emissions (billion tonnes)	0.4	0.6	0.6	4.6	-7.4	0	0			
<b>Macro</b>										
Population (millions)	239	271	274	1.3	1.1	3.2	2.9			
GDP (USD billion – PPP, 2015)	1,902	3,228	3,161	5.4	-2.1	133	-67			

EJ = exajoules

\*includes biomass, geothermal and biofuels