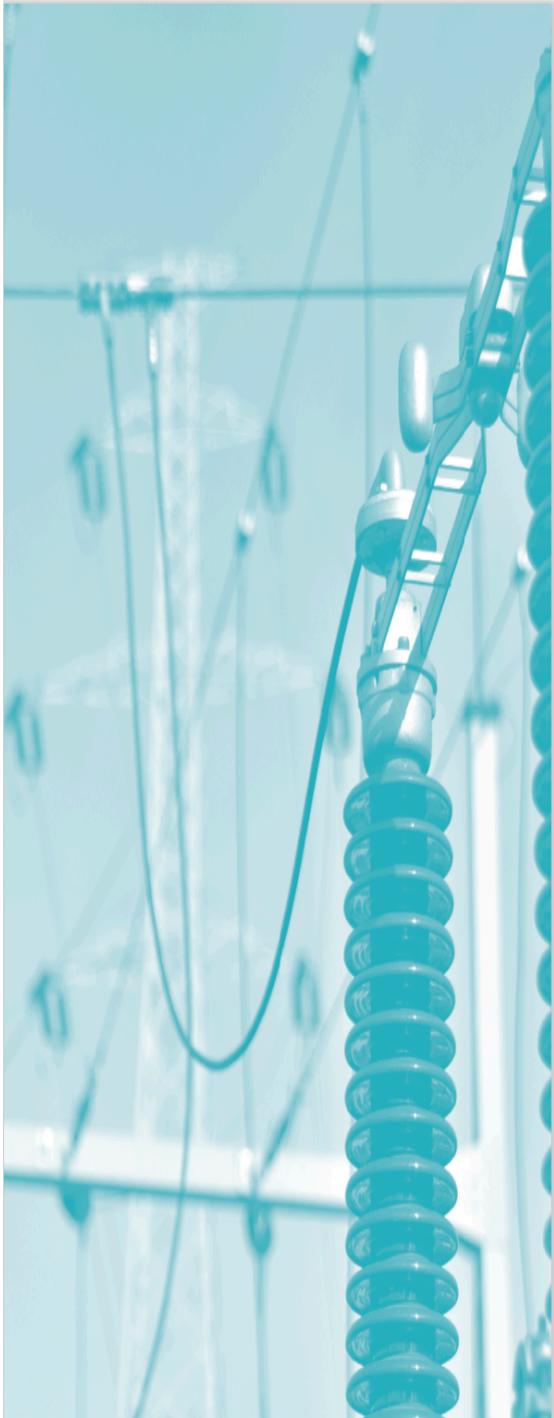


Energy Market Monitoring Report

November 2025



Market Results

Summary Dashboard

Monthly Averages	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25
DAM (€/MWh)	146.14	136.99	167.51	140.85	131.8	111.11	108.64	95.21	99.61	96.38	94.47	100.67	122.79
% Change from previous month	19%	-6%	22%	-16%	-6%	-16%	-2%	-12%	5%	-3%	-2%	7%	22%
% Change from previous year	19%	54%	68%	66%	52%	26%	1%	-12%	-10%	-4%	-16%	-18%	-16%
Actual System Demand (MW)	5085	5020	5256	5194	4951	4594	4254	4413	4356	4305	4493	4818	5200
% Change from previous month	9%	-1%	5%	-1%	-5%	-7%	-7%	4%	-1%	-1%	4%	7%	8%
% Change from previous year	4%	3%	2%	5%	2%	0%	-2%	5%	2%	1%	1%	3%	2%
Actual Wind Generation (MW)	1448	2040	1948	2509	1615	1278	933	1306	1057	1169	1567	1743	1821
% Change from previous month	-13%	41%	-5%	29%	-36%	-21%	-27%	40%	-19%	11%	34%	11%	4%
% Change from previous year	-20%	-17%	5%	25%	-22%	-15%	4%	22%	20%	-19%	24%	4%	26%
Actual Solar Generation (MW)	-	-	-	-	-	-	-	-	-	194	149	71	49
% Change from previous month	-	-	-	-	-	-	-	-	-	-1%	-23%	-52%	-31%
% Change from previous year	-	-	-	-	-	-	-	-	-	52%	94%	3%	32%
Gas Price p/therm	111.00	111.22	122.85	123.04	100.94	84.72	81.82	86.38	80.69	79.25	79.23	78.05	76.03
% Change from previous month	12%	0%	10%	0%	-18%	-16%	-3%	6%	-7%	-2%	0%	-1%	-3%
% Change from previous year	6%	32%	64%	94%	48%	18%	7%	6%	7%	-6%	-9%	-21%	-32%
Carbon Price (€/Tonne)	67.15	67.05	75.87	76.08	68.39	63.96	71	73.14	71.03	71.81	76.23	78.68	80.93
% Change from previous month	6%	0%	13%	0%	-10%	-6%	11%	3%	-3%	1%	6%	3%	3%
% Change from previous year	-12%	-7%	16%	36%	18%	1%	0%	7%	6%	2%	18%	24%	21%
EWIC % Import Periods	78.30%	67.64%	67.88%	43.01%	55.18%	27.15%	78.36%	68.26%	45.83%	57.22%	60.45%	63.98%	60.07%
EWIC % Export Periods	9.03%	11.49%	10.18%	13.91%	2.66%	1.81%	0.77%	2.05%	1.31%	4.57%	3.92%	4.13%	3.40%
EWIC % Not Flow Periods	12.67%	20.87%	21.94%	43.08%	42.16%	71.04%	20.87%	29.69%	52.86%	38.21%	35.63%	31.89%	36.53%
Moyle % Import Periods	82.47%	81.55%	78.53%	64.62%	79.24%	78.16%	93.88%	78.85%	57.29%	79.03%	80.24%	73.69%	75.66%
Moyle % Export Periods	17.50%	18.41%	21.27%	22.43%	6.16%	6.08%	6.08%	16.70%	24.33%	20.90%	19.72%	26.21%	24.31%
Moyle % Not Flow Periods	0.03%	0.03%	0.20%	12.95%	14.60%	15.76%	0.03%	4.44%	18.38%	0.07%	0.03%	0.10%	0.03%
Greenlink % Import Periods	NA	NA	NA	68.97%	88.63%	80.17%	93.78%	90.76%	91.23%	88.68%	85.69%	80.21%	84.17%
Greenlink % Export Periods	NA	NA	NA	25.04%	9.49%	10.35%	5.58%	7.36%	7.83%	10.08%	11.25%	18.92%	13.89%
Greenlink % Not Flow Periods	NA	NA	NA	5.99%	1.88%	9.48%	0.64%	1.88%	0.94%	1.24%	3.06%	0.87%	1.94%

Market Volumes November 2025

Daily Average Volume MWh

DAM	126,674
IDA1	28,917
IDA2	3,986
IDA3	735
IDC	54

Total Monthly Volume MWh

DAM	3,800,212
IDA1	867,498
IDA2	119,574
IDA3	22,056
IDC	1,180
Total	4,810,520

Total Market Value €

DAM	€ 483,935,113
IDA1	€ 109,866,403
IDA2	€ 15,866,295
IDA3	€ 2,951,284
IDC	€ 151,653
Total	€ 612,770,747

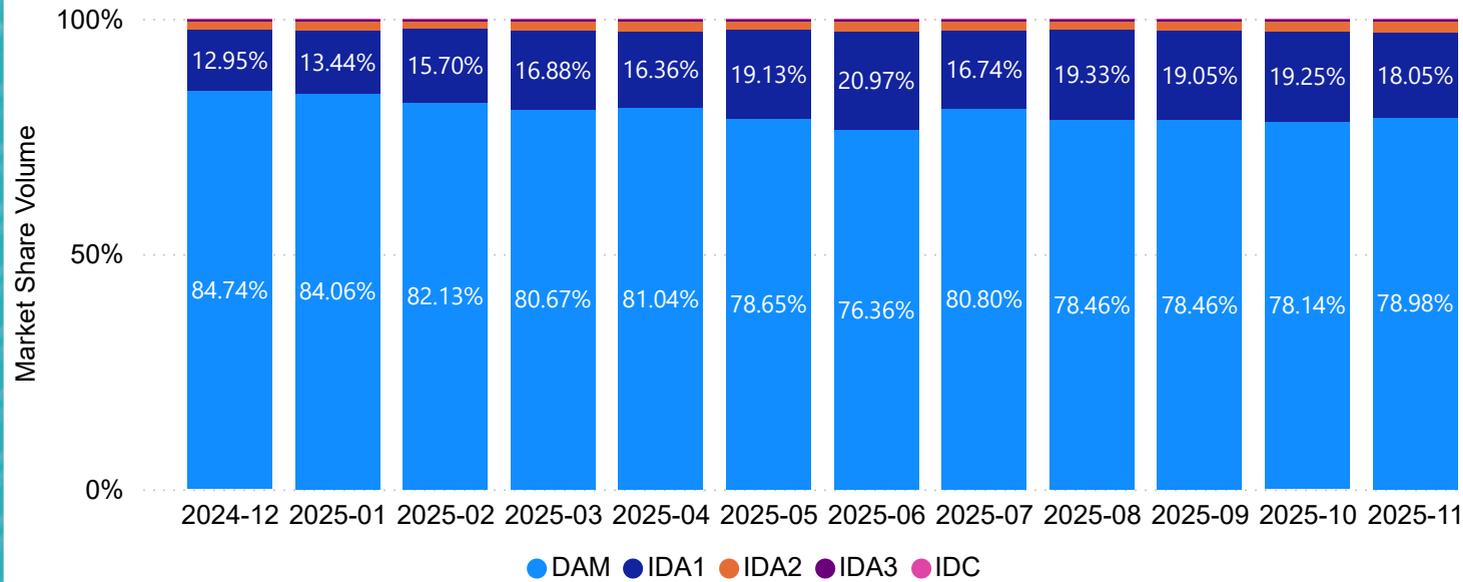
Market Volumes and Values

The Day Ahead Market is, by far, the largest market in the SEM, circa 78-82% of all transactions are cleared in this market. The distribution of volumes across the SEM markets have been broadly constant since the introduction of these trading arrangements in October 2018.

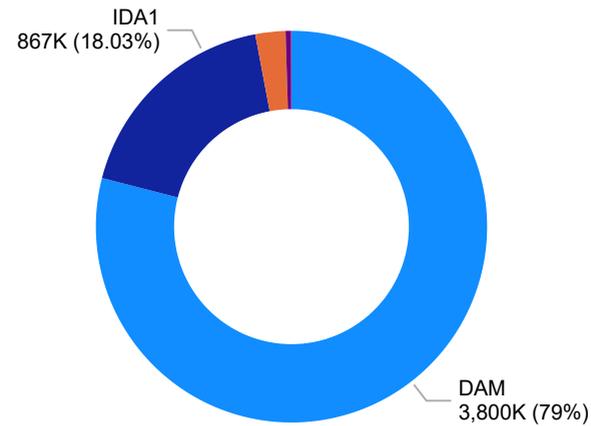
Generally, in the SEM, market participants will prefer to lock in their positions well ahead of delivery time given the increased volatility in prices closer to real time.

The Scheduling & Dispatch Programme (SDP_02) came into effect on 13th Nov enabling batteries to submit negative PNs and to enable the TSOs to follow the PNs batteries submit.

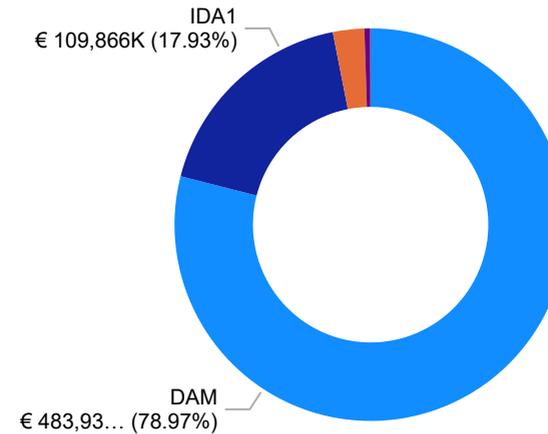
Ex-Ante Monthly Volume by Market



Ex-Ante Volumes (MWh)



Ex-Ante Values (€)



