Nominated Electricity Market Operator
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Monthly European Energy Market Trends

November-2025

Note: This is a new report that is intended to be issued monthly. The format and content may change slightly over the coming months, 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 in November 2025.

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

In November 2025, wholesale electricity prices across Western Europe averaged 24% lower year-on-year, and compared to October, prices rose 10% month-on-month.

The SEM remained the most expensive market, averaging €122/MWh, up 22% month-on-month but still 16% below November 2024. Norway posted the largest monthly increase (+66%) and was the only jurisdiction with a year-on-year rise (+65%),Germany held its position as the second most expensive market at €101/MWh. Spain and France remained the cheapest systems, with Spain recording a 44% year-on-year price decrease and 21% month-on-month drop. France saw prices fall 41% year-on-year and rise 3% month-on-month.

Gas prices declined 5% month-on-month, shaped by mild weather, strong wind output, and steady LNG

Renewable generation trends were mixed: solar output rose 34% year-on-year but fell 32% month-on-month, while wind generation increased 17% year-on-year and 2% month-on-month. SEM and GB saw wind gains of 1% and 19%, respectively, while solar dropped around 35%. Belgium reversed its nuclear decline with a 13% increase following Doel 4's return.

Interconnector flows reflected price signals. SEM closed as a net importer and reduced exports to GB by 7% year-on-year.

3. Wholesale Electricity Prices

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

In November 2025, average wholesale electricity prices in the region were 24% lower year-on-year compared to November 2024.

Month-on-month, prices rose by 10% compared to October 2025, despite a continued 5% decrease in gas prices. This increase was aligned with a 12% rise in gas-fired generation, a 31% surge in coal generation, and an average 6% growth in demand.

Among the observed jurisdictions, SEM recorded the highest average price at €122/MWh, continuing the upward trend from September and marking a 22% increase over October. However, SEM's year-on-year price was 16% lower than November 2024.

Norway experienced the largest price change, with a 66% increase compared to October 2025, and was the only country with a year-on-year rise (+65%). This increase aligns with reduced monthly inflows from other Nordic jurisdictions, higher domestic demand, and increased exports to continental Europe, mainly Germany, which, along with SEM, posted the second-highest month-on-month price increase (22%).

Germany maintained its position as the second most expensive market for the third consecutive month, reaching €101/MWh, together with a drop in wind generation and increased reliance on gas and coal-fired generation.

Spain and France remained the cheapest systems. France recorded a 41% year-on-year price decrease and a modest 3% month-on-month increase, while Spain saw prices fall 44% year-on-year and 21% month-on-month, this drop aligns to lower gas prices and a sharp rise in wind generation (+44% YoY, +75% MoM).

