

Quarter European Energy Market Trends

Q1 2026

Note: This is a new report that is intended to be issued quarterly. The format and content may change slightly over the coming quarters, based on feedback from readers. Please feel free to send in any comments or suggestions for improvements to info@semopx.com.

SEMOPx is a joint venture between EirGrid plc and SONI Limited

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1. Introduction

The retail cost of electricity in Ireland – the price paid by households and businesses – consists of several key cost components. These reflect not just the cost of generating electricity but delivering it to where it is needed, managing the electricity system and government charges.

The wholesale electricity price relates to the cost of generating electricity and, typically, accounts for 30-40% of the retail cost of electricity. The wholesale electricity price is the price that electricity is bought and sold in bulk, typically by electricity generators, retailers and large energy consumers.

This report provides a summary of the latest trends in the factors influencing Western Europe and neighbouring countries wholesale electricity prices with a particular focus on the Single Electricity Market (SEM).

Section 2 provides a summary of the key trends seen this quarter.

Section 3 compares wholesale electricity prices across key European jurisdictions over the first quarter of 2026.

Sections 4, 5 and 6 provide further detail on the main drivers for the wholesale electricity prices namely gas prices, generation mix and interconnection.

Section 7 provides a glossary of some of the more technical terms used in this report.

2. Summary of Trends

Wholesale electricity prices across the analysed European markets averaged around €91/MWh in Q1 2026, representing a 14% year-on-year decline, largely supported by a 10% reduction in average gas prices compared with the same period last year. Despite this overall easing, price dynamics across the quarter were uneven, reflecting heightened volatility in gas markets and shifting generation mix conditions.

The Single Electricity Market (SEM) remained the most expensive region among those analysed, with an average quarterly price of €121/MWh. Within the quarter, March recorded the highest monthly average at €128/MWh, approximately 19% higher than February.

Gas prices were a central driver of electricity price movements and were characterised by significantly higher volatility than in Q4 2025. In February, gas prices averaged 76 p/therm, 39% lower year-on-year and 15% below January levels, reflecting milder weather and strong LNG inflows. In contrast, March gas prices surged by more than 60% month-on-month and 49% year-on-year, reaching their highest levels since early 2023.

Generation mix developments continued to moderate price pressures across most markets. In the SEM, gas-fired generation declined by 2% year-on-year, while wind generation increased by 7% and solar output rose by 47%. Compared with Q4 2025, SEM wind generation increased by over 7% quarter-on-quarter, while gas-fired output rose by just 1%, one of the smallest inter-quarter increases observed.

Across Europe, wind generation increased by an average of 28% year-on-year, while gas-fired generation declined by 2%, reinforcing downward pressure on wholesale prices. Nuclear generation declined for the first time relative to the previous quarter, with notable reductions in Belgium (-42%), Spain (-11%), and Great Britain (-7%).

Interconnector flows continued to align closely with regional price differentials and renewable availability. (Spain-> France->GB->SEM)

3. Wholesale Electricity Prices

Wholesale electricity prices fluctuate over time in Europe based on several influences including gas prices, renewable generation, interconnection and seasonal demand.

In Q1 2026, wholesale electricity prices across the analysed regions averaged around €91/MWh, representing a 14% year-on-year decline. This decrease was supported by a 10% reduction in gas prices over the same period.

Norway was a notable outlier, recording a 74% year-on-year increase in wholesale prices. In contrast, the remaining regions saw an average price decline of around 20% compared to Q1 2025. Spain Q1 2026 registered the largest year-on-year price reduction, with average prices falling by approximately 50% compared to the same quarter last year.

During the first quarter of 2026, the Single Electricity Market (SEM) displayed mixed price dynamics. March recorded the highest average price of the quarter at €128/MWh, around 19% higher than February, the cheapest month, and €1/MWh above January levels. This increase in March prices coincided with a 65% rise in gas prices, although the overall impact was moderated by renewables.

