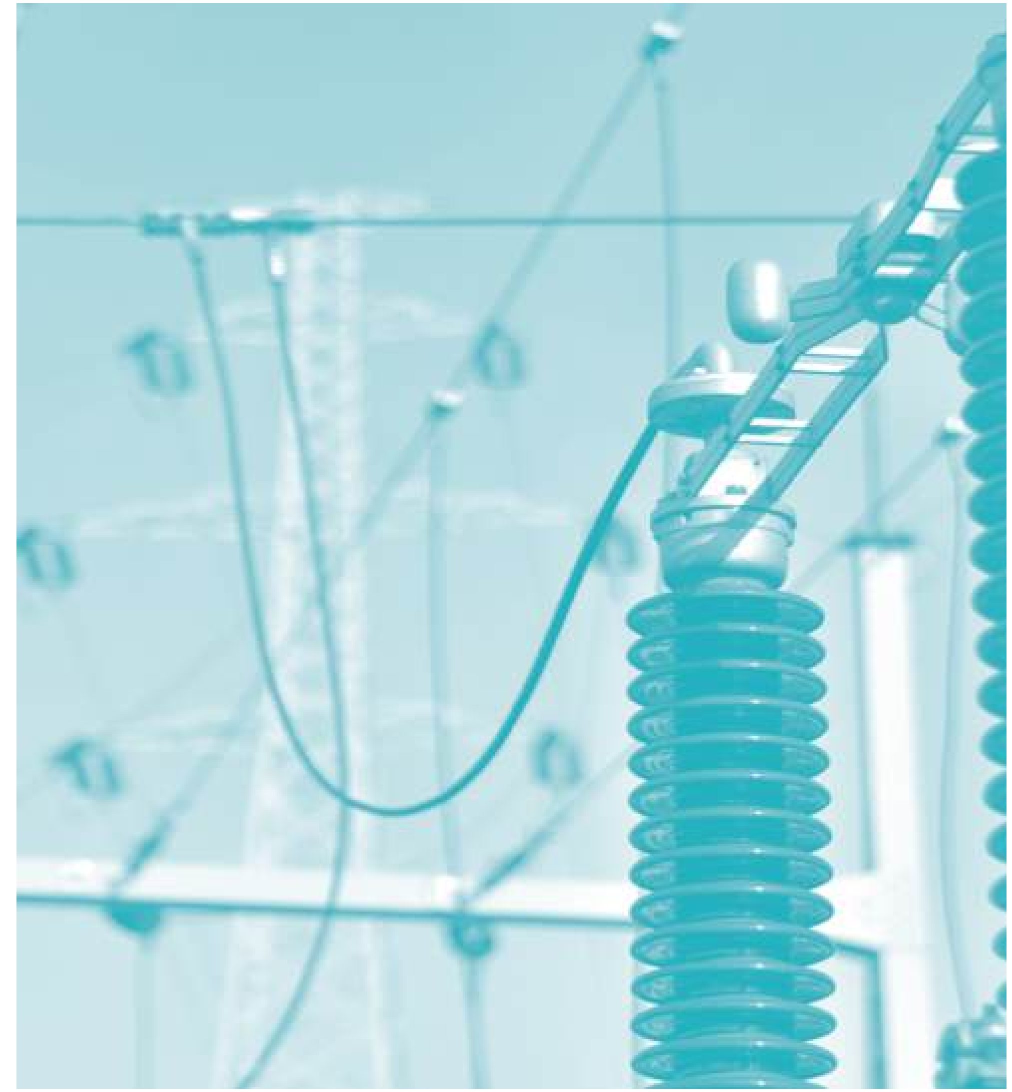


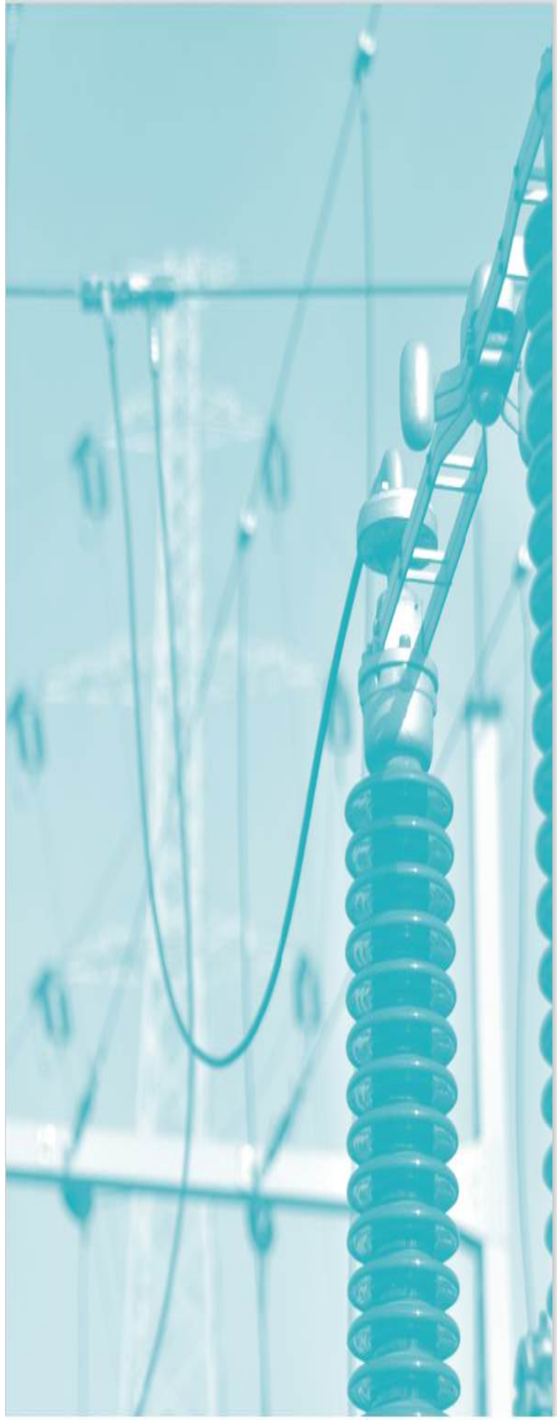




Energy Market Monitoring Report

August 2025

SEM committee



Market Results

Summary Dashboard

Monthly Averages	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25
DAM (€/MWh)	100.44	112.73	122.9	146.14	136.99	167.51	140.85	131.8	111.11	108.64	95.21	99.61	96.38
% Change from previous month	-9%	12%	9%	19%	-6%	22%	-16%	-6%	-16%	-2%	-12%	5%	-3%
% Change from previous year	-6%	1%	-2%	19%	54%	68%	66%	52%	26%	1%	-12%	-10%	-4%
Actual System Demand (MW)	4255	4467.8	4671	5085	5020	5256	5194	4951	4594	4254	4413	4356	4305
% Change from previous month	-1%	5%	5%	9%	-1%	5%	-1%	-5%	-7%	-7%	4%	-1%	-1%
% Change from previous year	2%	3%	3%	4%	3%	2%	5%	2%	0%	-2%	5%	2%	1%
Actual Wind Generation (MW)	1437	1263	1668	1448	2040	1948	2509	1615	1278	933	1306	1057	1169
% Change from previous month	63%	-12%	32%	-13%	41%	-5%	29%	-36%	-21%	-27%	40%	-19%	11%
% Change from previous year	3%	-9%	22%	-20%	-17%	5%	25%	-22%	-15%	4%	22%	20%	-19%
Actual Solar Generation (MW)	-	-	-	-	-	-	-	-	-	-	-	-	194
% Change from previous month	-	-	-	-	-	-	-	-	-	-	-	-	-1%
% Change from previous year	-	-	-	-	-	-	-	-	-	-	-	-	52%
Gas Price p/therm	84.71	86.94	99.04	111.00	111.22	122.85	123.04	100.94	84.72	81.82	86.38	80.69	79.25
% Change from previous month	13%	3%	14%	12%	0%	10%	0%	-18%	-16%	-3%	6%	-7%	-2%
% Change from previous year	2%	-5%	-6%	6%	32%	64%	94%	48%	18%	7%	6%	7%	-6%
Carbon Price (€/Tonne)	70.12	64.86	63.51	67.15	67.05	75.87	76.08	68.39	63.96	71	73.14	71.03	71.81
% Change from previous month	5%	-8%	-2%	6%	0%	13%	0%	-10%	-6%	11%	3%	-3%	1%
% Change from previous year	-17%	-21%	-22%	-12%	-7%	16%	36%	18%	1%	0%	7%	6%	2%
EWIC % Import Periods	85.29%	81.53%	71.32%	78.30%	67.64%	67.88%	43.01%	55.18%	27.15%	78.36%	68.26%	45.83%	57.22%
EWIC % Export Periods	7.56%	5.52%	10.31%	9.03%	11.49%	10.18%	13.91%	2.66%	1.81%	0.77%	2.05%	1.31%	4.57%
EWIC % Not Flow Periods	7.15%	12.95%	18.37%	12.67%	20.87%	21.94%	43.08%	42.16%	71.04%	20.87%	29.69%	52.86%	38.21%
Moyle % Import Periods	80.71%	91.98%	81.08%	82.47%	81.55%	78.53%	64.62%	79.24%	78.16%	93.88%	78.85%	57.29%	79.03%
Moyle % Export Periods	10.44%	7.60%	18.65%	17.50%	18.41%	21.27%	22.43%	6.16%	6.08%	6.08%	16.70%	24.33%	20.90%
Moyle % Not Flow Periods	8.84%	0.42%	0.28%	0.03%	0.03%	0.20%	12.95%	14.60%	15.76%	0.03%	4.44%	18.38%	0.07%
Greenlink % Import Periods	NA	NA	NA	NA	NA	NA	68.97%	88.63%	80.17%	93.78%	90.76%	91.23%	88.68%
Greenlink % Export Periods	NA	NA	NA	NA	NA	NA	25.04%	9.49%	10.35%	5.58%	7.36%	7.83%	10.08%
Greenlink % Not Flow Periods	NA	NA	NA	NA	NA	NA	5.99%	1.88%	9.48%	0.64%	1.88%	0.94%	1.24%

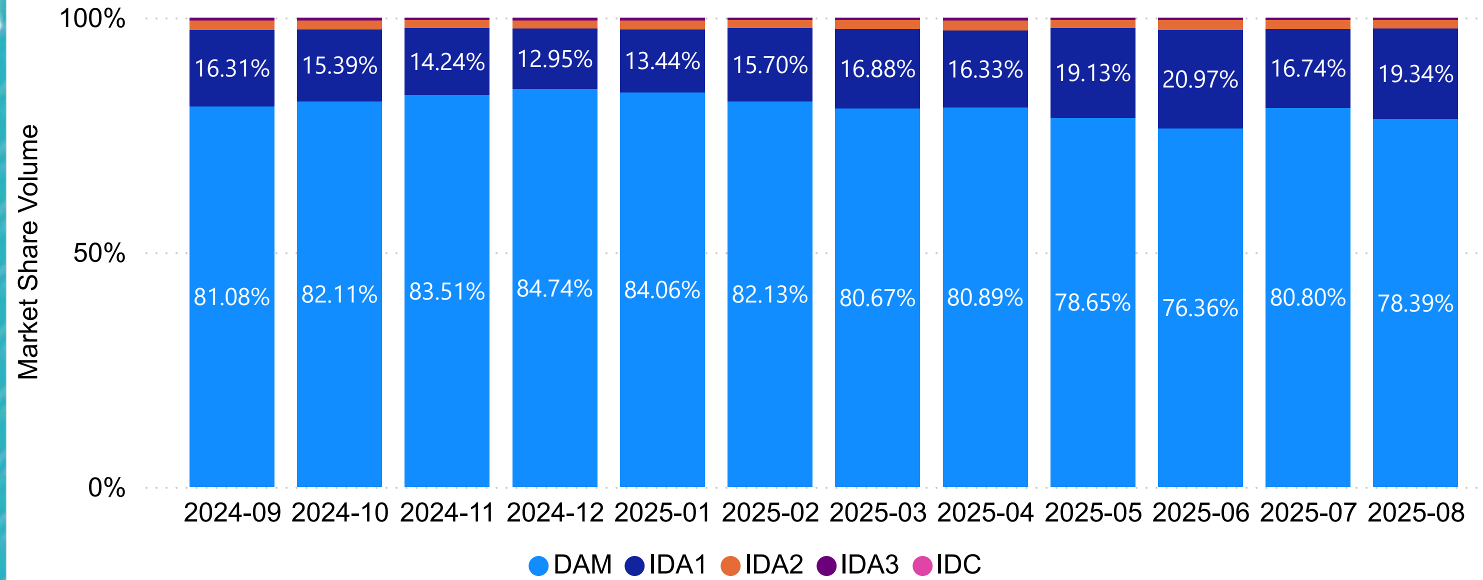
Market Volumes
August 2025

Daily Average Volume	MWh
DAM	111,576
IDA1	27,490
IDA2	2,440
IDA3	656
IDC	60

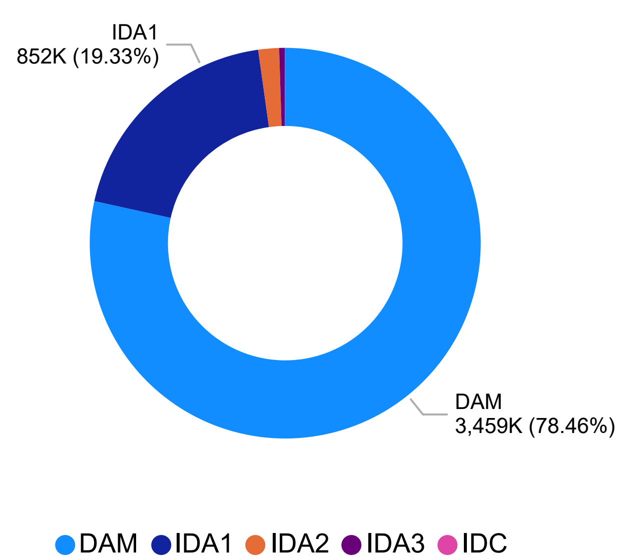
Total Monthly Volume	MWh
DAM	3,458,849
IDA1	852,189
IDA2	75,627
IDA3	20,351
IDC	1,560
Total	**4,408,577**

Total Market Value	€
DAM	€ 335,187,326
IDA1	€ 86,305,408
IDA2	€ 7,275,688
IDA3	€ 2,640,055
IDC	€ 215,887
Total	**€ 431,624,364**

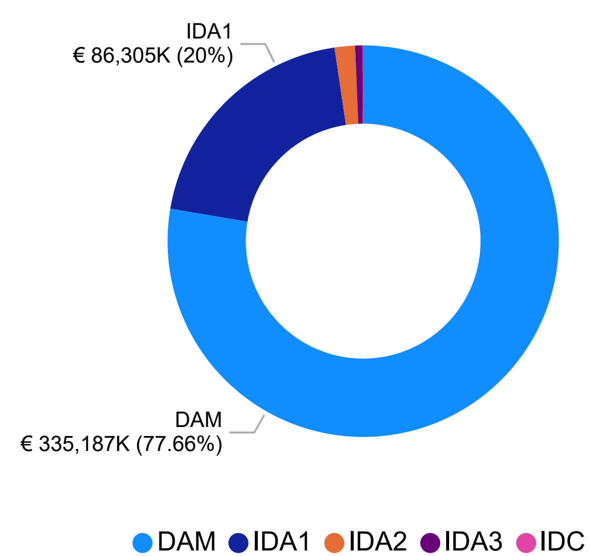
Ex-Ante Monthly Volume by Market



Ex-Ante Volumes (MWh)



Ex-Ante Values (€)



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.

