

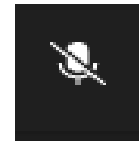
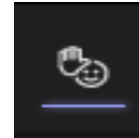
Market Operator User Group

07th November 2024



Housekeeping Rules

- Please keep your video switched off
- Raise your hand if you have a question
- When asked to unmute your line



Thank you for your cooperation.



Welcome

Anne Fitzgerald



Agenda Items	Presenters
Welcome	Anne Fitzgerald
Release Program	Mark Hogan
Balancing Market Modifications	Katia Compagnoni
Ex-Ante Markets	Joaquin Iñiguez de Gante
SEMO Trading	Dermot Campfield
SEMOpX Trading	Amy Yeung
Settlements	John Tracey
System Operations IE	Seamus Power
System Operations NI	Stephen McClure
Market Interface	Rosaleen Fanning



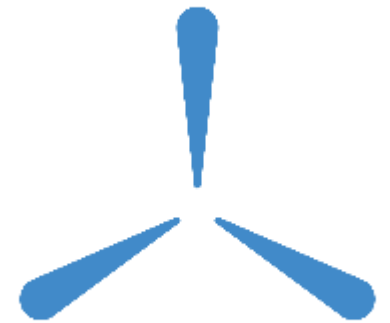
Release Program

Mark Hogan



Release Programme

- **Release M.1**
 - Deployed 9/10/2024
 - 3rd party software upgrades
- **Release N Schedule and Dispatch Tranche 1**
 - SDP-01 Operation of Non-Priority Dispatch Renewables (NPDR)
 - SDP-02 Energy Storage Power Station (ESPS) integration
 - SDP-04 Wind dispatchability improvements
 - Factory Acceptance Test to complete this week
 - Release package to be sent to EirGrid before end of November
 - Forecast go live still April 2025
- **Schedule and Dispatch Tranche 2**
 - SDP-03 Fast Frequency Response (FFR)
 - SDP-05 Reserve services scheduling and dispatch
 - SDP-06 Synchronous condenser scheduling and dispatch
 - Forecast go-live October - December 2025
- **Next Future Power Market Industry Workshop, November 12, 2024, via MS Teams**
- **E-mail FuturePowerMarkets@Eirgrid.com or futurepowermarketsNI@soni.ltd.uk**



Christmas 2024 Change Freeze

Final CAB of 2024	Wed 18 th Dec 12pm
Normal Change Freeze	Wed 18 th Dec 6pm
First CAB 2024	Mon 6 th Jan 12pm
Change Resumption	Mon 6 th Jan 12.30pm



SEMO Website update

- Improvements to the Search Functionality
- Improved Categorisation of Documents
- Introduction of an Historic Data page
- New Look and Feel
- The removal of inaccurate/outdated information
- Updates to the Settlements Calendar
- Go live forecast early December, subject to testing



Balancing Market Modifications

Katia Compagnoni

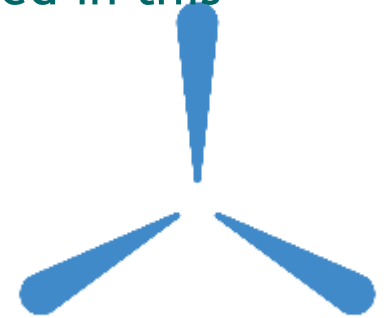


Balancing Market Modification Process

Main activities between 1 October 2023 and 30 September 2024:



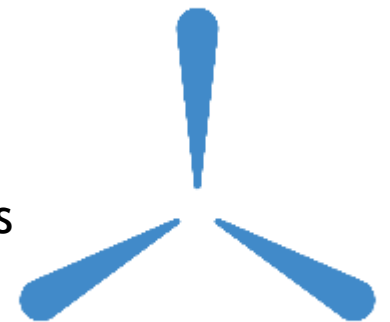
- 5 Modifications Committee Meetings;
- 1 Extraordinary Modifications Committee Meeting in September 2024 for Urgent Mod_06_24;
- 2 Industry Calls held for Mod_11_23 in November 2023;
- 2 Industry Calls held for Mod_13_23 in January 2024;
- 11 Proposals Active during the period: 2 raised before 1 October 2023 and resolved in this period; 9 Proposals raised and resolved during this period;
- 8 Proposals Recommended for Approval; 3 Proposals withdrawn;
- 1 RA Direction to postpone implementation of Mod_05_23;
- Publication of T&SC v29.0 code update in line with System Release M.
- Yearly elections of Chair, Vice Chair and expiring Committee Members.



Balancing Market Modification Process

Most Relevant Modifications:

- **Mod_11_23/Mod_02_24** in November 2023/April 2024:
 - Two Modifications to deal with Battery Integration;
 - Required discussions at multiple meetings and Industry calls.
- **Mod_13_23** in January 2024:
 - Modification to deal with Non Priority Dispatch Renewables (NPDR)
 - Also discussed at multiple meetings and Industry calls
- **Mod_06_24** in September 2024:
 - Urgent Mod in relation to new accounts to be set up for CEP collection of monies as approved in Imperfection's Tariff decision.
- Others were mainly updates to Settlement logic or algebra;



Website Upgrade Market Rules page:

Home / Rules & Modifications / Balancing Market Modifications / Balancing Market Rules

Balancing Market Rules

The Market Rules consist of the latest approved Trading and Settlement Code, Agreed Procedures and any approved Modifications which have not yet been incorporated into the main body of the Code or the Agreed Procedures.

Codes and procedures

Click below to see full links to each part of the Trading and Settlement Code and Agreed Procedures. An Archive section contains links to Part A & Part C historic documents for reference as these have ceased to be effective since 2023. Part B came into effect in parallel with Part A since the launch of I-SEM, 2018 and since 2023 is the only enduring Trading and Settlement Code, as linked below; therefore the Part B references are no longer utilised. For any queries please email the Secretariat at balancingmodifications@sem-o.com.

[Trading and Settlement Code](#)

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[Agreed Procedures](#)

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[Trading & Settlement Code Archive](#)

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Ex-Ante Markets

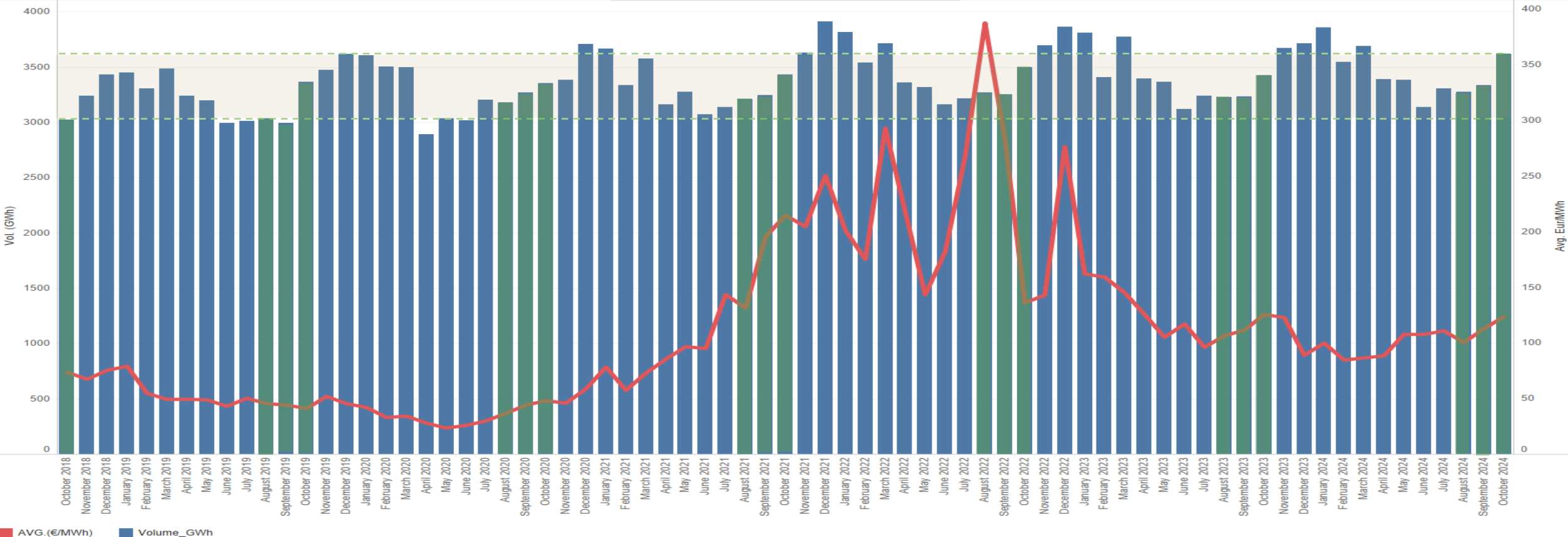
Joaquin Iniguez de Gante



Ex-Ante Markets

Volumd Trade vs Avg. price (DA)