Overall, SEM remained the most expensive market among those analysed, with an average quarterly price of €121/MWh. Looking at each month of the quarter individually:

- **January 2026:** Average wholesale electricity prices across the region were 14% lower year-on-year, supported by a 28% reduction in gas prices alongside an 18% increase in renewable generation. In contrast, prices rose 20% compared to the previous month, tracking a 25% increase in gas prices and a stronger thermal contribution, with gas-fired generation up 23% and coal generation up 40%, alongside an average 8% increase in demand. SEM remained the highest-priced jurisdiction at €127/MWh, rising 17% versus December 2025 while still 24% below January 2025. Germany continued as the second most expensive market at €110/MWh, with gas up 30% and coal up 40% compared to December 2025. France recorded one of the largest month-to-month increases, with prices up 46%, with a demand rising 7.7%, gas-fired output up 58%, coal generation doubling, and nuclear output down 6%.
- **February 2026:** Average wholesale electricity prices were 39% lower year-on-year, mainly reflecting a 39% reduction in gas prices and a 45% increase in wind generation. Month-on-month, prices fell by 27%, aligned with a 15% decline in gas prices, an average 18% reduction in demand, and a 34% decrease in gas generation. SEM remained the highest-priced market at €107/MWh, standing 23% below the same month last year and 15% below January 2026. Norway extended its upward trend, Spain recorded the largest month-to-month decline in prices, down 77% versus January 2026, consistent with a 15% reduction in demand alongside lower gas prices and reduced gas use within the generation mix.
- **March 2026:** Average wholesale electricity prices increased marginally year-on-year by 2%, while month-on-month prices were 18% higher, reflecting the upward

pressure from rising gas prices. Price dynamics varied across the markets analyzed. Spain recorded the largest year-on-year price decline, down 20% compared to March 2025, followed by France with a 17% decrease and SEM with a more limited reduction of 2%. In contrast, the remaining markets registered an average price increase of around 4% year-on-year.

