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European Electricity Review 2026

The EU electricity sector in 2025

The European Electricity Review by global energy think tank Ember provides the first comprehensive overview of the EU transition from fossil fuels to clean power in 2025. Read the full report.

01

Wind and solar generated more power than fossil fuels in 2025

Wind and solar reached 30% of EU electricity, higher than fossil power (29%) for the first time on record, and up from 20% just five years prior. By 2025 wind and solar generated more power than all fossil sources in 14 of the 27 EU countries.

02

Solar's astounding growth continues across the EU

Solar generated more EU power than ever before in 2025 (369 TWh), growing by more than 20% for the fourth year running to 13% of EU electricity, higher than coal and hydro. Solar grew in every EU country and accounted for more than a fifth of electricity in Hungary, Cyprus, Greece, Spain and the Netherlands.

03

Renewables provided nearly half of EU power

Early 2025 was less windy and rainy but sunnier than early 2024. The same weather conditions that caused an annual drop in hydro (-12%) and wind (-2%) boosted solar generation, with renewables providing nearly half of EU power (48%). Wind remained the second largest EU electricity source at 17% of EU power, above gas.

04

Gas increased in the EU, driving prices up

Gas generation rose by 8% compared to 2024, largely due to reduced hydro output. This pushed the EU power sector's gas import bill up to €32 billion — 16% higher than the previous year. Price spikes during peak gas-use hours drove the annual increase in wholesale electricity prices across 21 EU countries in 2025.

05

Coal is increasingly marginal in the EU

Coal power fell to a new historic low of 9.2%. In 19 EU countries, coal power is at less than 5%. Over the past decade the reduction in coal was not matched by an equal increase in gas or other fossil fuels.

06

The surging battery pipeline can limit the EU's costly gas use

Battery deployment accelerated significantly in 2025, with grid-scale projects announced across the EU. With this acceleration, batteries' role in meeting evening demand could rapidly grow, reducing reliance on fossil generators and lowering wholesale prices when electricity is in high demand.

Key policy actions: capturing benefits of wind and solar power in the EU

Implement rules for clean flexibility

- Remove barriers to battery deployment in national legislation — such as streamlined permitting for co-located assets, ending double grid charging, clear rules and technical standards.
- Implement a framework to reward consumers for their demand flexibility to lower consumer bills and provide grid stability.
- Accelerate permitting for key cross-border power lines and secure finance for grids, with a new planning approach as per in Grids Package.
- Member States must immediately implement non-wire solutions that can rapidly increase grid capacity.
- The European Commission must ensure Member States implement existing rules and are held accountable for non-compliance.

Boost smart electrification with clear policy signals and support

- Put in place a clear policy for electrifying transport, heating, and industry, starting with the forthcoming Electrification Action Plan.
- Support investment in heat pumps and other electric technologies through state aid and by rebalancing taxes and energy costs.
- Use electrification strategies to reward the rollout of smart electric technologies, opening access to cheap clean electricity.
- Implement permitting reforms at the national level to enable renewables to meet rising electrification demand.

Improve energy security

- Prioritise the quick delivery of legislation to ban Russian gas and LNG imports by 2027, while avoiding a shift of the dependency to imported LNG that exposes EU consumers to global price shocks and unstable suppliers
- Secure power lines against sabotage and deploy new interconnectors to protect against disruption from blackouts and attacks, especially in regions with the highest risk of incidents
- Government, energy, financial and military stakeholders should collaborate to strengthen and protect grids and renewables

Read the full analysis at: ember-energy.org/EER2026

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Ember is an energy think tank that aims to accelerate the clean energy transition with data and policy.

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The EU energy transition in 2025

EU countries set new clean energy records in 2025

Selected full-year records

- Solar
- Wind
- Renewables
- Coal decline
- Battery storage

Finland
Wind share reached **27%**

Denmark
Highest wind and solar share in the EU: **71%**

Ireland
Stopped burning coal in June 2025

The Netherlands
Wind and solar overtook fossil

Poland
Coal share fell to a record low: **51%**

Germany
Solar overtook gas

Romania
Wind and solar share above **20%**

France
Wind and solar generation above 75 TWh

Hungary
Highest solar share in the EU: **28%***

Bulgaria
Wind and solar share above **20%**

Croatia
Wind overtook gas

Spain
Solar share rose to a record high: **22%**

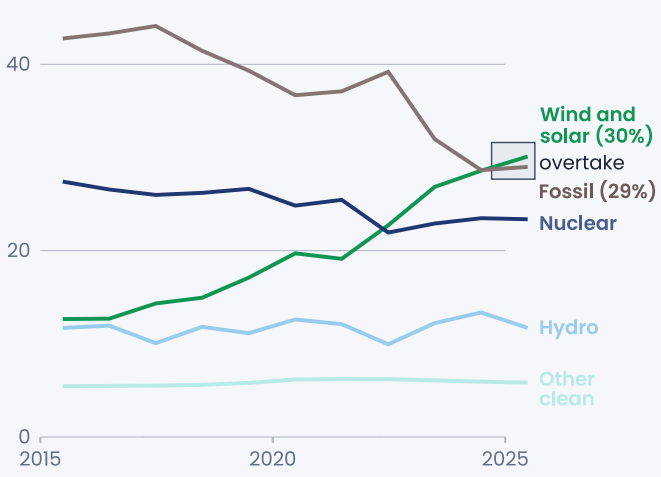
Italy
Grid-scale battery capacity grew by 40% by Oct 2025 vs 2024

Greece
Coal fell to a record low: **5%**

Cyprus
Solar share above **20%**

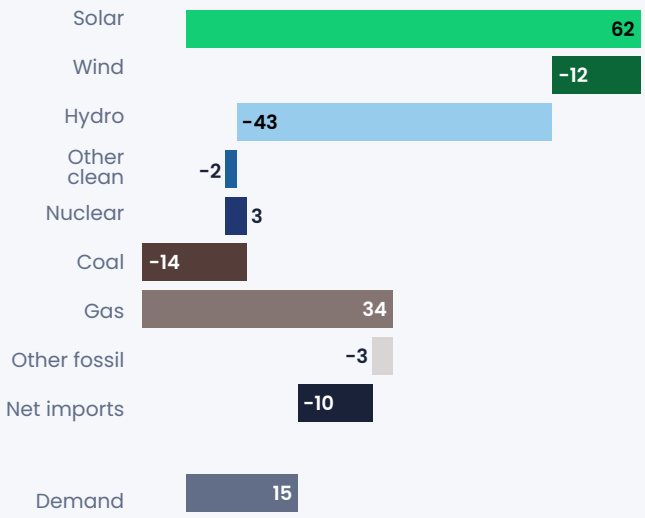
Wind and solar overtake fossil power in the EU for the first time in 2025...

Share of electricity generation (%)



... driven by a record annual increase in solar power

Annual change in electricity generation in 2025 (TWh)



Source: Yearly electricity data, Ember.
Figures in bold on the map indicate the share of total electricity generation in the country; solar includes behind-the-meter generation. *Among EU countries with solar generation > 1 TWh in 2025.
Other clean includes bioenergy and other renewables. Fossil includes coal, gas and other fossil.

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