

Quarter European Energy Market Trends

Q3 2025

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.

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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 third quarter of 2025.

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

European wholesale electricity prices were on average 11% higher than the same time last year, mainly due to increased gas-fired generation and stronger demand during heatwaves. However, Q3 2025 showed a slight month-on-month decline in prices from July to September, with September prices 6% lower than August. This was driven by a recovery in wind generation in some jurisdictions, and higher solar output.

Gas prices remained relatively stable throughout Q3 2025. Despite minor volatility, prices closed the quarter 9% lower than the same period last year.

There was a month-on-month downward trend in wholesale electricity prices in SEM from July to September, supported by increased renewable generation and reduced reliance on gas-fired production. Despite this trend, in Q3 2025, SEM remained the most expensive market among the analysed regions, with an average price of €96/MWh.

Interconnector flows continued the similar trend to last quarter, France remained a key exporter, while Great Britain and Ireland (SEM) continued as net importers. These flows reflected regional price differences and the availability of renewables, with higher-priced markets relying more on imports to meet demand.

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 Q3 2025, wholesale electricity prices averaged €74.76/MWh across the regions analysed, marking an 11% increase compared to the same period last year. Although gas prices fell by 3%, the 15% rise in gas-fired generation contributed to higher electricity prices, as increased demand for gas in power production offset the effect of lower fuel cost.

Great Britain recorded the highest price increase at 27% year on year. Other regions saw an average increase of approximately 9% compared to Q3 2024. The SEM was the exception with average prices falling 11% compared to the same time last year.

During the third quarter, the Single Electricity Market (SEM) experienced a slight downward trend in prices from July to September, with September prices 5% lower than those recorded in July. This decline was driven by reduced reliance on gas-fired generation, increased solar output, and a recovery in wind generation during August. Despite this downward trend, SEM remained the most expensive market among those analysed, with an average price of €96/MWh.

Looking at each month during the quarter individually:

- July 2025: Average electricity prices rose 40% year-on-year, driven by higher gas prices and a 37% increase in gas-fired generation. Compared to June, prices increased 22% due to higher demand and reduced renewable output. SEM recorded the highest price at 99 €/MWh, while France had the lowest at 57 €/MWh, despite a 42% monthly rise.
- August 2025: Average electricity prices fell 2% year-on-year, supported by a 5% drop in gas prices and a 22% increase in renewable generation. Compared to July, prices declined 10% due to the decrease in demand and stronger renewable output. SEM remained the highest-priced market at 96 €/MWh, while France posted the lowest at 54 €/MWh.
- September 2025: Average price across the analyzed regions was €70.27/MWh, representing an 8% decrease compared to September 2024 and a 6% drop versus August 2025. France remained the system with the lowest price, recording €34/MWh, which is 35% lower than both the previous month and the same period last year. On the other hand, SEM continued to be the system with the highest price, although it showed a 16% reduction compared to September 2024.

