

The Global Energy Landscape – Trends and Market Realities

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Presentation

The Global Energy Landscape – Trends and Market Realities



Moderation

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Save the Date: Energy for Germany 2026

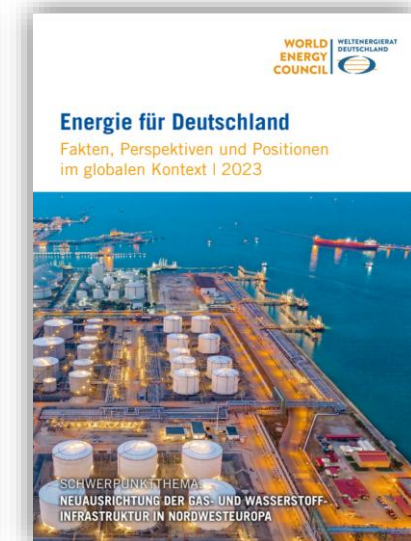
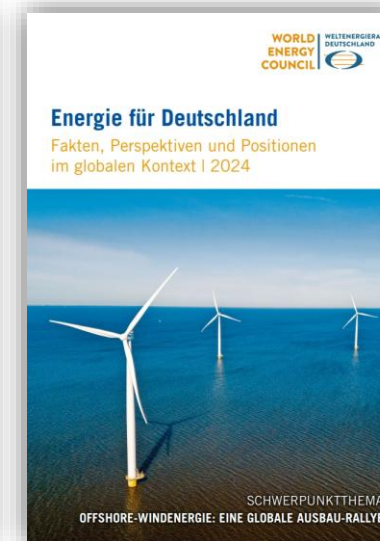
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Focus topic 2026: Geopolitical Fragmentation - The Energy Sector and Climate Protection in a Multipolar World

- Current initiatives of the European Commission
- Current developments in international shipping, the maritime value chain
- And more

Previous "Energy for Germany" issues

- CCS in a global context: markets, framework conditions and development paths
- Offshore wind energy: A global expansion rally (2024)
- Reorganisation of the gas and hydrogen infrastructure in north-western Europe (2023)
- And more



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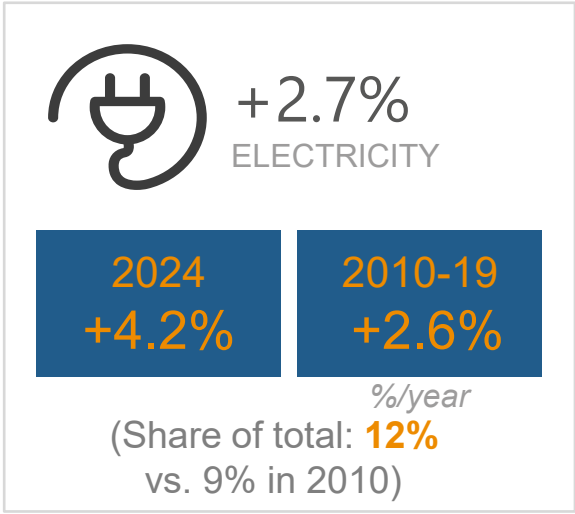
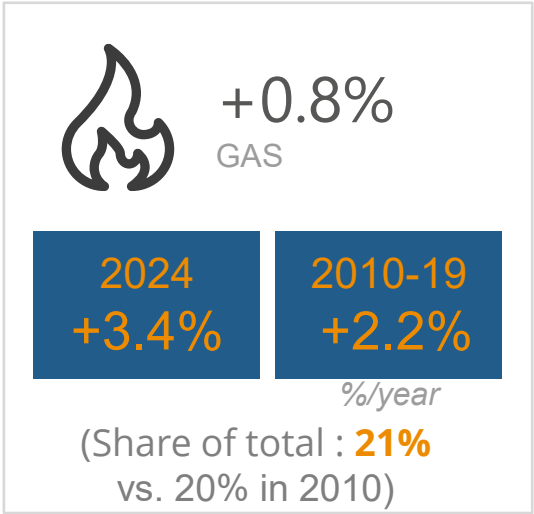
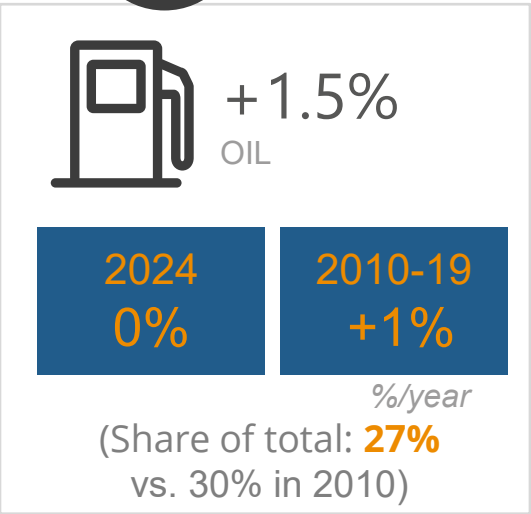
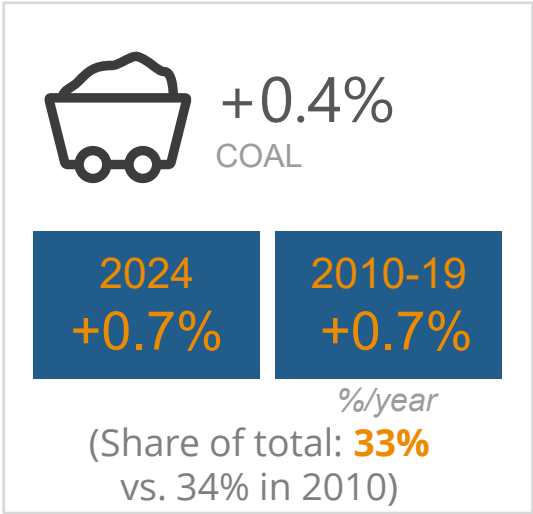
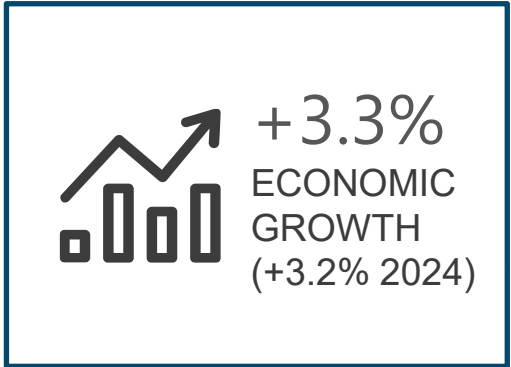
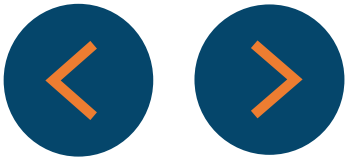
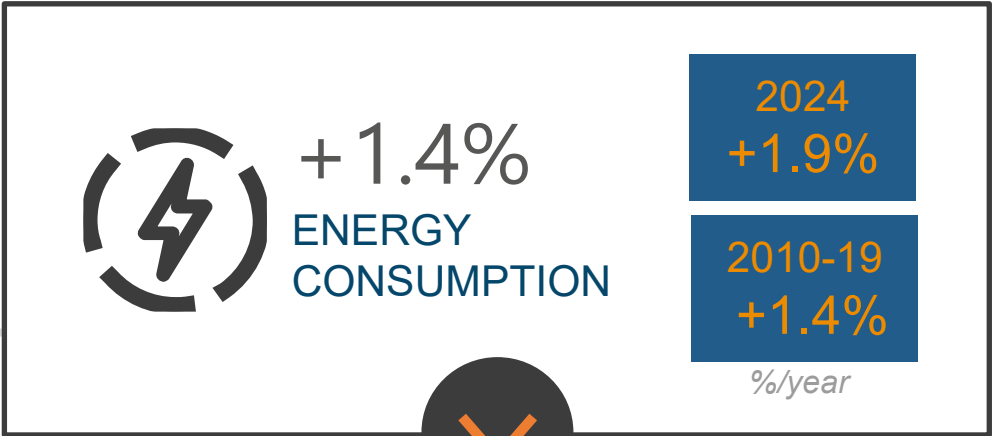
- > **Independent energy research & consulting company since 1991**
- > **Expert in analysis and forecasting of global energy & climate issues**
- > **In-house** and globally recognised **sectoral databases** and **forecasting models**