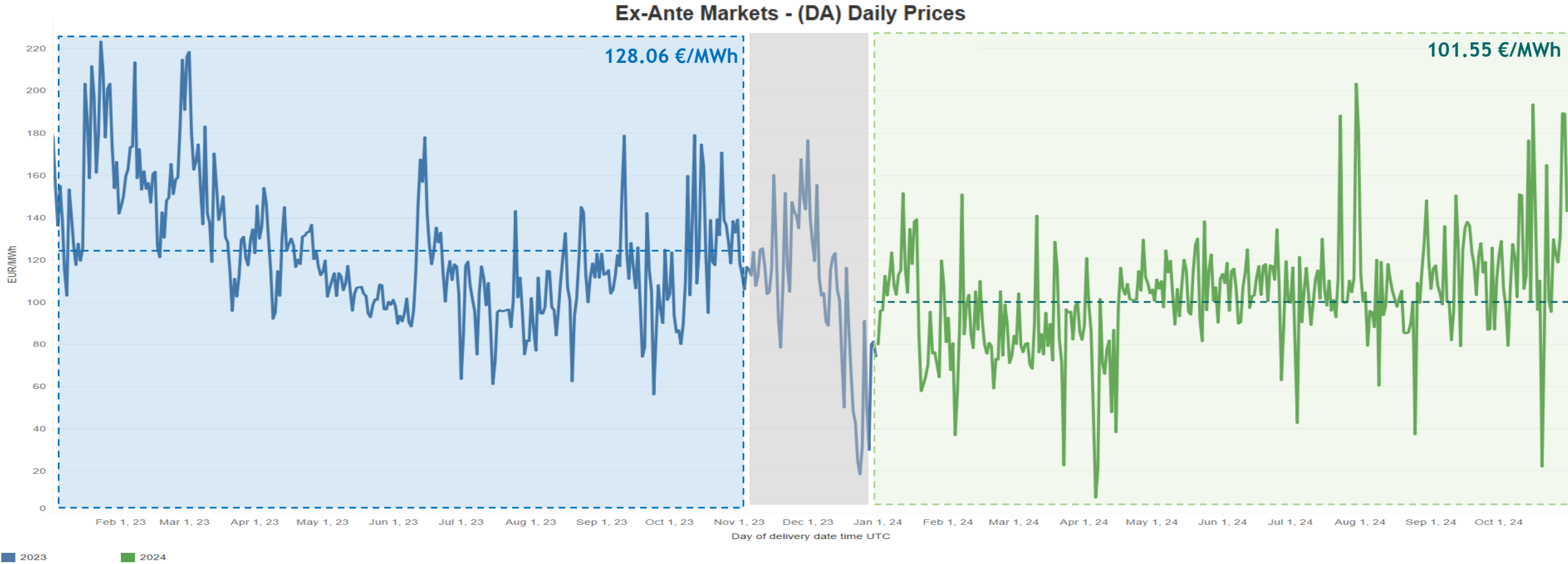
Month of delivery date time UTC



- Volumes within the DAM have remained consistent with previous years, following a seasonal trend, with a 5% increase in October volumes compared to previous years.
- After August, there is an upward trend in DAM prices, with October being 23% higher than August 2024 and 1.6% lower than the same month last year.

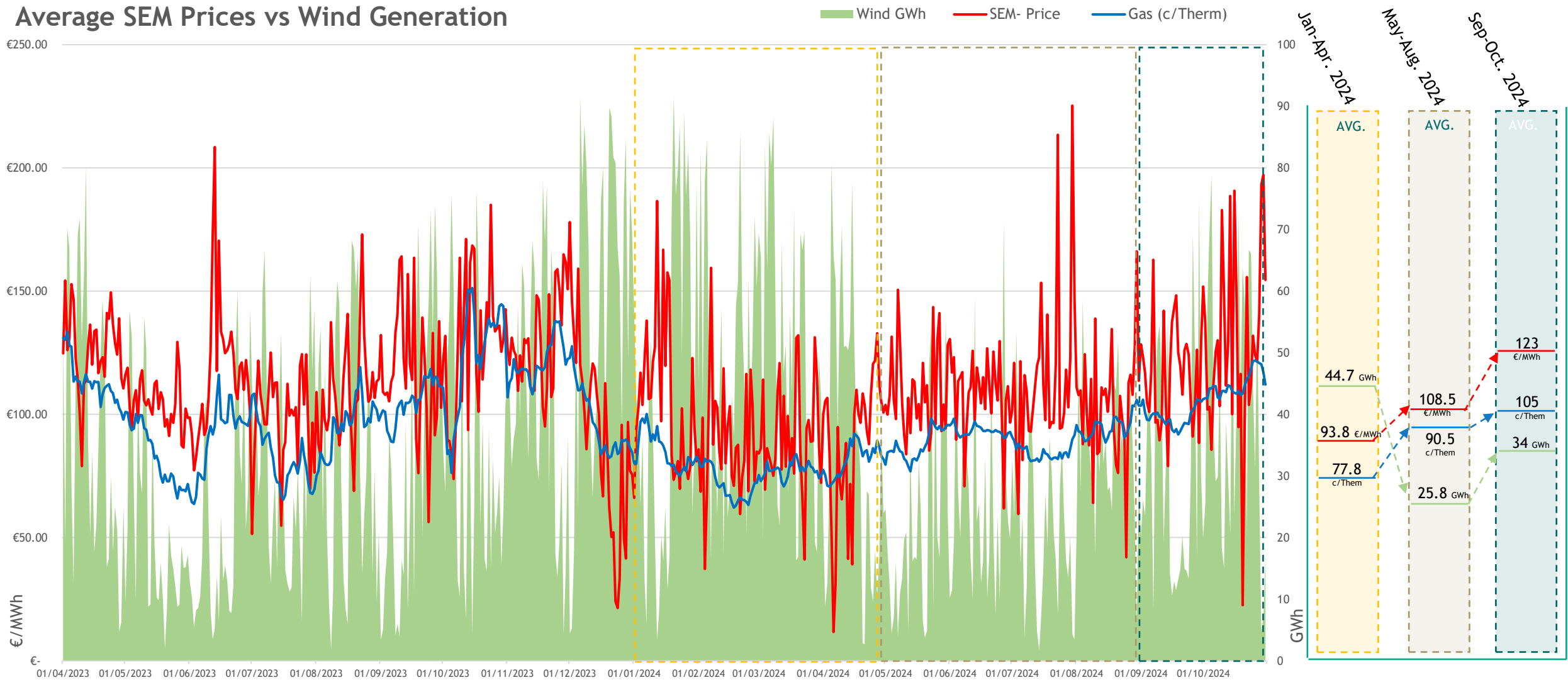


Ex-Ante Markets



- The year-to-date average for 2024 has been 20% less than in 2023.
- The 3rd quarter of 2024 showed an increase in prices, closing with an average price of €107, which is 2% lower than the same quarter in the previous year.

Average SEM Prices vs Wind Generation



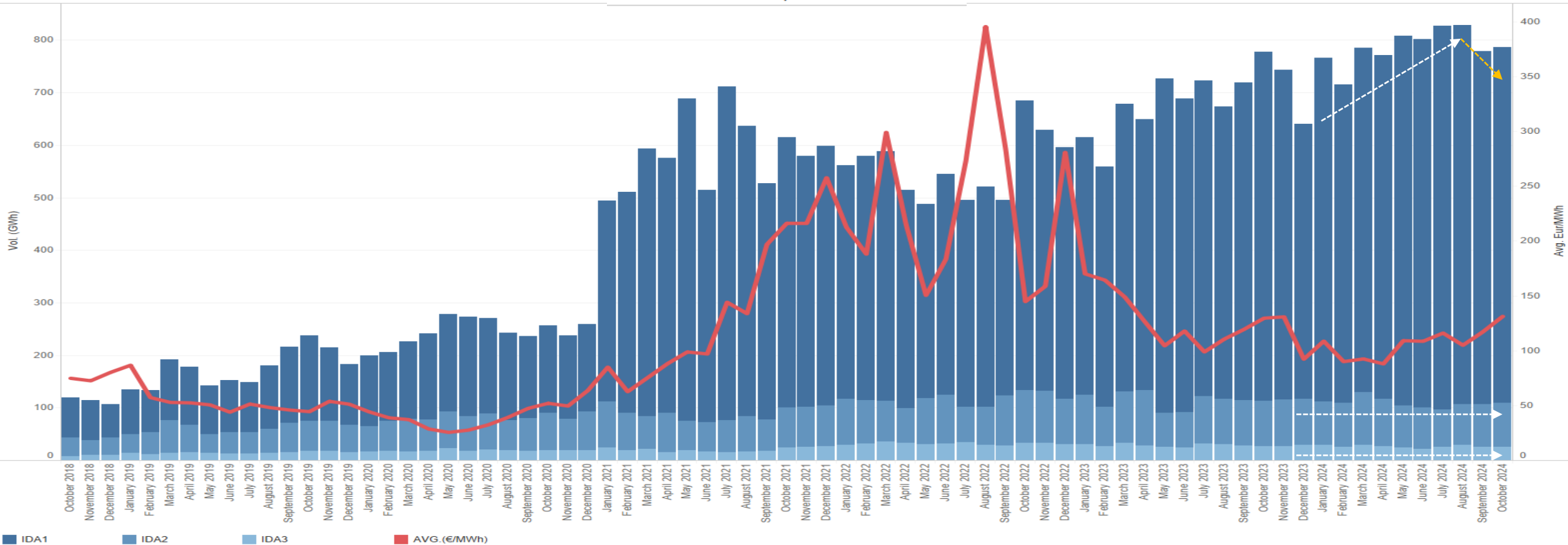
- September and October showed a 13% increase in electricity prices, in line with the 16% increase in gas prices.
- Wind power generation increased by 31%, helping to contain high prices due to increased demand and gas prices.



Ex-Ante Markets

Volume Trade vs Avg. price (IDA's)

Month of delivery date time UTC

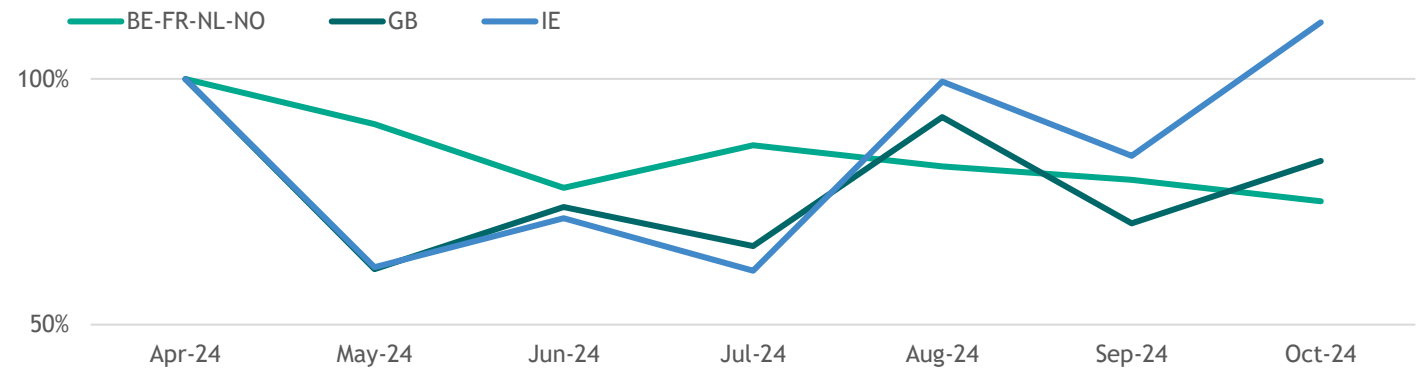


- Volumes within IDA1 continue to be influenced by the interconnector.
- After a continuous increase in volumes in IDA1, a 7% drop was seen in September and October, possibly aligned with an increase in closed volumes in the DAM.