● DAM ● IDA1 ● IDA2 ● IDA3 ● IDC

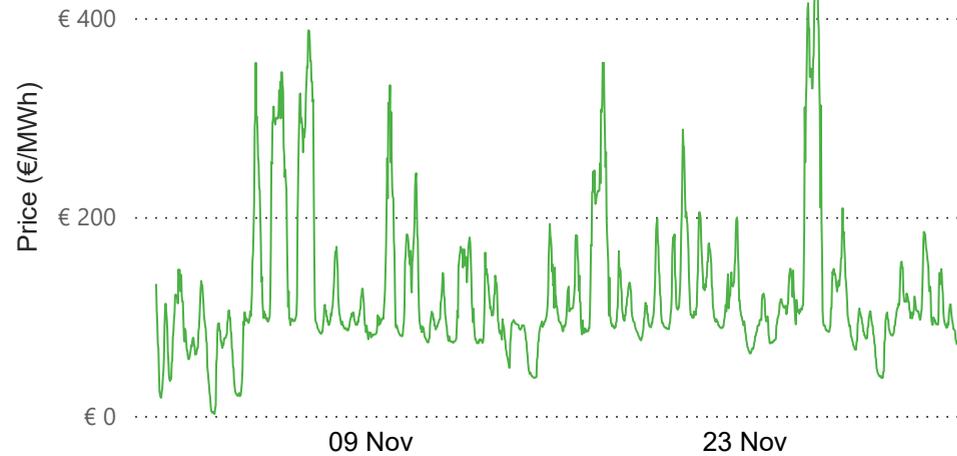
● DAM ● IDA1 ● IDA2 ● IDA3 ● IDC

Day Ahead Market November 2025

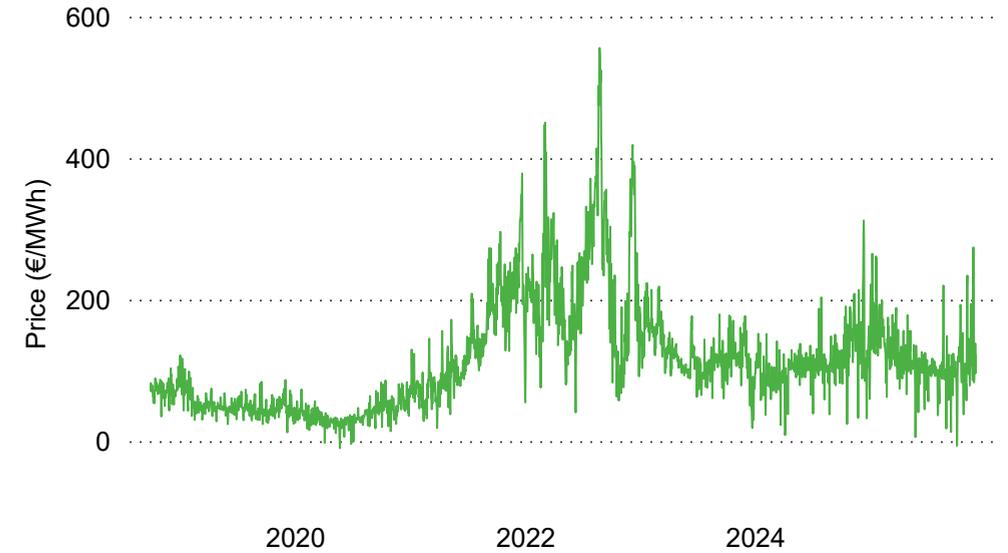
€ 122.79
Average DAM Price
€ 1.99
Min DAM Price
€ 465.77
Max DAM Price

The most frequent price range for the month was between €60 and €120.

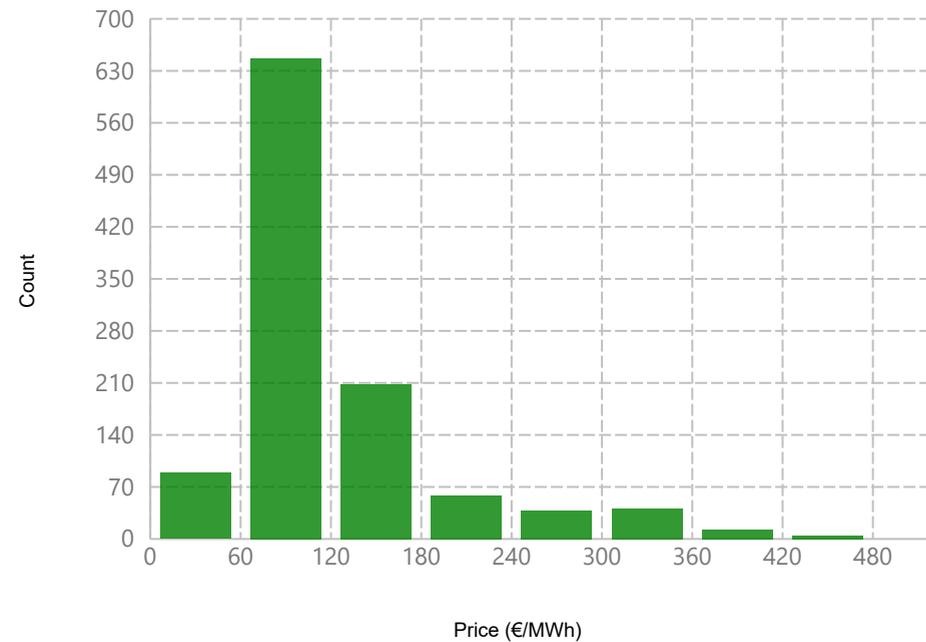
DAM Prices



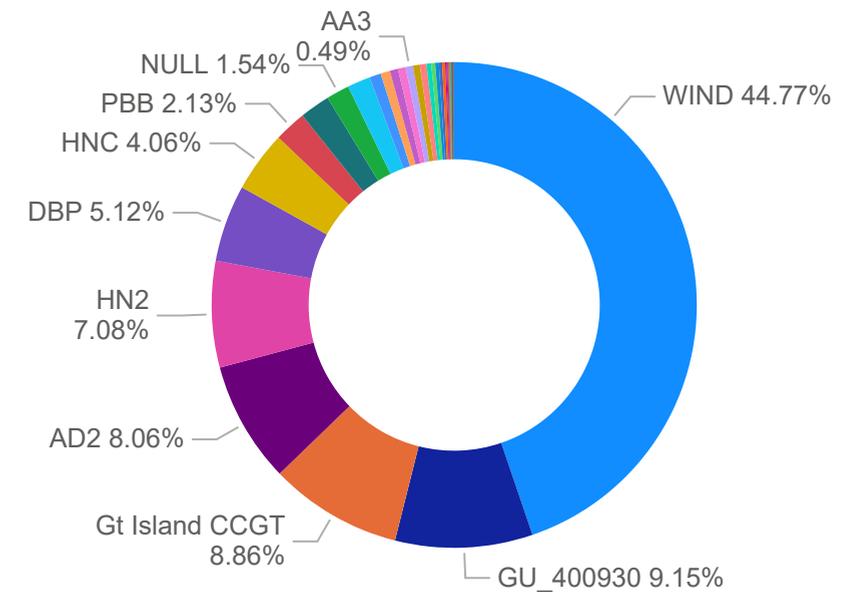
Historic Daily Average DAM Prices



Histogram of DAM Prices



DAM Sell Side Generator Order Results



Intraday Market November 2025

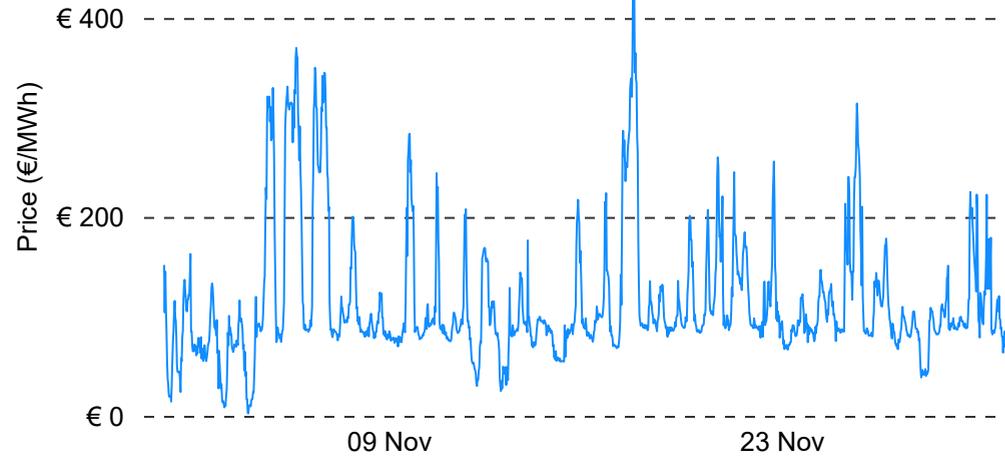
€ 114.88
Average IDA1 Price

€ 2.39
Min IDA1 Price

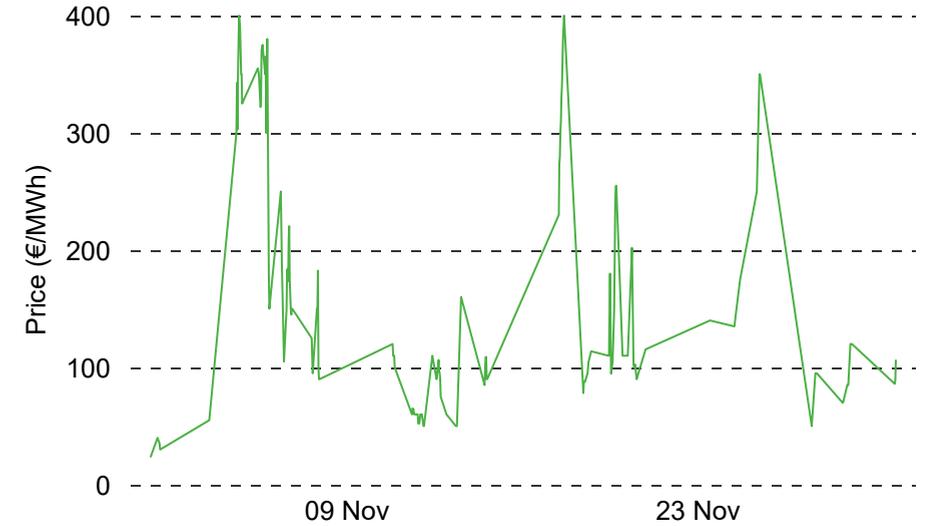
€ 438.41
Max IDA1 Price

The most frequent price range for the month was between €60 and €120.