50+
**committed
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- > **Headquartered in the Grenoble (French Alps) research cluster**; a subsidiary in **Singapore**
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G20 Consumption Trends by Energy 2025

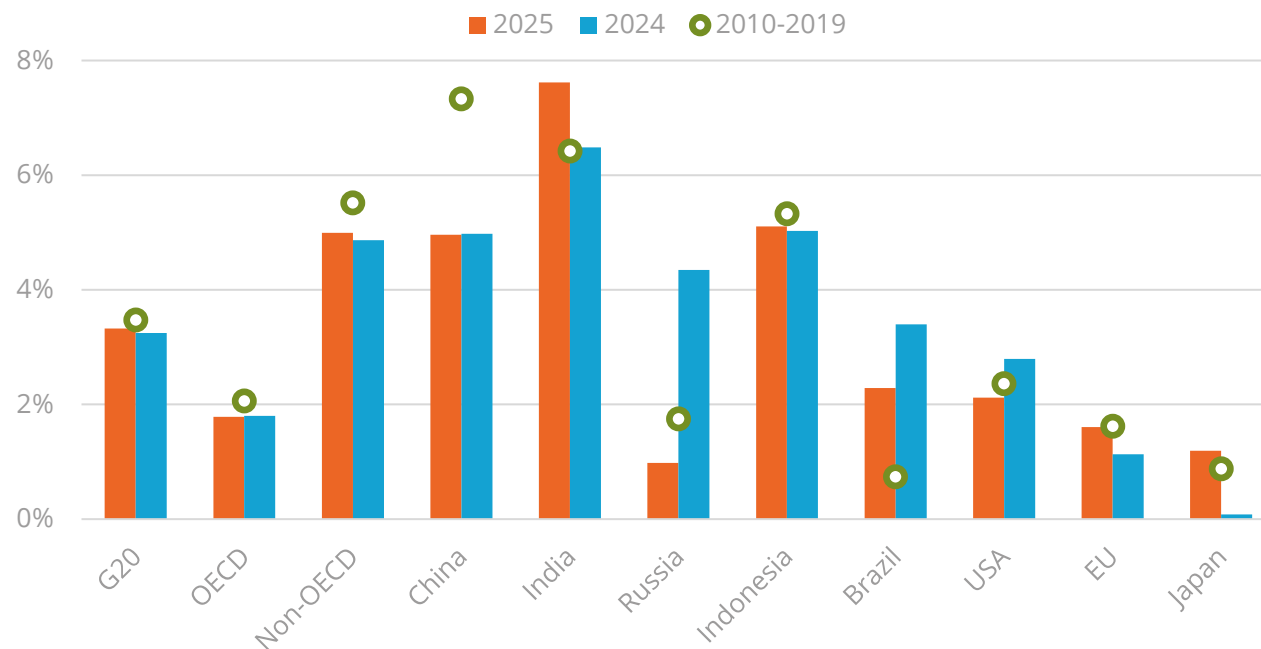


Source: Enerdata

G20 Economic Growth in line with its historical trend

Strong growth in non-OECD countries, slower in OECD countries

GDP growth (%/year) in G20 countries



Sharp variations between 2020 and 2023 figures are not represented in the graphs

Strong growth in China and in India

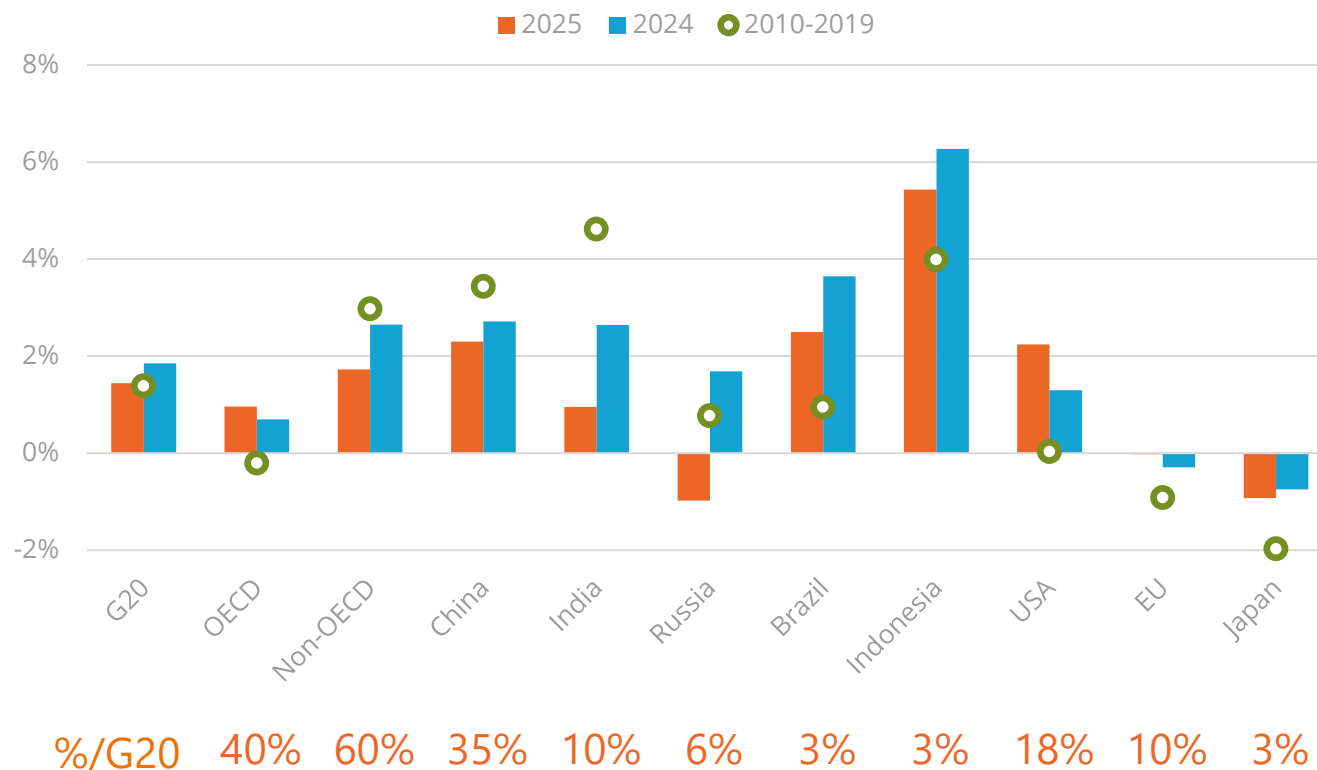
- > Slight slowdown in China but +5% target met (vs. +7%/year from 2010-2019)
- > Domestic demand weakens and industrial overcapacity persists.
- > The "New Three" industries are booming.
- > India and Indonesia: dynamic demand and steady industrial investment.