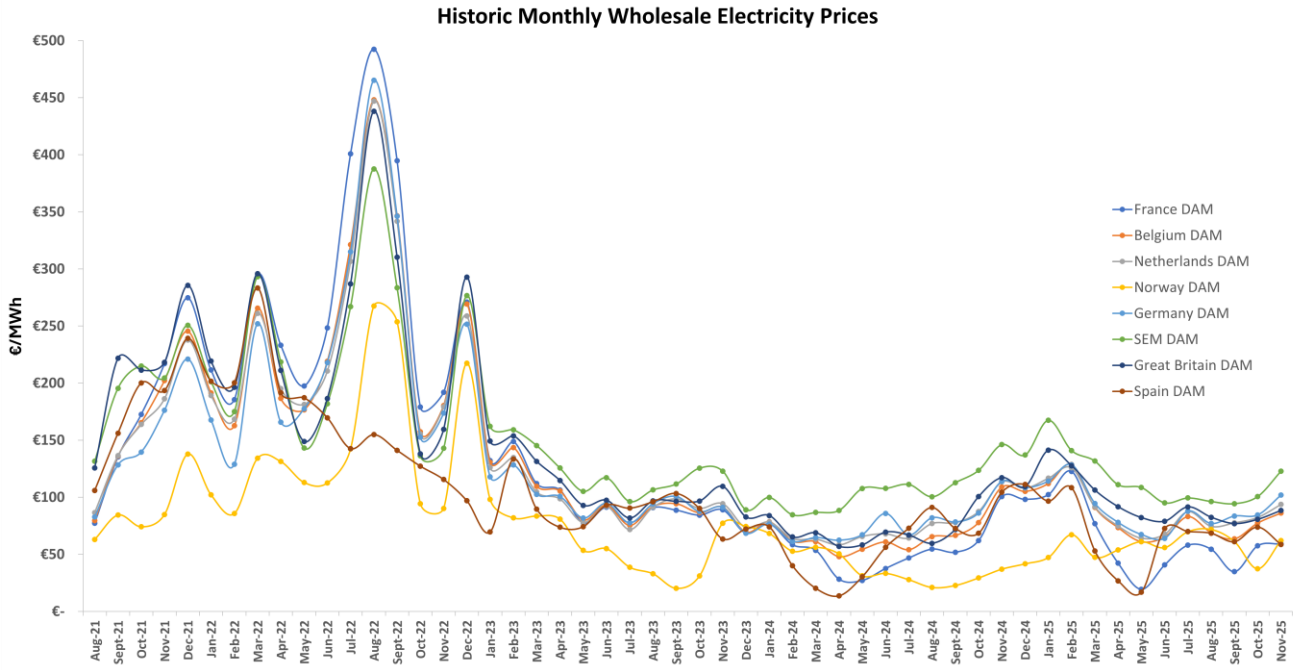

Figure 1: Historical Average Monthly Wholesale Prices in European Jurisdictions

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

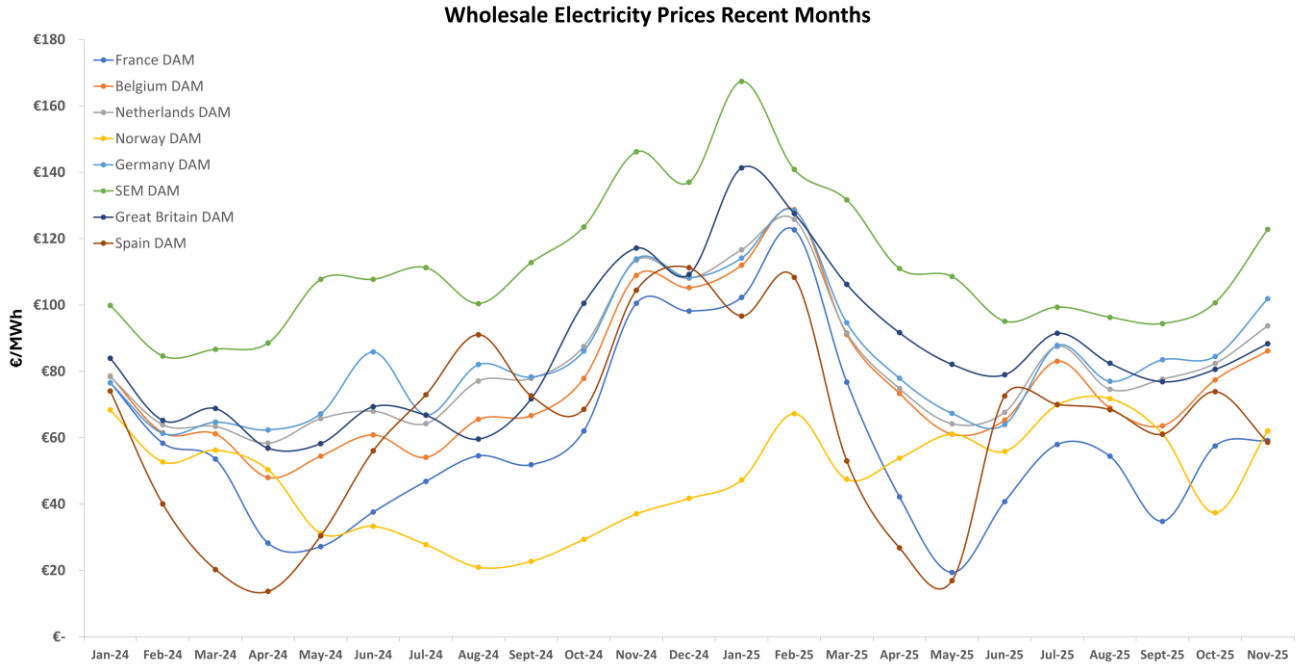

Figure 2: Average Wholesale Prices Recent Months - Jan 2024 to Nov. 2025

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

4. Gas Prices

Gas prices have a substantial impact on wholesale electricity costs across Western Europe and neighboring regions. Markets with a high dependence on gas-fired generation, such as SEM, are particularly affected.

Gas prices in November 2025 were shaped by mild weather with intermittent cold snaps and strong wind generation, sustaining a 5% month-on-month decline.

During the second and third weeks, early signs of cold weather pushed gas prices 15% above early-month levels. European storage remained stable at 75%, with reduced injections and some withdrawals.

