

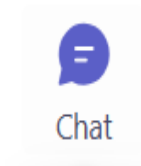
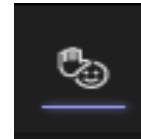
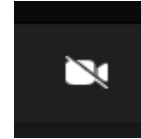
Market Operator User Group

28th May 2026



Housekeeping Rules

- Please keep your video switched off
- Raise your hand if you have a question
- Chat option will be available



Thank you for your cooperation.



Welcome

Fergus O'Boyle



Agenda Items	Presenters
Welcome	Fergus O'Boyle
SEMO CapEx Update	Aidan Kehoe
Release Program	Vikas Gupta
Ex-Ante Markets	Joaquin Iñiguez de Gante
SEMO Trading	Michael Rainey
SEMOpX Trading	Amy Yeung & Sean O'Rourke
Settlements	John Tracey
System Operations IE	Charlie McGee
System Operations NI	Jan Dillenburger-Keenan
Market Interface	Mark Cullen



SEMO CapEx Update

Aidan Kehoe



Price Control SEMO CapEx- Cumulative (Oct 24-Mar 26)

Cumulative SEMO CapEx and Cloud Spend (indicative)	CapEx		Cloud	
	Allowed PC Spend 01 Oct 24 - 28 Mar 26	CapEx Actual Spend 01 Oct 24- 28 March 26	Forecast Spend per Final Determination	Actual Spend 01 Oct 24 to 28 Mar 26
	(Indexed to Mar 2026 monies)	(2026 monies)	(2026 monies)	(2026 monies)
	24 Months	18 Months	24 Months	18 Months
Strategic All island Programmes (€'m)	5.88	6.04		
Strategic Markets Programme (TBC)	TBC	TBC		
Scheduling and Dispatch	5.88	6.04		
Total System Release Capital (€'m)	10.88	1.88		
Market System Releases	8.84	1.77		
Market System Release Support	2.04	0.11		
Total Predictable (€'m)	14.13	2.44	10.20	4.55
Data Centre Transformation	3.77	-		
Advance Cyber Maturity	0.38	0.06		
Data, AI and Analytics	1.16	-	2.34	1.36
Digital Workplace	1.26	0.21	2.60	0.25
Integration Modernisation	0.41	-	1.10	
IT Service Transformation	0.18	-	0.18	
Market Technology Enablement	1.81	0.24		
Markets Infrastructure	5.17	1.94		
SEMO Finance System / ERP	-	-	2.88	2.85
Audit and Compliance Tool	-	-	0.23	
SharePoint Online Mods Documentation	-	-	0.87	0.08
Total Unpredictable (€'m)	4.59	0.46	-	-
Unforeseen hardware and software upgrades	0.22			
Market Evolution (Known Unknowns - Legislative/Regulatory changes etc)	4.37			
Greenlink		0.46		
Total Capital and Cloud (€'m)	35.49	10.82	10.20	4.55

- The forecast figures reflect SEMO's Final Determination indexed to 2026 monies.
- Actual figures:
 - For Cloud they reflect the spend in the 18 months to March 26.
 - For CapEx they reflect the actual spend in the 18 months to March 26.
- The figures shown for the Market System Releases and Market Systems Release Support are the release costs that accrue to SEMO only.
- System Release Capital reflects ongoing non-SDP release costs which are no longer covered by the 2022 Bi-Annual Release Agreement (BARA). Release Support costs includes all associated project management, business analysis and test costs. The majority of Release N and Release OP costs to date have been attributed to SDP and Celtic. There will be SEMO related Release OP and Release Q spend before the end of FY26, therefore the variance v the PC allowance will reduce.
- Advance Cyber Maturity contains ongoing projects to enhance EirGrid's cyber-security posture.
- Digital Workplace reflects spend on the upgrade of the Content Management System for sem-o.com and semopx.com. This also reflects ongoing improvements to www.sem-o.com.
- Data, AI and Analytics - Phase 3 of the EDH is complete and both Market Monitoring and Quarterly Fuel Mix Disclosure use cases are operational on the platform within SEMO.
- Market Technology Enablement includes completed Test Automation project and ongoing Market Archive work.
- Market Infrastructure ongoing upgrade work on virtual platform, Windows 11 roll-out and a new Database Recovery Appliance project. Windows 11 roll out is now complete.
- *These numbers are provisional and subject to audit.



Release Program

Vikas Gupta



Releases

Release O/P

Release O and P will be delivered together. UAT is in progress.
Targeted go live- June end.

Scope:

- CR 350.. SDP 03/05 (Fast Frequency Response (FFR)/Reserve services scheduling and dispatch)
- CR 351..SDP06 (Synchronous condenser scheduling and dispatch)
- CR 332 Registration and Configuration of Celtic Interconnector within Central Market Systems (CMS)
- CR 329 (Physical notification feasibility monitoring)
- CR 302 (Warning messages for IC scheduling optimisation)
- CR 311(Interconnector MMS correction)
- CR 317(Enhance DSI capability to use default values for ICRP)
- CR 338 (Scheduling of interconnectors based upon net position forecast)
- CR 330 (Adoption of multi NEMO arrangements)
- ID->20240711-6323150 (CR342), Title: Application of incorrect Fixed Costs (Multiple Complex COD submission for a single trade day) : Going to be fixed as a part of release OP

- *Note: CR261 (Upgrade of optimiser) - will go live separately before release OP (Tentative- 15/06)*



Ex-Ante Markets

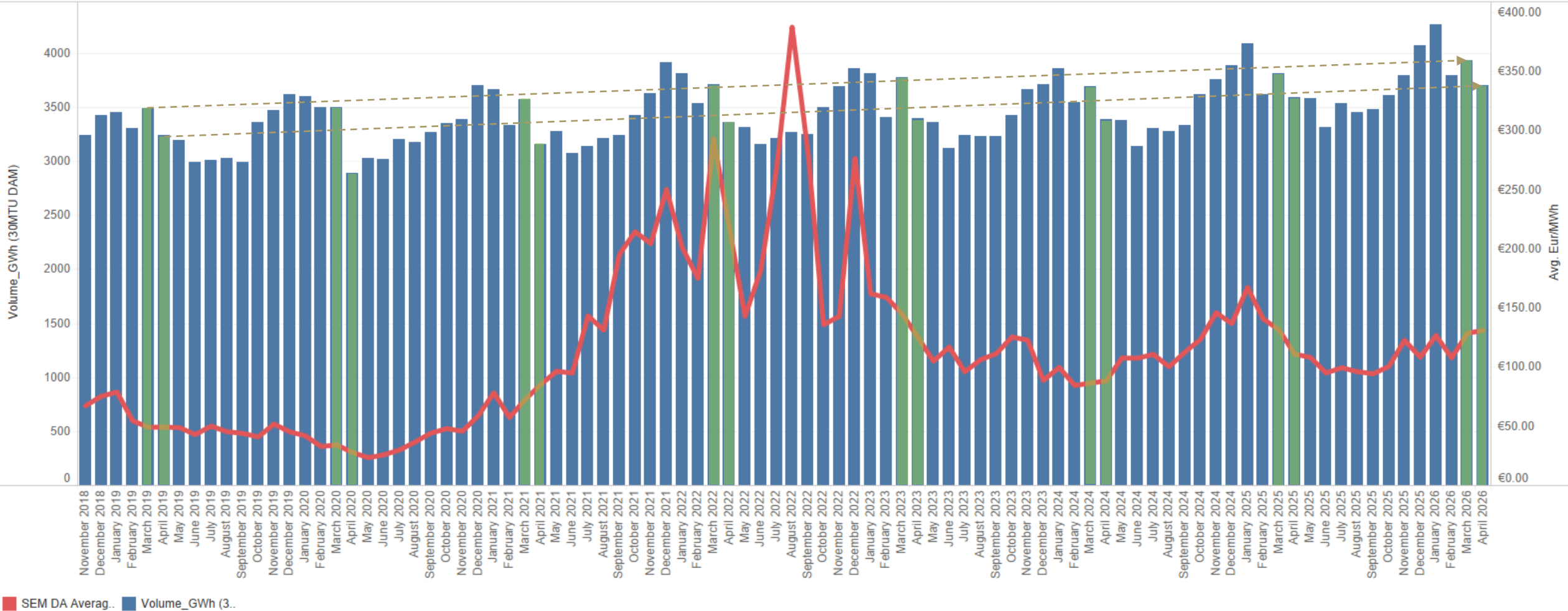
Joaquin Iñiguez de Gante



Ex-Ante Markets

Volume Trade vs Avg. price (DA)