Moderate growth in OECD

- > USA : higher investments (especially in AI)
- > EU : steady domestic demand

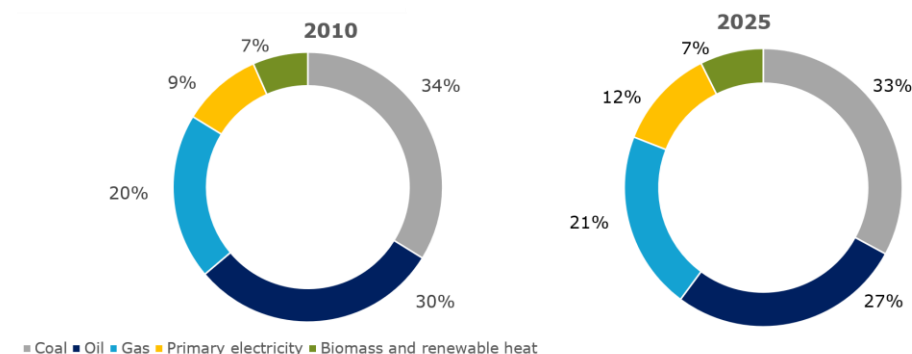
Primary energy consumption Slows down as solar and wind gain momentum

Total energy consumption growth (%/year) in G20 countries



Source: Enerdata

Energy mix for G20 countries in 2010 and 2025



Source: Enerdata

Slowdown in G20 primary energy consumption growth: +1.4% in 2025

- > Surging renewable power generation: 1.2 Gtoe of fossil energy savings (~ India's consumption)
- > Weaker industrial activity (China)
- > Lower cooling needs

Slowdown in non-OECD countries but rebound in the USA

- > Renewable impact in China, India, EU, Japan
- > Rebound in the USA (+2%) and steady growth in Indonesia (+5%)

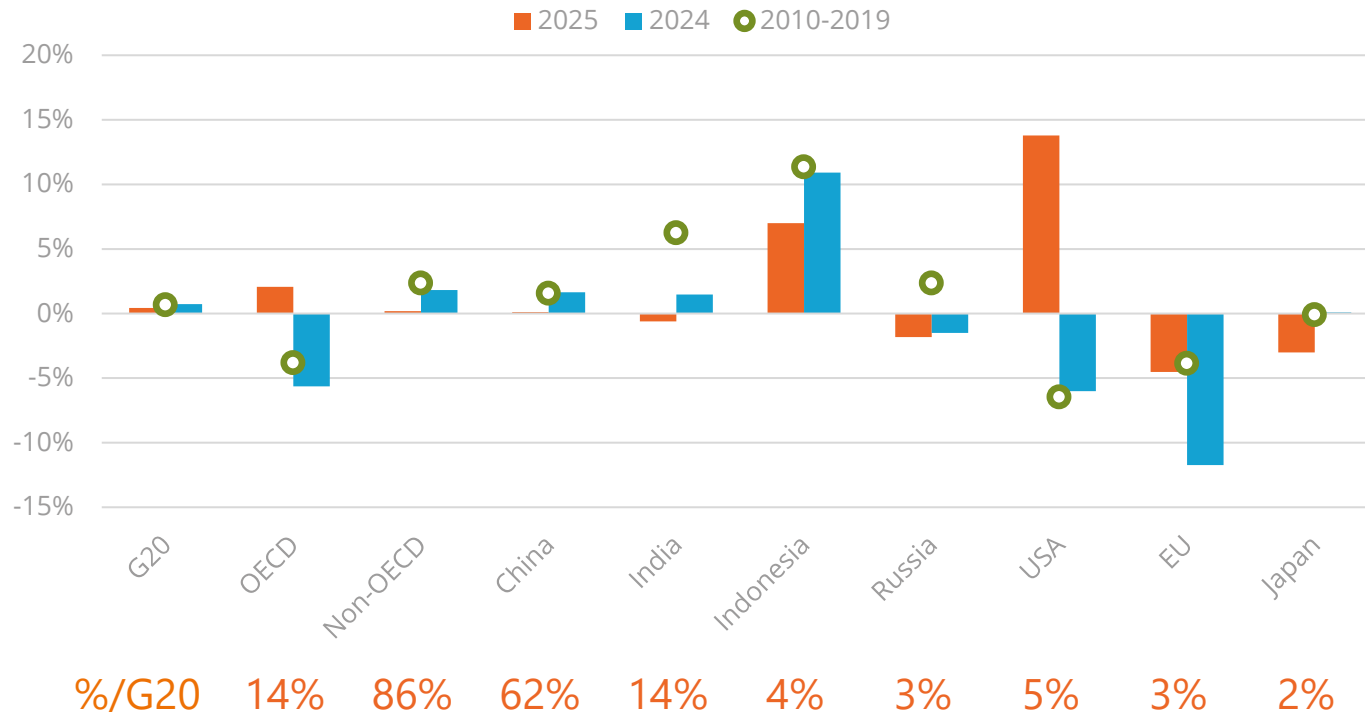
Rather stable energy mix since 2010

- > 1/3 coal, 20% gas
- > +3 pp for primary energy in 15 years (12%)

