

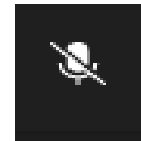
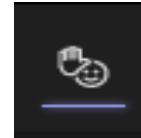
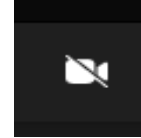
Market Operator User Group

05th September 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

Nigel Thomson



Agenda Items	Presenters
Welcome	Nigel Thomson
Release Program	Mark Hogan
Ex-Ante Markets	Joaquin Iñiguez de Gante
SEMOpX Trading	Amy Yeung
Imbalance Pricing Outages	Michael Atcheson
Settlements	John Tracey
System Operations IE & NI	Conleth McAteer
Market Interface	Rosaleen Fanning

Release Program

Mark Hogan



Release Status Updates


- Release M was successfully deployed Tuesday, 30th of July 2024

CRs	Name	Description
212	CSB/MI Value Import Screen Change	A dashboard summary screen should be made available to allow users to quickly identify the number of procedures with records processed against them
301	Issuing audio alarms for any failing MMS applications	Audible alarms in the MMS to notify the controller if any of the applications, Scheduling, RT Imbalance Pricing, Data Management have failed or stopped running for any reason
303A	Greenlink: Registration, Market Information and Market Participant Interface changes required for Greenlink	Changes to support the registration, reporting and general operation of Greenlink
303B	Greenlink: Market Application changes required for Greenlink	Changes to support scheduling, imbalance pricing, instruction profiling and general operation of Greenlink
304	Treatment for Firm Curtailment (Part of SEM 22 009 decision - CEP Article 13.7)	Allows units to be compensated for firm curtailment actions, in addition to constraint actions.

- Release M.1 (3rd party software updates) to be deployed early October subject to successful testing.
- Release N Scheduling and Dispatch - see following slides



Scheduling & Dispatch Programme Overview

  **Scope of SDP** 

One component of the broader SOEF programme.

Tranche 1;

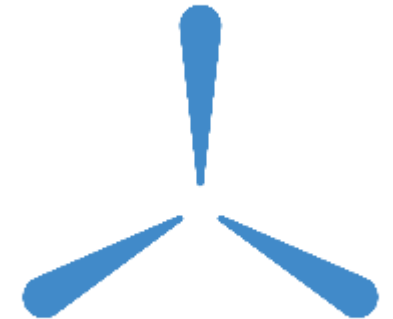
- SDP-01 Operation of Non-Priority Dispatch Renewables (NPDR)
- SDP-02 Energy Storage Power Station (ESPS) integration
- SDP-04 Wind dispatchability improvements

Tranche 1 Go Live: April 2025

Tranche 2;

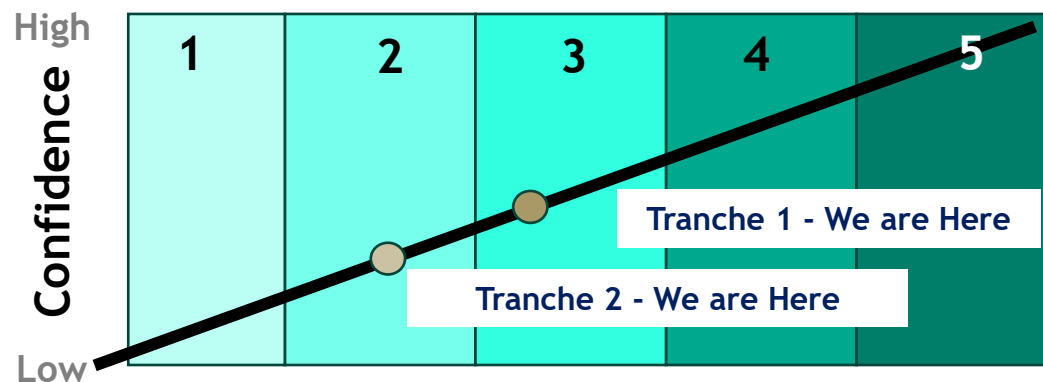
- SDP-03 Fast Frequency Response (FFR)
- SDP-05 Reserve services scheduling and dispatch
- SDP-06 Synchronous condenser scheduling and dispatch