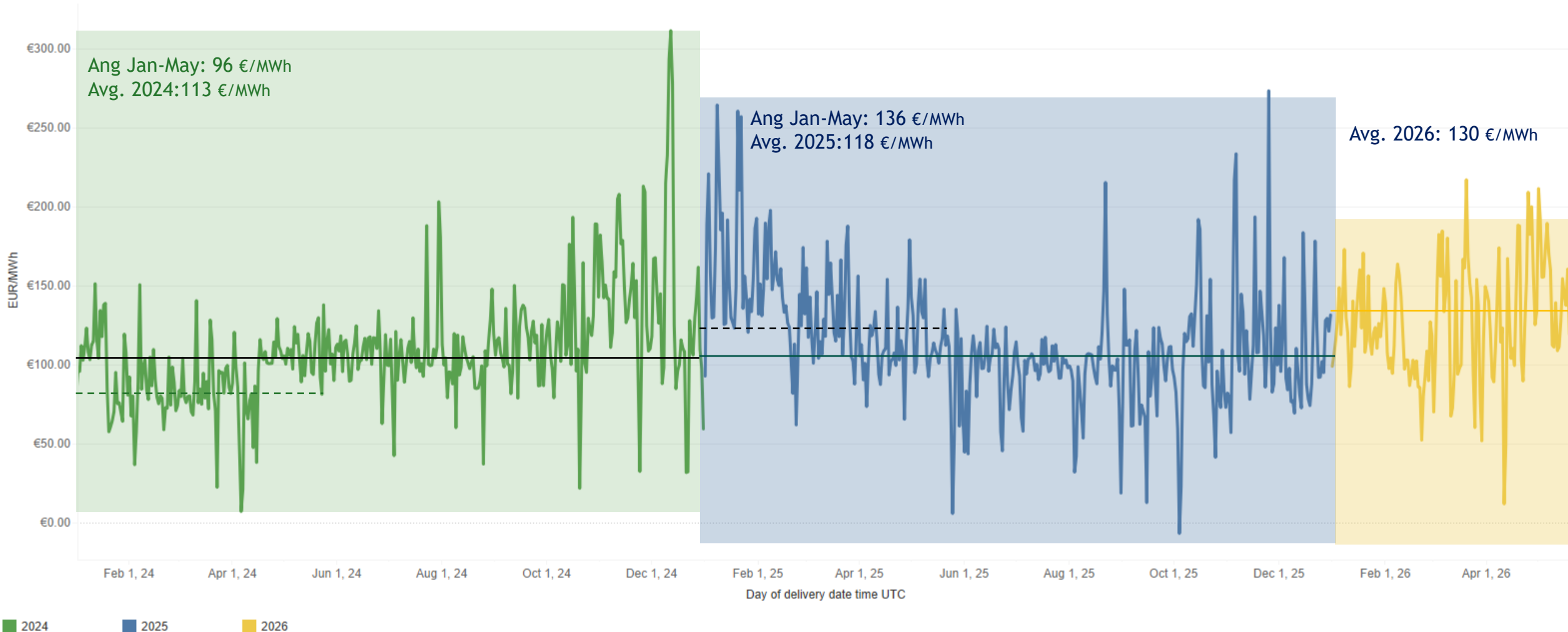
Month of delivery date time UTC



- Volumes within the DAM showed a seasonal trend, being March and April 3% higher than the same months last year.
- DAM April price close around 130 €/MWh which is 2% higher than March and 17% lower Y-o-Y.
- March and April show a 20% increase compared to February 2026.

Ex-Ante Markets

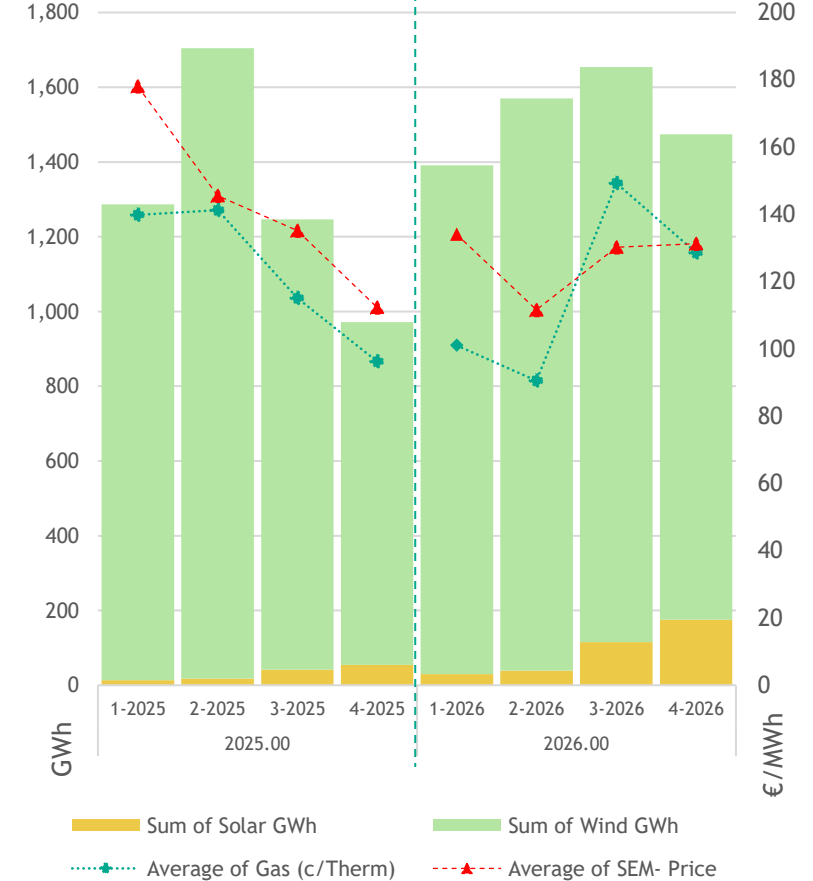
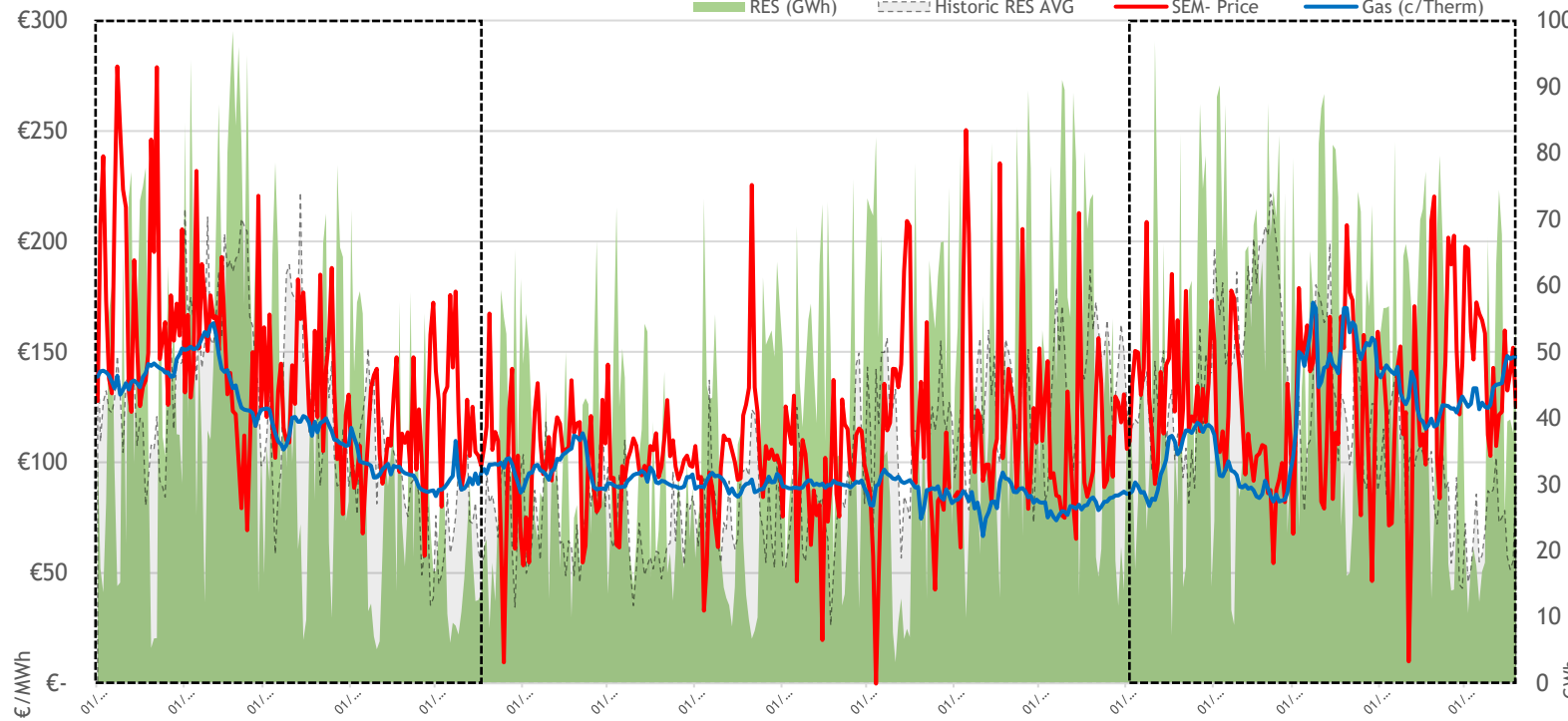
Ex-Ante Markets - (DA) Daily Prices