Another important factor is associated with the TSO dispatch arrangements. The vast majority of wind generation in the SEM is cleared at the Day Ahead stage. That might also explain to some extent the additional volumes cleared in this market.

Day Ahead Market August 2025

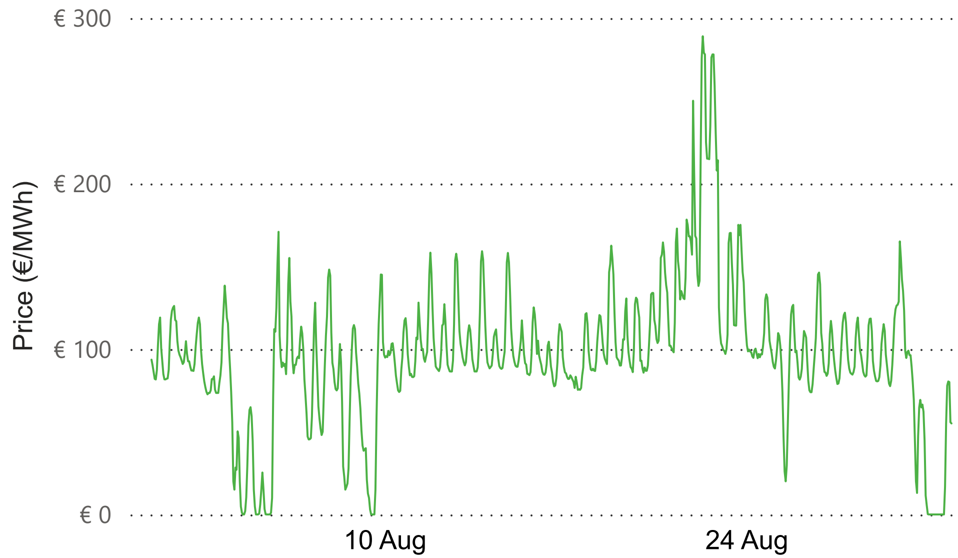
€ 96.38
Average DAM Price

€ 0.00
Min DAM Price

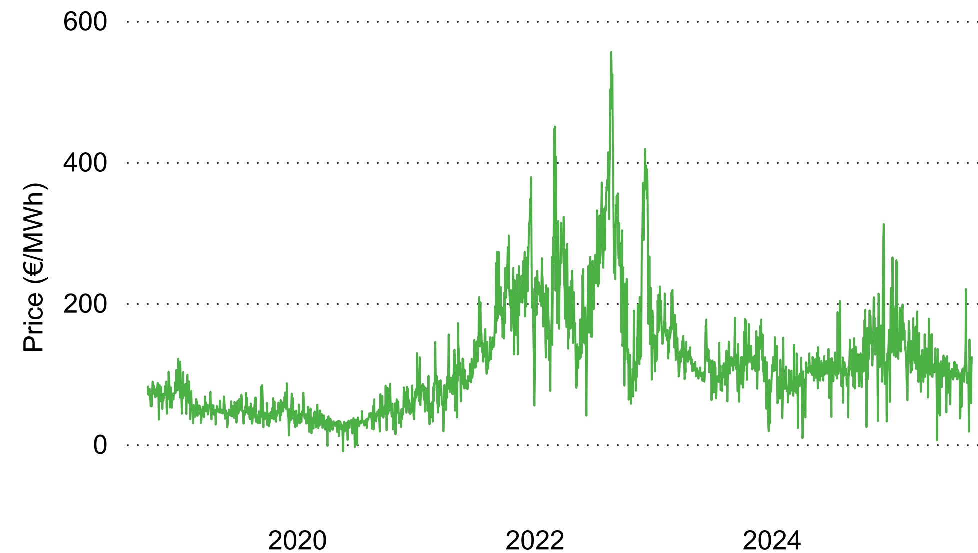
€ 288.98
Max DAM Price

The most frequent price range for the month was between €80 and €120.

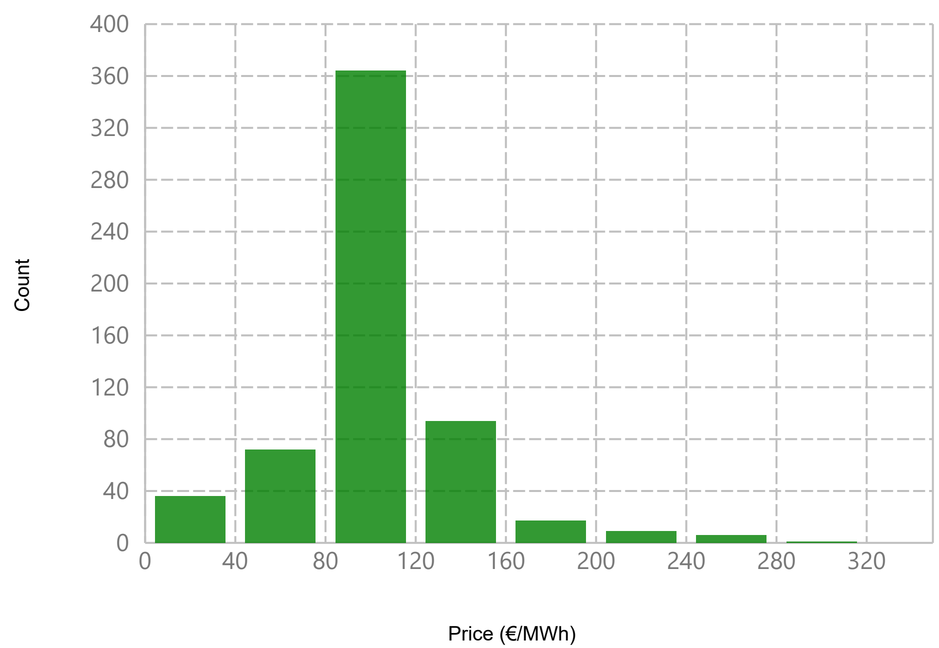
DAM Prices



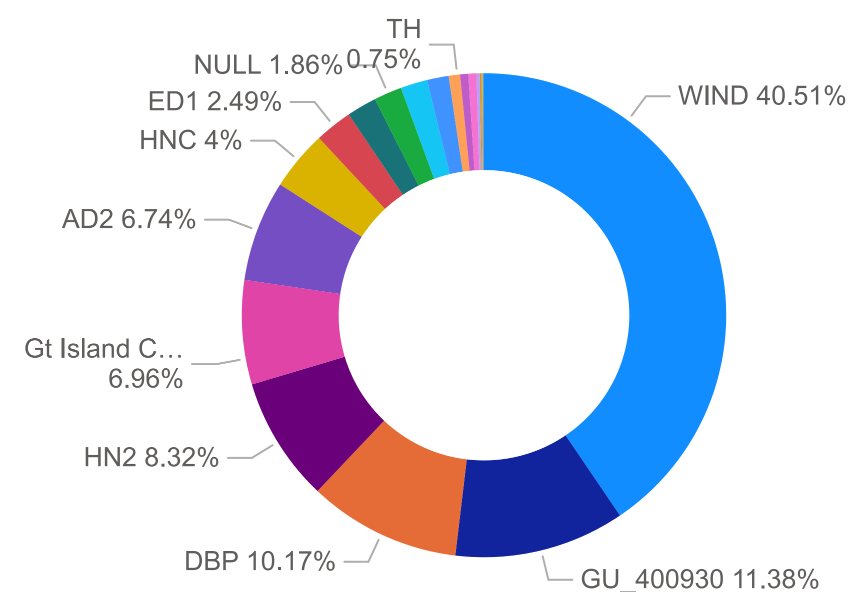
Historic Daily Average DAM Prices



Histogram of DAM Prices



DAM Sell Side Generator Order Results



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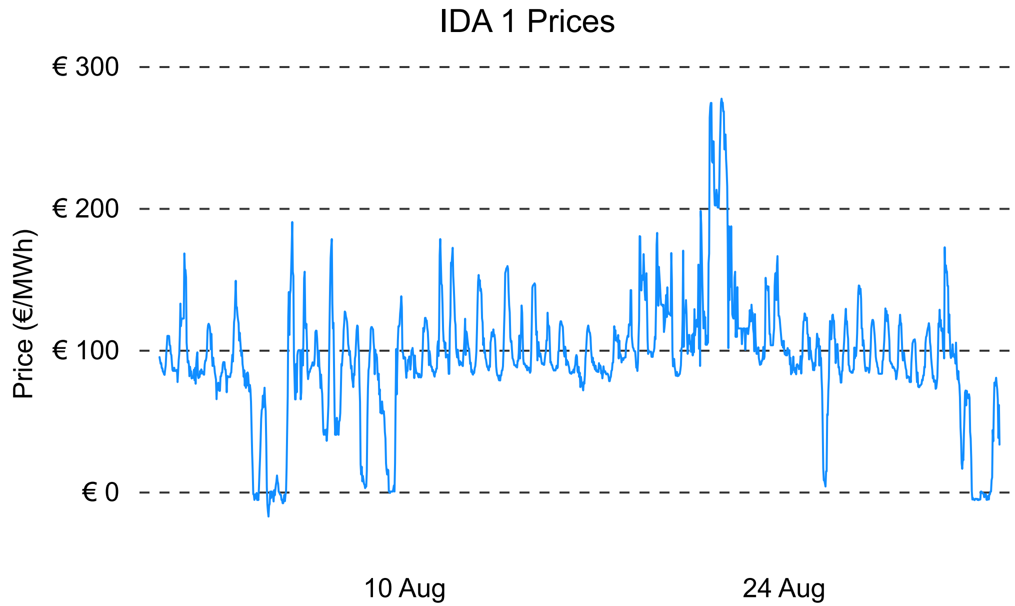
Intraday Market August 2025

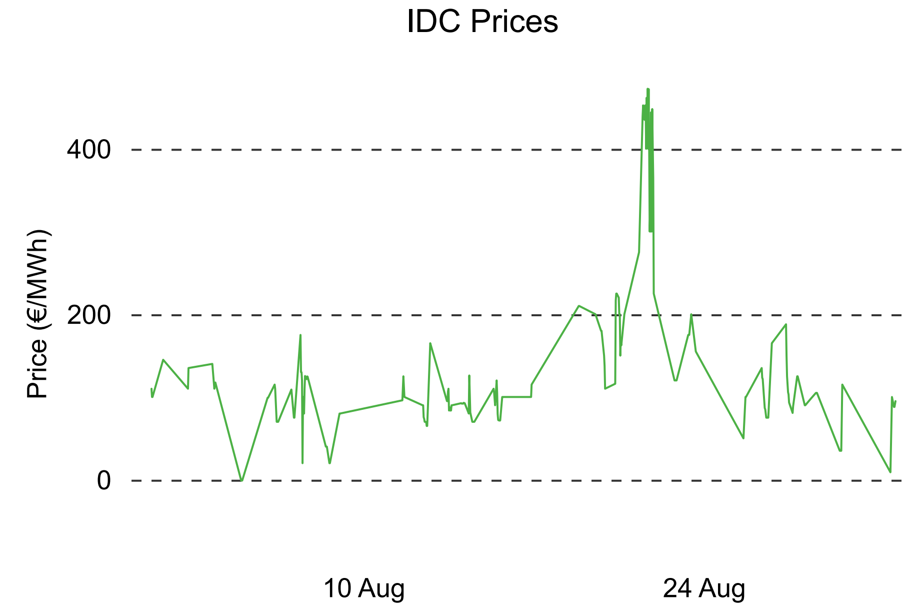
€ 94.71
Average IDA1 Price

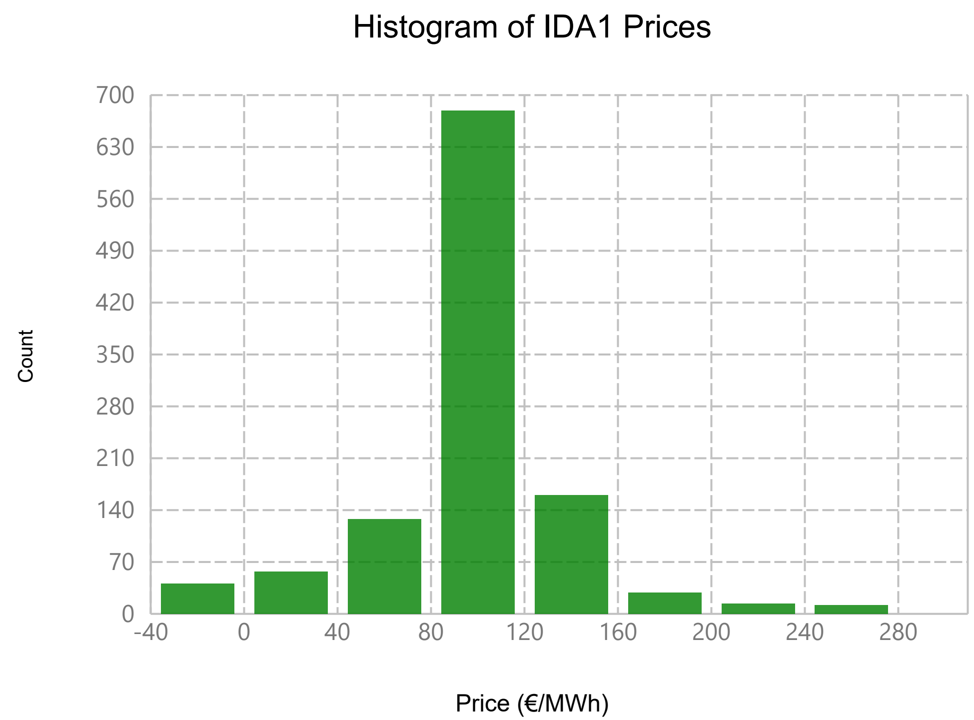
-€ 17.64
Min IDA1 Price

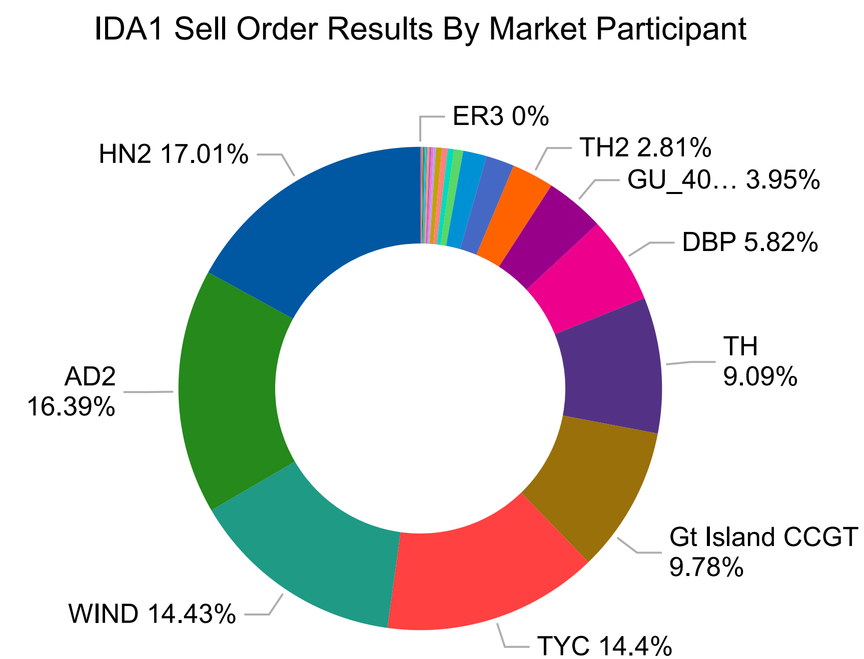
€ 277.00
Max IDA1 Price

The most frequent price range for the month was between €80 and €120.









