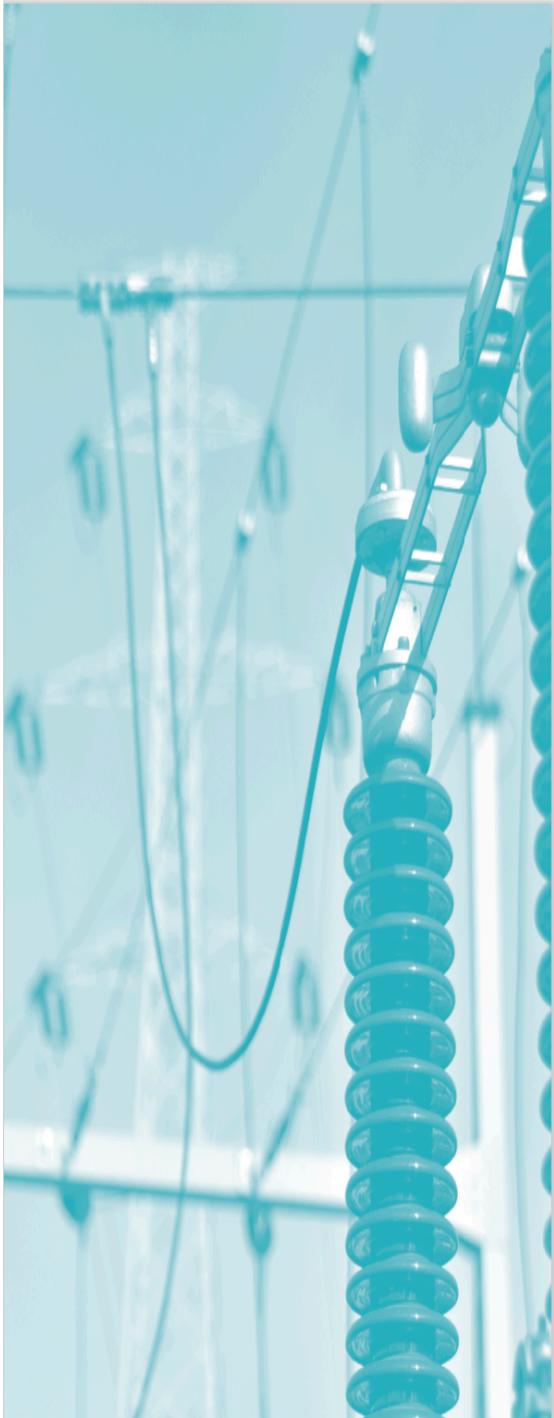


Energy Market Monitoring Report

October 2025



Market Results

Summary Dashboard

Monthly Averages	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25
DAM (€/MWh)	122.9	146.14	136.99	167.51	140.85	131.8	111.11	108.64	95.21	99.61	96.38	94.47	100.67
% Change from previous month	9%	19%	-6%	22%	-16%	-6%	-16%	-2%	-12%	5%	-3%	-2%	7%
% Change from previous year	-2%	19%	54%	68%	66%	52%	26%	1%	-12%	-10%	-4%	-16%	-18%
Actual System Demand (MW)	4671	5085	5020	5256	5194	4951	4594	4254	4413	4356	4305	4493	4818
% Change from previous month	5%	9%	-1%	5%	-1%	-5%	-7%	-7%	4%	-1%	-1%	4%	7%
% Change from previous year	3%	4%	3%	2%	5%	2%	0%	-2%	5%	2%	1%	1%	3%
Actual Wind Generation (MW)	1668	1448	2040	1948	2509	1615	1278	933	1306	1057	1169	1567	1743
% Change from previous month	32%	-13%	41%	-5%	29%	-36%	-21%	-27%	40%	-19%	11%	34%	11%
% Change from previous year	22%	-20%	-17%	5%	25%	-22%	-15%	4%	22%	20%	-19%	24%	4%
Actual Solar Generation (MW)	-	-	-	-	-	-	-	-	-	-	194	149	71
% Change from previous month	-	-	-	-	-	-	-	-	-	-	-1%	-23%	-52%
% Change from previous year	-	-	-	-	-	-	-	-	-	-	52%	94%	3%
Gas Price p/therm	99.04	111.00	111.22	122.85	123.04	100.94	84.72	81.82	86.38	80.69	79.25	79.23	78.05
% Change from previous month	14%	12%	0%	10%	0%	-18%	-16%	-3%	6%	-7%	-2%	0%	-1%
% Change from previous year	-6%	6%	32%	64%	94%	48%	18%	7%	6%	7%	-6%	-9%	-21%
Carbon Price (€/Tonne)	63.51	67.15	67.05	75.87	76.08	68.39	63.96	71	73.14	71.03	71.81	76.23	78.68
% Change from previous month	-2%	6%	0%	13%	0%	-10%	-6%	11%	3%	-3%	1%	6%	3%
% Change from previous year	-22%	-12%	-7%	16%	36%	18%	1%	0%	7%	6%	2%	18%	24%
EWIC % Import Periods	71.32%	78.30%	67.64%	67.88%	43.01%	55.18%	27.15%	78.36%	68.26%	45.83%	57.22%	60.45%	63.98%
EWIC % Export Periods	10.31%	9.03%	11.49%	10.18%	13.91%	2.66%	1.81%	0.77%	2.05%	1.31%	4.57%	3.92%	4.13%
EWIC % Not Flow Periods	18.37%	12.67%	20.87%	21.94%	43.08%	42.16%	71.04%	20.87%	29.69%	52.86%	38.21%	35.63%	31.89%
Moyle % Import Periods	81.08%	82.47%	81.55%	78.53%	64.62%	79.24%	78.16%	93.88%	78.85%	57.29%	79.03%	80.24%	73.69%
Moyle % Export Periods	18.65%	17.50%	18.41%	21.27%	22.43%	6.16%	6.08%	6.08%	16.70%	24.33%	20.90%	19.72%	26.21%
Moyle % Not Flow Periods	0.28%	0.03%	0.03%	0.20%	12.95%	14.60%	15.76%	0.03%	4.44%	18.38%	0.07%	0.03%	0.10%
Greenlink % Import Periods	NA	NA	NA	NA	68.97%	88.63%	80.17%	93.78%	90.76%	91.23%	88.68%	85.69%	80.21%
Greenlink % Export Periods	NA	NA	NA	NA	25.04%	9.49%	10.35%	5.58%	7.36%	7.83%	10.08%	11.25%	18.92%
Greenlink % Not Flow Periods	NA	NA	NA	NA	5.99%	1.88%	9.48%	0.64%	1.88%	0.94%	1.24%	3.06%	0.87%

Market Volumes October 2025

Daily Average Volume MWh

DAM	116,604
IDA1	28,723
IDA2	3,180
IDA3	677
IDC	45

Total Monthly Volume MWh

DAM	3,614,731
IDA1	890,409
IDA2	98,580
IDA3	20,994
IDC	1,175
Total	4,625,888

Total Market Value €

DAM	€ 373,005,976
IDA1	€ 104,098,513
IDA2	€ 11,061,732
IDA3	€ 2,989,099
IDC	€ 153,222
Total	€ 491,308,542

Market Volumes and Values

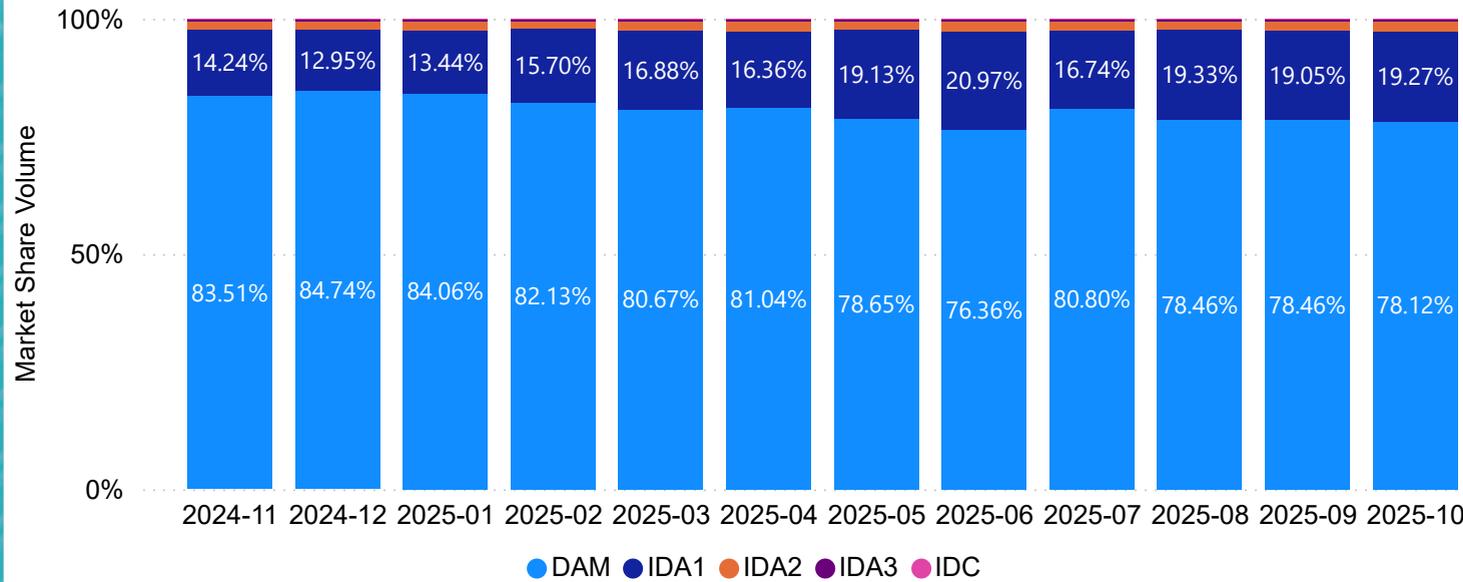
The Day Ahead Market is, by far, the largest market in the SEM, circa 80-85% of all transactions are cleared in this market. The distribution of volumes across the SEM markets have been broadly constant since the introduction of these trading arrangements in October 2018.

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

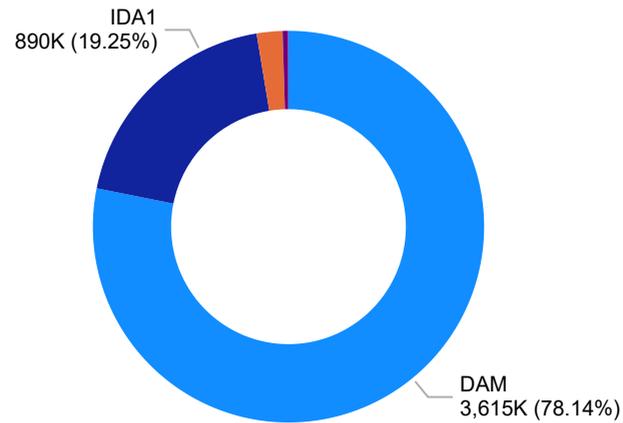
As part of ongoing market evolution, the SEM Day-Ahead Market transitioned from 60-minute to 30-minute Market Time Units (MTUs) on 1st October 2025.

The requirement from Article 8(4) of the Clean Energy Package (CEP) states that by 1st January 2021, the Imbalance Settlement Period (ISP) must be in 15 minutes across Europe. Several countries, including the SEM, have been granted derogations by their NRAs.

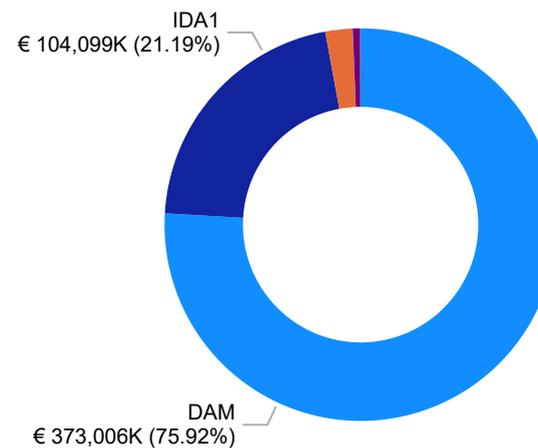
Ex-Ante Monthly Volume by Market



Ex-Ante Volumes (MWh)



Ex-Ante Values (€)