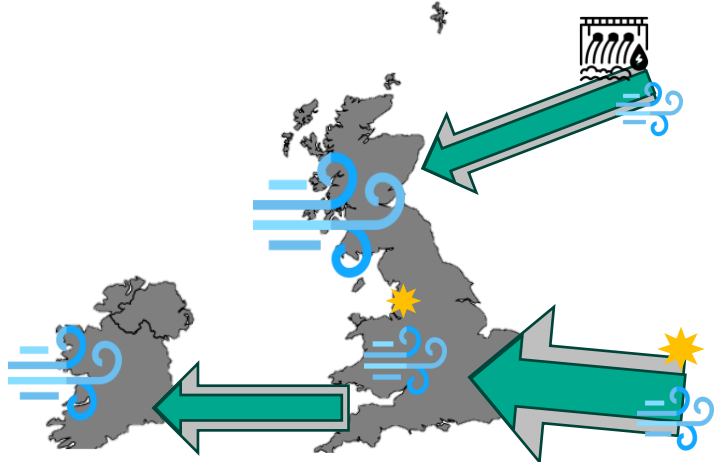
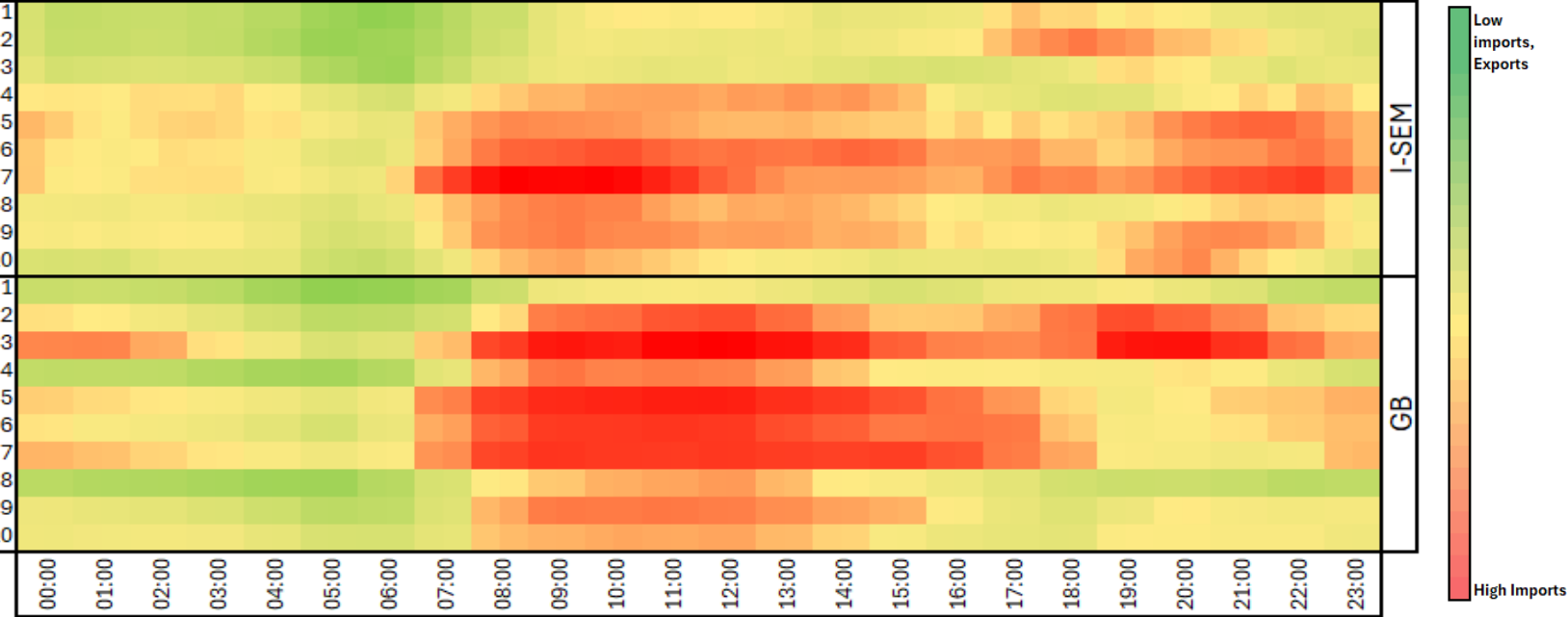
Ex-Ante Markets

Change on renewable



- August through October saw an increase in wind generation in SEM, GB, and Europe, which, combined with a decrease in Europe’s solar and hydro generation, could lead to a decrease in exports from Europe to GB and from GB to ISEM.
- The implications of solar generation on interconnection can be visualized by looking at Europe’s tendency to export during these periods.

Net interconnector follow



Data from: neso.energy, entso-e, eirgrid

SEMO Trading

Dermot Campfield



Imbalance Pricing Outages

Upcoming Outages

- 7th November 2024 (today) - Imbalance Pricing (09:30 to 16:30)
- 14th November 2024 - Imbalance Pricing (11:00 to 12:00) - Provisional
- 27th November 2024 - Balancing Market Outage (14:30 to 15:30) - Provisional



Repricing Summary

Repricing Dates	ISPs Impacted	Status Summary
10/09/2024	02:30 to 11:30	To resolve issue with missing wind DIs. Expected republication early December 2024.
30/09/2024 - 01/10/2024	18:00 to 00:30	To resolve data issue with SO Trade. Expected publication first quarter 2025.



SEMOpX Trading

Amy Yeung



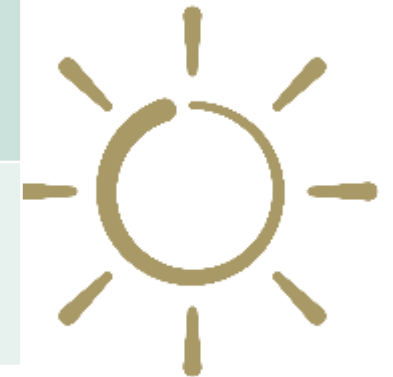
ETS Releases

- No upcoming ETS releases



ETS Maintenance Windows

Date & Time	Impact	Reason	Communication
12/11/2024	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)
10/12/2024	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)
14/01/2025	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)
11/02/2025	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)



*Regular maintenance: Between 21:30 and 01:30 GMT/IST every 2nd Tuesday of the Month.



M7 Releases

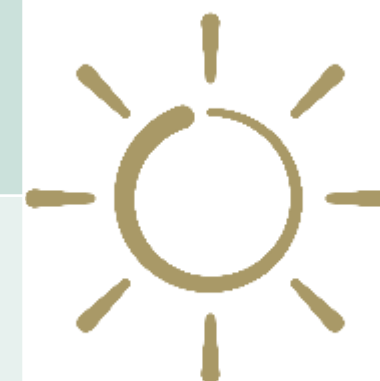
Version	Content	Impact	Timeline
6.18	<ul style="list-style-type: none">Performance boost2FA enabling/disablingAPI feature deactivation	<ul style="list-style-type: none">Various performance optimizations to keep on facilitating and accelerating algo-trading.Enhanced handling of order book updates peak situations.Security. 2FA TotpPwdReq: decommission of the flag totpEnabled, obsolete since 2FA has become mandatory in April 2024 (if still provided the flag will be ignored).	Go-live on 12th Nov 2024

- **M7 6.18 API Package** published on SEMOpx Website with the following updated documents:
 - ✓ DFS180 - API Specifications M7 6.18.370
 - ✓ New ASIM API Certificate (Test Cert)
- **Test Environment:** New M7 6.18 version is available in M7 Advanced Simulation (ASIM) Environment: <https://portal-simulation.m7.epexspot.com/>.
- **Production Deployment:** New M7 6.18 version is available here: <https://portal.m7.energy/semo/extra/>



M7 Maintenance Windows

Date & time	Impact	Reason	Communication
12/11/2024	Maintenance	Release 6.18	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
10/12/2024	Maintenance	TBC	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
14/01/2025	Maintenance	TBC	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
11/02/2025	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: Between 18:30 and 01:30 GMT/IST every 2nd Tuesday of the Month.