Coal

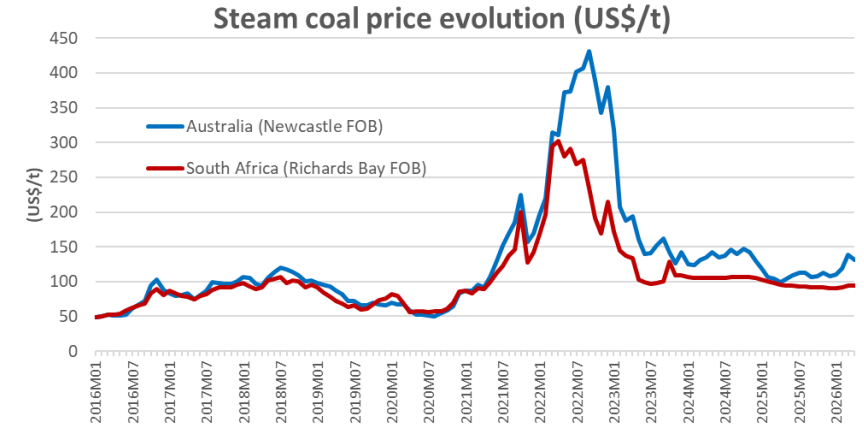
Consumption stalls, as it stagnates China and India

Trends in coal consumption in G20 countries (%/year)



Source: Enerdata

Coal price trends (in USD/t)



Source: Enerdata, based on World Bank data

Stable demand in China and India

- > Competition from renewables in the power sector
- > Lower demand from the steel and cement sectors in China
- > Partly offset by a new rise in Indonesia

Contrasted trends in OECD

- > 14% rebound in the USA
- > New drop in the EU and Japan over competition from renewables (and nuclear in Japan)

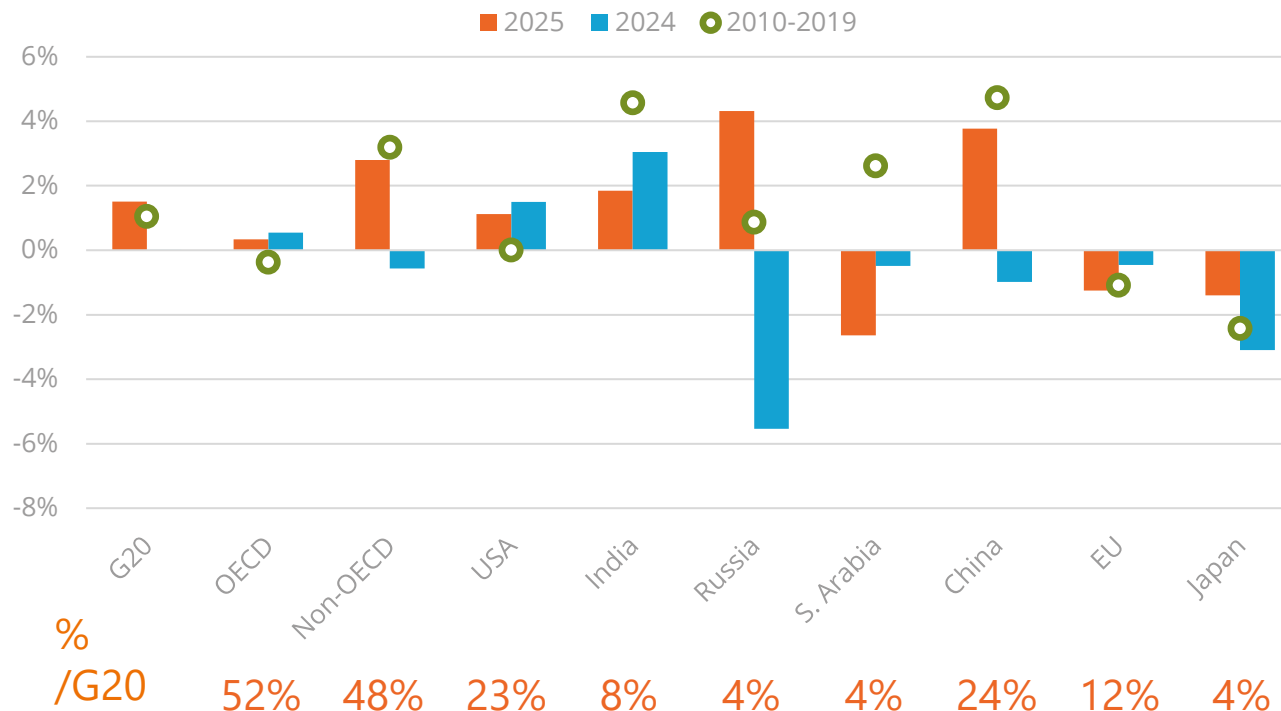
Global coal prices stabilise

- > Still 39% above their 2019 level in Australia (+32% in South Africa)

Oil

Consumption accelerates, China overtakes the USA as #1

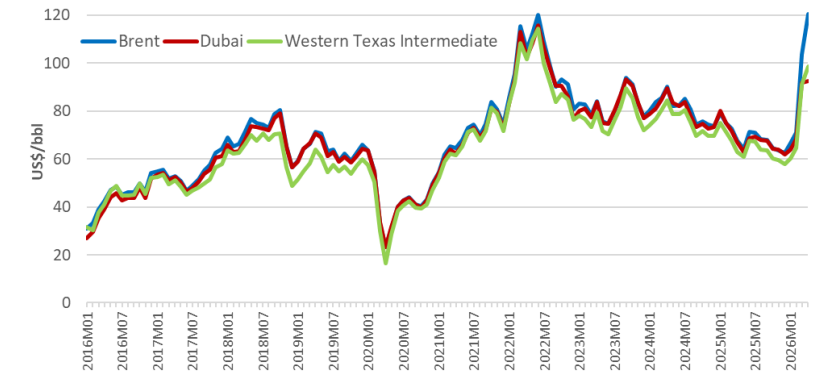
Trends in oil consumption in G20 countries (%/year)



Source: Enerdata

Crude oil price trends (in USD/t)

Crude oil price evolution (US\$/bbl)



Source: Enerdata, based on World Bank data

Demand growth in China and the USA

- > Higher demand from the petrochemical sector
- > Stockpiling in China
- > Low transport demand (stable in the US, down in China)

Lower demand in the EU and Japan

- > Over reduced petrochemical demand
- > Slowdown in India (20% bioethanol target reached)
- > Higher production in Brazil and Russia (recovery)

