bp Energy Outlook 2025

Brazil insights

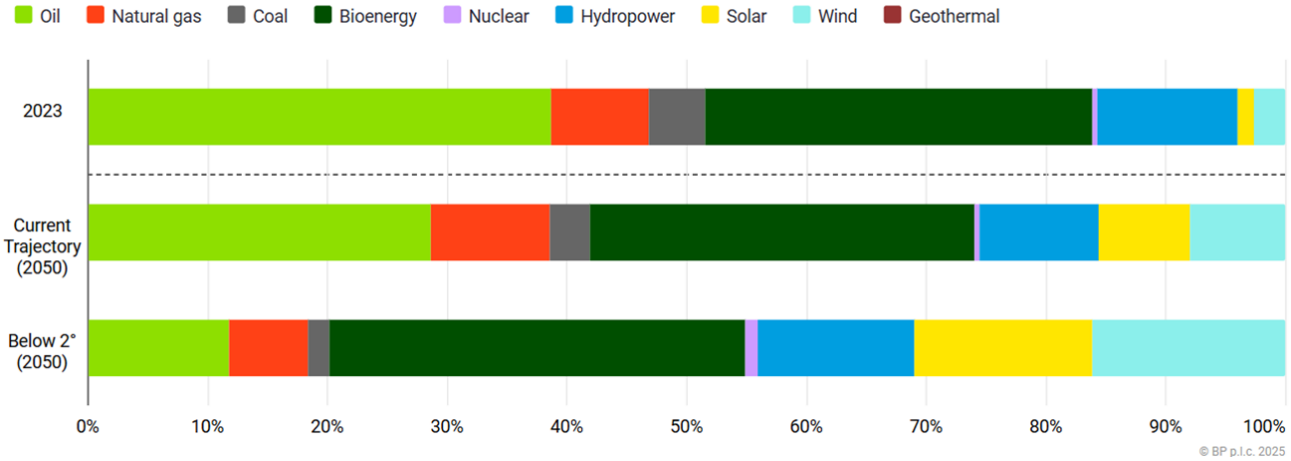
Brazil's primary energy consumption grows 22% by 2050 in Current Trajectory, and renewables surpass oil as the dominant energy source providing almost half of primary energy

Renewables grow steadily, accounting for almost half of primary energy consumption by 2050 in Current Trajectory, while **oil**'s share **falls from 40% to 30%**

Oil demand **grows** throughout the first half of the outlook, reaching **2.9Mb/d in 2035**, before declining to **2.3Mb/d in 2050** in Current Trajectory

Wind and solar power generation more than **doubles by 2035**, reaching almost **40%** of total generation in Current Trajectory

Primary energy consumption mix by source



Summary

- Brazil's economy grows at a rate of 1.4% per year in 2023-50, compared to 2.3% per year over the past 20 years.
- Primary energy grows by 22% by 2050 in **Current Trajectory**, while it decreases by 3% in **Below 2°**.
- Power accounts for 80% of the growth of primary energy in **Current Trajectory**, with solar and wind the biggest contributors, so that by 2050 fossil fuels make up around 10% of total power generation. In **Below 2°**, less than 5% of total power is generated by fossil fuels in 2050.
- In absolute levels, oil demand grows moderately in **Current Trajectory** to 2.9Mb/d in 2035, falling back to 2.3Mb/d in 2050, in line with 2019 levels. However, due to the electrification of the economy, the share of oil in total primary energy falls from 40% in 2023 to 30% in 2050. In **Below 2°**, oil demand falls to below 1Mb/d in 2050, accounting for 12% of total primary energy.
- Oil production grows to 6Mb/d in both scenarios in 2035, up from the current 3.6Mb/d. By 2050, it drops by 25% in **Current Trajectory** and by 30% in **Below 2°** compared to 2023.
- Within the transport sector, the share of biofuels in total final consumption grows to just above 25% in 2035 in both scenarios. By 2050, biofuels' share remains over 20% in **Current Trajectory**, while in **Below 2°**, that share drops to around 15% due to faster electrification of road transport.
- In both scenarios, Brazil's biomethane production grows 20-fold by 2050, up to 8Bcm in **Current Trajectory**, from 0.4Bcm in 2023.
- In **Current Trajectory**, CO_2 emissions decline by 9% in 2050, while they fall by 90% in **Below 2°**, driven by transport and industry.

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	Level in 2050			Shares in 2050 (%)		Change 2023-2050 (% p.a.)	
	2023	Current Trajectory	Below 2°	2023	Current Trajectory	Below 2°	Current Trajectory	Below 2°
Primary energy consumption by energy type (EJ)								
Total	**13**	**16**	**13**	**100%**	**100%**	**100%**	**0.7%**	**-0.1%**
Oil†	5.1	4.6	1.5	39%	29%	12%	-0.4%	-4.4%
Natural gas	1.1	1.6	0.8	8.2%	9.9%	6.5%	1.5%	-0.9%
Coal	0.6	0.5	0.2	4.7%	3.3%	1.8%	-0.6%	-3.6%
Nuclear	0.1	0.1	0.1	0.4%	0.4%	1.1%	1.2%	3.8%
Hydro	1.5	1.6	1.7	12%	10%	13%	0.2%	0.3%
Renewables (incl. biofuels)	4.8	7.7	8.5	36%	48%	66%	1.8%	2.1%
Primary energy consumption (native units)								
Oil† (Mb/d)	2.5	2.3	0.8				-0.3%	-4.3%
Natural gas (Bcm)	30	44	23				1.5%	-0.9%
Total final consumption by sector (EJ)								
Total	**12**	**15**	**11**	**100%**	**100%**	**100%**	**0.7%**	**-0.5%**
Transport	4.4	4.8	2.9	35%	32%	27%	0.3%	-1.5%
Feedstocks	0.6	0.9	0.7	4.4%	5.8%	6.5%	1.7%	0.9%
Buildings	1.8	2.1	1.3	14%	14%	12%	0.6%	-1.1%
Industry	5.7	7.2	5.9	46%	48%	54%	0.9%	0.1%
Generation								
Power (TWh)	724	1,359	1,787				2.4%	3.4%
Hydrogen (Mt)	0.6	1.9	9.0				4.6%	11%
Production								
Liquids† (Mb/d)	3.6	2.7	2.5				-1.0%	-1.4%
Natural gas (Bcm)	23	42	26				2.2%	0.4%
Coal (EJ)	0.1	0.1	0				0.6%	-2.6%
Emissions								
Carbon emissions†† (Gt of CO_2e)	0.5	0.5	0.1				-0.3%	-7.4%
CCS (Mt of CO_2)	0	0	-104					

EJ = exajoules

Primary energy is accounted using the direct equivalent method, which directly equates secondary energy from non-combustible sources to the primary energy used to produce it.

† Oil supply includes crude oil, shale oil, oil sands, natural gas liquids, liquid fuels derived from coal and gas, refinery gains, and biofuels.

†† Carbon emissions include CO_2 emissions from energy use, industrial processes, natural gas flaring, and methane emissions from energy production.

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