Q4 2025 report on coal, fossil gas and European power trends

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Key facts of Q4 2025: Poor wind generation and weak hydro open the door to more fossil gas use

Wind

Europe's wind generation rose by 7% year-on-year in Q4 (+12 TWh), but this remains a muted performance considering that Q4 2024 was already particularly weak for wind. Wind generation is **still below Q4 2023**, highlighting both sluggish capacity additions across the continent and average wind conditions.
In contrast, favorable local conditions in **the UK resulted in the country's strongest quarter on record.**

Coal

In Q4 2025, **all European countries but France reduced coal generation, resulting in a total drop of 12 TWh (-10% y-o-y)**. The largest reductions were seen in Germany, Poland and the Netherlands. All in all, this is **the largest quarterly absolute decrease in about two years.**
Nonetheless, the decrease in coal generation must accelerate well beyond its 2025 pace to reach a coal-free Europe by 2030.

Hydro

2025 was a weak year for hydropower, with no recovery in Q4. **Hydro generation declined for the fifth consecutive quarter, falling by 14 TWh** (-10% y-o-y) in Europe, with the steepest decline in the countries surrounding the Alps.
Hydro historically brings valuable flexibility in Europe, but 2025 demonstrated that its inherent weather-related variability makes it necessary to develop other flexibility means such as battery storage or demand-side response.

Gas

European gas-fired generation increased for the fifth consecutive quarter (+9 TWh, +5% y-o-y), with most of the rise concentrated in October (+8 TWh), likely compensating for weak hydropower. Around two-thirds of countries recorded higher gas generation, while **the UK was the only country to achieve a significant reduction, supported by strong wind generation** this quarter.
As a result, higher gas demand across most of Europe translated into lower gas storage levels compared with both 2023 and 2024.

Q4 2025 sent Europe a reminder.

When power demand is growing back, as it has for more than two years, **removing coal** from our power systems requires steadily and massively adding renewables and clean flexibility. **The unacceptable alternative will otherwise be using more fossil gas.**

And the other way around. If we want to keep on making room for more clean flexibility, better grids, sustainable demand growth, and more wind and solar in Europe, we need to keep the pressure on coal power plant closures and, undeniably, **engage strongly against plans, from governments and businesses alike, that expand or maintain our dependency on fossil gas.**

Key facts of Q4 2025: Poor wind generation and weak hydro open the door to more fossil gas use

Demand

Demand continued to grow in Europe, albeit modestly, for the ninth consecutive quarter (+6 TWh, +0.6% y-o-y). This suggests a lasting trend, though heterogeneous across countries.
The UK posted the largest increase (+1.5 TWh), also recording nine consecutive quarters of demand growth. This points to continued electrification trends. In contrast, **Italy**'s demand declined again, marking a fourth consecutive quarter of contraction.

Solar

Despite the fact that the fourth quarter of the year is structurally unfavorable for solar due to winter conditions, solar generation met expectations and **delivered its strongest fourth quarter on record**. Generation increased by 21% (+10 TWh year-on-year), broadly in line with Europe's solar capacity additions in 2025. However, adverse local weather led to underperformance in parts of southeast Europe, most notably in Greece (-16%, -0.4 TWh).

Coal exit status

Europe's left-to-go coal power capacity stands at 85.5 GW at the turn of the year, following three announcements of retirement in Q4 2025. Due to the delayed closures of coal units in Italy and Spain, as well as in Poland, Romania and Greece, only 4.5 GW of coal capacity was retired in 2025, which is approximately half the average for the previous three years.

Gas tracker status

As of Q4 2025, **Europe's installed gas capacity stands at 252 GW**, an increase of 0.3 GW compared to Q3 2025. The retired and planned-to-retire capacity is 6.1 GW. Planned projects (i.e., before construction) now add up to 63.9 GW, an increase of 3.5 GW compared to the previous quarter.

Zoom in on... Italy

Italy's energy transition shows momentum, but remains uneven and fragile. Solar power is growing rapidly and grid-scale deployment is proving competitive, but frequent **shifts in policies** weaken deployment in the residential and commercial sectors.

The much needed **battery storage is gaining momentum** and becomes increasingly competitive, as shown in the latest MACSE auction.

Nonetheless, **wind power deployment remains sluggish, hampered by bureaucracy and permitting**. While coal is now marginal in Italy's generation except in Sardinia, **Italy is extremely dependent on fossil gas generation and electricity imports**. As a result, its power prices are clearly coupled with the volatile prices of gas, making them among the **highest in Europe.**

Italy urgently needs clear targets and consistent policies, to cut its dependency on fossil gas, decarbonise its electricity mix and its economy, and tilt the trade balance in a more favorable position.

Topics covered

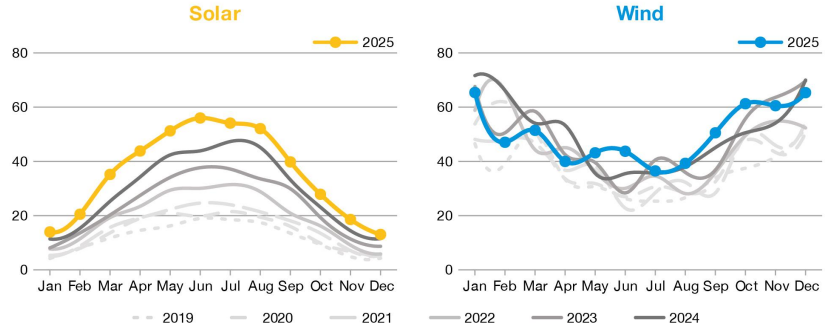
1. Europe’s electricity generation
2. Zoom in on… Italy’s energy transition
3. Europe’s coal exit status
4. Europe’s gas power plant tracker status
5. Beyond Fossil Fuels’ and members’ publications

Electricity generation in Europe in Q4 2025: Solar grew as much as a year earlier, but wind power struggles

The last quarter of the year is seasonally the least favorable to solar energy, with shorter days and cloudier weather. That's when wind is expected to gain momentum to fill the void left by solar.

Nonetheless, sluggish development across Europe (only 14 GW of wind capacity added in 2025) combined with average weather conditions, left the continent unable to significantly boost wind generation this quarter. Wind power met 21% of Europe's demand in Q4 2025. This represents a failure to ramp up wind generation: while this is a marginal improvement over a poor Q4 2024, it actually sits one percentage point below the levels seen in Q3 2023.

Solar and wind electricity generation in Europe (TWh)



Source: BFF elaboration based on Ember monthly electricity data (more information on the data in the Annex)

Solar does its part

In Q4 2025, European **solar power rose by 21%** (+10 TWh) compared to Q4 2024. This is in line with the overall solar capacity growth in 2025 (~+20%, +64 GW in the EU alone). Together, Türkiye, Spain, Germany, Italy and France accounted for 8 TWh of the increase.

Türkiye led the pack with a 2 TWh increase (+43% y-o-y) and announced that solar capacity had overtaken fossil gas capacity. Hungary also showed a notable progression: solar generation met 16% of the national demand, up from 11% a year ago.

Conversely, parts of southeast Europe experienced stormy weather and lower irradiance, leading to an **underperformance, notably in Greece** (-16%, -0.4 TWh y-o-y).

Despite the good overall performance of solar in 2025, SolarPower Europe has warned that a slight market contraction could put the 2030 EU solar target at risk.

Wind power stalls despite a stormy start to Q4

Wind power performance was uneven this quarter. A stormy October provided a strong start, but variable conditions in November and December hindered the end of the year. **Europe's total wind generation increased by just 12 TWh** year-on-year. This is minimal, given that Q4 2024 was already considered a weak quarter for wind. **Wind generation stands at 187 TWh this quarter, and remains below the 189 TWh recorded in Q4 2023**. This stagnation reflects relatively unfavorable wind conditions, but also **sluggish wind capacity development across the continent** (only 14 GW added in 2025).

There are some notable exceptions, among which is the UK. **The UK capitalized on very favorable weather conditions to record its best quarter ever**: wind met 38% of the electricity demand. Germany had the highest y-o-y increase (+5 TWh) but remains below its 2023 levels, while Sweden registered the most severe drop (-22%, -3 TWh) after an exceptionally favorable Q4 2024.