SEMOpX Project Updates

Multiple Auction Trading System (MATS)

- Overview of MATS Webinar on 26th Sept 2024
- Functional Changes Package issued to members on 23rd Oct 2024
- API Package issued to members on 4th Nov 2024
- MATS API Changes Webinar on 6th Nov 2024
- MATS Simulation Environment to open on 18th Nov 2024
 - Logins will be issued to MATS POCs and registered email address on the S07 - Trader (registration) form
 - Configuration will be production-like (as set up in ETS)



SEMOpX Project Updates

Multiple Auction Trading System (MATs)

- MATs Testing from Nov 2024 to Q2 2025
 - Provides members with the time to familiarise with the new interface, functionalities and API
 - Start with 60 Minute MTU testing and progress to 30 Minute MTU testing
 - Auctions will be scheduled, and scenarios will be organised
- Dedicated support email for queries (mats-support-svpx@epexspot.com) in addition to info@semopx.com
- Go-live targeted for late Q1 to Q2 2025 (exact date to be determined)



SEMOpX Project Updates

DAM 30 Minute MTU

SEMOpX Systems Testing Update

- FIT (Functional Testing) with SDAC parties currently underway until Dec 2024
- SIT (Procedural Testing) with SDAC parties planned for Dec 2024 to Jan 2025

Market Participant Update

- Local Market Trial targeted in Jan 2025 with SDAC Member Testing to follow
 - Will be conducted in MATS
- MATS Go-live confirmed to be before 30 Min MTU Go-live (MATS Go-live window to be refined)
- Go-live currently planned for 18th March 2025 (subject to successful testing)



Other Updates

ETS Historical Data

- ETS Historical Data Retention period changing from 14 to 7 days
- Performance improvement in ETS to align with the new Auction trading system (MATS) that will go live in 2025
- Members will no longer be able to see their data older than 7 days in ETS
- Applies to Orders, Trades and Market Results in ETS
- Applies to both Client and API users.
- SEMOpx historical data/reports older than 7 days (ie. BidFiles and Market Results) will continue to be available on the [SEMOPx Website](#)
- No changes to M7 Intraday Continuous Reports
- Go-live on 13th November 2024



Other Updates

SCO Submission Restriction

Current Issue:

- Currently ETS allows “0’s” to be submitted in both the Scheduled Stop Condition and Fixed Term fields
- This causes an issue with the PMB calculations, which can result in a decoupling scenario
- Cannot deploy a validation fix in ETS to restrict submissions
- A fix in the next release of PMB is anticipated in Q1 2025

Temporary Solution:

- Members are requested to not submit the following together:
 - ❖ “0” in the Scheduled Stop Condition field
 - ❖ “0” in the Fixed Term field



Other Updates

New SEM-GB IDA1 & IDA2 Procedure:

Postponement of Orderbook Gate Closure Timing (GCT)



- If unexpected technical issue is experienced in the local trading system before 07:45 / 17:15 GMT/BST, which prevents the orderbooks from closing at the normal Market GCT 08:00 / 17:30 GMT/BST, SEMOpx may leave its Orderbook open until the new market GCT 08:15 / 17:45 GMT/BST, 15minutes before usual Preliminary Results Publication

Sending Time (GMT/BST)	Sending Time (GMT/BST)	Market Message Title	Communication
17:20 IDA1	07:50 IDA2	ExC_08: Postponement of Orderbook GCT	<p>Please be aware that one Operational NEMOs have unexpected technical issues in the local trading system</p> <p>The new Market Gate Closure time (GCT) will be 09:15 (IDA2) / 18:45 (IDA1)</p> <p><i>Disclaimer: The Timings are expressed as CET timings.</i></p>



Other Updates

SEMOpX Operational Messages for Phone Line and Email Issue

5.1 SEMOpX Operational Phone Line Currently Unavailable

If an operational phone issue is identified, SEMOpX will issue the following market message communication to Exchange Members, as required:

Sending Time (GMT/BST)	Market Message Title	Communication
As soon as possible once issue identified	[SEMOpX Production] Operational Phone Line Currently Unavailable - Please use Email address to contact us.	<p>Dear SEMOpX members,</p> <p>Please be aware that we are currently experiencing issues with our operational phone line.</p> <p>We kindly ask you to use our marketops@ops.semopx.com email should you need to contact us.</p> <p>We will keep you informed as soon as the situation is solved.</p> <p>We apologize for any inconvenience this may have caused.</p>

5.2 SEMOpX Operational Phone Line Available Again - ISSUE SOLVED

If an operational phone issue is resolved, SEMOpX will issue the following market message communication to Exchange Members, as required:

Sending Time (GMT/BST)	Market Message Title	Communication
As soon as possible once issue resolved	[SEMOpX Production] Operational Phone Line Available Again - ISSUE SOLVED	<p>Dear SEMOpX members,</p> <p>We would like to inform you that our SEMOpX operational phone line is available again - the issue has been solved.</p> <p>You may now be able to reach us at the following phone numbers:</p> <p>NI: 08000 0 83010 // ROI: 1800 2 83010 // International: +353 (0)1 668 8183</p> <p>We apologize for any inconvenience this may have caused.</p>



Other Updates

SEMOpX Operational Messages for Phone Line and Email Issue

5.3 SEMOpX Operational Email Address Currently Unavailable

If an operational email issue is identified, SEMOpX will issue the following market message communication to Exchange Members, as required:

Sending Time (GMT/BST)	Market Message Title	Communication
As soon as possible once issue identified	[SEMOpX Production] Operational Email Address Line Currently Unavailable - Please use Phone Line to contact us.	<p>Dear SEMOpX members,</p> <p>Please be aware that we are currently experiencing issues with our SEMOpX operational Email Address.</p> <p>We kindly ask you to use our below phone lines in case you need to contact us:</p> <p>NI: 08000 0 83010 // ROI: 1800 2 83010 // International: +353 (0)1 668 8183</p> <p>We will keep you informed as soon as the situation is solved.</p> <p>We apologize for any inconvenience this may have caused.</p>

5.4 SEMOpX Operational Email Address Available Again - ISSUE SOLVED

If an operational email issue is resolved, SEMOpX will issue the following market message communication to Exchange Members, as required:

Sending Time (GMT/BST)	Market Message Title	Communication
As soon as possible once issue resolved	[SEMOpX Production] Operational Email Address Available Again - ISSUE SOLVED	<p>Dear SEMOpX members,</p> <p>We would like to inform you that our SEMOpX operational email address is available again - the issue has been solved.</p> <p>You may now be able to reach us at the following email address:</p> <p>marketops@ops.semopx.com</p> <p>We apologize for any inconvenience this may have caused.</p>



SEMOpX Useful Resources

- Documentation:

- SEMOpX Auction Timing and Market Message document

- Includes updates:

- ✓ Reformatting of document
 - ✓ Section on “POST_EXC” Messages added (housekeeping items)
 - ✓ New section on “SEM-GB IDA1 & IDA2 Auctions - Postponement of Orderbook Gate Closure Timing” messages
 - ✓ New section on “SEMOpX Operational Messages for Phone Line and Email Issue” messages

- Website Resources:

- [ETS Trader Client Guide](#)
 - [M7 ComTrader Client User Guide](#)
 - [SEMOpX - Training Category Location \(Technical/Training etc\)](#)
 - [ETS Trading on Behalf fallback solution](#)
 - [M7 Trading on Behalf fallback solution](#)



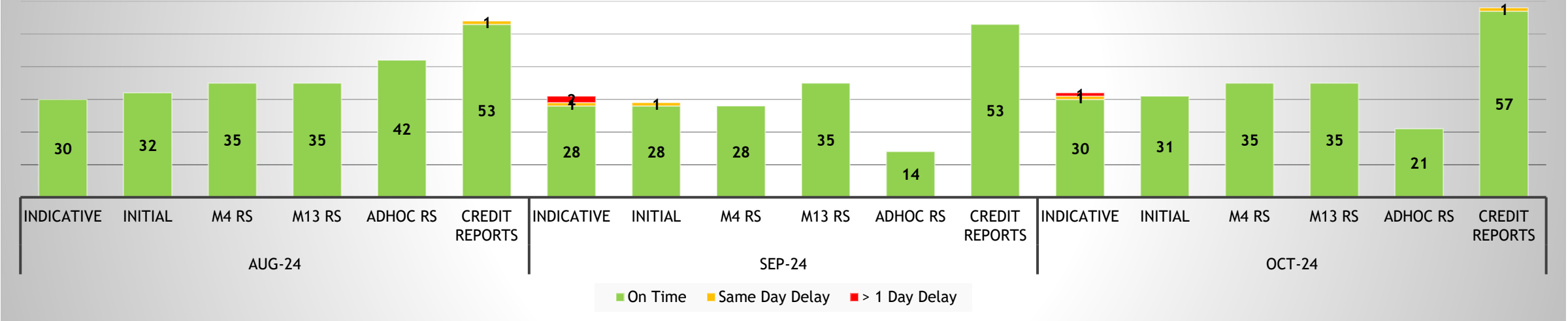
Settlements

John Tracey



Settlement publications & timelines: Aug - Oct 2024

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



August 2024

- 227 settlement publications on time
- 1 delayed Credit Report due to slower than anticipated processing.
- Issue now resolved

September 2024

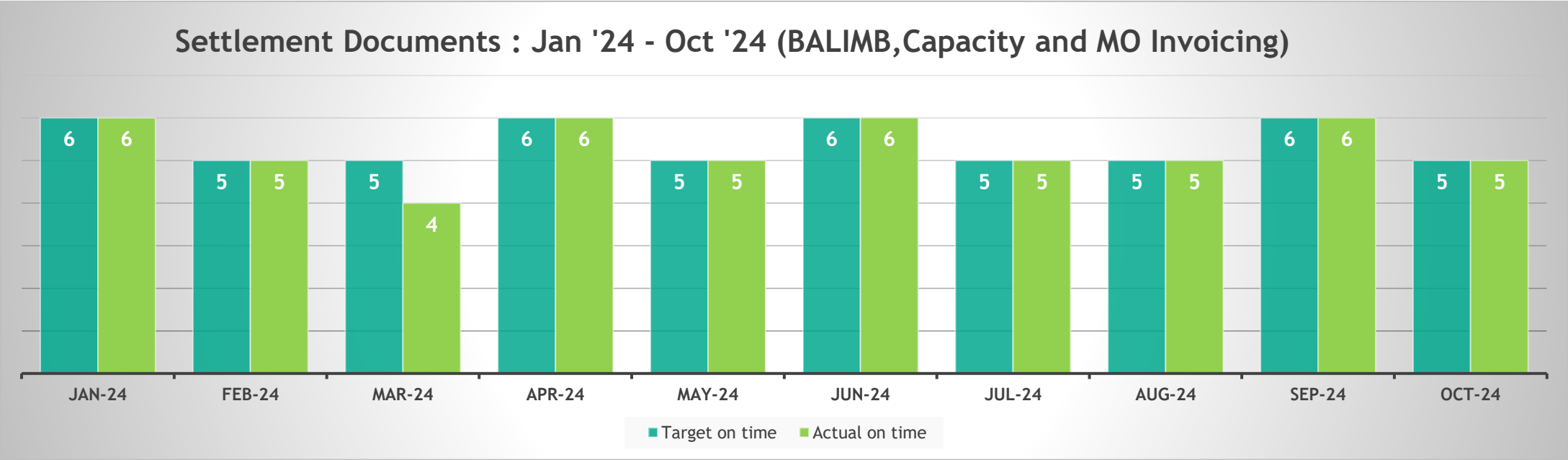
- 186 settlement publications on time
- 3 delayed Indicatives due to issue with Instruction Profiler and due to slow processing times
- 1 delayed Initial due to issue with Instruction Profiler
- All issues now resolved