Tranche 2 Go Live: October - December 2025



Scheduling & Dispatch: Phase 2 Milestones Requirements & Design

SOEF Milestone ID	Milestone	Dates
Tranche 1	Requirements Definition Complete for Scheduling and Dispatch Programme Tranche 1 Initiatives	September 2023
Tranche 1	System Design Complete for Scheduling and Dispatch Programme Tranche 1 Initiatives	March 2024
Tranche 1	TSC, CMS & GC Mods Review Complete for Scheduling and Dispatch Programme Tranche 1 Initiatives by the relevant review group (Mods Committee, Grid Code Review Panel, Capacity Market Workshops respectively)	March 2024
Tranche 2	Requirements Definition Complete for Scheduling and Dispatch Programme Tranche 2 Initiatives	July 2024
Tranche 2	Publication of milestones for Scheduling and Dispatch Programme Tranche 2 Initiatives	September 2024



We currently have an overall **low - medium** level of confidence on the timelines. Confidence levels will increase as milestones are achieved and programme progresses further into Phase 3 for Tranche 1 and Phase 2 for Tranche 2

Scheduling and Dispatch: Phase 3 Milestones

SOEF Milestone ID	Milestone	Dates
Tranche 1	System Build Commenced for Scheduling and Dispatch Programme Tranche 1 Initiatives	March 2024
Tranche 1	Publication of key milestones for testing and go-live, including revised ISEM Technical Specification of Scheduling and Dispatch Programme Tranche 1 Initiatives	June 2024
Tranche 1	Regulatory Authority approval for Trading and Settlement Code (TSC), Capacity Market Code (CMC) & Grid Code Mods (GC) for Scheduling and Dispatch Programme Tranche 1 Initiatives	June 2024
Tranche 1	Publication of Technical Specification for Scheduling and Dispatch Programme Tranche 1 Initiatives	July 2024
Tranche 1	Vendor System Build and Test Complete for Scheduling and Dispatch Programme Tranche 1 Initiatives	Dec 2024
Tranche 1	TSO/MO System Test and Validation Complete for Scheduling and Dispatch Programme Tranche 1 Initiatives	Mar 2025
Tranche 1	Participant Interface Test (PIT) Commences for Scheduling and Dispatch Programme Tranche 1 Initiatives	Mar 2025
Tranche 1	Participant Interface Test (PIT) Complete for Scheduling and Dispatch Programme Tranche 1 Initiatives	Mar 2025
Tranche 1	Cutover activities Commences for Scheduling and Dispatch Programme Tranche 1 Initiatives	Mar 2025
Tranche 1	Confirm Go Live Decision for Scheduling and Dispatch Programme Tranche 1 Initiatives	April 2025
Tranche 1	Implementation and Go Live for Scheduling and Dispatch Programme Tranche 1 Initiatives	April 2025
Tranche 2	Implementation and Go Live for Scheduling and Dispatch Programme Tranche 2 Initiatives	Oct – Dec 2025

Scheduling and Dispatch Queries, please email;