SEM vs GB DAM August 2025

SEM Day Ahead Price

€ 96.38
Average DAM Price

€ 0.00
Min DAM Price

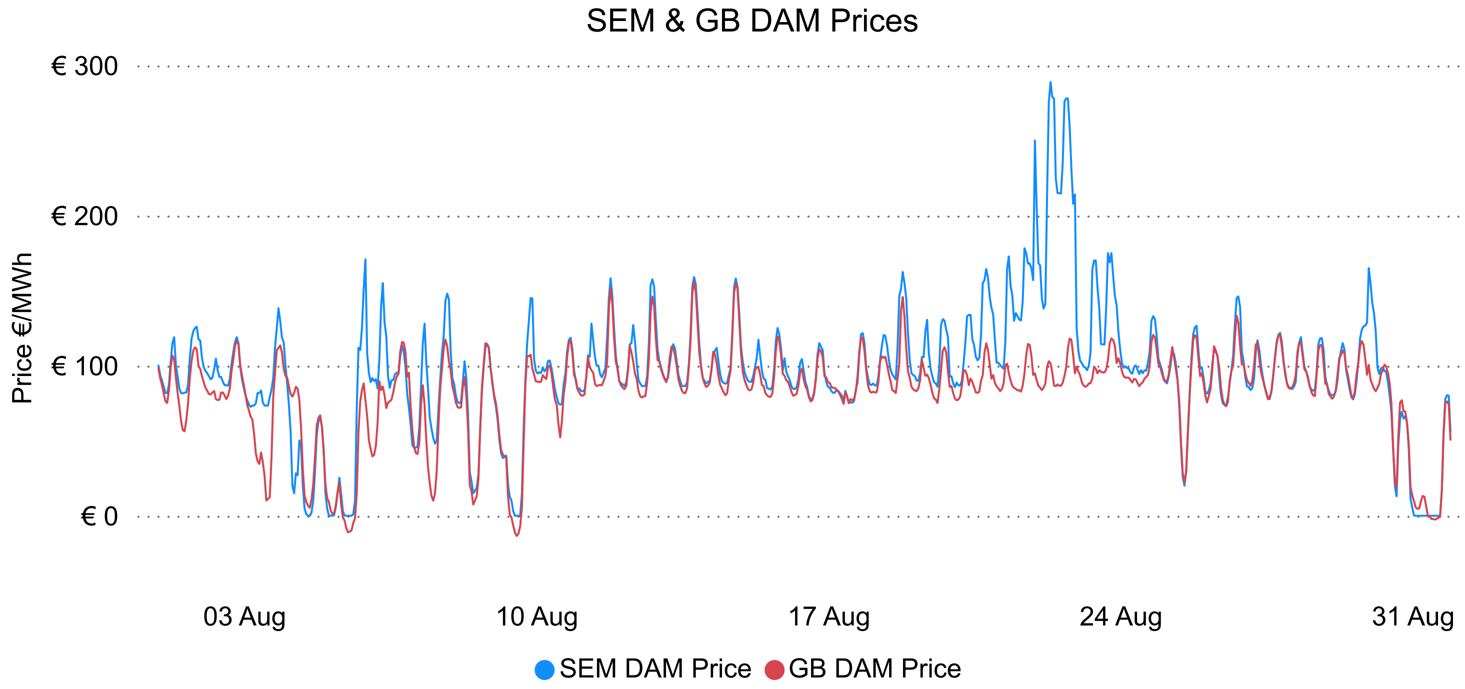
€ 288.98
Max DAM Price

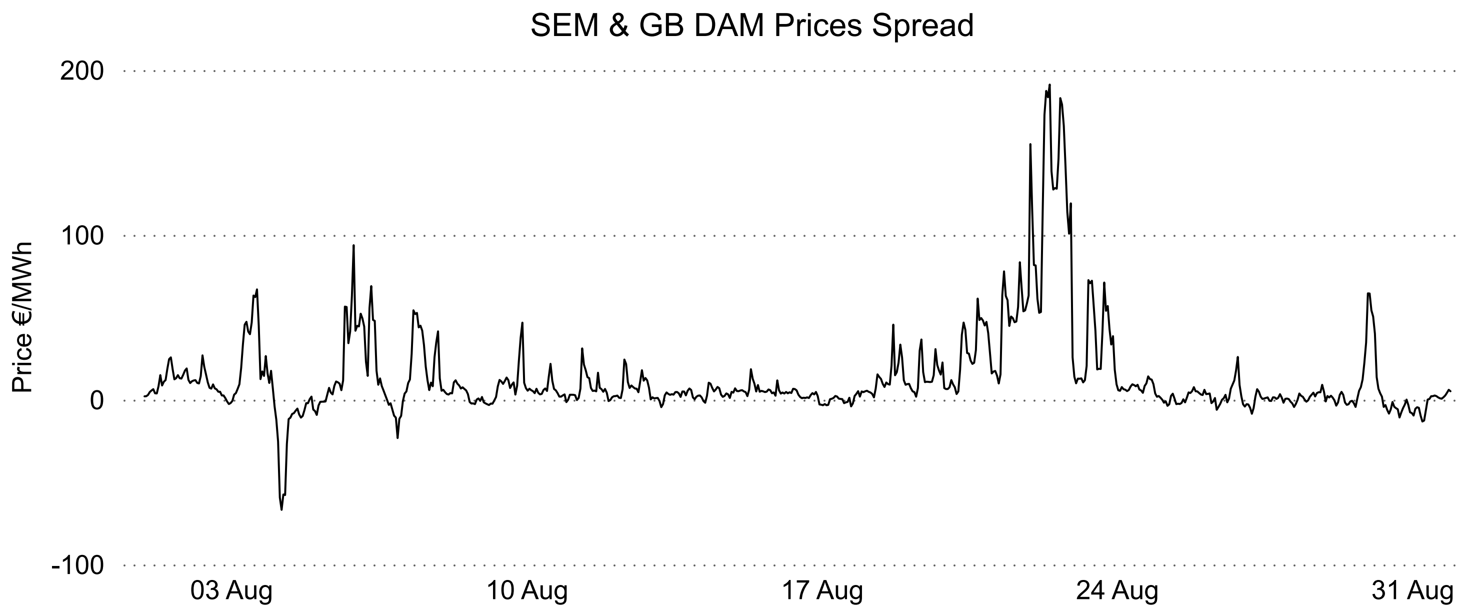
GB Day Ahead Price

€ 82.51
Average Price

-€ 13.43
Min Price

€ 156.47
Max Price





SEM-GB Price Differential

The charts show that the SEM and GB prices appear to follow the same general trend. However significant spreads are observed on several occasions.

A high spread was observed on 21st and 22nd August, driven by an unplanned outage at Great Island (464MW). This intensified stress on an already constrained grid with high unavailability and low wind generation.

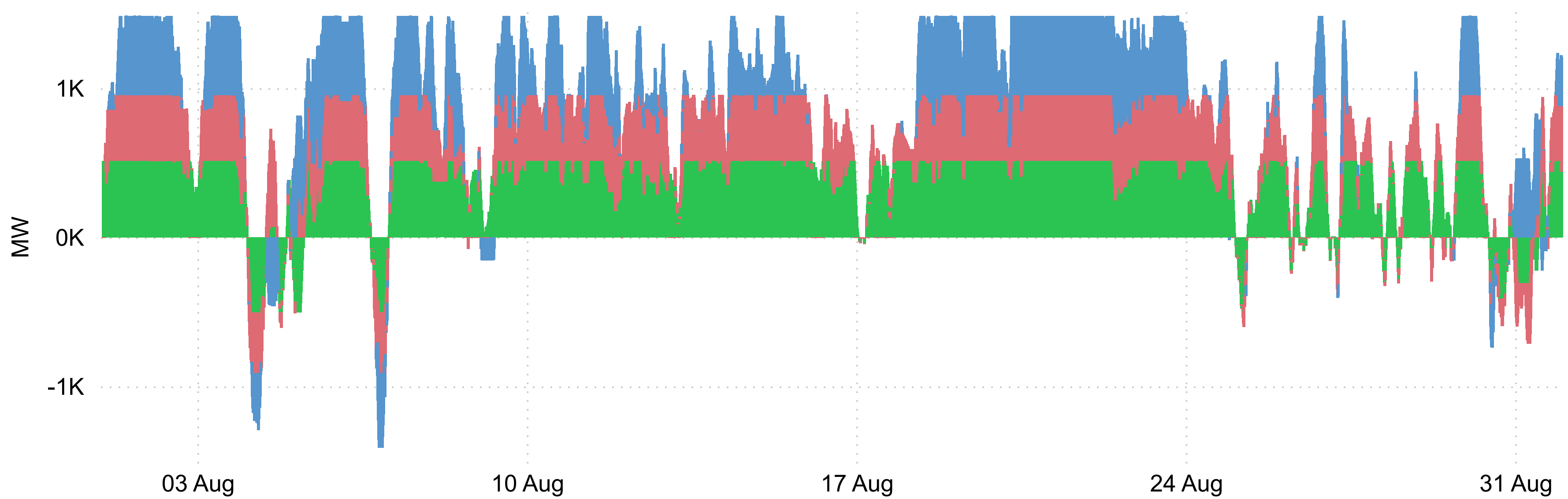
SEM Interconnectors August 2025

As illustrated, the profile of interconnector flows were predominantly importing power across the month. This reflects the predominantly higher prices in the SEM compared with GB.

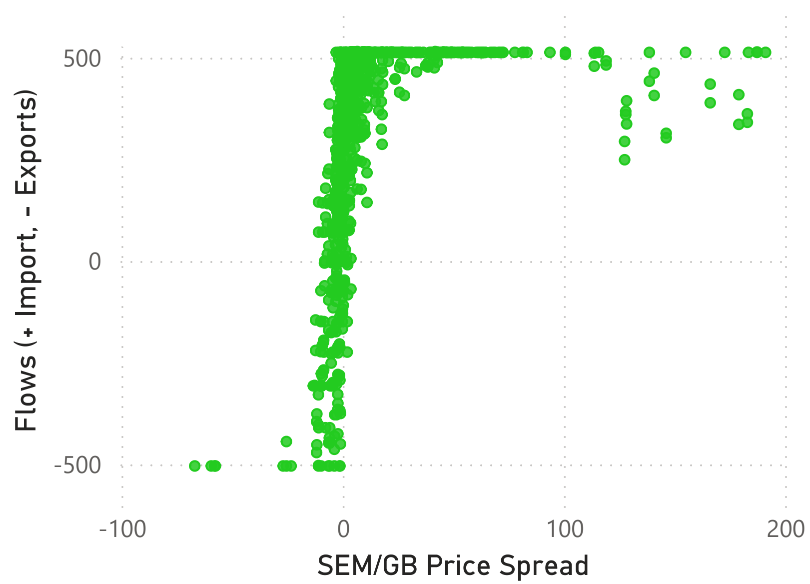
Export flows on interconnectors were also observed occasionally when strong wind output resulted in oversupply in the SEM.

On 21st August net imports reached a record 1,440 MW. This coincided with the lowest wind generation of the year also.