October 2024

- 209 settlement publications on time
- 2 delayed Indicatives due to delayed receipt of metering data and another due to issue with Instruction Profiler
- 1 delayed Credit Report due to slower than anticipated processing.
- All issues now resolved



Settlement Documents publications 2024



Settlement Document updates:

- **54** Settlement Documents (SDs) published on time between Jan 2024 and Oct 31st 2024 (includes BALIMB, Capacity and MO Invoices)



Ad hoc resettlement: Status update Nov 2024

Ad hoc Iterations 1 & 2 - Completed and yet to process:

Year	2018												2019												2020																																																																																	
Week	3	4	4	4	4	4	4	4	4	5	5	5	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	5	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	5
Adhoc1	[Green]																																																																																																									
Adhoc2	[Green]																																																																																																									

Cells in Red are adhoc weeks left to process

Cells in Green are settlements runs that have been issued

- Ad hoc iteration 1 is now fully complete.
- Ad hoc iteration 2 is now fully complete.
- There are 5 billing periods between 2020 and 2022 which require a final iteration of ad hoc resettlement. These billing periods are based on outstanding upheld formal queries which were dependent on a system fix to be deployed to fully resettle the impacted billing periods. Currently, all 5 weeks cannot be fixed under the current systems.

Year	Ad hoc billing periods - number of weeks which under review	Specific billing period weeks which are under review	Settlement Calendar timeline
2020	1	Week 10	tbc
2021	2	Weeks 34 and 47	tbc
2022	2	Weeks 10 and 45	tbc
Total	5	System requirements under review	

Settlement Documents to issue

Friday 08th November 2024

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

Settlement Document for Friday 8th Nov

Initial BALIMB - (27/10/24 - 02/11/2024) - Week 44 2024
Initial CRM - October 2024

M+4 BALIMB - (07/07/2024 - 13/07/2024) - Week 28 2024

M+13 BALIMB - (08/10/2023 - 14/10/2023) - Week 41 2023

AH BALIMB - (20/08/2023 - 26/08/2023) - Week 34 2023
AH BALIMB - (27/08/2023 - 02/09/2023) - Week 35 2023



System Operations IE

Seamus Power

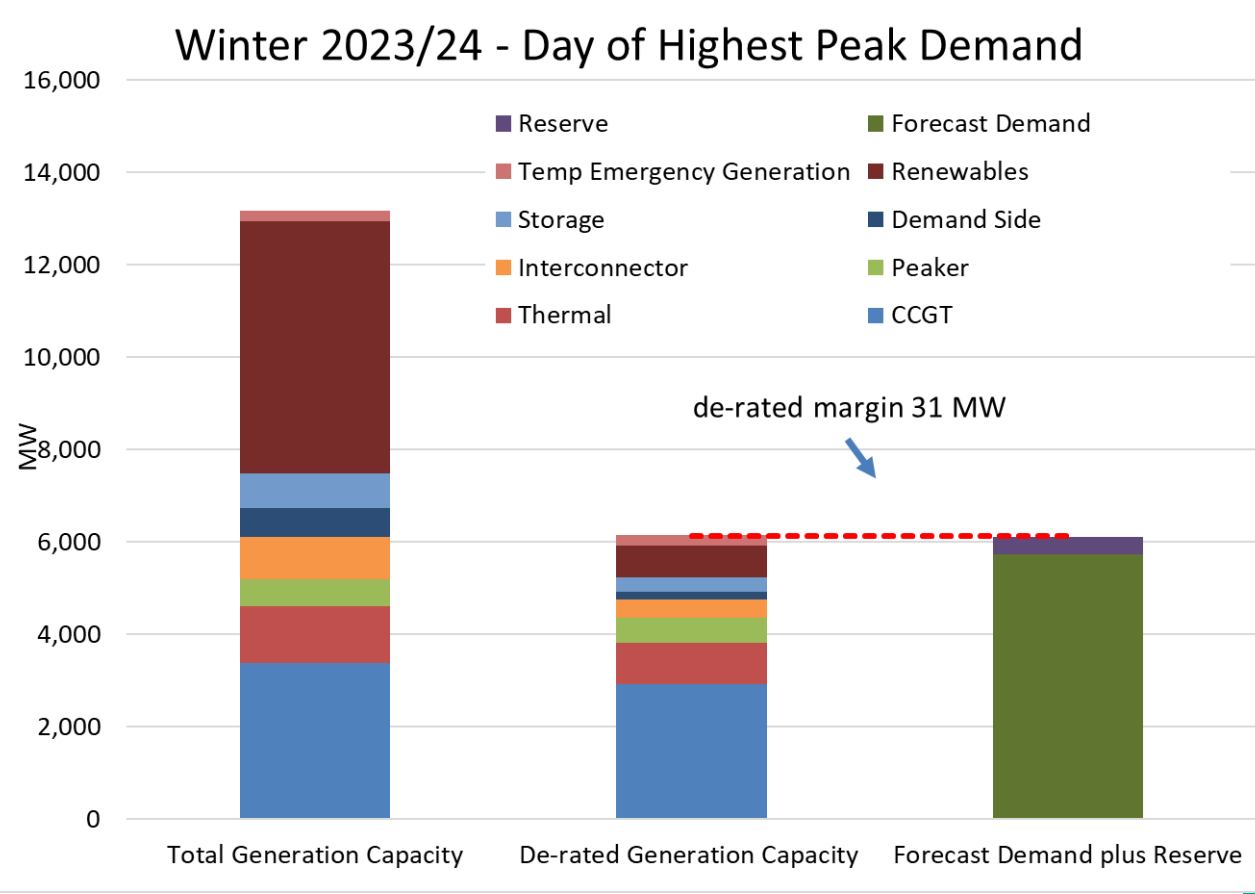
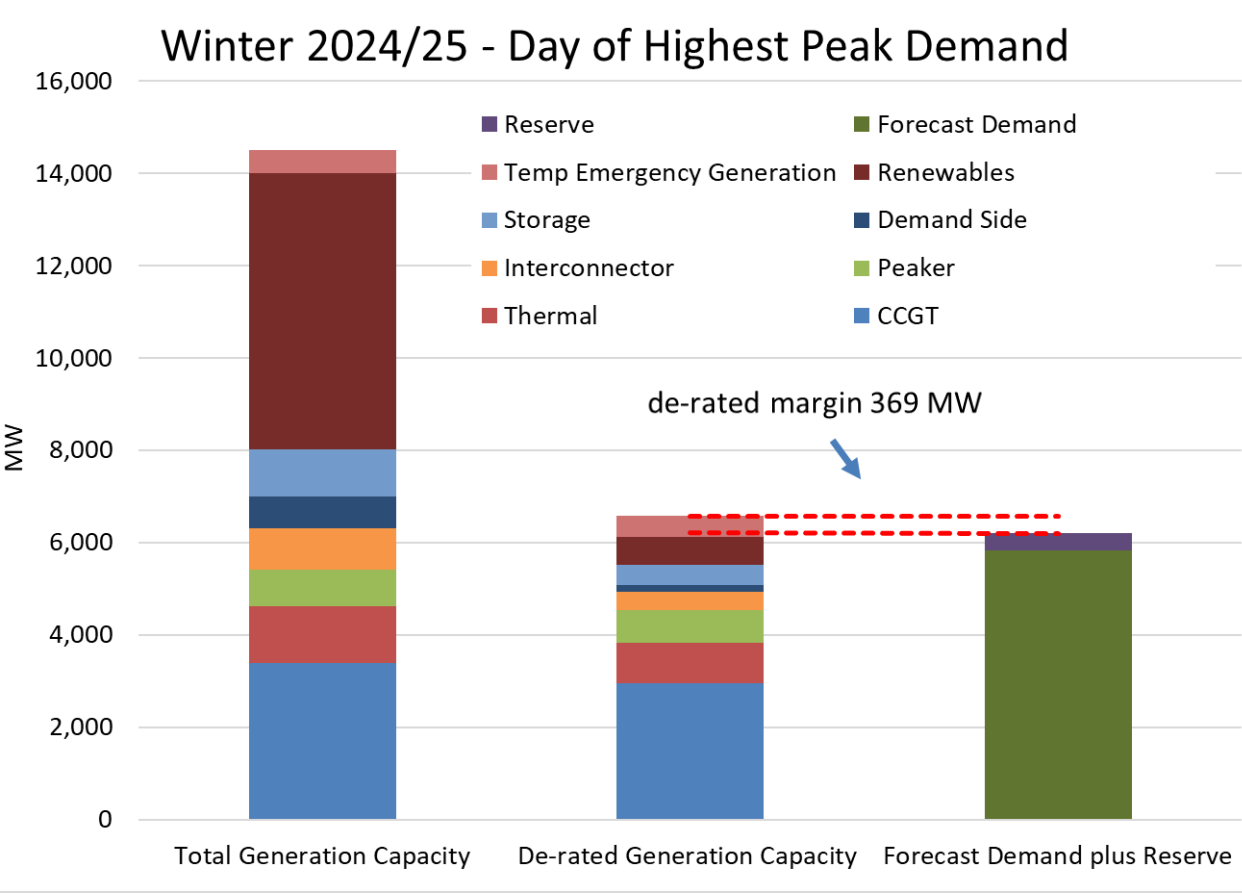