SchedulingandDispatch@Eirgrid.com and SchedulingandDispatch@soni.ltd.uk

Ex-Ante Markets

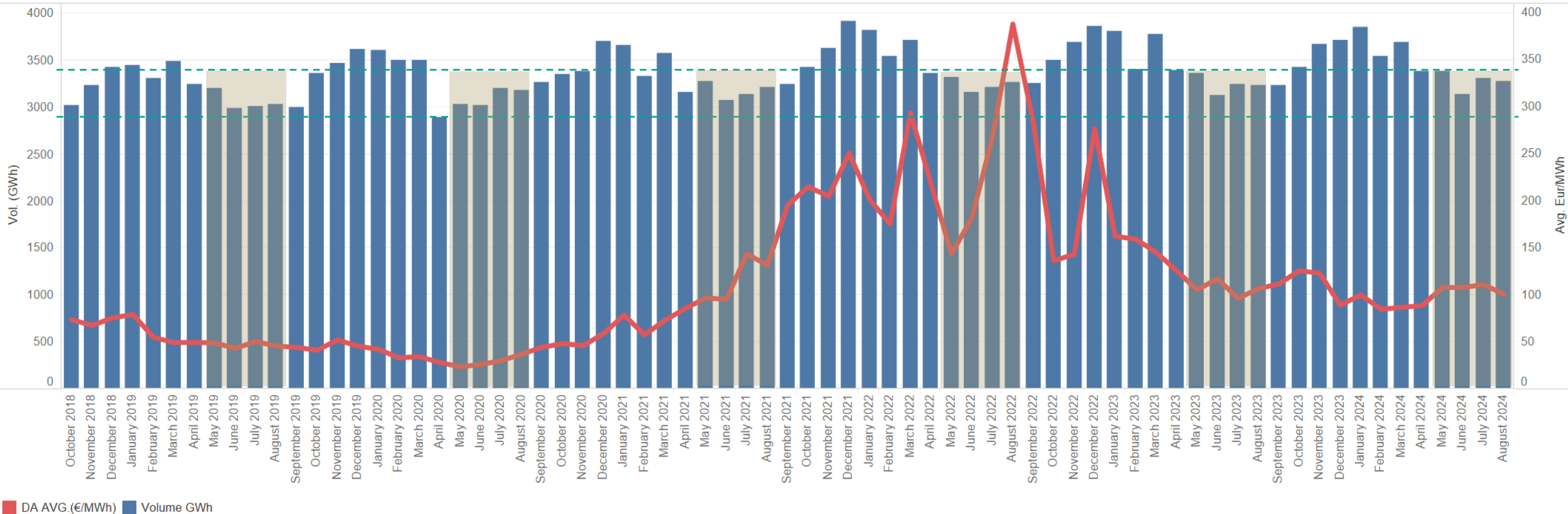
Joaquin Iniguez de Gante



Ex-Ante Markets

Volume Trade vs Avg. price (DA)

Month of delivery date time UTC

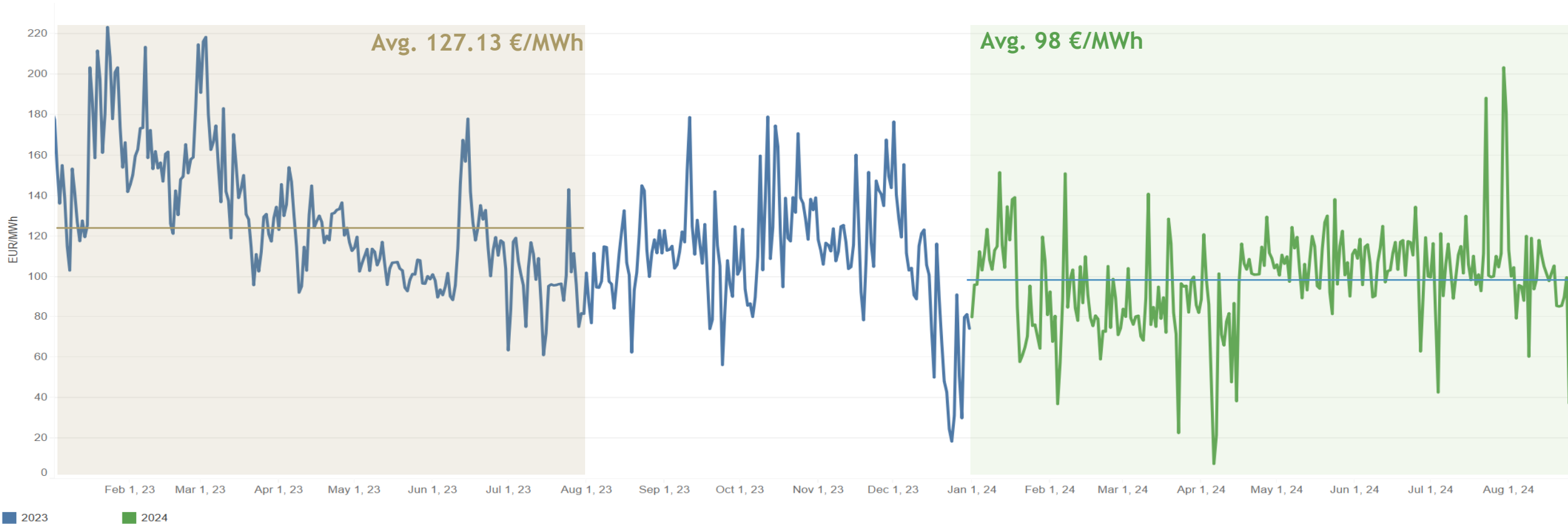


- Volumes within the DAM have remained constant with respect to the volumes of past years following a seasonal trend.
- A constant Average price has been observed over the last three months of approx. 110 EUR/MWh and with a slight drop of 10% in August.



