

# Quarter European Energy Market Trends

Q2 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](mailto: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), the integrated wholesale market for Ireland and Northern Ireland.

Section 2 provides a summary of the key trends seen over the second quarter of 2025 (April-June).

Section 3 compares wholesale electricity prices across key European jurisdictions over Q2

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 18% higher than the same time last year in Q2, mainly due to an increase in demand, increase in gas-fired generation and a drop in nuclear and hydro generation relative to the same time last year.

Gas prices - which influence electricity costs in gas-fired generation dependent markets - were mixed over Q2 2025, falling in April and May, before briefly rising in June.

There was a month-on-month downward trend in wholesale electricity prices across Europe driven by reduced gas-fired generation and stronger solar output with prices dropping 14% between April and June.

Despite this downward trend, in the second quarter SEM remained the most expensive market among the analysed regions<sup>1</sup>, with an average price of €104. This was 24% higher than the next most expensive market (Great Britain) and 200% higher than the lowest-priced market (France).

Interconnector flows continued the similar trend to last quarter with general South to North, and East to West flows with Spain and France net exporters and Great Britain and Ireland net importers.

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<sup>1</sup> The regions analysed in this report include: SEM, France, Belgium, the Netherlands, Norway, Germany, Great Britain and Spain.

### 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.*

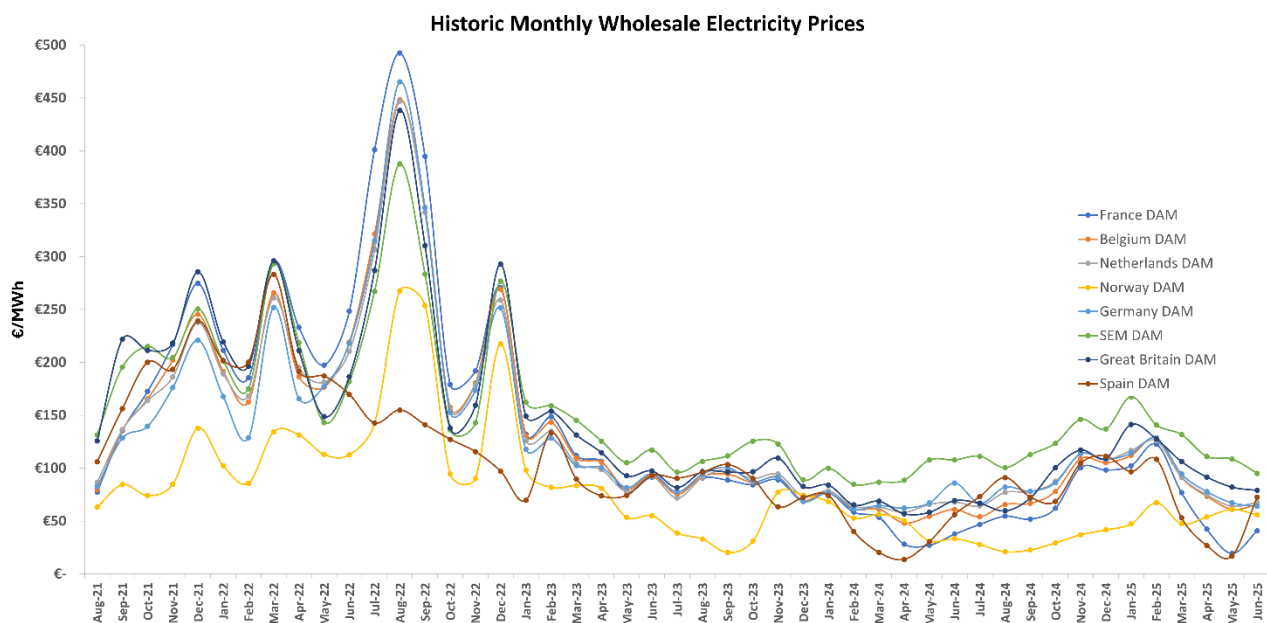
In Q2 2025, wholesale electricity prices were on average 65 €/MWh across the regions analysed, this was 18% higher than same time last year. Contributing factors to the rise include a 10% increase in gas prices and 6% increase in gas-fired generation.