Electricity generation in Europe in Q4 2025: Demand on a slow yet steady rise, hydro still under pressure

Electricity demand continues to slowly rise

Europe's electricity demand increased for the ninth consecutive quarter in Q4 2025. Although growth **remained modest** (+6 TWh, +0.6% y-o-y) and **uneven across countries**, the upward trend appears consistent. Demand increased in 21 countries, led by the UK (+1.4 TWh), Spain (+1.4 TWh), Türkiye (+1.2 TWh) and Poland (+1.1 TWh).

The UK recorded its ninth straight quarter of growth, "hinting at a shift towards steady increases, as the **UK electrifies**", according to Carbon Brief.

Conversely, **demand in France was stagnant,** reflecting the **slower-than-expected electrification**. With stagnant demand, improved nuclear availability and the development of renewables, France achieved an all-time high in net exports (28 TWh, almost equivalent to the Netherlands' quarterly demand). The French TSO calls for faster electrification to make use of its overcapacity.

Germany saw a slight increase in demand for the first quarter of the year, likely due to the cold spell in November and, to some extent, electrification. Meanwhile, Italy's demand contracted for the fourth consecutive quarter and Portugal's consumption reached historic highs amid economic recovery.

Hydro is not a guaranteed production asset, but is inherently fluctuating

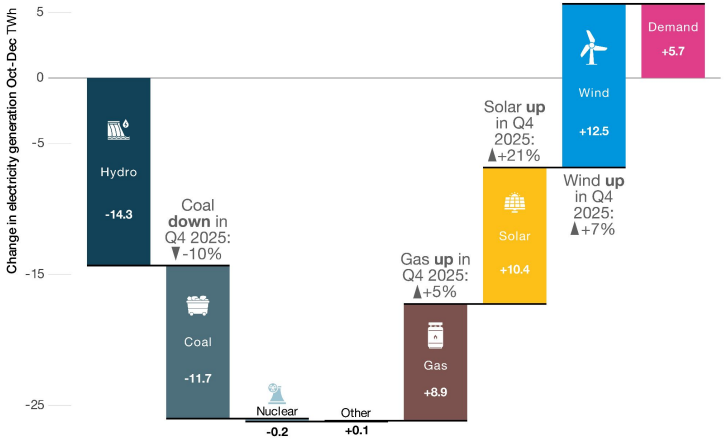
European hydro generation declined (-14 TWh, -10% y-o-y) **for the fifth consecutive quarter,** following a year of unfavorable weather conditions.

Hydrological conditions in Europe were heterogeneous. The Alpine countries **(France, Italy, Switzerland and Austria) experienced a combined drop of 13 TWh**, while **Türkiye registered 3 TWh less** than in Q4 2024.

In contrast, October and November brought heavier-than-usual **rainfall to the Balkans**. This resulted in increased hydro production in Bulgaria and Greece. However, the rain was often insufficient to reverse a year of harsh conditions. For instance, Serbia reported all-time low hydropower outputs in 2025, highlighting that short-term storms cannot always replenish long-term reservoir deficits.

EUROPE: year-on-year change in electricity generation by fuel in the fourth quarter

Oct 2025 — Dec 2025 versus Oct 2024 — Dec 2024



Source: BFF elaboration based on Ember monthly electricity data (more information on the data in the Annex)
The category "Other" includes bioenergy, other renewables, other fossil fuels and net imports.

Nuclear generation varies by country but is flat overall

Despite a significant recovery in the availability of the nuclear fleet in France (+4 TWh, +17% y-o-y) and Czechia's increased production due to the modernisation of its nuclear plants (+1.2 TWh, +17% y-o-y), **European nuclear generation decreased slightly (-0.2 TWh)** for the third consecutive quarter. This is, again, principally due to the UK (-1 TWh, related to incidents and maintenance), Switzerland (-2 TWh, continued outage in Gösgen) and Belgium (-2 TWh, three reactors closed in 2025).

Electricity generation in Europe in Q4 2025: Coal fell again, but gas rose even faster

Coal is structurally declining, but the pace remains insufficient

In Q4 2025, all European countries but France **reduced coal generation, resulting in a total drop of 12 TWh** (-10% y-o-y). This was the largest year-on-year absolute decrease in about two years. Germany led the reduction (-5 TWh, -17% y-o-y), followed by the Netherlands (-1.6 TWh, -40% y-o-y) and Poland (-0.9 TWh, -3% y-o-y).

Despite the decline, the share of coal in Poland's demand climbed back to 54%, after two consecutive quarters below 50%. This was driven by higher winter demand and stagnant wind capacity which could have helped compensate for the seasonal drop in solar output.

In **France**, where coal remains marginal, the Q4 increase (+0.7 TWh y-o-y) was caused by the restart of the last two coal power plants, not just as strategic reserves, but also likely to clear out the remaining coal stock.

Even though coal generation is on a clear downward trajectory, **the rate of decrease must accelerate well beyond its 2025 pace**. To reach a coal-free Europe by 2030, the continent needs to remove 22 TWh per quarter, compared to an average of 8 TWh those last two years.

Fossil gas is still filling the gaps

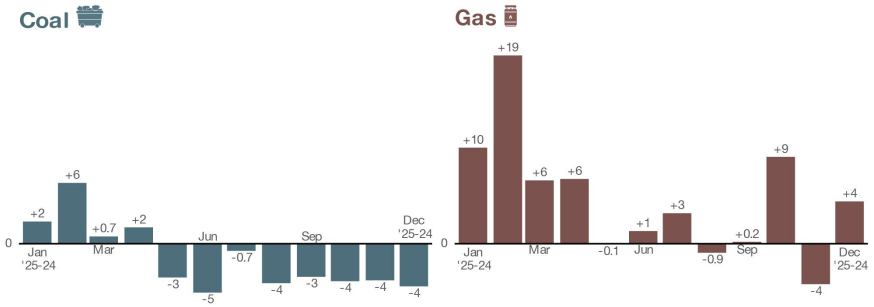
Gas generation rose for the fifth consecutive quarter (+9 TWh, +5 % y-o-y). The majority of this surge occurred in October (+8 TWh) likely **to counterbalance the low hydro generation,** as October saw the sharpest year-on-year decline of 2025 for hydro generation (-14 TWh y-o-y).

Italy topped the list of the 17 countries that increased gas generation this quarter, (+3.9 TWh, +12% y-o-y), followed by **Spain** (+2.3 TWh y-o-y). The Iberian peninsula registered unfavorable conditions for both hydro and wind in October, leaving room to fossil gas. **Germany** saw a 1.6 TWh (+7% y-o-y) increase, partly driven by November's cold spell that boosted heating demand. Conversely, the UK's gas generation decreased by 2.7 TWh (-11% y-o-y), thanks to record output for wind in November.

The increase in gas demand almost everywhere in Europe **has led to lower gas storage levels** compared with 2023 and 2024.

EUROPE: year-on-year change in electricity generation by fuel in the last 12 months (TWh)

Jan 2025 — Dec 2025 versus Jan 2024 — Dec 2024



Source: BFF elaboration based on Ember monthly electricity data (more information on the data in the Annex)

Europe's continued reliance on gas is a direct result of the lagging in wind expansion and a shortfall in system flexibility. Until battery storage, demand-side response and interconnections are scaled at speed, fossil gas will continue to serve as a backup for weather-driven variability and demand swings, and the phase-out of coal will stall.

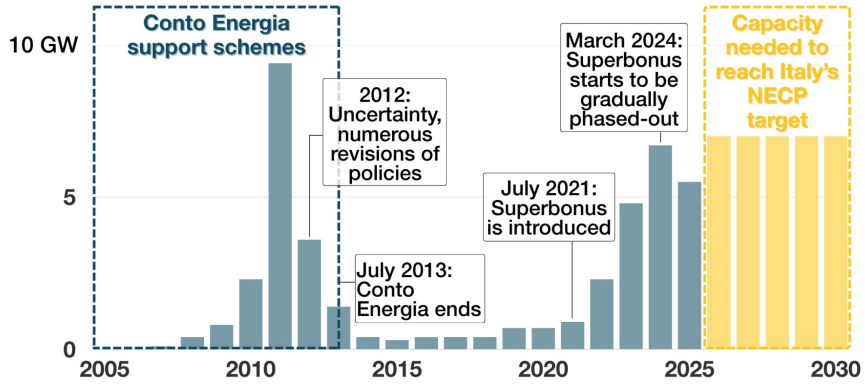
Zoom in on … Italy 1/3

Despite its strong renewable potential, Italy is on a narrow path to successfully deliver its energy transition on time. While renewables offer clear opportunities, the power system remains heavily anchored to gas-fired generation, exposing the country to price volatility and slow decarbonisation of its economy.