Ex-Ante Markets

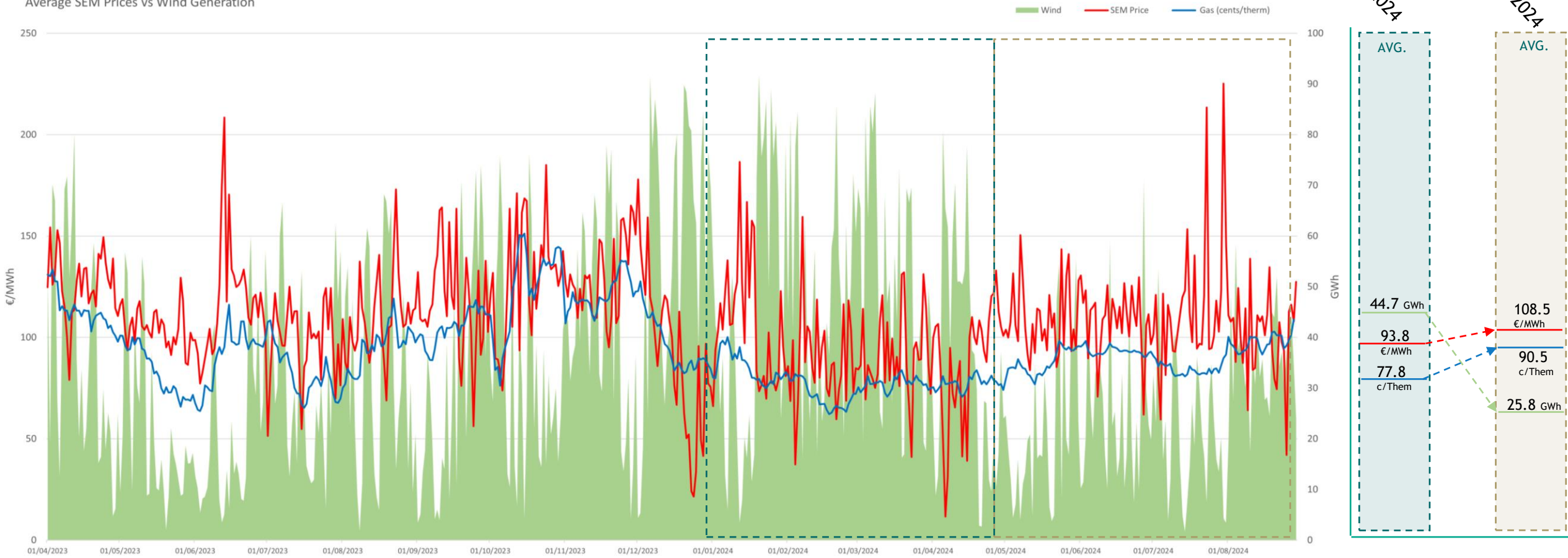
Ex-Ante Markets - (DA) Daily Prices



- The average price for the first three quarters of the year showed a decrease of approximately 23% compared with the same period last year.
- May and June showed a considerable decrease within the price volatility, compared to July where the highest prices of the year were recorded, reaching an average daily price of 188 and 203 EUR/MWh