- Year-to-date 2026 has averaged €130/MWh, which is 35% higher than the same period in 2024 and 4.4% lower than 2025.
- So far in 2026, prices have shown distinct phases: a relatively stable January, followed by a period of high renewable generation without a corresponding increase in gas prices, and finally March and April, marked by a gas price increase of 60% while renewable generation remained stable.
- These dynamics have increased intra-month price volatility.

Ex-Ante Markets

Average SEM Prices vs Wind Generation

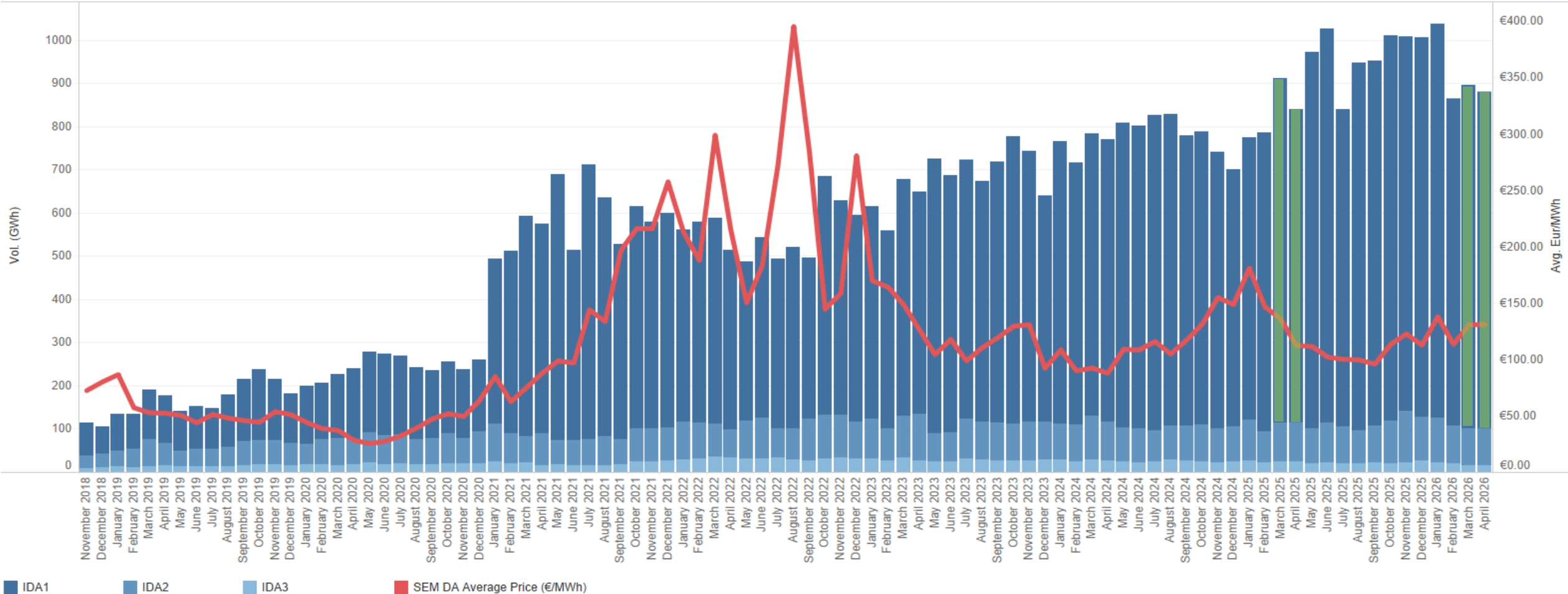


- Strong renewable performance in 2026, with wind generation increasing by ~28% in March and ~41% in August; solar generation almost quadrupled over the period.
- Gas prices surged by ~60% in March-April compared to February levels.
- CCGT availability and higher renewable output played a key role in mitigating the impact of rising prices.

Ex-Ante Markets

Volume Trade vs Avg. price (IDA's)

Month of delivery date time UTC



- Volumes in IDA1 continue to be influenced by the interconnector. After one year of Greenlink being operational, year-on-year volume increases have stabilised, broadly in line with 2025 levels.
- In April, IDA1 volumes increased by 7% year-on-year, align with the 3% increase on the net imports.
- IDA2 & 3 volumes have remained stable, with no significant changes observed.

SEMO Trading

Michael Rainey



Imbalance Pricing and Repricing

Upcoming Imbalance Price Outages

- 9 June 2026 – Imbalance Pricing (10:00-12:00)
- 16 June 2026 – Imbalance Pricing (13:45-15:30)
- 23 June 2026 – Imbalance Pricing (10:00-12:00)

Repricing Status

- A manifest error was declared for [12-13 May 2026](#) and added to the [Balancing Market Repricing Calendar](#).
- Materiality assessments will resume after deployment of Release O/P.
- An updated repricing schedule will be shared once these are complete.

Day Ahead Market Back Up Price

- A new section has been added to the SEMO website for publication of the Day Ahead Market Backup Price.
- A market message has been issued with the relevant [link](#).