● DAM ● IDA1 ● IDA2 ● IDA3 ● IDC

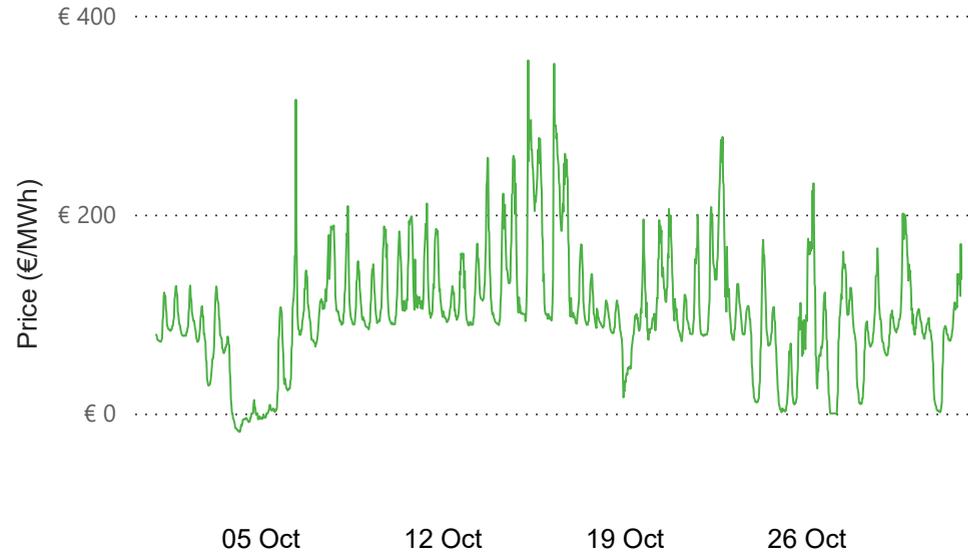
● DAM ● IDA1 ● IDA2 ● IDA3 ● IDC

Day Ahead Market October 2025

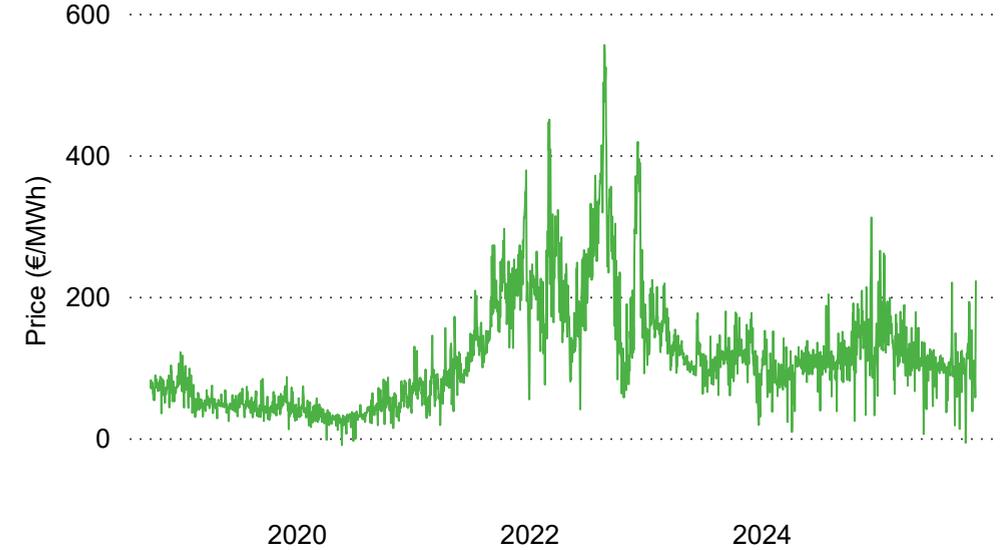
€ 100.67
Average DAM Price
-€ 18.42
Min DAM Price
€ 355.00
Max DAM Price

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

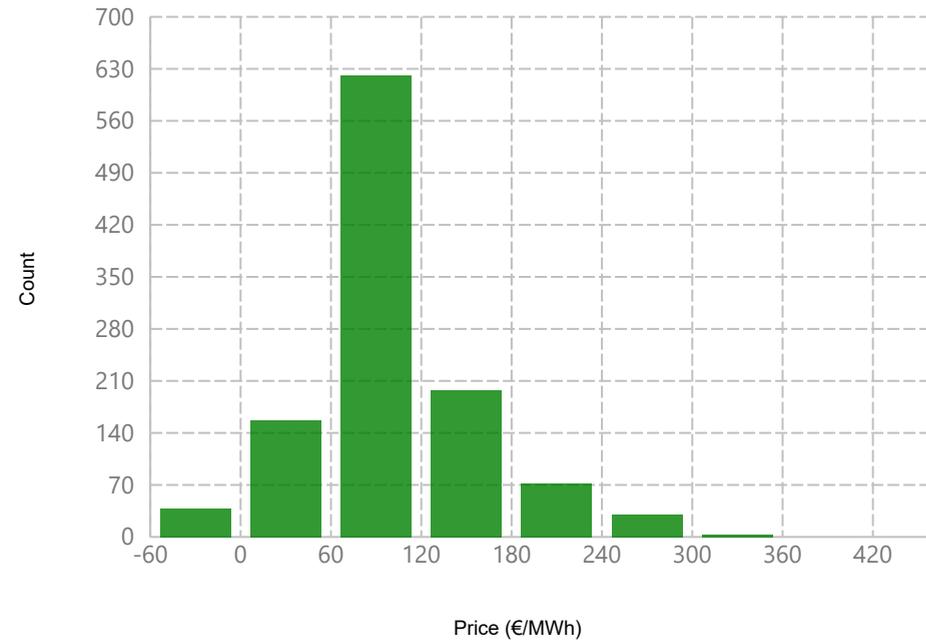
DAM Prices



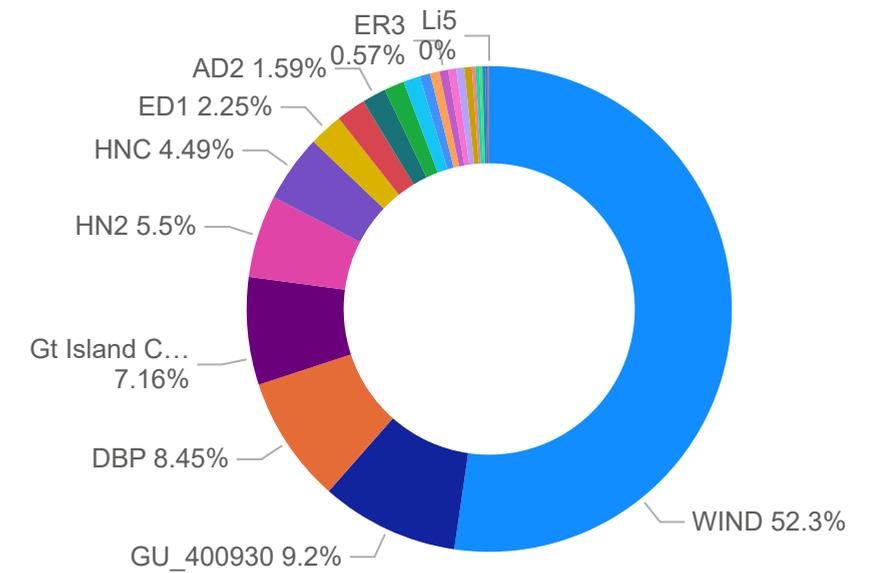
Historic Daily Average DAM Prices



Histogram of DAM Prices



DAM Sell Side Generator Order Results

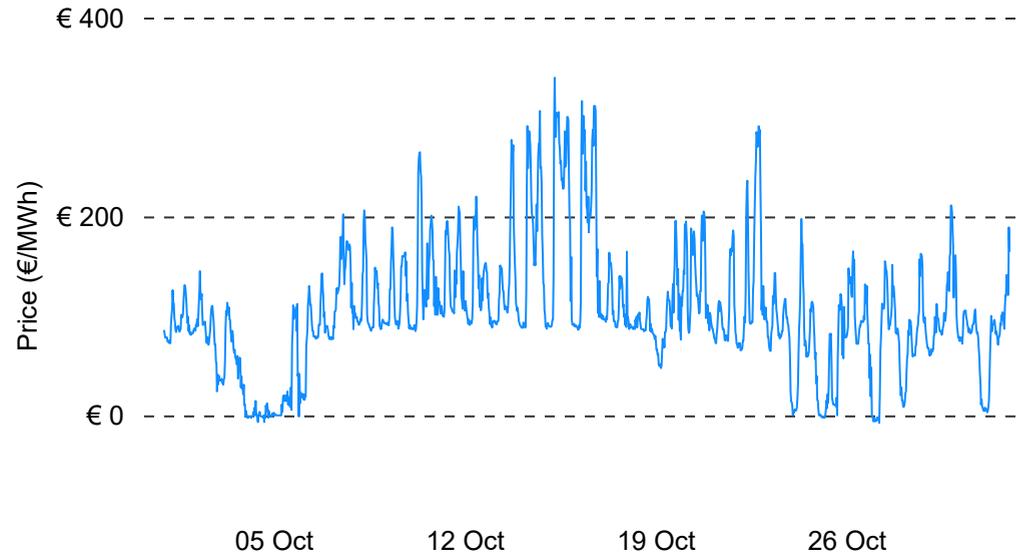


Intraday Market October 2025

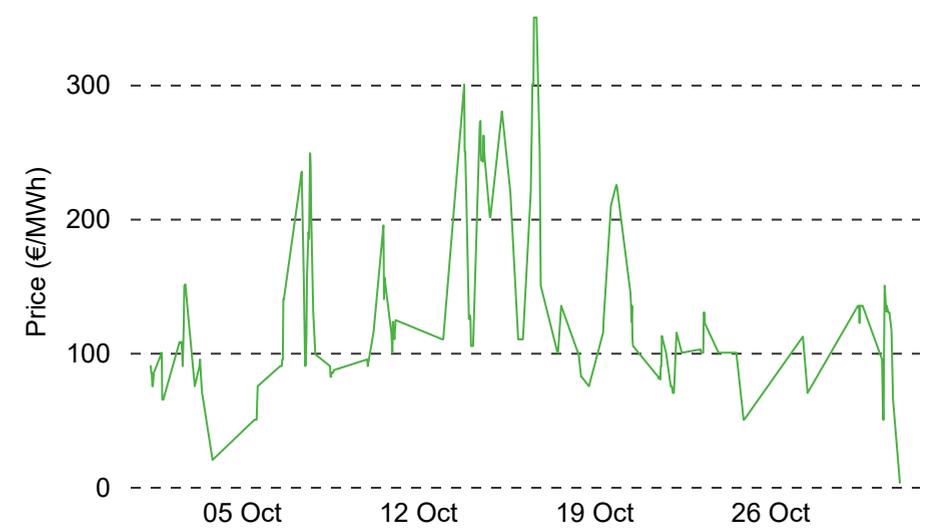
€ 103.75
Average IDA1 Price
-€ 7.50
Min IDA1 Price
€ 339.55
Max IDA1 Price

The most frequent price range for the month was between €50 and €100.