During the second quarter of the year, SEM had a downward trend in prices, with June prices 14% lower than those recorded in April. This trend was supported by a steady decline in gas-fired generation usage in the SEM, increased solar output, and a recovery in wind generation during June.

Despite this downward trend, SEM remained the most expensive market among those analysed, with an average price of €104. This was 24% higher than the next most expensive market (Great Britain) and 200% higher than the lowest-priced market, France.

Looking at each month during the quarter individually:

- In April 2025, most jurisdictions experienced a price increase of 43% compared with the same month last year, with Spain and Great Britain showing the largest increase of 60% and 90%.
- In May 2025, prices fell around 10% in SEM, France, Belgium, Germany, the Netherlands and Spain, compared to May 2024.
- June 2025 brought a change in pricing trends, Spain and France rose by an average of 220% compared to May 2025.



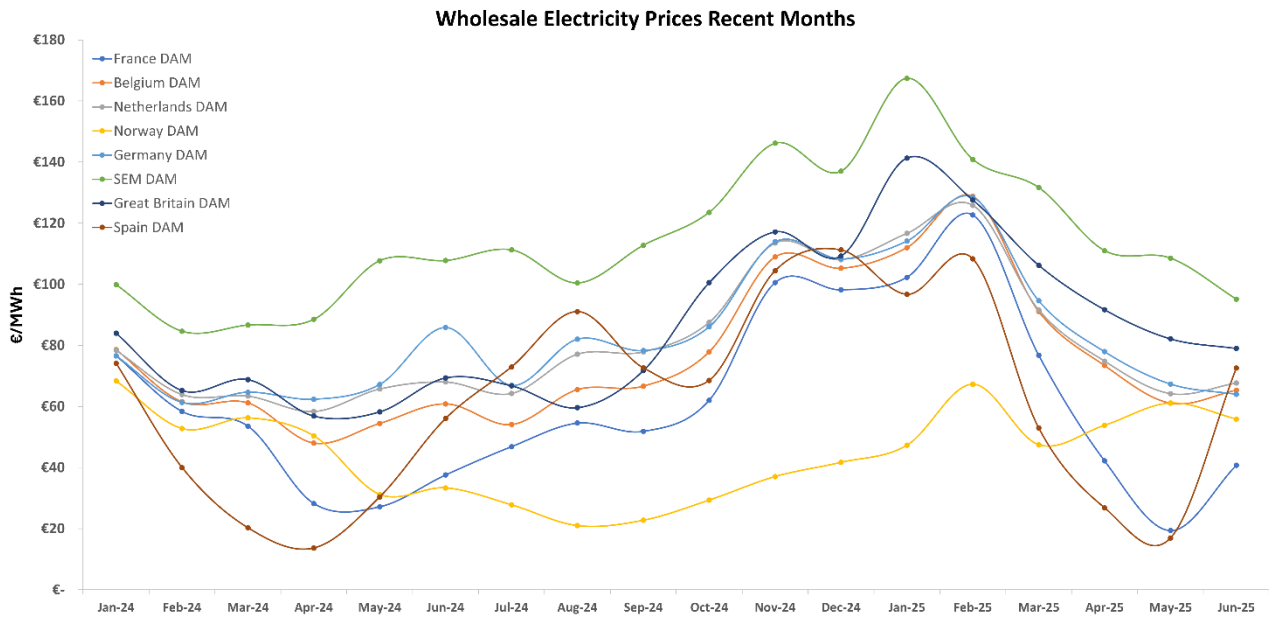
**Figure 1: Historical Average Monthly Wholesale Prices in European Jurisdictions**

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

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**Figure 2: Average Wholesale Prices Recent Months - Jan 2024 to Jun 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.***

The relationship between gas prices and wholesale electricity prices tends to strengthen when gas prices rise to levels comparable to or above those of other fossil fuels. More recently, as gas prices have declined a different dynamic has developed. For SEM, wholesale electricity prices now fluctuate around gas as the marginal generation fuel source. There is more variability in price seen though with higher prices during periods when fossil fuels are needed to meet the higher demand and conversely lower prices when high renewable generation is available.

