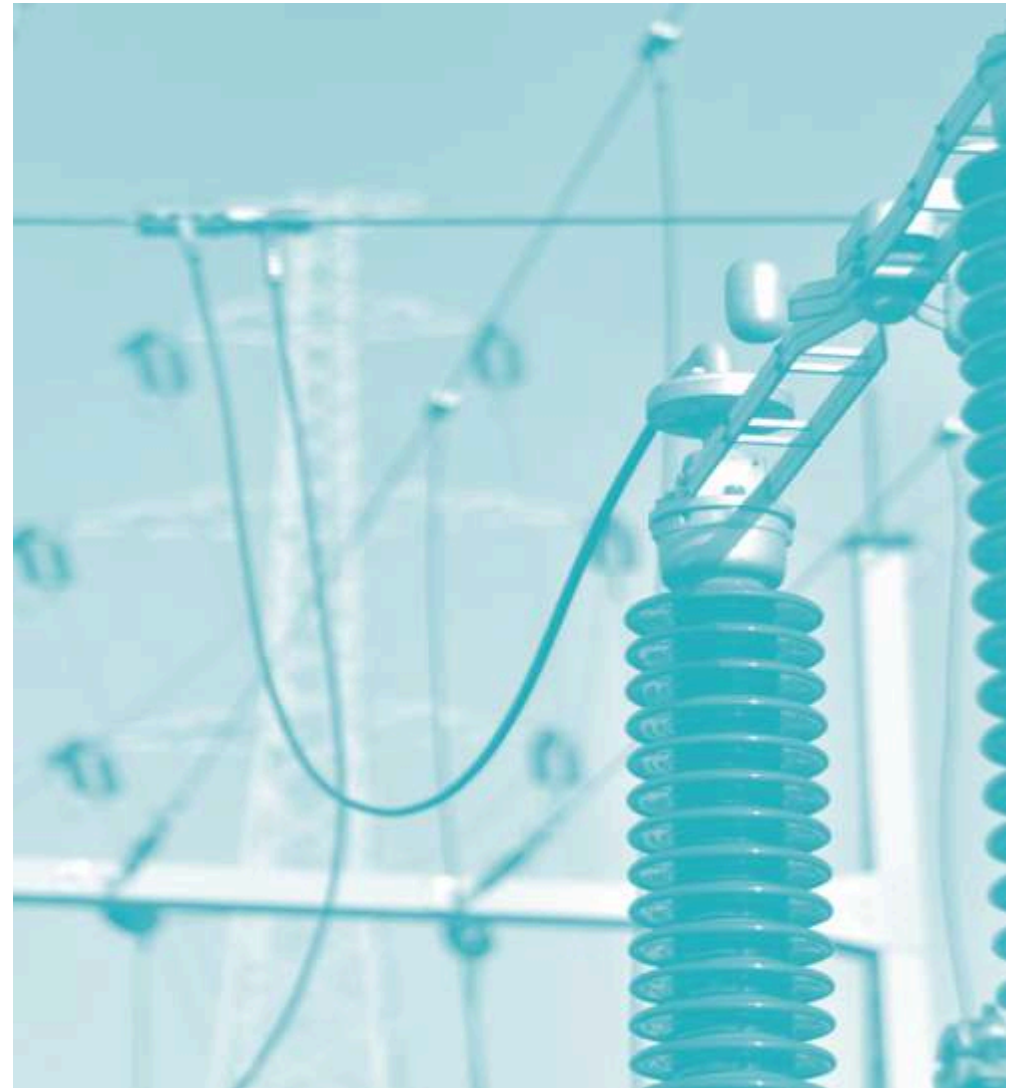
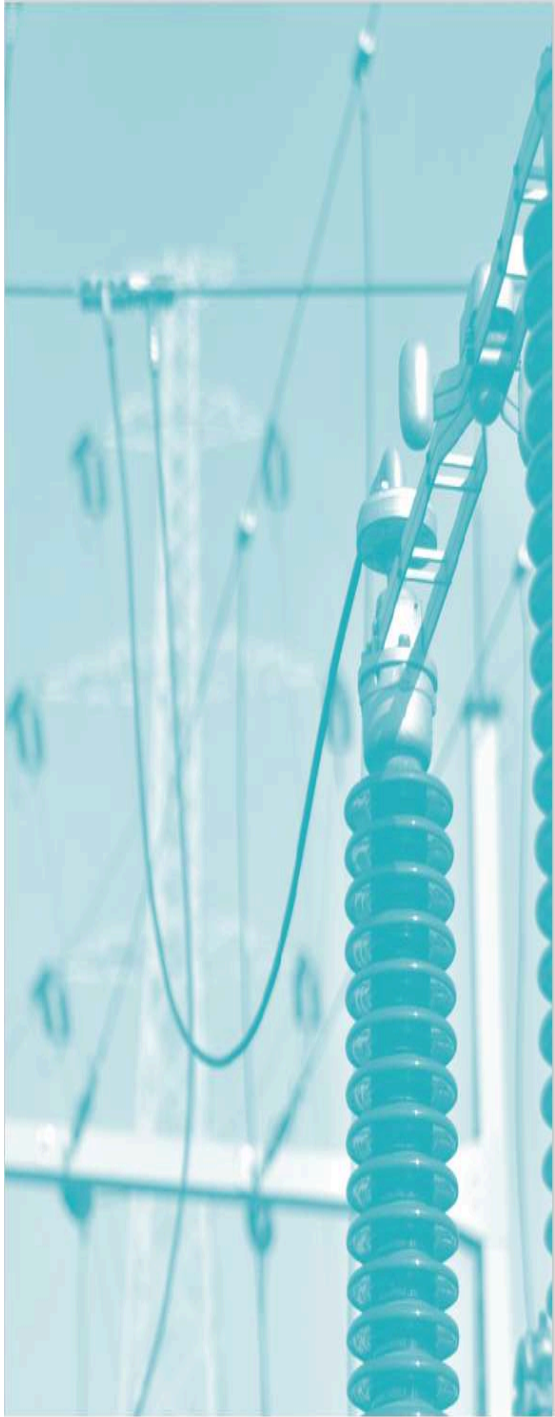




Energy Market Monitoring Report

July 2026



Market Results

Summary Dashboard

Monthly Market Metrics	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26
DAM (€/MWh)	99.61	96.38	94.47	100.67	122.79	108.47	126.95	107.97	128.77	131.19	144.52	135.52	155.54
% Change from previous month	5%	-3%	-2%	7%	22%	-12%	17%	-15%	19%	2%	10%	-6%	15%
% Change from previous year	-10%	-4%	-16%	-18%	-16%	-21%	-24%	-23%	-2%	18%	33%	42%	56%
Total System Demand (GWh)	3,241	3,203	3,235	3,585	3,744	3,880	4,090	3,629	3,776	3,428	3,354	3,215	3,282
% Change from previous month	2%	-1%	1%	11%	4%	4%	5%	-11%	4%	-9%	-2%	-4%	2%
% Change from previous year	7%	1%	2%	11%	8%	6%	5%	4%	3%	4%	6%	1%	1%
Total Wind Generation (GWh)	786	870	1,128	1,297	1,311	1,525	1,400	1,531	1,537	1,299	959	986	763
% Change from previous month	-16%	11%	30%	15%	1%	16%	-8%	9%	0%	-15%	-26%	3%	-23%
% Change from previous year	20%	-19%	24%	4%	26%	0%	-3%	-9%	28%	41%	38%	5%	-3%
Total Solar Generation (GWh)	-	144	107	53	35	17	30	39	115	175	223	235	274
% Change from previous month	-	-1%	-26%	-51%	-33%	-52%	76%	31%	194%	52%	27%	5%	17%
% Change from previous year	-	52%	94%	3%	32%	-35%	-3%	-7%	20%	36%	17%	23%	88%
Renewable share of demand (%)*		33%	41%	42%	40%	43%	40%	48%	48%	47%	38%	40%	30%
Gas Price p/therm	80.69	79.25	79.23	78.05	76.03	71.19	90.08	80.19	130.60	112.41	116.91	107.83	129.29
% Change from previous month	-7%	-2%	0%	-1%	-3%	-6%	27%	-11%	63%	-14%	4%	-8%	20%
% Change from previous year	7%	-6%	-9%	-21%	-32%	-36%	-27%	-35%	29%	33%	43%	25%	60%
Carbon Price (€/Tonne)	71.03	71.81	76.23	78.68	80.93	85.20	88.21	74.96	69.96	73.86	80.63	78.98	81.18
% Change from previous month	-3%	1%	6%	3%	3%	5%	4%	-15%	-7%	6%	9%	-2%	3%
% Change from previous year	6%	2%	18%	24%	21%	27%	16%	-1%	2%	15%	14%	8%	14%
EWIC % Import Periods	45.83%	57.22%	60.45%	63.98%	60.07%	57.36%	60.55%	49.31%	53.49%	25.49%	44.42%	58.40%	83.93%
EWIC % Export Periods	1.31%	4.57%	3.92%	4.13%	3.40%	4.87%	7.49%	7.83%	8.03%	3.82%	2.55%	6.25%	2.75%
EWIC % Not Flow Periods	52.86%	38.21%	35.63%	31.89%	36.53%	37.77%	31.96%	42.86%	38.47%	70.69%	53.02%	35.35%	13.32%
Moyle % Import Periods	57.29%	79.03%	80.24%	73.69%	75.66%	77.89%	70.46%	66.74%	74.33%	76.84%	78.46%	63.06%	92.11%
Moyle % Export Periods	24.33%	20.90%	19.72%	26.21%	24.31%	21.98%	22.75%	33.10%	25.60%	22.92%	9.41%	21.98%	7.63%
Moyle % Not Flow Periods	18.38%	0.07%	0.03%	0.10%	0.03%	0.13%	6.79%	0.15%	0.07%	0.24%	12.13%	14.97%	0.26%
Greenlink % Import Periods	91.23%	88.68%	85.69%	80.21%	84.17%	83.20%	78.29%	76.85%	82.26%	82.39%	88.54%	57.50%	55.17%
Greenlink % Export Periods	7.83%	10.08%	11.25%	18.92%	13.89%	16.13%	20.40%	21.91%	17.71%	14.08%	10.01%	7.64%	1.19%
Greenlink % Not Flow Periods	0.94%	1.24%	3.06%	0.87%	1.94%	0.67%	1.31%	1.23%	0.03%	0.30%	1.44%	34.86%	43.64%

* Renewable share of demand (%) includes generation from wind, solar, Hydro, Biomass sources.

Market Volumes July 2026

Daily Average Volume	MWh
DAM	119,294
IDA1	29,701
IDA2	2,318
IDA3	509
IDC	16

Total Monthly Volume	MWh
DAM	3,698,109
IDA1	920,726
IDA2	71,858
IDA3	15,789
IDC	225
Total	4,706,707

Total Market Value	€
DAM	€ 575,483,560
IDA1	€ 141,509,064
IDA2	€ 10,140,836
IDA3	€ 2,985,976
IDC	€ 30,332
Total	€ 730,149,767

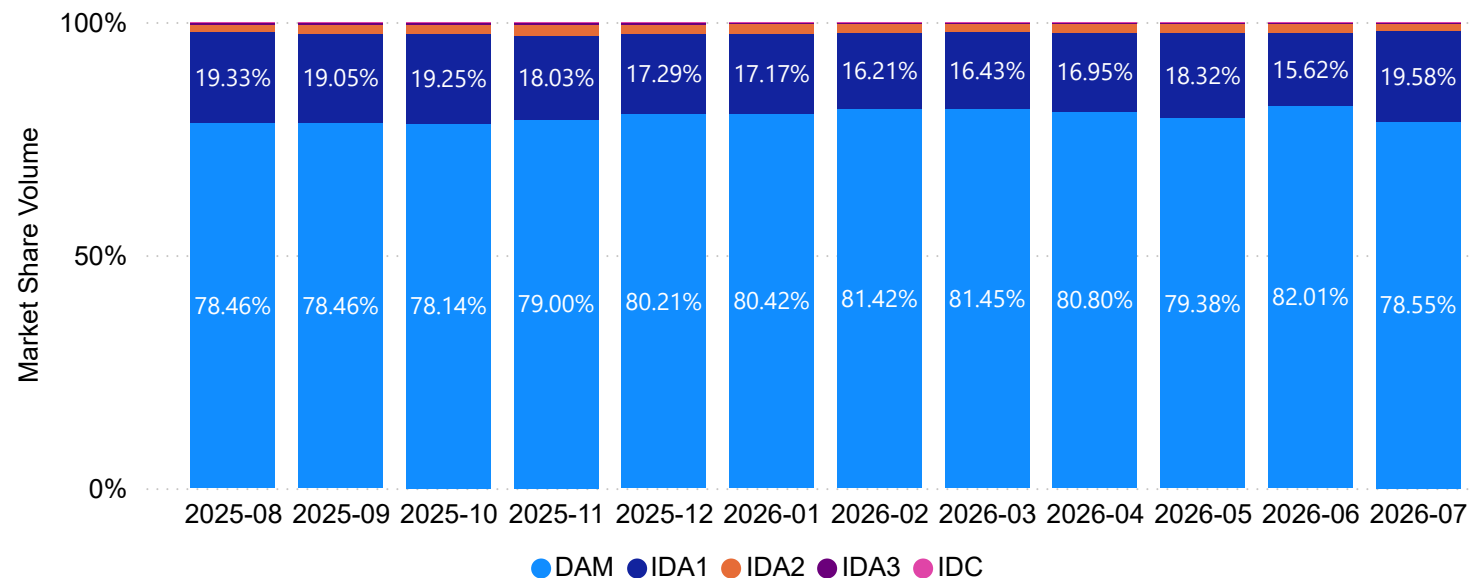
Market Volumes and Values

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

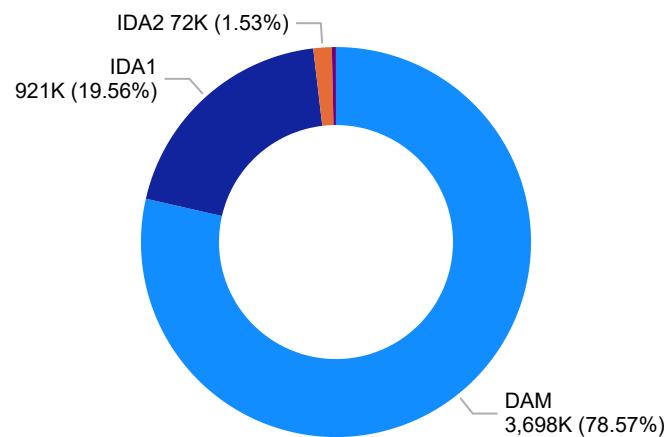
Generally, in the SEM, market participants will prefer to lock in their positions well ahead of delivery time given the increased volatility in prices closer to real time.

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.