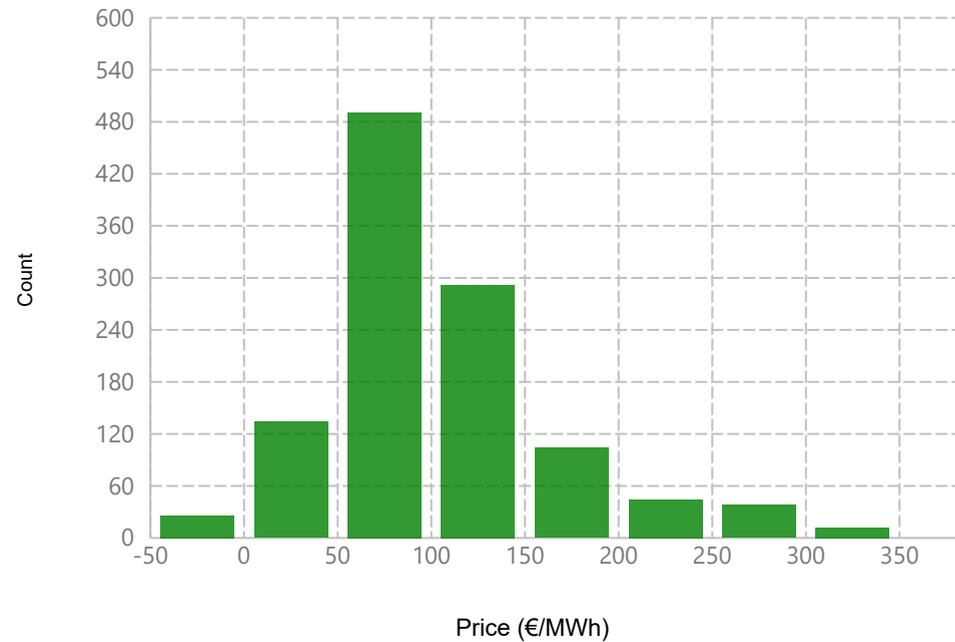
IDA 1 Prices



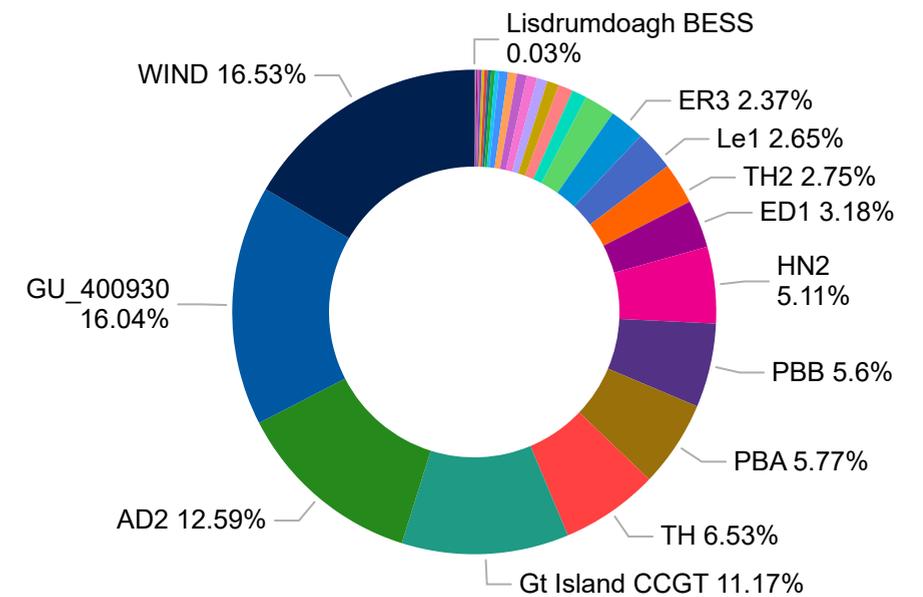
IDC Prices



Histogram of IDA1 Prices



IDA1 Sell Order Results By Market Participant



SEM vs GB DAM October 2025

SEM Day Ahead Price

€ 100.67

Average DAM Price

-€ 18.42

Min DAM Price

€ 355.00

Max DAM Price

GB Day Ahead Price

€ 80.72

Average Price

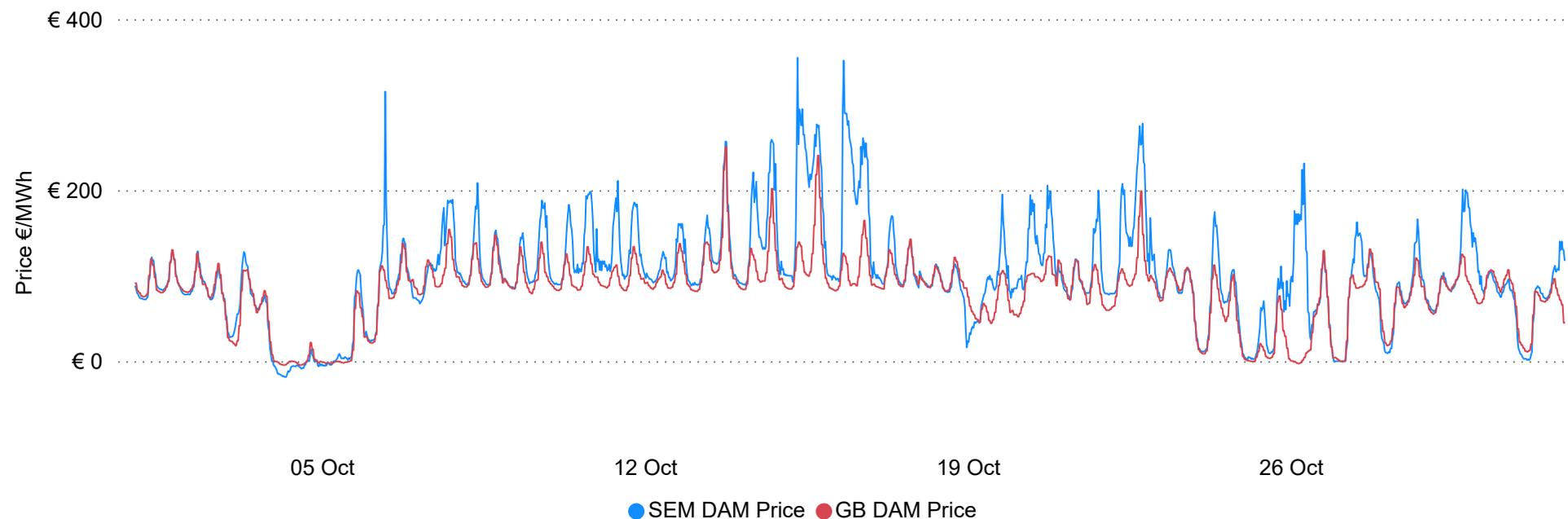
-€ 4.62

Min Price

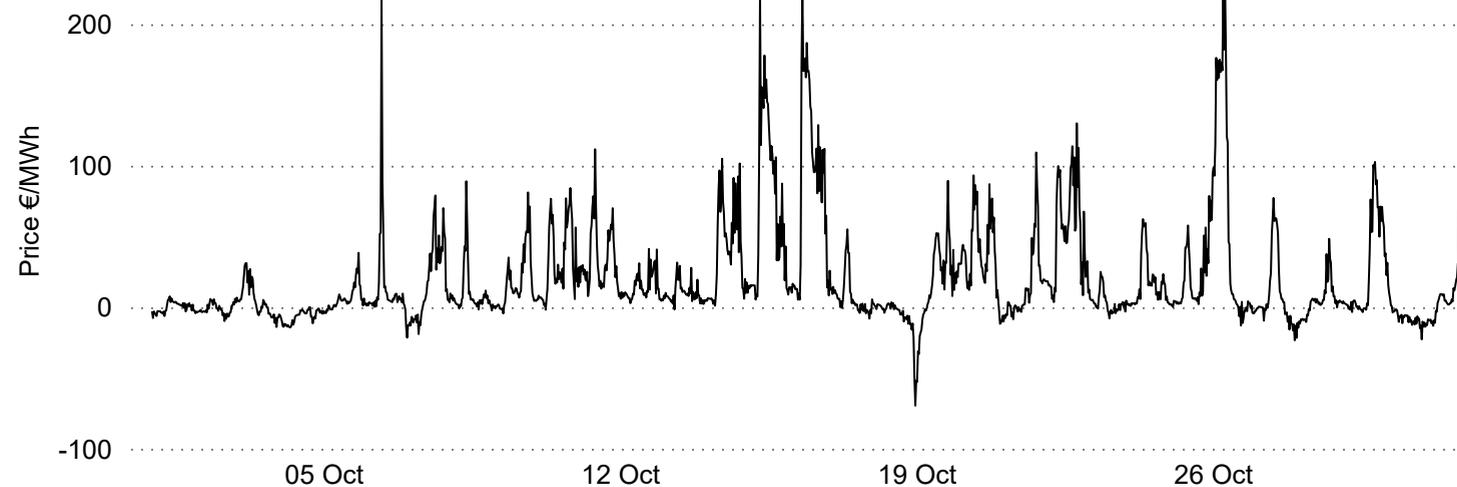
€ 250.85

Max Price

SEM & GB DAM Prices



SEM & GB DAM Prices Spread



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.

SEM Interconnectors

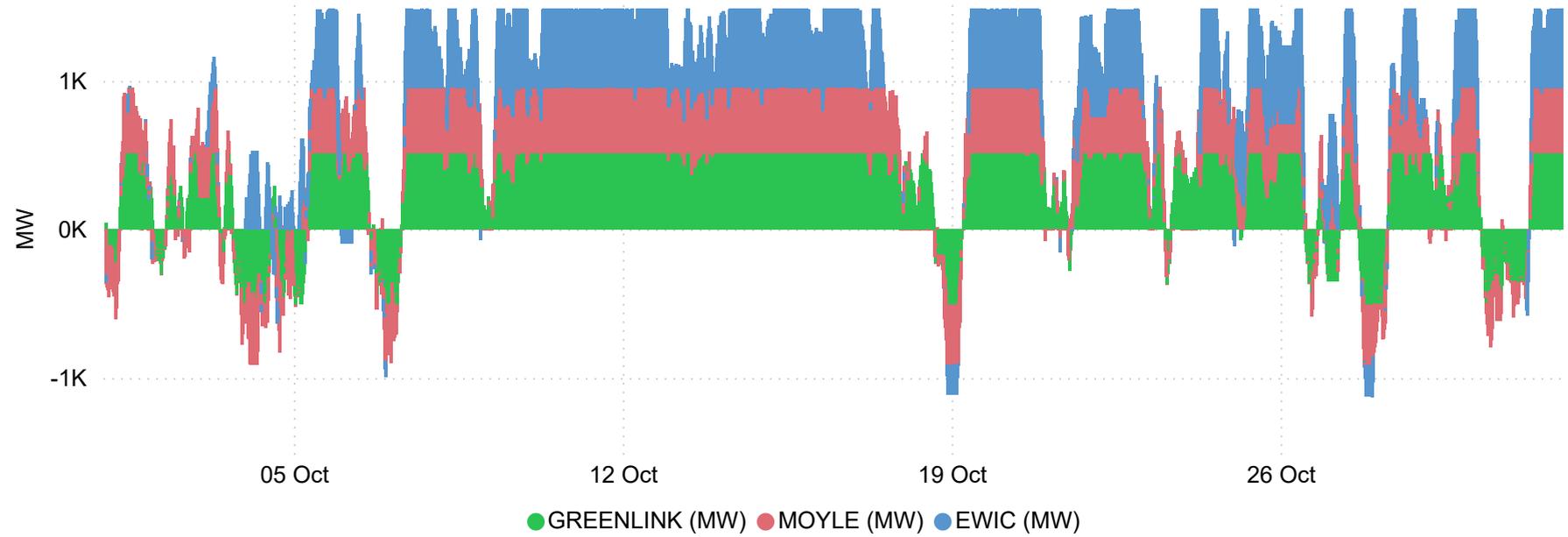
October 2025

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

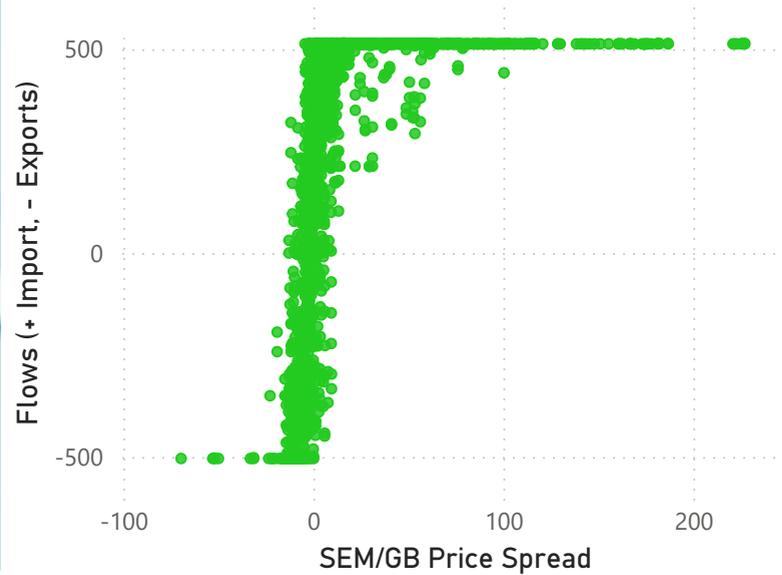
Export flows on interconnectors were also observed occasionally when strong wind output resulted in oversupply in the SEM.

The EWIC interconnector was unavailable for planned maintenance from 08:00 to 10:42 on 23rd Oct.

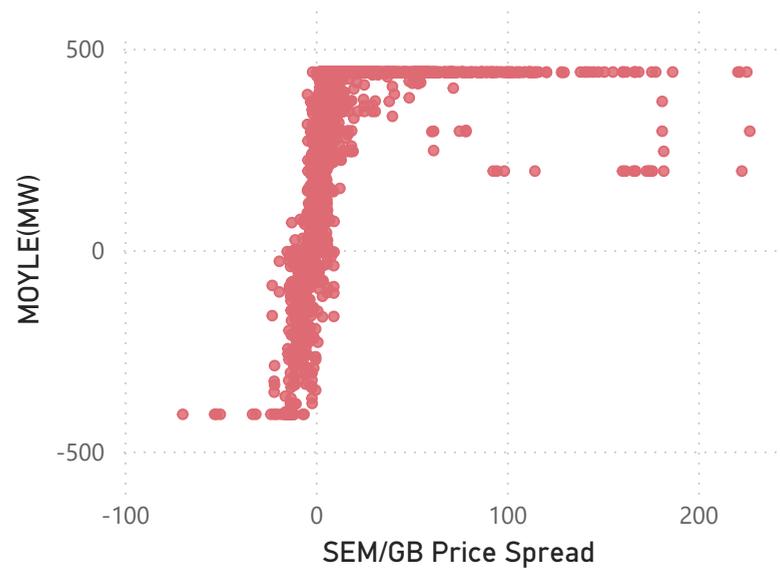
SEM Interconnector Flows



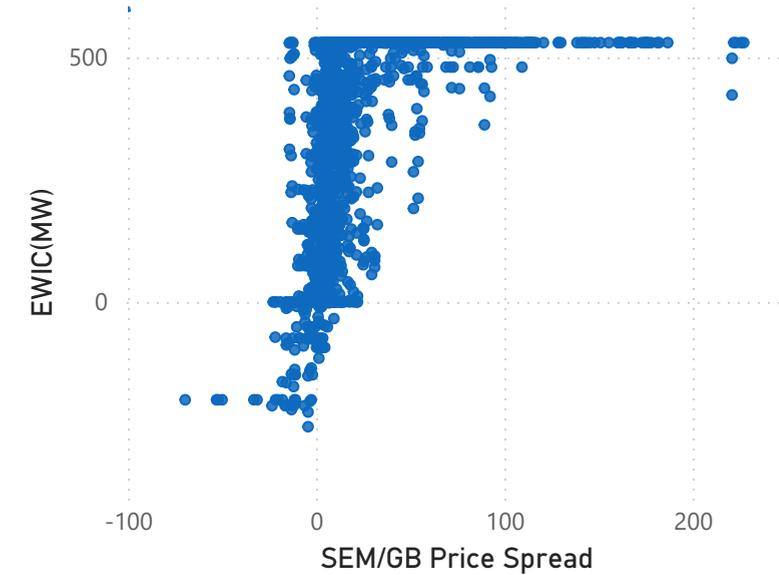
Greenlink Flows vs SEM/GB Price Spread



Moyle Flows vs SEM/GB Price Spread



EWIC Flows vs SEM/GB Price Spread

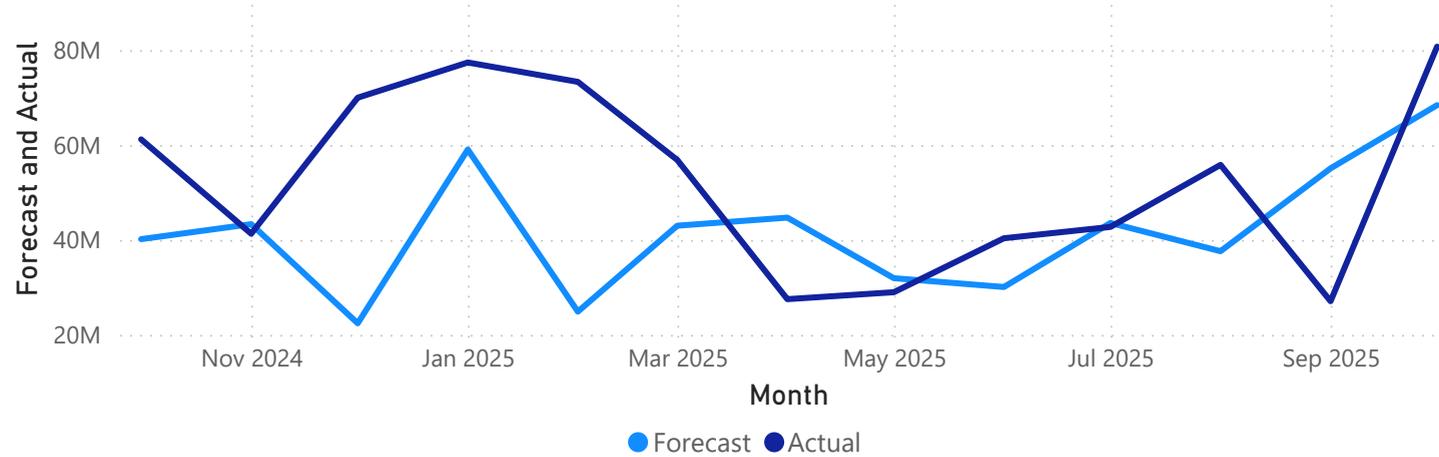


Balancing Market October 2025

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.