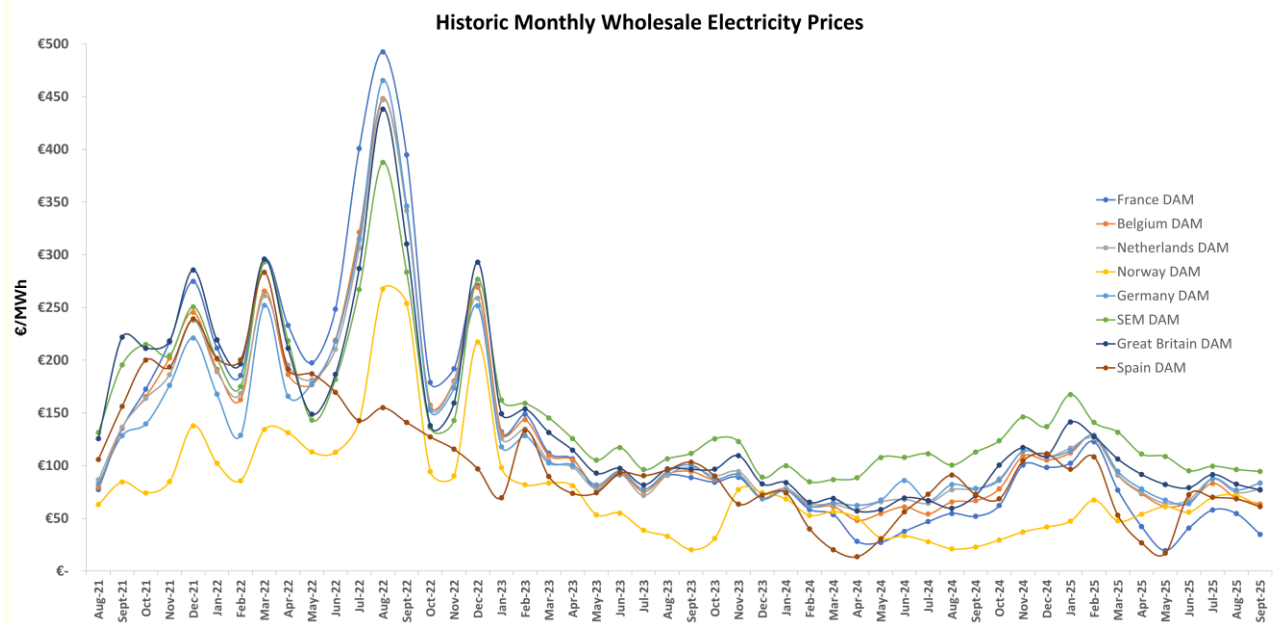


Figure 1: Historical Average Monthly Wholesale Prices in European Jurisdictions

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

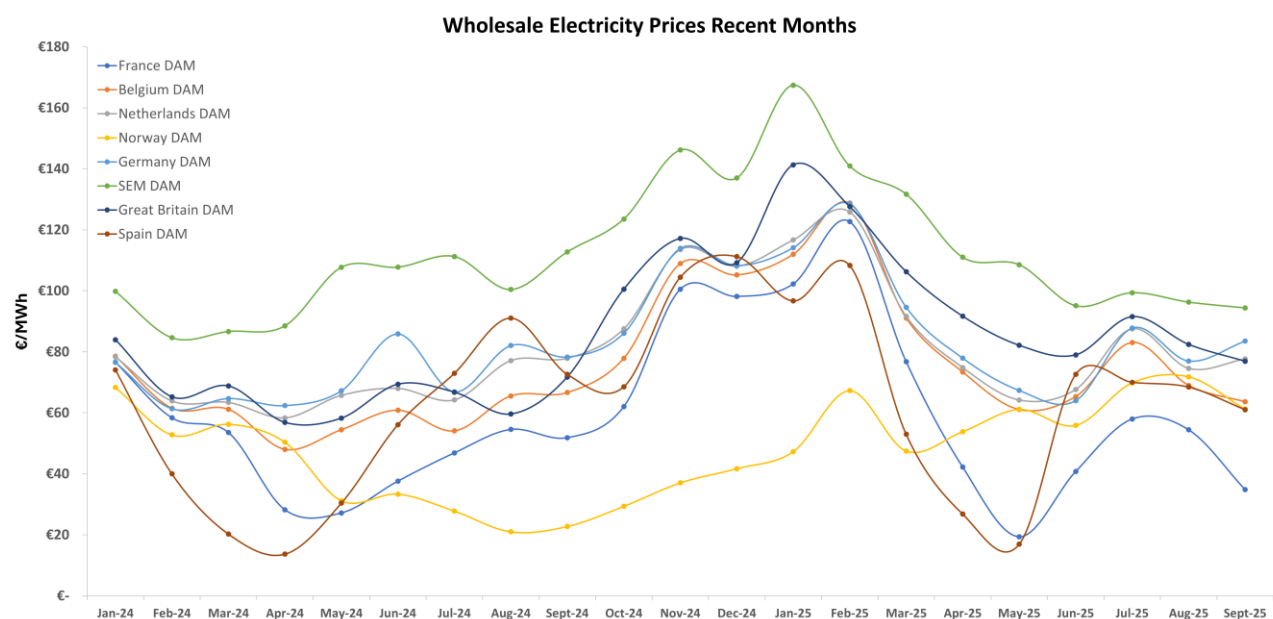


Figure 2: Average Wholesale Prices Recent Months - Jan 2024 to Sep 2025

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

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 Q3 2025 remained relatively stable throughout the quarter.