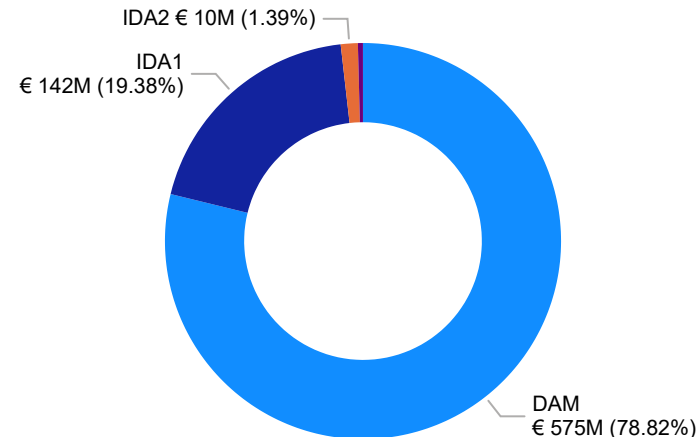
Ex-Ante Monthly Volume by Market



Ex-Ante Volumes (MWh)



Ex-Ante Values (€)



● DAM ● IDA1 ● IDA2 ● IDA3 ● IDC

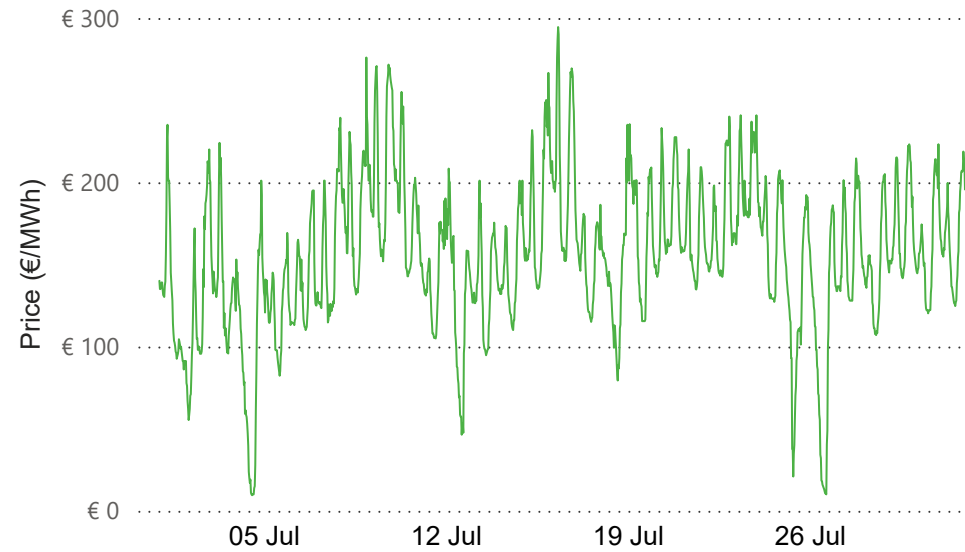
● DAM ● IDA1 ● IDA2 ● IDA3 ● IDC

Day Ahead Market July 2026

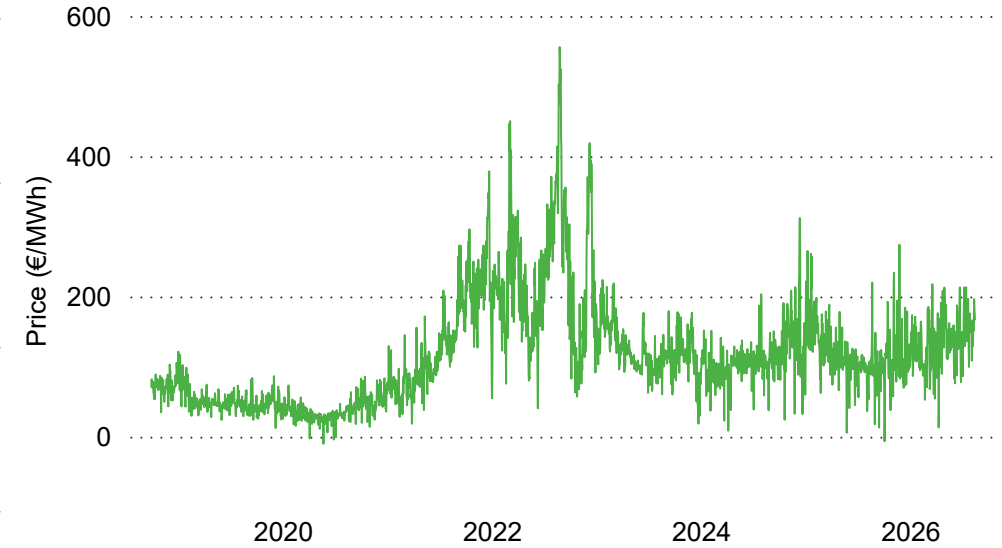
€ 155.54
Average DAM Price
€ 9.46
Min DAM Price
€ 294.50
Max DAM Price

The most frequent price range for the month was between €120 and €160.

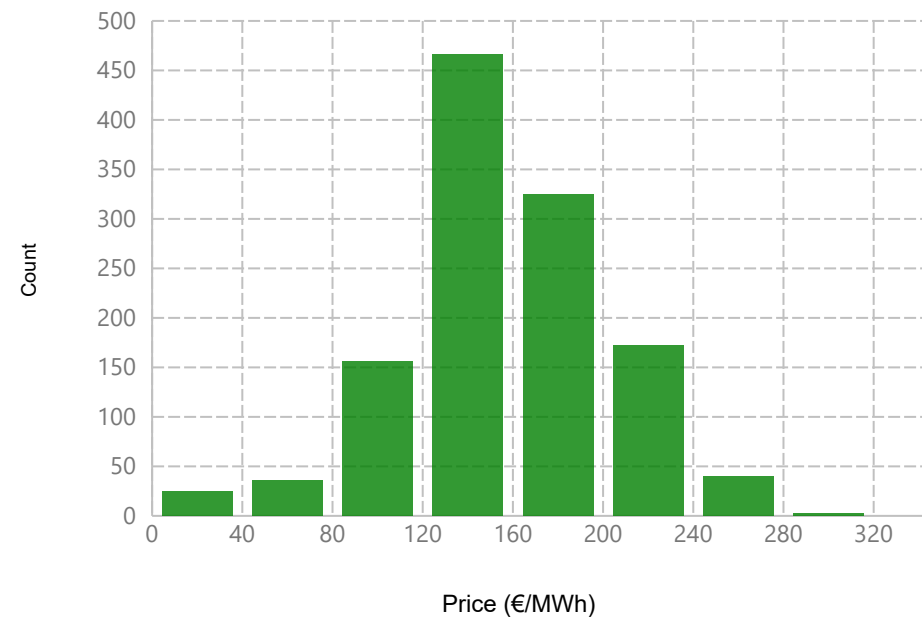
DAM Prices



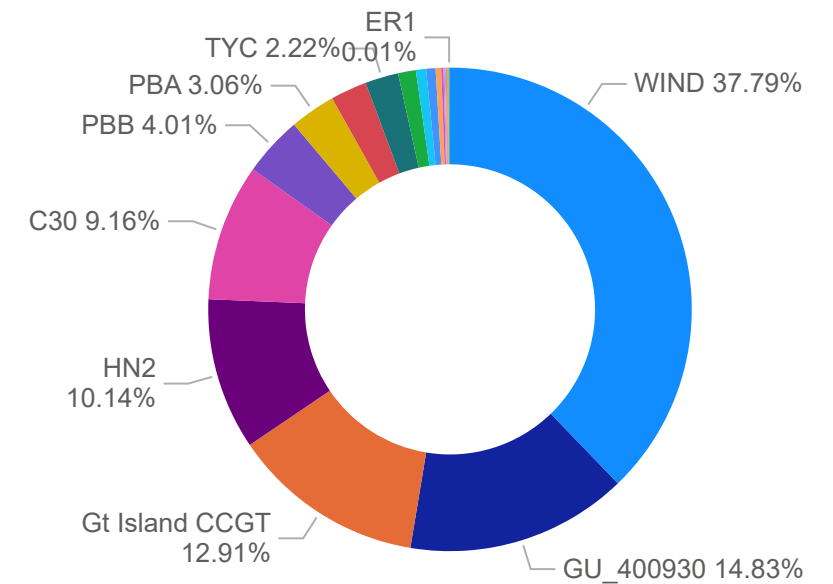
Historic Daily Average DAM Prices



Histogram of DAM Prices



DAM Sell Side Generator Order Results

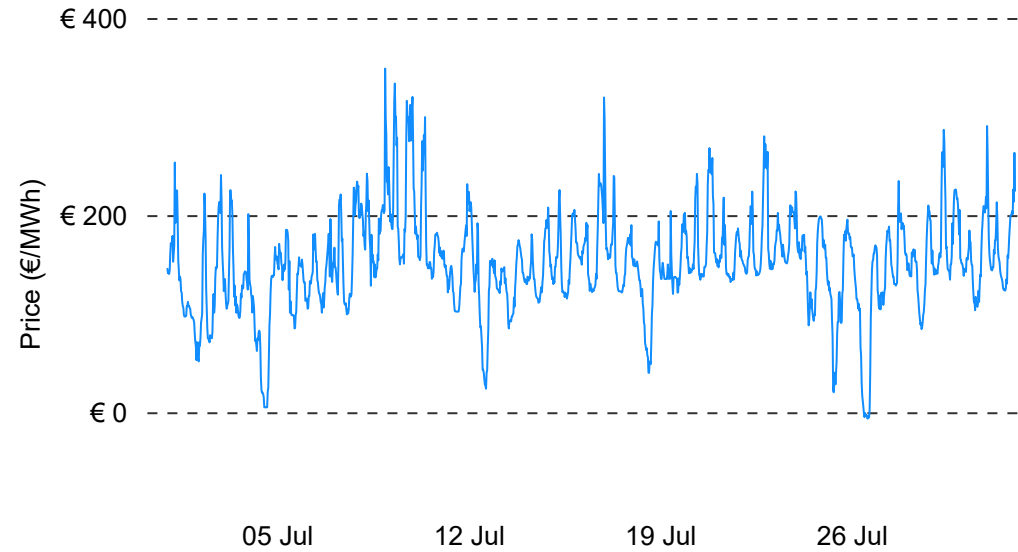


Intraday Market July 2026

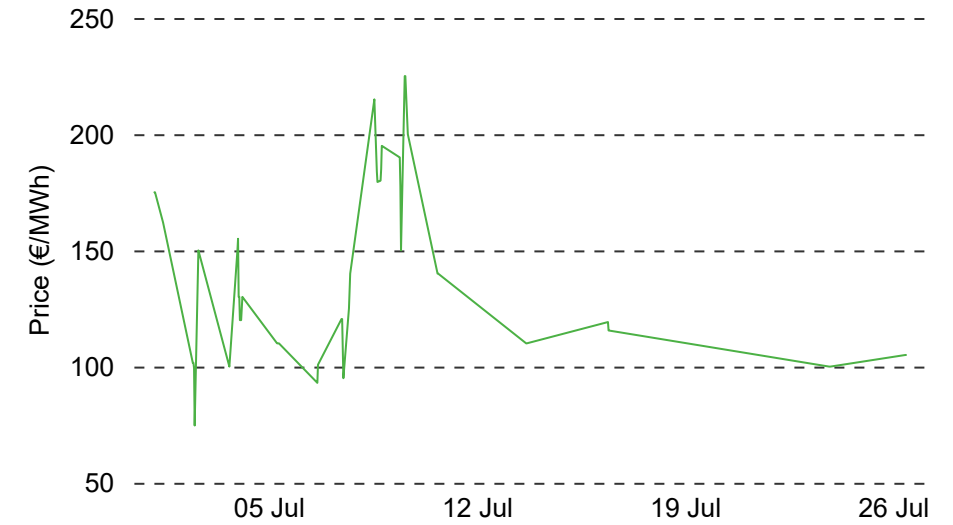
€ 150.95
Average IDA1 Price
-€ 6.35
Min IDA1 Price
€ 348.63
Max IDA1 Price

The most frequent price range for the month was between €100 and €150.