SEMOpX Trading

Amy Yeung



MATS Maintenance & Release Windows*

Date & Time	Impact	Reason	Communication
27/05/2026	Maintenance	HMMCP SDAC Minimum Price Decrease	OMM message (email sent a week in advance and on the same morning)
09/06/2026 (TBC)	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)
14/07/2026	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)



*Regular maintenance window: approx. between 21:30 and 01:30 GMT/IST every 2nd Tuesday of the month. Any down time to MATS will be communicated to members via OMM in advance.

M7 Maintenance & Release Windows*

Date & time	Impact	Reason	Communication
09/06/2026 (TBC)	Maintenance	v6.21 Release	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
14/07/2026	Maintenance	TBC	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
11/08/2026	Maintenance	TBC	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)



*Regular maintenance window: Between 18:30 and 01:30 GMT/IST every 2nd Tuesday of the Month.

SEMOpX Updates

SDAC Member Full Decoupling Test

- Date: 3rd June 2026.
- After the SDAC full decoupling is declared, fallback mechanisms will be activated; For SEMOpX, a local auction be triggered.
- Details in [\[Link here\]](#).

HMMCP SDAC Minimum Price Decrease

- DAM Minimum Clearing price decreased from -500€/MWh to -600€/MWh as of Trading Date May 28th for Delivery Date May 29th for SDAC Auction.
- Updated Trading on Behalf forms [\[Link here\]](#).
- IDA 1, 2 & 3 remains unchanged.



SEMOpX Updates

The NEMO Committee has launched a public consultation on SDAC Product Methodologies. Dedicated stakeholder online workshops will also be held to present the proposals and answer questions.

SDAC Products Methodology Public Consultation

- Open until: 18/06/2026
- Workshop: Thursday 28 May 2026, 11:00 CET
- A recording of the presentation will be available on the NEMO Committee website after the webinar [[Link here](#)]



SEMOpX

Sean O'Rourke



SEMOpX Member Forum:

- Following on from March 25th SEMOpX update - SEMOpX are getting ready to operate in a competitive market from 2027.
- **Member Interactions** - How we interact with our members is one of the readiness areas we are introducing some changes to.
- SEMOpX intend to hold a regular dedicated forum for its members, which will be operated separately from the TSOs and SEMO forum (current MOUG).
- The “**SEMOpX Member Forum**” will be held every 6 weeks, with the first forum due to take place on June 4th, 2026, to cover key SEMOpX project updates - invites issued out to SEMOpX members.
- The “SEMOpX Member Forum” will include topics such as Operational & Maintenance updates, SEMOpX Project Updates and SEMOpX Analysis updates.



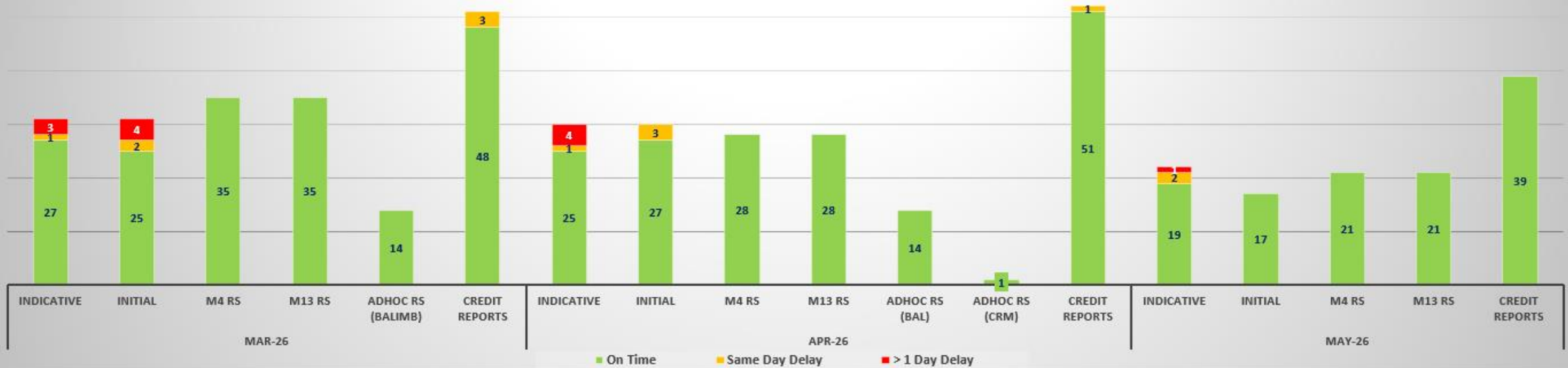
Settlements

John Tracey



Settlement Publications & Timelines: 1st March 2026 - 22nd May 2026

Settlements Publications: Indicative, Initial, Resettlement (RS) and Credit Reports



March 2026

- **184** settlement publications on time
- 2 delays due to slower than usual processing times, 1 delayed due to late receipt of data and 1 delayed due to MMS Outage
- 6 delays Initials due to MDP Data Issue
- 3 Credit Reports not published due to MDP Data Issue

April 2026

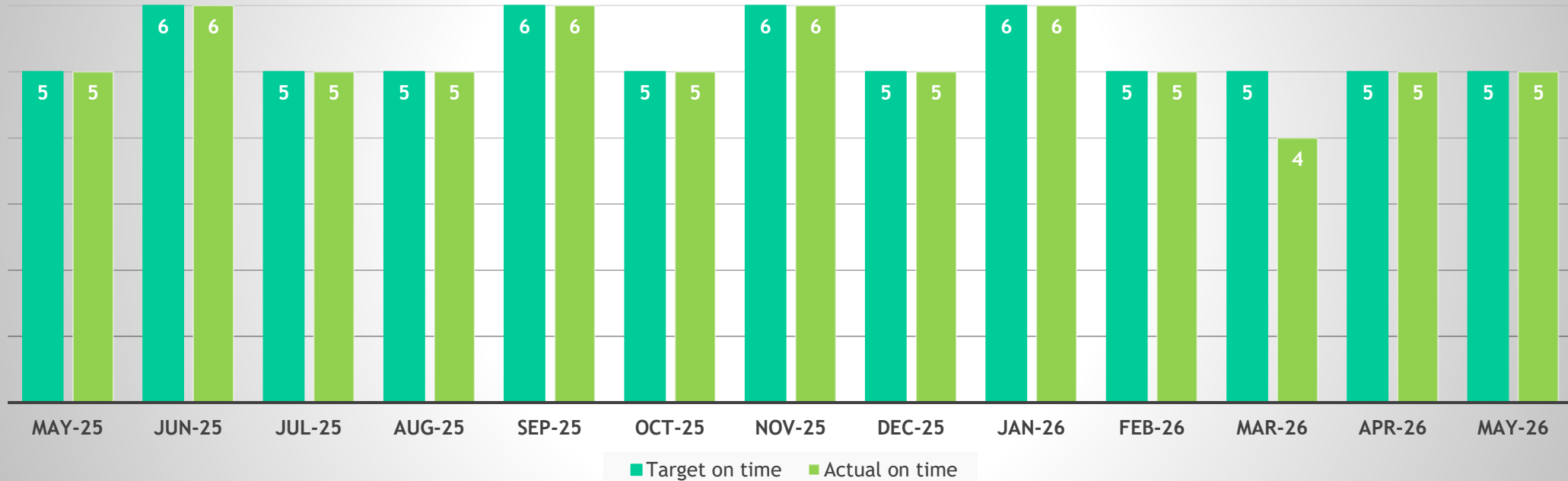
- **174** settlement publications on time
- 5 delayed Indicatives due to late receipt of data
- 2 delayed Initials due to late receipt of data and 1 due to slower than usual processing times
- 1 delayed Credit report due to MMS outage
- 1 Capacity month published for Ad-Hoc

May 2026

- **117** settlement publications on time
- 3 delayed Indicatives due to slower than usual processing times
- No delays for Initial publications
- No delays for Credit Report publications

Settlement Documents Publications

Settlement Documents: 1st May 2025 - 22nd May 2026 (BALIMB, Capacity and MO Invoicing)



Settlement Document updates:

- **68** Settlement Documents (SDs) published on time between 1st May 2025 and 22nd May 2026 (includes BALIMB, Capacity and MO Invoices). One delayed Settlement Document on 13th March 2026 due to MDP Data Issue.