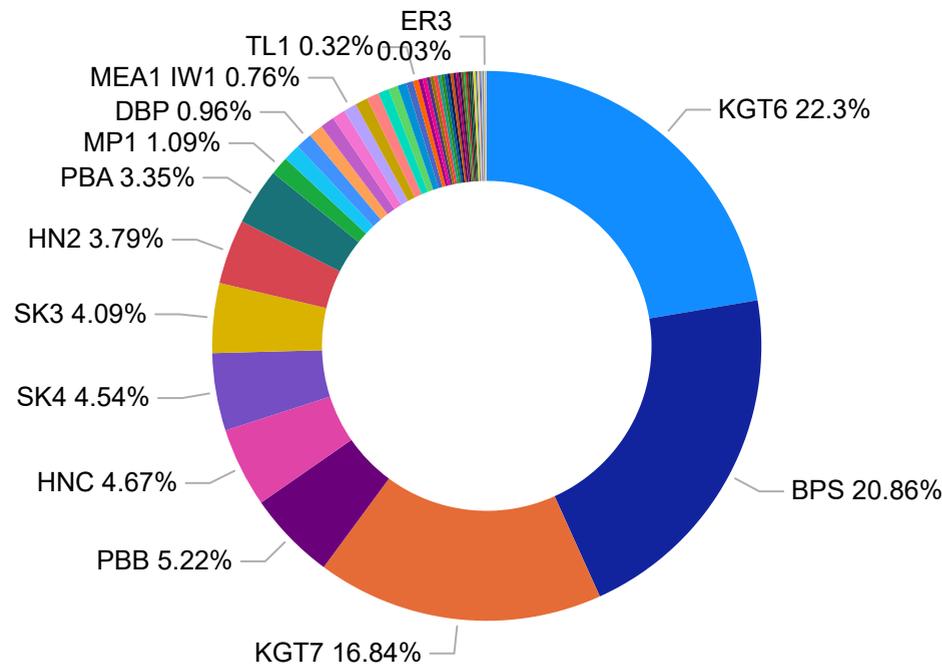
Generators can be constrained 'on' or 'up' if the market schedule indicated they were to be run at lower levels than actually happened. Or they could be constrained 'down' or 'off' if they were to be run at a higher level than happened in reality. There is always an overall net cost to the system associated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

Imperfection Costs - Forecast vs Actual



Determinant Name	Value €
CABBPO	42,694.87
CAOPO	-306,321.58
CCURL	-373,765.89
CDISCOUNT	25,728,271.20
CFC	30,206,853.57
CPREMIUM	26,528,434.89
CTEST	-70,892.93
CUNIMB	-1,044,505.46
Total	80,710,768.67

Market Share per Unit (CFC, CPREMIUN, CDISCOUNT)



Constraints Payments

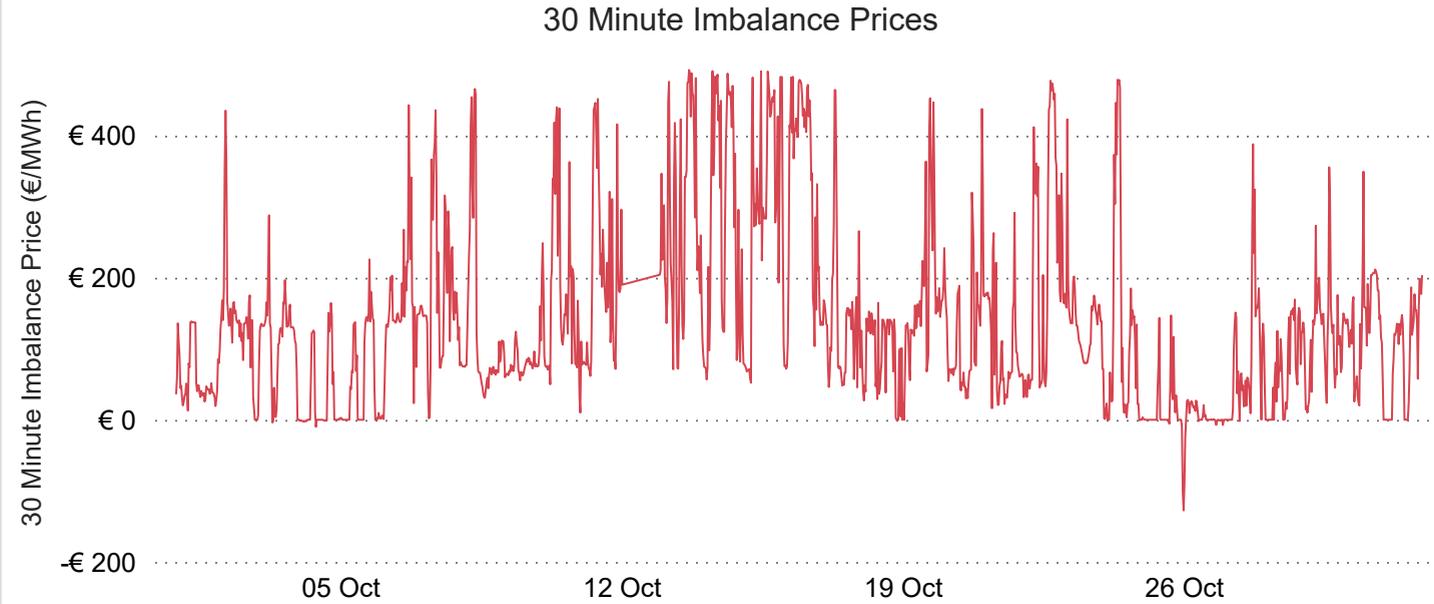
This chart illustrates the distribution of selected Constraint Payments, to specific power plants. KGT6 (EP Killroot Ltd) was the largest receiver of these payments for this month followed by BPS (EP Ballylumford).

Balancing Market October 2025

30 Minutes Imbalance Price

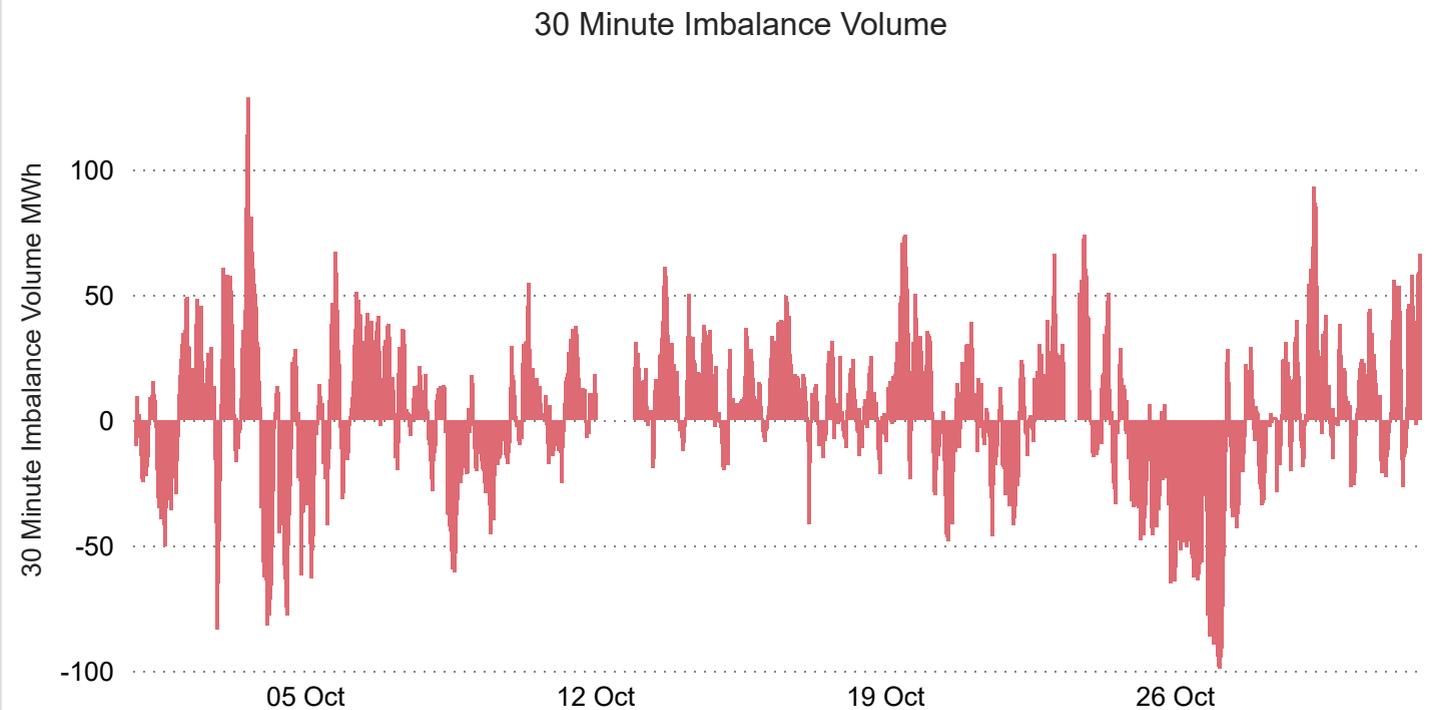
€ 137.39
Average Price
-€ 127.72
Lowest Price
€ 492.36
Highest Price

Imbalance Price & Volumes

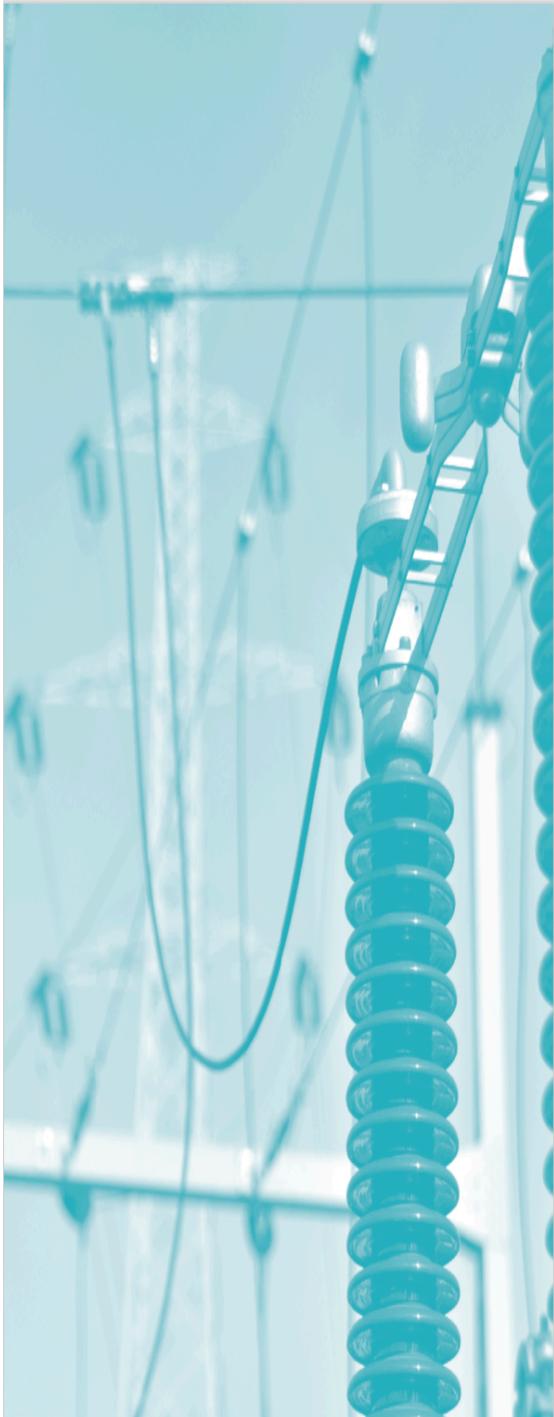


The average Imbalance (BM) Price this month was higher than the Day Ahead Price. Also, the Balancing Market prices has exhibited a much higher range of prices indicating a higher level of volatility compared to Day Ahead Market Prices. This is an expected characteristic of the Balancing Market.