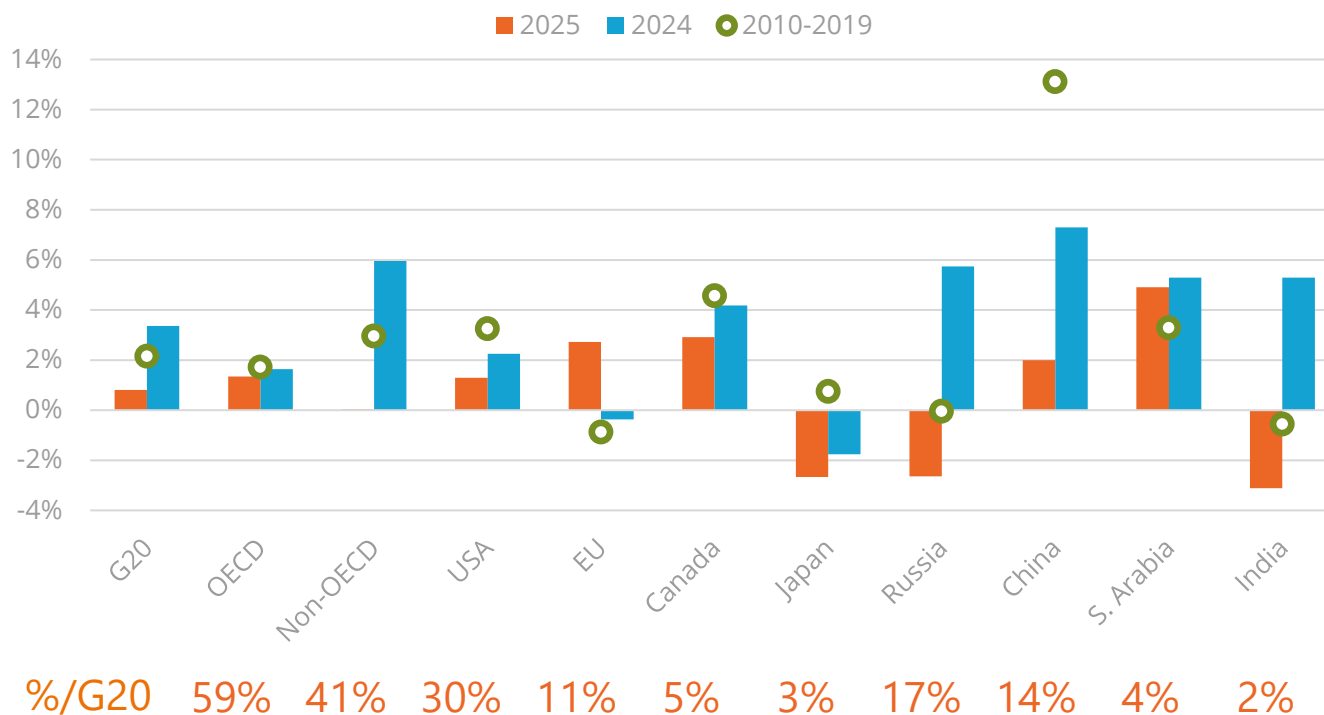
14% fall in global crude oil prices in 2025

- > Still 10% above their 2019 levels

Gas

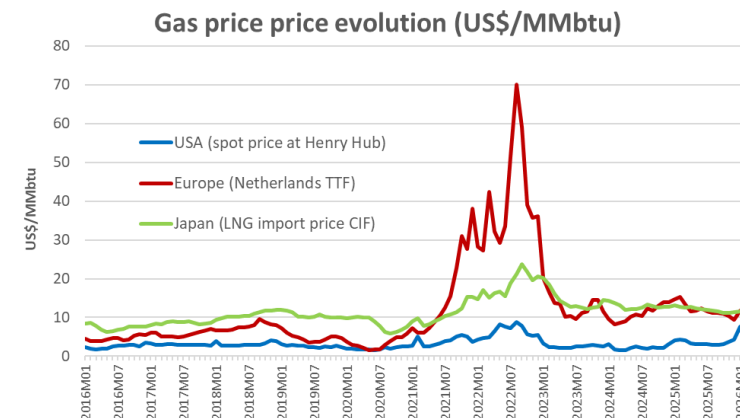
Slowdown or decline in most countries

Trends in gas consumption in G20 countries (%/year)



Source: Enerdata

Gas price evolution
(in US\$/Million British Thermal Units, MMBtu)



Source: Enerdata, based on World Bank data

Slowdown or decrease in most of countries

- > +1% in the US (higher heating / lower power sector)
- > Slower growth in China (+2%)
- > 3% drop in consumption in Russia, Japan (fossil-free power), and India (high LNG spot prices)

3% rebound in the EU

- > Over lower hydro and wind power generation and colder winter (also impact in Canada)
- > Strong growth in Saudi Arabia (power sector)

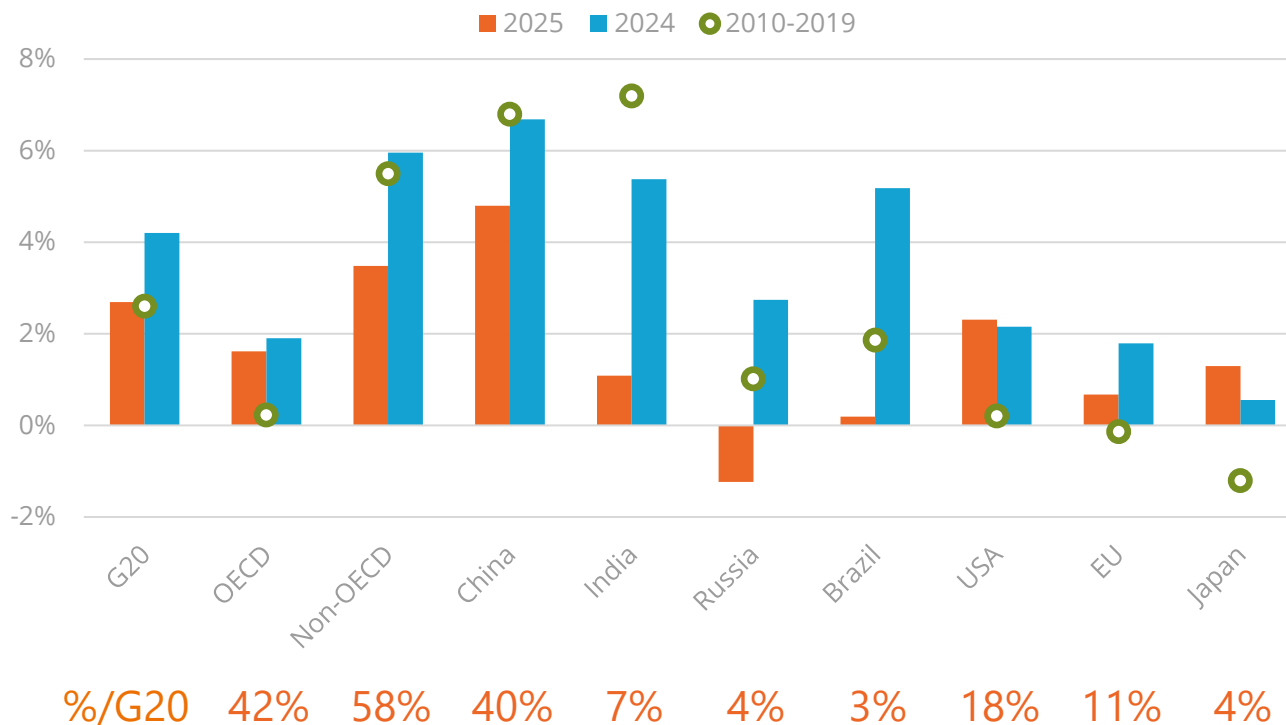
Lower volatility on LNG markets in 2025

- > 6% decline in Japan LNG price
- > Price increase in Europe (+9%) and in the US (+61%)