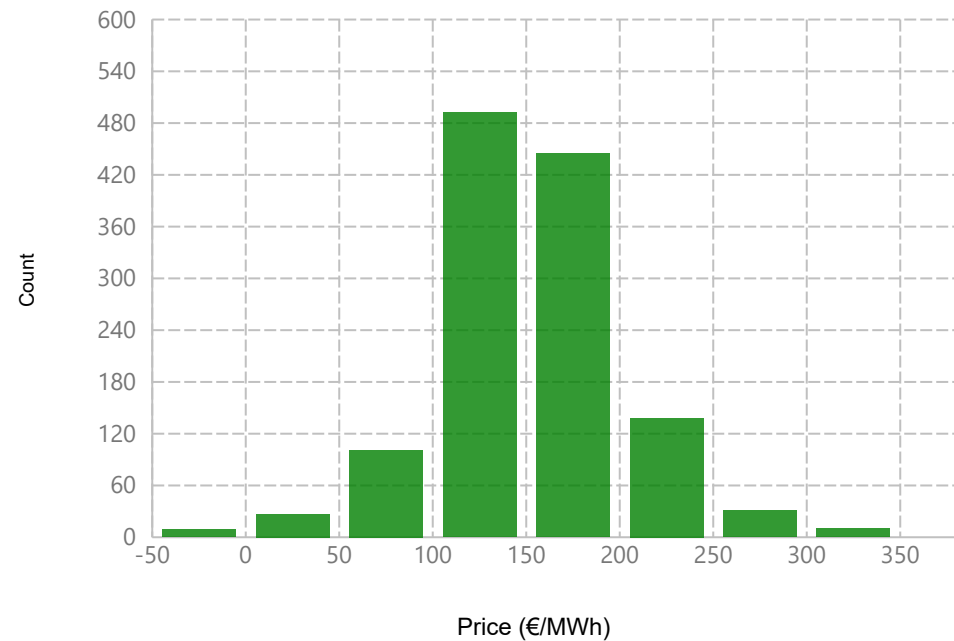
IDA 1 Prices



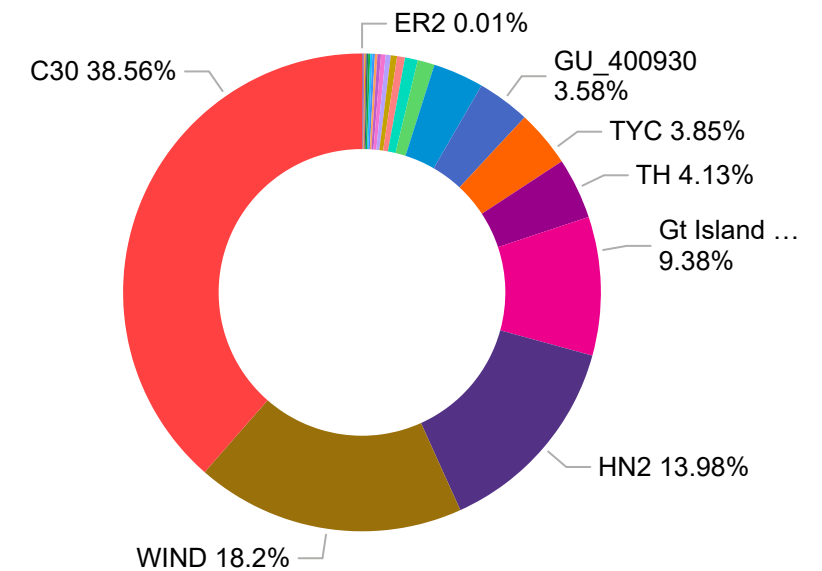
IDC Prices



Histogram of IDA1 Prices



IDA1 Sell Order Results By Market Participant



SEM vs GB DAM July 2026

SEM Day Ahead Price

€ 155.54

Average DAM Price

€ 9.46

Min DAM Price

€ 294.50

Max DAM Price

GB (EPEX) Day Ahead Price

€ 124.98

Average DAM Price

-€ 8.27

Min DAM Price

€ 227.88

Max DAM Price

SEM-GB (EPEX) Price Differential

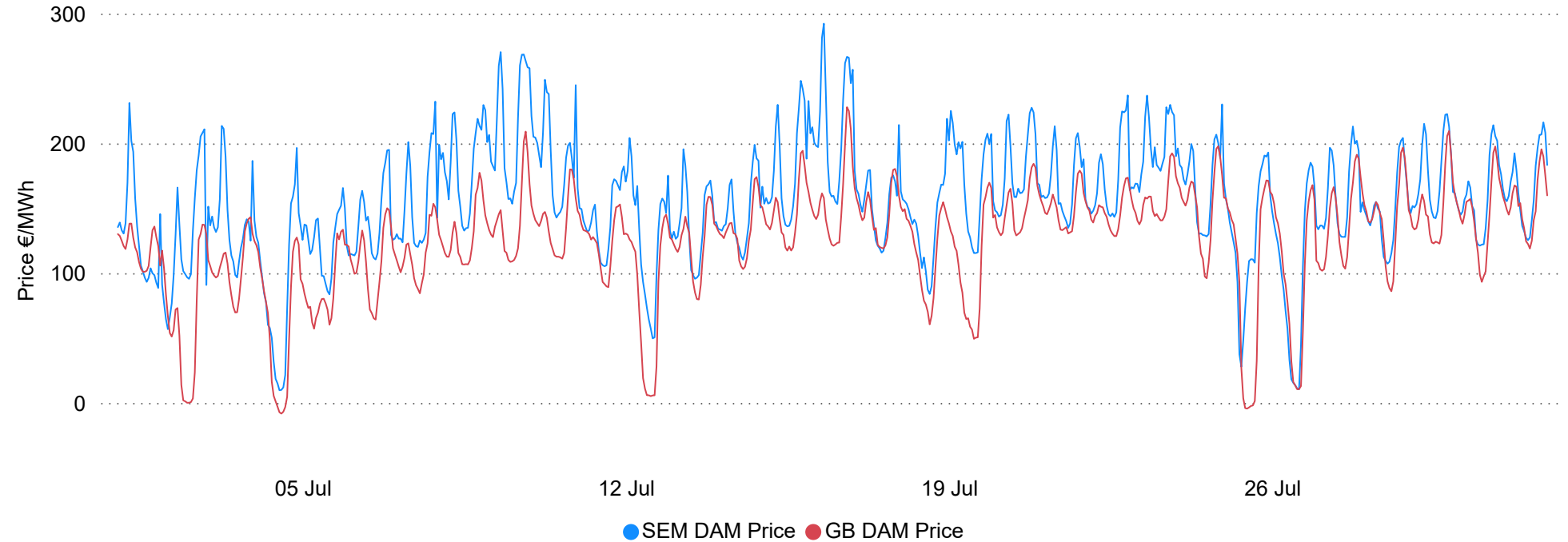
The charts show that the SEM and GB prices appear to follow the same general trend. Significant spreads can be observed on several occasions.

Periods of significant spreads between the two markets are generally correlated with periods of very low wind in the SEM.

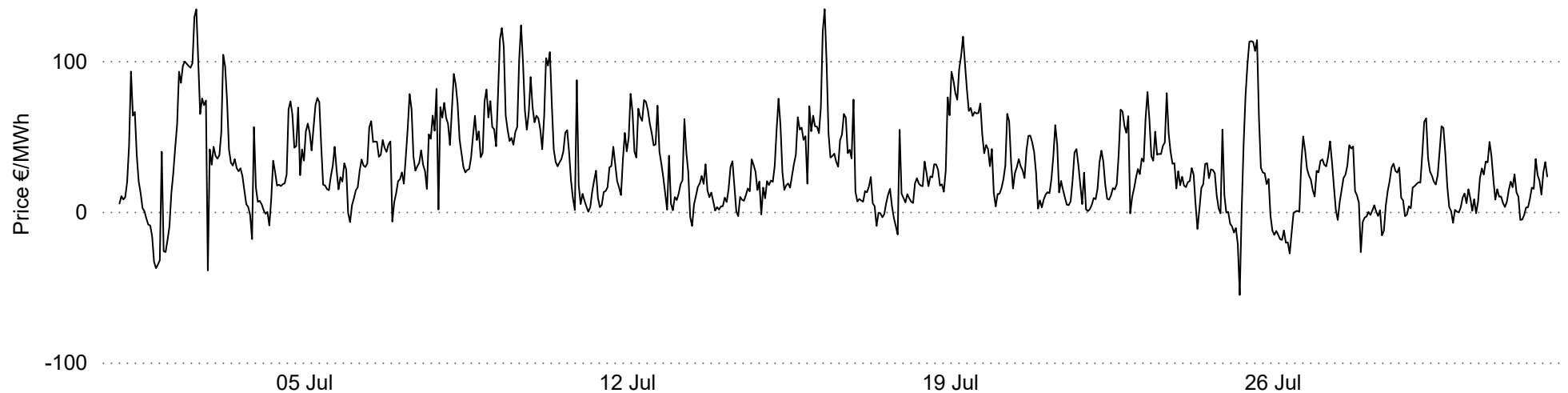
Average SEM-GB (EPEX) Price Spread

SEM & GB (EPEX) DAM Prices

€ 30.54



SEM & GB (EPEX) DAM Prices Spread



SEM Interconnectors

July 2026

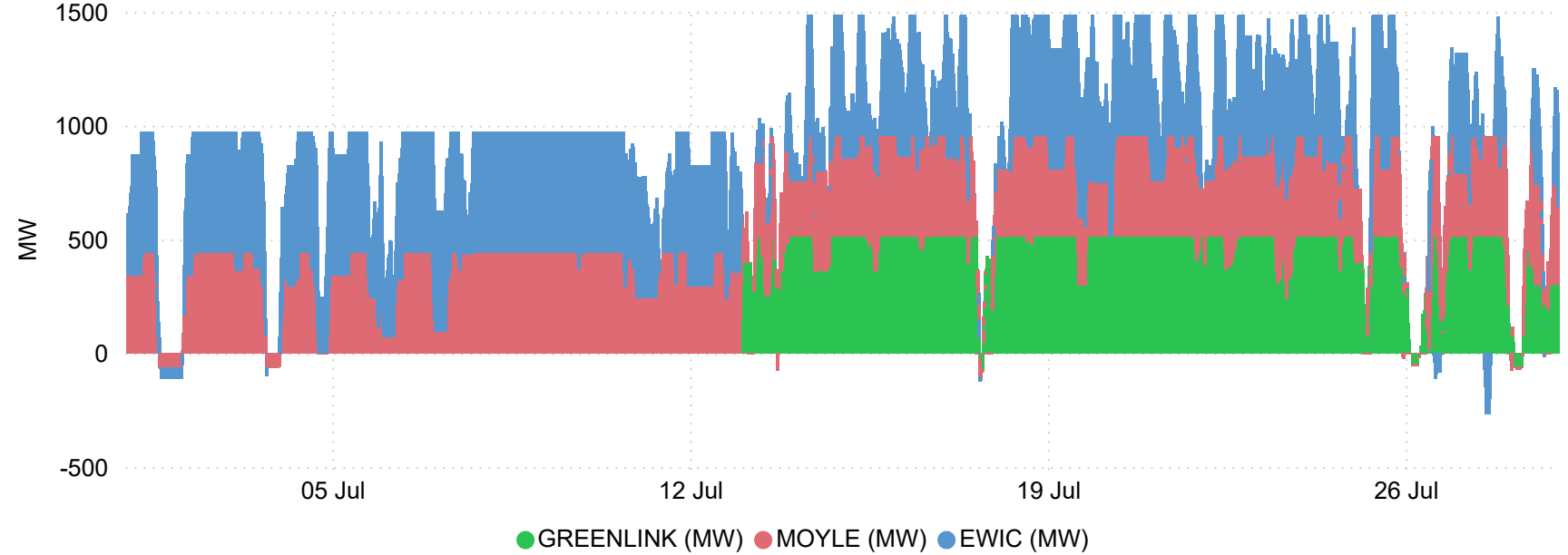
Interconnectors were predominantly importing power across the month. This reflects the predominantly higher prices in the SEM compared with GB.

Lower wind generation increased reliance on imports to meet demand, limiting export flows throughout the month.

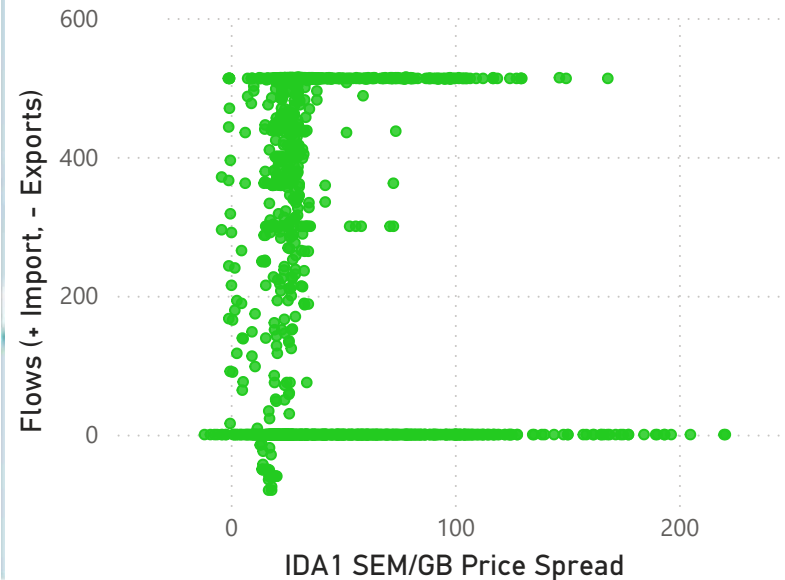
Import capability on the Moyle Interconnector was also constrained due to reduced availability arising from outages.

Interconnector	Start Time	End Time	Type	Availability
Moyle	19/07/2026 16:20	19/07/2026 20:20	Unplanned	250 MW
	20/07/2026 03:45	20/07/2026 05:15	Unplanned	0 MW
	21/07/2026 11:00	21/07/2026 13:00	Planned	400 MW
EWIC	27/07/2026 11:30	27/07/2026 16:30	Planned	0 MW
Greenlink	22/06/2026 04:00	12/07/2026 22:00	Planned	0 MW

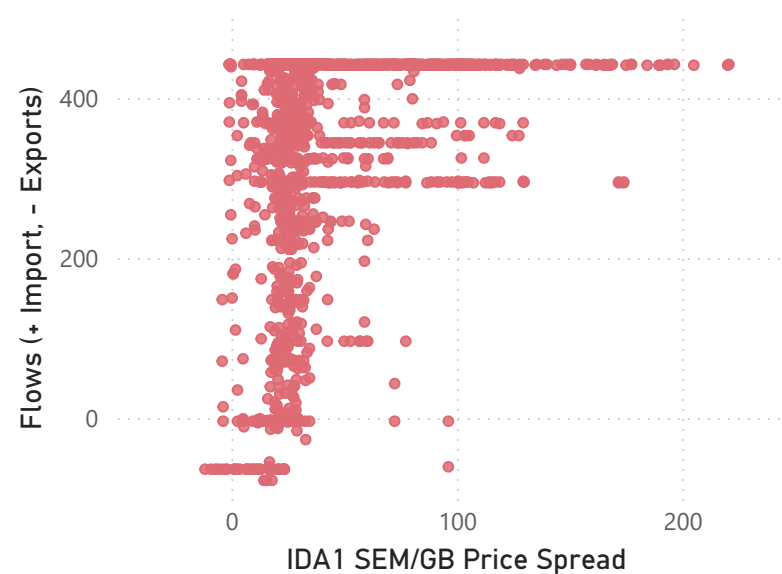
SEM Interconnector Flows



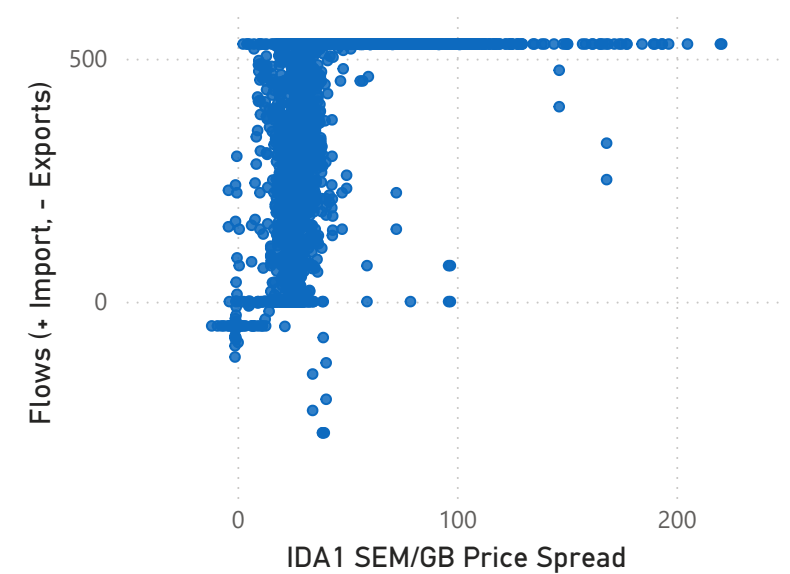
Greenlink Flows vs SEM/GB IDA1 Price Spread