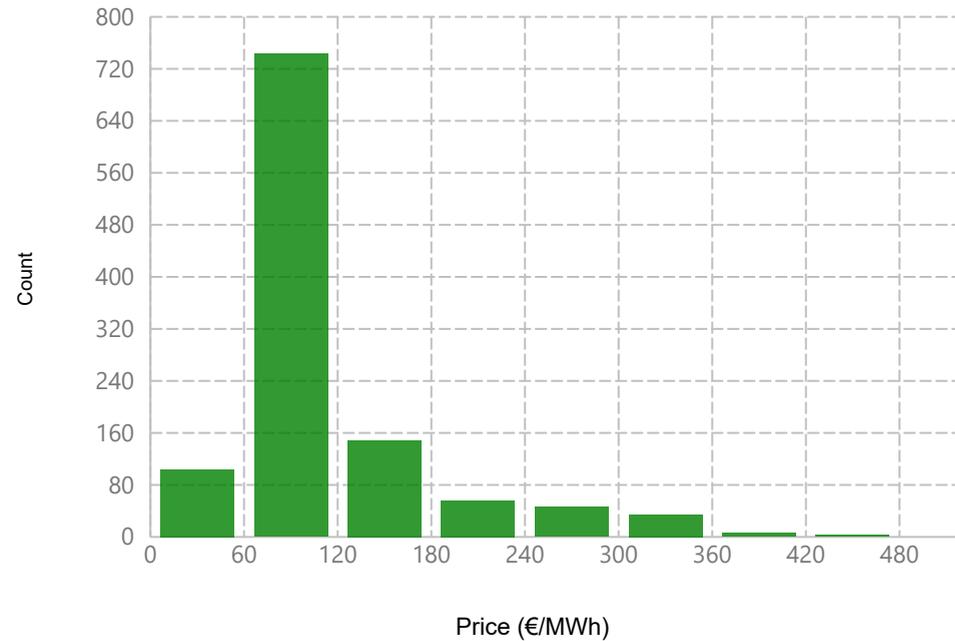
IDA 1 Prices



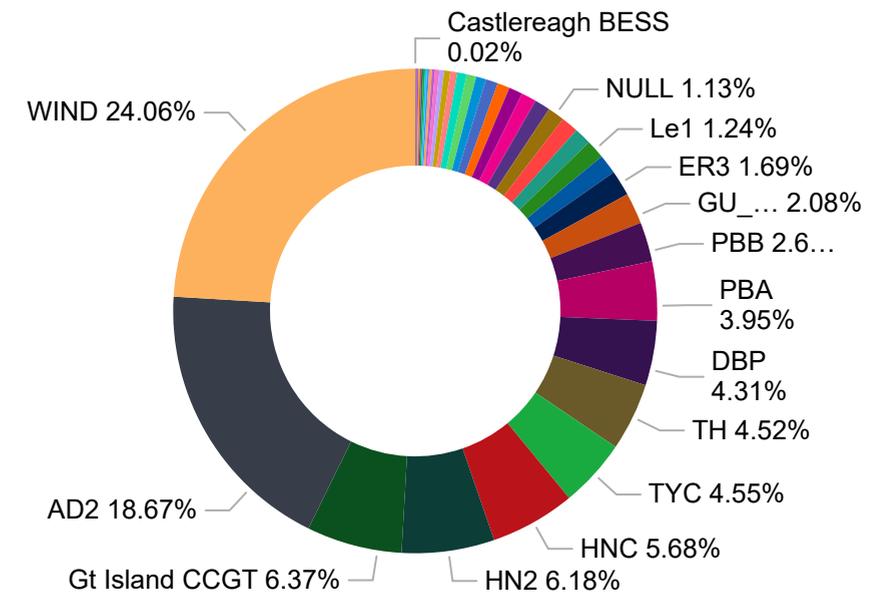
IDC Prices



Histogram of IDA1 Prices



IDA1 Sell Order Results By Market Participant



SEM vs GB DAM November 2025

SEM Day Ahead Price

€ 122.79

Average DAM Price

€ 1.99

Min DAM Price

€ 465.77

Max DAM Price

GB Day Ahead Price

€ 88.31

Average Price

€ 7.94

Min Price

€ 223.53

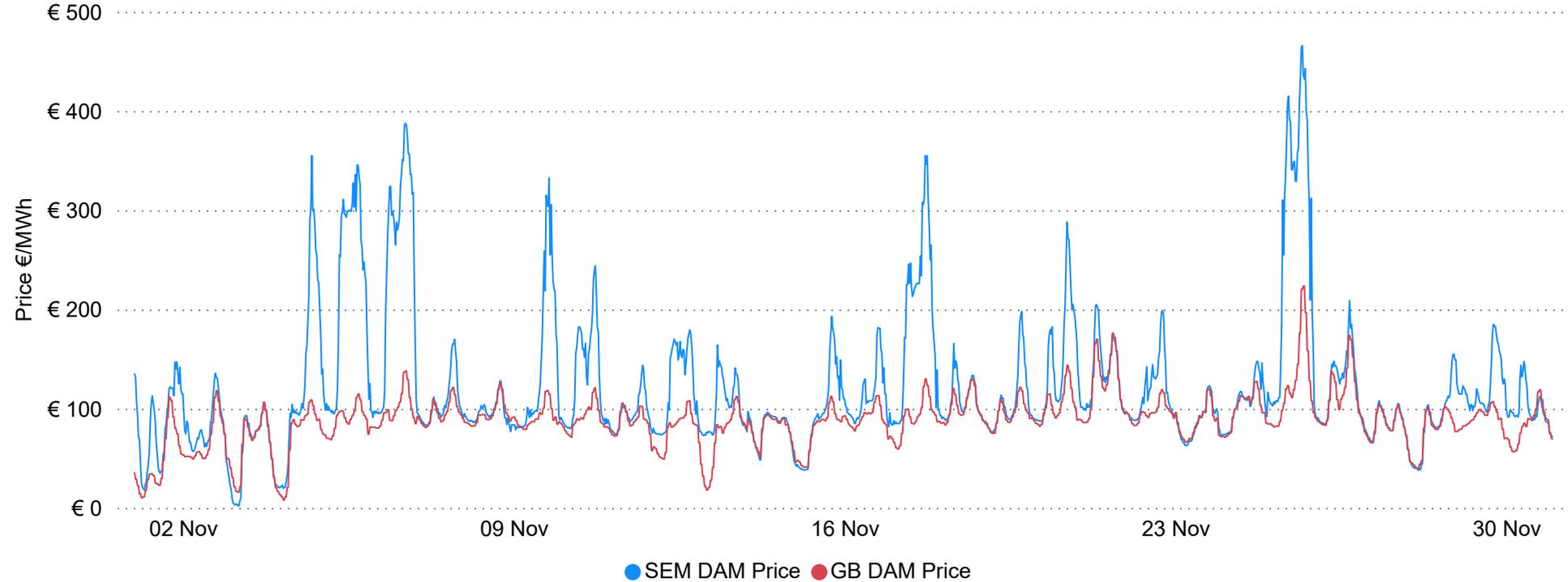
Max Price

SEM-GB Price Differential

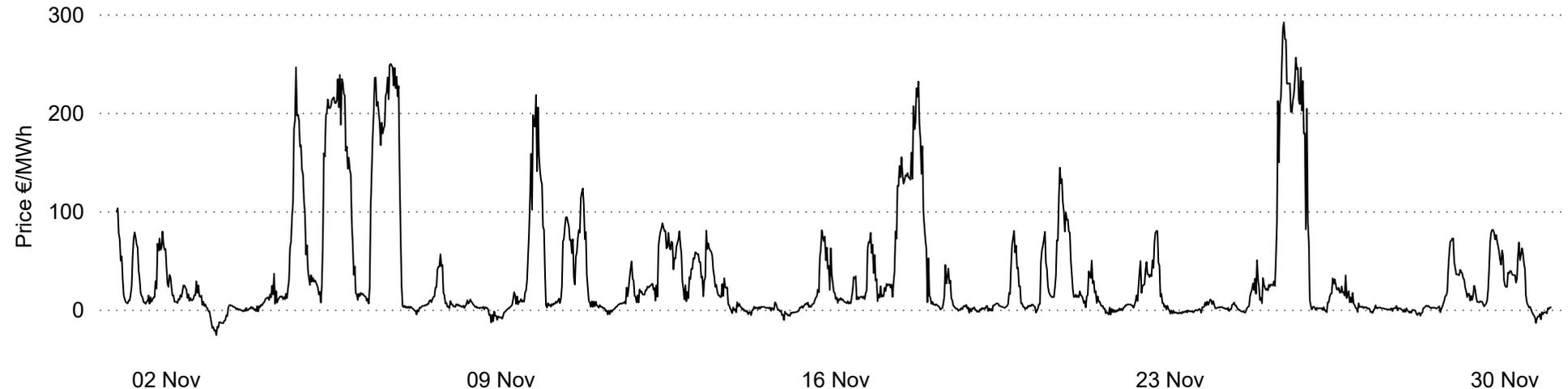
The charts show that the SEM and GB prices appear to follow the same general trend. Significant spreads can be observed on several occasions.

Periods of significant spreads between the two markets are generally correlated with periods of very low wind in the SEM, such as the 25th Nov.

SEM & GB DAM Prices



SEM & GB DAM Prices Spread



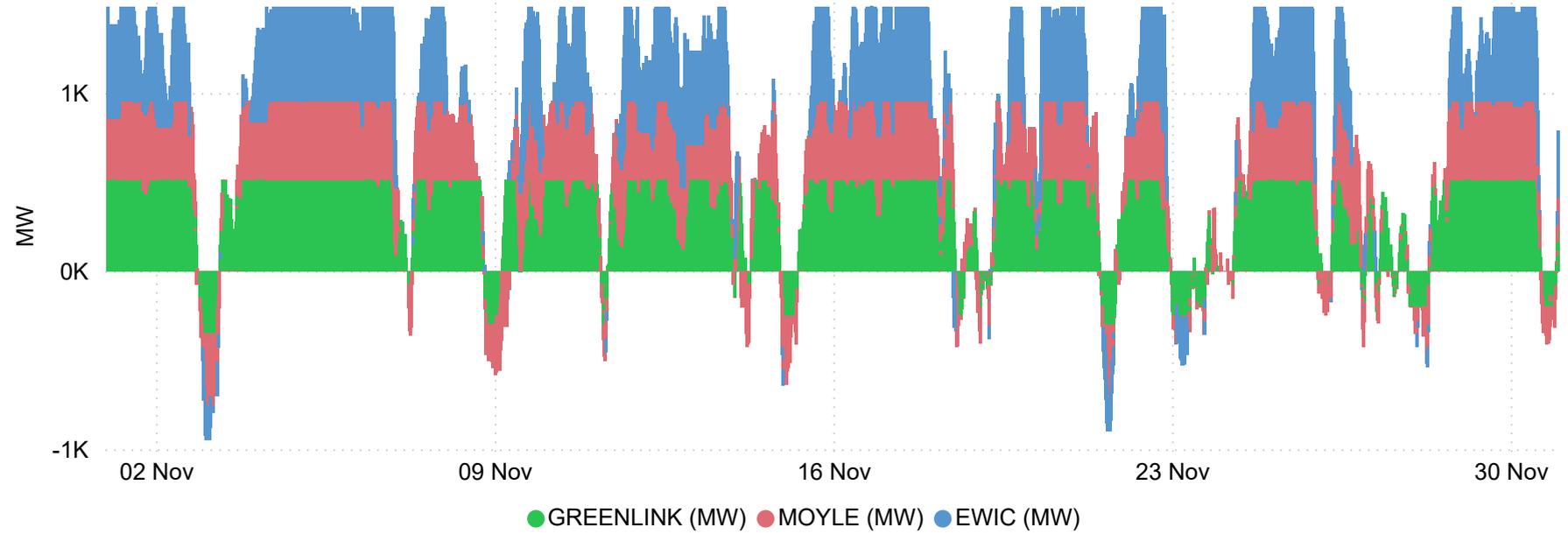
SEM Interconnectors

November 2025

Interconnectors were predominantly importing power across the month. This reflects the predominantly higher prices in the SEM compared with GB.

Export flows on interconnectors were also observed occasionally when strong wind output resulted in oversupply in the SEM.

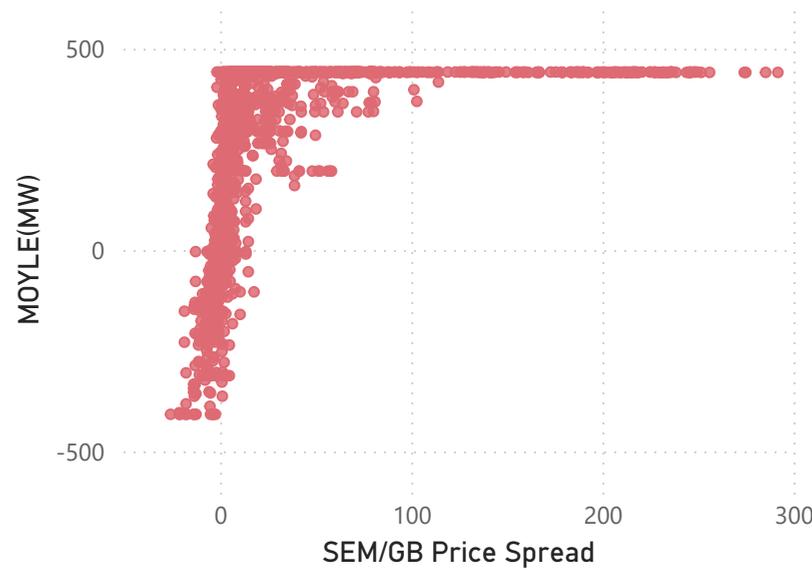
SEM Interconnector Flows



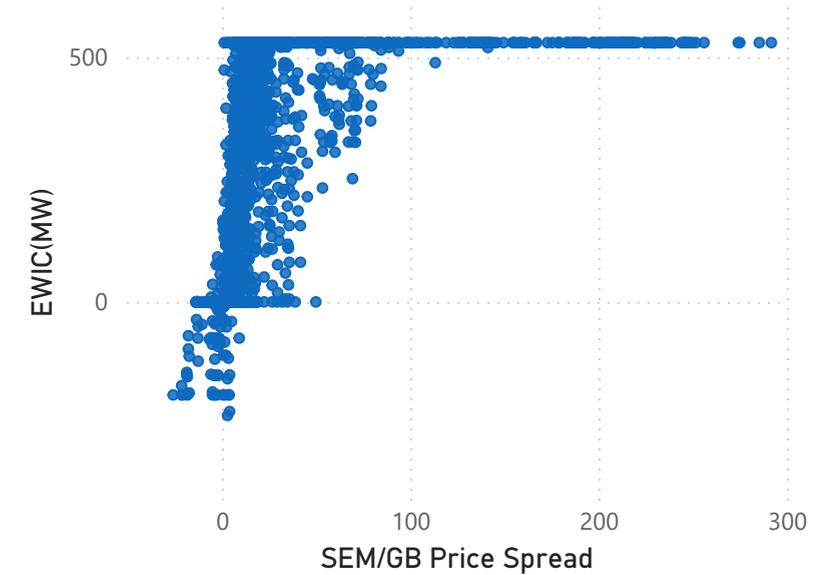
Greenlink Flows vs SEM/GB Price Spread



Moyle Flows vs SEM/GB Price Spread



EWIC Flows vs SEM/GB Price Spread

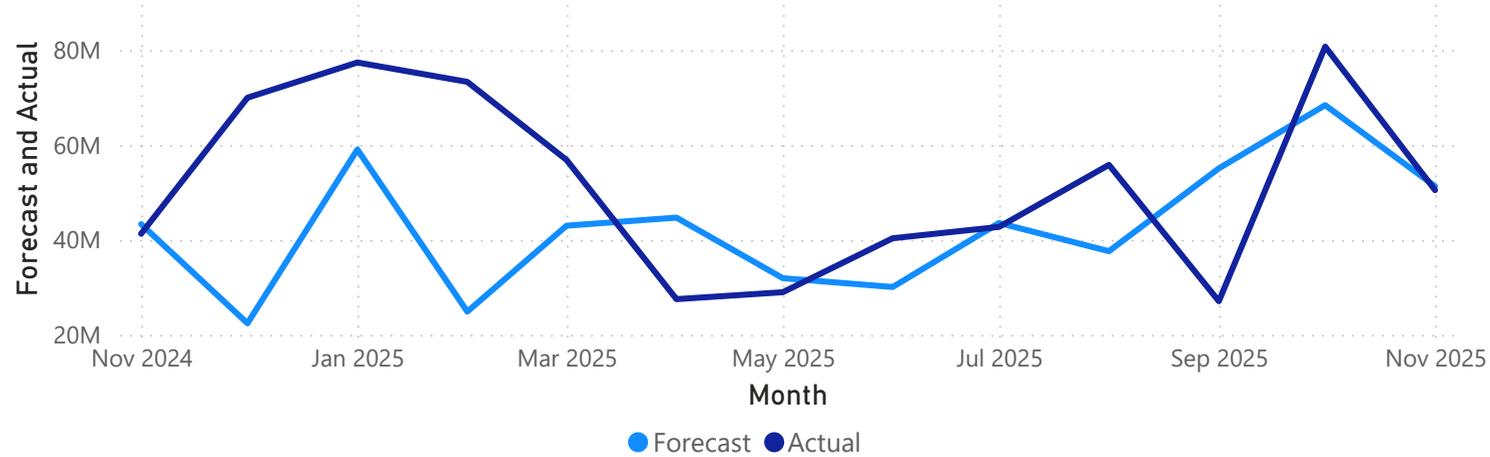


Balancing Market November 2025

Where power stations are run differently from the market schedule, it is termed "constraint". Subject to the Trading and Settlement Code and Firm Access, Constraint payments keep generators financially neutral for the difference between the market schedule and what actually happened when generating units were dispatched.