This can be seen in Figure 3.

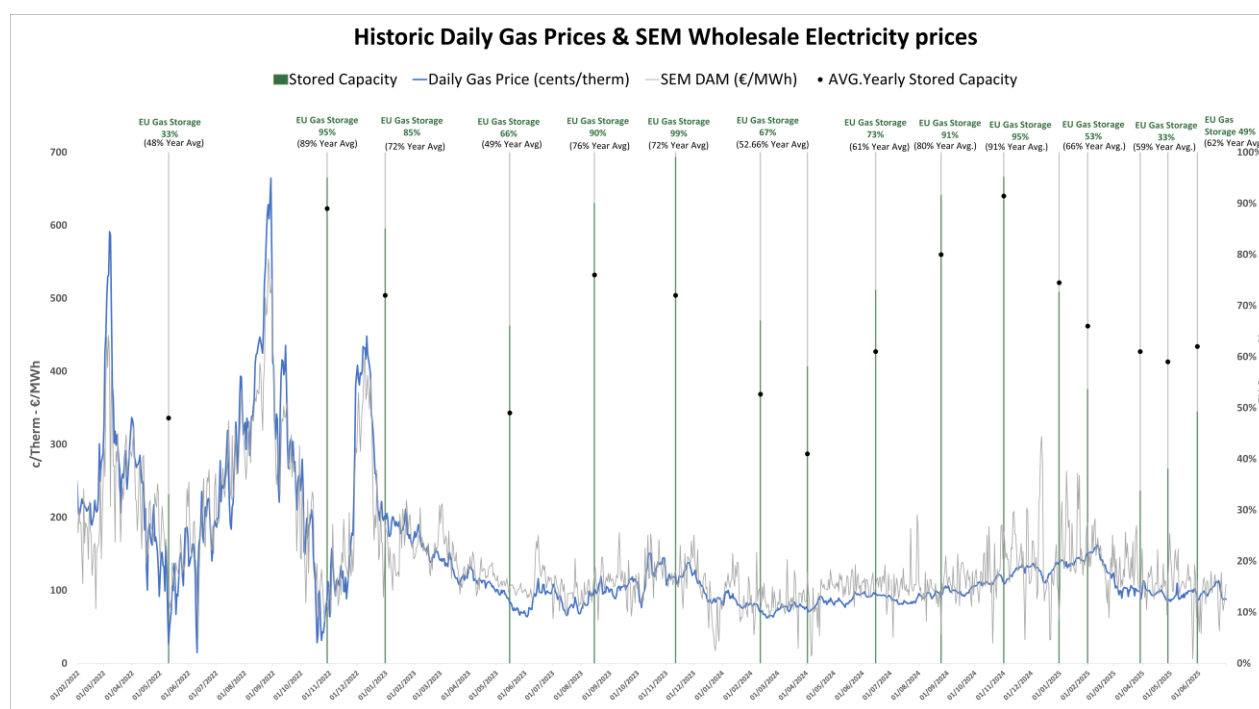


Figure 3: Historical Gas Prices

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

Looking at each month during the quarter individually:

- In April 2025, the average gas price fell around 3.6% compared to the previous month.
- By May 2025, the average gas price decreased by 2.5% compared to April 2025. However, during this month the gas markets experienced some periods of high volatility.
- In June 2025, gas prices increased 4.5% compared to May 2025. However at the end of June prices returned to levels seen in May.