Net Settlement Document & Clean Energy Package

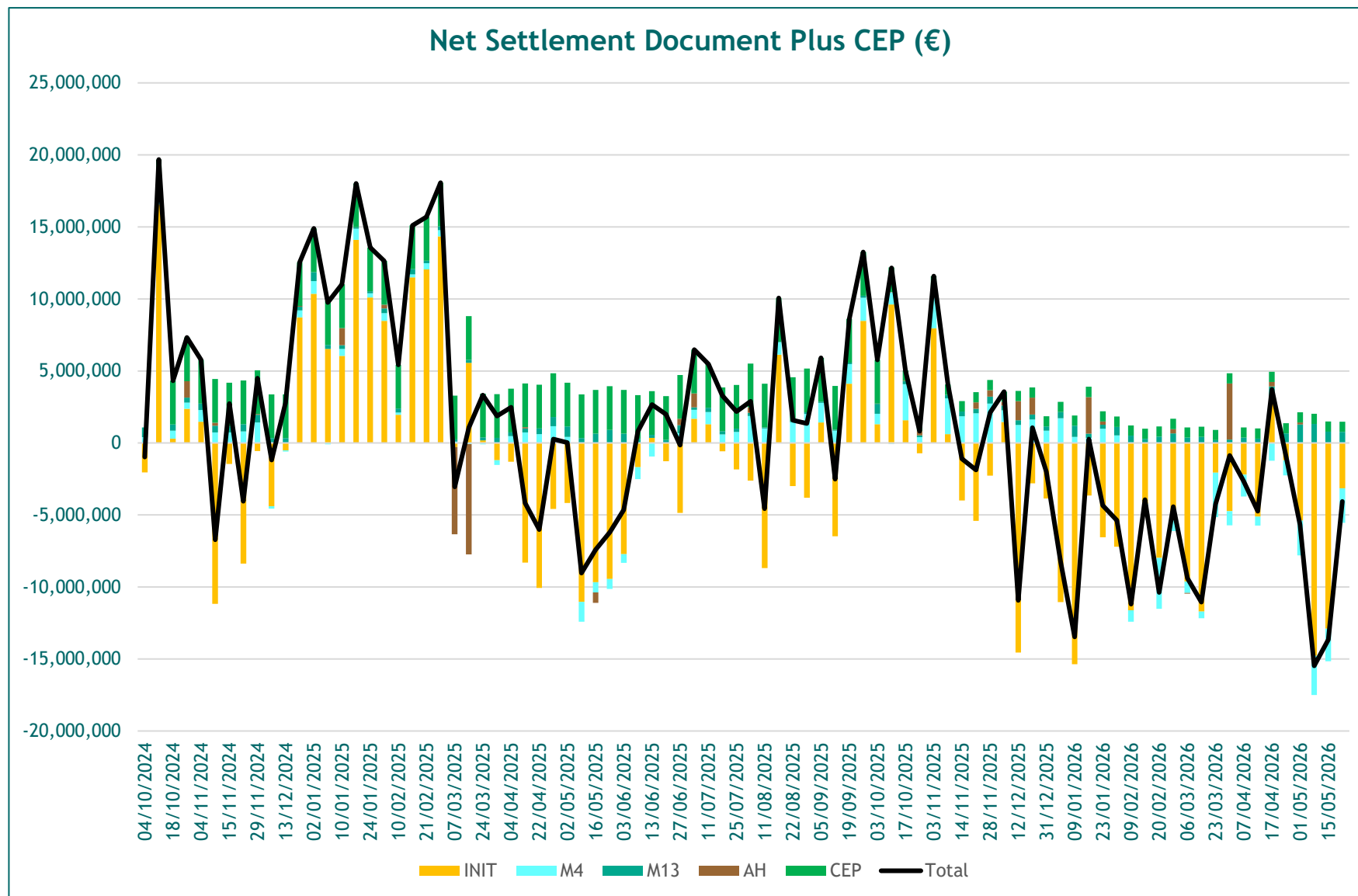
The summation or net of all published Settlement Documents (SD) plus the cost of the Clean Energy Package (CEP) from start of October 2024 to date is ~€109M:

- -€72.6M from SD's
- €181.5 from CEP

Largest swings in Prices from 24/25 to 25/26 (€ per MWh)

- PIMP: Imperfections Price increase by 36.3% (€14.62 to €19.93)
- PCCSUP: Supplier Capacity Charge Price decreased by 14.9% (€21.23 to €18.07)
- PREV: Residual Error Volume Price changed from a payment to a charge (€0.46 to -€1.83)

CEP has also reduced in 25/26 compared to 24/25 (~€3M p w to ~€0.7M pw)



Positive values = Payments out by SEMO
 Negative value = Payments due to SEMO

Settlement Documents to issue Tuesday 2nd June 2026

[Settlement Calendar \(sem-o.com\)](http://sem-o.com)

Settlement Document for Tuesday 2 nd June
Initial BALIMB - (17/06/2026 - 23/06/2026) - Week 21 2026
M+4 BALIMB - (25/01/2026 - 31/01/2026) - Week 05 2026
M+13 BALIMB - (27/04/2025 - 03/05/2025) - Week 18 2025
M+4 CRM - Jan 2026
M+13 CRM - Apr 2025



Point of Note:

- Settlement Calendar for 2026 / 2027 published on 26/05/26.