Electricity

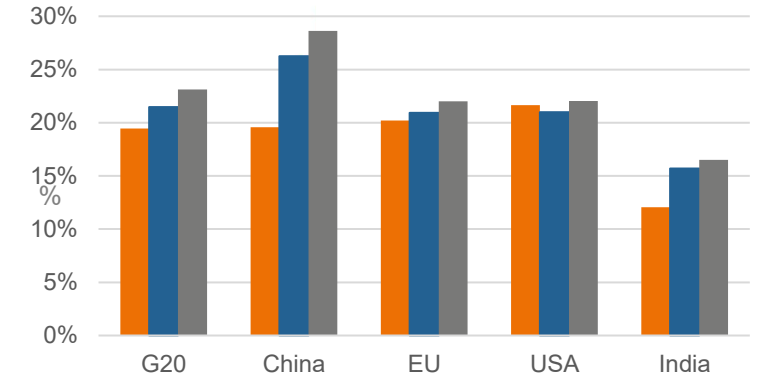
Electricity consumption continues to grow but its share is increasing only slightly

Trends in electric consumption in G20 countries (%/year)



Source: Enerdata

Share of electricity in final energy consumption



Source: Enerdata

Strong increase in China (+4.8%) and the USA (+2.4%) as in 2024

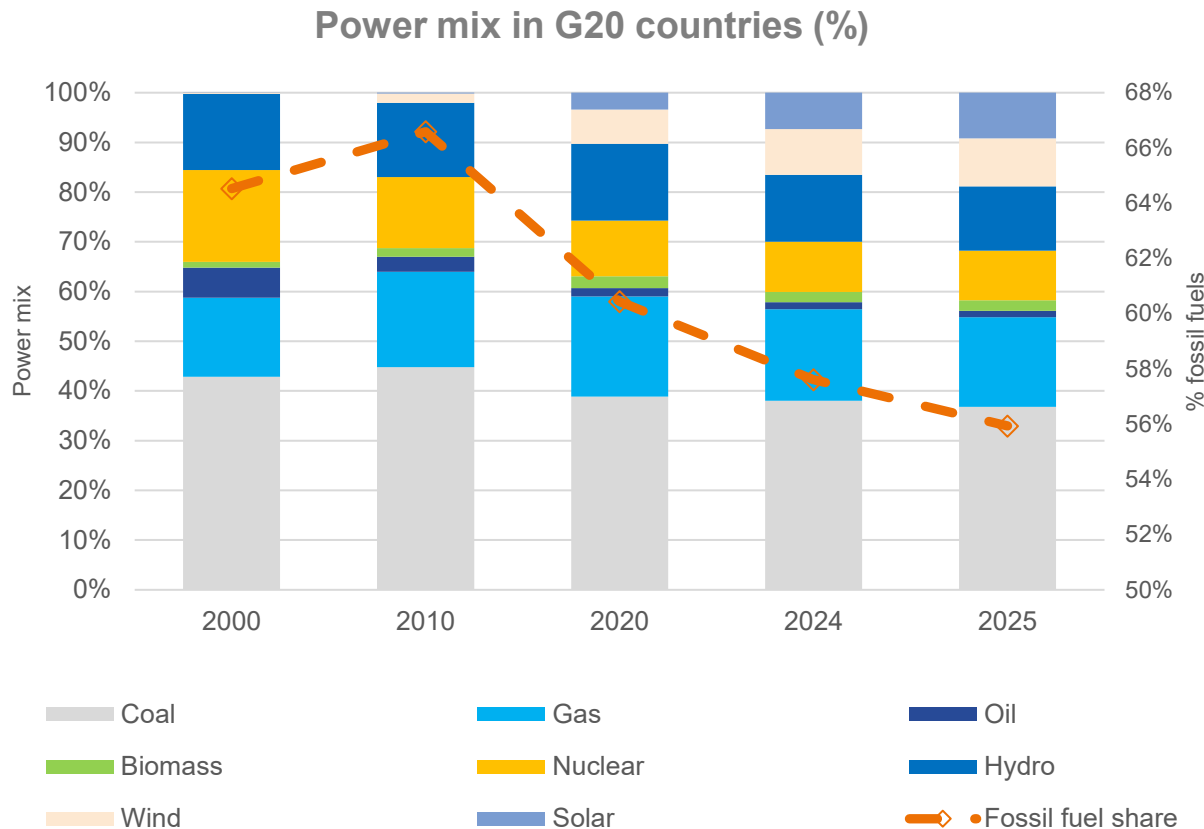
- > Driven by data centres, transport electrification and industry (China, USA, EU to a lesser extent)
- > Slowdown (+1%) in Europe, India and Brazil
- > Spurred by building electrification in the rest of G20

Steady increase, but far from <2°C scenarios

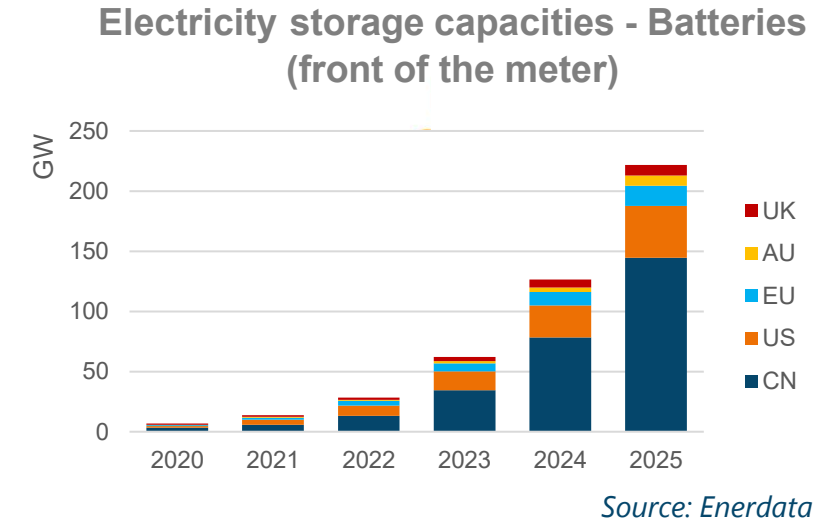
- > Slight increase in the share of electricity in final energy consumption (+4 pp since 2010) to 23% in 2025
- > Data centre boom, fuelled by fossil fuels.