As described previously, the SEM continued to show wholesale electricity prices stabilising around gas generation prices with SEM's gas-fired generation typically being the margin units in the SEM. Variability in SEM prices could be seen when a) more expensive fossil fuels were needed to meet demand when insufficient renewables were available and conversely lower prices when abundant renewable generation was available.

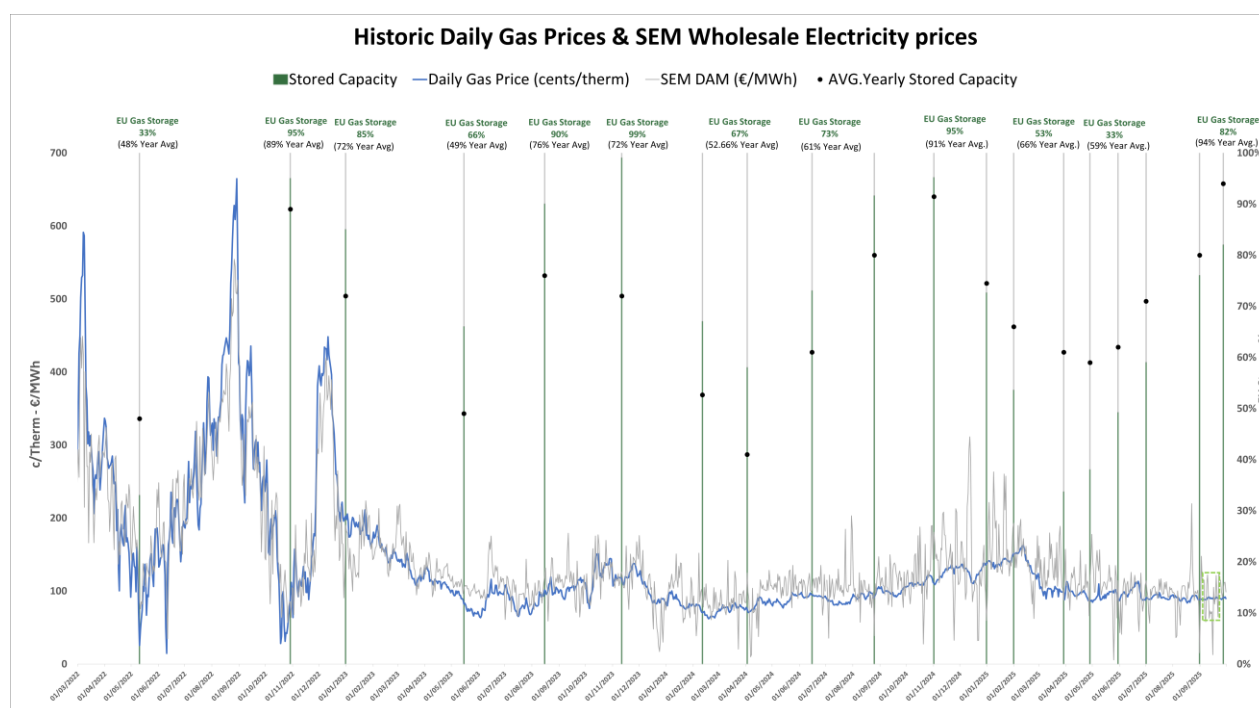


Figure 3: Historical Gas Prices

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

Looking at each month during the quarter individually:

- July 2025: Gas prices fell 7% month-on-month, stabilising amid lower market volatility. Prices briefly increased mid-month with a final stabilisation on the 93 c/therm.
- August 2025: Gas prices showed moderate volatility. After a brief 4% rise at the beginning of the month, prices declined, reaching their lowest point mid-month, 2% below the starting level. A late increase brought prices up by 6% compared to the start of August.

- September 2025: Closed with an average price of 79.50 p/therm, virtually unchanged from August (a variation of just 0.0048%) and 9% lower than in September 2024.