System Operations IE

Charlie McGee



Operational Constraints Updates

Large Energy User (LEU) Fault Ride-Through

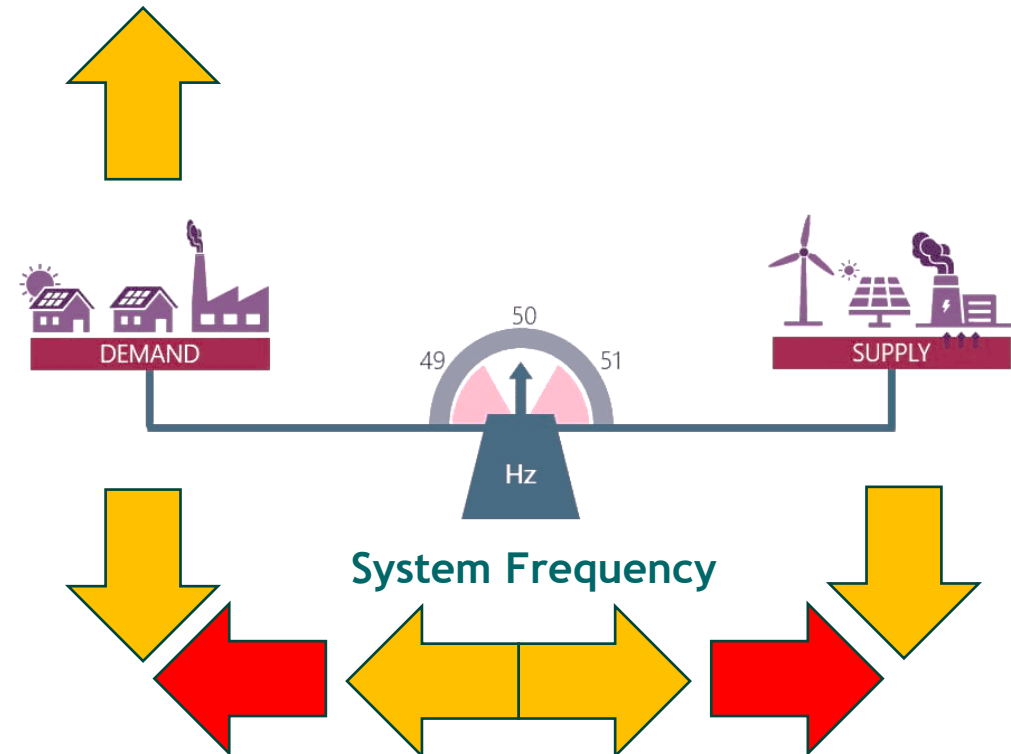
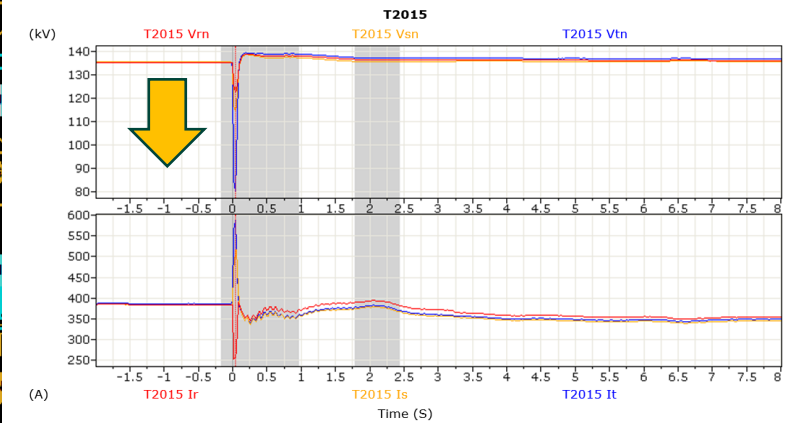
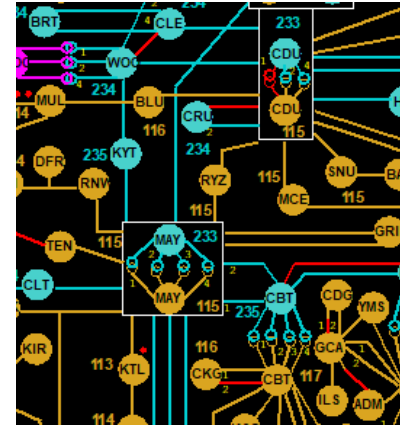
- Risk mitigation measures necessary to ensure stability of All-Island power system
- Risks associated with potential temporary mass-disconnection of data centre demand in response to fault on power system (see next slide)
- Studies indicate total system ‘Load Rejection’ must not exceed 900 MW
- ‘Load Rejection’ limit currently respected through trade-back of relevant interconnector exports
- Battery constraints required to manage post-‘Load Rejection’ frequency zenith & to prevent Over-Frequency Generation Shedding (OFGS)
- Increased inertia floor required to ensure Rate-of-Change-of-Frequency (RoCoF) limits respected

Constraint/Note	Reason
SO-SO trades to be performed on EWIC, Greenlink, and Moyle to limit exports where necessary.	System Stability
System wide Battery ESPS* charging not to exceed 200 MW (managed through Dispatch) State of Charge of Battery ESPS units not to exceed 85% of storage capacity (managed through Dispatch).	System Stability
Maximum Total System Load Rejection** (from Large Energy Users & Interconnector Exports) not to exceed 900 MW. This insecurity threshold is likely to restrict exports on the interconnectors, with SO-SO trades used to manage this constraint.	System Stability

Operational Limit for Inertia		N:> =	28,000MWs (interim)	Ireland and Northern Ireland Power Systems
--------------------------------------	--	-------	---------------------	--

LEU Fault Ride Through Issue

- Fault on overhead line/cable/busbar/transformer/etc.
- Voltage dips until protection 'trips' faulted plant
- Data centre demand trips to UPS if local retained voltage drops below 80%
- System frequency rises very high due to generation significantly exceeding demand
 - Units with 'footroom' provide negative reserve response
 - Frequency zenith may trigger OFGS if very high
 - Excessive RoCoF may also lead to disconnection of generation
- System frequency falls
 - With fault cleared, data centre demand reconnects
 - System frequency falls even further but with certain generators now disconnected
- Worst Case Scenario
 - Three-phase fault on EWIC while exporting 530 MW
 - Total potential 'Load Rejection' in excess of **1.4 GW**



System Operations NI

Jan Dillenburger-Keenan



2-Set Trial Enduring

SONI have successfully decreased the required minimum number of conventional generators online from 3 to 2

- SONI have completed a trial period operating the power system with a minimum of two conventional generators online
- This change has now become enduring operational policy for Northern Ireland

Why this matters

- Step change for renewables on the Northern Ireland grid
 - More space for renewables online
 - Reduction in dispatch down of NI wind



2-Set Trial Enduring: Industry implications

Reducing the required minimum number of conventional units online makes way for low carbon inertia sources. This is an enabler for increased wind on the system

Short-term impact

- Less ‘constrained-on’ conventional generation
- Move towards inertia floor as governing constraint
- Reduction of dispatch down

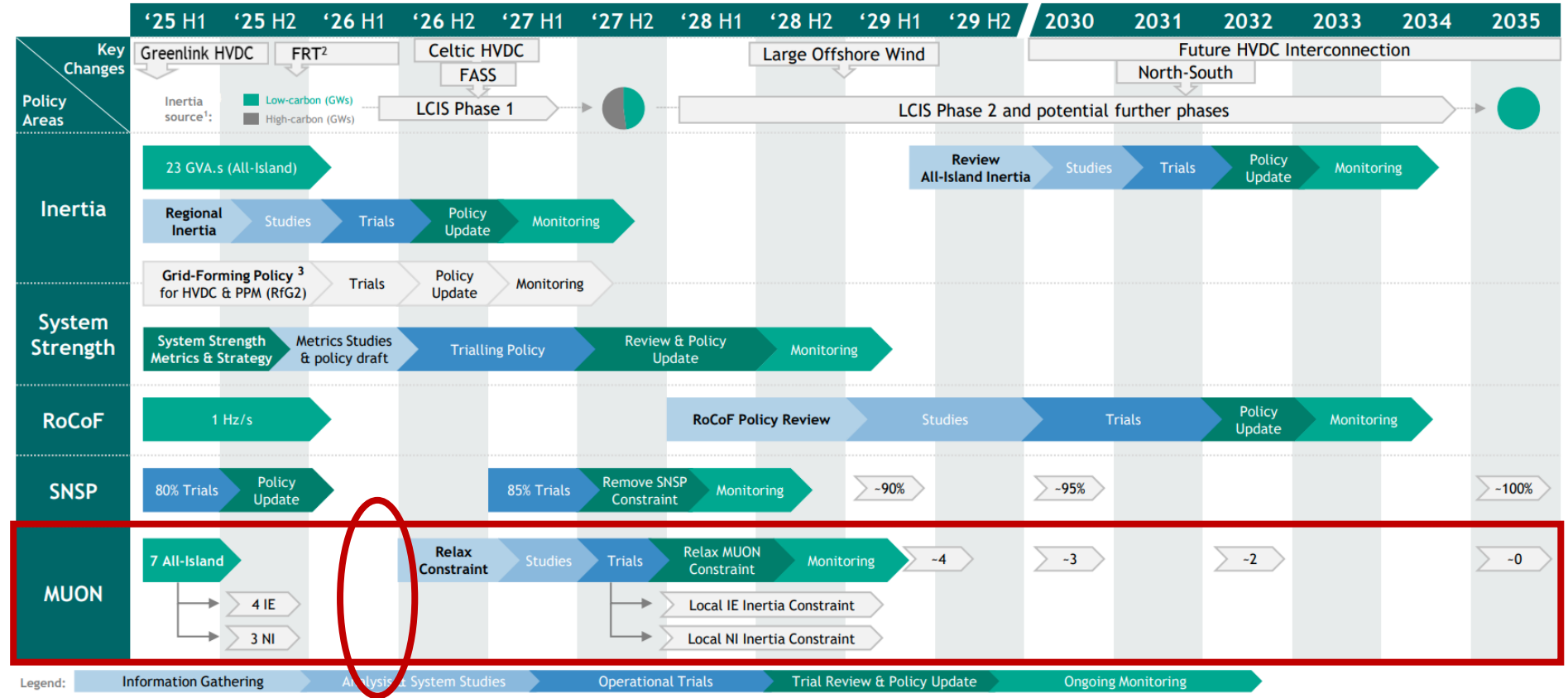
Long-term impact

- Decoupling of inertia and generation as an enabler for low-carbon services and generation
- Allows for further reduction of minimum number of conventional units online constraint
- Further reduction of dispatch down