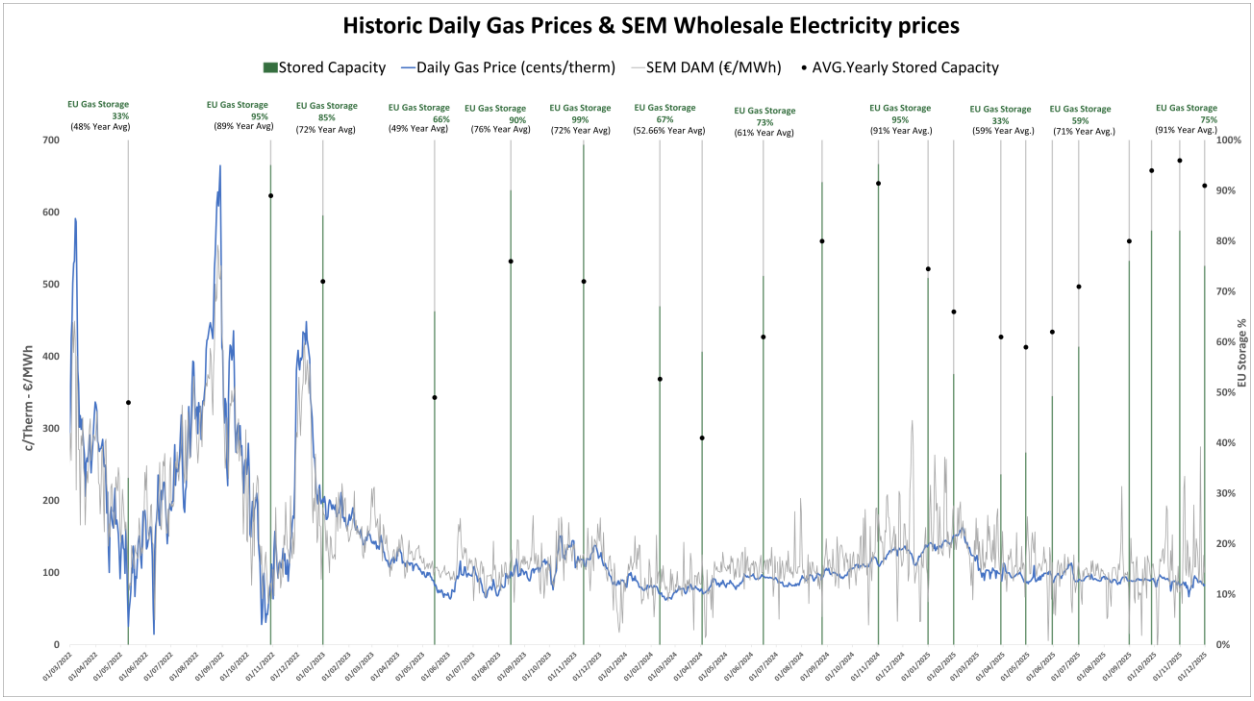

Figure 3: Historical Gas Prices

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

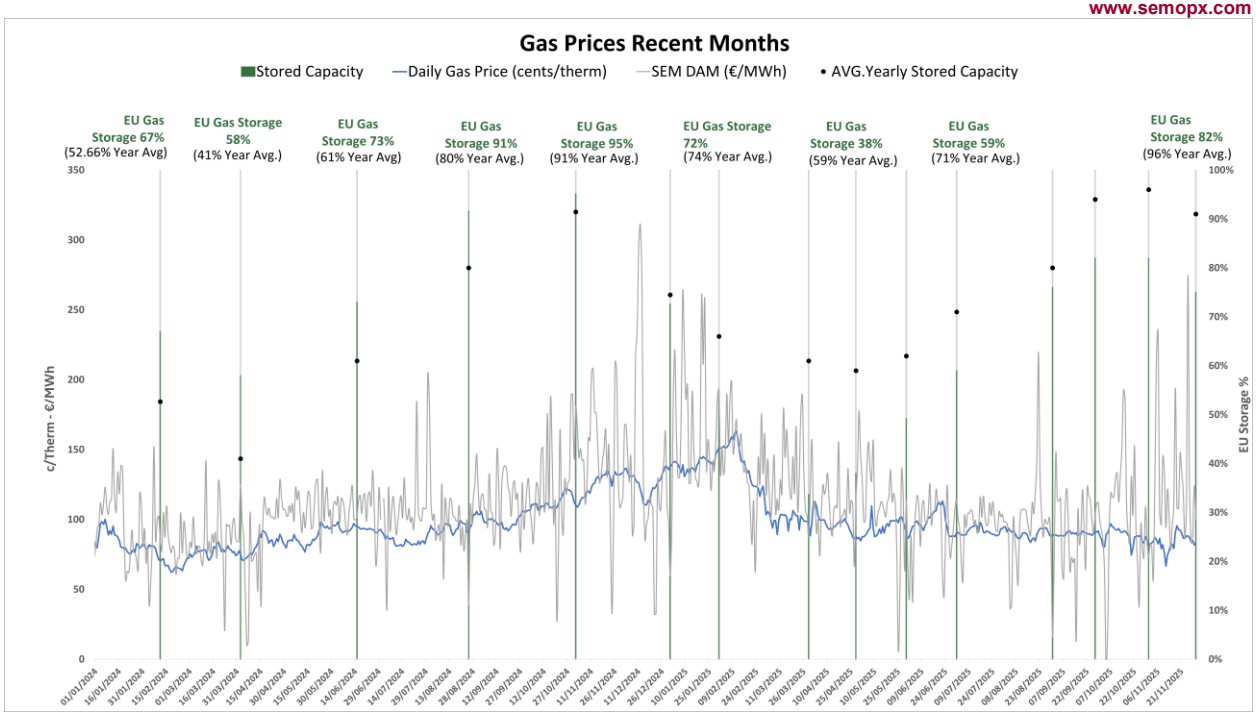

Figure 4: Gas Prices Recent Months - Jan 2024 to November 2025.

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

5. Generation Mix

The generation mix continues to play a crucial role in shaping wholesale electricity prices across Western Europe and neighboring regions. Generally, a higher share of renewables results in lower prices, while lower renewable output increases reliance on conventional generation.

In November 2025, solar generation increased by 34% year-on-year but fell 32% compared to October, as expected due to shorter daylight hours. Wind generation rose 17% year-on-year and 2% month-on-month.

The impact of renewables varied significantly across countries. SEM and GB, both heavily reliant on renewables, saw wind power increase by 1% and 19%, respectively, compared to October, while solar output dropped by about around 35%. These changes were reflected in gas generation, which rose by 11% in SEM and 2% in GB, contributing to price differentials between systems.

France, compared to October, maintained similar wind output but experienced a 40% decrease in solar generation and a 14% increase in demand. This was followed by a 75% surge in gas generation (from 1.06 TWh to 1.81 TWh) and a 12% rise in nuclear output. Despite being the system with the highest increased in gas-fired generation, France remained the second cheapest market after Spain.

Spain and Germany recorded the most significant changes in wind generation compared to October. Spain achieved a record 73% increase, which directly impacted its final average prices, making it the cheapest system. Conversely, Germany saw a 24% drop in wind output, which contributed to higher prices alongside a 48% increase in gas generation and a 25% rise in coal generation.

Belgium reversed its previous trend of declining nuclear output, posting a 13% increase compared to October following the return of Doel 4.