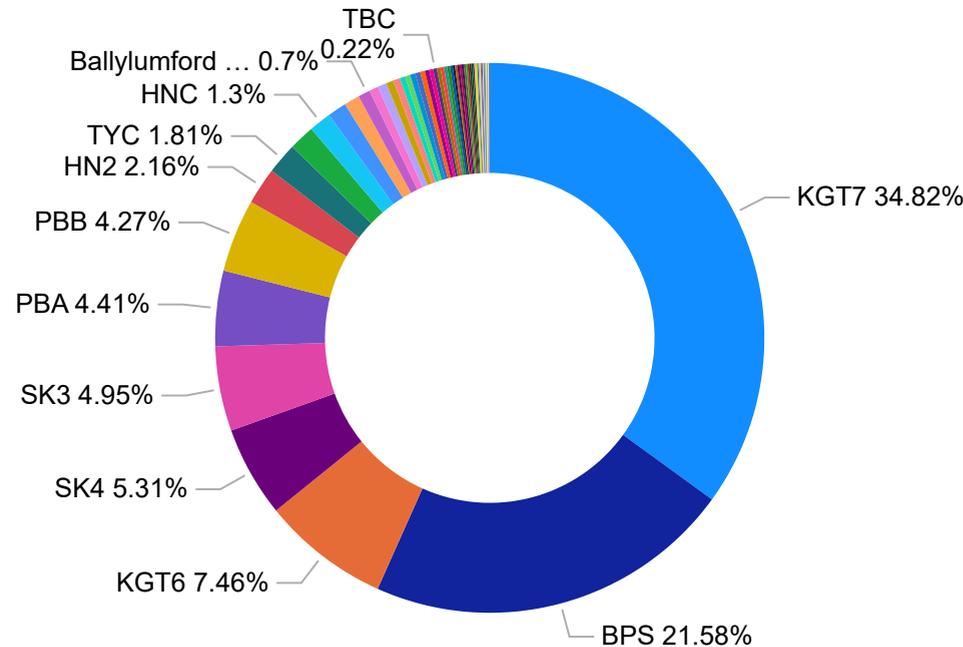
Generators can be constrained 'on' or 'up' if the market schedule indicated they were to be run at lower levels than actually happened. Or they could be constrained 'down' or 'off' if they were to be run at a higher level than happened in reality. There is always an overall net cost to the system associated with constraints.

Imperfection Costs - Forecast vs Actual



Determinant Name	Value €
CABBPO	12,590.33
CAOOPO	-275,271.54
CCURL	-451,627.88
CDISCOUNT	17,102,448.19
CFC	14,910,163.06
CPREMIUM	20,103,007.21
CTEST	-13,810.19
CUNIMB	-921,222.35
Total	50,466,276.82

Market Share per Unit (CFC, CPREMIUN, CDISCOUNT)



Constraints Payments

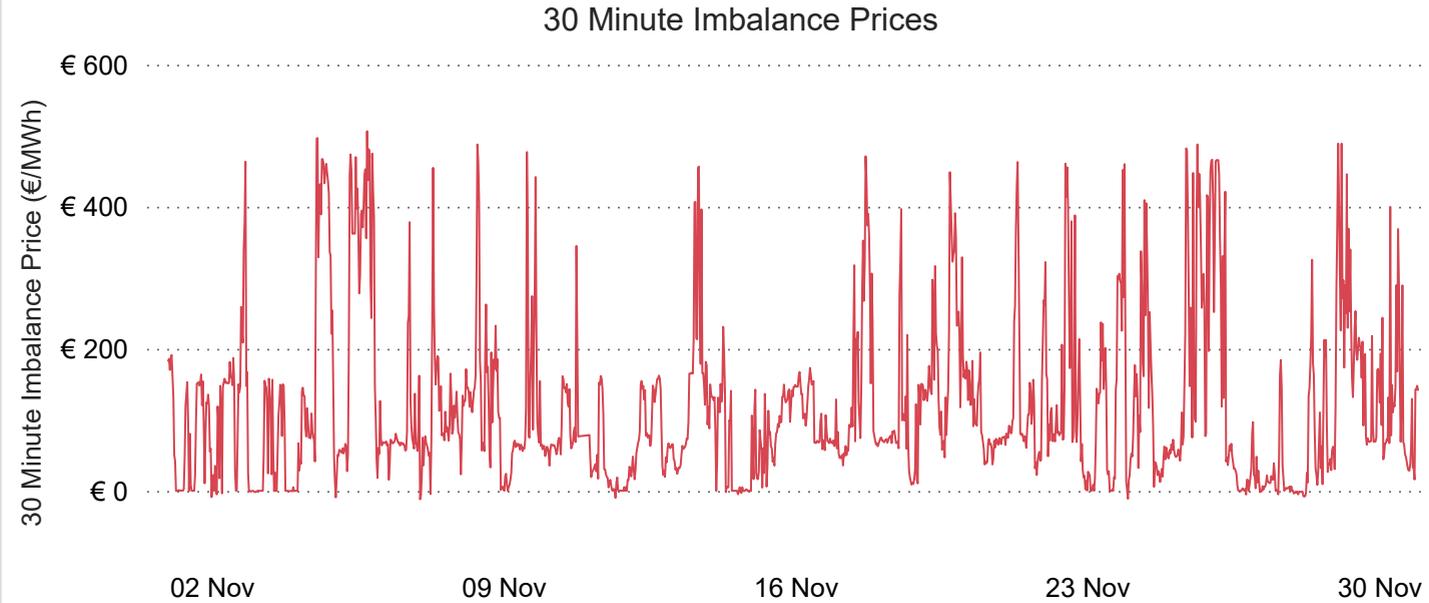
This chart illustrates the distribution of selected Constraint Payments, to specific power plants. KGT7 (EPNIE) was the largest receiver of these payments for this month followed by BPS (EP Ballylumford).

Balancing Market November 2025

30 Minutes Imbalance Price

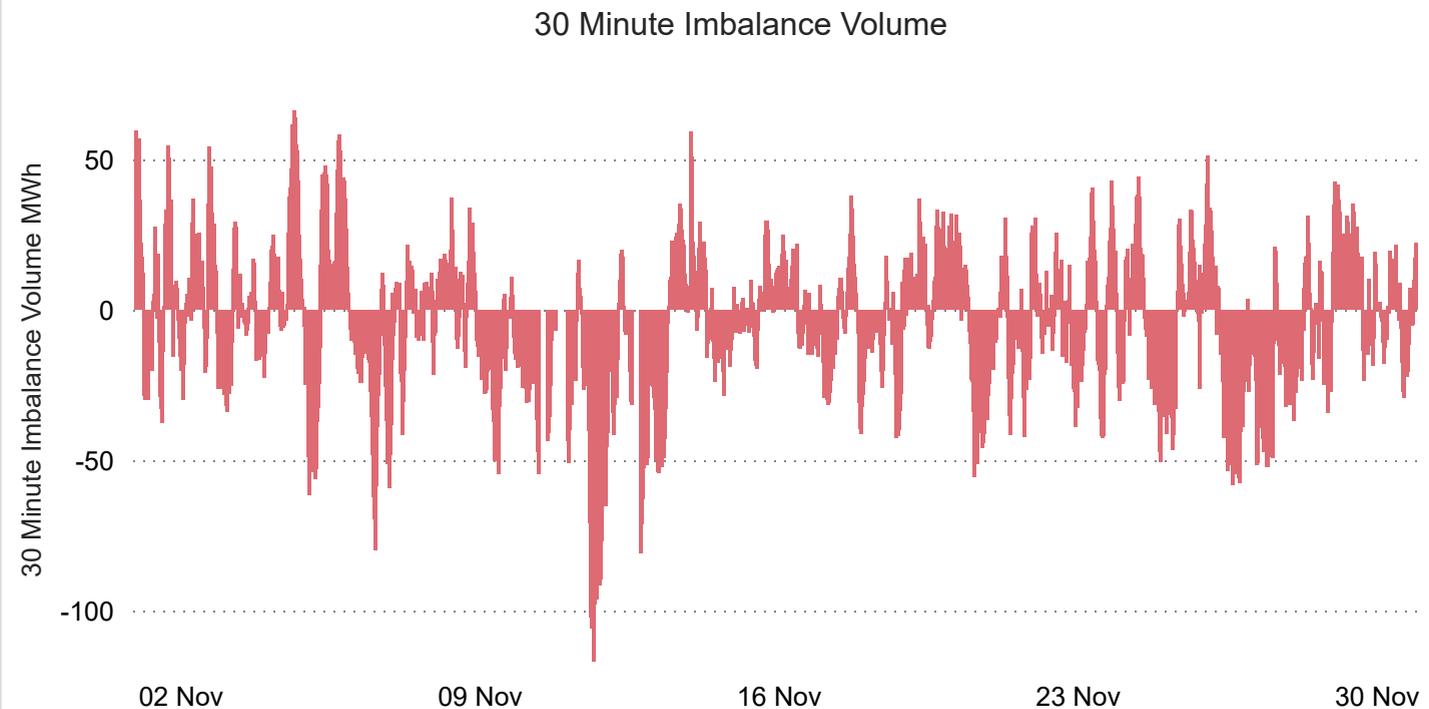
€ 119.33
Average Price
-€ 11.89
Lowest Price
€ 506.16
Highest Price

Imbalance Price & Volumes



The average Imbalance (BM) Price this month was lower than the Day Ahead Price. Also, the Balancing Market prices has exhibited a much higher range of prices indicating a higher level of volatility compared to Day Ahead Market Prices. This is an expected characteristic of the Balancing Market.

There were no Reliability Options events this month as the Balancing Market prices have not breached the PSTR level.



Demand and Generation Mix



Demand November 2025

SEM Demand

5,200.41	5,084.68
SEM Average 2025	SEM Average 2024
4,029.03	3,868.77
SEM Min 2025	SEM Min 2024
6,447.12	6,285.80
SEM Max 2025	SEM Max 2024

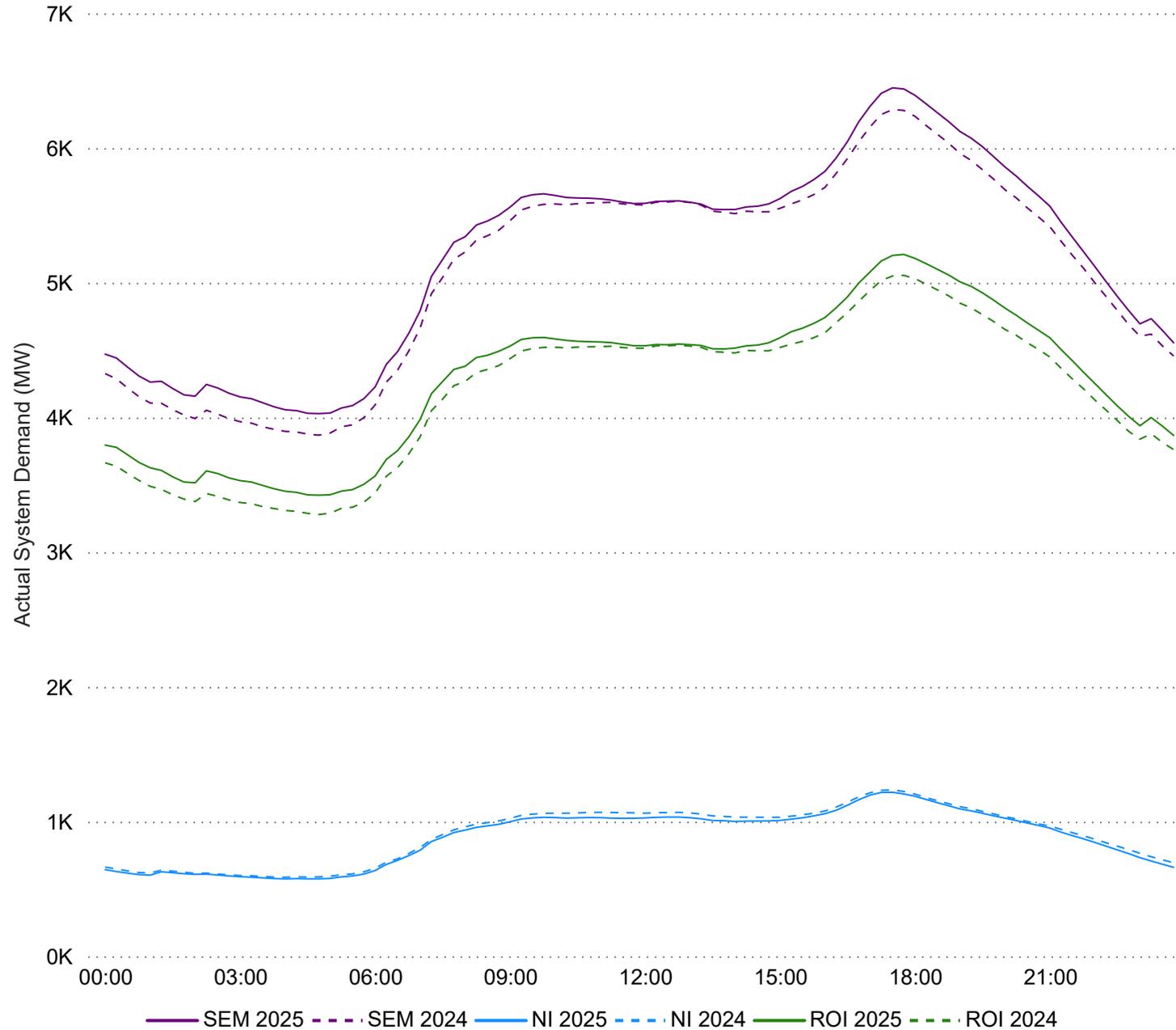
NI Demand

883.96	905.57
NI Average 2025	NI Average 2024
574.97	587.17
NI Min 2025	NI Min 2024
1,217.83	1,235.33
NI Max 2025	NI Max 2024

ROI Demand

4,288.81	4,179.11
ROI Average 2025	ROI Average 2024
3,423.33	3,279.37
ROI Min 2025	ROI Min 2024
5,210.49	5,055.03
ROI Max 2025	ROI Max 2024

Monthly Average Hourly Demand Curves



SEM Demand

The graph indicates a 2.27% increase in all-island demand compared to the same period last year.