Ex-Ante Markets

Average SEM Prices vs Wind Generation

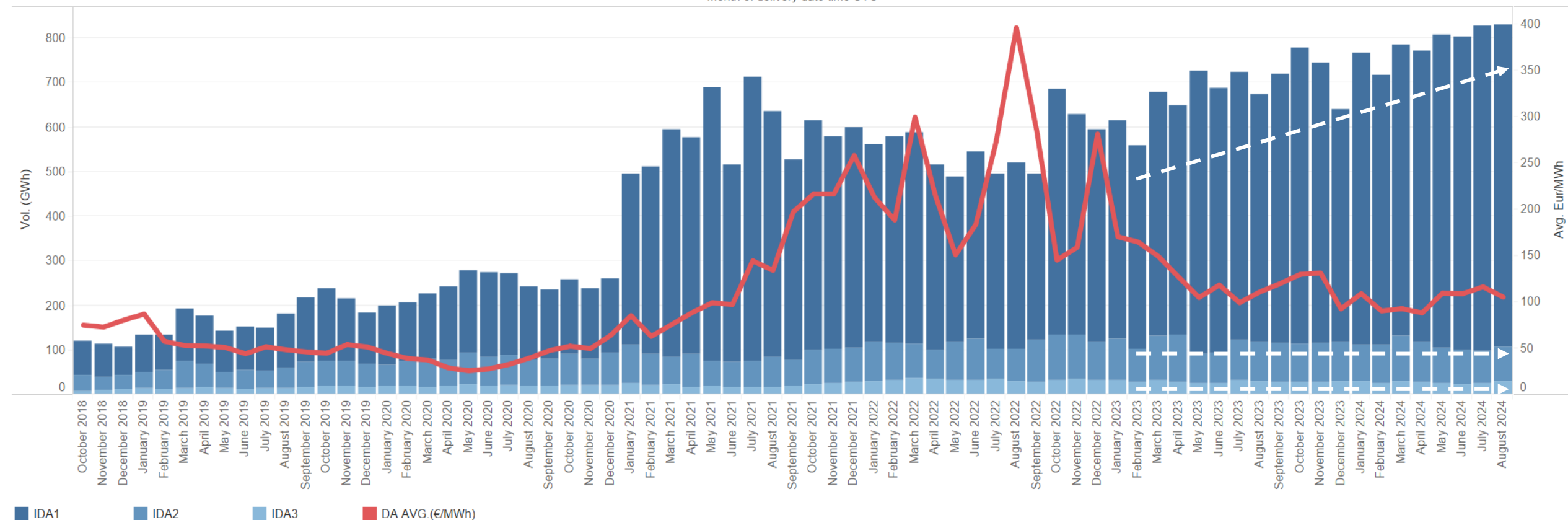


- From the beginning of May to the end of August, there was a 42% drop in wind power generation within the SEM. However, the horizontal behavior of the gas price helped to keep prices.



Volume Trade vs Avg. price (IDA's)

Month of delivery date time UTC

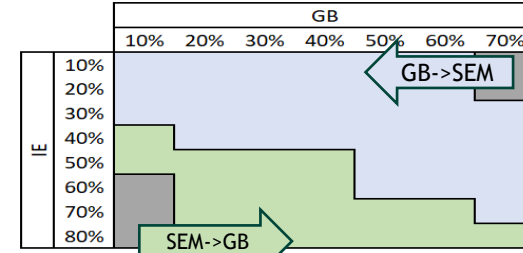


- Volumes within IDA1 continue to be influenced by the interconnector.
- IDA2 and IDA3 have maintained a constant behavior with no significant upward or downward changes.
- It has been observed that IDA1 has had a continuous increase in its volume since January 2023.