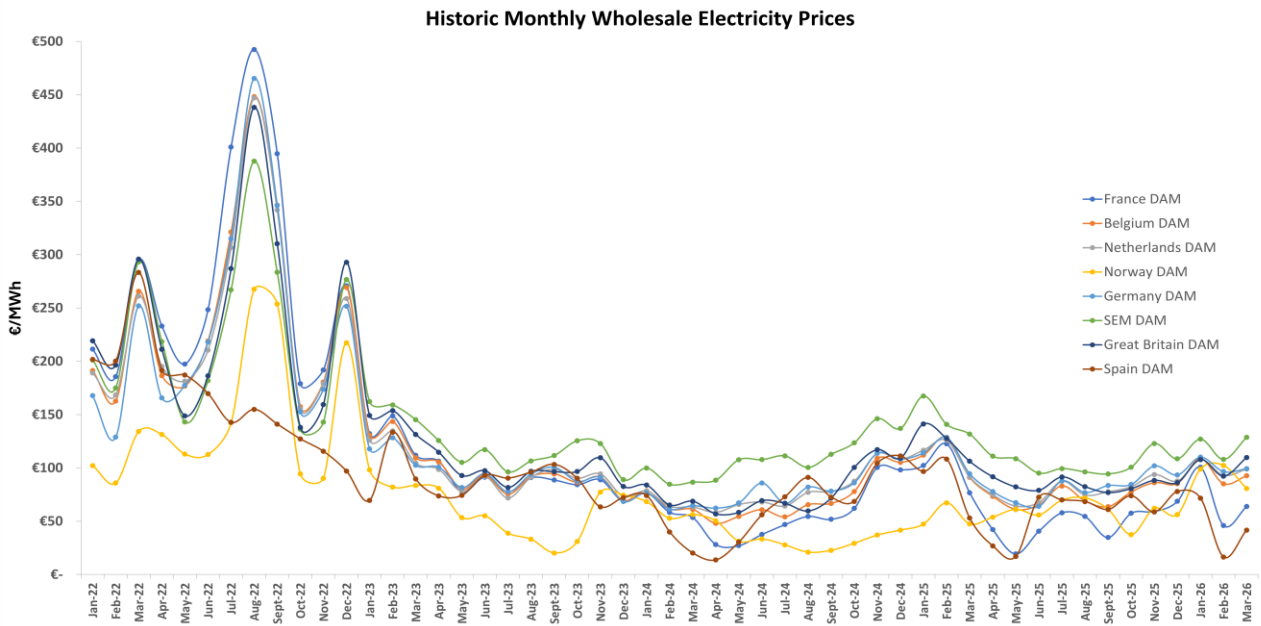


Figure 1: Historical Average Monthly Wholesale Prices in European Jurisdictions

Data source: Montel EnAppSys [BE, FR, GB, NO, NE], ENTSO-E transparency platform [DE, SP], SEMOpX [SEM]

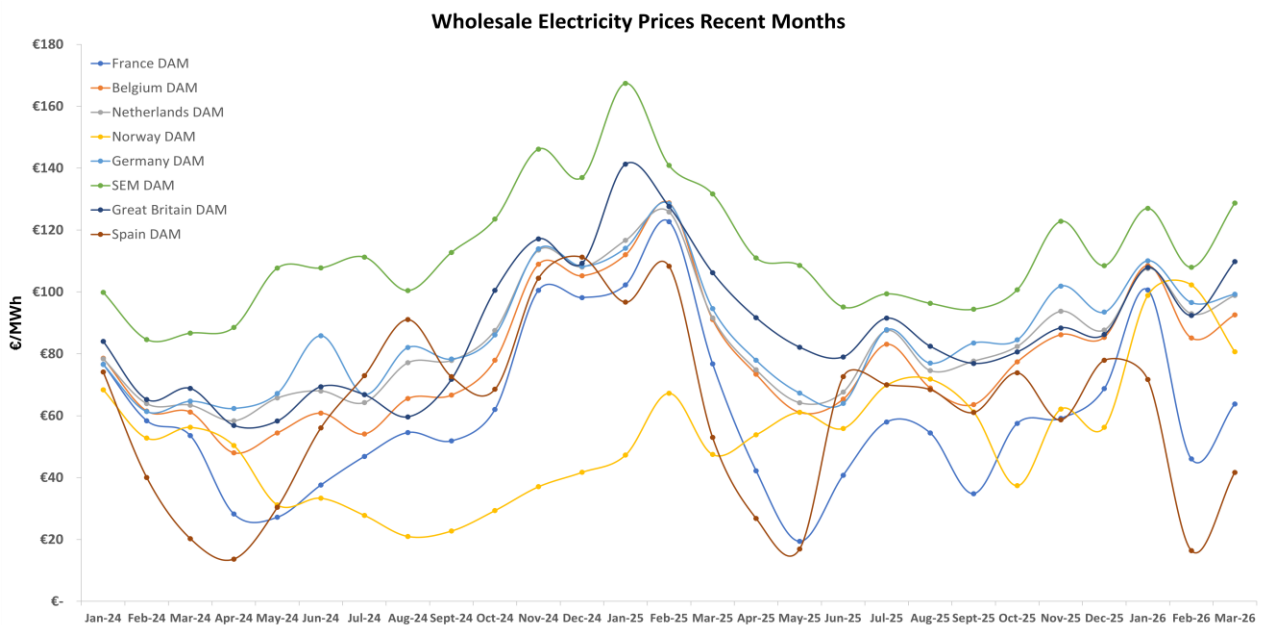


Figure 2: Average Wholesale Prices Recent Months – Jan. 2024 to Mar. 2026

Data source: Montel EnAppSys [BE, FR, GB, NO, NE], ENTSO-E transparency platform [DE, SP], SEMOpX [SEM]

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4. Gas Prices

Gas prices have an influence on the cost of wholesale electricity prices across Europe. SEM wholesale electricity prices are significantly influenced by gas prices given the SEM’s high proportion of gas-fired generation.