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



Demand and Generation Mix



Demand October 2025

SEM Demand

4,818.44	4,678.64
SEM Average 2025	SEM Average 2024
3,735.67	3,612.82
SEM Min 2025	SEM Min 2024
5,697.47	5,538.21
SEM Max 2025	SEM Max 2024

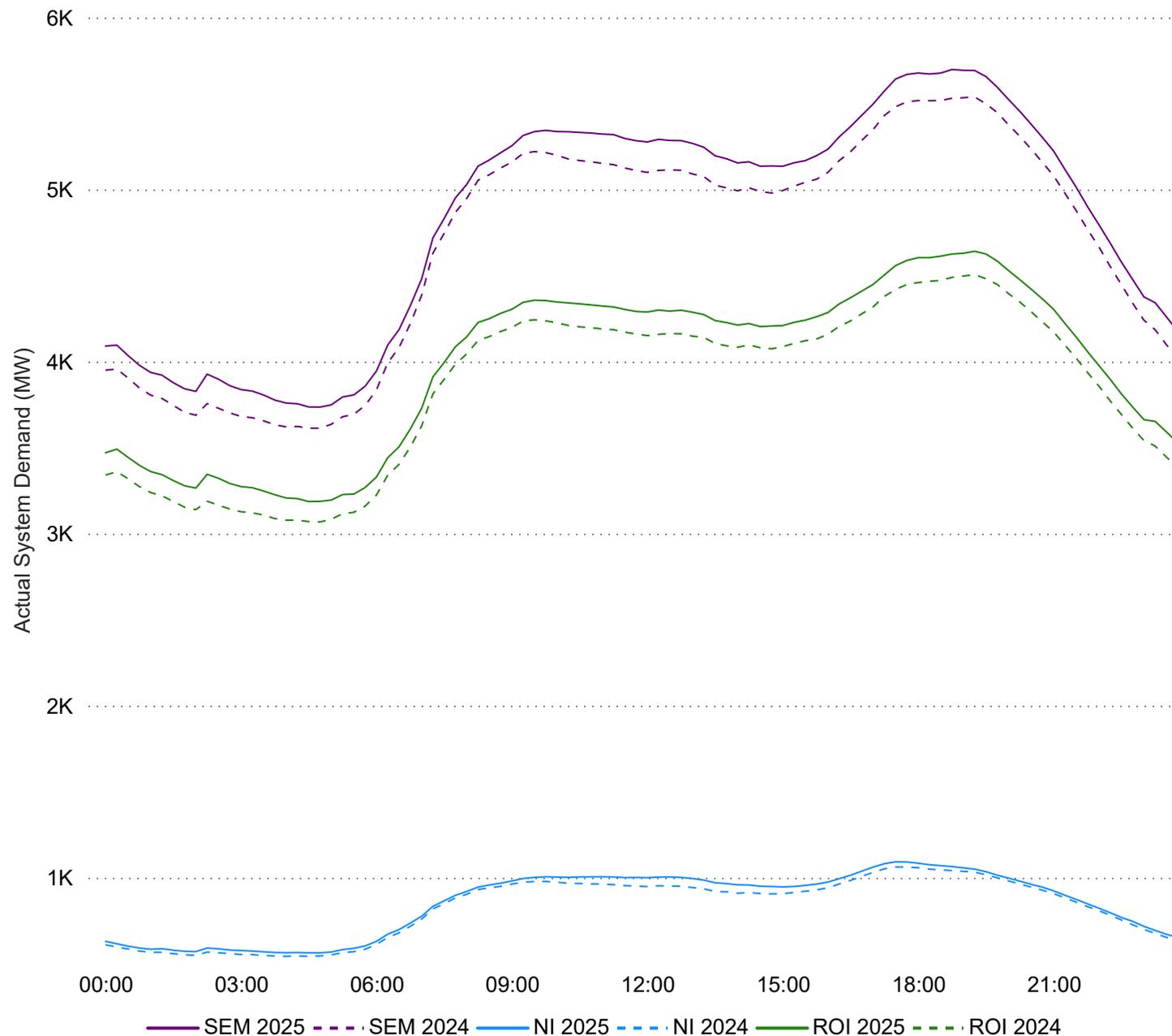
NI Demand

849.23	823.10
NI Average 2025	NI Average 2024
563.06	542.58
NI Min 2025	NI Min 2024
1,092.16	1,062.06
NI Max 2025	NI Max 2024

ROI Demand

3,981.84	3,855.54
ROI Average 2025	ROI Average 2024
3,186.30	3,067.45
ROI Min 2025	ROI Min 2024
4,640.98	4,505.55
ROI Max 2025	ROI Max 2024

Monthly Average Hourly Demand Curves



SEM Demand

The graph indicates a 3% increase in all-island demand compared to the same period last year.

ROI demand rose by 3.28% compared to the same period last year, while NI demand increased by 3.17% compared to the same timeframe.

Duration Curves October 2025

Price Duration

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

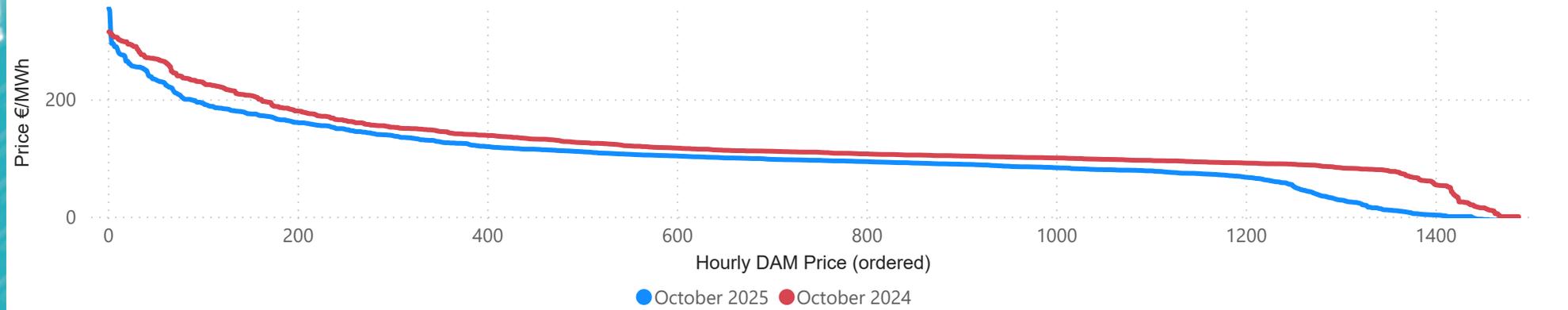
Residual Duration

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

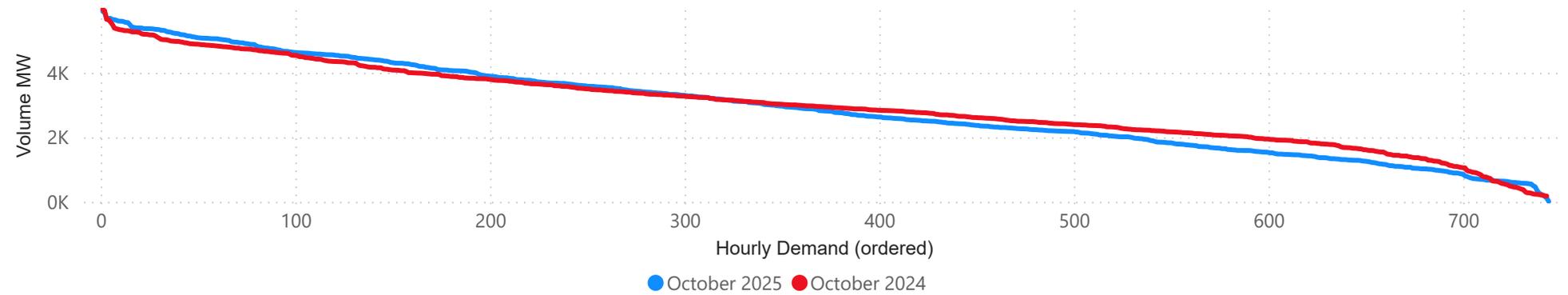
Price against Residual Demand

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

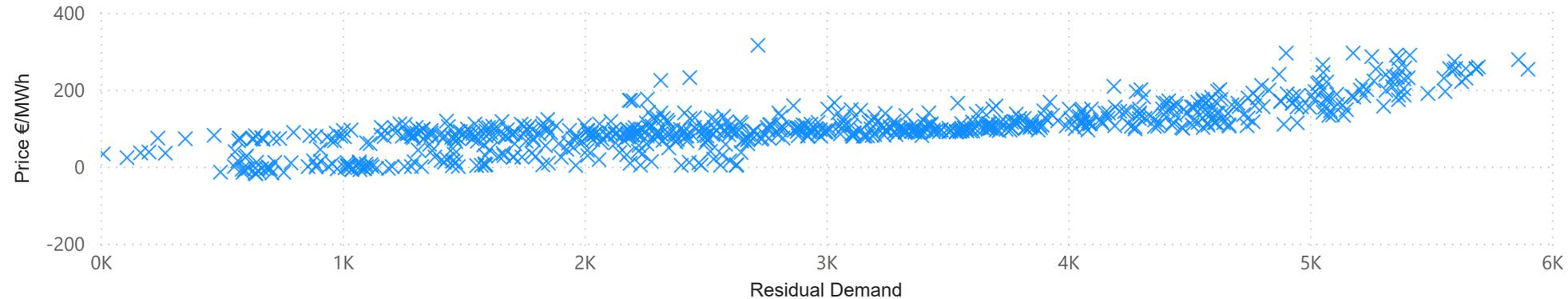
Price Duration Curve SEM



Residual Demand Duration Curve SEM



DAM Price against Residual Demand

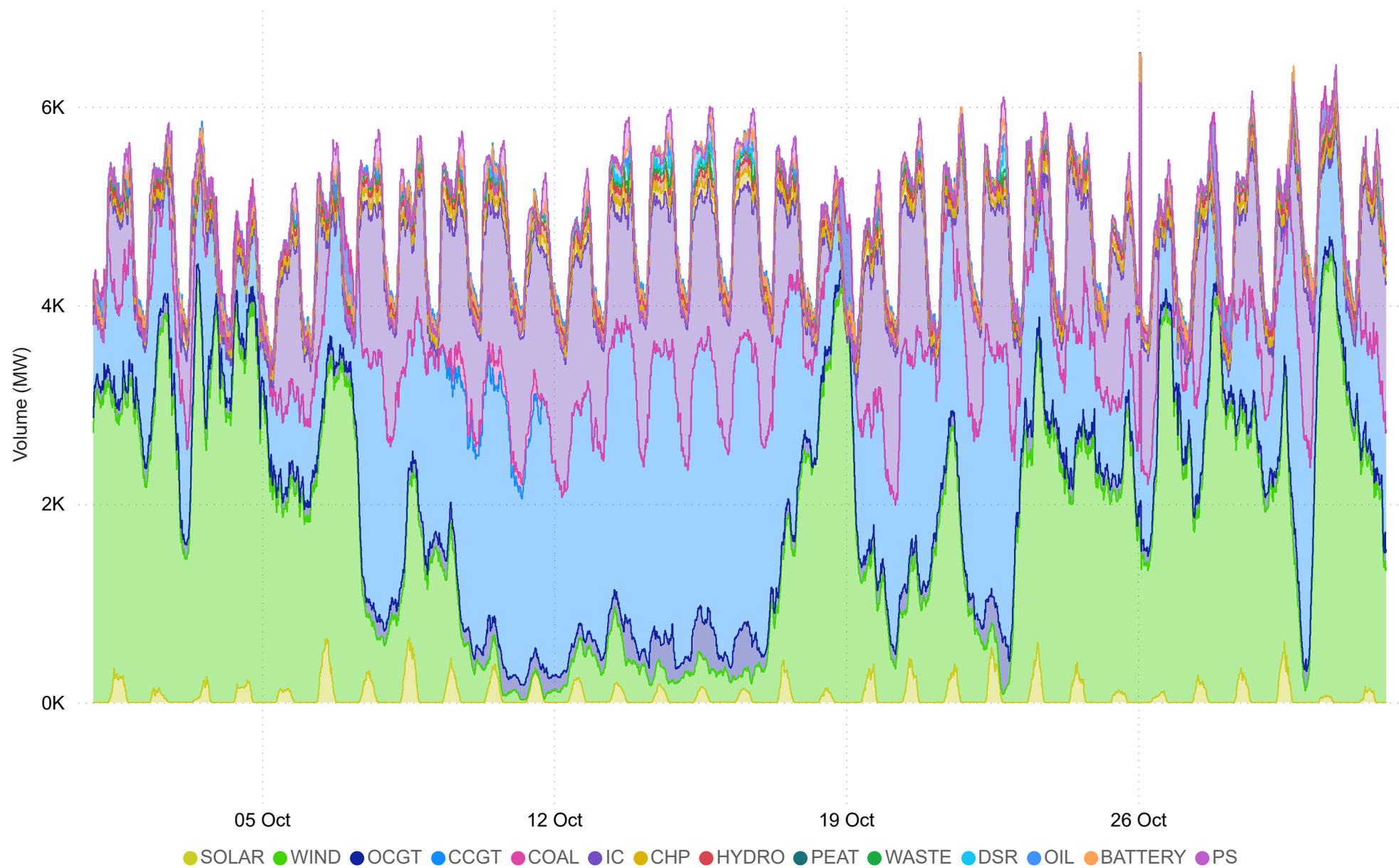




Fuel Mix October 2025

Fuel Type	Avg Monthly	Per. Monthly
WIND	1746	36.6%
CCGT	1644	34.5%
INTERCONNECTORS	800	16.8%
OCGT	182	3.8%
HYDRO	106	2.2%
CHP	105	2.2%
WASTE	77	1.6%
SOLAR	71	1.5%
DSR	34	0.7%
COAL	13	0.3%
OIL	11	0.2%
PEAT	0	0.0%
BATTERY	-8	-0.2%
PUMPED STORAGE	-15	-0.3%