Winter Outlook

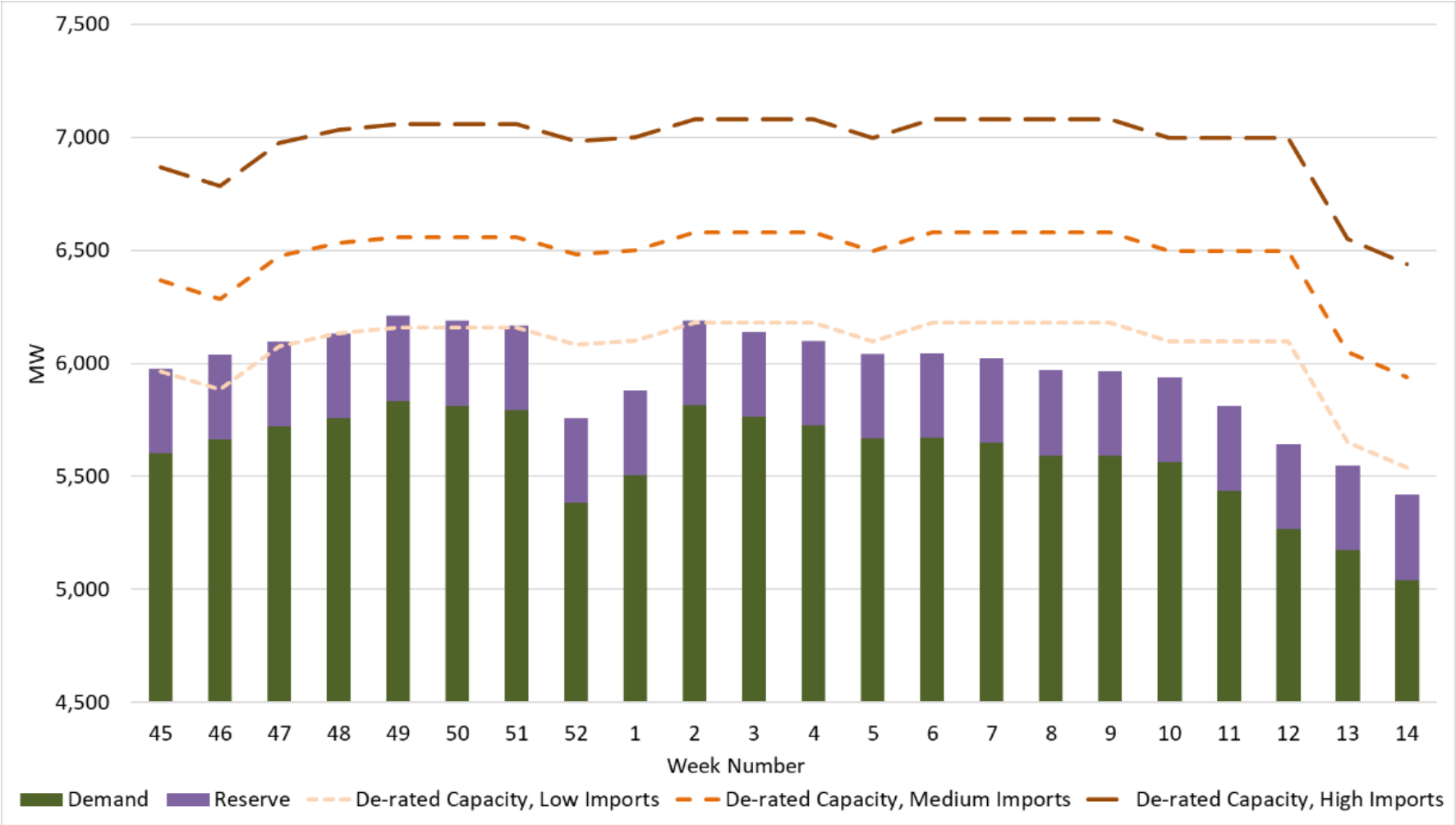
- Loss of Load Expectation of **3.6 hours** is just outside level of risk (3 hours per year)
- The minimum de-rated margin expected in the range of **233 to 551 MW** (369 MW base case)
- There is an expectation that the system could enter the Alert State at times, most likely at periods of low wind and low interconnector imports. There is a low probability of the system entering the Emergency State due to insufficient generation being available to meet the demand.
- The Expected Unserved Energy (EUE) figure would suggest that, on average, electricity consumers could be without supply for less than 10 minutes over the winter period. This does not necessarily mean that electricity consumers will be without supply for any period. It is simply a metric used to measure the risk or likelihood of such an event happening.

	2024/25 Base Case	2023/24 Base Case
Loss of Load Expectation (LOLE)	3.6 hours	21 hours
Expected Unserved Energy (EUE)	580 MWh	5,427 MWh
Minimum de-rated margin (MW) over winter period (base case)	369 MW	31 MW
Minimum de-rated margin (%) over winter period (base case)	5.9%	0.5%

Winter Outlook - De-rated Capacity Margin



Winter Outlook - Week by Week



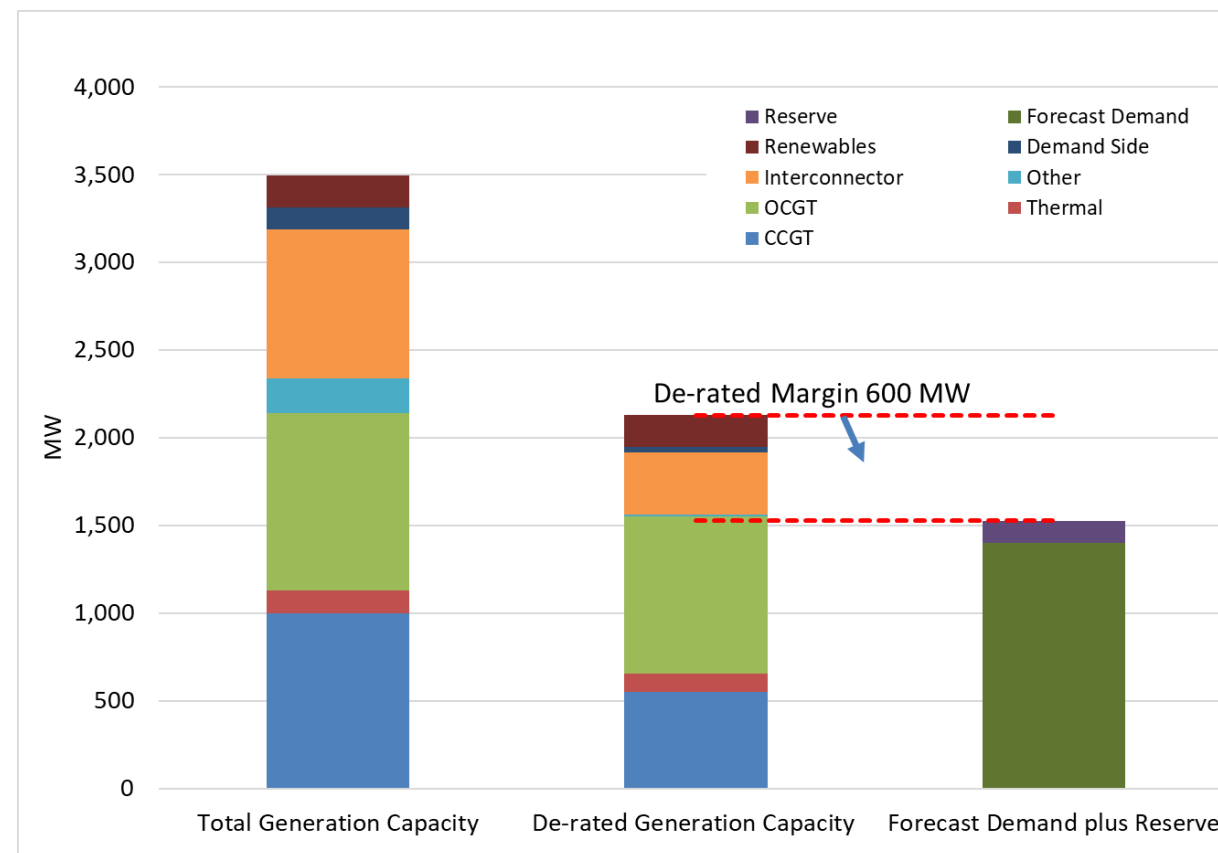
System Operations NI

Stephen McClure



Winter Outlook - Base Case Margin

- Last winter was quite mild, but saw frequent tight margins, with reliance on imports and renewables for 43% of the winter period
- Forced outage rates were exceptionally low at 0.5%.
- There was one system alert on 15 January due to reduced margins, and no System Emergencies
- Since last winter, two new large generators have connected to the Northern Ireland system
- Assumed all run hour restricted generation remains available
- Assuming standard availability of generation throughout the winter period, there is low risk of System Alert, with our de-rated margin at 600MW
- Widespread unplanned outages remain very unlikely, resulting in a very low risk of blackouts