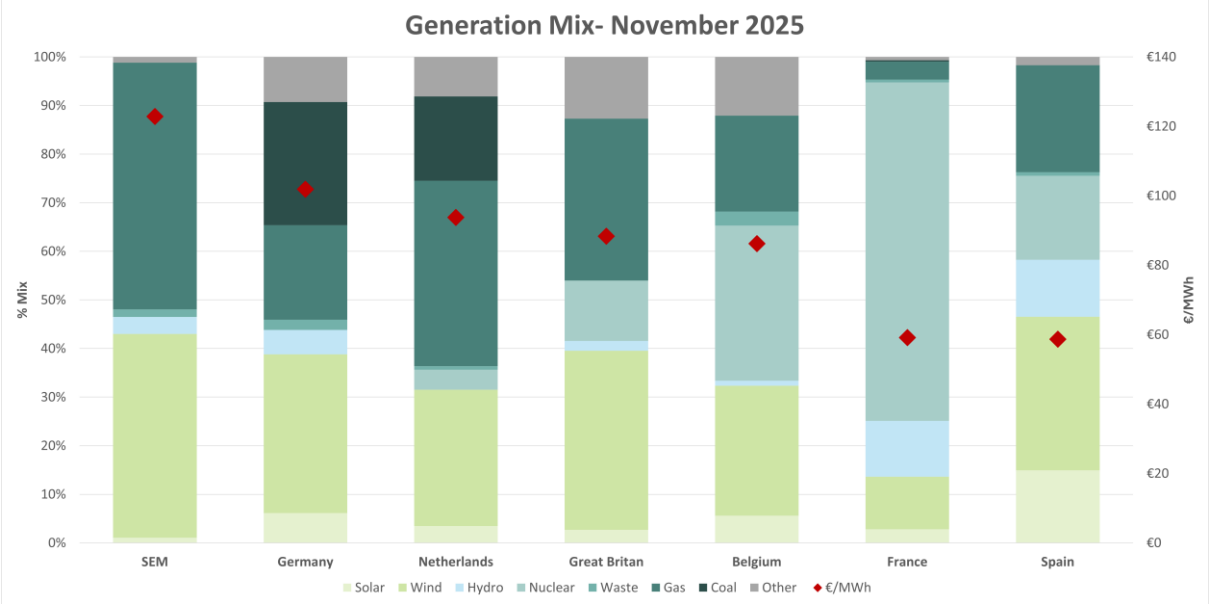

Figure 5: Generation Mix and Prices in Selected European Jurisdictions – November 2025.

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 a key role in enhancing the efficiency and stability of the electricity market across Western Europe and neighboring regions by enabling electricity to flow from low-price areas to high-price areas.

In November 2025, interconnector flows broadly followed market price signals. France's exports were mixed, increasing to Germany and Great Britain while decreasing to Belgium and Spain.

Germany registered the largest increase in imports compared to the previous month and, for the first time this year, did not export to France. Great Britain remained a net importer, although overall inflows from the continent declined.

SEM recorded a 7% year-on-year decrease in exports and a 40% increase in imports from Great Britain, driven primarily by Great Britain's strong renewable generation.

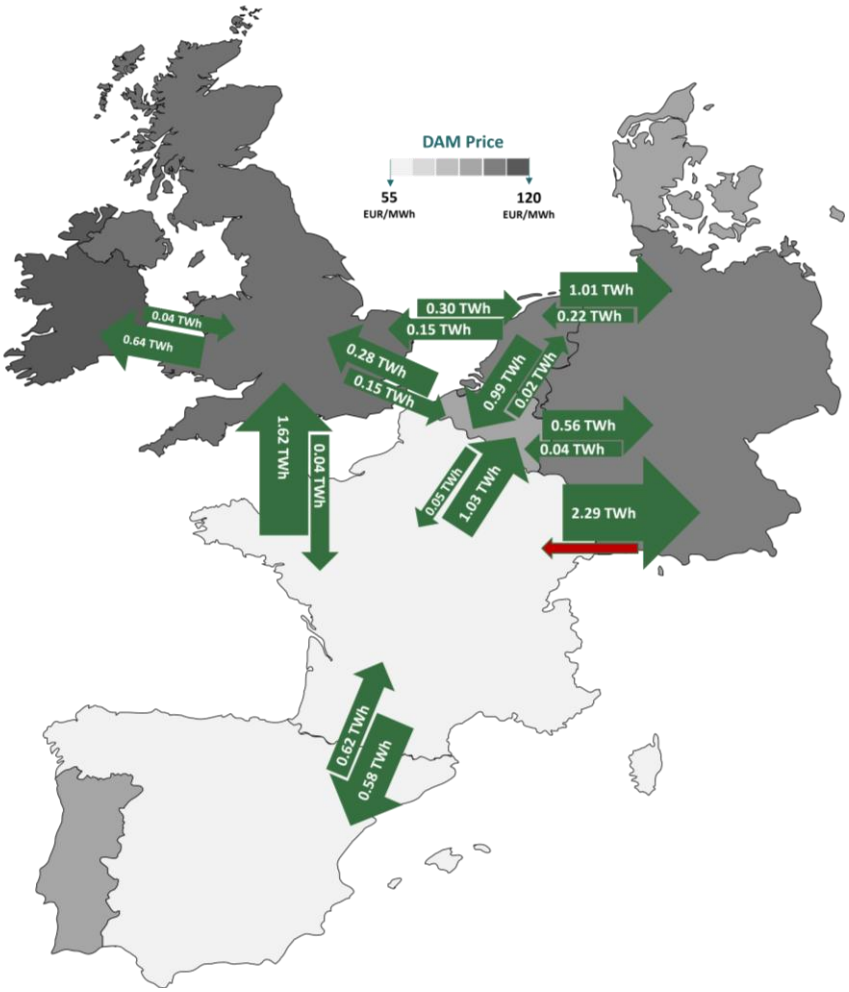

Figure 6: Europe Interconnector Physical Flows – November. 2025.

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.