2-Set Trial timeline context

Operational Policy Roadmap

All island MUON remains at 7. Target of all island MUON=0 by 2035



2-Set Trial Enduring: Security, safety, and next steps

System security remains priority

Strong safeguards in place


- Two-set operation is conditional
 - SONI retains the ability to move back to three sets if required
- Weather events, low reactive margins, or specific outages continue to trigger additional safeguards
- No new system insecurities identified to date

Implementation

- The updated NI 2-set rule has been:
 - Applied as part of normal operational policy
 - Communicated through existing market publications
- Ongoing monitoring and review remain in place to ensure continued secure operation

2-Set Trial Enduring: Further Information

“This will help to put downward pressure on costs for consumers and enable us to operate the system more efficiently — all while maintaining the high standards of stability and reliability that customers expect” – SONI CEO Alan Campbell

**SONI - System Operator for Northern Ireland** 8,467 followers 2d 🌐 ⋮

SONI is unlocking more renewable energy for Northern Ireland ⚡

Through new technology and smarter system operation, SONI has reached a major milestone that allows more wind and solar power to flow through the electricity grid, while maintaining the high standards of safety and reliability consumers expect.

For the first time, following carefully controlled operational trial, Northern Ireland's electricity system can now operate securely with two large conventional generators instead of three at certain times - a significant change that creates more room on the grid for renewable energy.

This innovation is already:

- ✓ Increasing the use of local renewable generation
- ✓ Reducing reliance on fossil fuels
- ✓ Putting downward pressure on costs for consumers

It's part of SONI's wider programme to future proof the electricity system and support a cleaner, more secure energy future for Northern Ireland.