Power mix

Gradual decarbonization of power generation



Source: Enerdata



Solar and wind power drive power generation

- > Strong growth in solar (+29%) and wind (+8%) generation → 19% of the power mix in 2025 (vs. 2% in 2010)
- > Thermal power generation remains stable in 2025 (slight decline in India and China, rise in the USA and the EU)
- > Slight decline in the share of fossil fuels (-2 pp to 56%)

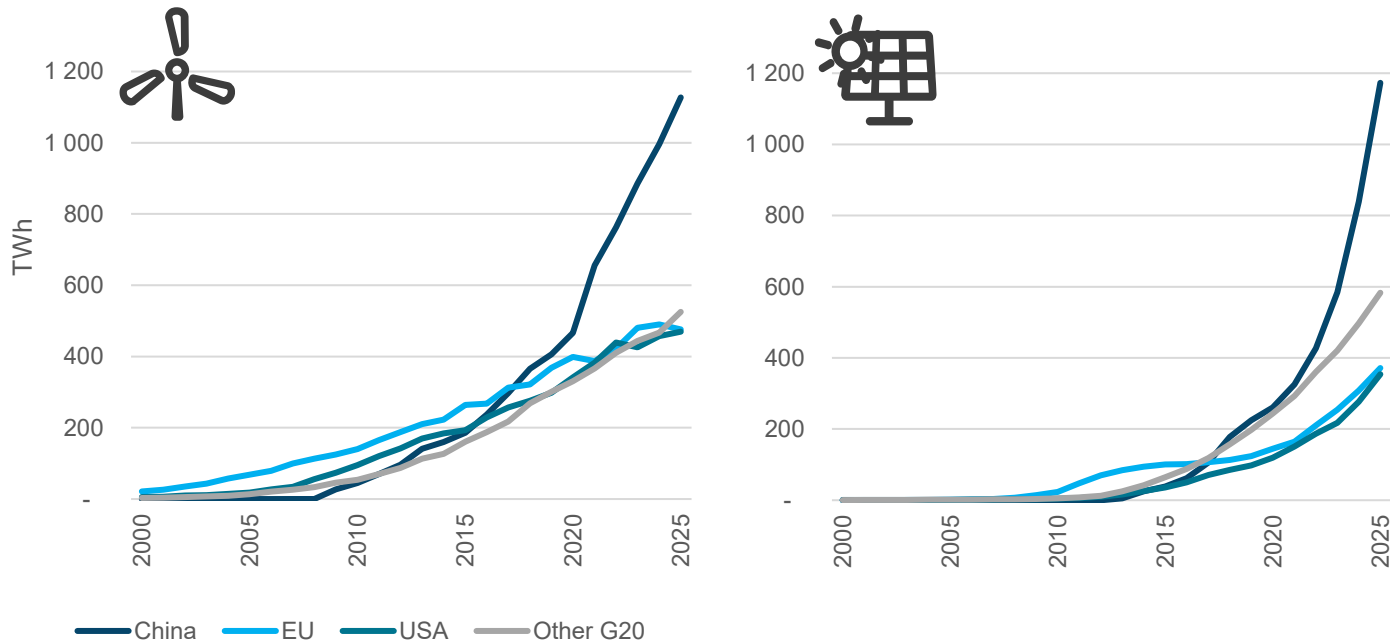
Electricity storage capacity boom

- > Primarily in China (>140 GW, 66 GW added in 2025),
- > Far ahead of the USA (43 GW, 16 GW added in 2025), the EU (6 GW), and Australia (5 GW)

Wind and solar

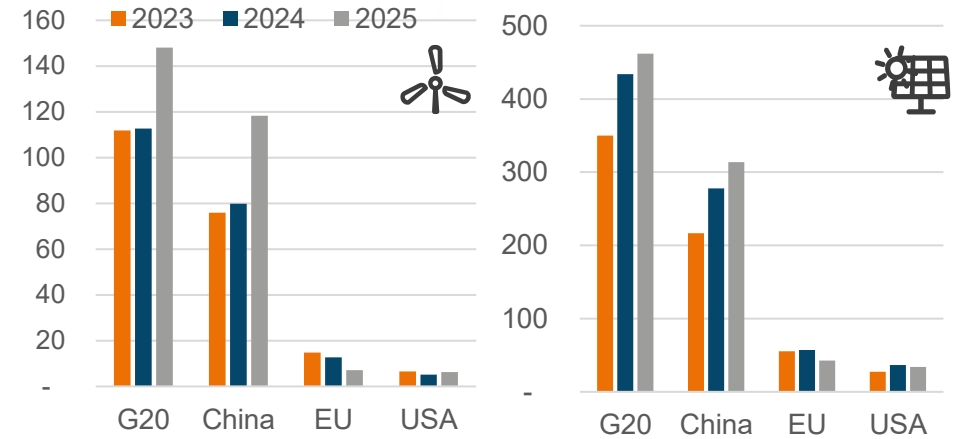
China accounted for 71% of new solar and wind installations in 2025

Wind and solar power generation in the main G20 countries (TWh)



Source: Enerdata

New wind and solar capacity additions (GW)



Source: Enerdata

New record for renewable power installations

- > Record installations for solar and wind, driven by China:
- > Over 460 GW of solar, 2/3 of which in China (314 GW)
- > Nearly 150 GW of wind, 80% of which in China (118 GW)
- > Slowdown in Europe, India installs more than the USA (37 GW solar + 6.3 GW wind)