Adequate Capacity Over The Winter Period

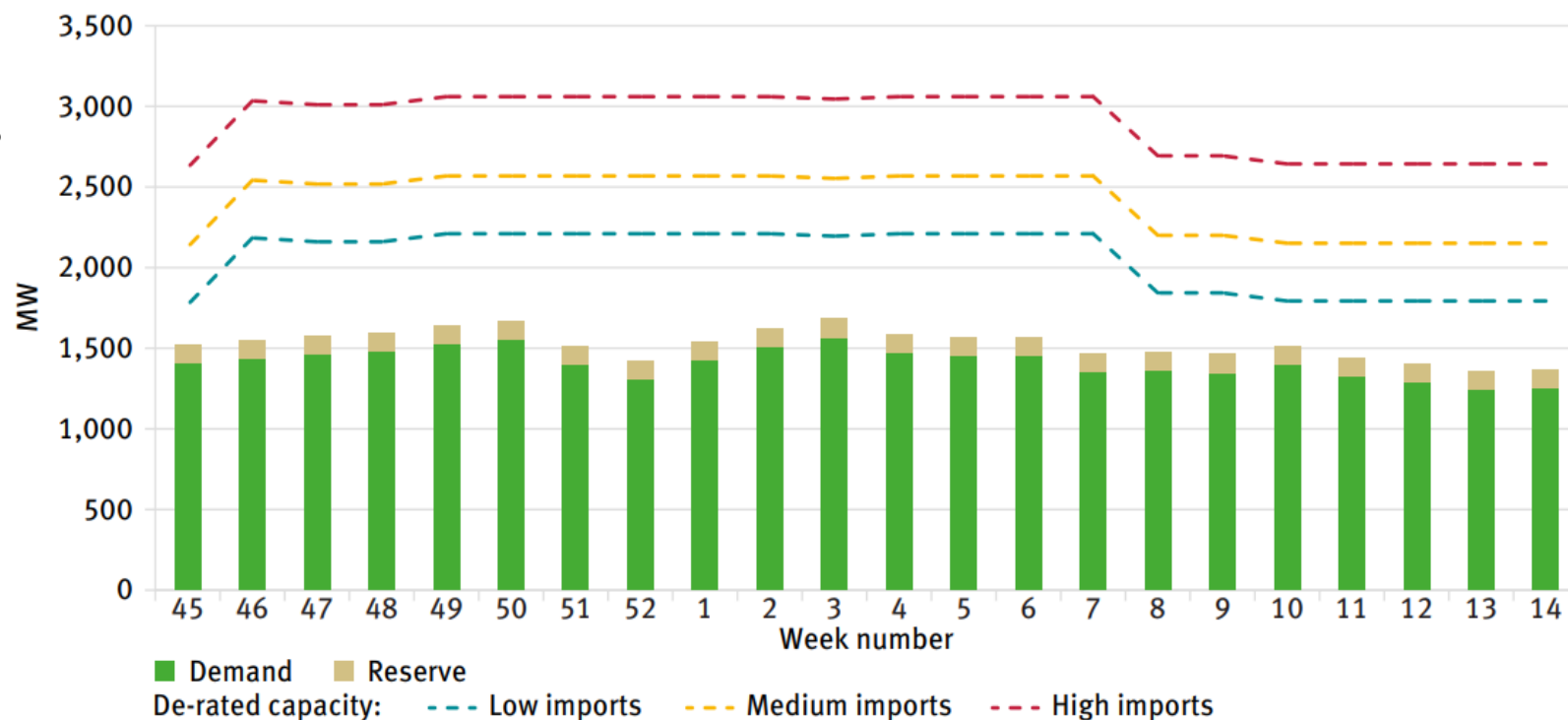
Winter Outlook - Metrics

- The Loss of Load Expectation (LOLE) for Northern Ireland for the five months of the winter period being studied is 0.23 hours. For reference, the annual LOLE standard is 4.9 hours, as set by the Department for the Economy
- The minimum de-rated margin over the winter period is expected to be in the range of 490 MW to 710 MW
- The results suggest that even with the loss of a single large unit in Northern Ireland, there is low risk of the system entering the Alert State, under normal operating conditions
- Any risk is reduced with increased availability of wind and imports, or when demand is less than expected. The Expected Unserved Energy (EUE) figure suggests that, on average, electricity consumers could potentially be without supply for a minimal period (equivalent to one 10MW load block for less than 15 minutes) over the winter period

	2024/25 Base Case	2023/24 Base Case
Loss of Load Expectation (LOLE)	0.23 hours	1.95 hours
Expected Unserved Energy	10 MWh	169 MWh
Minimum de-rated margin (MW) over winter period	600 MW	181 MW
Minimum de-rated margin (%) over winter period	35.6%	10.7%

Winter Outlook - Week by Week

- In all import scenarios, the de-rated capacity is greater than the demand plus reserve requirement in all weeks
- The assessment of the generation margin for this coming winter period indicates there will be sufficient generation margin throughout the winter period, where there is expected availability of dispatchable generation
- Under normal operating conditions, the risk of the NI system entering the Alert State during this winter is low