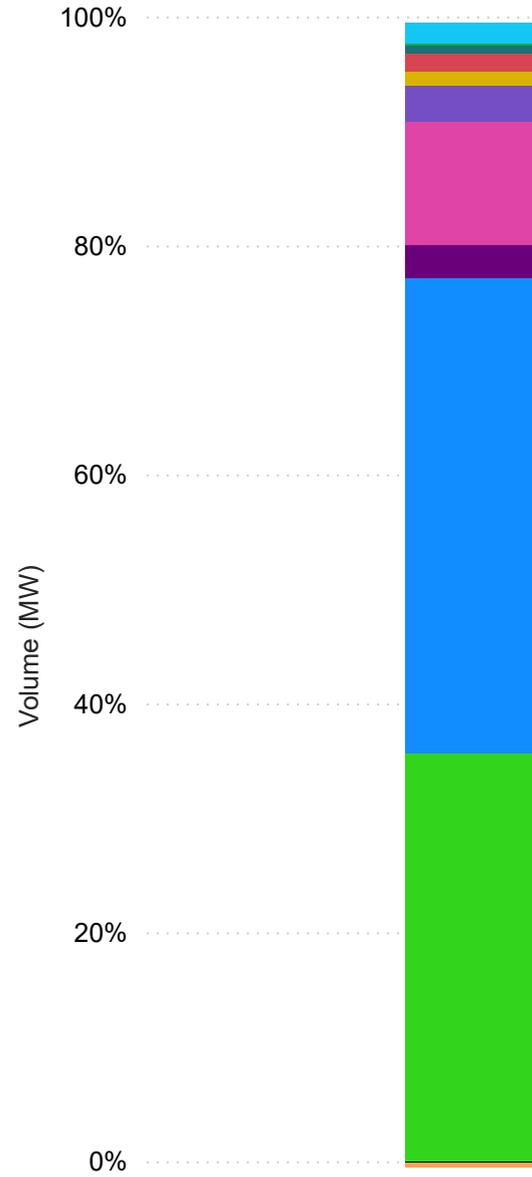
SEM 30 Minute Fuel Mix



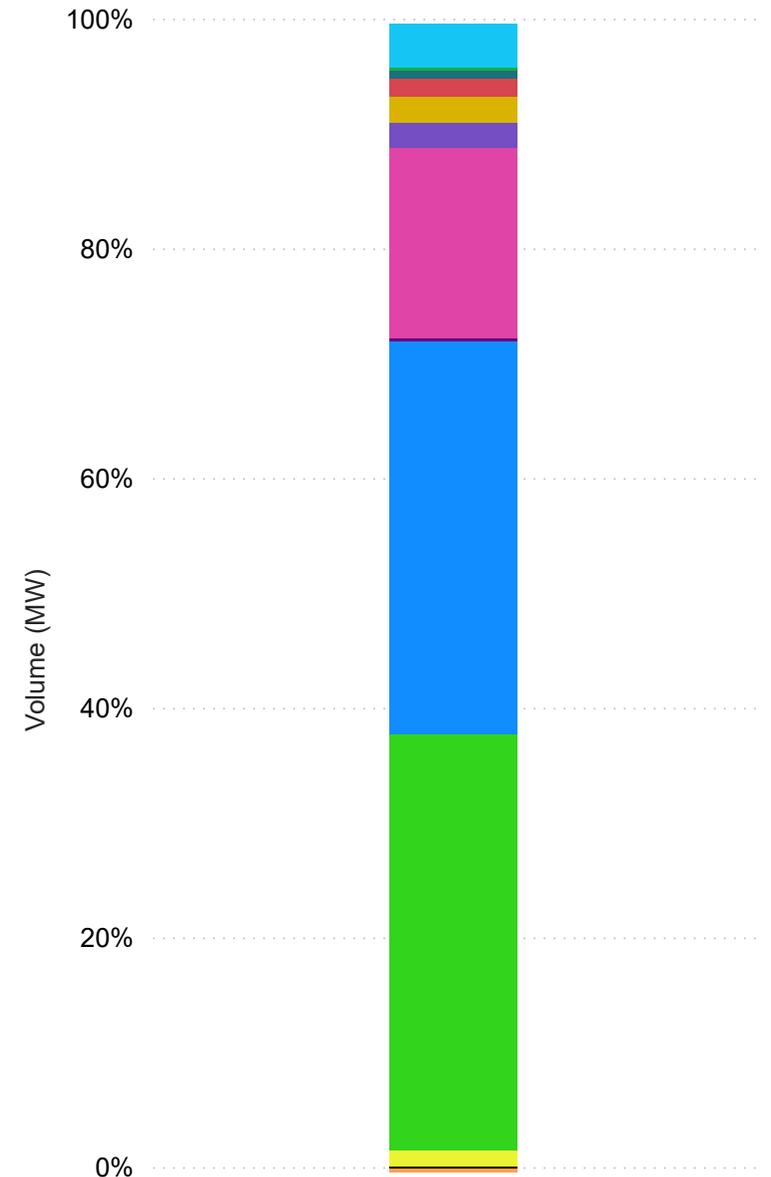
Fuel Mix Comparison October 2024 & 2025

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

SEM Fuel Mix October 2024



SEM Fuel Mix October 2025



North-South Tie Line October 2025

Average Flow NI to ROI (MW)

-167.06

Average Flow ROI to NI (MW)

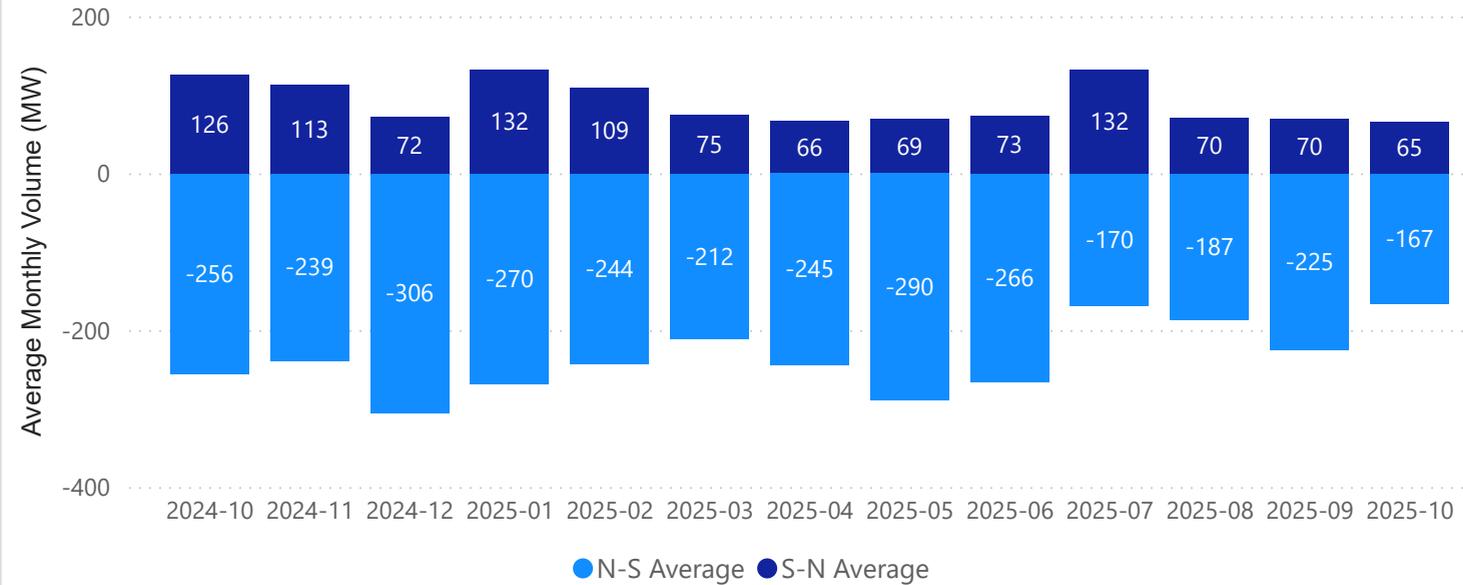
65.30

Average Net Flow NI to ROI (MW)

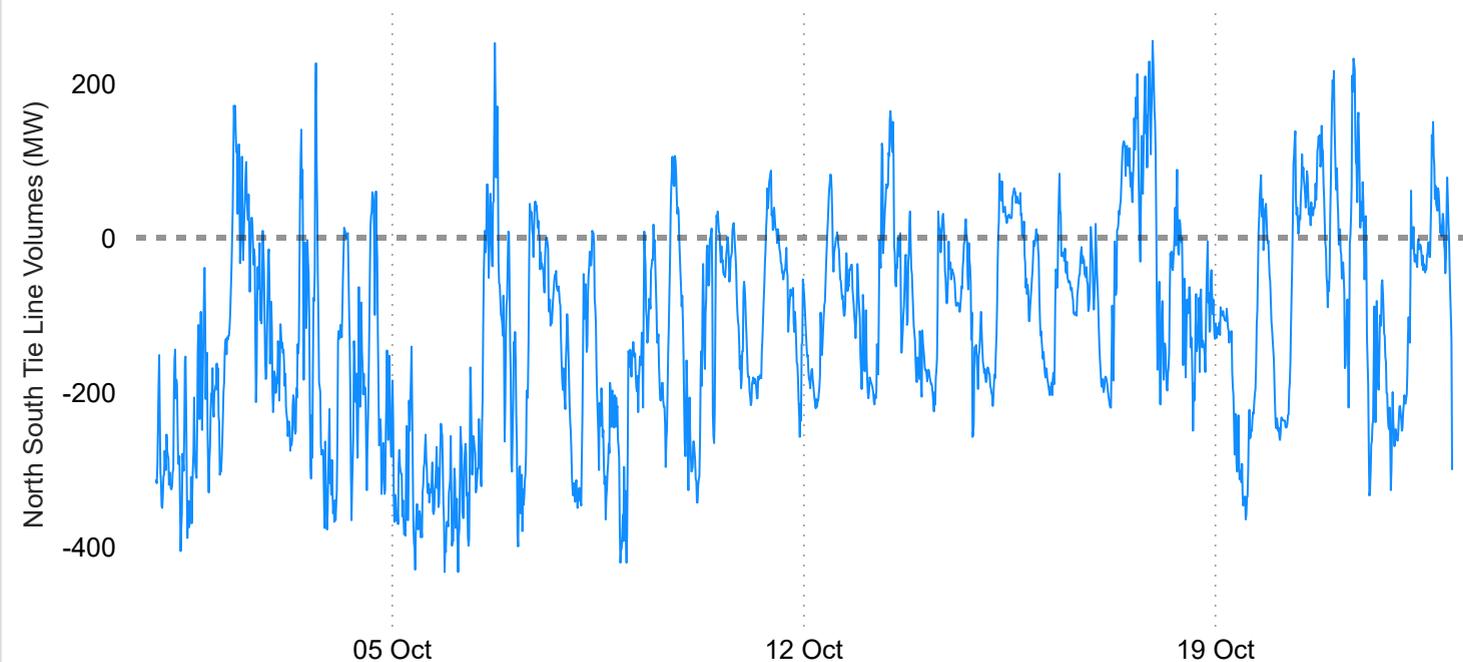
-117.91

-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.

Charts are limited to data up to 23rd October as SONI's download centre is currently down.