Moyle Flows vs SEM/GB IDA1 Price Spread



EWIC Flows vs SEM/GB IDA1 Price Spread



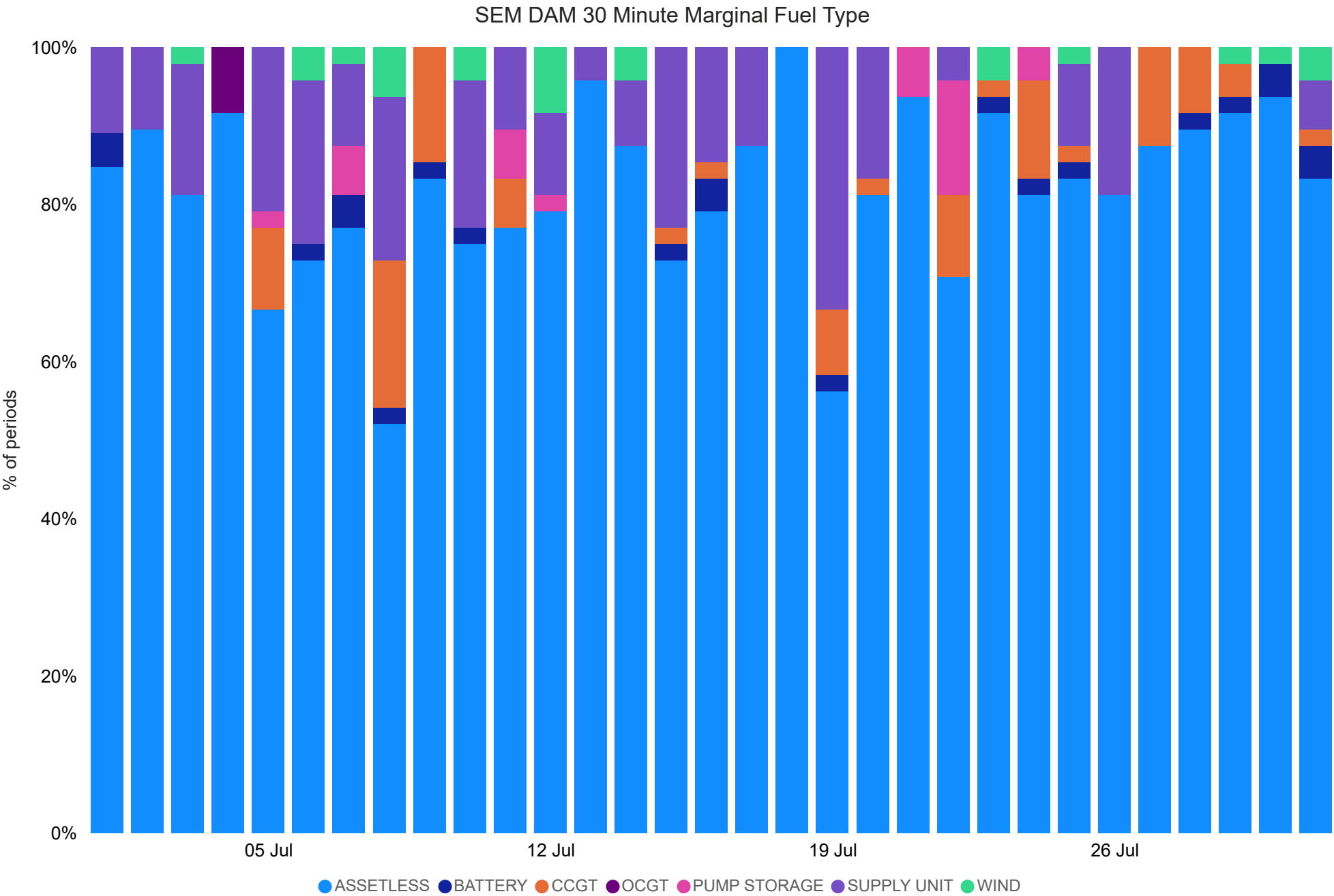
Marginal Fuel- DAM July 2026

Fuel Type	Fuel Type Count	Fuel Type %
ASSETLESS	1219	81.92%
SUPPLY UNIT	145	9.74%
CCGT	57	3.83%
WIND	22	1.48%
BATTERY	21	1.41%
PUMP STORAGE	20	1.34%

Marginal Fuel in the DAM

The DAM clearing price is set by the marginal unit required to meet demand in each trading period, ensuring that electricity demand is met at the lowest overall cost.

In the SEM, different fuel types set the DAM price and their influence has evolved over time. While conventional thermal plant, particularly CCGTs, continue to play an important role in price formation, Assetless Units have increasingly emerged as significant price-setting participants.



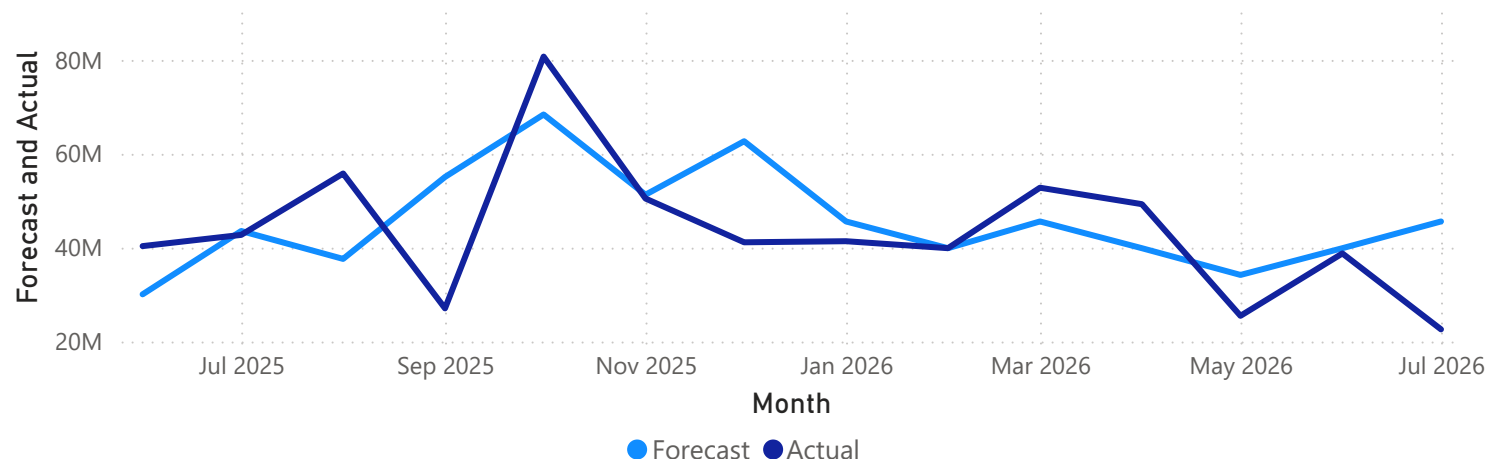
Balancing Market July 2026

Components of Imperfection costs:

Below is a list of all the payments and charges, with a one-line explanation:

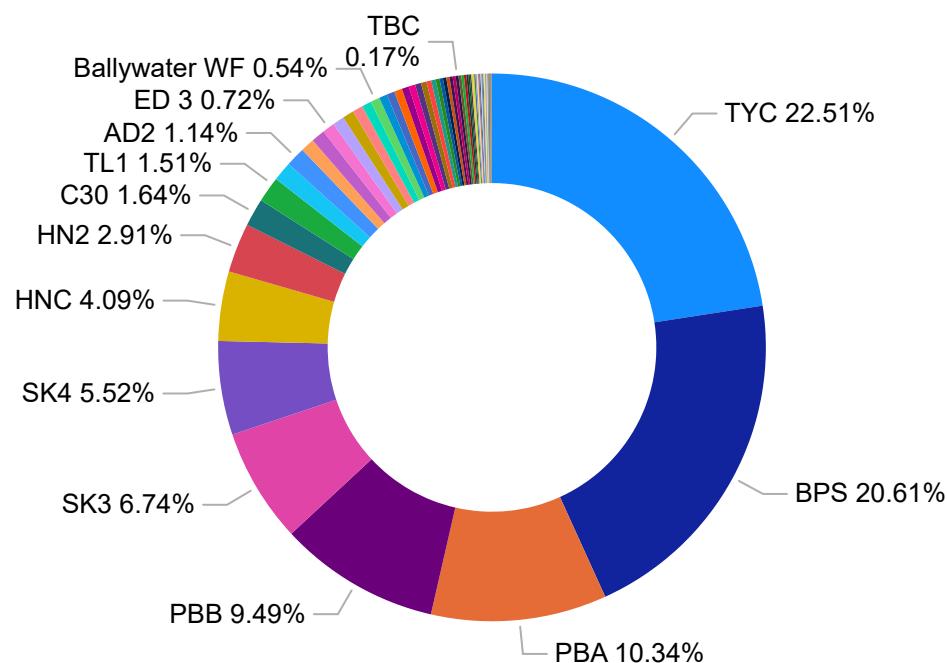
Component	Explanation
CIMB	All differences between meter and trades at imbalance price.
CPREMIUM	Extra for TSO inc actions if offer price better than imbalance price.
CDISCOUNT	Extra for TSO dec actions if bid price is better than imbalance price.
CAOPO	If there is an undo of a TSO dec action, ensure unit gets inc/dec price difference.
CABBPO	If there is an undo of a TSO inc action, ensure unit gets inc/dec price difference.
CCURL	Pay back revenue for output turned down for system stability reasons.
CUNIMB	Charge if dispatch instruction was not followed within tolerance.
CFC	Make-whole extra fixed costs incurred, pay back fixed costs saved.
CTEST	Extra risk due to test = extra reserve = cost to be recovered.

Imperfection Costs - Forecast vs Actual



Determinant Name	Value €
CABBPO	21,162.57
CAOPO	43,255.98
CCURL	-807,193.19
CDISCOUNT	22,173,684.54
CFC	6,610,525.07
CIMB	-19,666,639.86
CPREMIUM	15,431,083.02
CTEST	-65,658.05
CUNIMB	-1,143,807.56
Total	22,596,412.52

Market Share per Unit (CFC, CPREMIUM, CDISCOUNT)



Constraints Payments

Imperfection costs decreased by ~42% compared to last month, largely due to lower wind generation increasing reliance on ex-ante scheduling and driving a ~474% increase in CIMB charges to generators. This led to generators being dispatched down for the majority of the month in the Balancing Market.

The chart on the left shows the distribution of selected constraint payments across key generating units. TYC (Tynagh) was the largest recipient of constraint payments this month, followed by BPS(EP Ballylumford).

Balancing Market July 2026

30 Minutes Imbalance Price

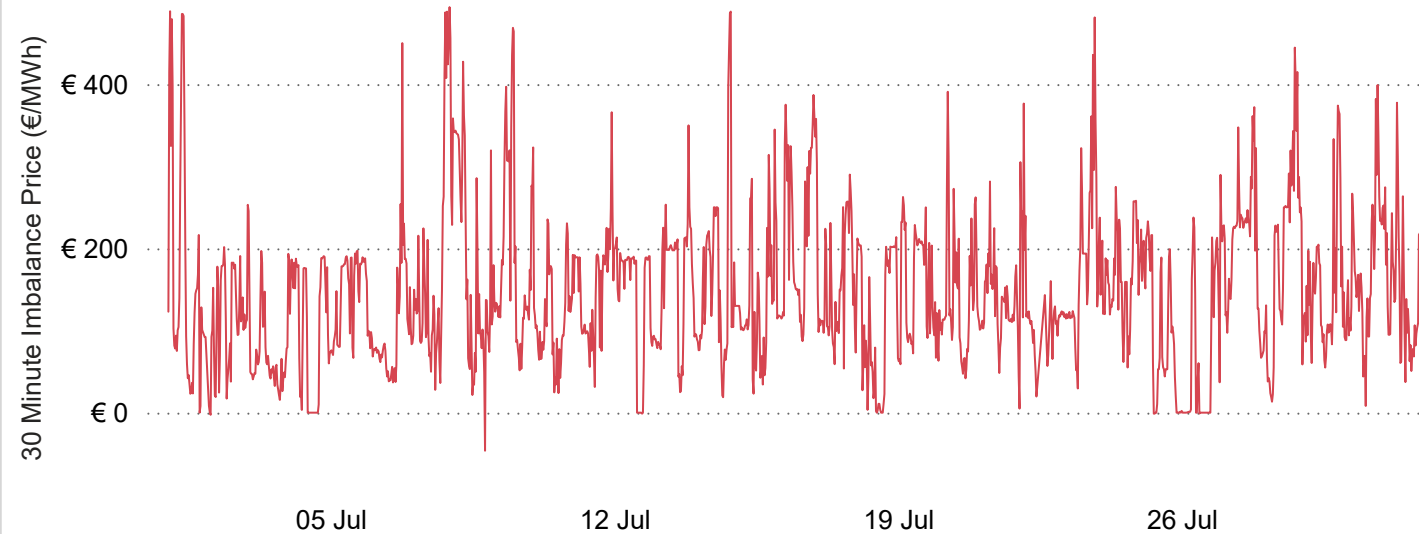
€ 146.96
Average Price
-€ 46.34
Lowest Price
€ 493.77
Highest Price

Imbalance Price & Volumes

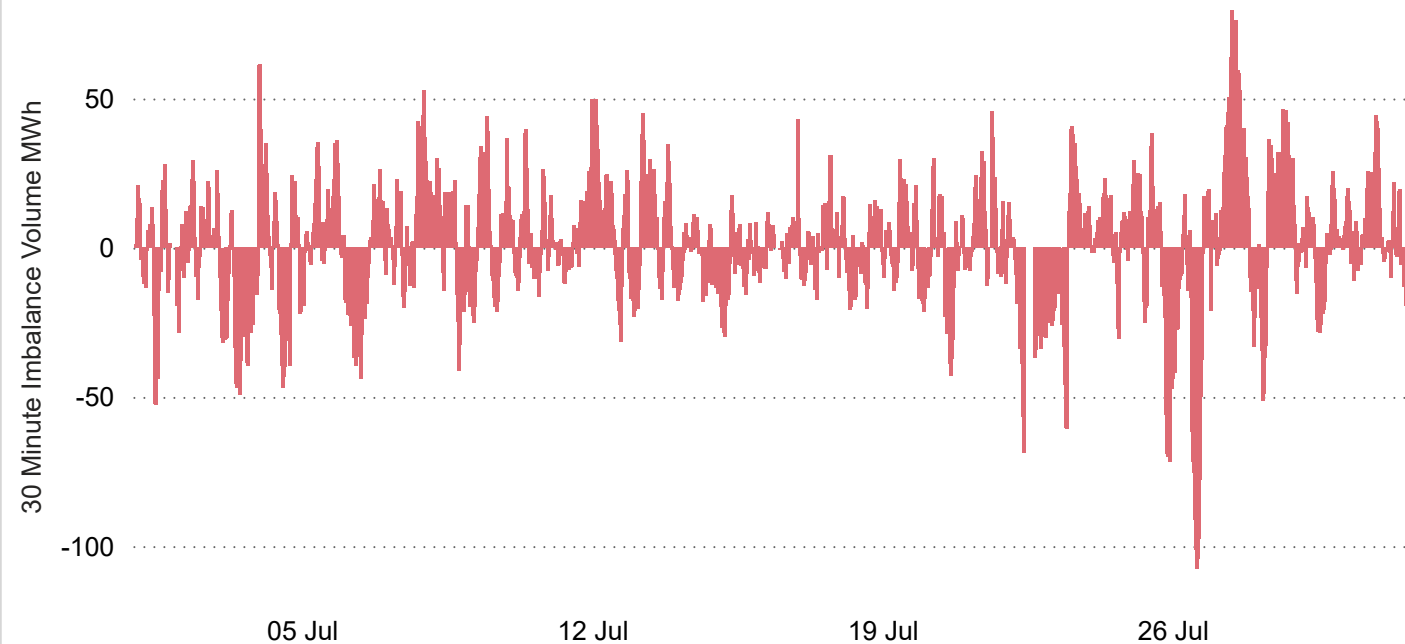
The average Balancing Market (BM) price was lower than the Day-Ahead Market (DAM) price during the month. However, BM prices exhibited a significantly wider price range, reflecting the greater volatility inherent in real-time balancing actions. This increased variability is an expected characteristic of the Balancing Market, where prices respond to short-term system conditions.