Despite a story of ups and downs shaped by policies, solar shows signs of recovery, offering a high potential for cutting bills

Solar PV deployment initially took off when the government introduced the first feed-in tariffs, through the so-called **Conto Energia schemes, in 2005.** Between 2005 and 2013, five successive schemes were implemented, creating very favorable conditions for investment. As a result, solar capacity grew rapidly. In 2011 Italy even ranked first in Europe for new solar installations.

The ups and downs of solar deployment in Italy



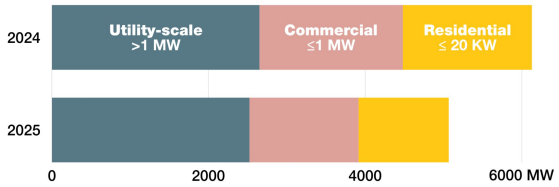
Source: BFF elaboration based on Ember, Terna and NECP data

This momentum came to **an abrupt halt in 2012**, when a spending cap was introduced for the final Conto Energia scheme, which fully terminated mid-2013. Subsequent schemes had limited impact, until the launch of the **Superbonus in 2021.** This scheme offered a tax credit equal to 110% of the investment costs for renovation works. Demand for the Superbonus was massive, and likely underestimated by the Italian government. It strongly boosted solar deployment (especially in the residential sector) but also overshot expected costs. Meloni's government ultimately started phasing it out in 2024.

The end of the Superbonus, along with restriction on solar installations on agricultural lands and overall policy uncertainties (including possible postponement of the coal phase out to 2038, and vague plans to reintroduce nuclear energy) had immediate negative effects on the market. It translated in 2025 into a drop of 17% of capacity installation compared to 2024, mostly in the residential (below 20 kW) and commercial (below 1 MW) segments.

Despite this slowdown, 2025 also saw **positive developments in the utility-scale segment**, which accounted for half of new capacity additions. The latest **FER-X auction**, awarding long-term fixed revenue contracts to both wind and solar is a striking example. The auction was oversubscribed, with around 9 GW of eligible projects competing for 8 GW of available capacity. It cleared at a competitive average price of €56.8/MWh, far below 2025's average wholesale electricity prices of 122€/MWh.

Residential and commercial solar installations contracted in 2025, but grid-scale persisted



Source: BFF elaboration based on Terna's data

Italy's 2024 electricity mix: *GAS: 37%, HYDRO: 17%, IMPORTS: 17%, SOLAR: 11%, WIND: 7%, OTHER: 12%*

Zoom in on … Italy 2/3

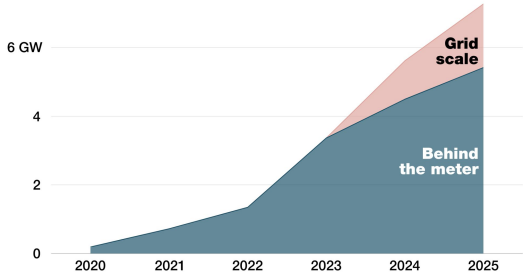
Solar generation is rising and drives the need for greater flexibility, which Italy starts addressing

Yearly solar generation increased by 60% (+17 TWh) between 2022 and 2025. In 2025, solar energy covered **up to 22%** of Italy's monthly demand.

Solar power's growth **calls for greater flexibility** (to shift part of the strong mid-day output to the evening) and **grid reinforcement** (to transmit power from the areas with more potential and land availability - the south - to the consumption centers, often in the north). So far, **renewable energy curtailment has remained relatively low** (0.6% of total renewable generation in 2024, compared with 3% in Germany).

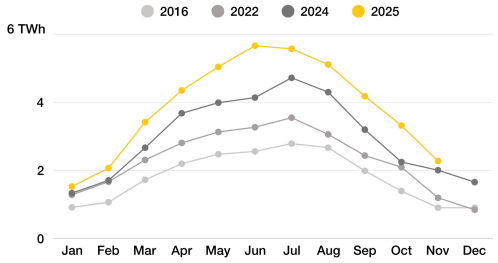
Italy's battery storage is scaling fast, since 2021 for behind-the-meter and since 2024 for grid scale. Generation from grid-scale batteries jumped from 0.2 TWh in 2023 to 1 TWh in 2024, with projections to double again in 2025.

Battery storage has been booming since 2021



Source: BFF elaboration based on Terna's data

Solar generation is on the rise in Italy



Source: BFF elaboration based on Ember monthly electricity data

This strong momentum is reflected in the results of the recent **MACSE auction**, which aimed to award 10 GWh of storage. The auction attracted **intense competition**, with bids totalling more than four times the volume on offer. It cleared at an average price of €12,959/MWh/year, well below the reserve price of €37,000/MWh/year.

In addition, the auction prioritised procurement in the regions where storage is more needed: southern Italy, Sardinia, and Sicily. Those areas combine high shares of renewable generation with weaker grid interconnections.

Despite having one of Europe's most advanced smart meter networks, Italy continues to lag in demand-side response and dynamic pricing, that would significantly enhance its system's flexibility.

Wind development is still in pain

While solar deployment continues to grow despite recent policy changes, wind development is clearly lagging behind, a trend observed across much of Europe. Capacity deployment have been largely stagnant over the past decade, with only 0.7 GW installed in 2024. Offshore wind is virtually nonexistent in Italy (30 MW only), despite considerable potential.

The recent FER-X auction confirmed this imbalance between wind and solar. Less than 1 GW of wind capacity was awarded, compared with almost 8 GW of solar. All awarded wind capacity is located in Southern Italy, where load factors are higher, land availability greater and grid connections have been prioritized by the TSO. Moreover, unlike solar, **most of the awarded wind capacity is for re-powering** (increasing the capacity of existing projects), not for new projects.

The weak engagement in the auction does not reflect a cost issue, but the persistent barriers facing new wind projects, especially with permitting. It results in a preference for lower-risk projects on existing assets rather than new deployment.

Renewables still face acceptance challenges, leaving room for fossil fuels

Sardinia has become a focal point of **opposition to renewables** development in Italy. Despite its undeniable untapped renewable potential, the island adopted a decree restricting "suitable areas" for renewable plants to 1% of its territory, and not necessarily where it suitable for renewables installations, citing landscape protection. Although the law was declared unconstitutional in December, it clearly highlights that, to be accepted, projects should engage and benefit communities. As long as the resistance persists, and while new interconnections are still pending, **Sardinia remains dependant on coal** with the Fiume Santo power plant.

Sardinia is a striking example, but wind projects across Italy would benefit from better dialogue and greater implication from local residents.

Zoom in on … Italy 3/3

Italy's gas addiction keeps electricity prices high

Coal generation dropped sharply (-90%) in 10 years. Coal generation only met 1% of Italy's demand in 2025, **paving the way for a coal phase-out in the mainland**, the date of which remains uncertain and could even be delayed to 2038.

Conversely, **Italy remains heavily dependent on fossil gas**. It has the biggest operating fleet of gas power plants in Europe (44 GW installed capacity), a great number of projects for new plants (2.8 GW currently under construction, and at least 4.5 GW more under development), and no plans to close existing plants.

As gas-fired power plants often set the marginal price, continued reliance on fossil gas contributes to **Italy having some of the highest electricity prices** in the EU. In 2025, average day-ahead wholesale electricity prices is 122€/MWh, far above the European average of 90 €/MWh. Relying on gas exposes Italian consumers and industries to sustained price volatility and higher energy costs. In 2023, 8% of Italian face energy poverty.

Italy is a major electricity importer

Italy is, historically and by far, the **largest electricity importer in Europe**. In 2025, imports covered 15% of the demand.