Low Risk Under Normal Operating Conditions

Market Interface

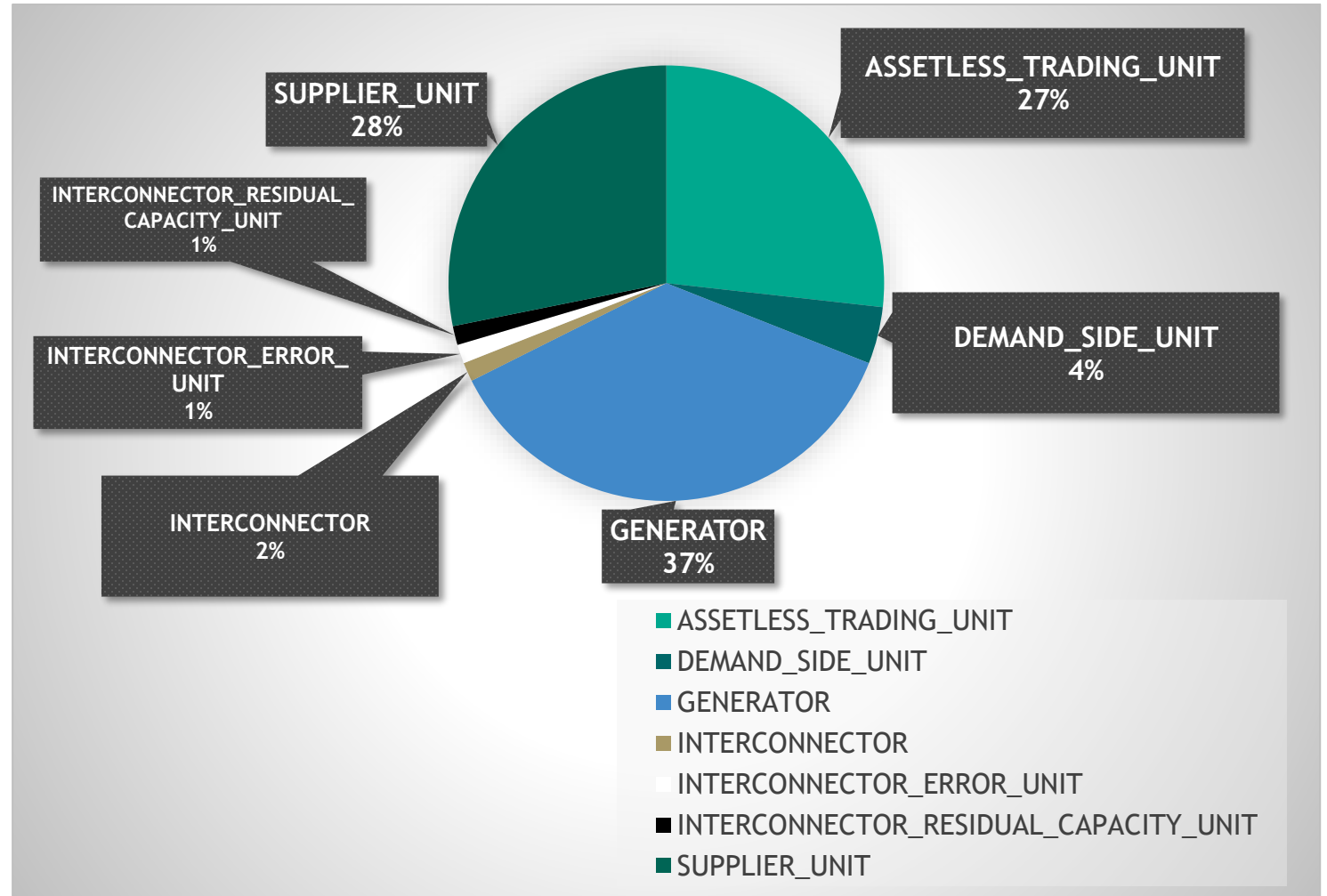
Rosaleen Fanning



Balancing Market Registration

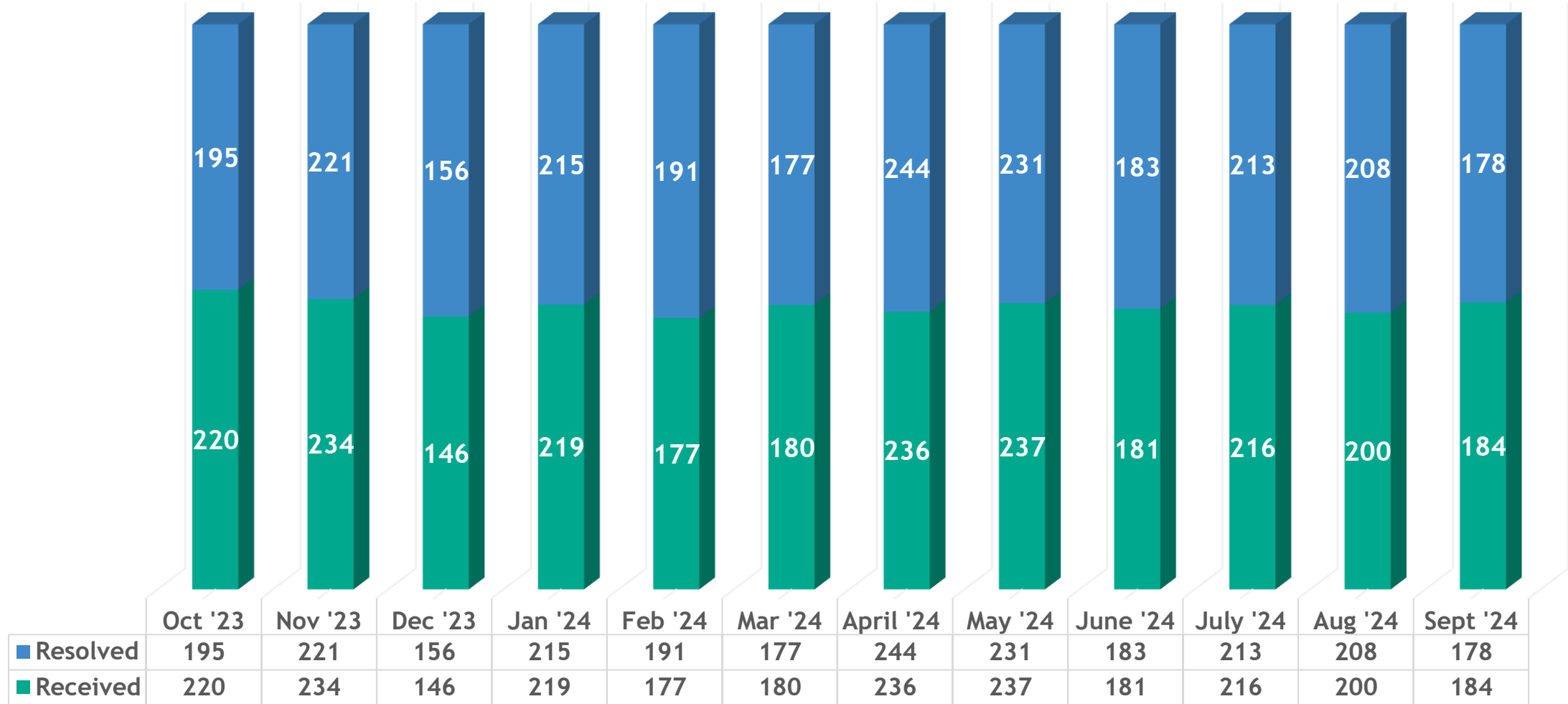
October 2023 - September 2024

- 29 new Parties joined
- 71 Unit Registrations
- 22 Unit De-registrations



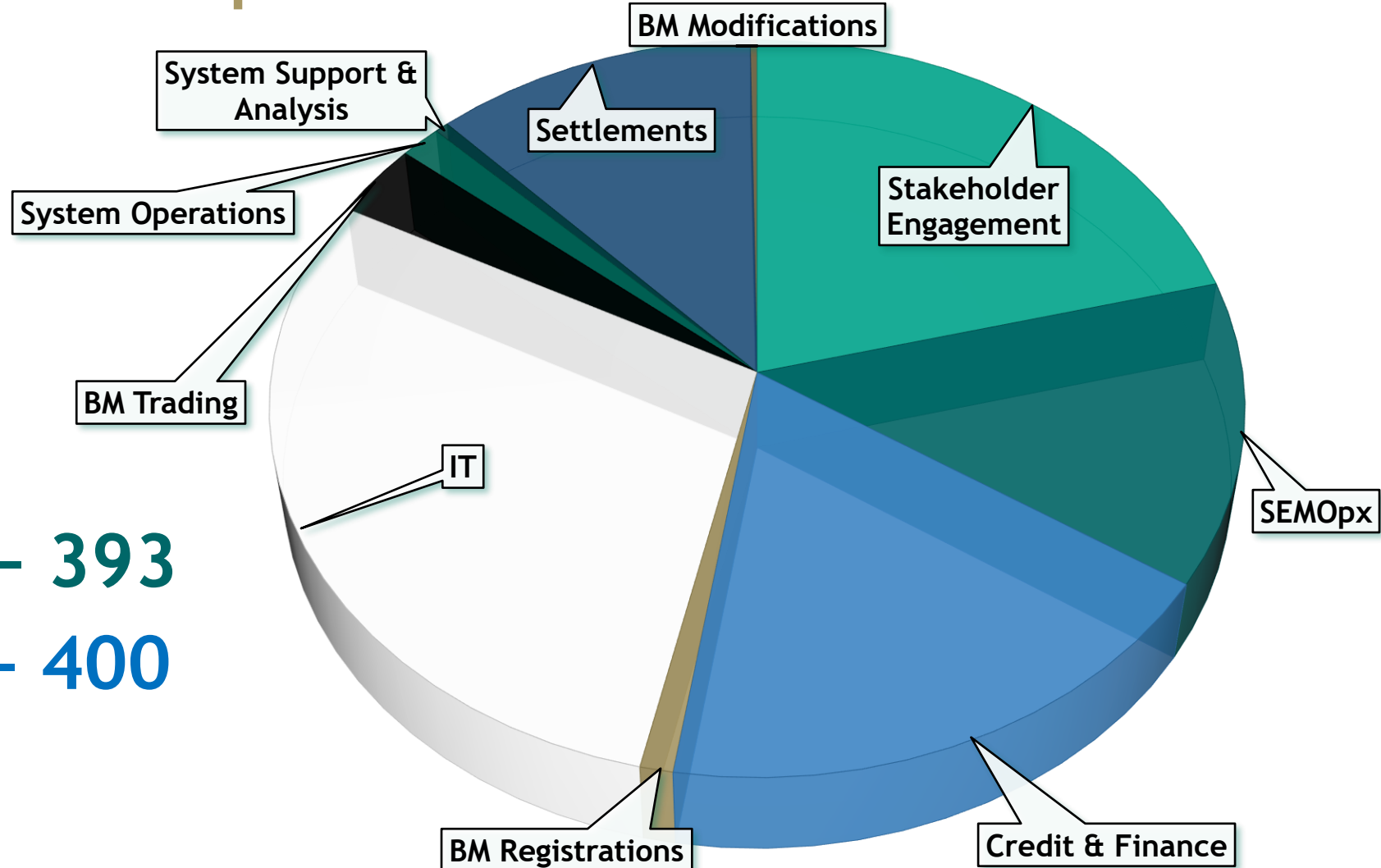
SEMO and SEMOpx General Queries Oct'23 - Sept '24

2,430 have been received and 2,412 are closed



SEMO and SEMOpX General Queries

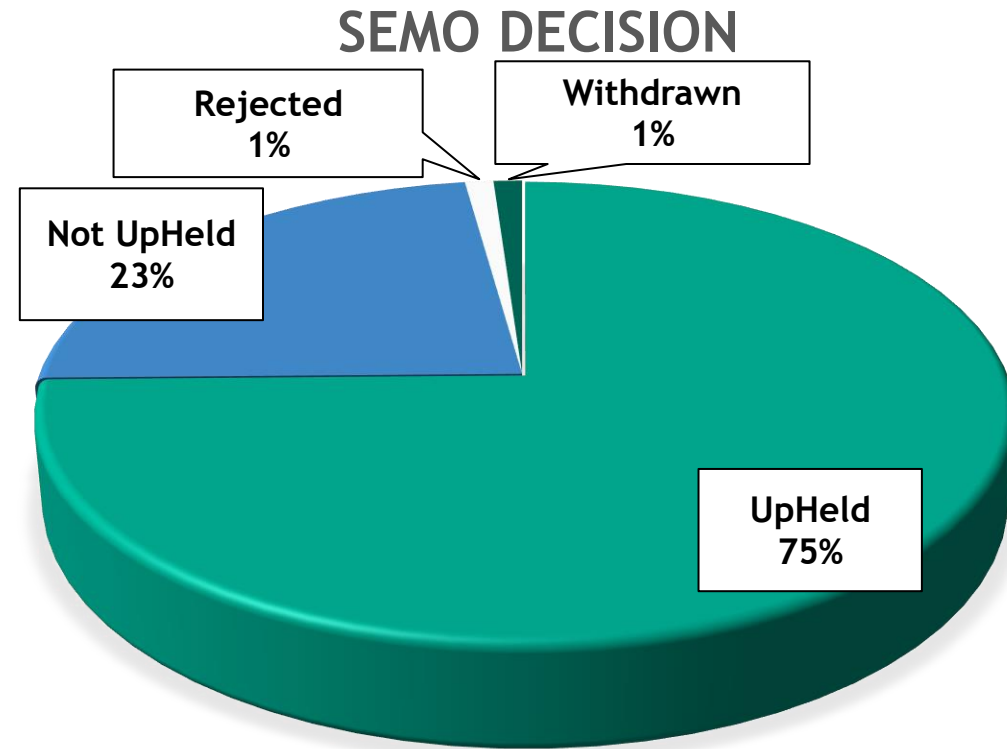
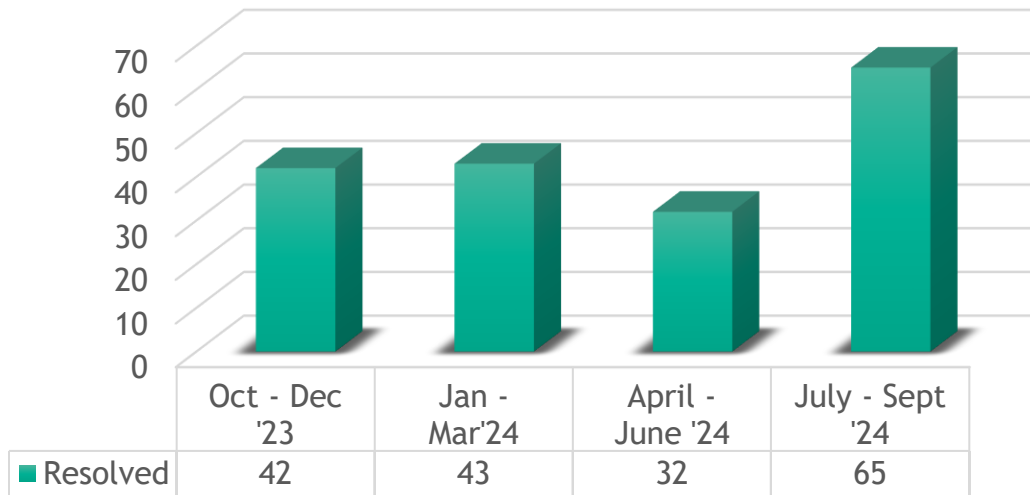
04th of September - 05th of November 2024



Received - 393
Resolved - 400

Formal Settlement Queries

Oct'23 - Sept '24 - 182 are closed



Disputes

- October '23 - September '24: No Disputes raised
- 04th of September - 05th of November 2024: No Disputes raised



Formal Settlement Queries (04th Sept - 05th Nov 2024)

- Received: 58
- Closed: 43
- Open: 15



Dates for the Diary 2024

- The Future Power Markets Industry Workshop will take place on the **12th of November.**
- The next Thursday Participant call @09.30am will take place on the **14th of November.**
- The next Market Operator User Group (MOUG) meeting is scheduled on the **12th of December.**



Thank you for your attendance

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

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

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