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

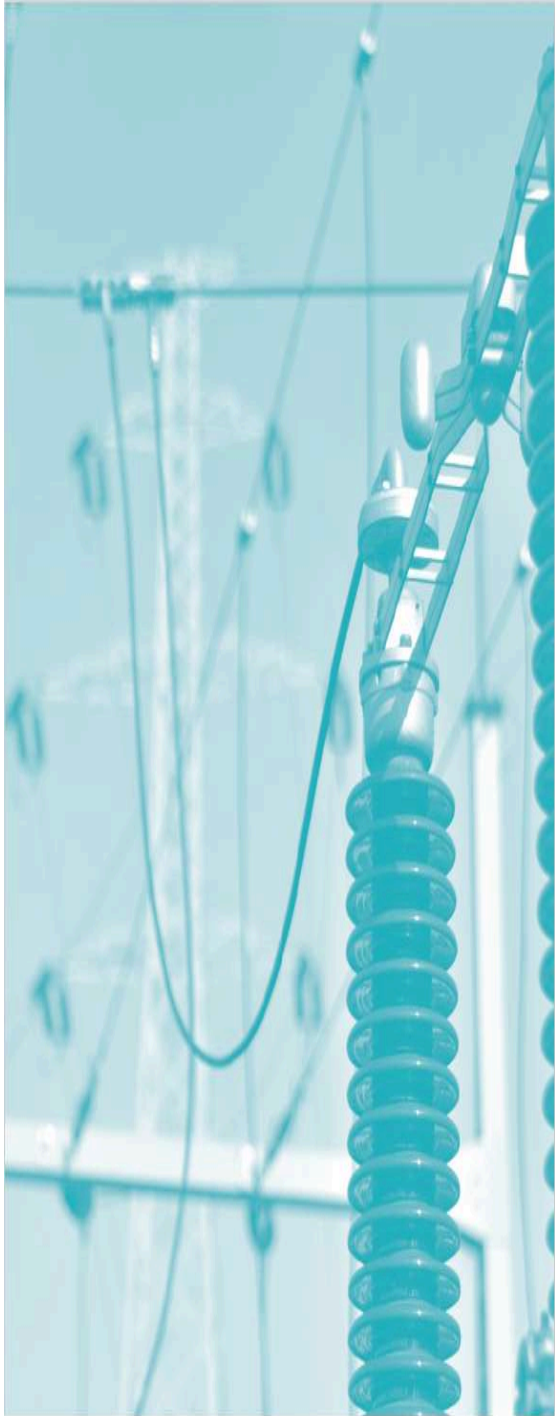
30 Minute Imbalance Prices



30 Minute Imbalance Volume



Demand and Generation Mix



Demand July 2026

SEM Demand

4,413.48	4,361.76
SEM Average 2026	SEM Average 2025
3,741.39	3,557.26
SEM Min 2026	SEM Min 2025
4,884.16	4,900.52
SEM Max 2026	SEM Max 2025

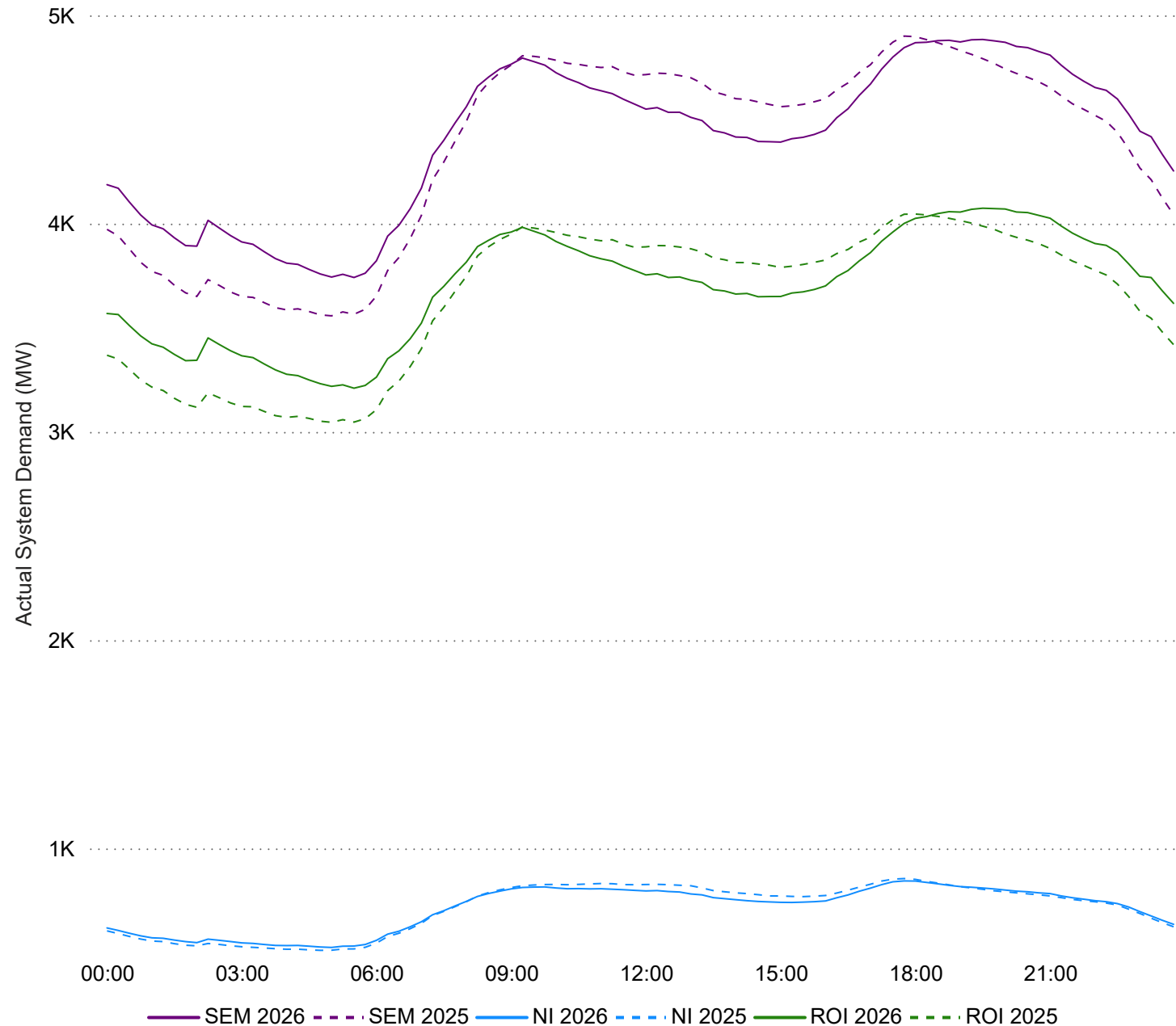
ROI Demand

3,702.40	3,647.68
ROI Average 2026	ROI Average 2025
3,209.81	3,046.00
ROI Min 2026	ROI Min 2025
4,074.00	4,046.03
ROI Max 2026	ROI Max 2025

NI Demand

711.08	714.09
NI Average 2026	NI Average 2025
524.68	510.77
NI Min 2026	NI Min 2025
844.06	855.45
NI Max 2026	NI Max 2025

Monthly Average Hourly Demand Curves



SEM Demand

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

ROI demand rose by 1.5% compared to the same period last year, whereas NI demand recorded a smaller decrease of 0.4% compared to the same timeframe.

Demand patterns in July continued to exhibit an increasingly pronounced duck curve, with weaker demand during daylight hours followed by steeper evening ramps as solar output declines.