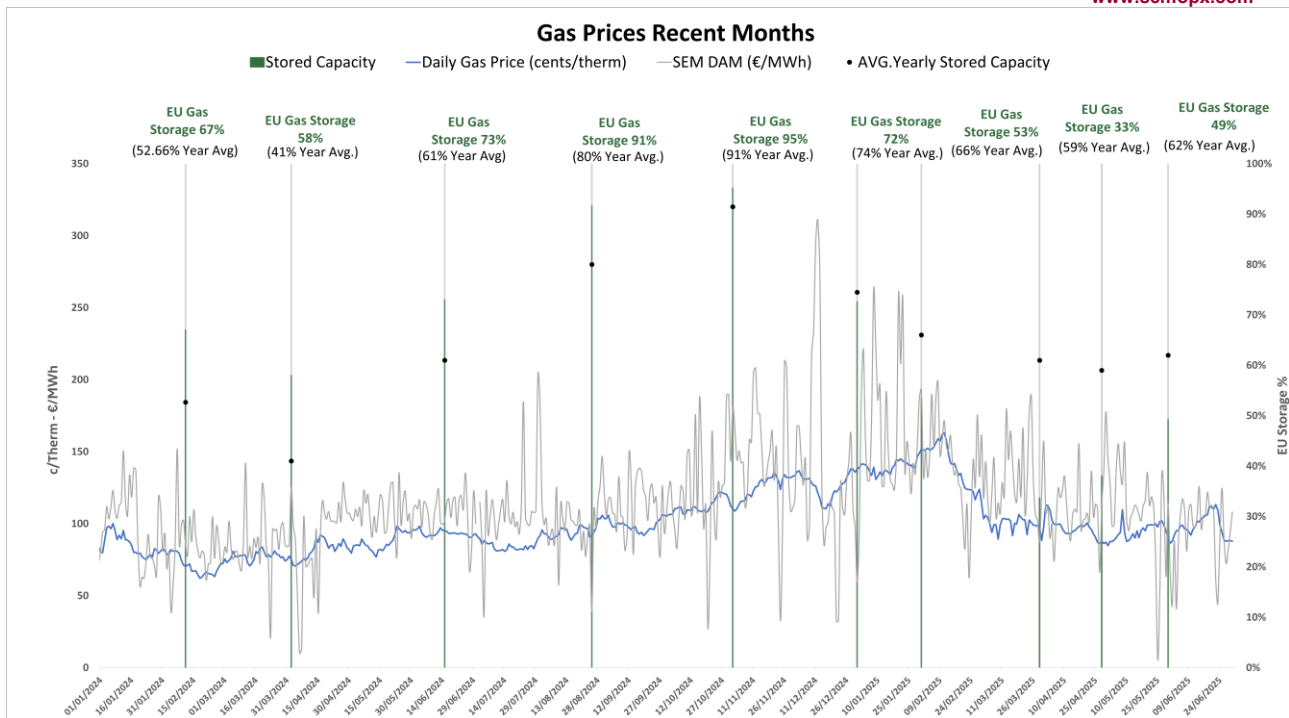


Figure 4: Gas Prices Recent Months - Jan 2024 to June 2025.

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, periods of higher renewables combined with higher nuclear mixes have lower wholesale electricity prices.***