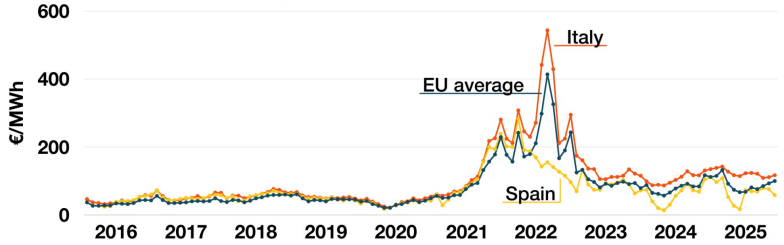
Expanding domestic renewable generation and flexibility solutions would help Italy **reducing dependence on fossil gas and imported electricity.** Over time, this would also contribute to lowering generation costs, strengthening energy security and improving the trade balance.

Data centers threaten to overwhelm Italy's electric system

Electricity demand in Italy followed an upward trend in the early 2000s, before dropping sharply due to the 2008–2009 financial crisis. Since then, **demand has remained relatively flat and has never returned to its pre-crisis levels**.

Nonetheless, similarly to Ireland, data centers could reverse the trend. The Italian TSO Terna has received a total of 65 GW grid connection requests for new data centers. This is more than the entire country consumption. Terna expects only a small share of these projects to materialise, that could increase electricity demand by 2 GW by 2030. **Uncontrolled deployment of data centres could increase Italy's reliance on fossil gas** if they are not fully supplied by renewable energy, exacerbate grid congestion, and even delay renewable projects by occupying limited grid connection capacity. Ultimately, they could slow down the country's decarbonisation of transport and industry via clean power.

Italy's wholesale electricity prices are among the highest in the EU



Source: BFF elaboration based on Ember's data

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Nonetheless, wind power deployment remains sluggish, hampered by bureaucracy and permitting. While coal is now marginal in Italy's generation except in Sardinia, Italy is extremely dependent on fossil gas generation and electricity imports. As a result, its power prices are clearly coupled with the volatile prices of gas, making them among the highest in Europe.

Italy urgently needs clear targets and consistent policies, to cut its dependency on fossil gas, decarbonise its electricity mix and its economy, and tilt the trade balance in a more favorable position.

Europe coal plant countdown: Q4 2025 and full-year changes

Three announcements and four retirements in Q4

Three coal power plants were announced for retirement in Q4 2025: Opatovice (360 MW) in **Czechia**, Krakow (350 MW) in **Poland**, and Iasi II (50 MW) in **Romania,** but all three plants are to be converted to gas.

Four coal plant retirements in Q4 (previously announced) resulted in the permanent **removal of 500 MW of coal capacity**, however, with conversion to biomass at Le Moule (57 MW, French overseas territory) as well as with plans for gas conversion at Isalnitsa (315 MW, Romania).

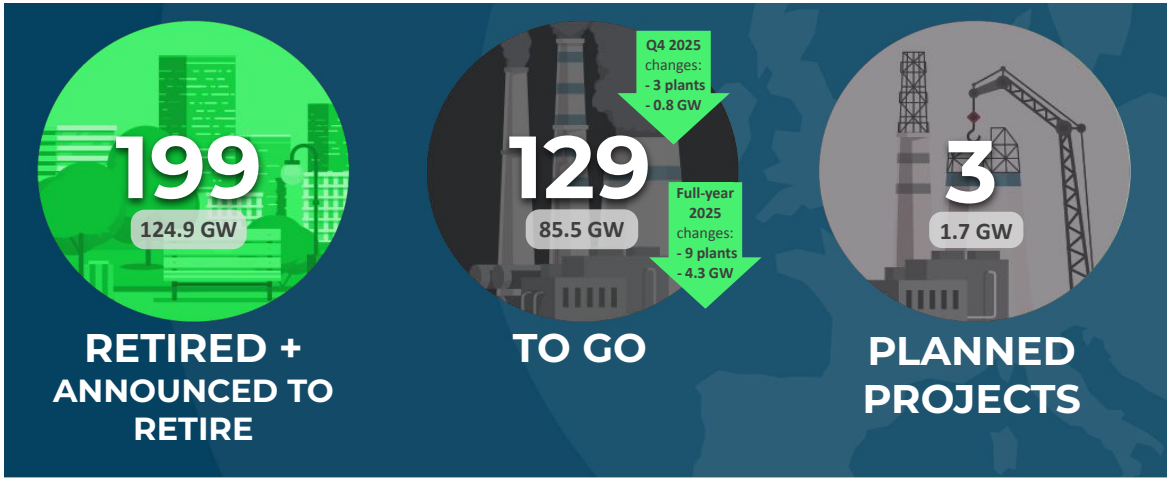
Delayed closures in several countries

In Q3, some **delays to the closure of coal units** were announced in **Poland** in Q3 - most of which relating to capacity payment auctions (see Q3 2025 report). In Q4, **Romania**'s government announced that it would extend the operation of two coal units (Rovinari 6 and Turceni 4), which were initially due to close in 2025, until at least 2026. Three other units (Rovinari 4, Rovinari 5 and Turceni 5), which were due to close in 2026, will now operate until 2029.

In **Greece,** the remaining units of the Agios Dimitrios coal power plant are now set to close in Q2 2026 instead of Q4 2025, which does not affect the expected completion of the coal phase-out in 2026. Finally, the governments in **Italy** and **Spain** failed to deliver on the decisions that would have guaranteed a coal phase-out in peninsular Spain and mainland Italy by 2025.

In 2025, only 4.5 GW of coal capacity retired

The postponed closure of some coal units, as detailed above, resulted in **just 4.5 GW of coal capacity retired in 2025**. This lower-than-expected figure is to be compared with the impressive figure of 14.3 GW retired in 2024, as well as an average of 7.6 GW retired per year over the previous three years.



The countdown now reads: **199 plants retired or announced to retire (+9 plants, or +4.3 GW added throughout 2025)**, 129 plants left-to-go (no or post-2030 retirement), and 3 planned projects.

New Q4 retirement announcements +3	Retirements in Q4 +4	New coal projects (change) 0
• **CZ Opatovice** (360 MW) • **PL Krakow** (350 MW) • **RO Iasi II** (50 MW)	Announced to retire, now retired: • **DE Leverkusen** (112 MW) • **FR Le Moule** (57 MW) • **RO Iasi II** (50 MW) • **RO Isalnitsa** (315 MW)	No project countdown change in Q4; however, six projects that were previously shelved in Bosnia and Herzegovina and seven in Türkiye are now considered cancelled.

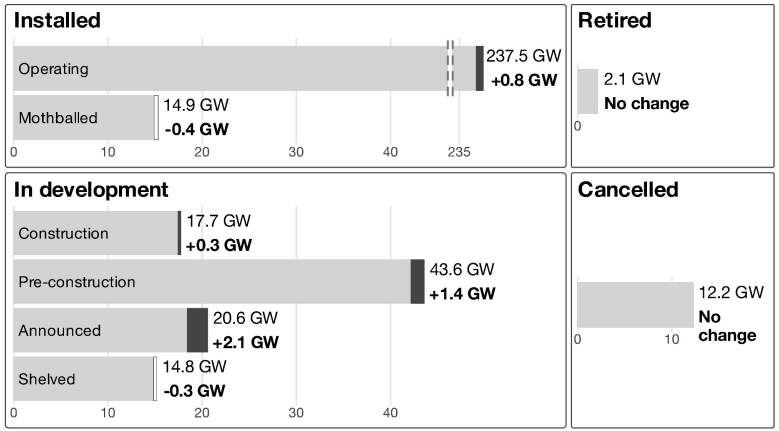
Source: Beyond Fossil Fuels coal database; status: January 2026

Europe gas plant tracker: Q4 2025 status

As of Q4 2025, the installed gas capacity in Europe stands at 252.4 GW, an increase of 330 MW compared to Q3 2025.
Capacities retired and planned to retire have not changed since the previous quarter, adding up to 6.1 GW, with 16 plants, 10 of which have a retirement date before 2035. Planned projects now consist of 102 plants (63.9 GW), an increase of three plants (3.5 GW).