ROI demand rose by 2.88% compared to the same period last year, while NI demand decreased by 2.38% compared to the same timeframe.

Duration Curves November 2025

Price Duration

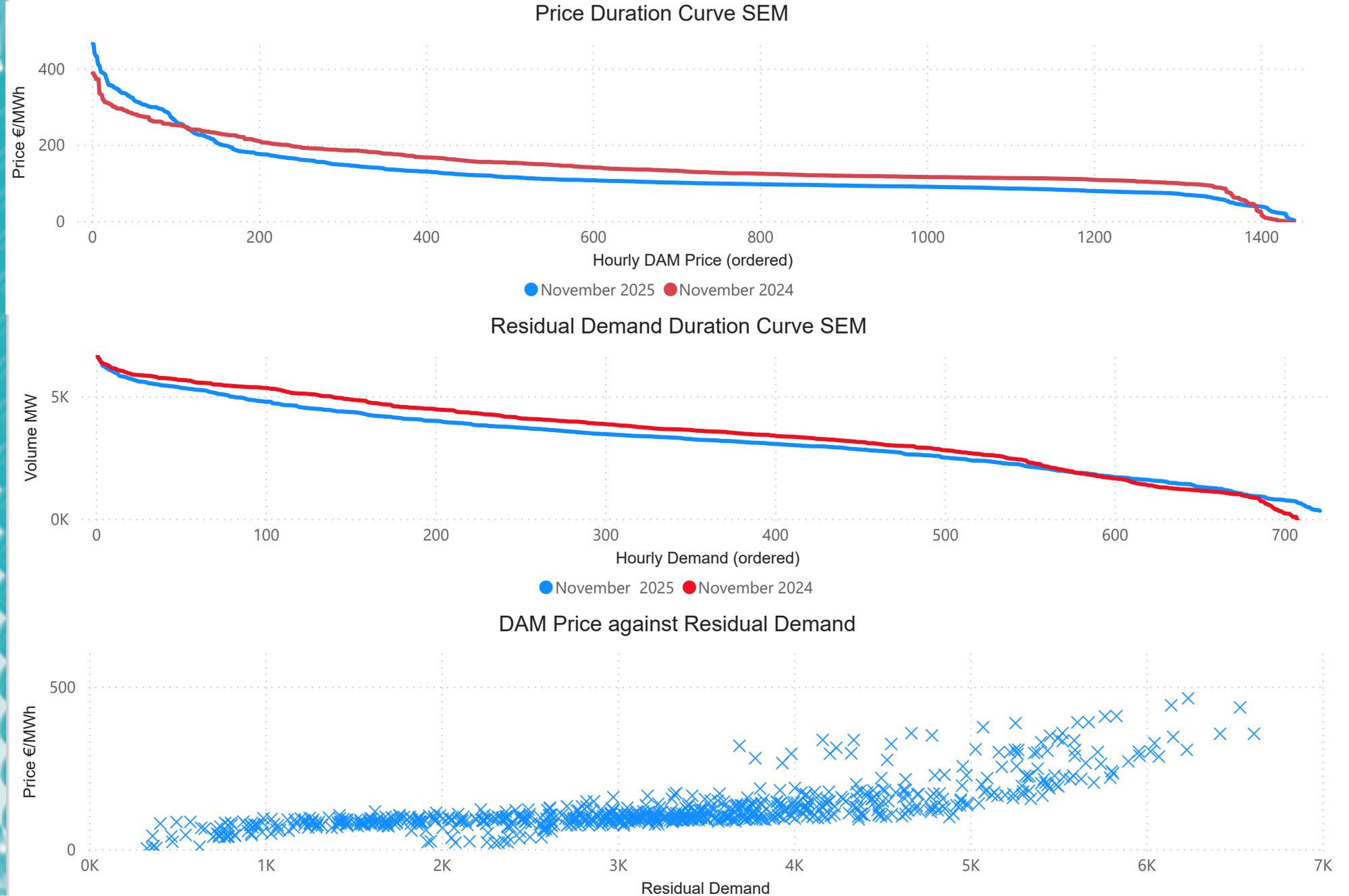
The price duration curve shows the hourly DAM prices across the month ordered from the largest to the smallest.

Residual Duration

The residual demand curve shows the ordered hourly demand level across the month which can't be met by renewable generation.

Price against Residual Demand

Shows the residual demand for each period relative to the DAM price for that period.

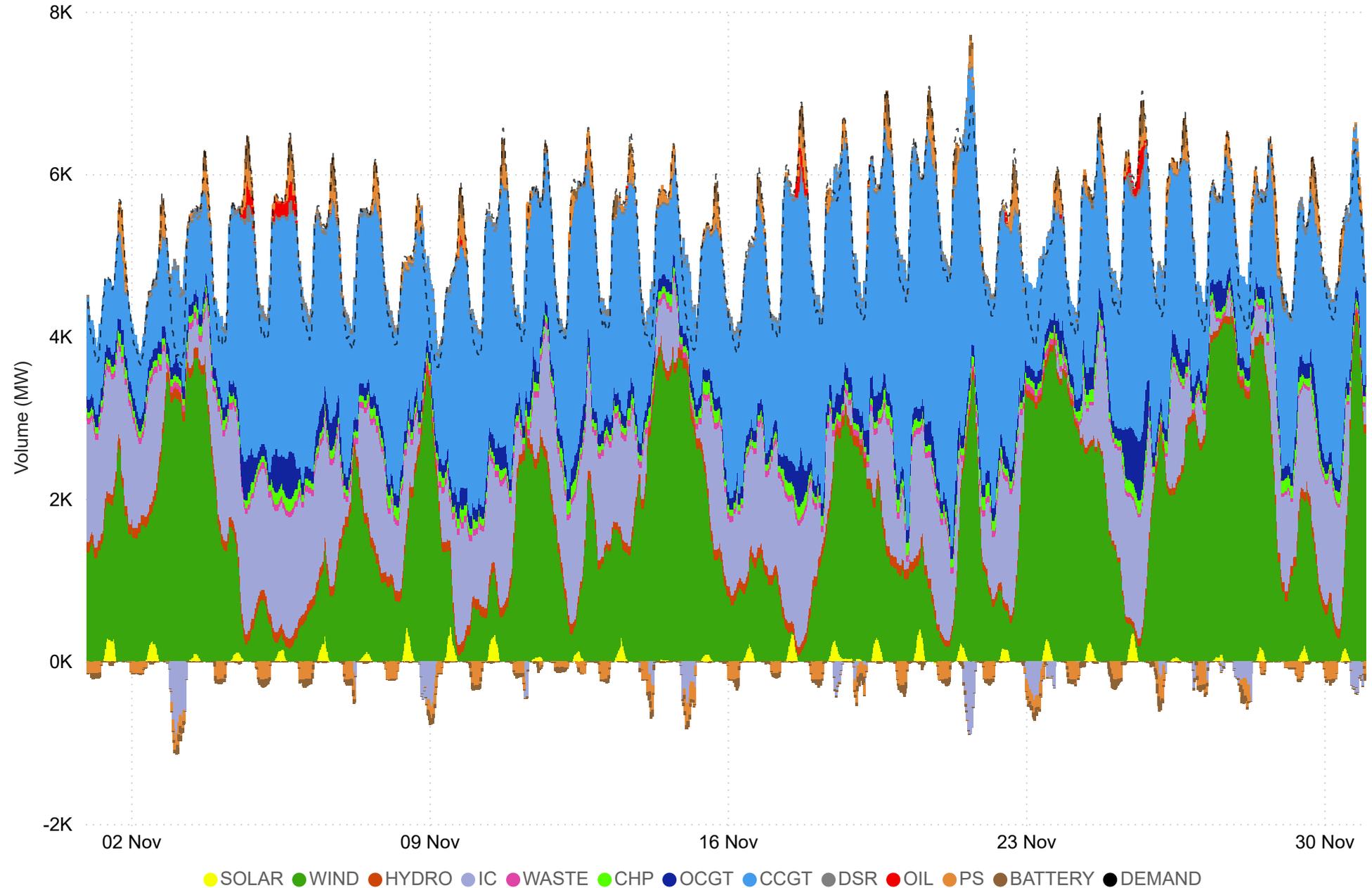




Fuel Mix November 2025

Fuel Type	Avg Monthly	Per. Monthly
CCGT	1912	36.8%
WIND	1821	35.0%
INTERCONNECTORS	852	16.4%
OCGT	193	3.7%
HYDRO	114	2.2%
CHP	100	1.9%
BIOMASS	73	1.4%
WASTE	69	1.3%
SOLAR	49	0.9%
DSR	31	0.6%
OIL	9	0.2%
BATTERY	-8	-0.2%
PUMPED STORAGE	-18	-0.3%