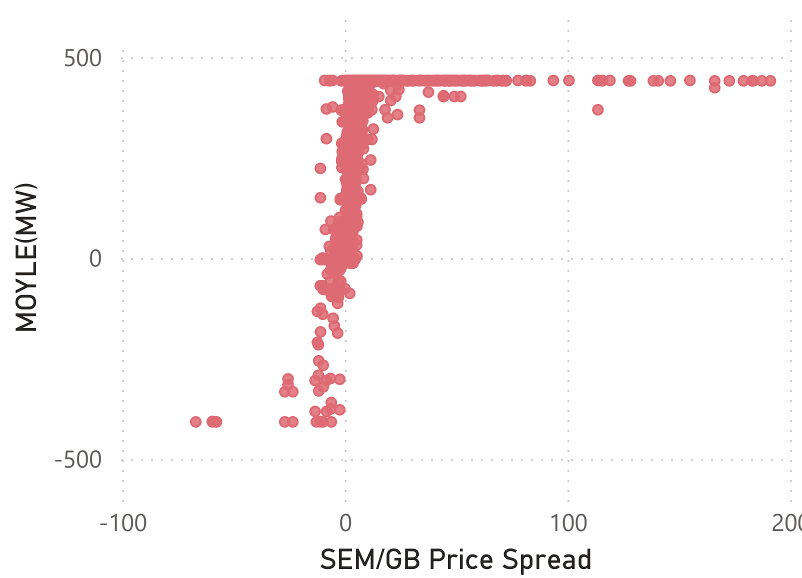
SEM Interconnector Flows



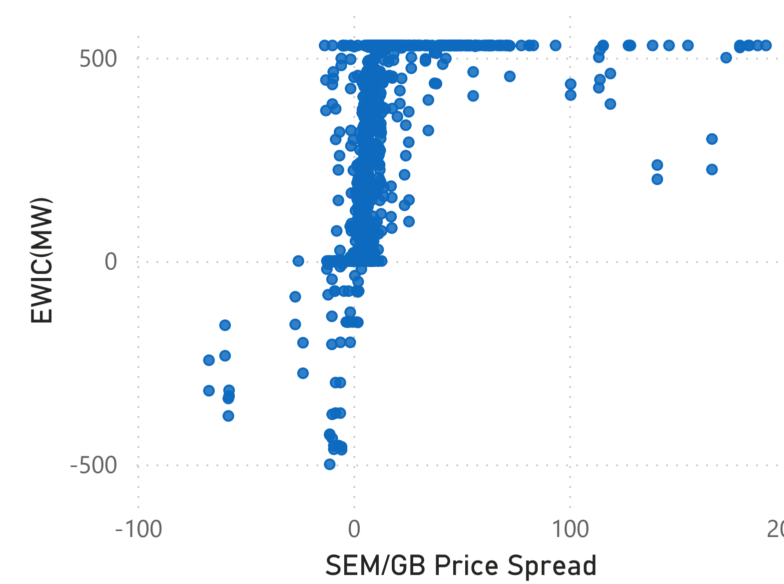
Greenlink Flows vs SEM/GB Price Spread



Moyle Flows vs SEM/GB Price Spread



EWIC Flows vs SEM/GB Price Spread

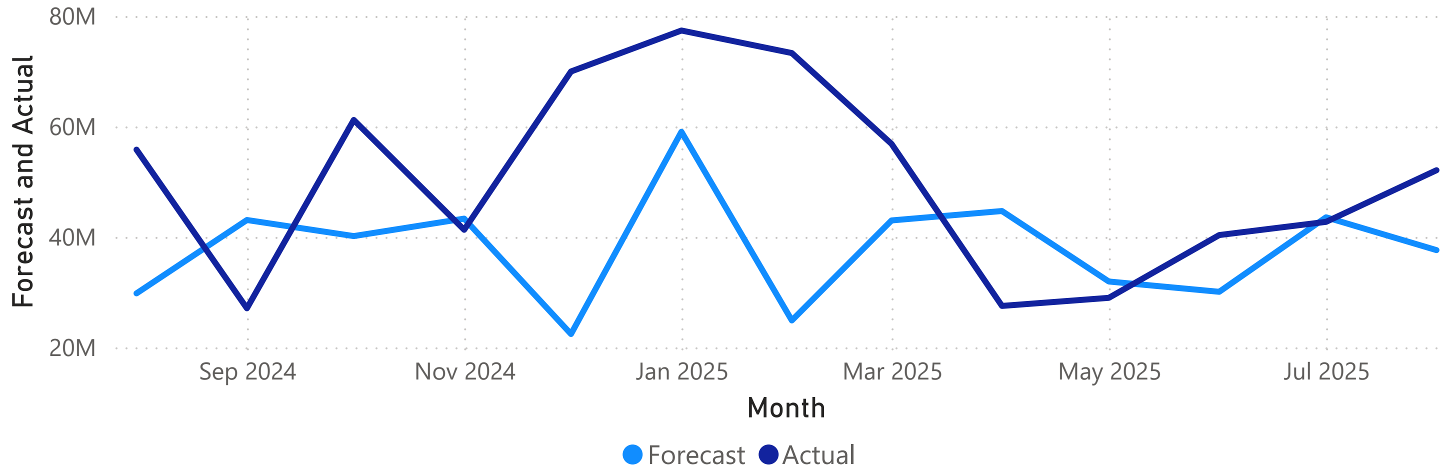


Balancing Market August 2025

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.

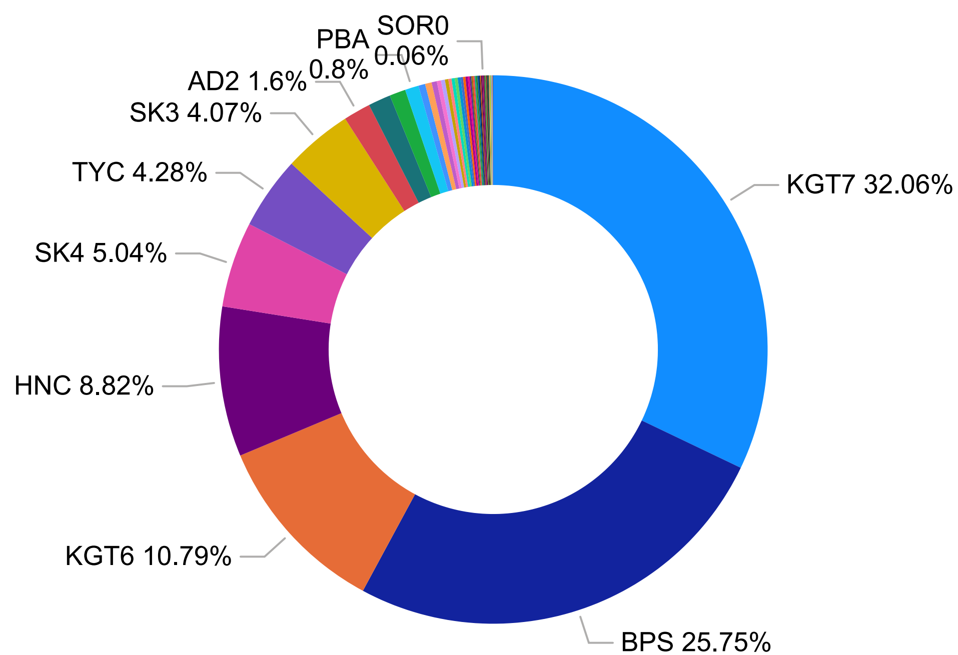
Generators can be constrained ‘on' or ‘up' if the market schedule indicated they were to be run at lower levels than actually happened. Or they could be constrained ‘down' or ‘off' if they were to be run at a higher level than happened in reality. There is always an overall net cost to the system associated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

Imperfection Costs - Forecast vs Actual



Determinant Name	Value €
CABBPO	31,715.90
CAOOPO	-141,421.95
CCURL	-1,048,710.39
CDISCOUNT	18,528,469.23
CFC	20,153,759.51
CPREMIUM	15,735,591.13
CTEST	-4,282.11
CUNIMB	-1,182,028.66
Total	**52,073,092.67**

Market Share per Unit (CFC, CPREMIUN, CDISCOUNT)



Constraints Payments

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

Balancing Market August 2025

30 Minutes Imbalance Price

€ 107.22
Average Price

-€ 42.83
Lowest Price

€ 491.18
Highest Price

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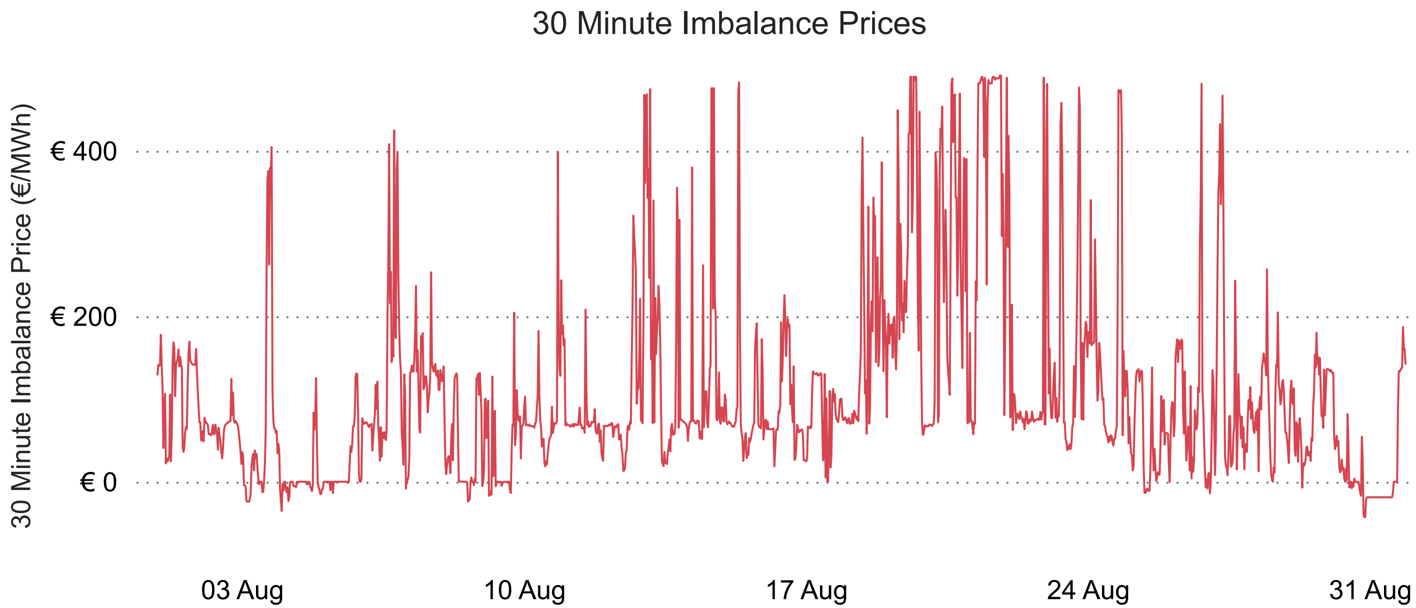
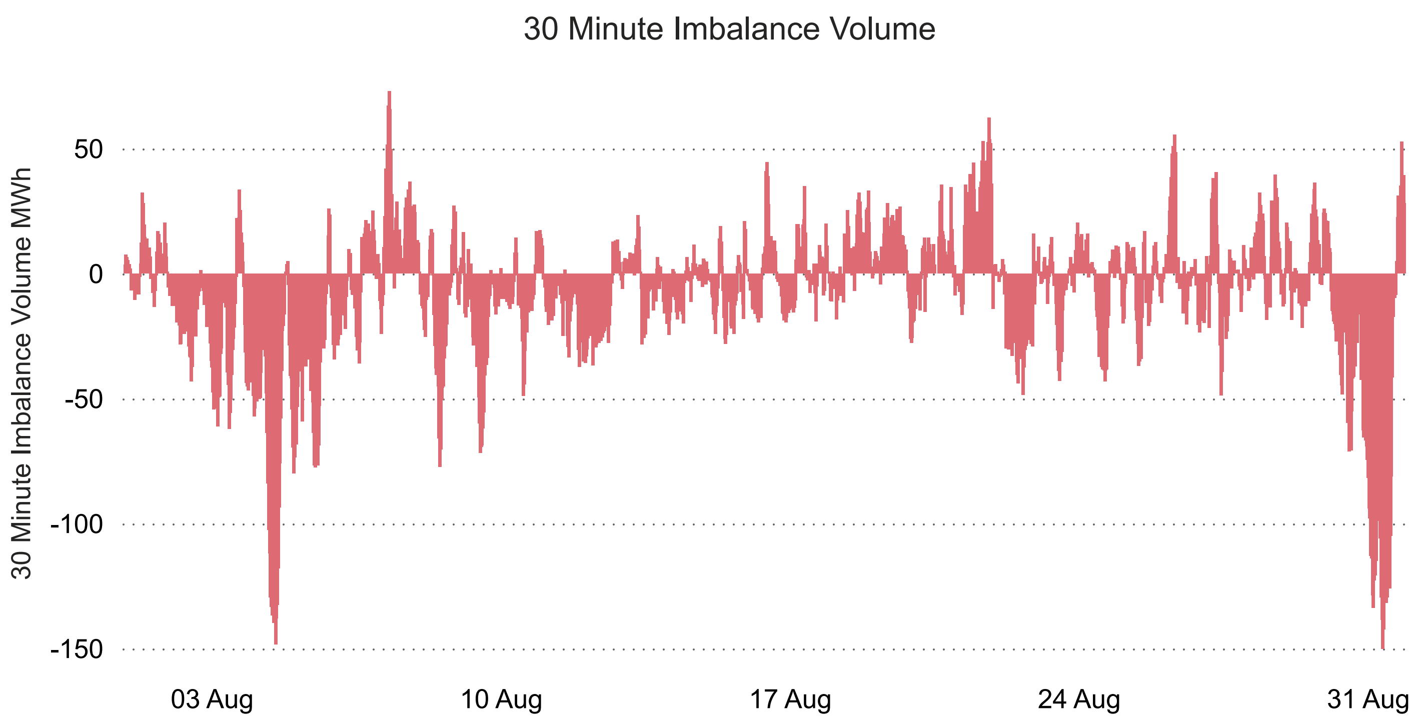
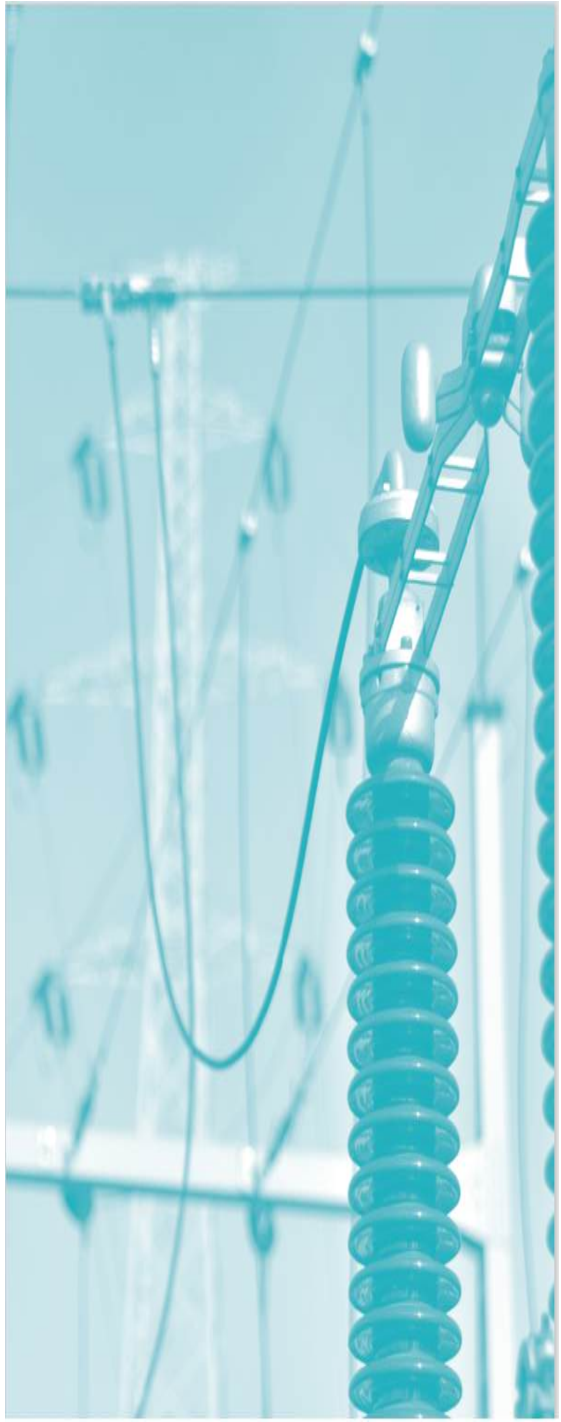
Imbalance Price & Volumes