Capacity of gas power plant by status

Quarterly changes in Q4 2025 are shown as either increases or decreases
Note: the operating capacity bar uses a scale break.



Source: Beyond Fossil Fuels gas database; status: January 2026

Notable changes in Q4 2025:

Cancellations, retirements and retirement announcements

- No retirements or cancellations

Commissioning

- Les Awirs Flemalle (Belgium, 875 MW) became the **800th operating gas power plant in Europe**.
- Updates from previous quarters (recorded in Q4): Corduff Flexgen (Ireland, 65 MW) and the second unit at Glanford Brigg IC power station (UK, 50 MW) were commissioned.

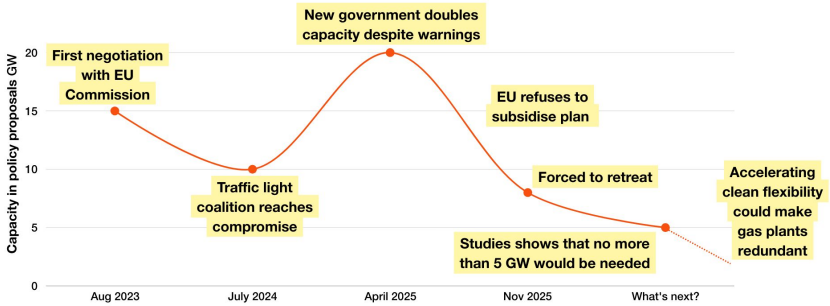
Projects (new or expanded gas power plants)

- **Construction** began on 11 units totaling 1.2 GW across Czechia, Ireland, Poland, Romania, and the UK, including Grange Castle Business Park (Ireland, 170 MW), Gdansk (Poland, 600 MW), and two Krakow-Leg units (Poland, 100 MW combined).
- Eight projects totaling 1.5 GW advanced to **pre-construction** status across Czechia, Estonia, North Macedonia, Poland, and Romania, with notable additions including Dolna Odra (Poland, 588 MW), Negotino (North Macedonia, 500 MW), and Bucharest-Sud (Romania, 275 MW).
- **Polish capacity market**: In the auction for delivery year 2030, five new-build projects secured 15-year contracts totaling 2.3 GW of contracted capacity worth approximately €3.6 billion: Rybnik II, Gryfino II, Jaworzno (Tauron, three OCGT units of 200 MW each), Pelplin, and Jarosław (both ICCC, owned by Vortex Energy/Vitol). Two existing units received additional one-year contracts: Wloclawek (5th contract) and Nowa Sarzyna (10th contract). Additional Polish projects added: Polaniec (2 × 680 MW CCGT, ENEA), which received no tenders and could not participate in the capacity market; and Skawina (350 MW ICCC, ResInvest), which confirmed securing a 17-year contract in July's catch-up auction.
- **Germany's gas power plant** developments, including seven new projects totaling 3.8 GW, are detailed on the next slide.

Europe gas plant tracker: Germany

Total shelved:	**2.7 GW**			
Total announced:	**10.2 GW**			
Janschwalde	CCGT	900	LEAG | EP Group	*To be shelved soon*
Leipheim	CCGT	550	EP Group	
Mehrum	CCGT	1200	EP Group	
Trianel Hamm	CCGT	500	Trianel	
Bexbach		900	Steag Iqony | AIP	
Quierschied-Weiher		600	Steag Iqony | AIP	
Knapsack Gas	ICCC	120	Statkraft	
Rheinhafen steam		850	EnBW	
Staudinger		890	Uniper	
Scholven 2		870	Uniper	
Völklingen-Fenne	ICCC	150	Steag Iqony | AIP	
Schkopau	CCGT	900	Saale Energie | EP Group	**Included this quarter**
Voerde	CCGT	850	RWE	
RWE Burghaussen	CCGT	800	RWE	
RWE Burghaussen	OCGT	150	RWE	
Total pre-construction:	**4.8 GW**			
Berlin-Reuter-West	CCGT	30	BEW	
Zolling thermal	ICCC	42	Onyx Power | Riverstone Holdings	
Dresden-Wilschdorf	ICCC	42	GlobalFoundries	
IQ Energy Center	ICCC	61	E.ON	
Bergkamen	CCGT	880	Steag Iqony | AIP	
Gundremmingen peaker	ICCC	124	RWE	
Weisweiler	CCGT	800	RWE	
Gersteinwerk	CCGT	800	RWE	
Schwarze Pumpe	CCGT	870	LEAG | EP Group	
Lippendorf	CCGT	875	LEAG | EP Group	
Mainz	CCGT	250	KMW	
Mainz	ICCC	54	KMW	**Included this quarter**
Total in construction:	**1.7 GW**			

Germany's gas power policy saga



Based on additional research, this quarter's update includes **seven new German gas projects totaling approximately 3.8 GW**. Germany now has **15 GW of planned capacity** (announced and pre-construction combined), an increase of 6.7 GW in 2025 despite the fact that the country's government recently scaled back its gas power plant strategy.

The strategy centers on a long-delayed gas power auction program, which the government indicated in late 2025 could launch as early as March 2026, pending European Commission approval. After initial proposals, negotiations between the EU and successive German governments caused capacity targets to fluctuate to as high as 20 GW before seemingly settling at **8 GW for gas power,** and the government has indicated EU approval is nearly secured. Major utilities including RWE, Uniper, EnBW and Steag seem to have reserved turbine orders equivalent to 7 to 8 GW amid a **global gas turbine supply shortage**.

The magnitude of the gas capacity needed by Germany to maintain grid reliability is highly debated. Independent studies suggest that Germany may require no more than 5 GW of new gas capacity to maintain grid reliability through the coal phase-out period. The volume of projects currently in development is substantially bigger than the current auction target. As the costs of clean flexibility alternatives decrease sharply, questions emerge about the rationale for government subsidies on this scale, and why utilities continue to propose projects that risk becoming stranded assets.

Recent Beyond Fossil Fuels' and members' publications

The GreenTank: Why does Greece's electricity market remain so expensive?

According to a new analysis by The Green Tank, the main reasons are the country's growing dependence on fossil gas and the lack of energy storage infrastructure.

Read the briefing

BFF: Reimagining DSOs for a renewable future

Renewable energy redefines the role of Distribution System Operators. BFF's report sets out high-level changes needed to transform DSOs into the enablers of the clean energy transition.

Read the briefing

BFF: EU governments usher through fossil gas subsidies worth billions

A wave of expensive energy support mechanisms is sweeping across Europe, with EU institutions failing to properly scrutinise them, to the benefit of gas companies.

Read the briefing

Ember: how Spain cut the link between gas and power prices using renewables

Spain has some of the lowest wholesale electricity prices in Europe, largely thanks to renewables which reduced the influence of expensive fossil power on the electricity market.

Coming on 22/01 : European Electricity Review

Read the report

BFF: Europeans agree: Time to put limits on Big Tech Data Centres

A staggering majority of respondents in a polling commissioned by Beyond Fossil Fuels in five European countries do not want new data centres to jeopardise Europe's clean energy transition, drain water resources and raise costs for consumers.

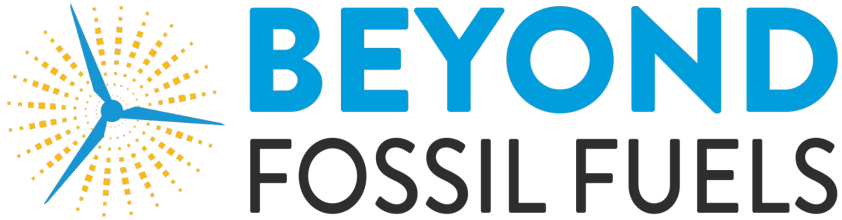
Read the briefing

RAP & BFF: Mandating Europe's energy regulators to think long-term to unlock clean investment

BFF and RAP propose two urgent reforms for national governments: granting national regulators a statutory mandate focused on the energy transition and establishing independent system operators and planners to oversee grid planning and operation.