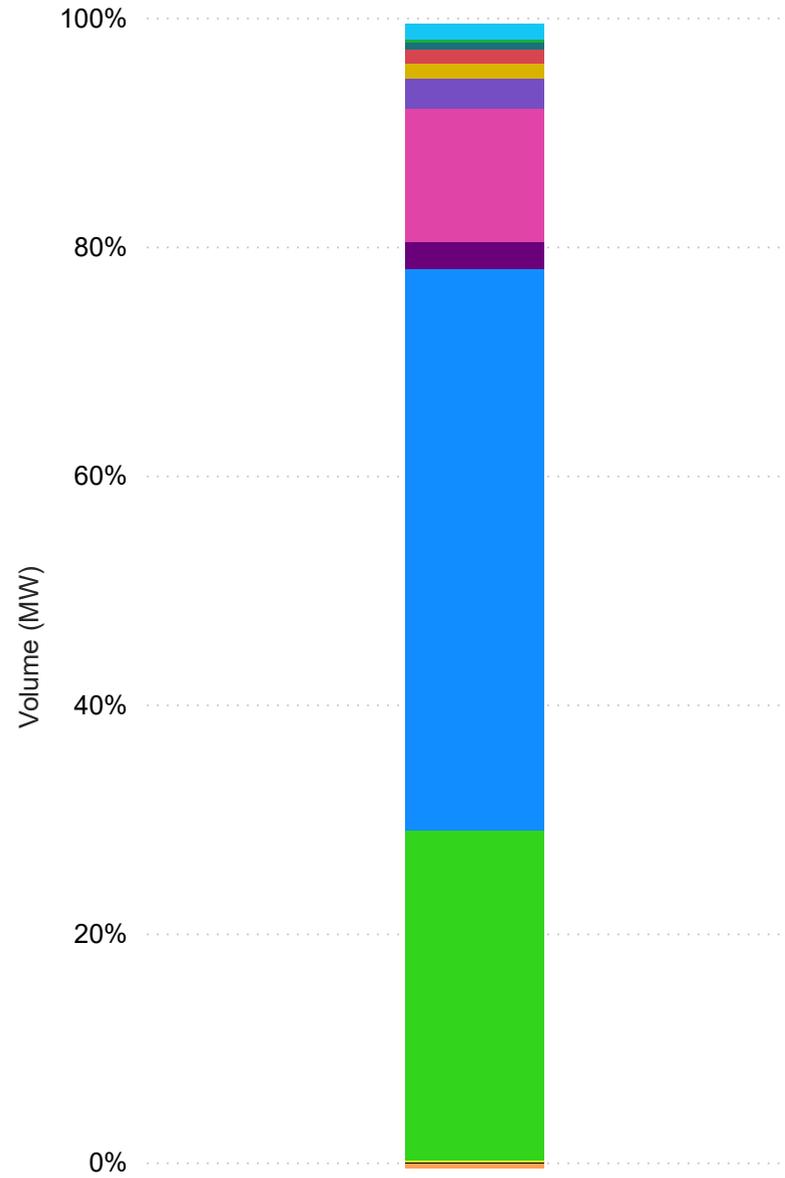
SEM 30 Minute Fuel Mix



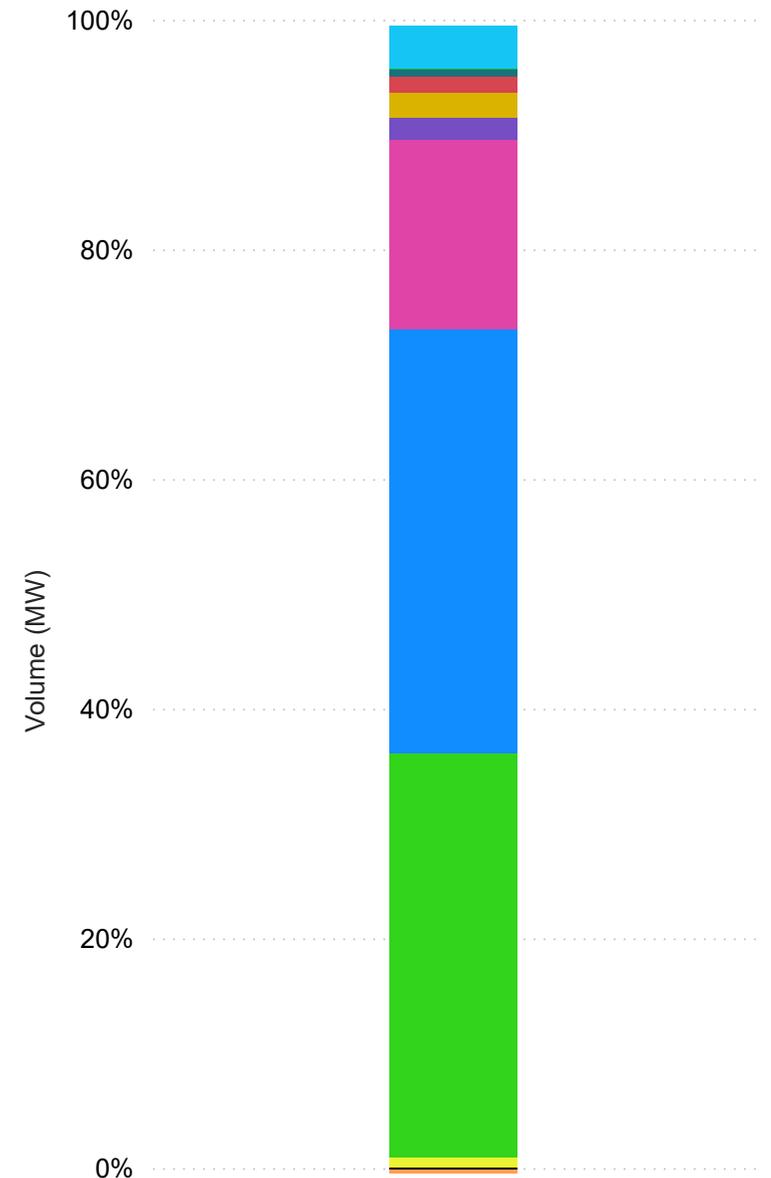
Fuel Mix Comparison November 2024 & 2025

- SOLAR
- WIND
- CCGT
- COAL
- INTERCONNECTORS
- CHP
- HYDRO
- WASTE
- DSR
- OIL
- OCGT
- BATTERY
- PUMPED STORAGE

SEM Fuel Mix November 2024



SEM Fuel Mix November 2025



North-South Tie Line November 2025

Average Flow NI to ROI (MW)

-186.57

Average Flow ROI to NI (MW)

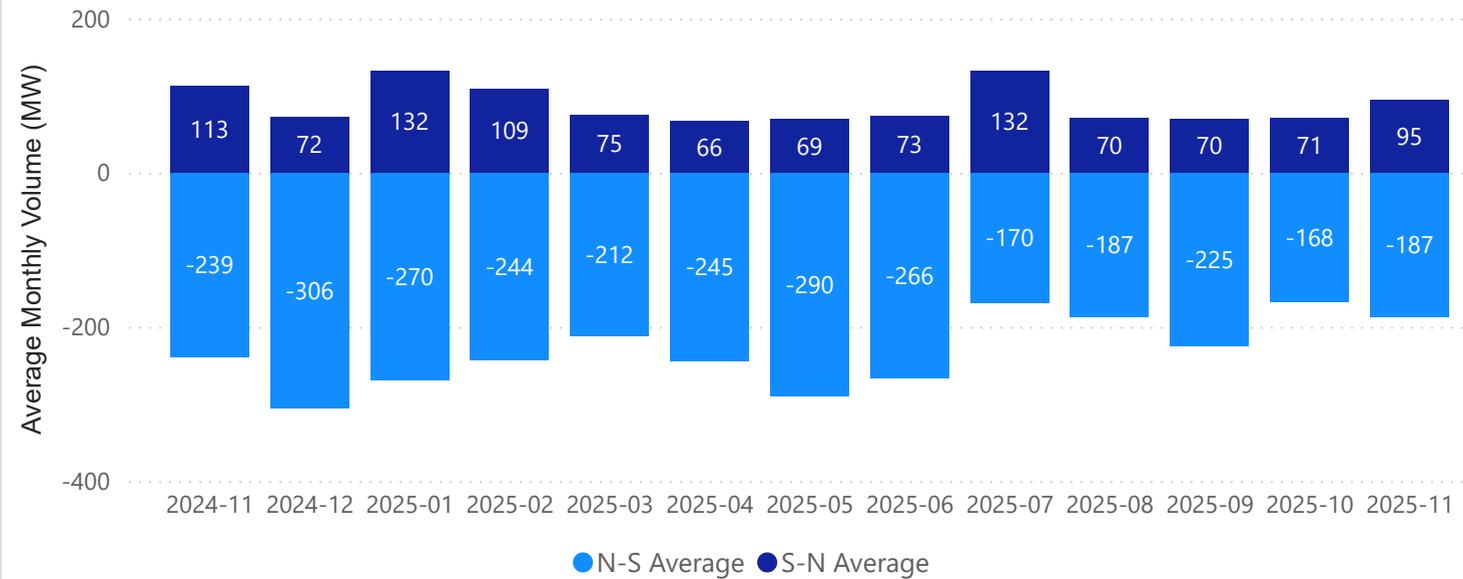
94.79

Average Net Flow NI to ROI (MW)

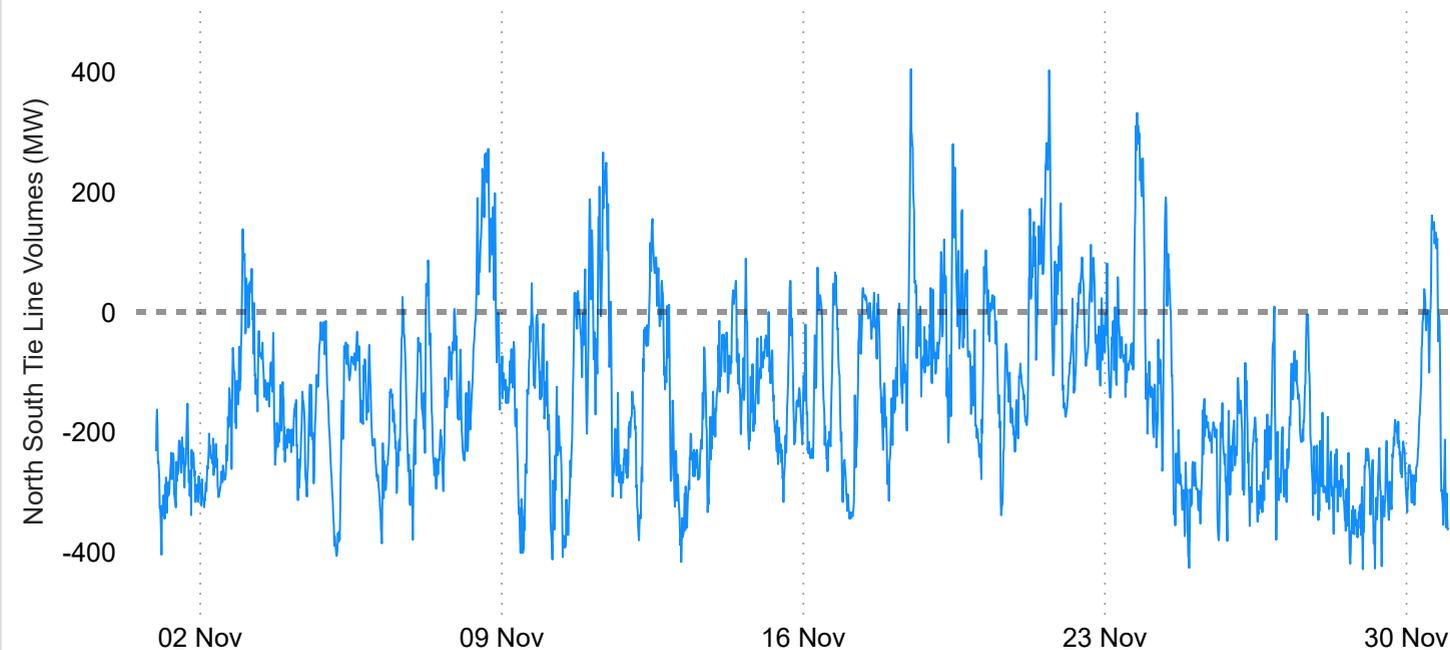
-142.18

-ve flow NI to ROI
+ve flow ROI to NI

Average Flows N-S Tie Line Long Term Trend



North South Tie Line Volumes 15 minute periods



North South Tie Line

Flows across the N-S Tie Line were predominantly in the North to South direction. This has been the long term trend. Reasons for this trend are outlined below:

- When wind penetration is high in NI, there is often a surplus of power as the TSOs must run a minimum number of thermal units in NI to address transmission constraints in the system.
- Demand in ROI has been growing at a faster pace than in NI.