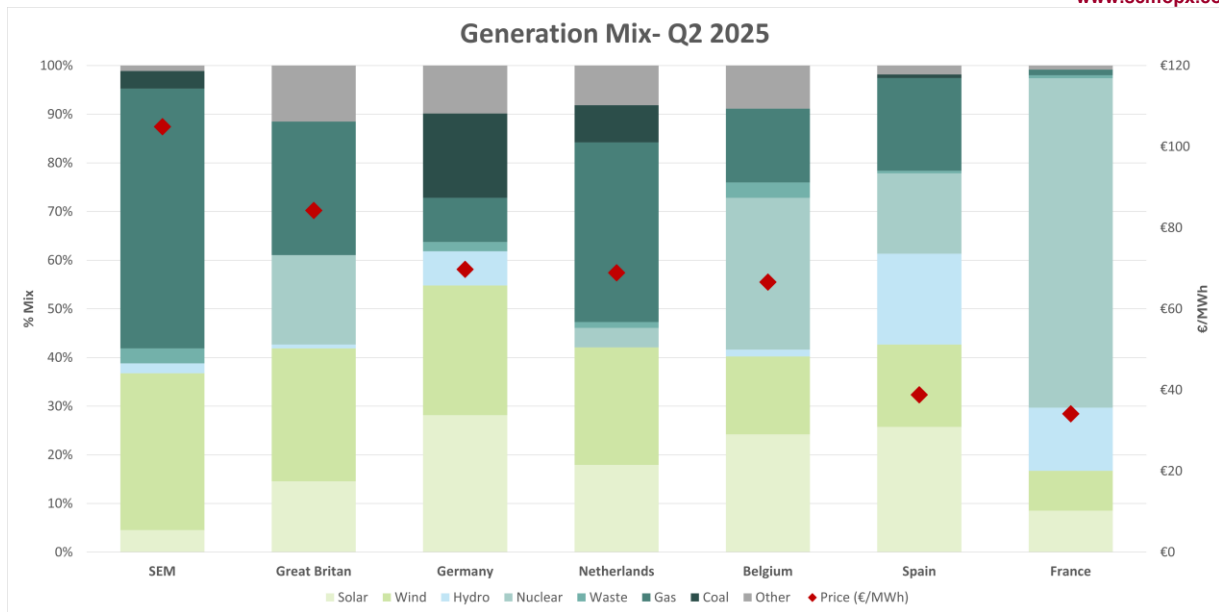
During the second quarter of the year, SEM experienced a month-on-month decline in gas-fired generation, with the most significant drop occurring between May and June 2025, when it fell by 18%. Overall, the quarter closed with a 9% decrease in gas-fired generation compared to the same period last year. In contrast, Q2 2025 marked a record for solar generation in the system, reaching 360 GWh, a 60% increase over the previous year, observe the fuel mix in Figure 5.

While Q2 2025 was generally characterized by low wind generation across most jurisdictions, SEM along with Germany and France stood out as the only markets that recorded an average 2% increase in wind generation compared to the same period last year.

In Western Europe, the generation mix for Q2 2025 saw solar generation reaching new records. Solar generation on average increased 18% compared with the same quarter last year. However, wind, despite the expected seasonal decrease was 7% less than the same quarter last year. Gas-fired generation, showed a decrease of 43% compared to the first quarter of 2025. Nevertheless, gas-fired generation rose by 6% compared with the same period last year.

Looking at each month during the quarter individually

- April 2025 saw new records for solar generation in the analysed regions. However, overall performance of renewables was limited due to weak wind output. On average, wind generation fell by 34% compared to April 2024, while solar generation rose by 24%. Spain bucked this trend with a less significant drop in wind generation of 8%, and its solar production remained similar to that of April 2024.
- May 2025 set further new records for solar generation. On average, wind generation rose by 14% compared to May 2024, while solar increased by 10%.
- June 2025 had a 3% increase in demand compared to May. Solar generation reached record levels, averaging 20% higher than in June 2024. Wind generation saw a notable rise, coming in 14% above the same period last year. Despite the growth in renewables, gas-fired generation increased by 5% year-on-year, driven by a 10% drop in hydro and a 3% decline in nuclear output.



**Figure 5: Generation Mix and Prices in Selected European Jurisdictions – Q2 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]

***Interconnection plays an important part in maximising the benefits to society of the European wholesale electricity market, and is important for the SEM as we transition to a renewable-led system. Flows typically follow price differences between regions, from low price to high price.***

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



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

## 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.