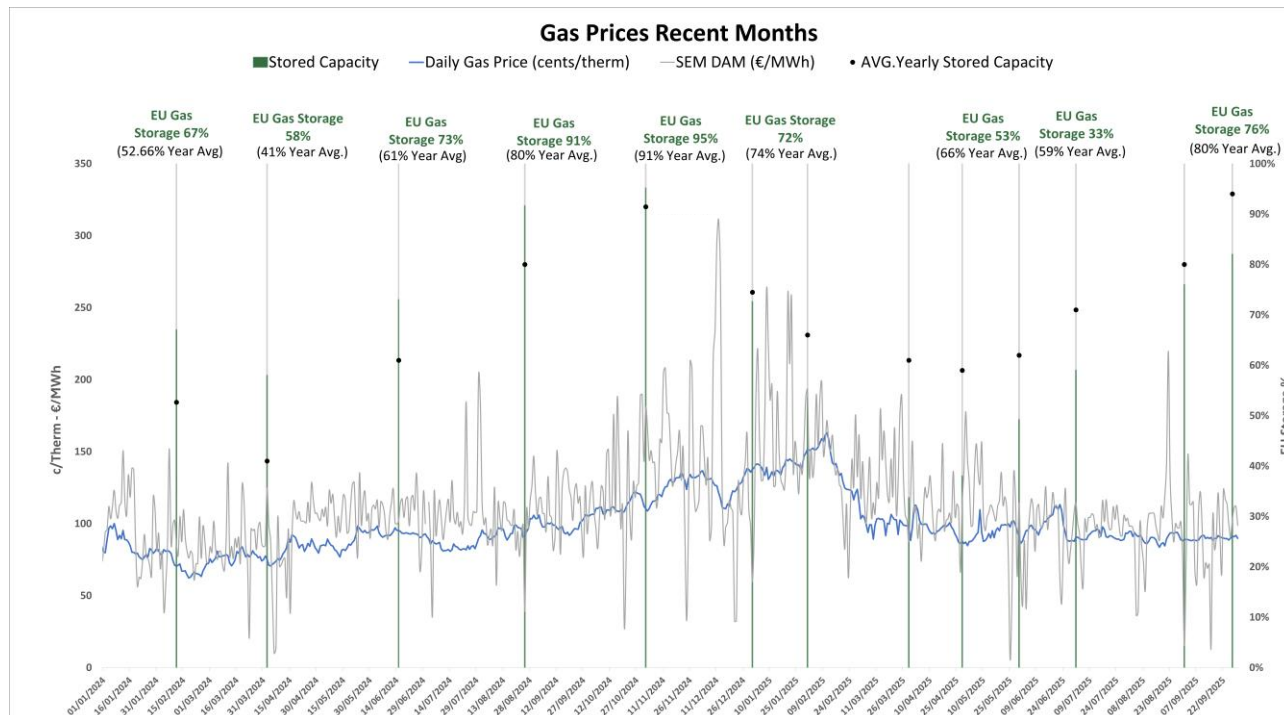


Figure 4: Gas Prices Recent Months - Jan 2024 to Sep 2025.

Data source: GMD 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 third quarter of the year, the Single Electricity Market experienced a decline in gas-fired generation, with the most significant drop occurring from July to August 2025, when output fell by 13%. Overall, the quarter ended with a 1% decrease in gas-fired generation compared to the same period last year.

In contrast, Q3 2025 set a record for solar generation in the SEM, reaching 370 GWh, a 4% increase over the previous record set in Q2 of this year.

While Q2 2025 was generally characterised by low wind generation across most jurisdictions, Q3 2025 saw a recovery, with wind output increasing by 4% compared to the same period last year and 6% compared to Q2 2025.

Across Europe, the generation mix in Q3 2025 reflected strong solar performance, with average solar output increasing by 16% year-on-year. Gas-fired generation decreased by 21% compared to the winter months of Q1 2025 but was 17% higher than Q3 2024.