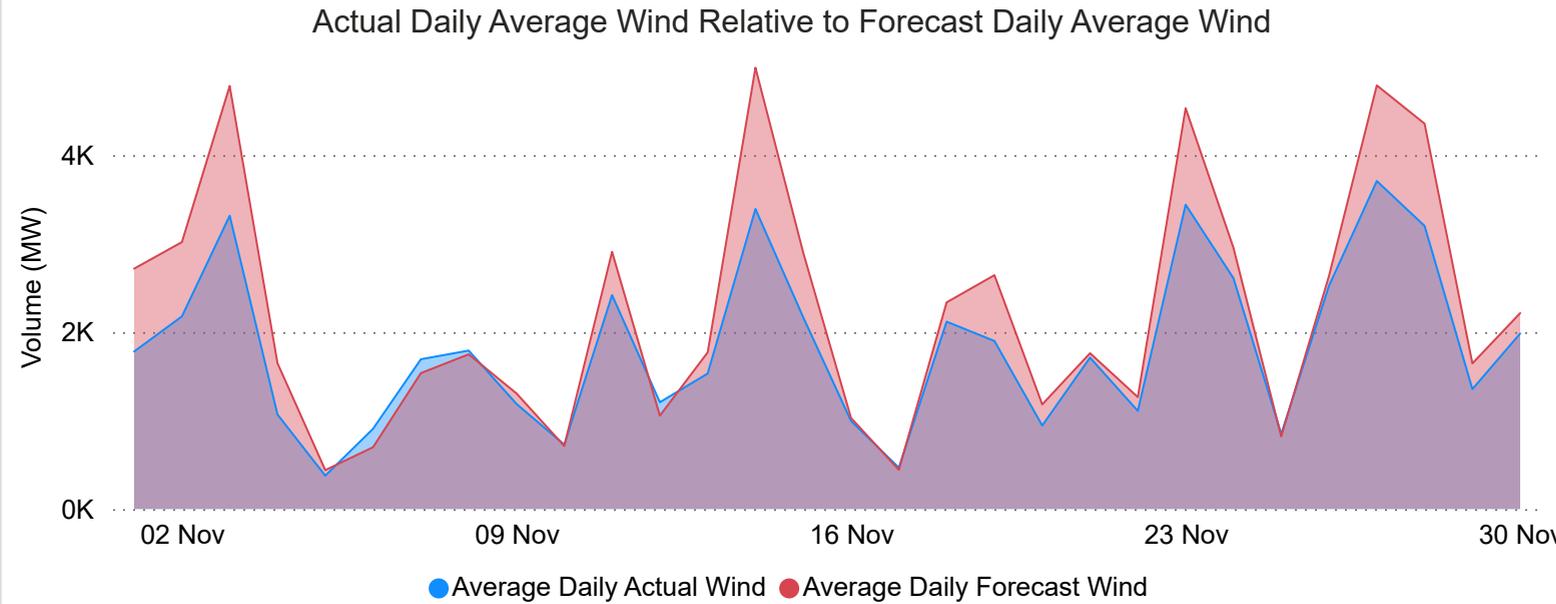
Wind Generation November 2025

Average Daily Actual Wind (MW)
1,821

Average Daily Forecast Wind (MW)
2,227

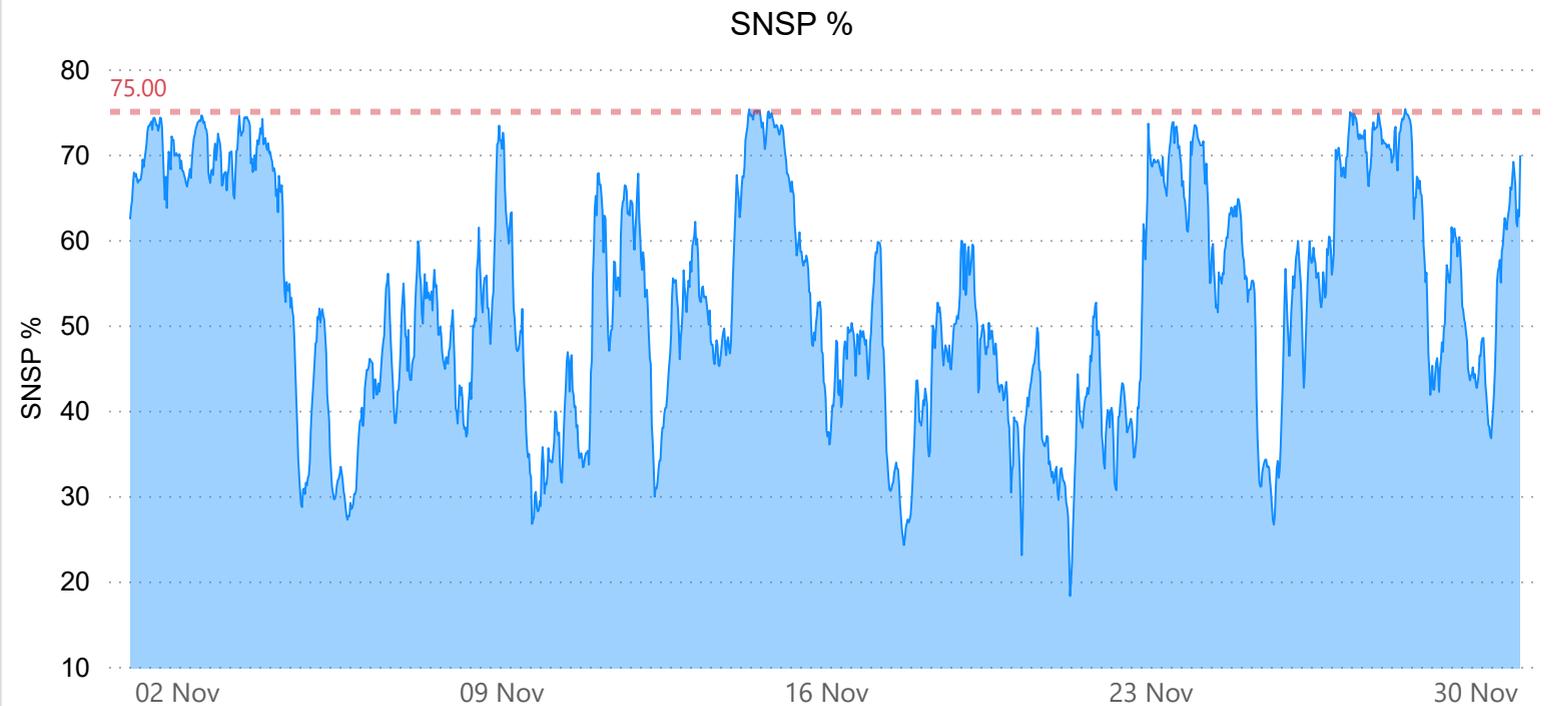
Wind Generation

Average wind output increased by 4% from last month and by 26% compared to the same period last year.



SNSP

SNSP is closely linked to wind generation and as such follows the same trend across the month.



Min SNSP%
18.28

Max SNSP%
75.32

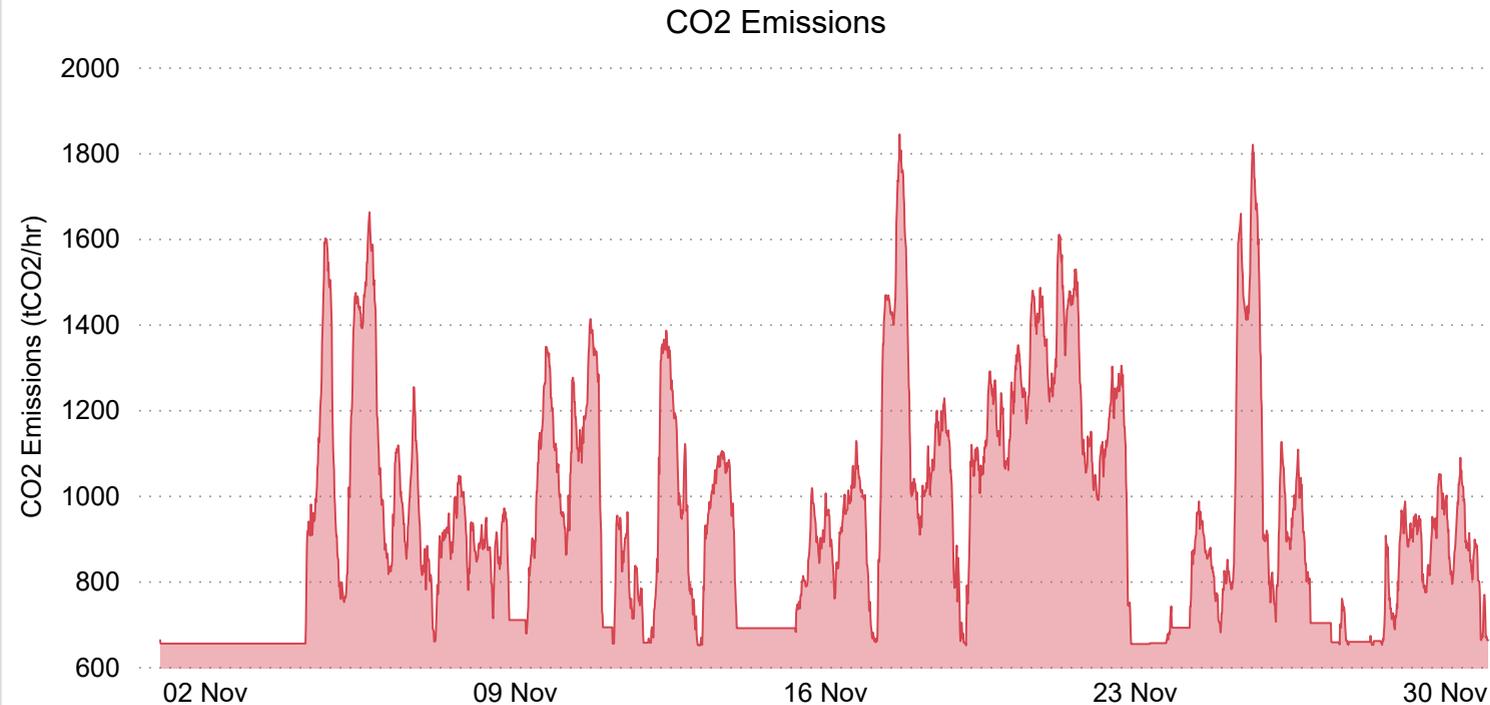
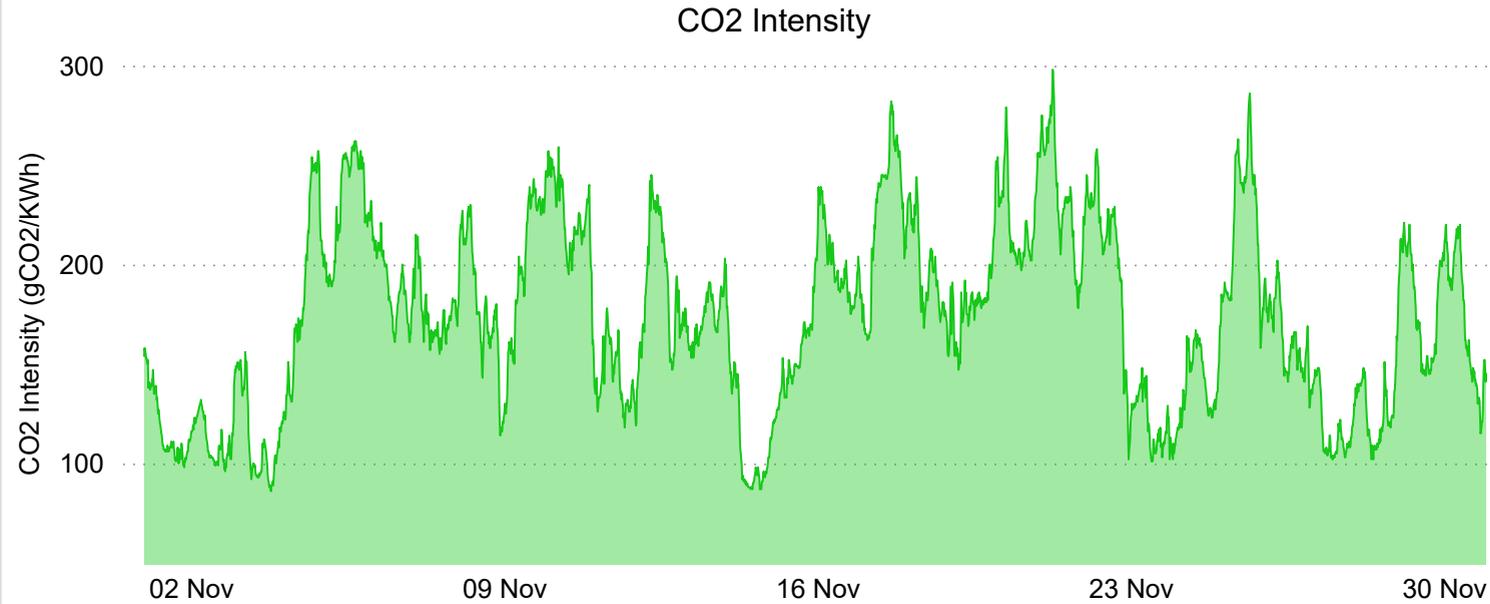
CO₂ November 2025

CO₂ Intensity (gCO₂/kWh)

173.53
Average
86
Lowest
298
Highest

CO₂ Emissions (tCO₂/hr)

933.72
Average
650
Lowest
1843
Highest



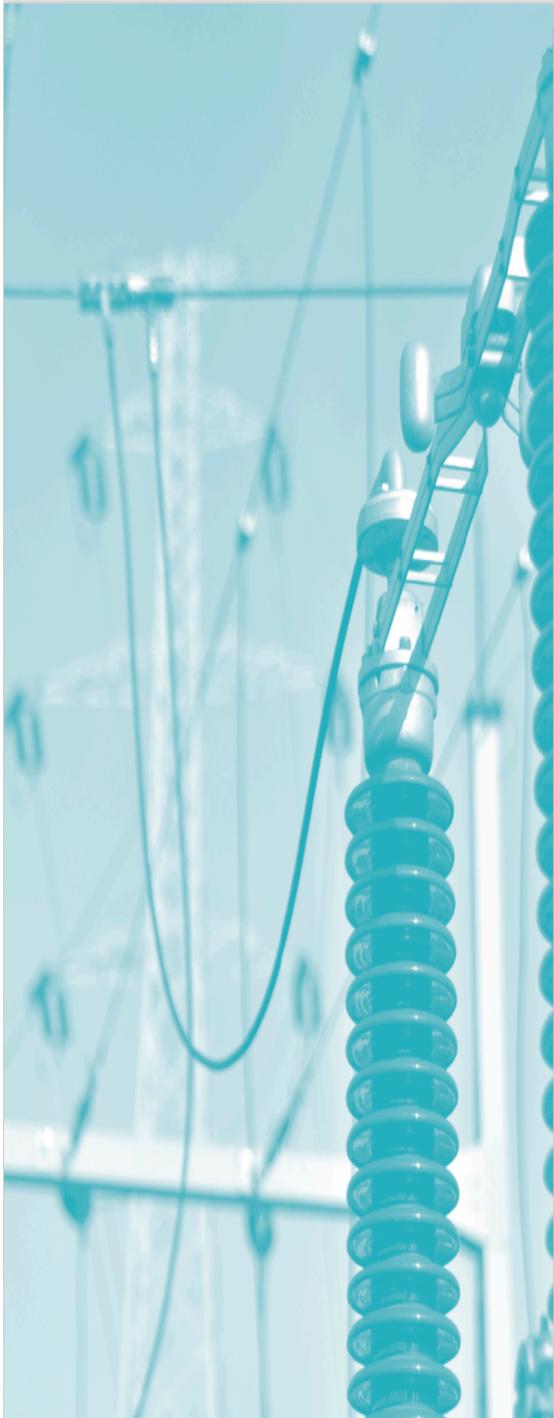
CO₂ Intensity

CO₂ Intensity i.e. how many grams of carbon are emitted for every unit of electricity used, should be negatively correlated with the volume of wind output on the system.

CO₂ Emissions

CO₂ emissions i.e. the estimated total CO₂ emissions from all large power stations, follows the same trends as CO₂ intensity levels over the course of the month.