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 August 2025

SEM Demand

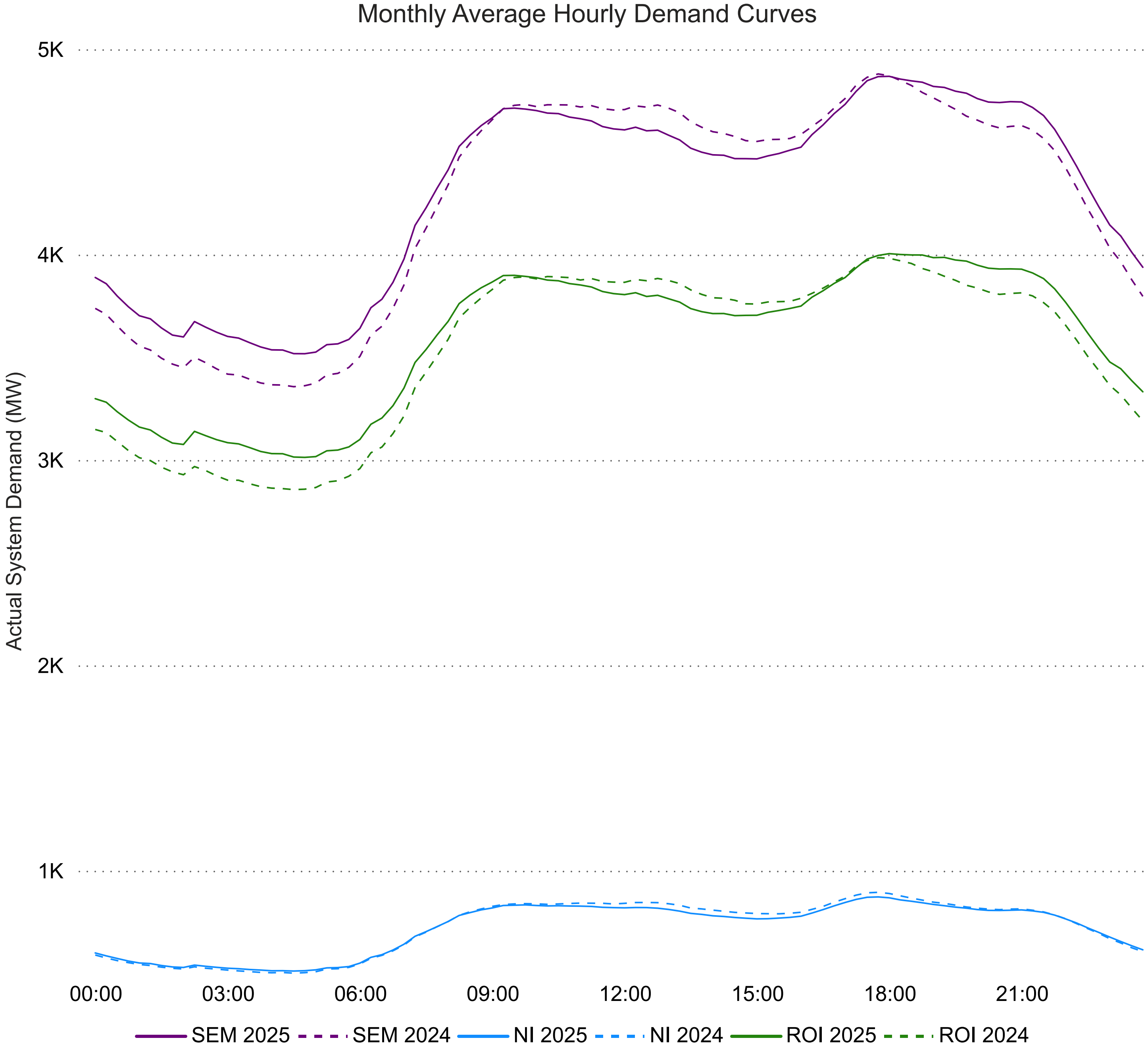
4,304.74 SEM Average 2025	4,254.95 SEM Average 2024
3,517.48 SEM Min 2025	3,356.90 SEM Min 2024
4,868.20 SEM Max 2025	4,879.81 SEM Max 2024

NI Demand

718.74 NI Average 2025	724.54 NI Average 2024
511.61 NI Min 2025	501.32 NI Min 2024
872.48 NI Max 2025	894.94 NI Max 2024

ROI Demand

3,594.80 ROI Average 2025	3,530.41 ROI Average 2024
3,012.76 ROI Min 2025	2,855.65 ROI Min 2024
4,004.74 ROI Max 2025	3,984.87 ROI Max 2024



SEM Demand

The graph indicates a 1% increase in all-island demand compared to the same period last year.

ROI demand increased by 1.8% relative to the same period last year. Due to increased solar adoption, ROI's demand now exhibits a midday dip (Commonly referred to as the 'duck curve' effect).

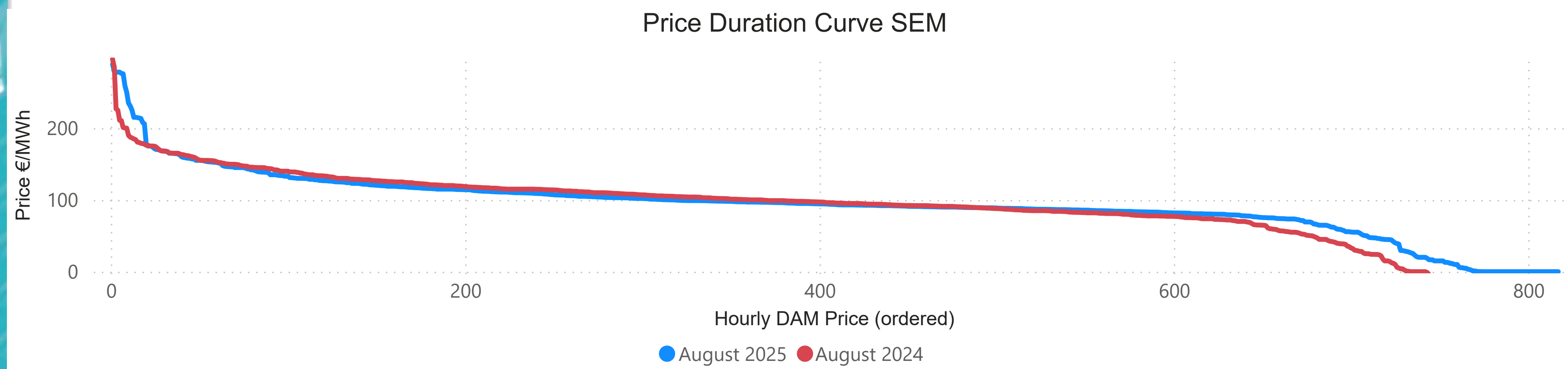
On the other hand, NI demand experienced a 0.8% decrease compared to the same period last year.

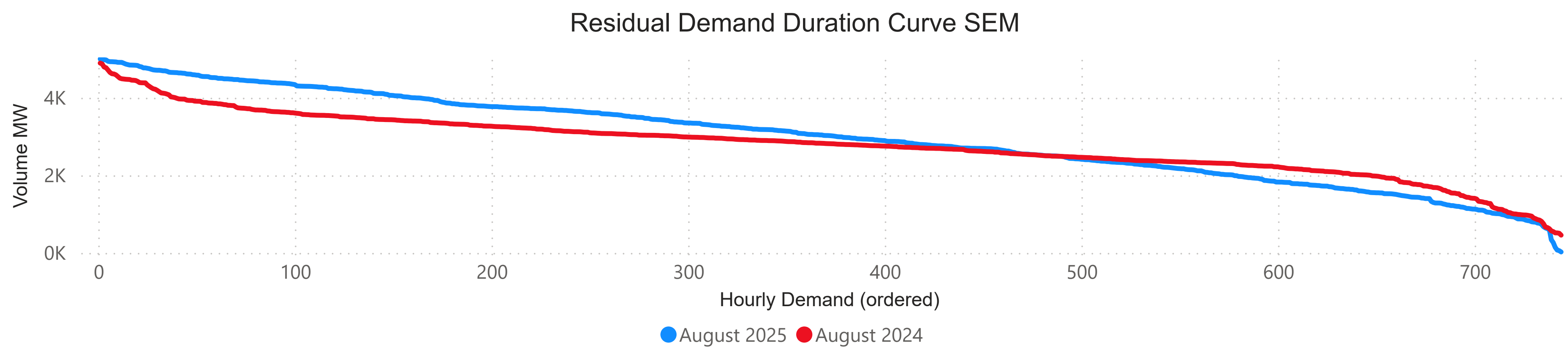
Duration Curves August 2025

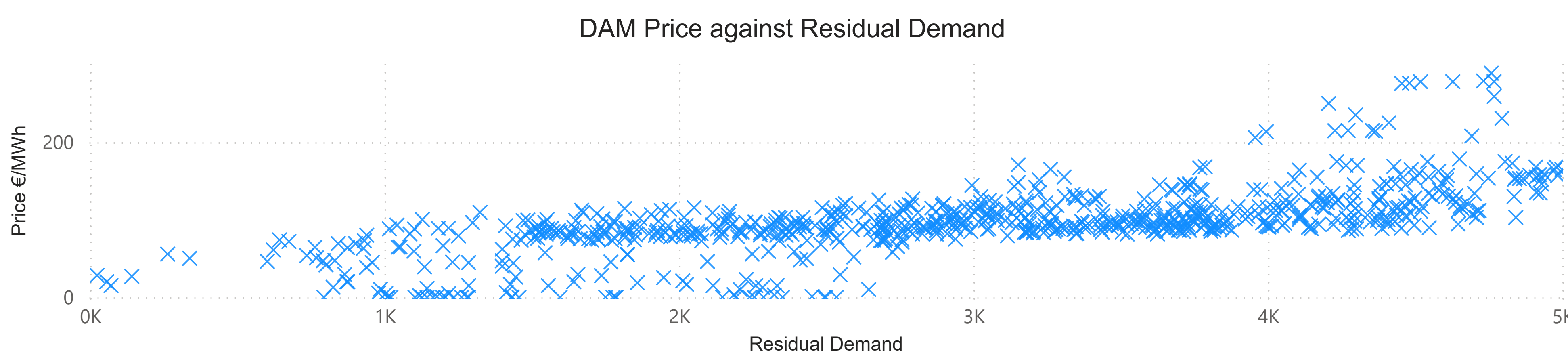
Price Duration
The price duration curve shows the hourly DAM prices across the month ordered from the largest to the smallest.

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.