Looking at each month during the quarter individually

- July 2025: Solar generation rose 9% year-on-year, driven by a 12% increase in installed capacity. Wind generation saw a slight decline in generation. Compared to June 2025, SEM, Spain, and France reached new solar output highs, while other regions experienced an 8% drop in solar and a 34% fall in wind generation with the associated increased reliance on gas and coal to compensate
- August 2025: Solar generation rose 24% year-on-year and 10% month-on-month, Wind generation dropped 5% compared to August 2024 but increased by 4% from July. France, despite a 28% increase in gas generation compared with the same month last year, was supported by a 16% increase in solar and wind generation which helped it maintain its position as the cheapest jurisdiction.
- September 2025: Solar generation increased by an average of 16% compared to September 2024. However, the onset of seasonal change with shorter daylight hours became evident, leading to a 33% decrease compared to August 2025. In contrast, wind generation rose by 12% year-on-year and by 38% compared to the previous month. The systems with the largest increases in wind output were Belgium, the Netherlands, and Germany, likely due to windier conditions along the northern part of the continent's western coast.

During Q3 2025 Spain and France recorded the lowest prices of the analysed regions.

In contrast, Belgium and Great Britain had the largest increase in prices at 16% and 27% respectively, compared with the same quarter last year. Belgium, following the trend observed in the second quarter of the year.

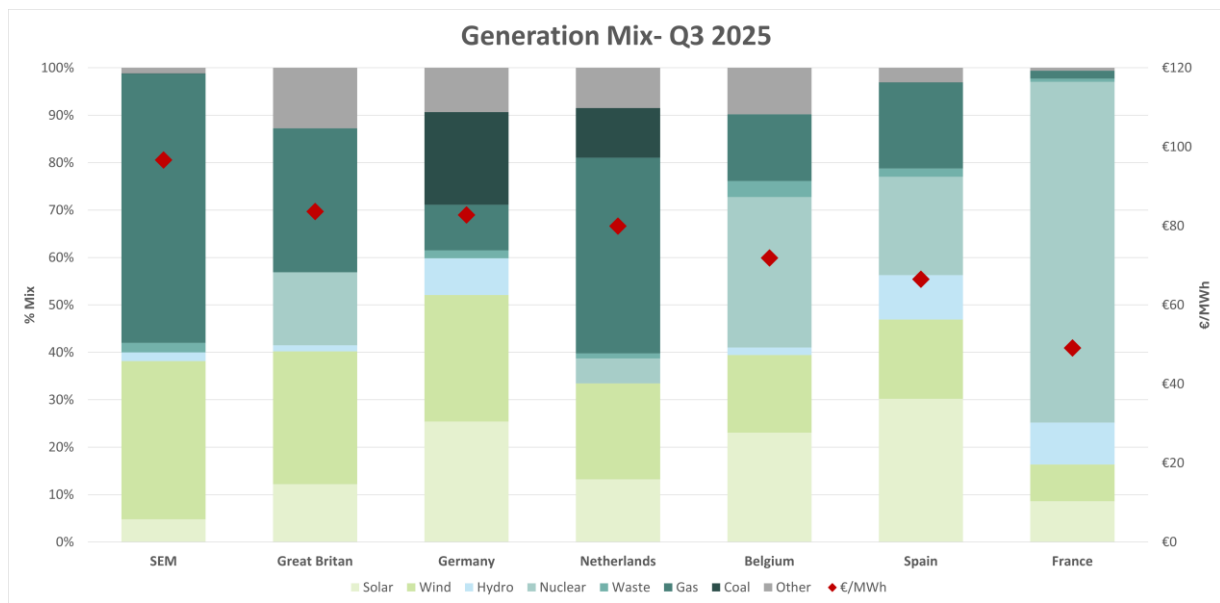


Figure 5: Generation Mix and Prices in Selected European Jurisdictions – Q3 2025.

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 third quarter of 2025, interconnector flows continued to reflect regional price differences and the availability of renewable generation. flows mainly originated from France and moved towards Great Britain, Germany, Belgium, and Spain, and then continued to neighbouring interconnected countries.

Both Great Britain and the SEM continued as net importers, consistent with their status as the two markets with the highest average electricity prices.



Figure 6: Europe Interconnector Physical Flows – Q3 2025.

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.