Duration Curves July 2026

Price Duration

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

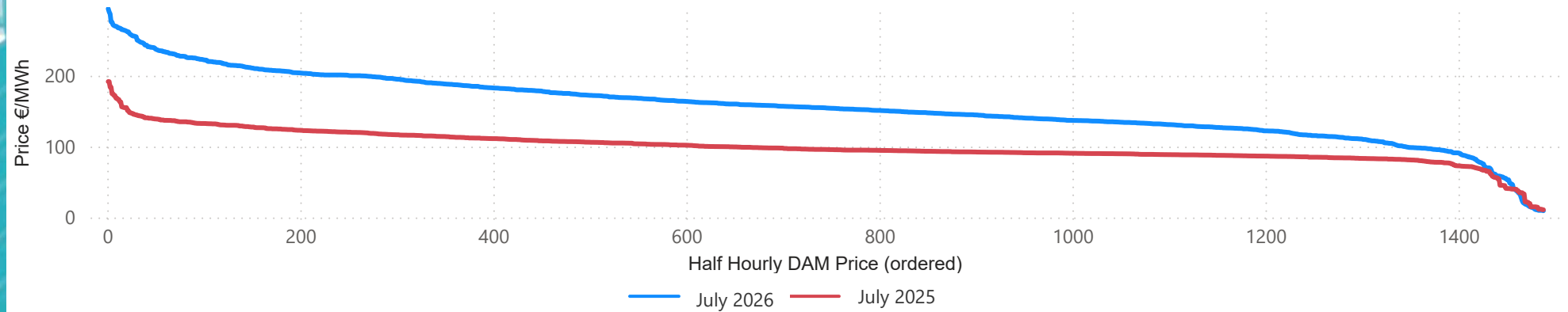
Residual Duration

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

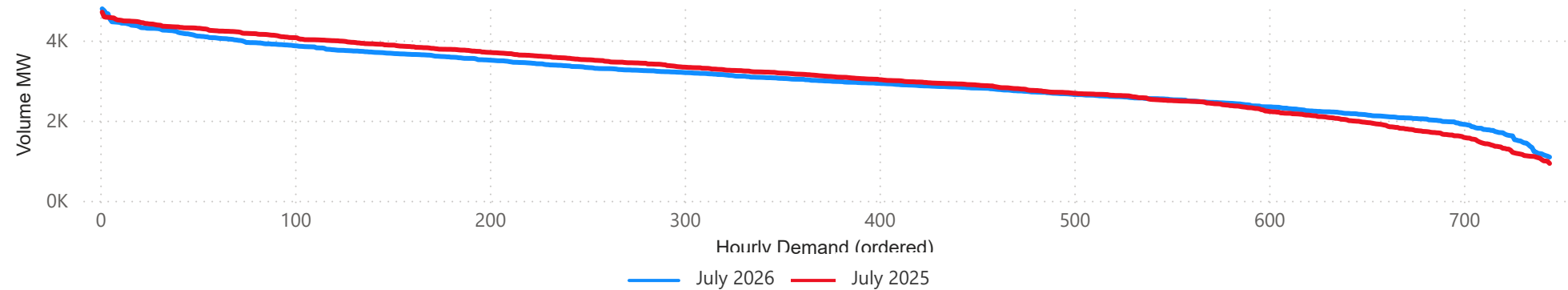
Price against Residual Demand

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

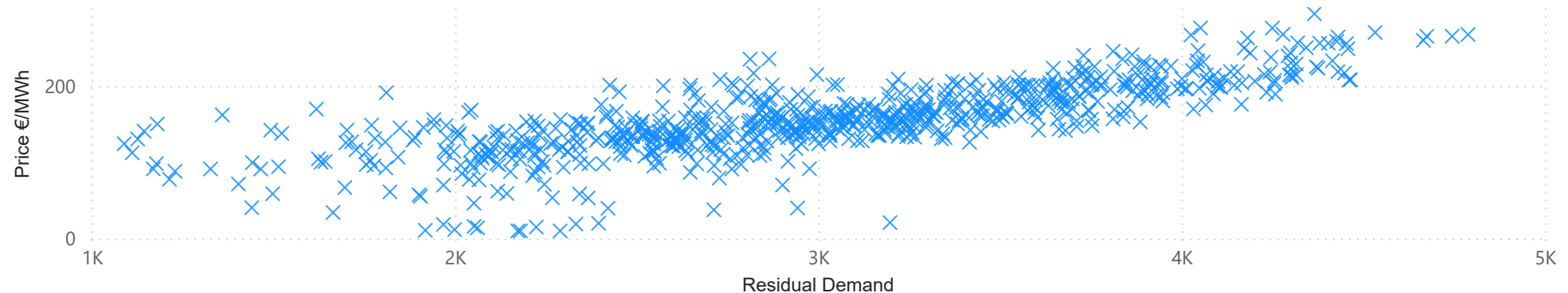
Price Duration Curve SEM



Residual Demand Duration Curve SEM



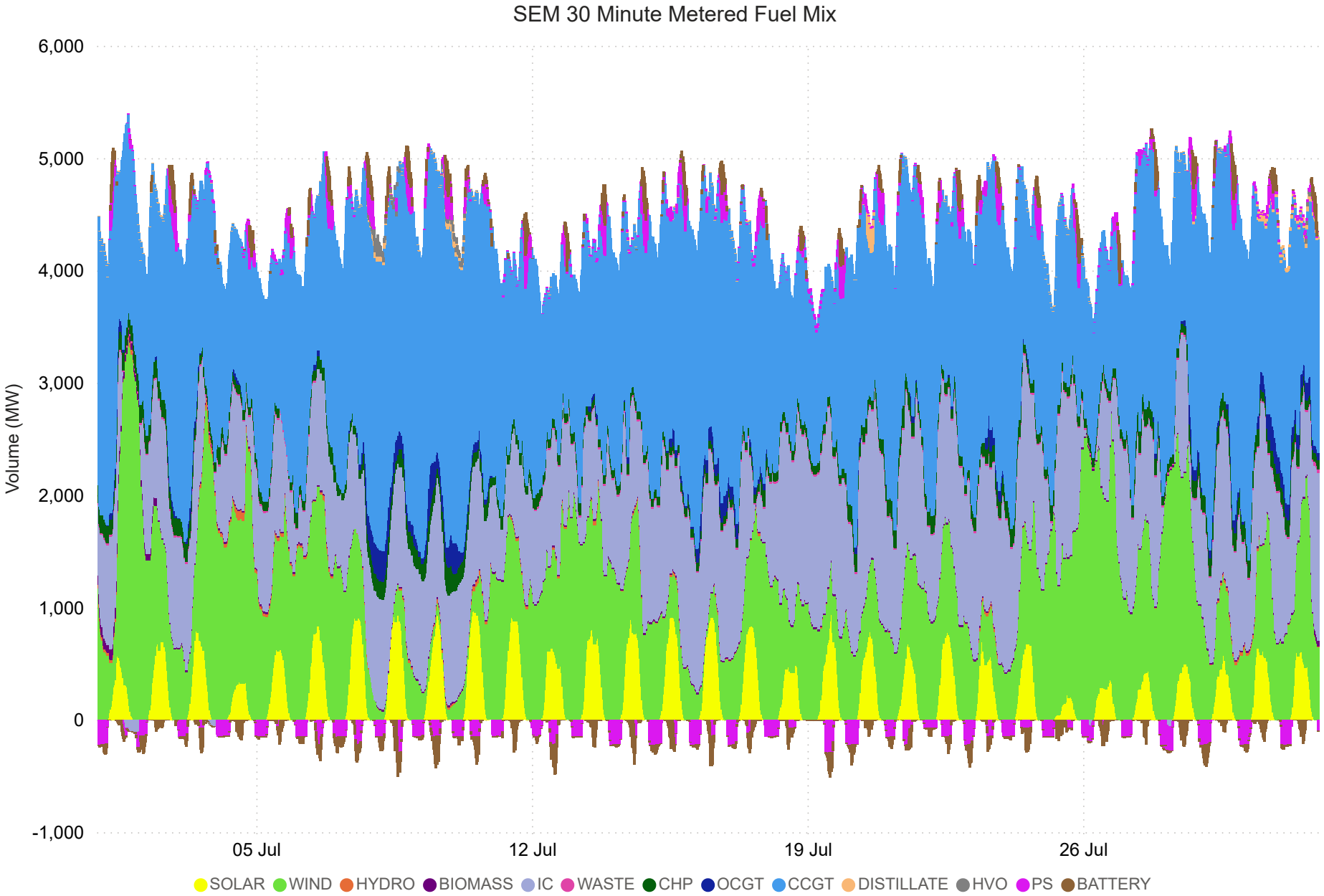
DAM Price against Residual Demand

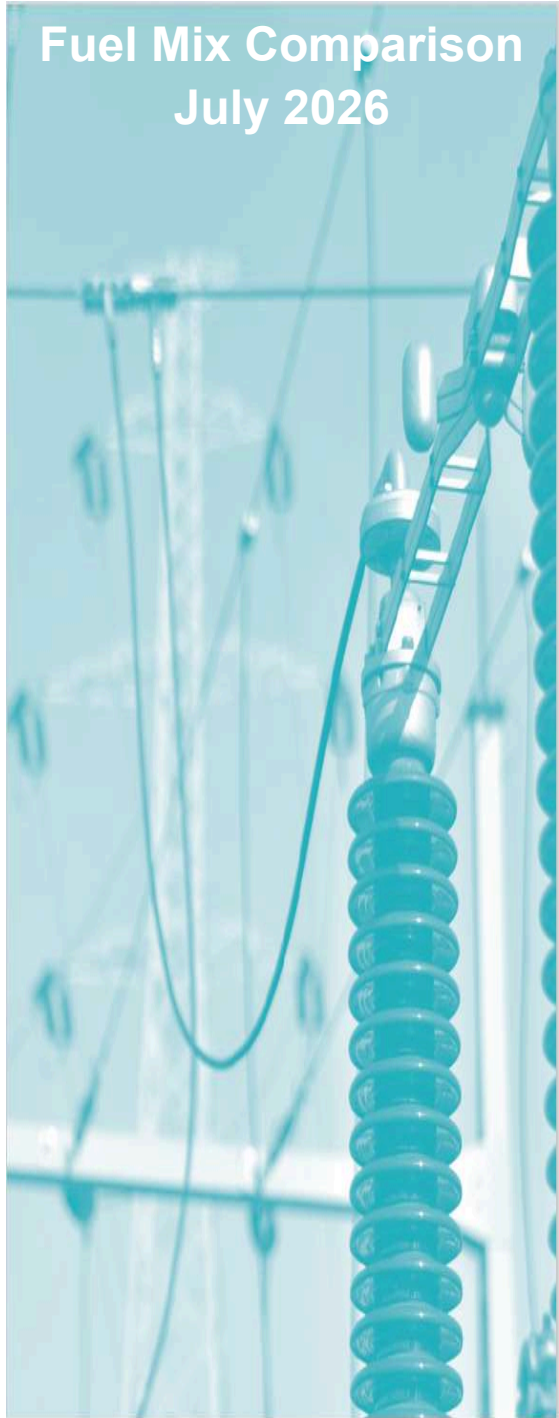


Fuel Mix July 2026

FuelType	Avg Monthly	% Monthly
CCGT	1880	43.3%
WIND	1026	23.7%
INTERCONNECTOR	987	22.7%
SOLAR	280	6.5%
CHP	108	2.5%
OCGT	40	0.9%
BIOMASS	17	0.4%
WASTE	15	0.3%
HYDRO	9	0.2%
DISTILLATE	4	0.1%
HVO	3	0.1%
BATTERY	-10	-0.2%
PUMP_STORAGE	-22	-0.5%

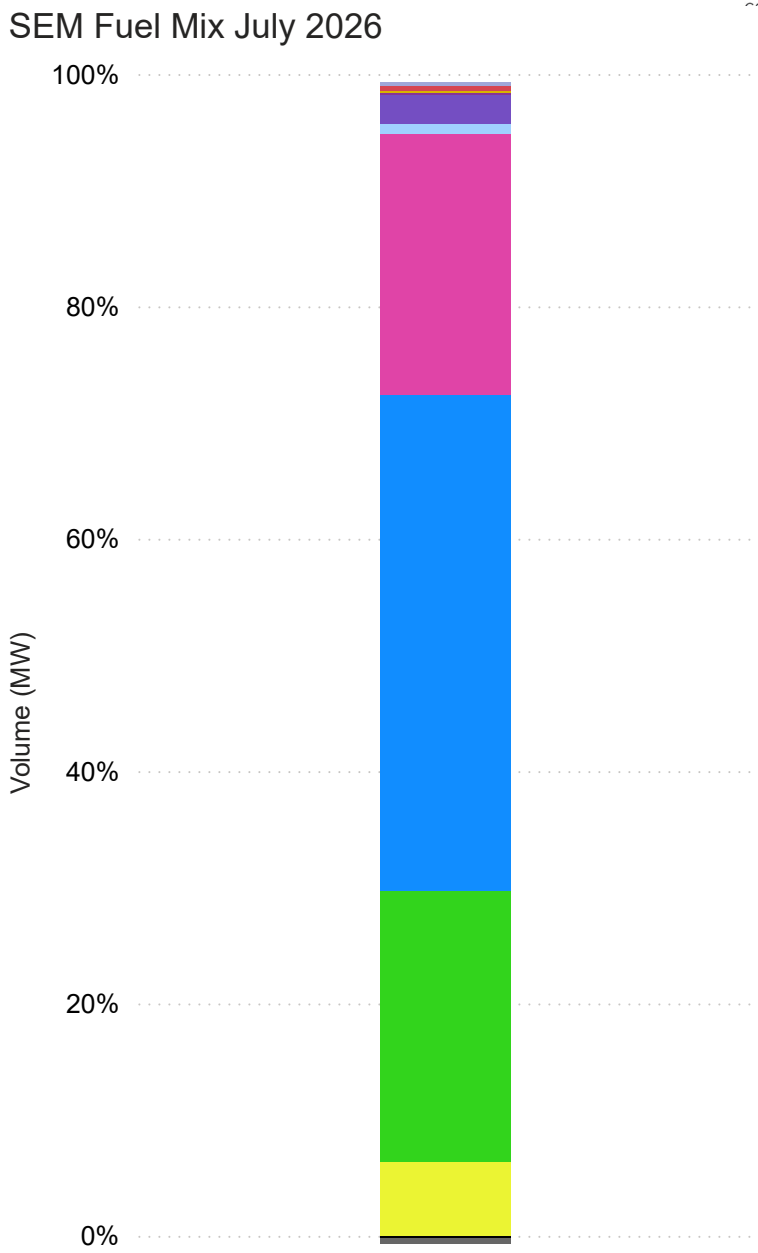
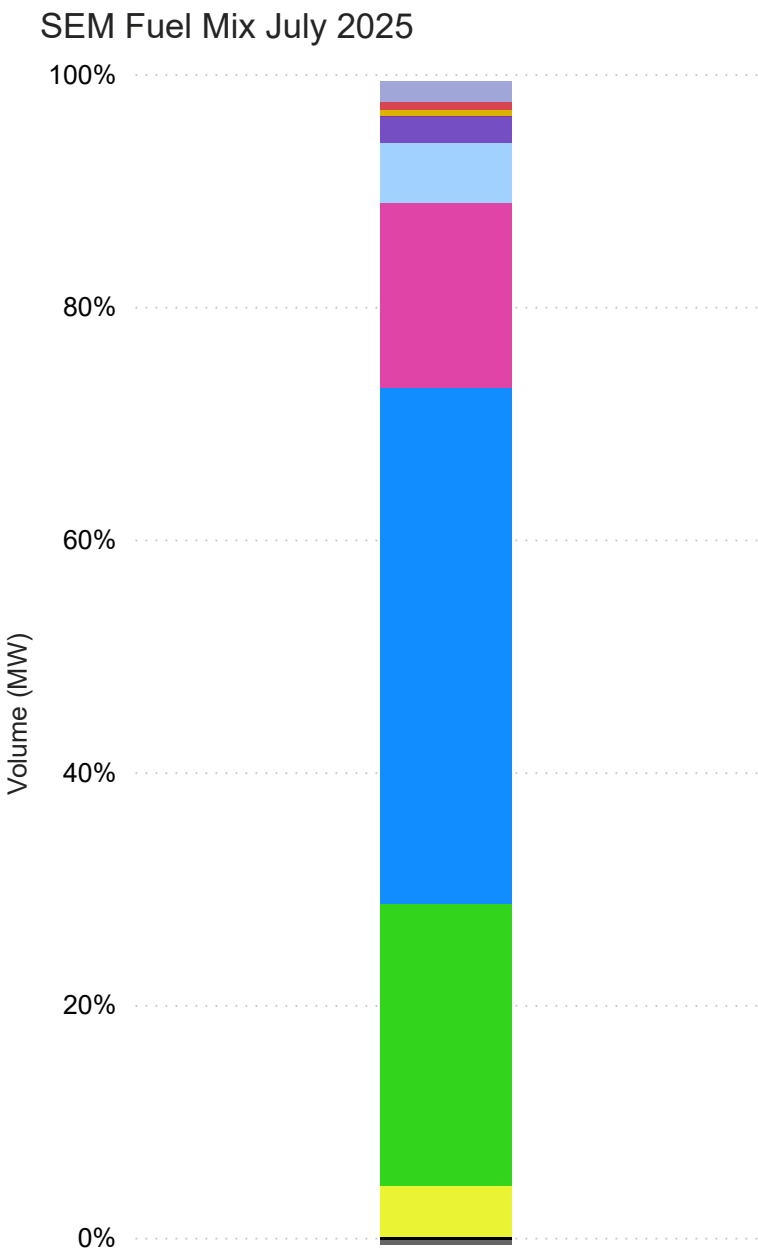
FuelType	Max Monthly	Min Monthly
WIND	3332	0
CCGT	2953	1054
INTERCONNECTOR	1593	-111
SOLAR	980	0
OCGT	375	0
BATTERY	372	-288
PUMP_STORAGE	291	-298
CHP	248	0
DISTILLATE	218	0
HVO	114	0
BIOMASS	98	0
HYDRO	77	0
WASTE	35	0





Fuel Mix Comparison July 2026

- SOLAR
- WIND
- CCGT
- INTERCONNECTORS
- OCGT
- CHP
- HVO
- DISTILLATE
- HYDRO
- BIOMASS
- WASTE
- BATTERY
- PUMPED STORAGE