Read the paper

> To access all Beyond Fossil Fuels' publications, visit our website



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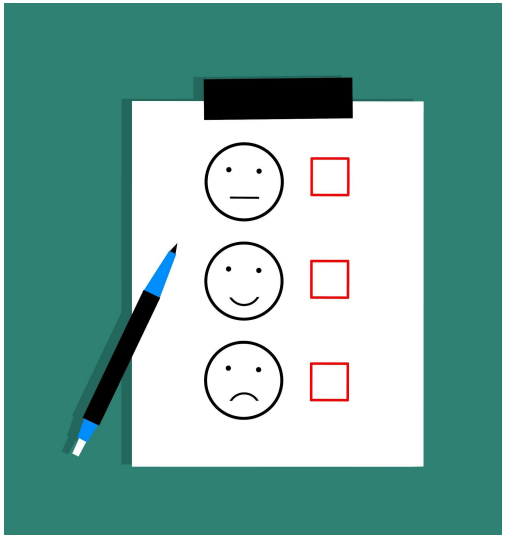
Your feedback matters!

Tell us what you're interested in so we can make next quarter's report even more **valuable**!

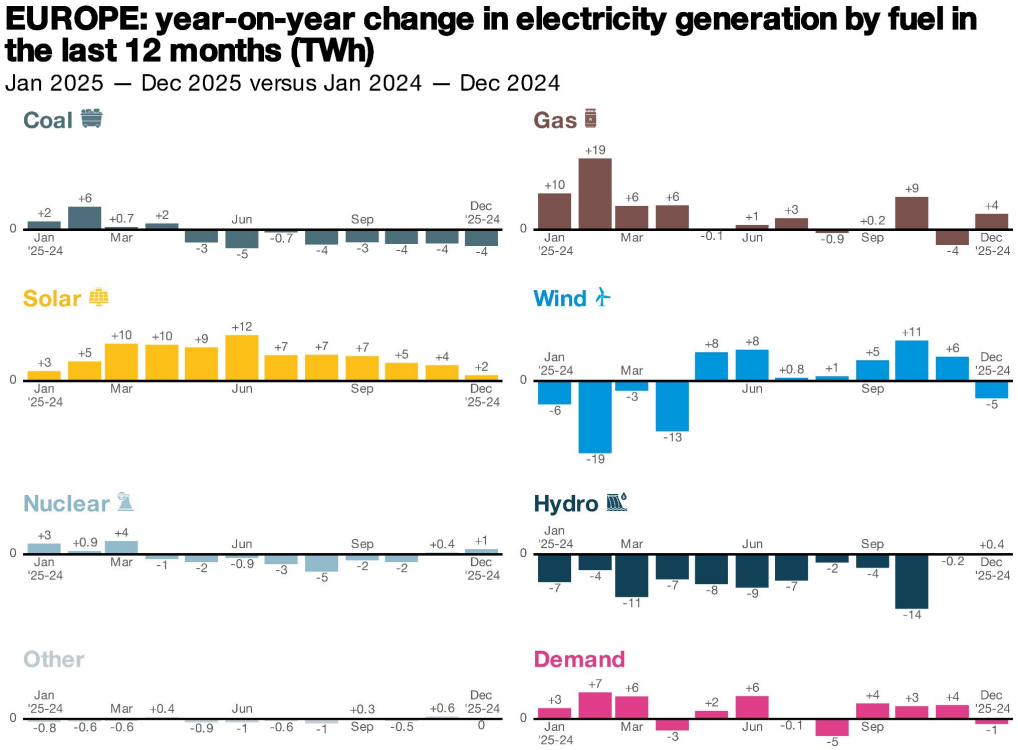
Please take **one minute** to fill our short:

feedback form

Thank you !

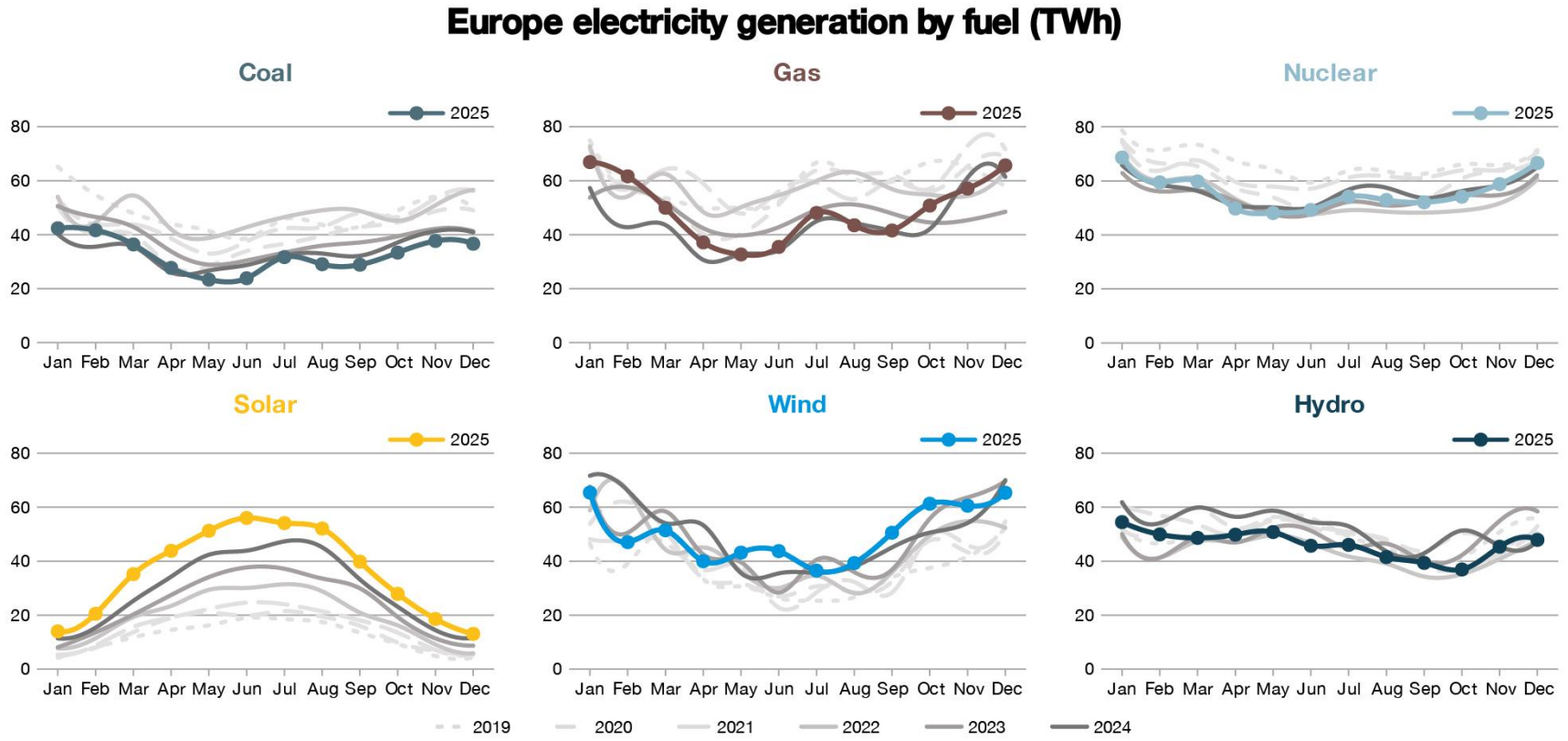


Annex – Europe monthly year-on-year changes in electricity generation



Source: BFF elaboration based Ember monthly electricity data (more information on the data in Annex)
The category "Other" includes bioenergy, other renewables, other fossil fuels and net imports.