Gas prices in Q1 2026 were characterised by heightened volatility compared with the previous quarter. Market conditions were influenced by a combination of weather-driven demand fluctuations, evolving storage dynamics, and persistent geopolitical uncertainty, all of which increased sensitivity to short-term supply risks and changes in market sentiment.

As observed previously, wholesale electricity prices in the SEM continued to broadly align with gas generation costs, with gas-fired plant frequently setting the marginal price. Price variability within the SEM was mainly driven by shifts in the generation mix, with higher prices occurring during periods of lower renewable availability that required greater reliance on thermal generation, and lower prices observed when renewable output was stronger and demand pressures eased.

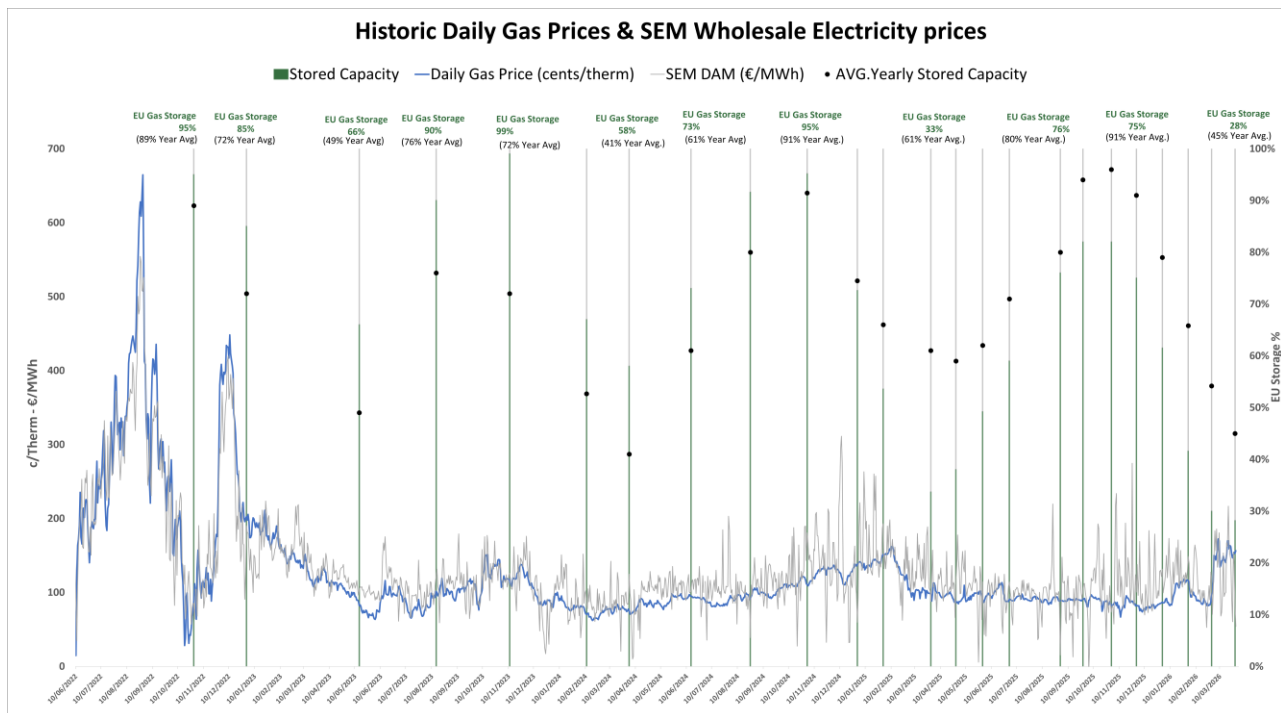


Figure 3: Historical Gas Prices

Data source: GMO operational Data Daily gas price, ENTSO-g Gas dashboard

Looking at each month during the quarter individually:

- January 2026: Gas prices were highly volatile, driven by colder-than-normal weather and rapidly falling EU storage levels.
- February 2026: Gas prices remained variable and closed with an average of 76 p/therm, 39% below the same month last year and 15% below January prices. Movements continued to be shaped by changing weather forecasts, declining storage levels, and recurring geopolitical developments.
- March 2026: Gas prices experienced pronounced volatility, driven by escalating Geopolitical tensions in the Middle East that repeatedly reshaped supply risk expectations. Prices surged early in the month to their highest levels since early 2023, rising by around 70% month-on-month and 49% year-on-year.

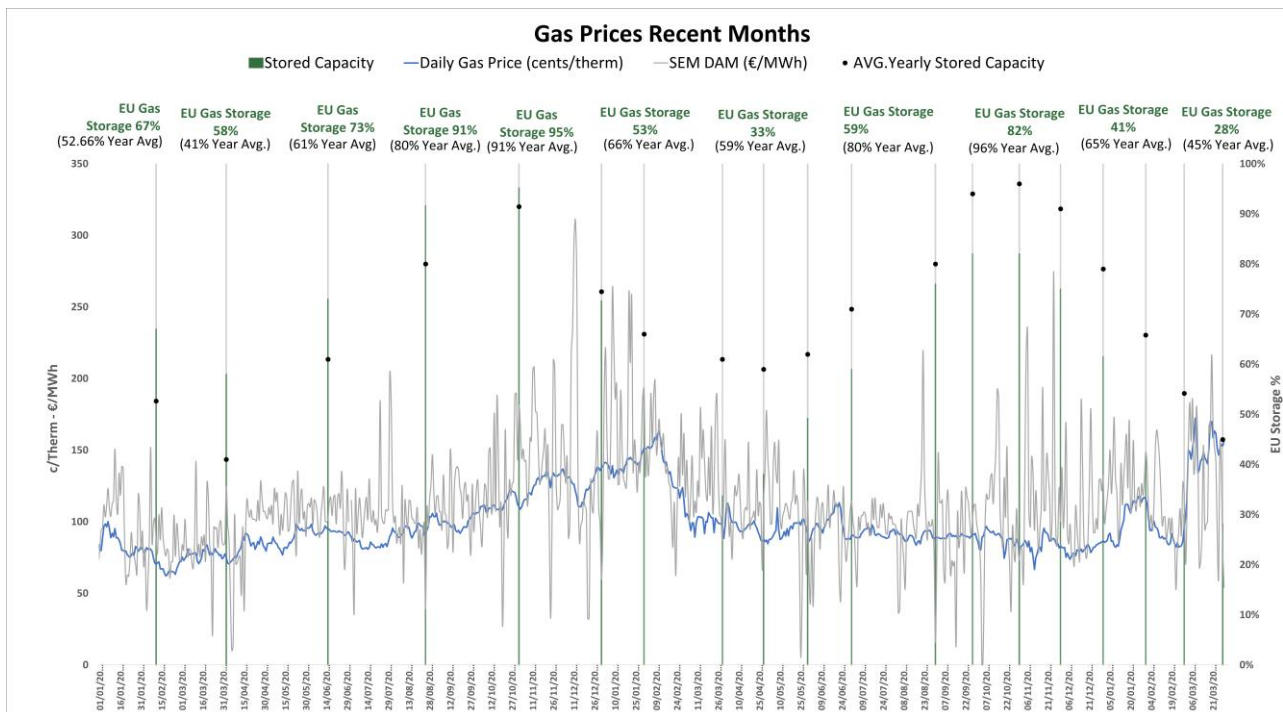


Figure 4: Gas Prices Recent Months – Jan. 2024 to Mar. 2026.

Data source: GMO operational Data Daily gas price, ENTSO-g Gas dashboard

5. Generation Mix

The generation mix has a significant influence on wholesale electricity prices across Europe. Typically, higher renewables combined with higher nuclear mixes have lower wholesale electricity prices.