Wind Generation October 2025

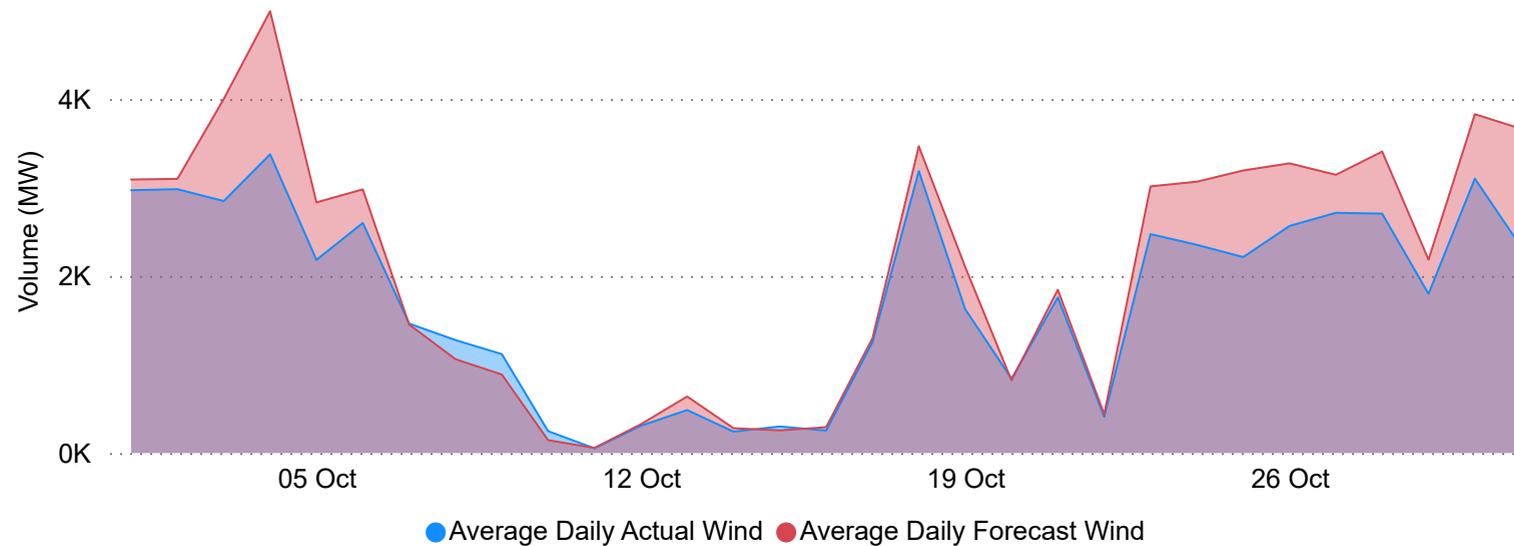
Average Daily Actual Wind (MW)
1,743

Average Daily Forecast Wind (MW)
2,101

Min SNSP%
25.62

Max SNSP%
75.71

Actual Daily Average Wind Relative to Forecast Daily Average Wind

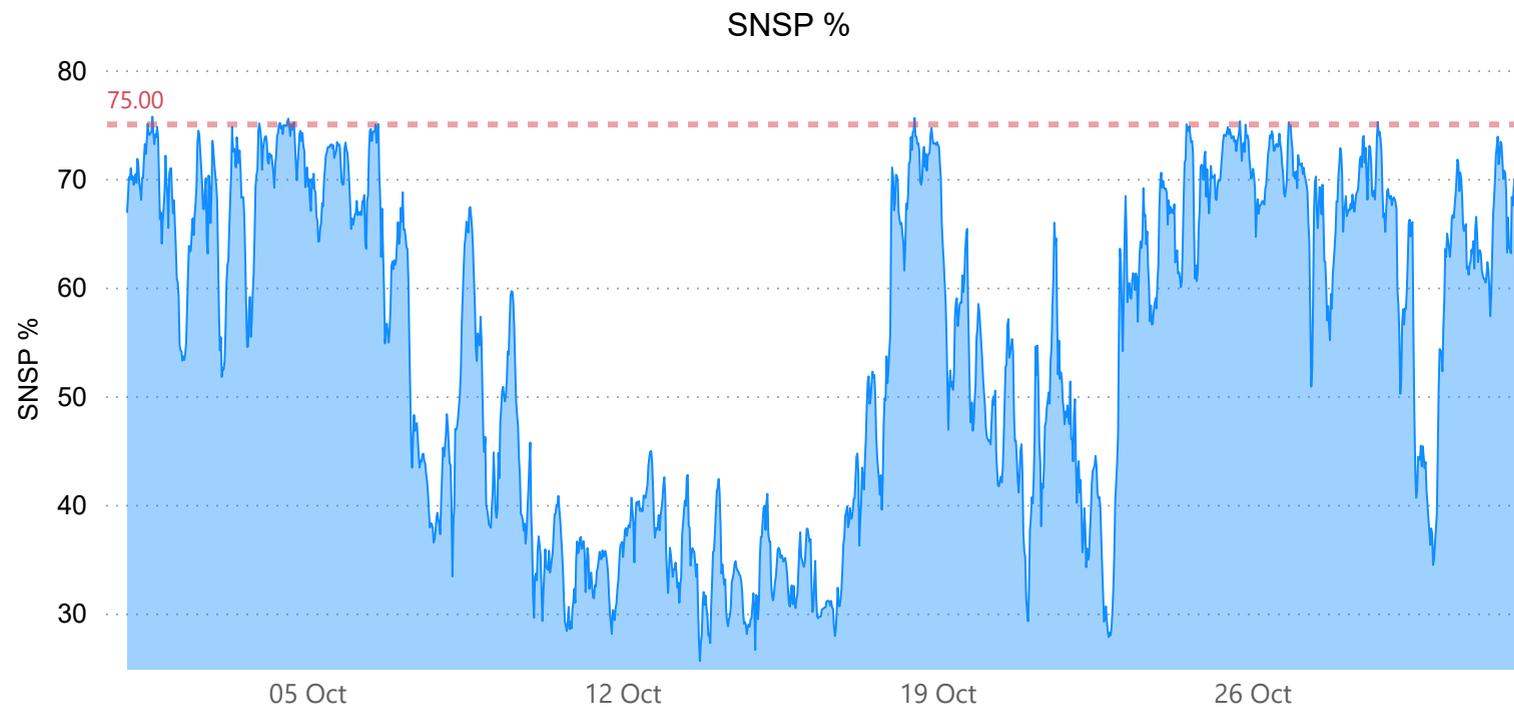


Wind Generation

Average wind output increased by 11% from last month and by 4% 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.



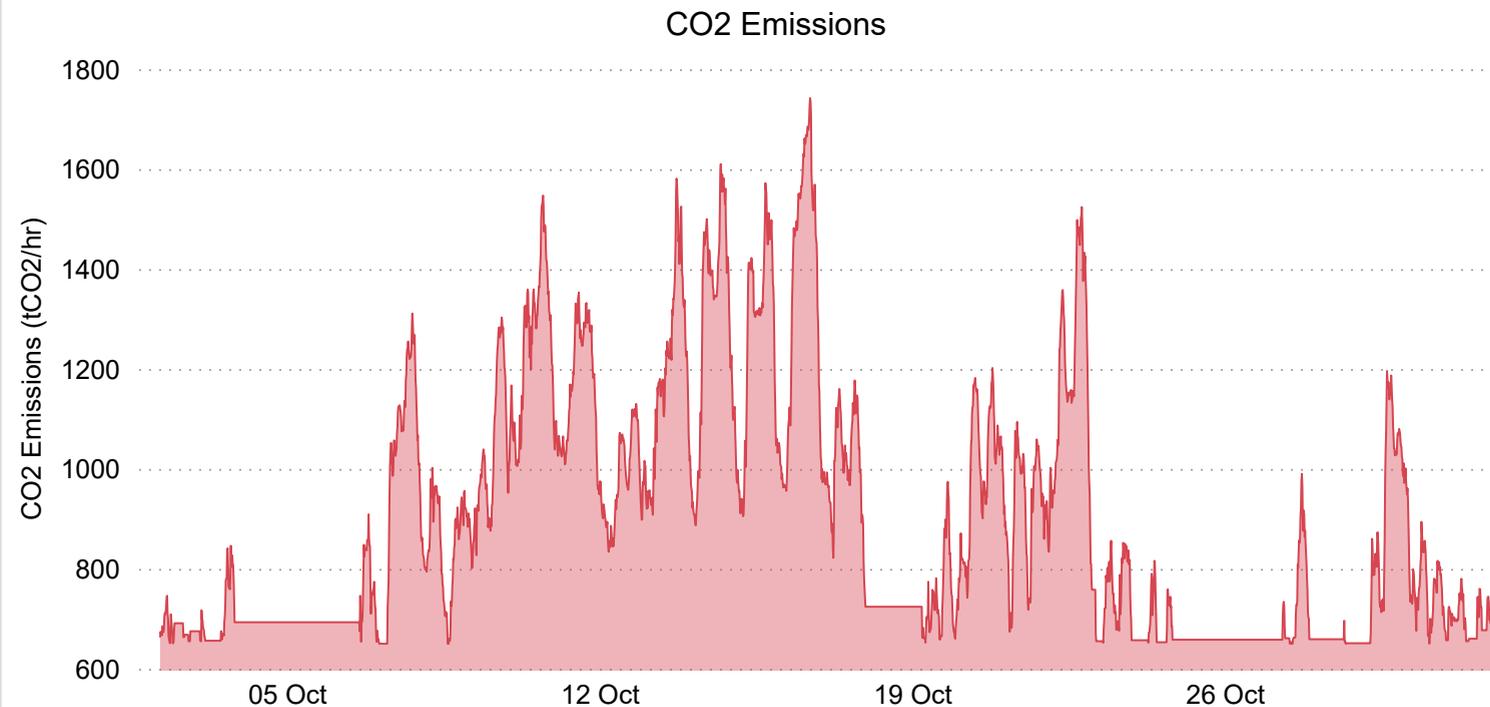
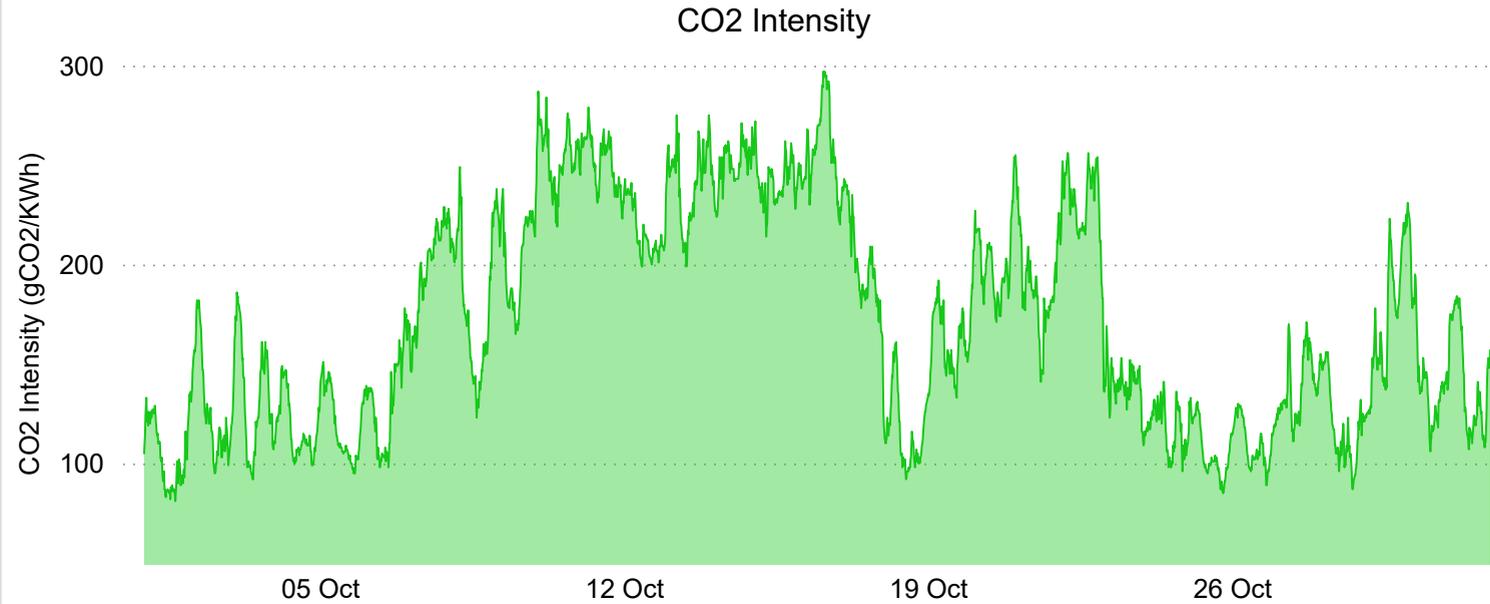
CO₂ October 2025

CO₂ Intensity (gCO₂/kWh)

171.49
Average
81
Lowest
297
Highest

CO₂ Emissions (tCO₂/hr)

894.22
Average
650
Lowest
1742
Highest



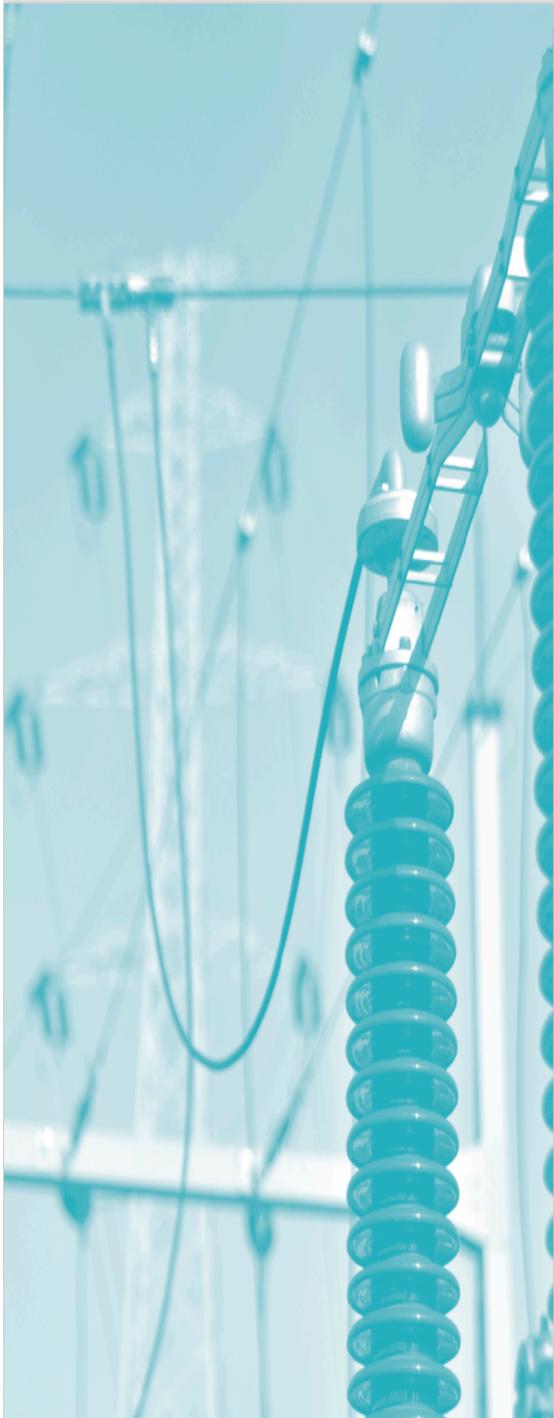
CO₂ Intensity

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.