North-South Tie Line July 2026

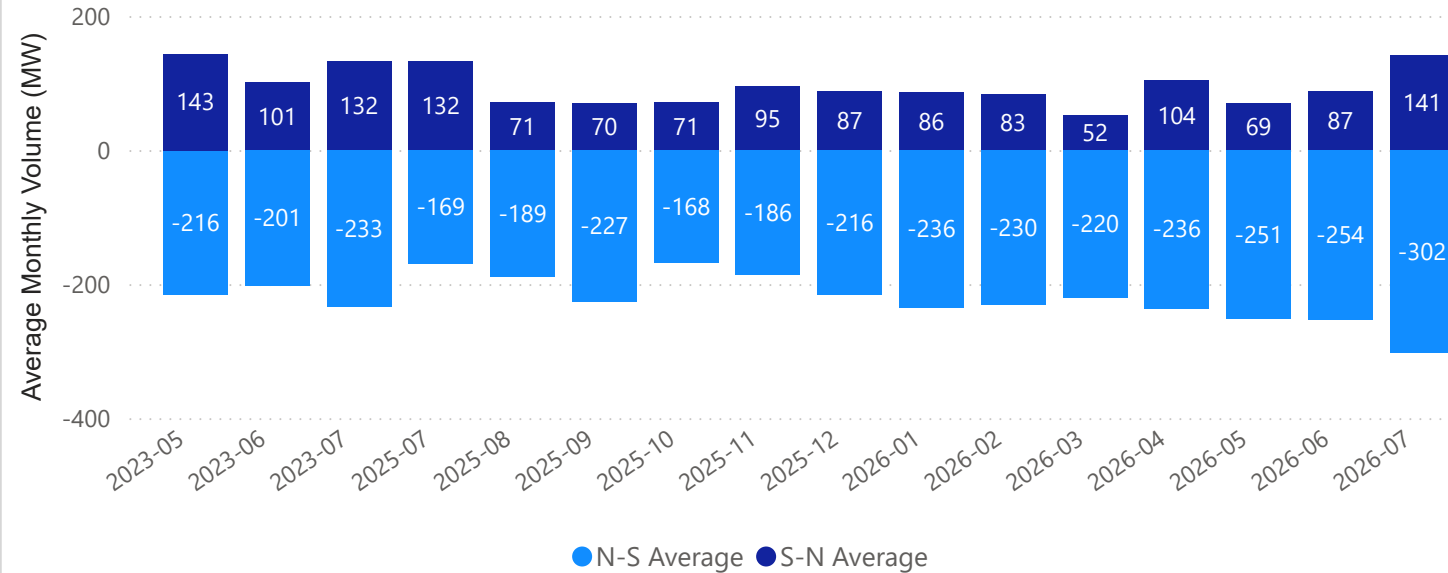
Average Flow NI to ROI (MW)
-301.72

Average Flow ROI to NI (MW)
140.74

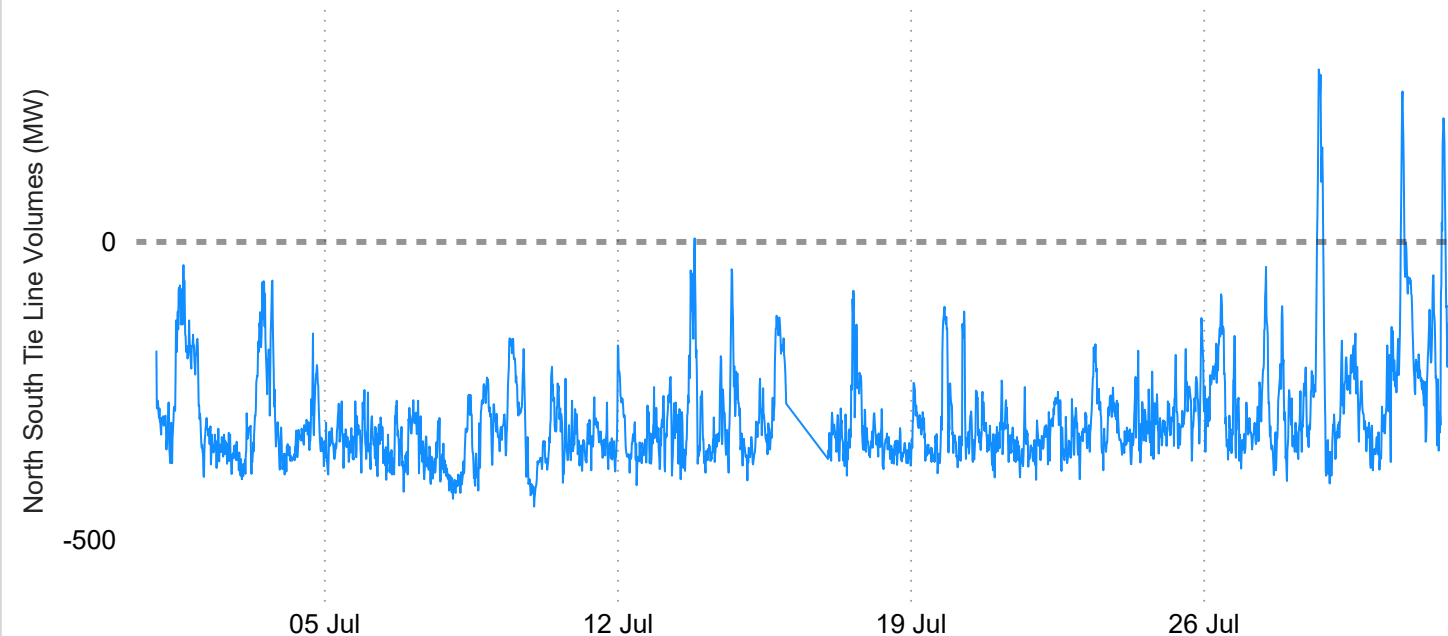
Average Net Flow NI to ROI (MW)
-296.29

-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.

Also, a number of evening peak periods saw increased South-to-North flows on the Tie Line. This appears to have coincided with the sharp decline in solar generation after sunset, combined with low wind output, creating a supply gap in Northern Ireland that was met through imports from the South.

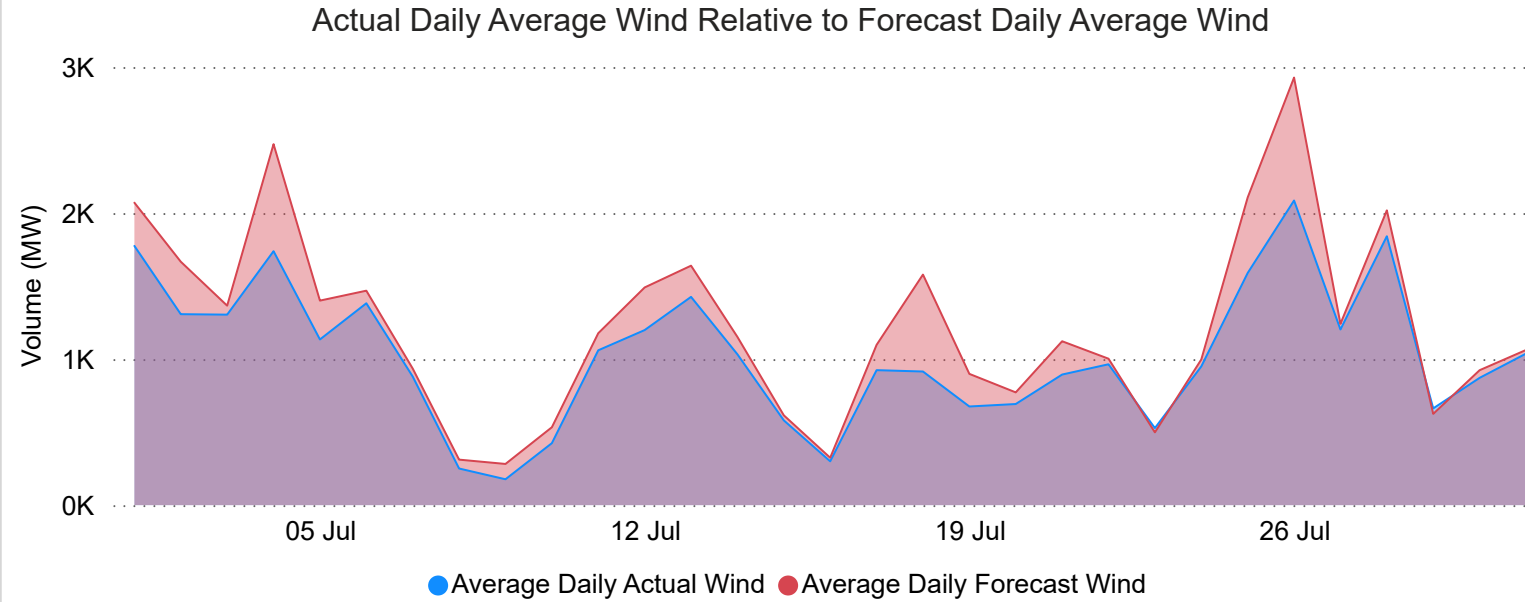
Wind Generation July 2026

Average Daily Actual Wind (MW)
1,026

Average Daily Forecast Wind (MW)
1,219

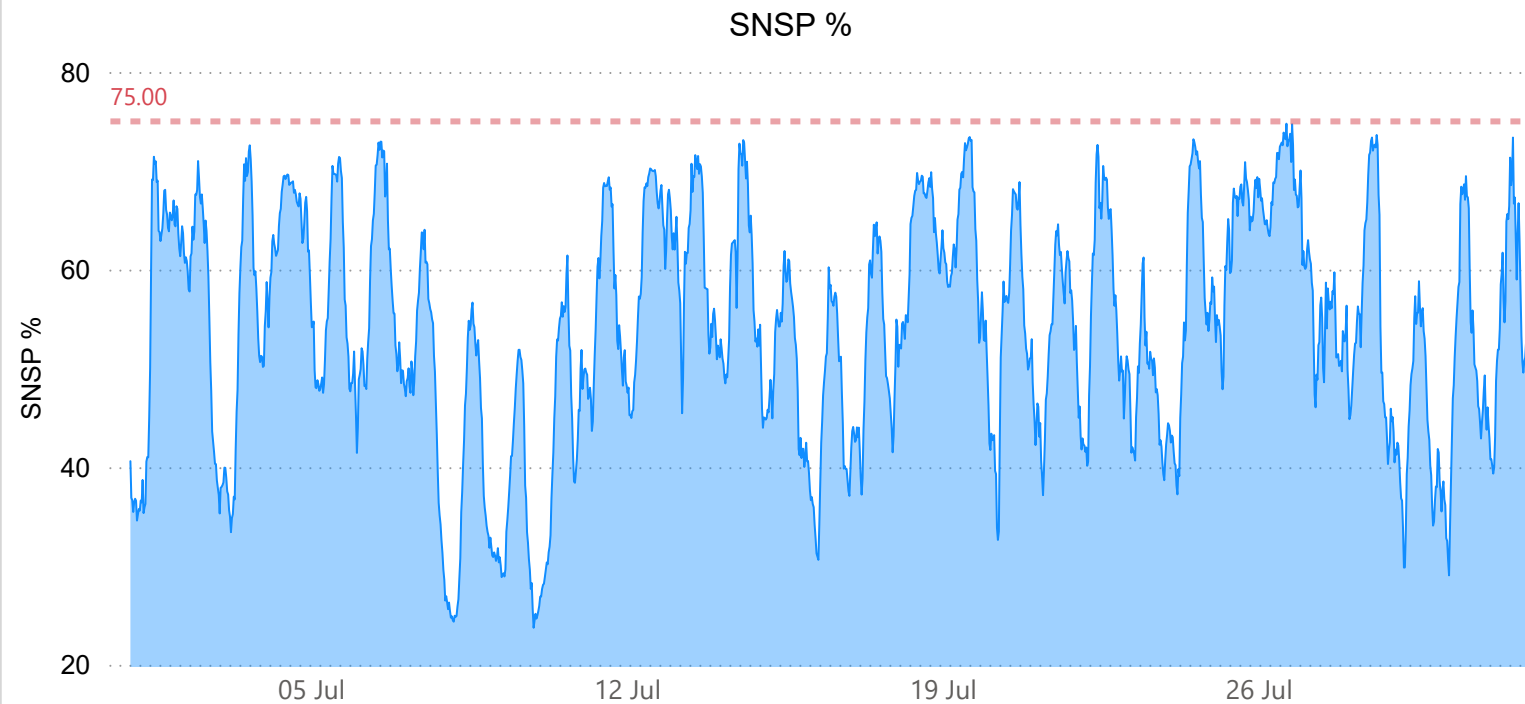
Wind Generation

Average wind output showed a 23% decrease compared with the previous month, and by 3% 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%
23.75

Max SNSP%
74.77

CO₂ July 2026

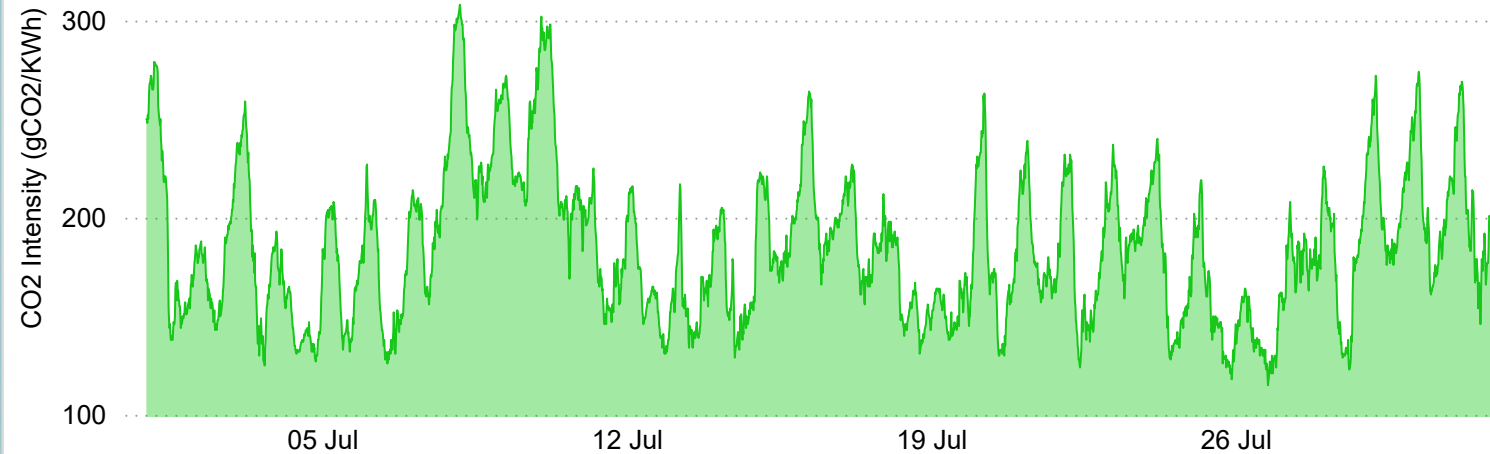
CO₂ Intensity (gCO₂/kWh)

184.78
Average
115
Lowest
308
Highest

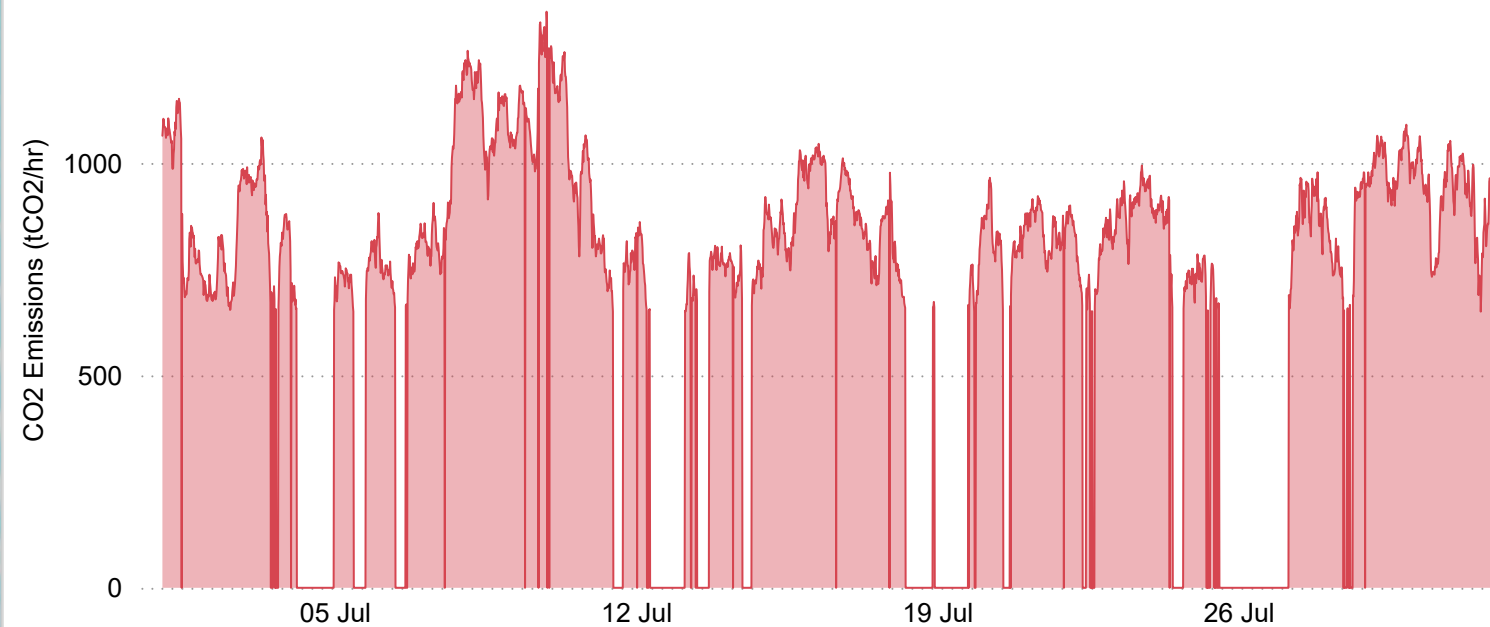
CO₂ Emissions (tCO₂/hr)