Annex – Europe monthly power generation in 2025 and previous years

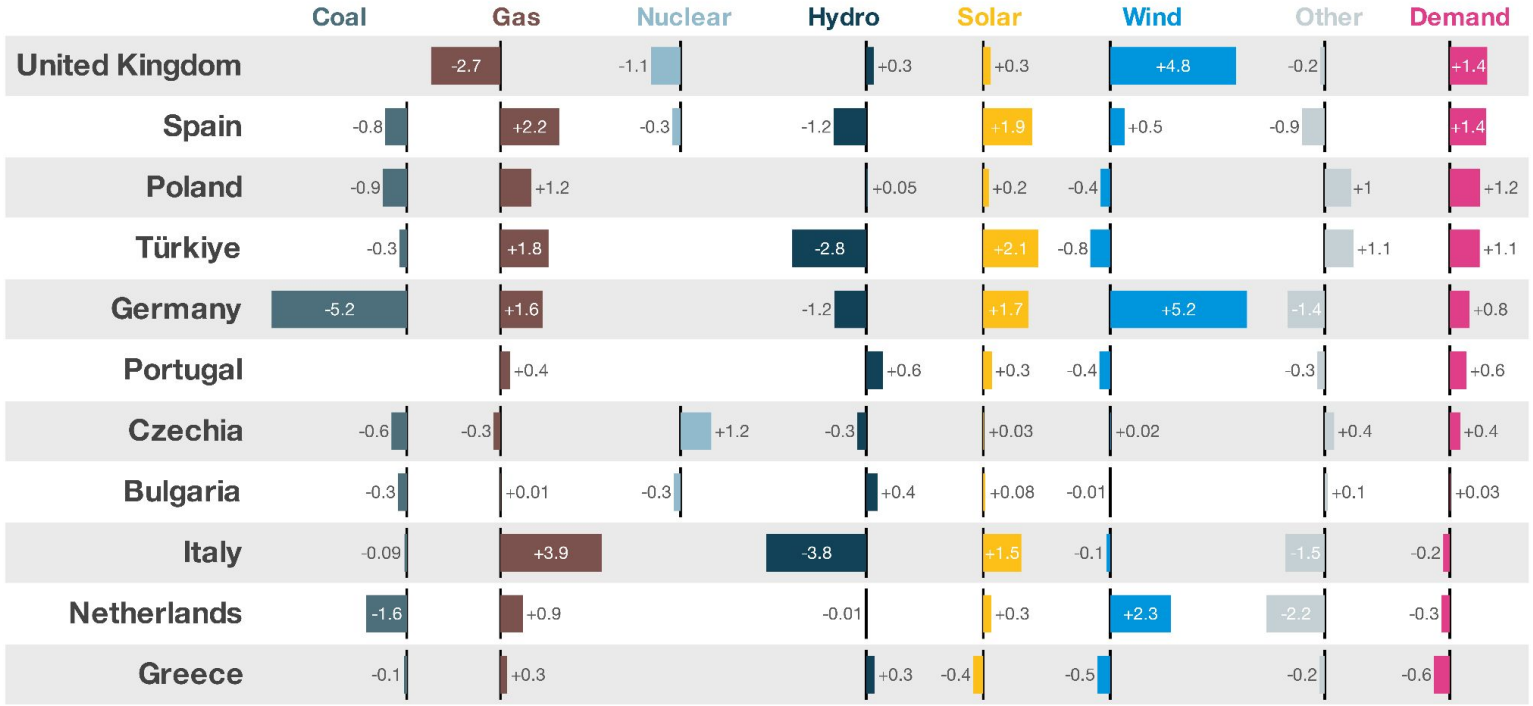


Source: BFF elaboration based Ember monthly electricity data (more information on the data in Annex)

Annex – Year-on-year changes in electricity generation in selected European countries, in Q4 2025

Fourth quarter year-on-year changes in electricity generation and and demand in selected countries (TWh)

Oct 2025 — Dec 2025 versus Oct 2024 — Dec 2024



Source: BFF elaboration based Ember monthly electricity data (more information on the data in Annex)
The category "Other" includes bioenergy, other renewables, other fossil fuels and net imports.

Annex – Summary tables of electricity generation and demand

EUROPE: electricity generation and demand in Q4 2025

Electricity generation	Q4 2025 value (TWh)	Q4 2025 year-on-year change (TWh)	Q4 2025 year-on-year change (%)	Share of total generation in Q4 2025 (%)	Share of total generation in Q4 2024 (%)
Coal	107.7	-11.7	-9.8%	12.0%	13.3%
Gas	173.6	8.9	5.4%	19.3%	18.4%
Coal and gas	281.3	-2.8	-1.0%	31.2%	31.8%
Other fossil	21.0	0.4	1.8%	2.3%	2.3%
Fossil	302.2	-2.4	-0.8%	33.6%	34.1%
Wind	187.2	12.5	7.2%	20.8%	19.5%
Solar	59.5	10.4	21.2%	6.6%	5.5%
Wind and solar	246.7	22.9	10.2%	27.4%	25.0%
Hydro	130.2	-14.3	-9.9%	14.5%	16.2%
Bioenergy	35.1	0.4	1.2%	3.9%	3.9%
Other renewables	6.8	-0.3	-3.8%	0.8%	0.8%
Nuclear	179.6	-0.2	-0.1%	19.9%	20.1%
Total generation	900.5	6.1	0.7%		

Electricity demand	Q4 2025 value (TWh)	Q4 2025 year-on-year change (TWh)	Q4 2025 year-on-year change (%)
Demand	896.8	5.7	0.6%

Power sector emissions	Q4 2025 value (Mt CO2e)	Q4 2025 year-on-year change (Mt CO2e)	Q4 2025 year-on-year change (%)
Emissions			

EU-27: electricity generation and demand in Q4 2025

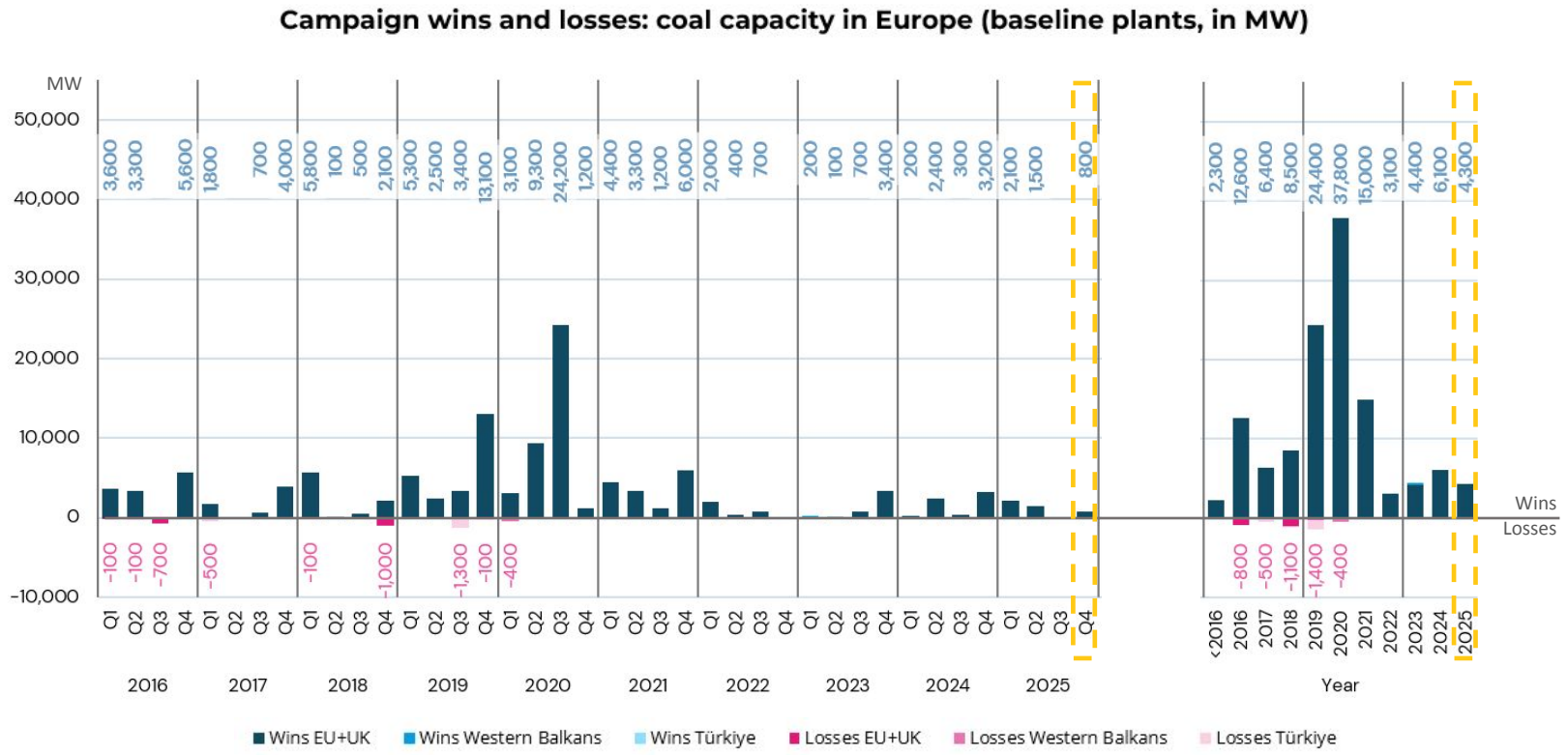
Electricity generation	Q4 2025 value (TWh)	Q4 2025 year-on-year change (TWh)	Q4 2025 year-on-year change (%)	Share of total generation in Q4 2025 (%)	Share of total generation in 2024 (%)
Coal	66.8	-10.3	-13.4%	9.8%	11.5%
Gas	130.4	9.9	8.2%	19.2%	18.0%
Coal and gas	197.3	-0.5	-0.3%	29.1%	29.5%
Other fossil	18.2	-0.1	-0.7%	2.7%	2.7%
Fossil	215.5	-0.6	-0.3%	31.7%	32.2%
Wind	146.1	8.6	6.2%	21.5%	20.5%
Solar	49.5	7.5	17.8%	7.3%	6.3%
Wind and solar	195.6	16.1	9.0%	28.8%	26.8%
Hydro	69.4	-9.4	-11.9%	10.2%	11.8%
Bioenergy	27.4	0.1	0.2%	4.0%	4.1%
Other renewables	3.8	-0.3	-8.0%	0.6%	0.6%
Nuclear	167.4	2.9	1.7%	24.7%	24.5%
Total generation	679.0	8.6	1.3%		