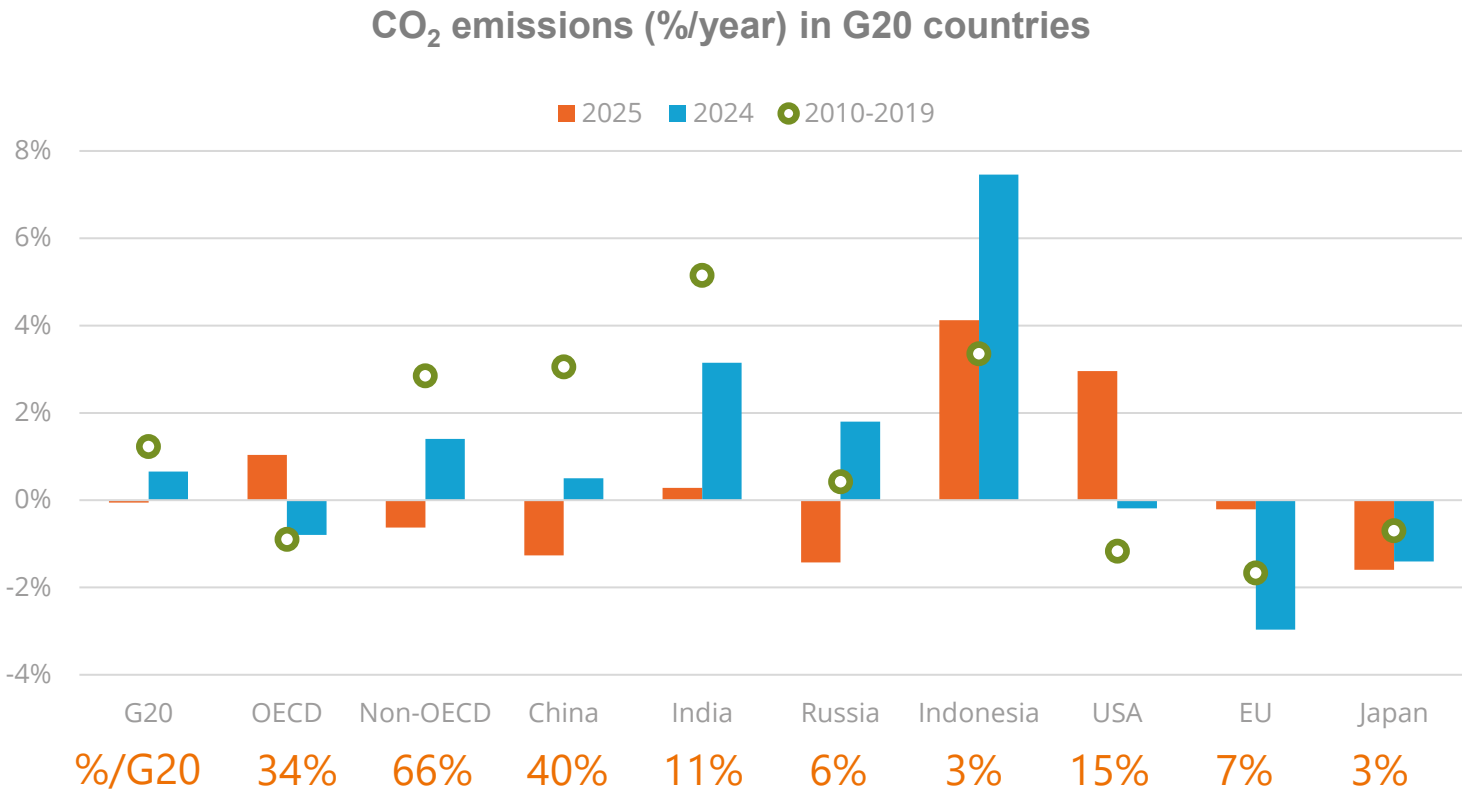
Strong increase in production by 2025

(29% solar and 8% wind)

- > Even faster in China (+40% solar and +13% wind in 2025)
- > China now accounts for 43% of the G20 wind power generation and for 47% of solar power generation

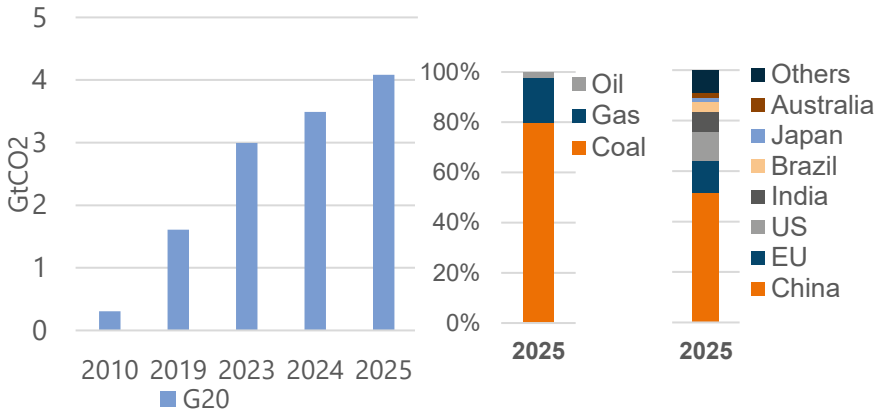
Stable CO₂ emissions*

Emissions from industrial processes are down



Source: Enerdata

CO2 emissions avoided by wind and solar power



Approximately 4 GtCO₂eq avoided in 2025

- > Wind and solar reduced fossil fuel consumption by 1.2 Gtoe = India's primary energy consumption.
- > 4 GtCO₂eq avoided = India's total emissions in 2025, half of which in China.
- > Since 2010, around 26 GtCO₂eq avoided in the G20 (~40% China, 20% US, 20% EU)

Stabilisation in CO₂ emissions in 2025

- > Stable thermal power generation in the G20 (down in China and India)
- > 7% decline in cement production in China (industrial process emissions)
- > Rebound in the US after two years of decline and in Canada with rising fossil fuel electricity production

* Total CO2 emissions related to energy combustion (>80% of CO2 emissions), industrial processes and fugitive emissions

Return to normal in terms of economic growth and energy consumption

- The 1.4% growth in energy consumption in 2025 represents a slowdown thanks to:
 - The increasing share of solar and wind power generation (1.2 Gtoe saved = India's energy consumption in 2025), especially in China, India, the EU, Japan, Korea and Australia
 - Industrial activity more oriented towards less energy-intensive sectors (especially in China)
 - Slightly less extreme temperatures (India, China)
- However, new policies in favour of coal use and data centre rollout are driving US consumption upwards.

Electricity consumption continues to grow, driven by data centres, EVs, industry, and building electrification

- Challenges for new power supply, as fossil fuels still represent 56% of the power mix and 80% of the energy mix

Solar and wind installations and power generation are reaching new records

- Spurred by China, and supported by the recent rise of batteries
- In 2025, solar and wind avoided massive CO2 emissions (= India's CO2 emissions) and helped stabilise total CO2 emissions
- A more ambitious reduction pathway for CO2 emissions and energy intensity (doubling the rate of reduction in intensity) is required to reach the 2°C target

Questions & Answers

www.enerdata.net

Enerdata is an independent French research company incorporated in 1991, headquartered in Grenoble, with a subsidiary in Singapore. The company specialises in the analysis and forecasting of energy and climate issues, at world and country level.

Leveraging its globally recognised databases, intelligence systems and models, Enerdata assists companies, investors, and government bodies across the world in designing their policies, strategies, and business plans.



Thank you for your attention

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Thank you!

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