During the first quarter of the year, the Single Electricity Market (SEM) recorded a 2% year-on-year decline in gas-fired generation, consistent with a 7% increase in wind generation and a 47% rise in solar output over the same period.

Within SEM, wind generation in Q1 increased markedly compared to Q4 2025, with growth exceeding 7% quarter-on-quarter. This was reflected in one of the smallest increases in gas-fired generation between consecutive quarters, with output rising by just 1% between Q4 2025 and Q1 2026.

Across Europe, the generation mix in Q1 2026 continued to highlight strong wind performance, with average wind output up 28% year-on-year, alongside a 2% decline in gas-fired generation. Nuclear generation, meanwhile, declined for one of the first times compared to Q4 2025, with reductions observed in Spain (11%), Great Britain (7%), and Belgium (42%).

- January 2026: Renewable output increased overall, with solar generation up 2% year-on-year and 4% versus December 2025, while wind generation rose 15% year-on-year and 7% month-on-month. However, trends varied by system. Month-to-month, SEM recorded an 8% decline in wind generation, while Great Britain increased 4%, and these shifts were reflected in gas-fired generation, with SEM up 22% compared with a 33% rise in Great Britain. Year-on-year, wind generation increased by 10% in SEM and 40% in Great Britain; this corresponded with Great Britain reducing gas output by 16%, while SEM remained broadly in line with January 2025. France recorded a pronounced increase in gas-fired output, up 26% year-on-year and 58% month-on-month, alongside a 6% reduction in nuclear output, consistent with higher demand and limited growth in wind and solar generation. Spain was the only system analyzed to record a decline in wholesale prices, down 8% versus December 2025, aligned with wind generation up 54%, nuclear output up 9%, and gas-fired generation up 17%. Belgium continued to reflect reduced nuclear availability, with nuclear output down 46% versus the same period in 2024, offset by a 48% increase in gas-fired generation and a 38% increase in renewable generation.
- February 2026: Solar generation increased by 1% year-on-year and by 52% compared to January 2026, while wind generation rose 45% year-on-year but declined 14% month-on-month. Renewable patterns continued to diverge across systems, with SEM recording a 6% month-to-month increase in wind generation while Great Britain declined 14%; these movements translated into lower gas-fired output in both markets, down 30% in SEM and 22% in Great Britain. This was reflected in wholesale prices, with SEM falling 15% versus January 2026 and Great Britain declining 14%. Year-on-year, SEM recorded an 11% decrease in wind generation, corresponding with a 7% increase in gas-fired output, while Great Britain increased wind generation by 17%, supporting an 11% reduction in gas output and a

28% year-on-year decline in wholesale prices. Spain and France maintained the lowest prices among the systems analyzed. Spain reported a closing price of 16.41 €/MWh, representing an 85% decrease compared to February 2025 and a 77% reduction from January 2026. This decline was supported by a 14% drop in demand and a 43% decrease in gas-fired generation on a month-to-month, coupled with a 26% reduction in wind energy output and an 84% increase in solar generation. Year-on-year figures show gas output decreased by 28%, wind generation increased by 62%, and solar production rose by 29%. France followed a similar pattern, with demand down 18% compared to January, wind up 4% month-on-month, solar up 25%, and gas-fired output down 66%; year-on-year, wind increased 69% alongside a 55% reduction in gas-fired generation. Across the region, nuclear generation continued to trend lower, ending 18% below January 2026 levels and 7% below the prior year.

- **March 2026:** During the final month of the first quarter, gas prices increased more than 60% compared to February, reinforcing the role of gas-fired generation within the overall generation mix and exerting upward pressure on wholesale electricity prices. On a year-on-year basis, March recorded a strong increase in renewable output across the systems analyzed, with wind generation up 41% and solar generation up 13% compared to March 2025. In contrast, gas-fired generation declined by 14%, while nuclear output fell marginally by 2% year-on-year. Spain stood out as the system with the largest increase in gas generation Y-o-Y, up 11%, yet simultaneously recorded the largest decline in average monthly prices, closing at €41/MWh. This price reduction was closely linked to high renewable penetration, with Spain registering a 15% increase in the number of zero and negative price periods. These negative price intervals reduced the average monthly wholesale price by approximately 30%.