Electricity demand	Q4 2025 value (TWh)	Q4 2025 year-on-year change (TWh)	Q4 2025 year-on-year change (%)
Demand	670.5	3.2	0.5%

Power sector emissions	Q4 2025 value (Mt CO2e)	Q4 2025 year-on-year change (Mt CO2e)	Q4 2025 year-on-year change (%)
Emissions			

Source: BFF elaboration based on Ember monthly electricity data (more information on the data in the Annex)

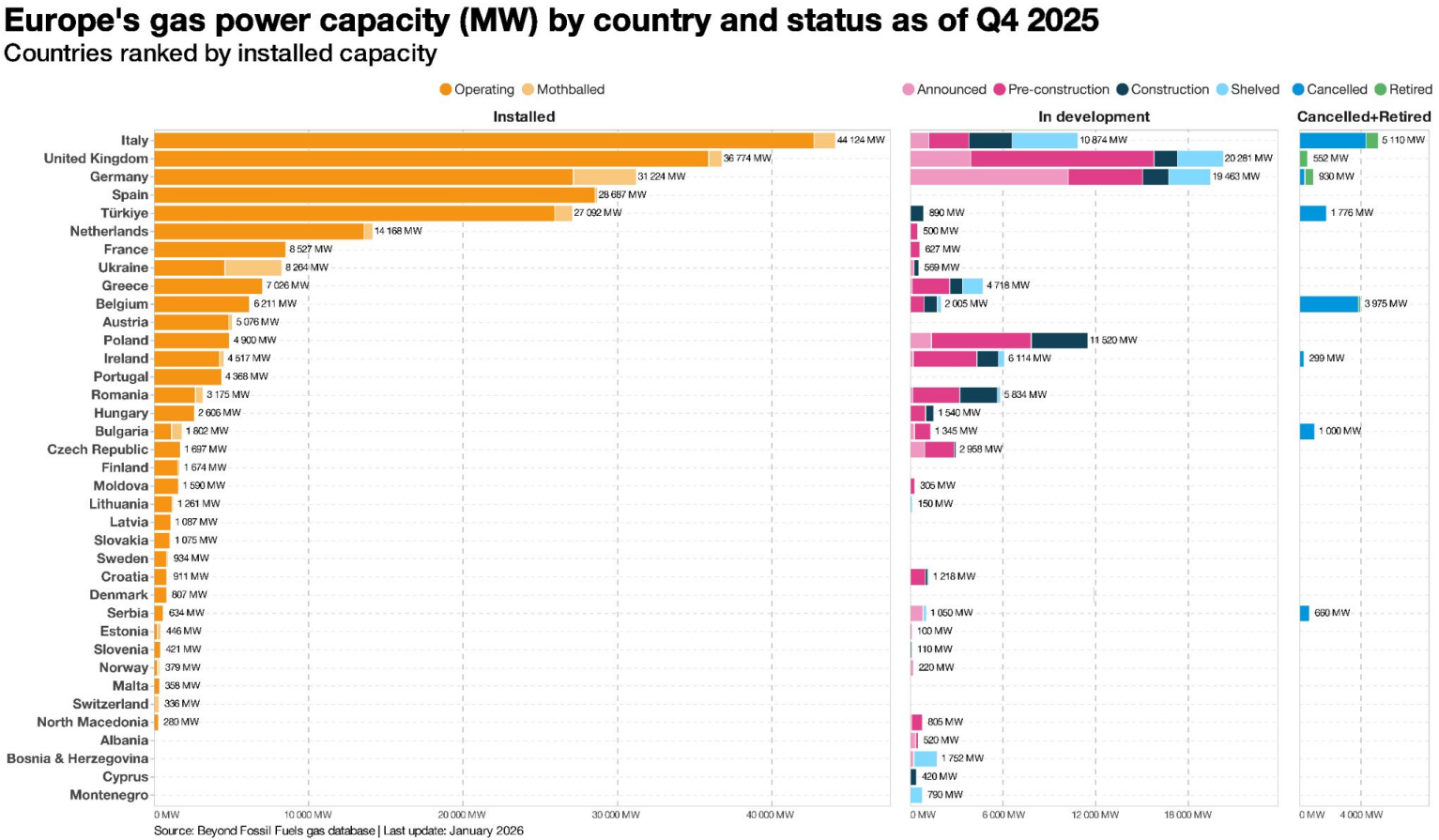
Annex – Quarterly coal campaign baseline log



Campaign wins: retirements and announcements of retirement by 2030
Campaign loss: planned capacity (coal project pipeline) going into construction.

Source: Beyond Fossil Fuels coal database; status: January 2026

Annex – Breakdown of gas capacity in Europe per country



Annex – Methodology

Coal and gas campaign tracking methodology

CAMPAIGN WINS AND LOSSES

- Win: a unit is retired, or its retirement is announced with certainty by 2030 for coal units and by 2035 for gas units.
- Loss: a unit goes from “planned” to “construction”, after the campaign baseline (31 Dec. 2015 for coal units, 31 Dec. 2022 for gas units).

RETIREMENT ANNOUNCEMENTS

- The retirement of a power plant must be certain (and not only “considered”) to be counted as a win.
- Additionally, coal units under national coal phase-out do not fall under the category of “campaign wins” unless the coal phase-out is enshrined in a law, which outlines a detailed retirement schedule for each coal power plant.

PLANNED PROJECTS

- The planned project countdowns consist of active projects, coal or gas power plants, or new units added to existing plants, at any stage before construction. Projects that have been shelved or cancelled are subtracted from the countdowns, but may be added back if a shelved project is revived.

CONSTRUCTION

- Plants and units entering the construction phase are no longer classified as "Planned projects." Instead, they are added to the other countdown categories, as we expect these plants and units to become operational in the future.

Electricity data used in this report

The analyses and charts throughout the report are based on Ember monthly electricity data, with the following caveats:

- Ember’s data is not available for Albania, Ukraine, Moldova, Kosovo, North Macedonia for the period analysed.
- Europe includes the EU-27, Norway, Switzerland, Türkiye, the UK, and the Western Balkans, except for the countries mentioned above.
- Data for Cyprus for all three months and Malta for November and December are missing from Ember’s data and assumed to be identical to the same month of the previous year.
- Data for Türkiye for December is missing from Ember’s data and taken from EPIAS.
- Data for Ireland for December is missing from Ember’s data and taken identical to 2024.
- Data for Austria for all three months is taken from APG and E-Control, except for hydro and solar, for which Ember kindly provided internal data.