672.88
Average
0
Lowest
1356
Highest

CO₂ Intensity



CO₂ Emissions



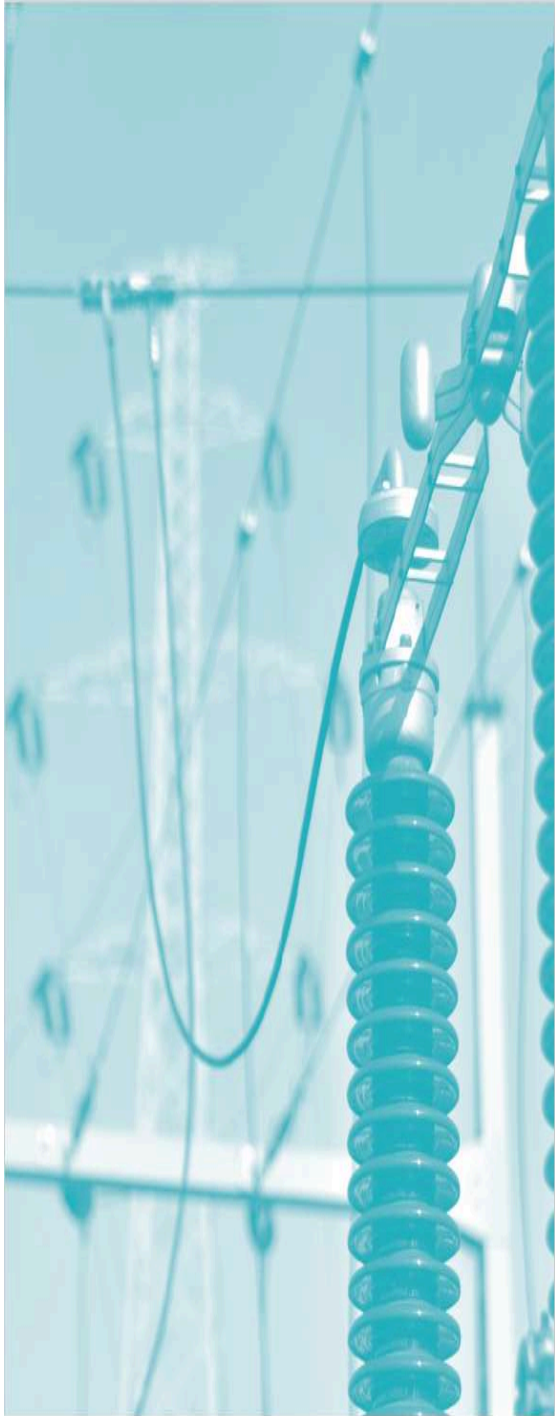
CO₂ Intensity

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

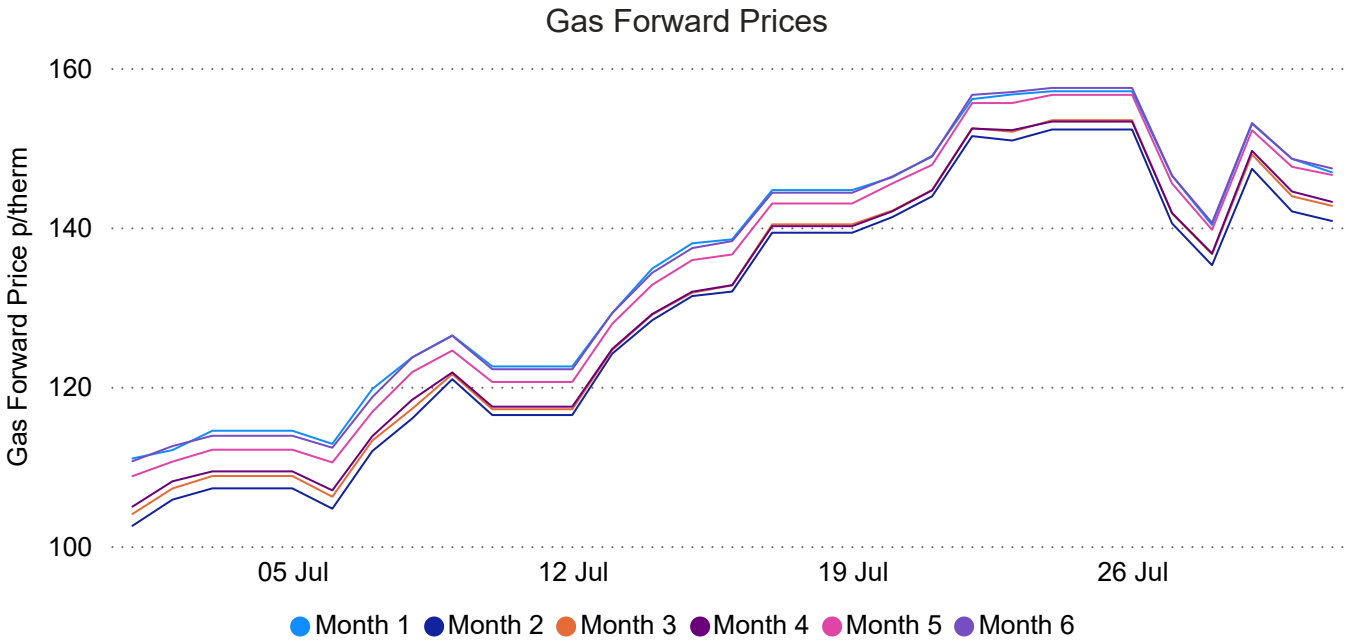
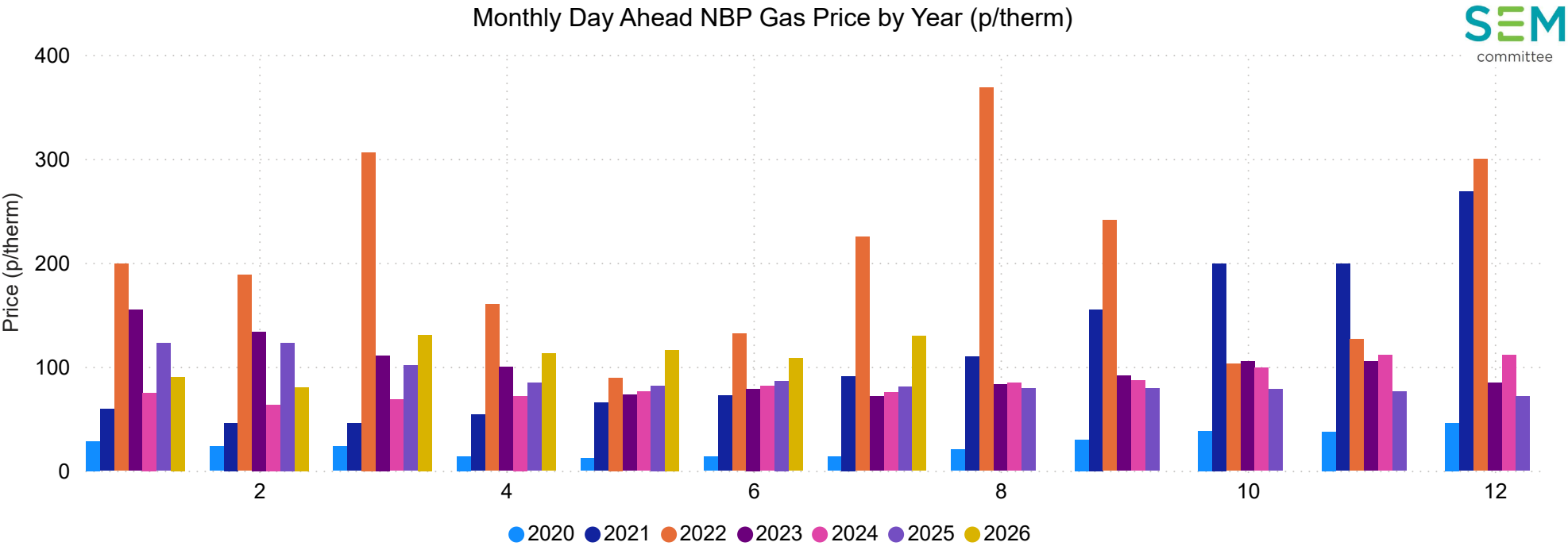
CO₂ emissions i.e. the estimated total CO₂ emissions from all large power stations, follows the same trends as CO₂ intensity levels over the course of the month.

Fuel Costs and Spreads



Gas Price July 2026

129.29
Monthly Average (p/therm)
101.80
Monthly Low (p/therm)
152.25
Monthly High (p/therm)



Gas Prices

Gas prices increased throughout July, rising by 20% compared to last month and 60% above July 2025 levels. Prices averaged 129.29 p/therm, driven primarily by geopolitical tensions in the Middle East.

Forward contracts remained elevated, reflecting the market's risk premium for the upcoming winter months.

Carbon Price July 2026

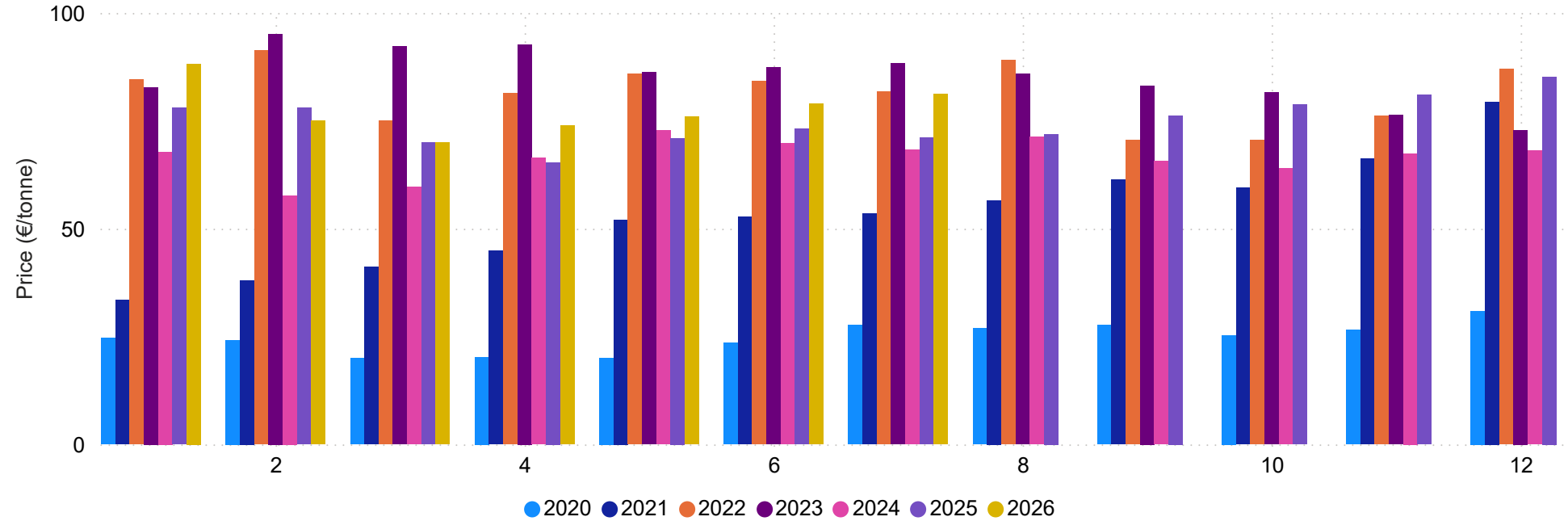
EU Carbon Prices (€/tonne)

€ 81.18
Monthly Average
€ 78.90
Monthly Low
€ 86.31
Monthly High

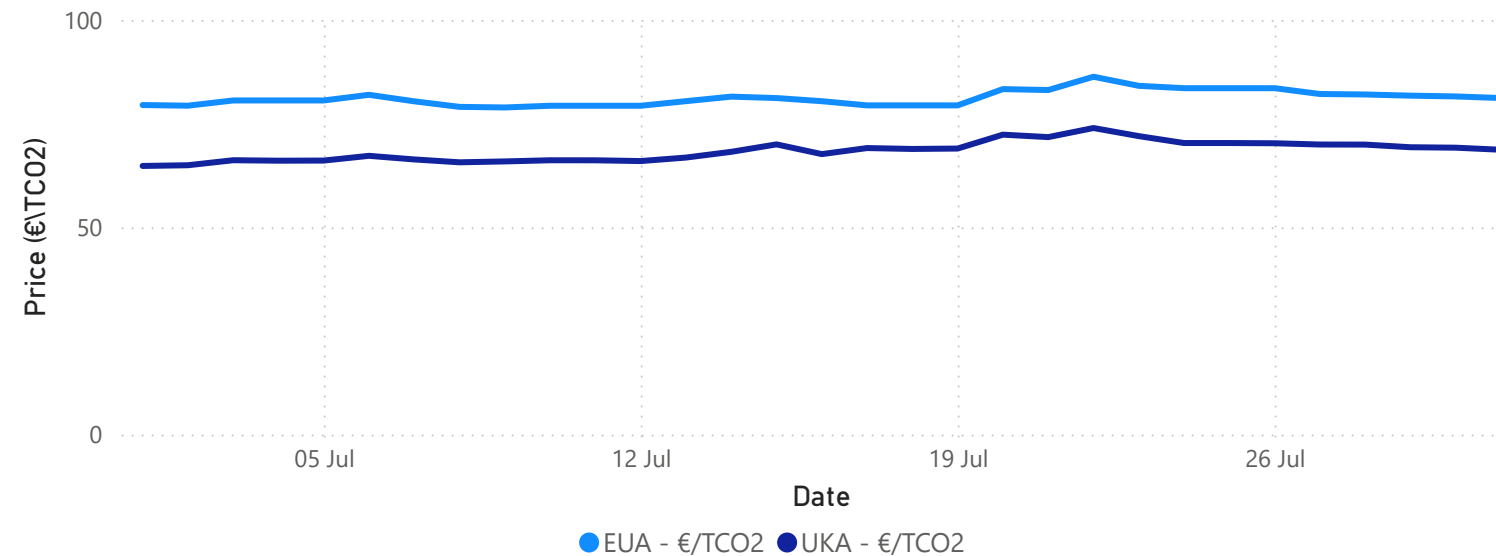
UK Carbon Prices (€/tonne)

68.36
Monthly Average
64.79
Monthly Low
73.94
Monthly High

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



UK & EU Carbon Prices



Carbon Prices

Carbon prices averaged 81.18€/tonne, a 3% increase on average from last month.

Spark Spreads

July 2026

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. It's calculated as the daily average on the 30-minute DAM price intervals.

The Clean Spark Spread was negative on a few periods of strong wind generation combined with elevated gas prices.

For instance, on 4th July, the average DAM price was €89.2/MWh, while the estimated short-run marginal cost of a CCGT (49.13% efficiency) was €103.47/MWh, resulting in a theoretical Clean Spark Spread of -€14.27/MWh.