During Q1 2026, Spain recorded the lowest prices among the analysed regions, driven by higher wind and solar generation, which increased by 6% and 28% respectively, alongside stable gas-fired generation compared to Q1 last year.

Throughout the first quarter of 2026, total hydropower generation across the analysed countries showed mixed behaviour relative to 2025, declining by 6% year-on-year, while increasing by 10% compared to Q4 2025.

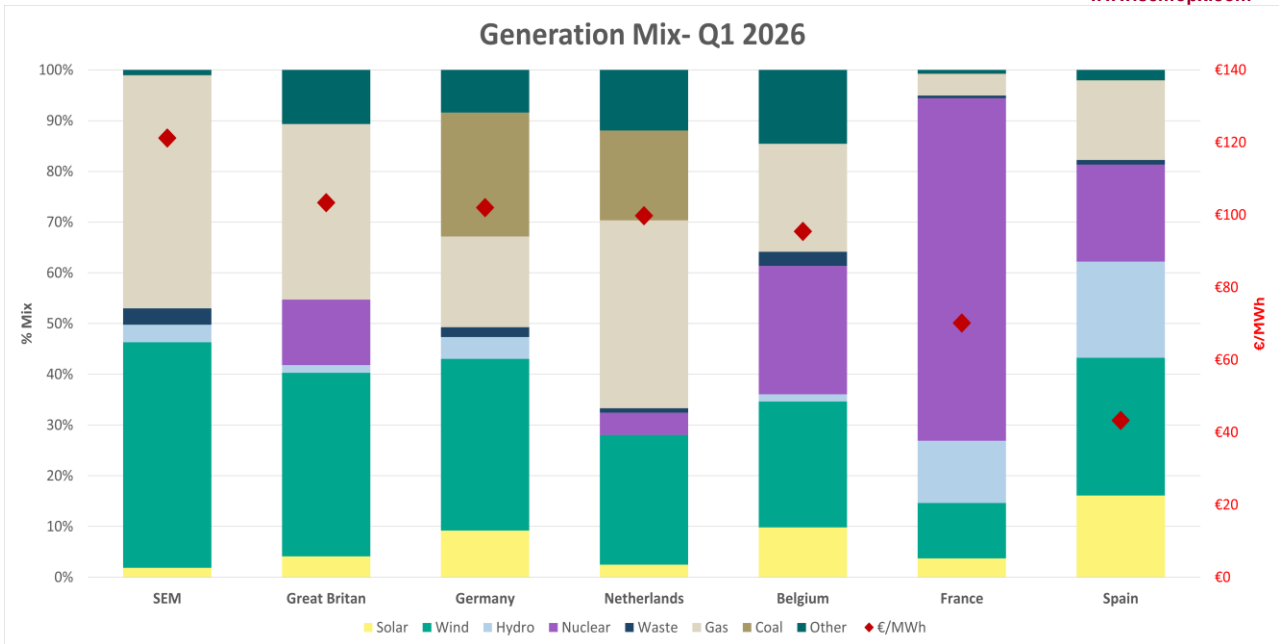


Figure 5: Generation Mix and Prices in Selected European Jurisdictions - Q1 2026.

Data source: Montel EnAppSys [Prices - BE, FR, GB, NO, NE], Fraunhofer Energy-Charts [Fuel Mix - BE, FR, GB, NO, NE], ENTSO-E transparency platform [DE, SP], SEMOpX [SEM]

6. Interconnector Flows

Interconnection plays an important part in maximising the benefits to society of the European wholesale electricity market. Flows typically follow price differences between regions, from low price to high price.