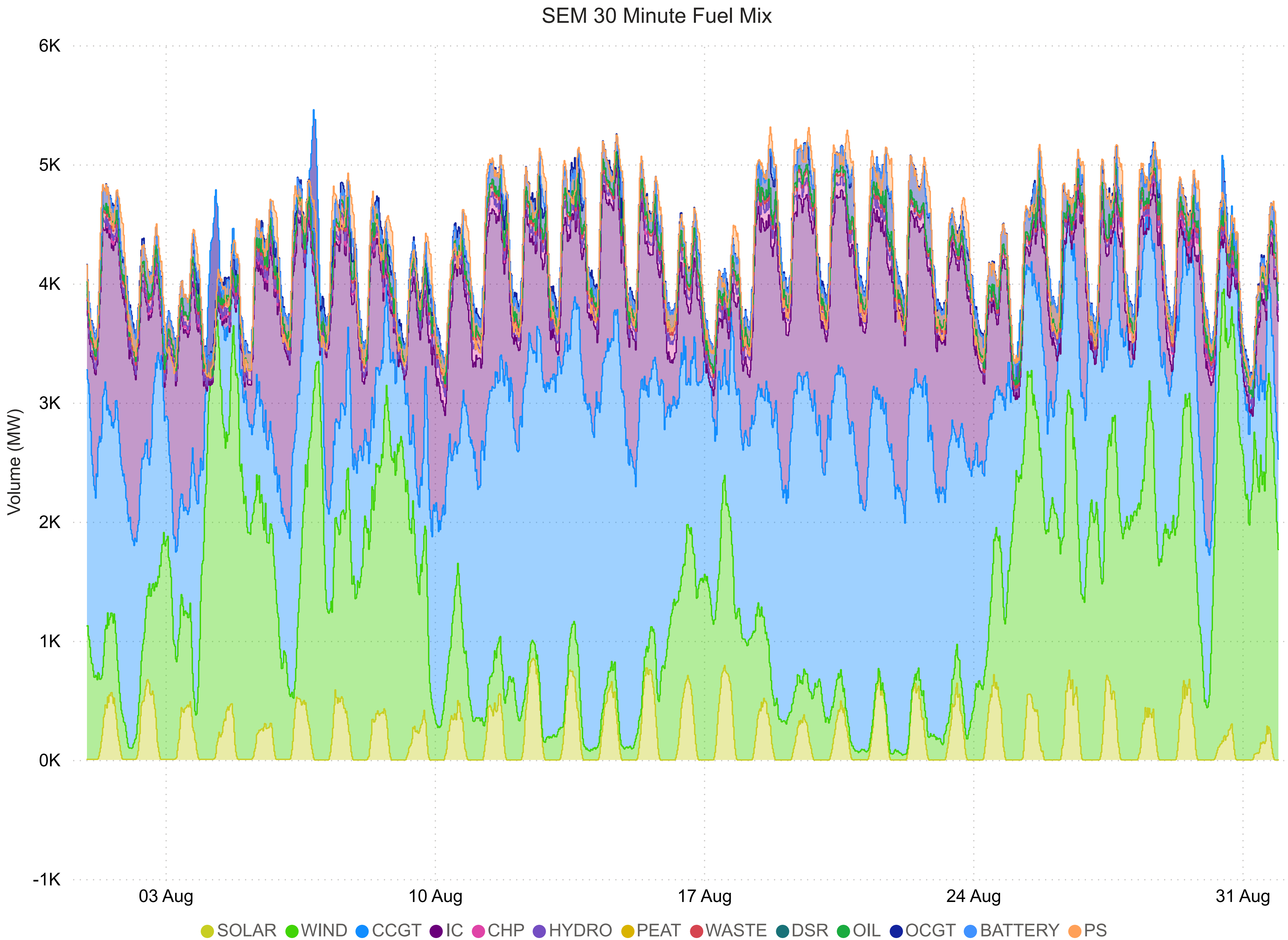




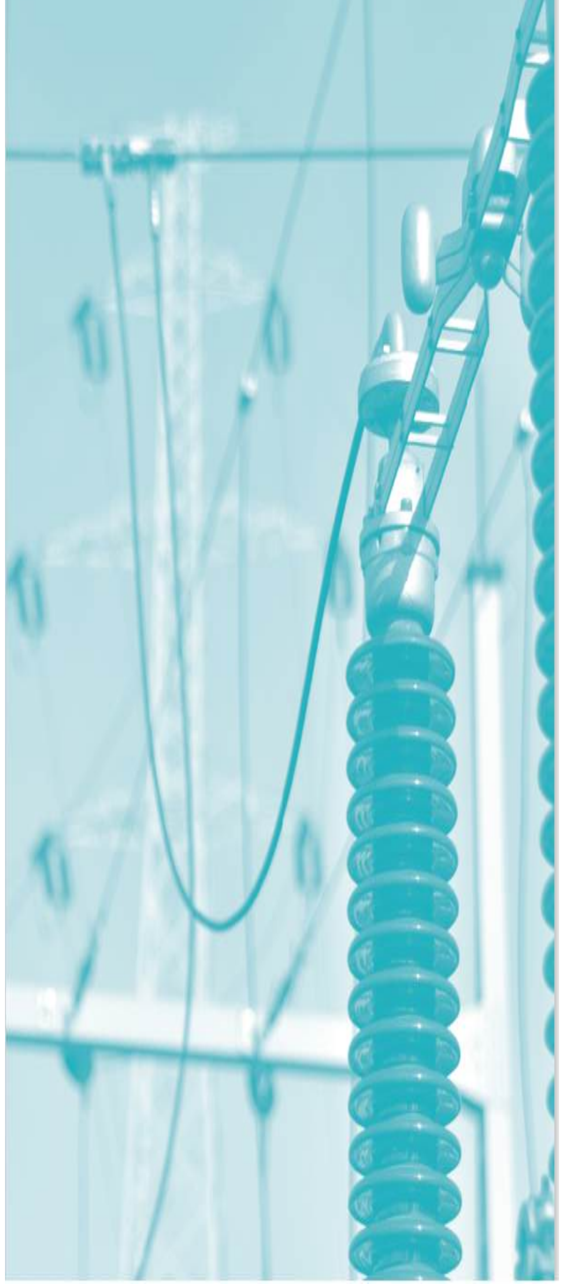
Fuel Mix August 2025

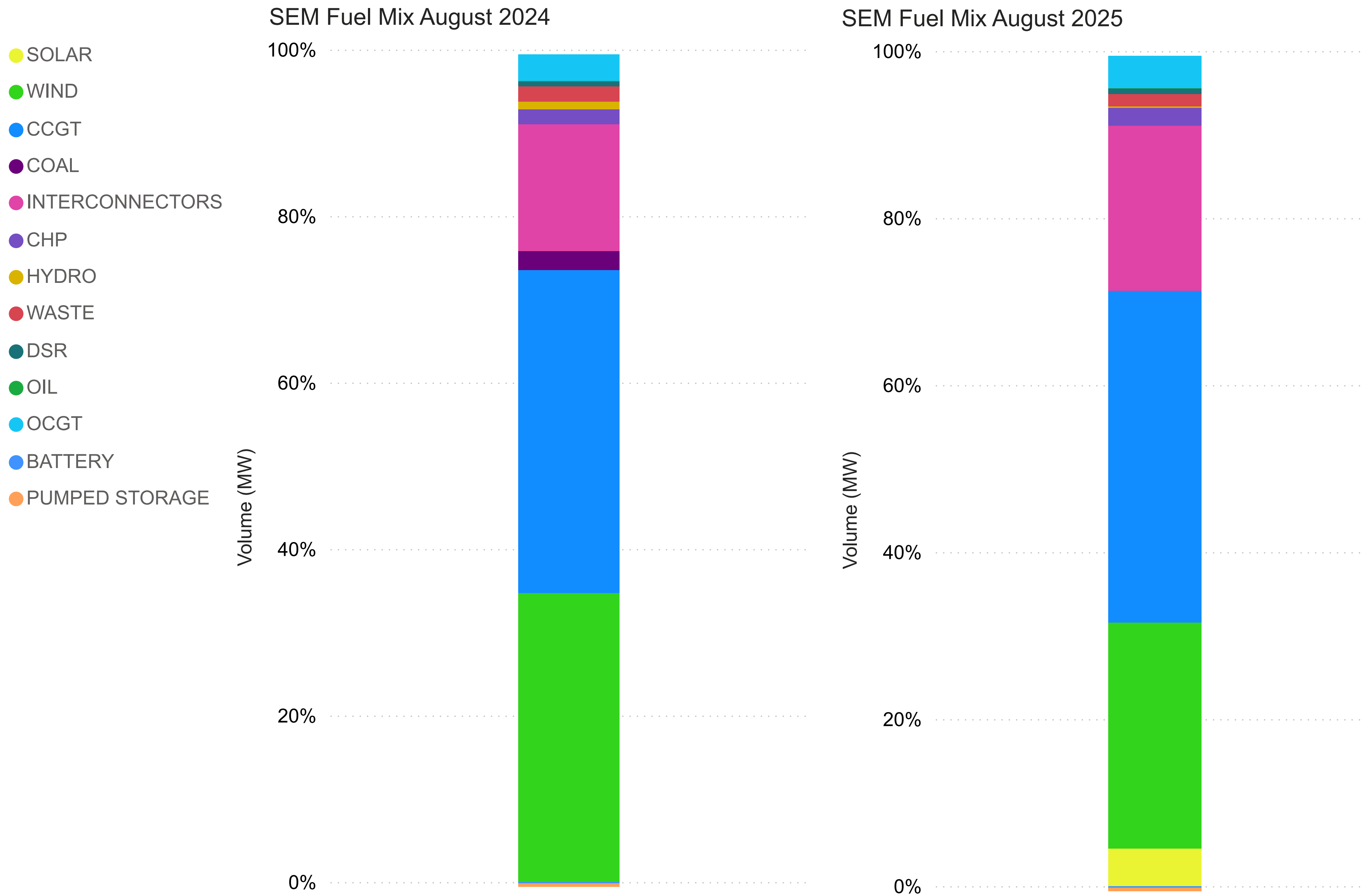
Fuel Type	Avg Monthly	Per. Monthly
CCGT	1714	40.2%
WIND	1169	27.4%
INTERCONNECTORS	854	20.0%
SOLAR	194	4.5%
OCGT	167	3.9%
CHP	91	2.1%
WASTE	64	1.5%
DSR	30	0.7%
HYDRO	7	0.2%
OIL	1	0.0%
PEAT	0	0.0%
BATTERY	-8	-0.2%
PUMPED STORAGE	-17	-0.4%

Fuel Type	Max Monthly	Min Monthly
WIND	3765	21
CCGT	3277	687
INTERCONNECTORS	1497	-1399
SOLAR	853	-2
OCGT	410	5
PUMPED STORAGE	291	-300
BATTERY	219	-142
CHP	160	39
WASTE	80	16
OIL	63	0
HYDRO	60	0
DSR	44	0
PEAT	0	0



Fuel Mix Comparison August 2024 & 2025





North-South Tie Line August 2025

Average Flow NI to ROI (MW)

-187.21

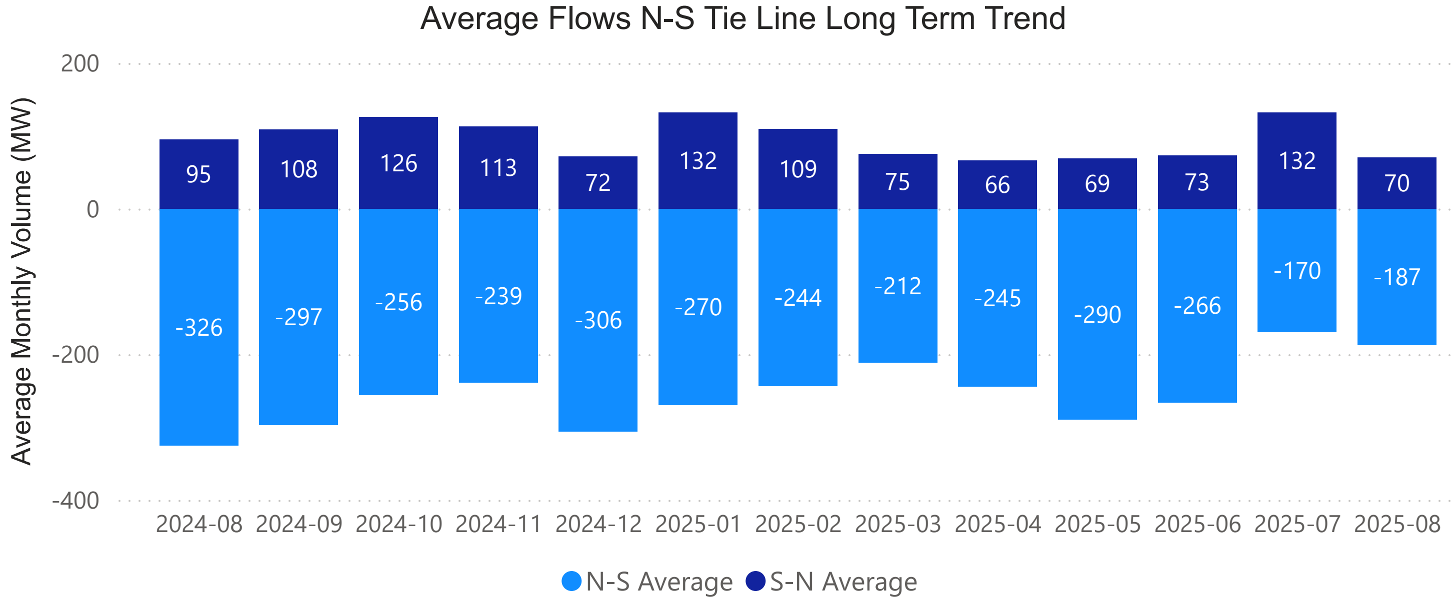
Average Flow ROI to NI (MW)

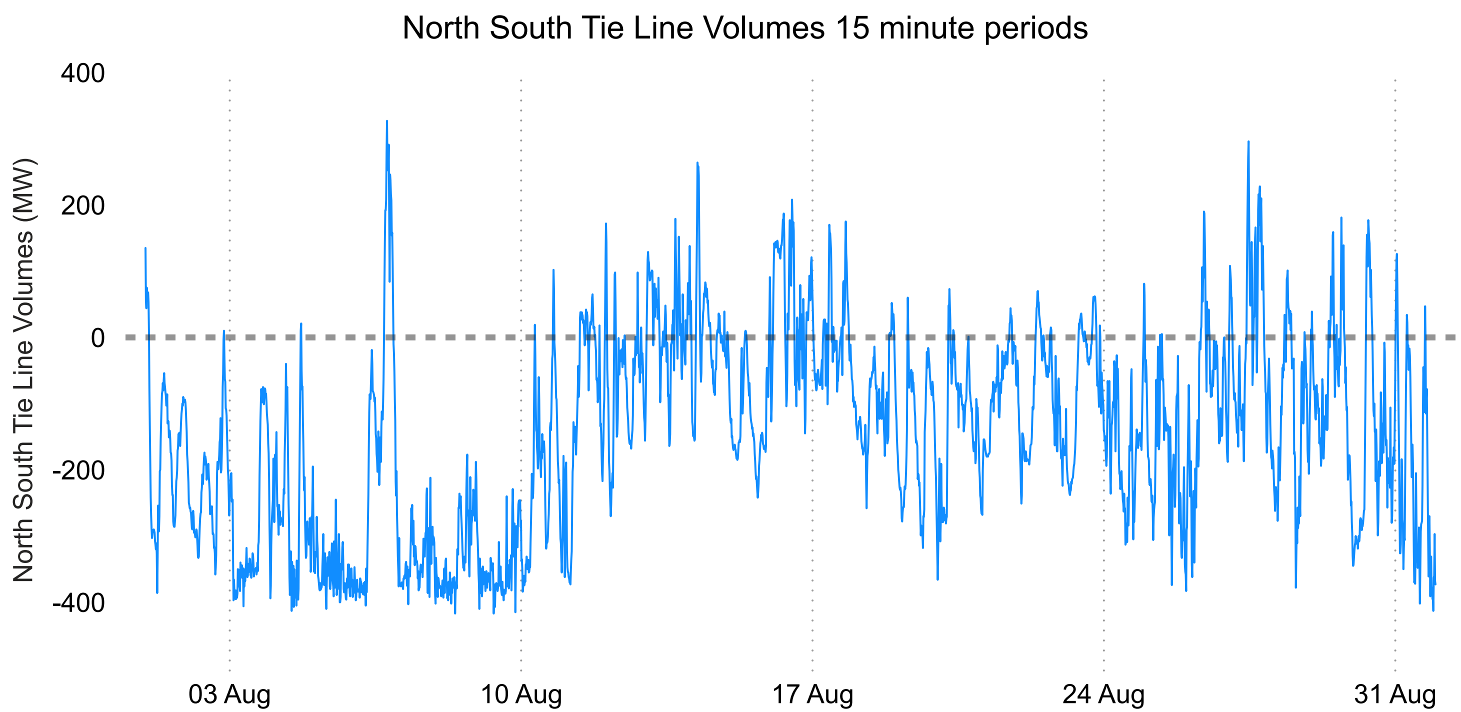
70.36

Average Net Flow NI to ROI (MW)

-144.50

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





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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 August 2025

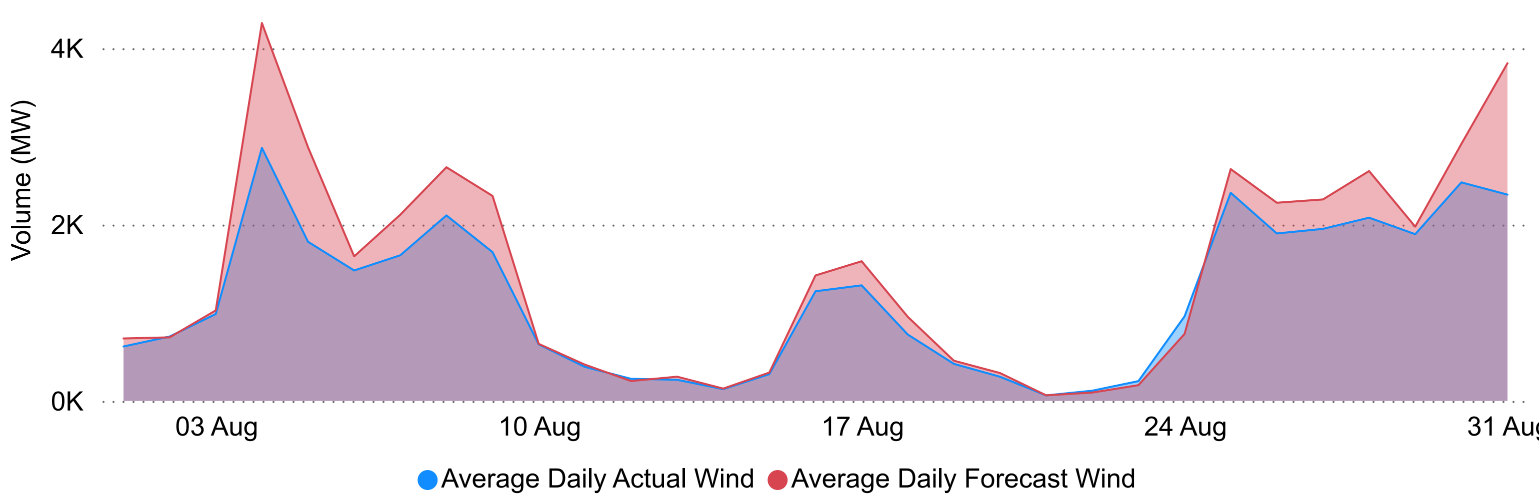
Average Daily Actual Wind (MW)
1,169

Average Daily Forecast Wind (MW)
1,441

Min SNSP%
6.64

Max SNSP%
73.51

Actual Daily Average Wind Relative to Forecast Daily Average Wind



SNSP %

Wind Generation

Average wind output increased by 11% from last month but decreased by 19% 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.