👉 Find out more: <https://lnkd.in/ejTKvheB>

Market Interface

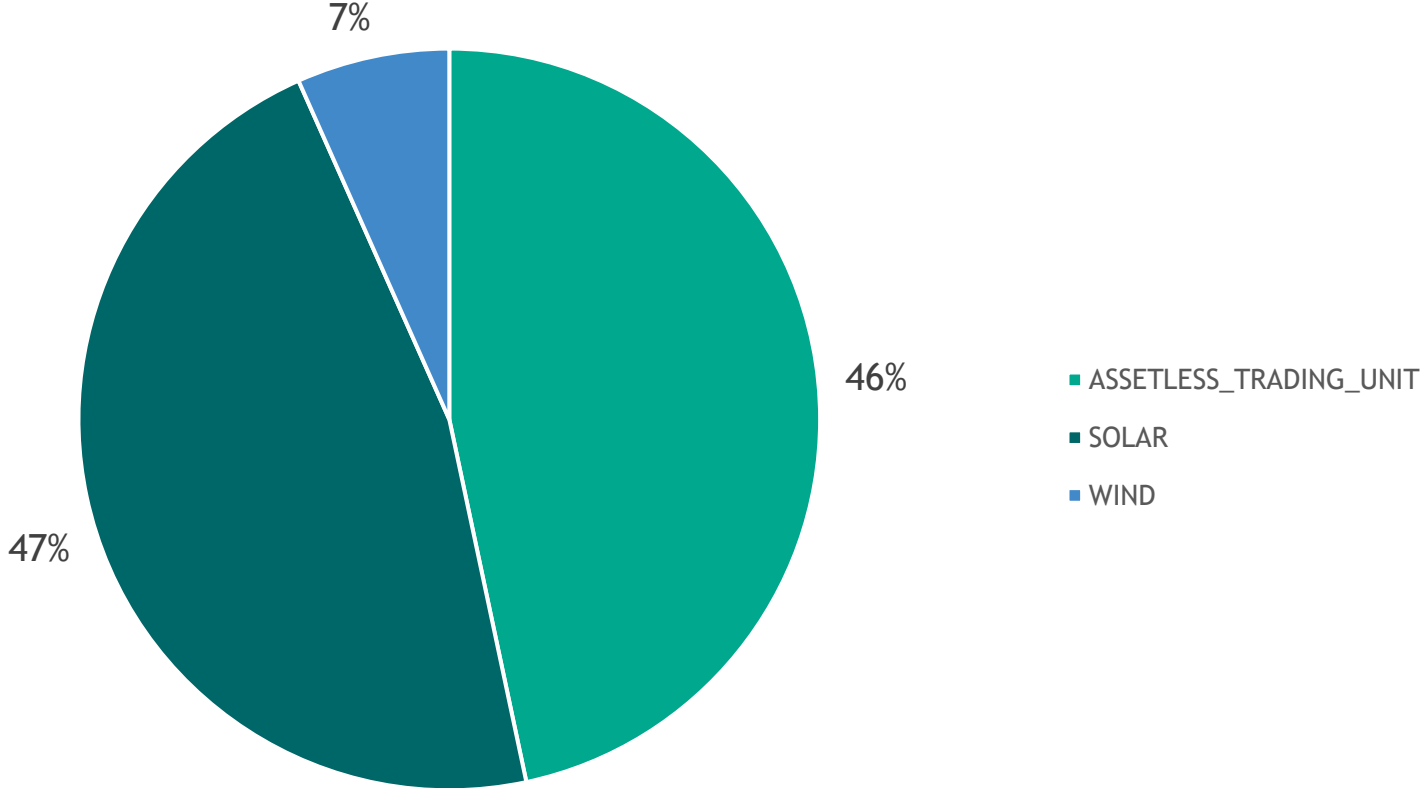
Mark Cullen



Balancing Market Registration: January - May 2026

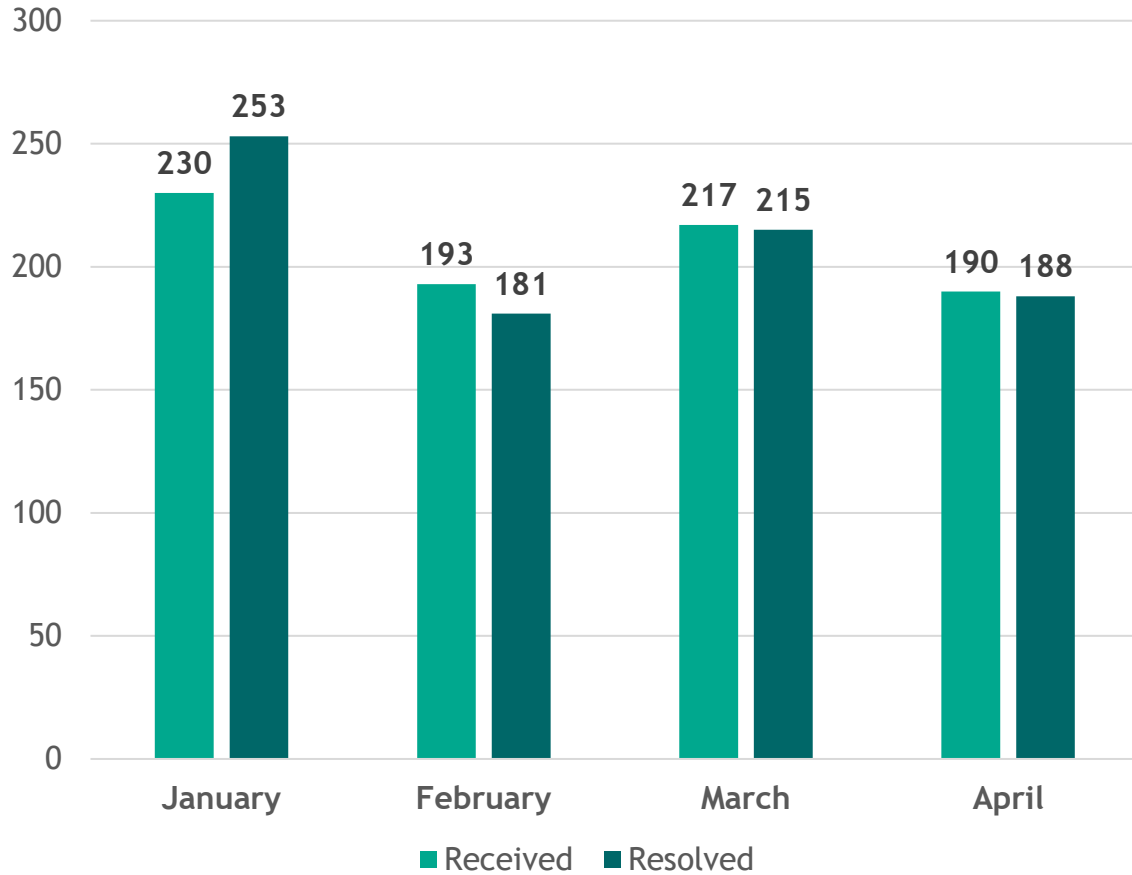
- 3 new Parties joined
- 15 Unit registrations
- 2 Unit de-registrations

Breakdown By Fuel Type

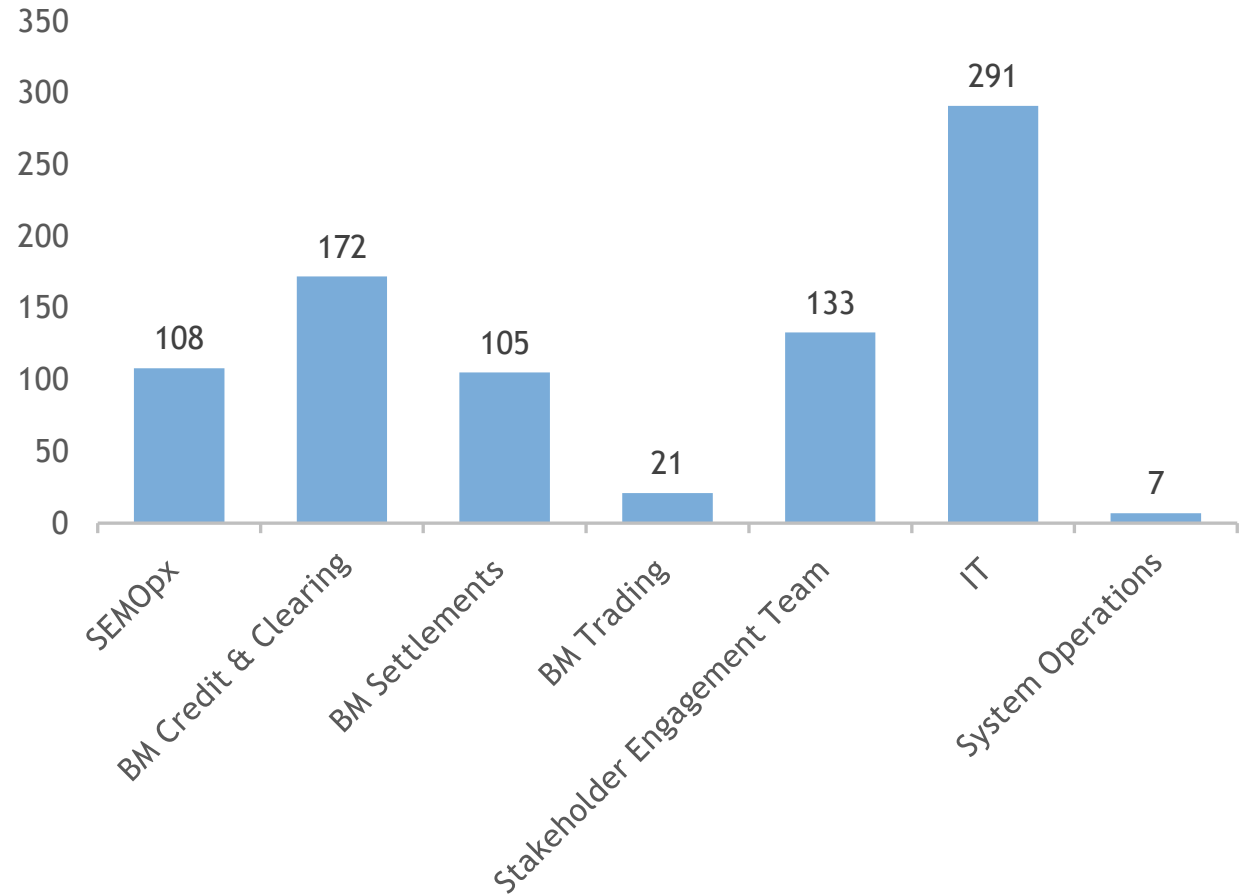


SEMO and SEMOpx General Queries: 01st of January - 30th of April

Total Received 830 & Resolved 837



SEMOPx & SEMO Resolved General Queries



Disputes

- January 2026 - 27th of May 2026: No Disputes raised.

Formal Settlement Queries (29th of January 2026 - 26th of May 2026)

- Received: 70
- Closed: 69

(60 were Upheld, 8 were not Upheld and 1 was Withdrawn)

- Open: 11



SEMO & SEMOpx Helpdesk Hours - Monday, 01st of June 2026

- The SEMO Helpdesk will be unavailable due to the Bank Holiday in Ireland, this includes info@sem-o.com and non-urgent phone lines.
 - We will be available to take urgent calls on **1800 726 772**.
- SEMOpx will remain available for Urgent Operational Issues relating to the DAM/IDM & MATS/M7 related queries.
 - Email: marketops@ops.semopx.com
 - ROI: 1800 283 010 (select option 1 or 2)
 - NI: 0800 008 3010
 - International: +353 1 668 8183
- The SEMOpx Helpdesk will be available to take urgent calls on **1800 283 010**, select option 3.
 - Non-urgent operational queries can be submitted to the SEMOpx Helpdesk info@semopx.com however these will not be actioned until Tuesday, 02nd June 2026.

MOUG Survey

- We currently have a survey open to capture your views and feedback on your experience to date regarding the Market Operator User Group (MOUG) Meetings.
- You can access the survey [here](#). This will be available until close of business, Friday June 12th.
- Your feedback is greatly appreciated.



Dates to Note

- The next Thursday Participant call @09.30am will take place on 04th of June 2026.
- The remaining Market Operator User Group (MOUG) meetings for 2026 are scheduled on the following dates:
 - 10th September
 - 25th November - In-person
 - 10th December



Thank you for your attendance

SEMO Website: <http://www.sem-o.com/>

SEMOpX Website: <http://www.semopx.com/>

SEMO & SEMOpX Contacts:

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Capacity Market: CapacityMarket@sem-o.com