During the first Quarter of 2026, interconnector flows continued to reflect regional price differences and the availability of renewable generation. Flows mainly originated from France and moved towards Great Britain, Belgium, and the Netherlands, before continuing to neighbouring interconnected countries.

This pattern may be linked to the increase in wind generation, demand volatility driven by temperature variations, and the utilization of gas-fired generation.

Meanwhile, both Great Britain and the SEM remained net importers during the period. However, Great Britain recorded an increase of around 30% in imports from continental Europe.

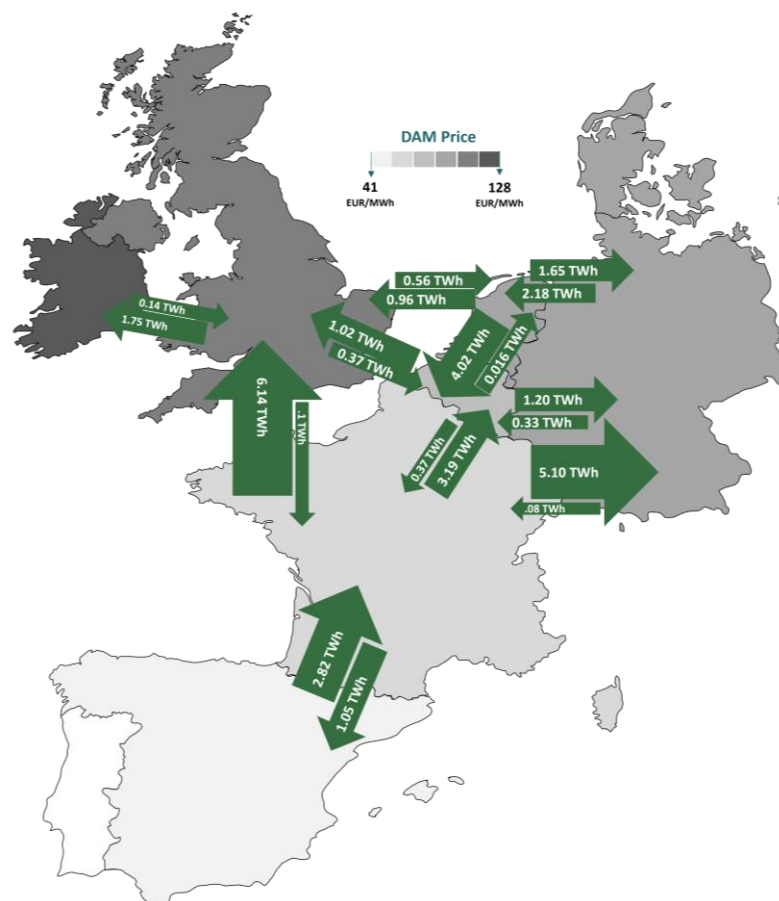


Figure 6: Europe Interconnector Physical Flows – Q1 2026.

Data source: Fraunhofer Energy-Charts, ENTSO-e transparency platform, SEMOpX

7. Glossary

The glossary provides a description of the key terms used in the report.

Term	Definition
Average Monthly Wholesale Prices	Refers to the average of the hourly day-ahead wholesale electricity prices for a given month.
Capacity Factor	Is a measure of how much energy a generator produces relative to its technical maximum energy output. It is especially relevant for renewable sources like wind or solar where generation levels are variable dependent on the wind or solar intensity.
Day-Ahead Market (DAM)	The Day-Ahead Market is the forward electricity market where electricity is bought and sold one day in advance of the actual delivery. It is the key index for wholesale electricity prices.
Wholesale Electricity Price	Refers to the prices for which electricity is bought and sold in bulk, typically by electricity generators, retailers and large energy consumers. It is a key component of the cost electricity but represents only part of the total cost of electricity supply.
SEM	The Single Electricity Market is the electricity market arrangements that cover the island of Ireland namely Ireland and Northern Ireland.