CO_2 August 2025

CO2 Intensity (gCO2/kWh)

185.14
Average

92
Lowest

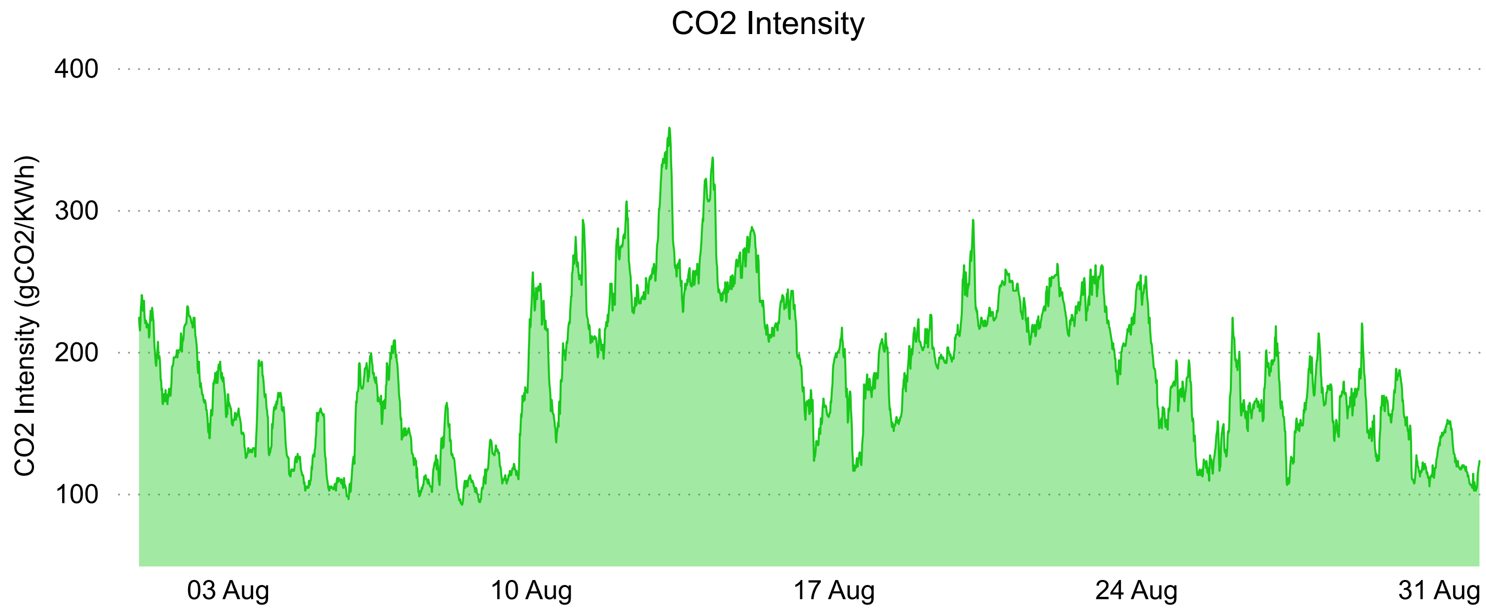
358
Highest

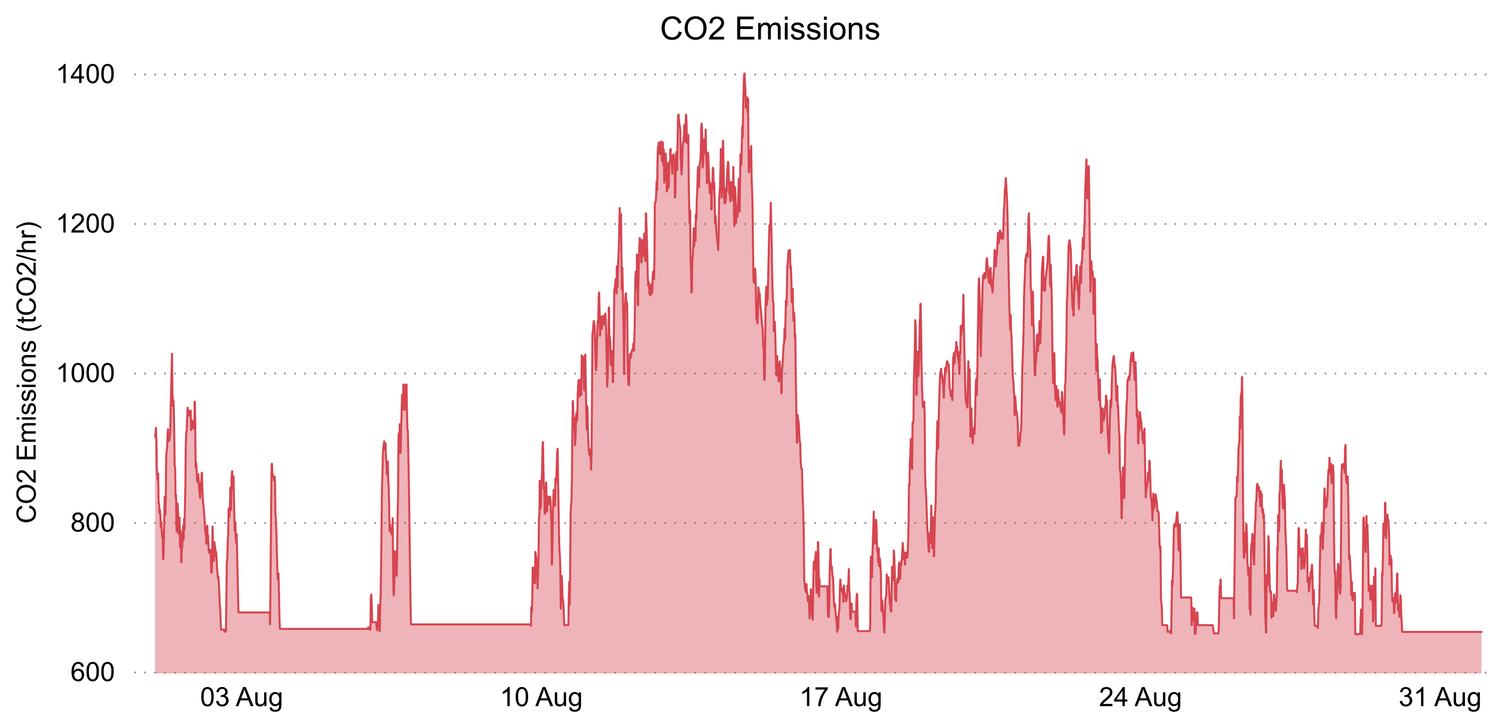
CO2 Emissions (tCO2/hr)

848.71
Average

650
Lowest

1400
Highest



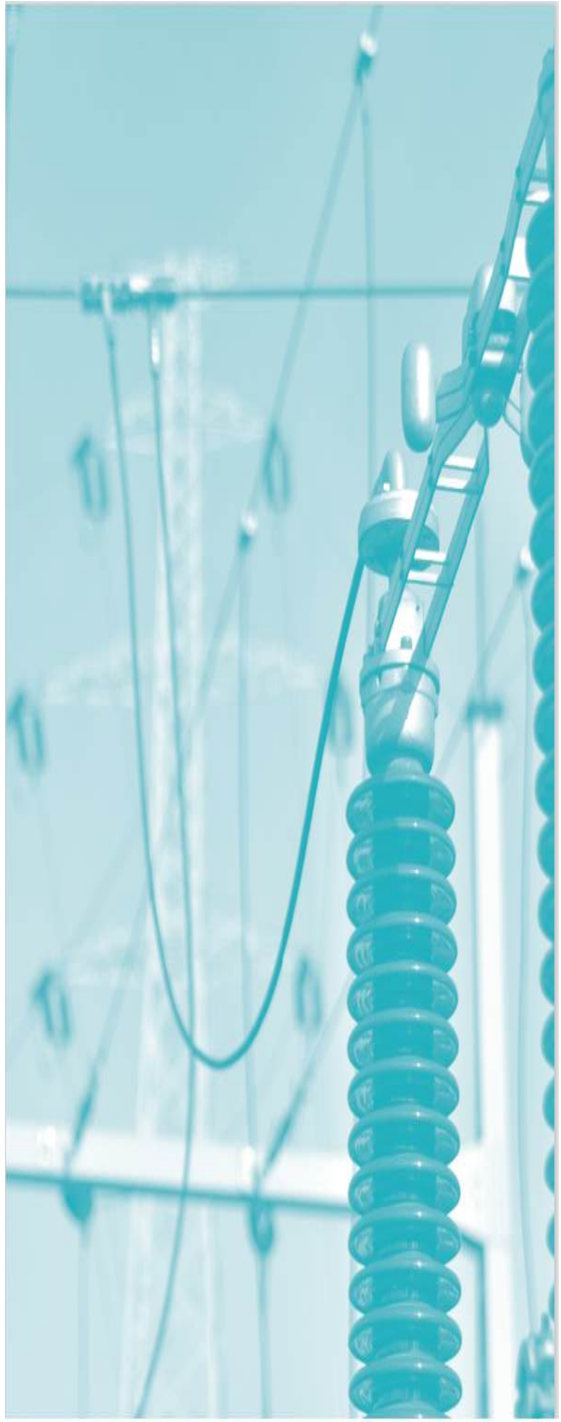


CO_2 Intensity

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.