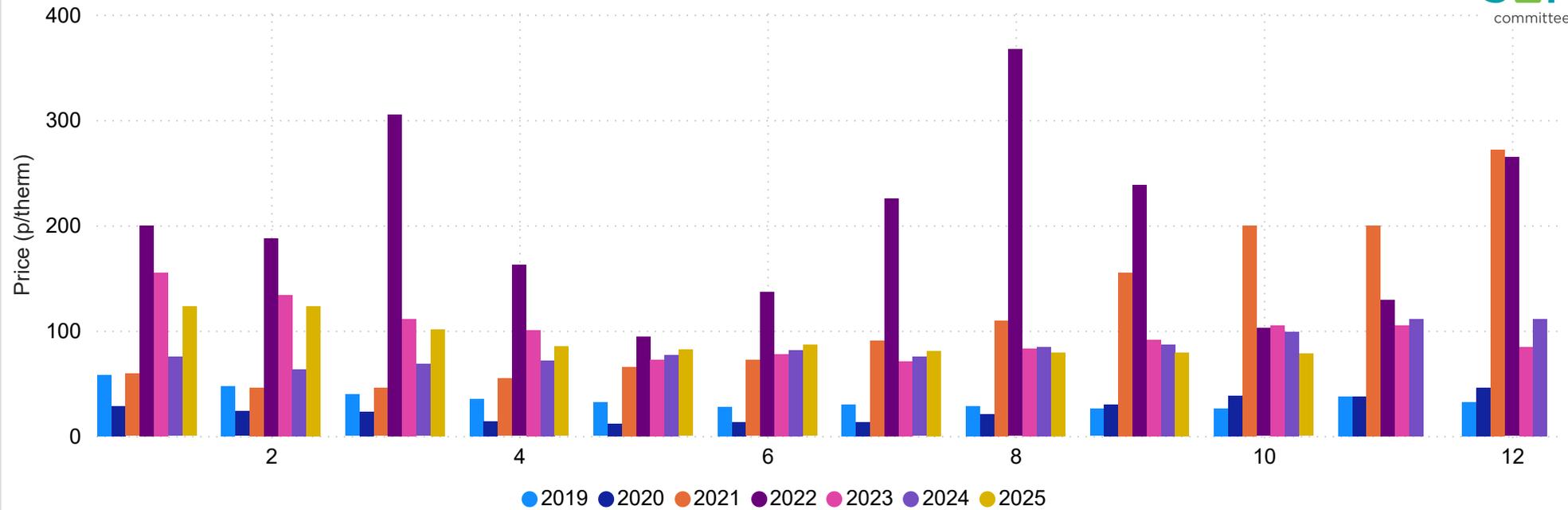
Fuel Costs and Spreads



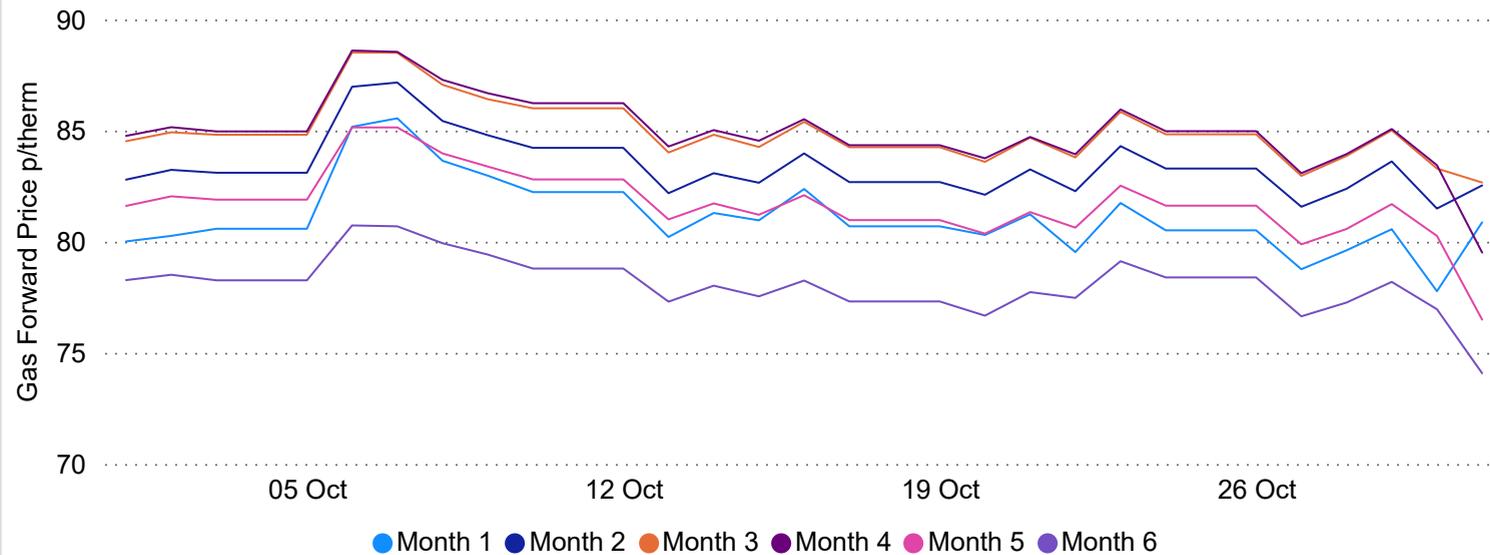
Gas Price October 2025

78.05
Monthly Average (p/therm)
68.15
Monthly Low (p/therm)
86.00
Monthly High (p/therm)

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



Gas Forward Prices



Gas Prices

Gas prices remained stable once again throughout October, with the monthly average price settled at 78.05 p/therm.

Gas Forward Prices

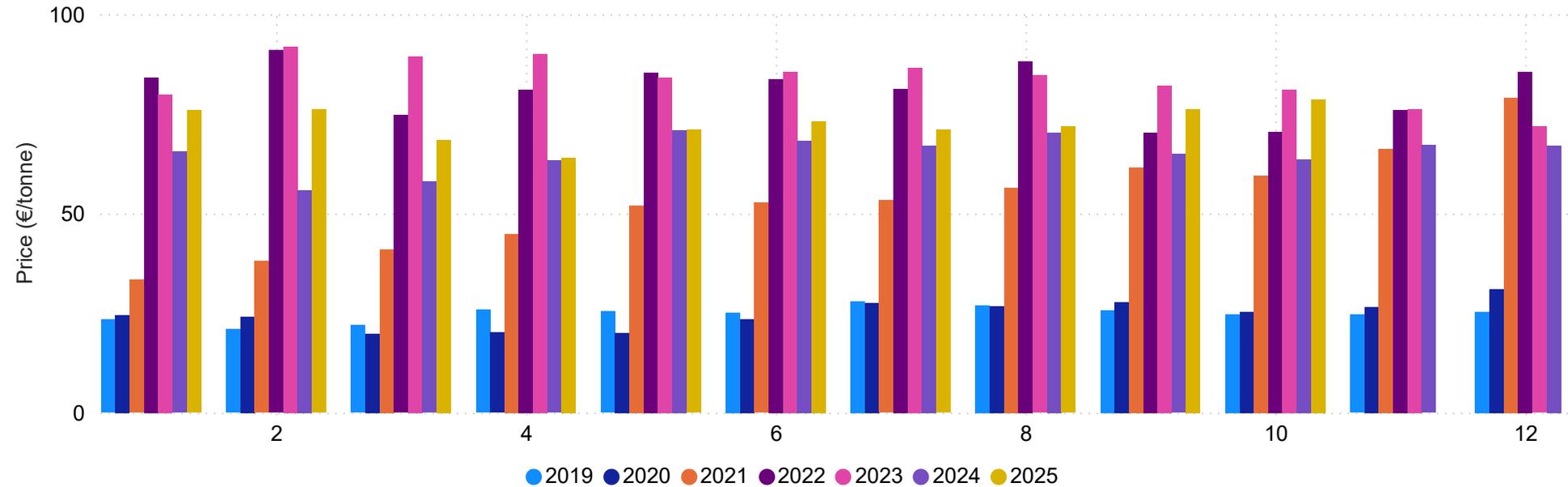
Forward gas prices have shown an upward trend for Winter 2025 contracts, reflecting market expectations of high seasonal demand.

Carbon Price October 2025

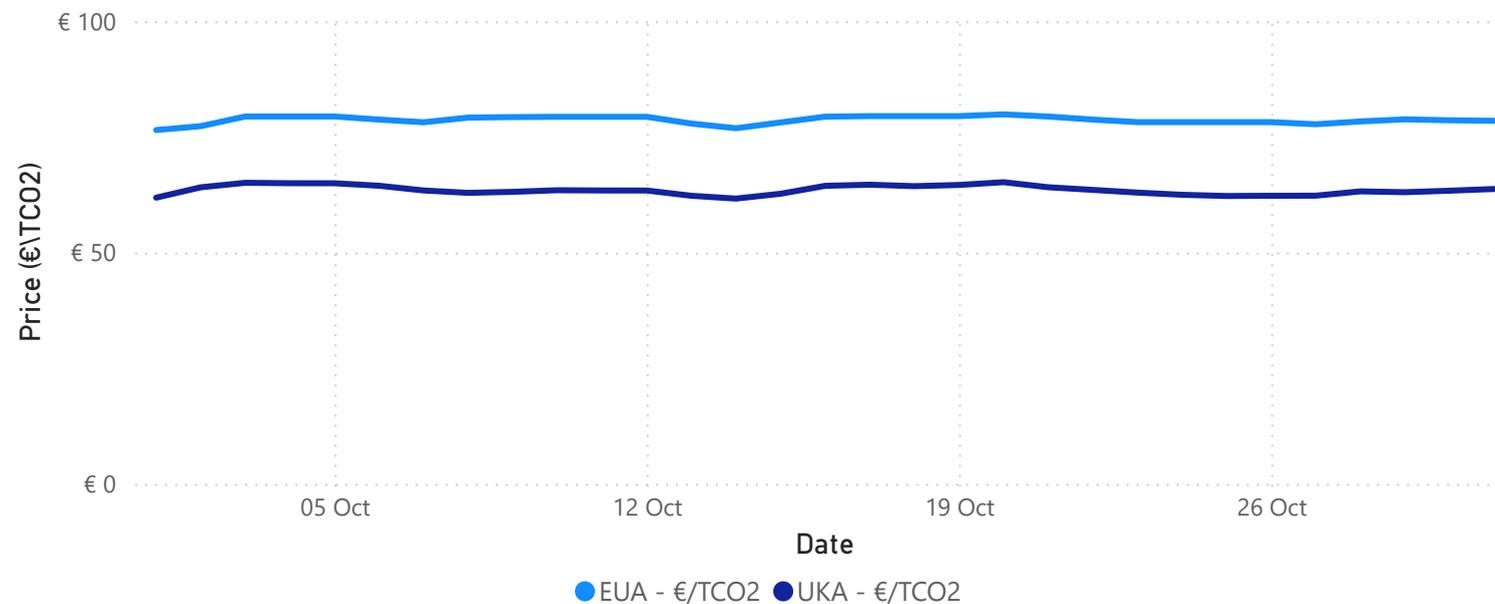
EU Carbon Prices (€/tonne)
 € 78.68
 Monthly Average
 € 76.49
 Monthly Low
 € 79.88
 Monthly High

UK Carbon Prices (€/tonne)
 € 63.50
 Monthly Average
 € 61.67
 Monthly Low
 € 65.21
 Monthly High

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



UK & EU Carbon Prices



Carbon Prices

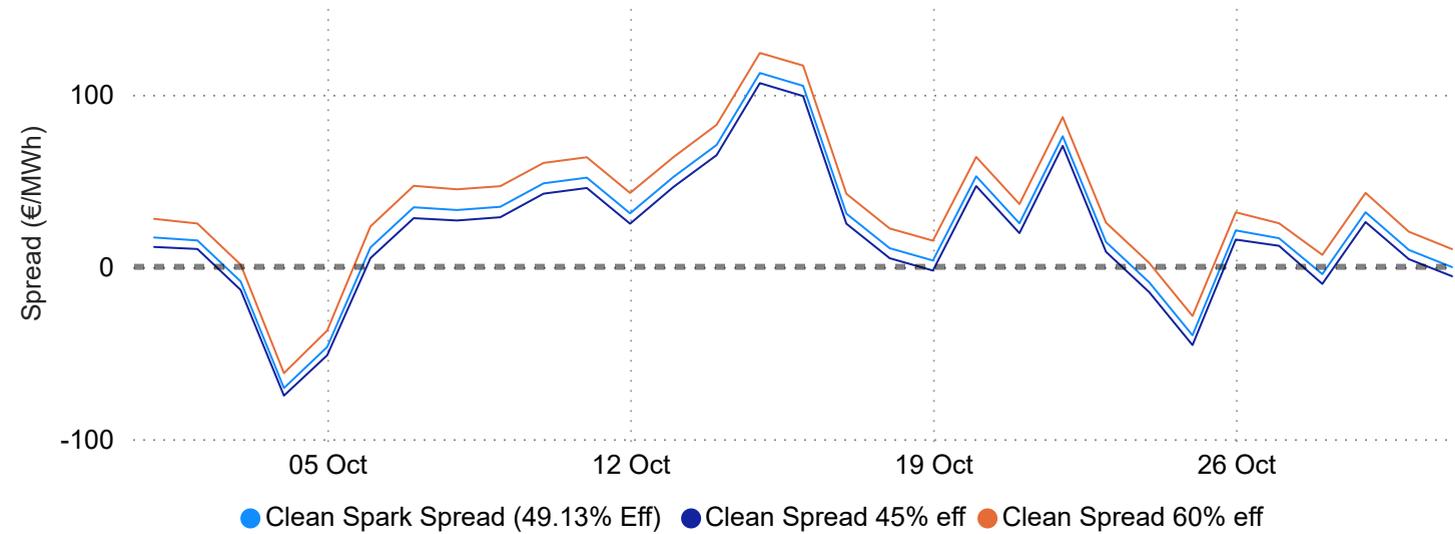
Carbon prices averaged €78.68/tonne, with a 3% increase on average from last month.

Spark Spreads October 2025

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

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 Dark Spread v Clean Spark Spread



Clean Dark Spread vs Clean Spark Spread

Clean Spark Spread remained generally positive throughout the entire duration. However, there were a few occurrences of negative Spark Spread on periods notably on 4th October. This is attributed to strong wind generation due to storm Amy.

Clean Dark Spread v Clean Spark Spread (October 2018 Onwards)