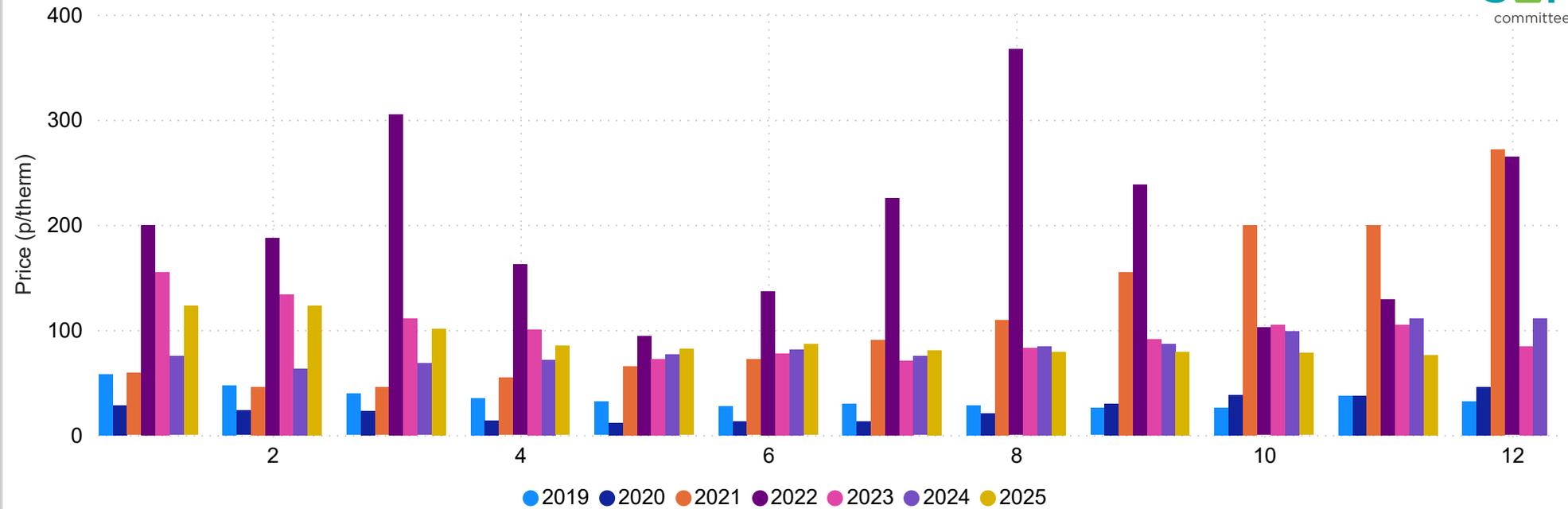
Fuel Costs and Spreads



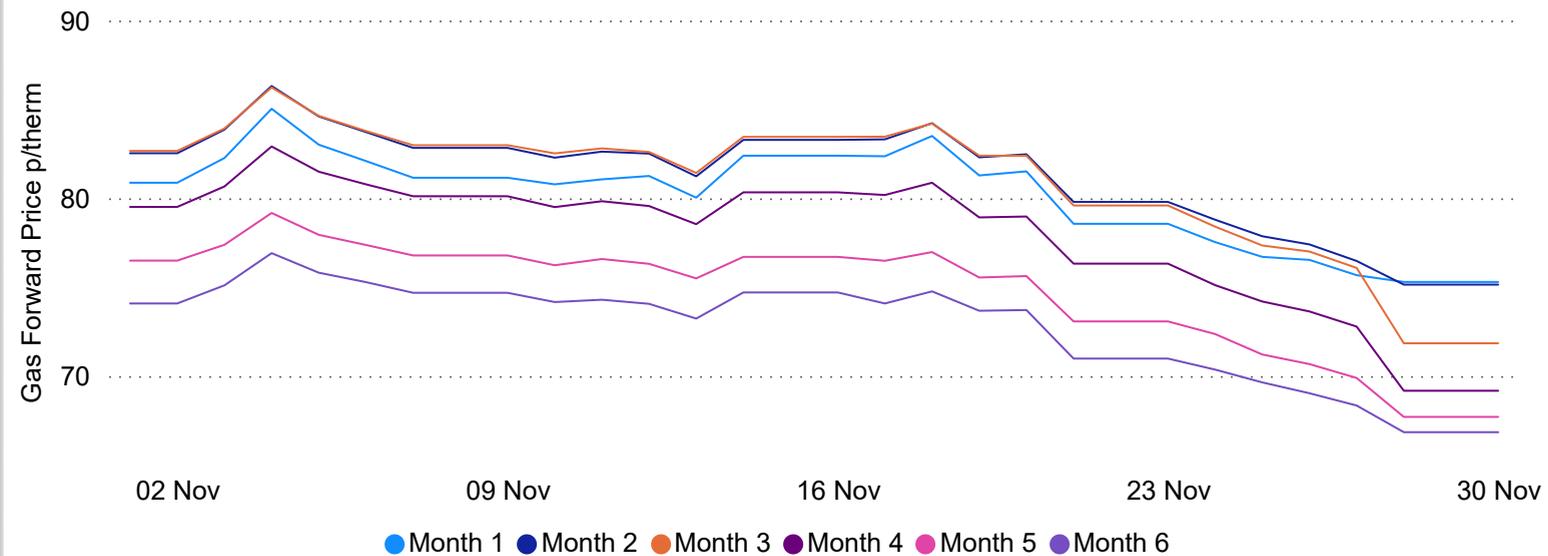
Gas Price November 2025

76.03
Monthly Average (p/therm)
63.60
Monthly Low (p/therm)
83.20
Monthly High (p/therm)

Monthly Day Ahead NBP Gas Price by Year (p/therm)



Gas Forward Prices



Gas Prices

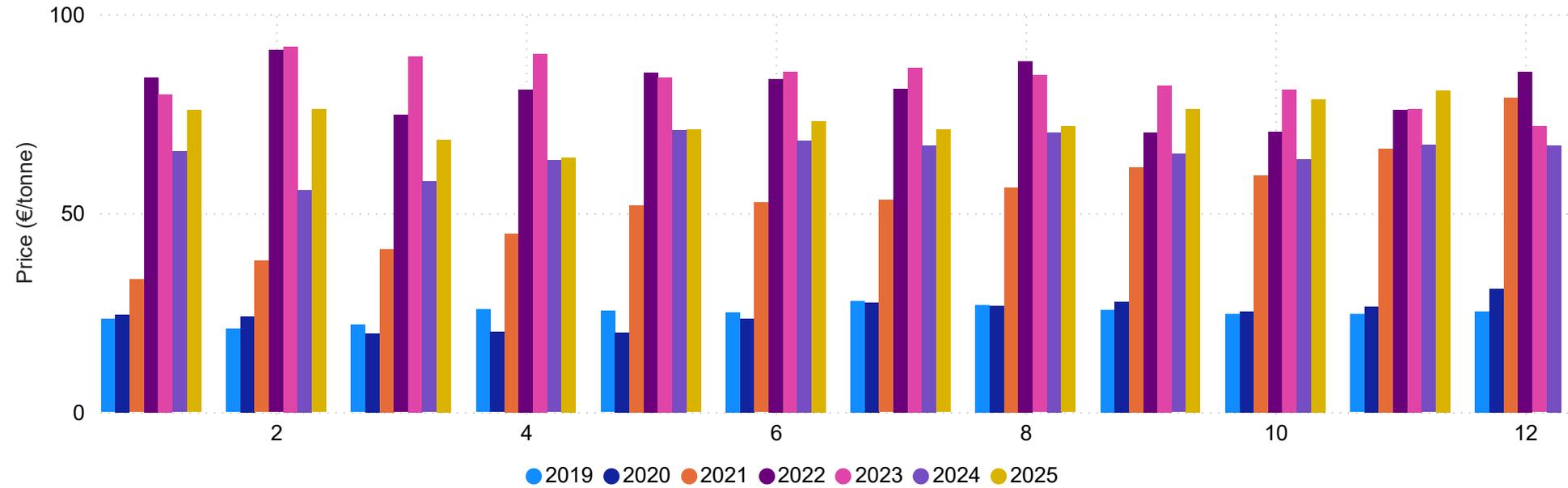
Gas prices decreased by 3% compared to the last month, with the monthly average price settling at 76.03 p/therm.

Carbon Price November 2025

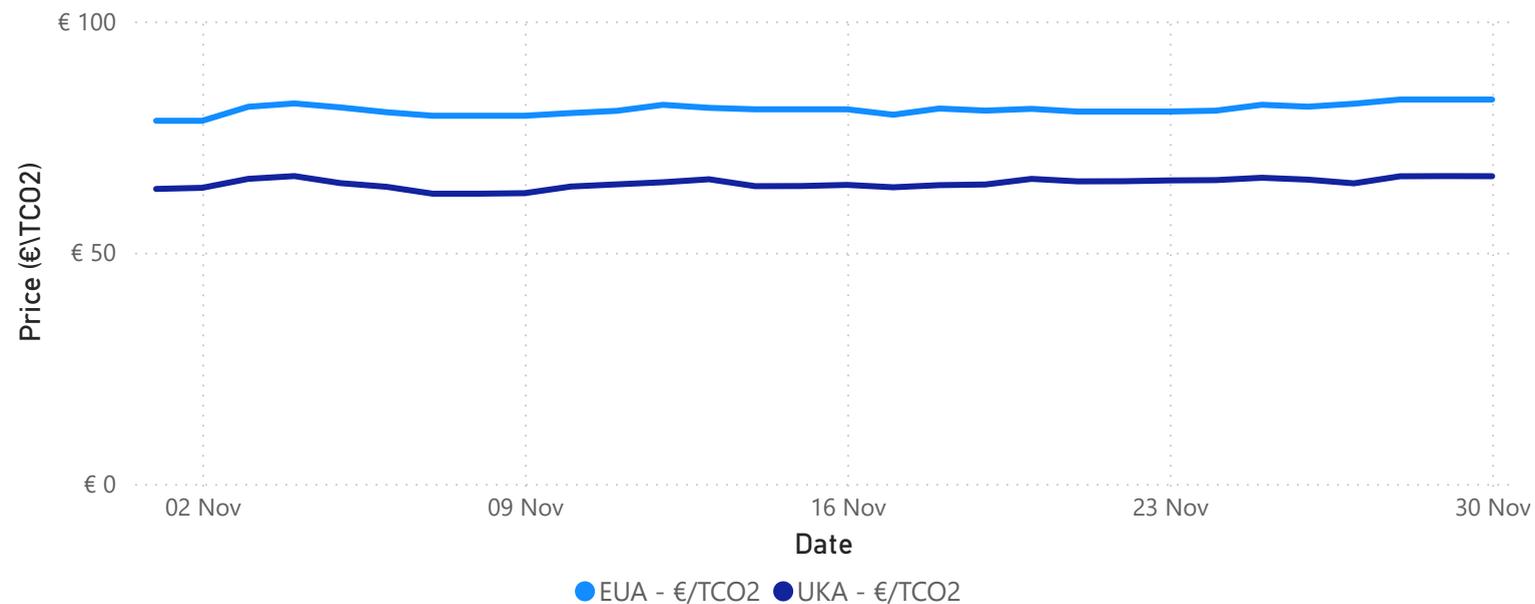
EU Carbon Prices (€/tonne)
 € 80.93
 Monthly Average
 € 78.49
 Monthly Low
 € 83.08
 Monthly High

UK Carbon Prices (€/tonne)
 € 64.97
 Monthly Average
 € 62.73
 Monthly Low
 € 66.53
 Monthly High

Monthly EU Carbon Permits Price by Year (€/tonne)



UK & EU Carbon Prices



Carbon Prices

Carbon prices averaged €80.93/tonne, with a 3% increase on average from last month.

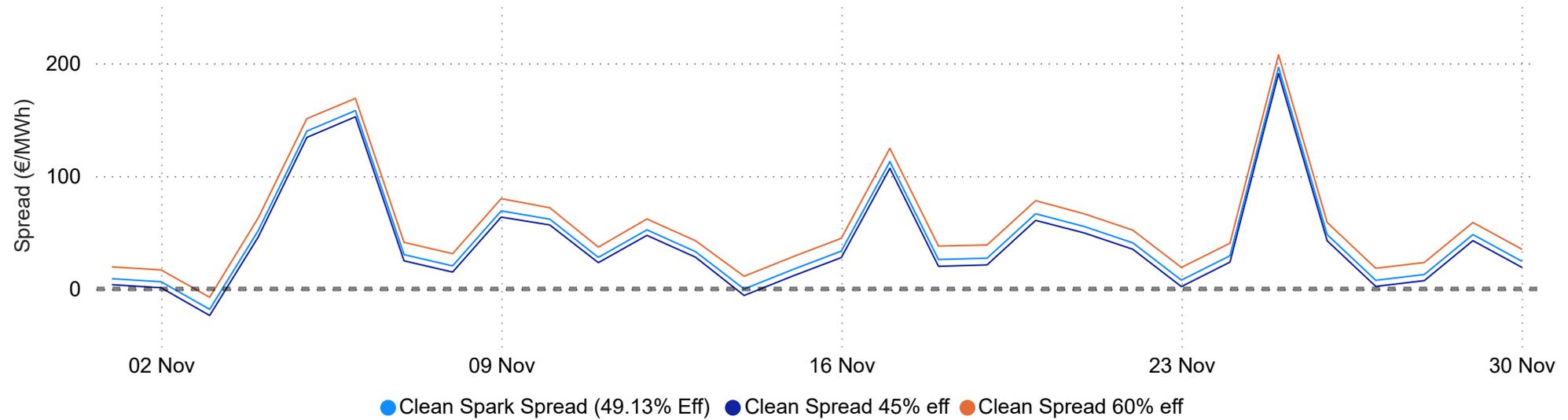
Spark Spreads November 2025

Clean Spark Spread

indicates the average revenue a gas power station can expect from generating a unit of electricity during 'baseload' operation, after fuel and carbon costs.

Clean Spark Spread remained generally positive throughout the entire month.

Clean Spark Spread



Clean Spark Spread (Jan 2023 Onwards)