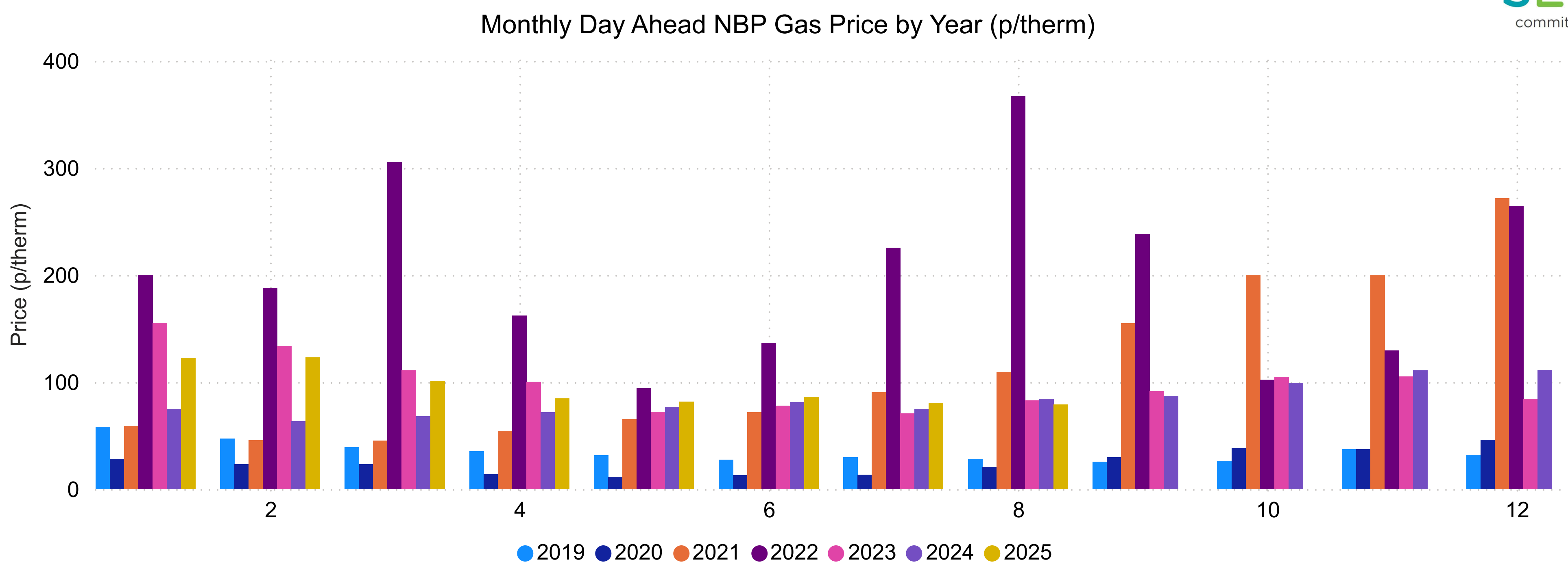
Fuel Costs and Spreads

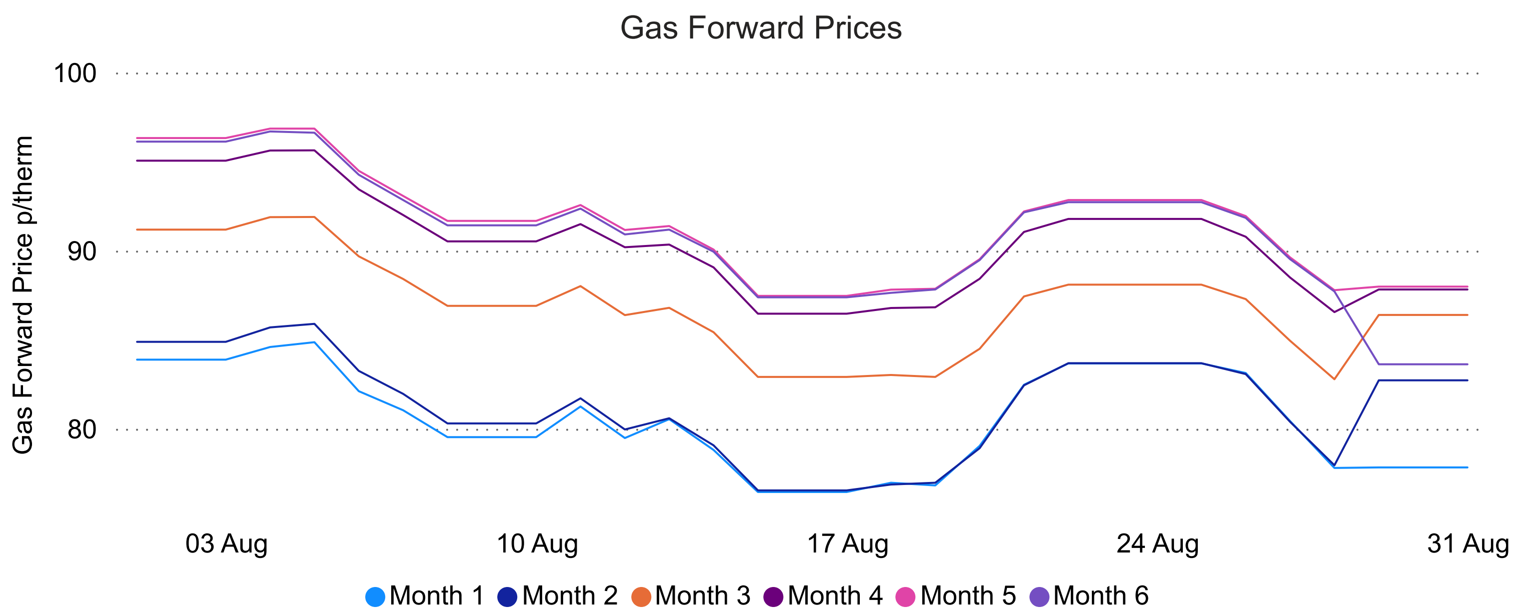
Gas Price August 2025

79.25
Monthly Average (p/therm)

75.60
Monthly Low (p/therm)

82.90
Monthly High (p/therm)





Gas Prices

Gas prices experienced an average decrease of 2% compared to the previous month.

Gas Forward Prices

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

Carbon Price August 2025

EU Carbon Prices (€/tonne)

€ 71.81
Monthly Average

€ 70.63
Monthly Low

€ 72.99
Monthly High

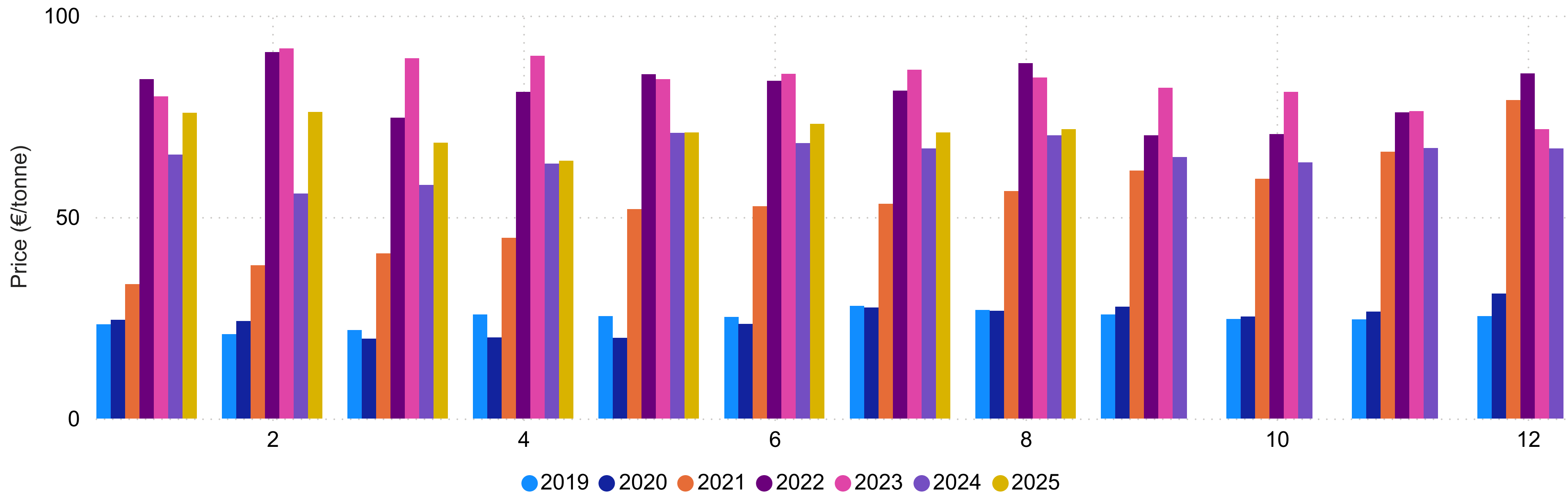
UK Carbon Prices (€/tonne)

€ 59.23
Monthly Average

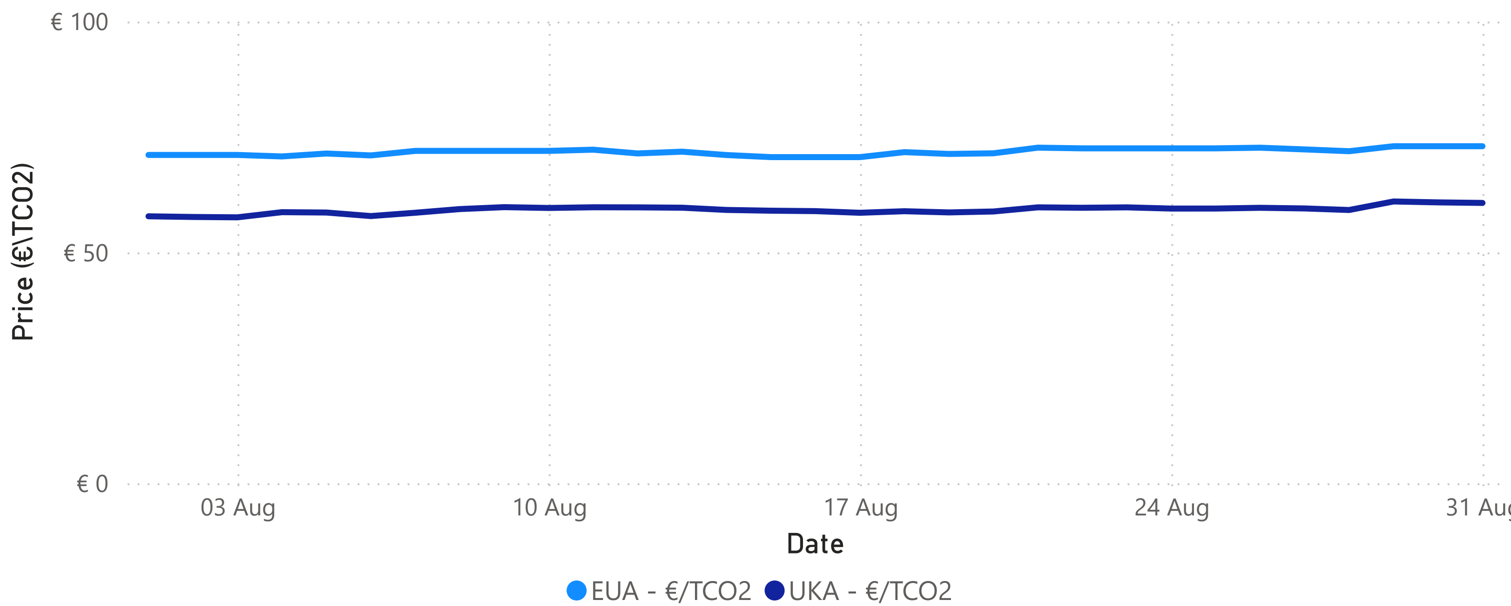
€ 57.59
Monthly Low

€ 61.02
Monthly High

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



UK & EU Carbon Prices

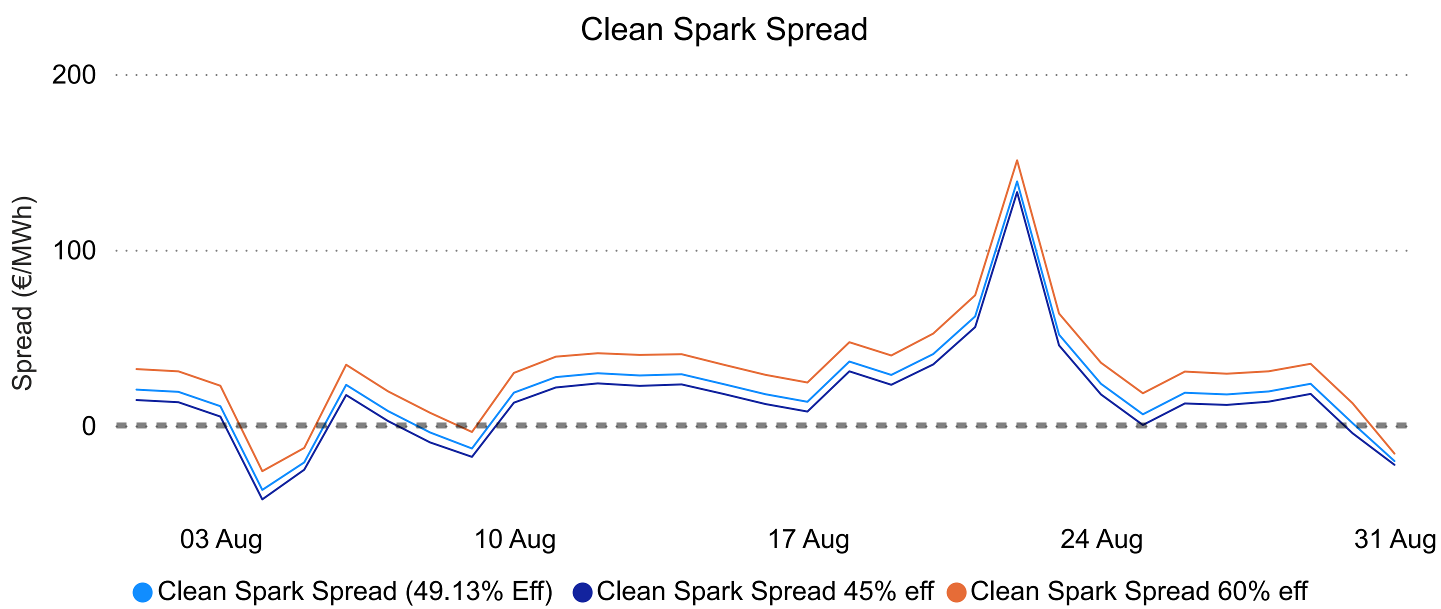


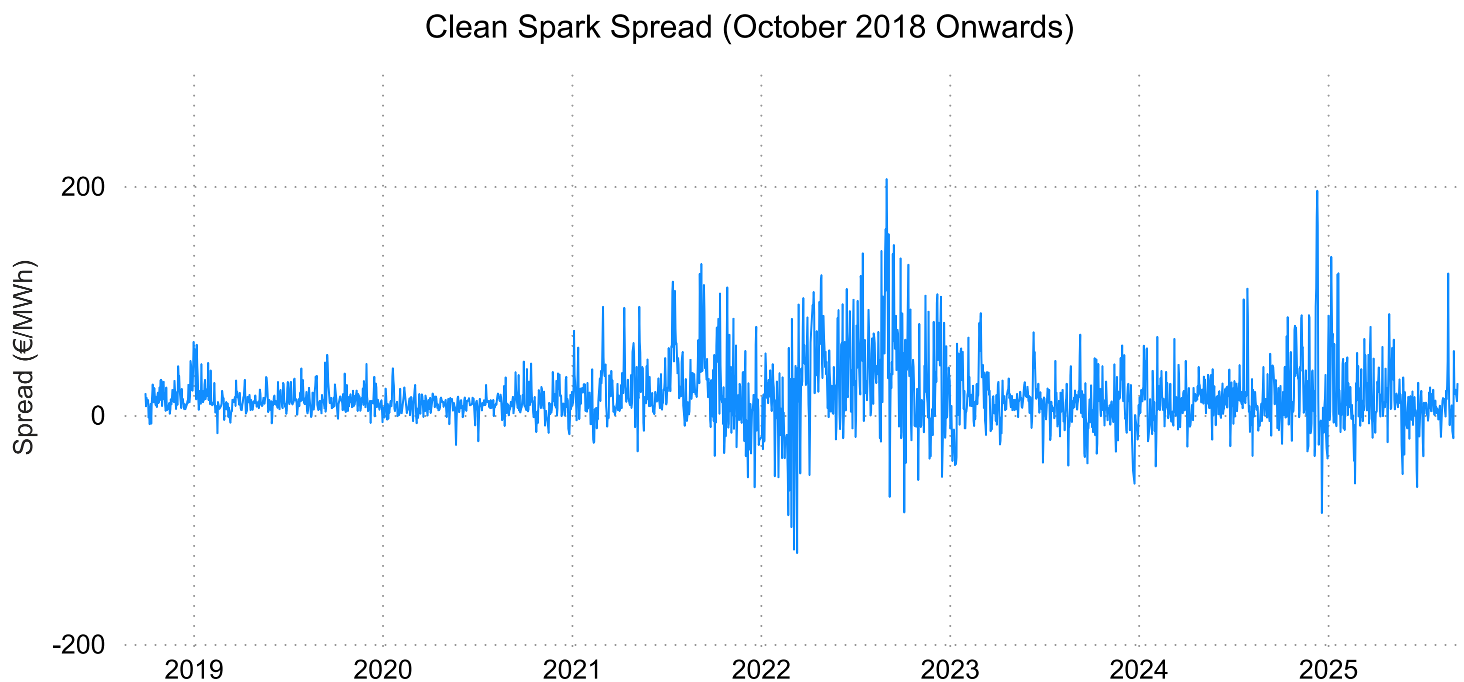
Carbon Prices

Carbon prices averaged €71.81/tonne, with a 1% increase on average from last month.

Spark Spreads August 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

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 August. This is attributed to strong wind generation. With an average DAM price of €43/MWh on the 4th August and an estimated short-run marginal cost for a CCGT (49.13% Eff) of €80/MWh, the theoretical Spark Spread would therefore be -€37/MWh.