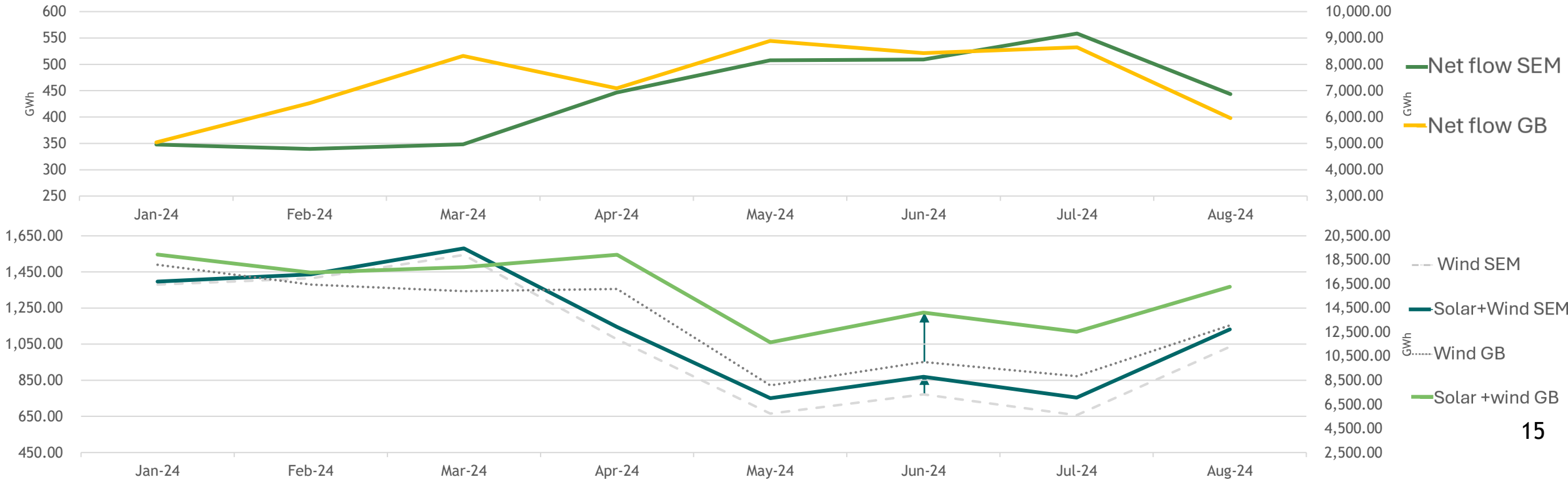
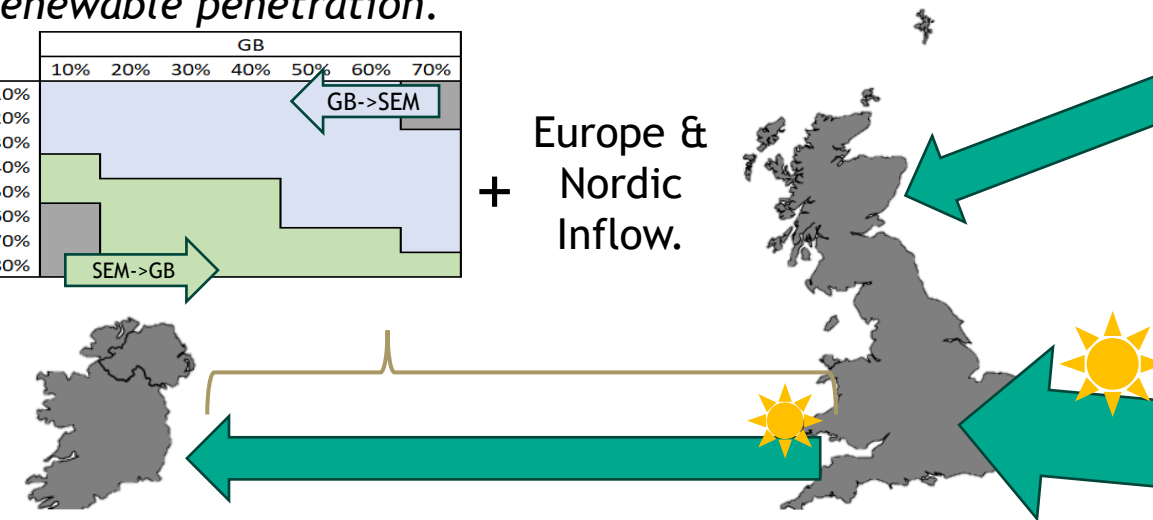
Ex-Ante Markets

- The summer saw a high predominance of import flows from Great Britain to SEM. (July saw the highest import record.)
- At the same time, Great Britain also showed a predominant flow of imports from Europe and Nordic countries.
- Solar share within the Ex-Ante markets increased significantly this summer, reaching 3% during daylight hours

Renewable penetration.



+ Europe & Nordic Inflow.



SEMOpX Trading

Amy Yeung



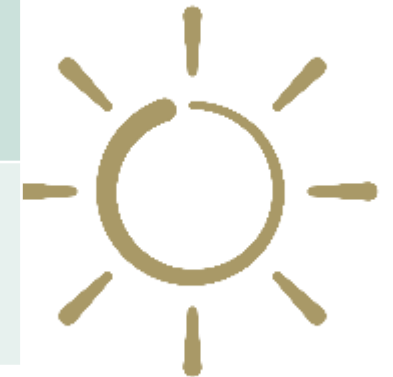
ETS Releases

No upcoming ETS releases



ETS Maintenance Windows

Date & Time	Impact	Reason	Communication
10/09/2024	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)
08/10/2024	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)
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)



*Regular maintenance: Between 18:40 and 21:15 GMT/IST every 2nd Tuesday of the Month.



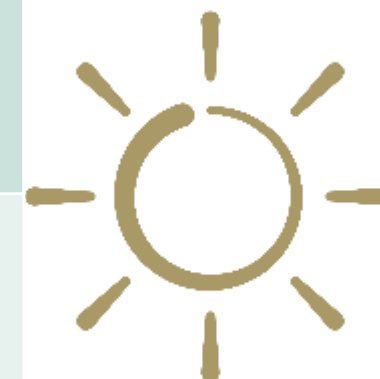
M7 Releases

Version	Content	Impact	Timeline
6.18	TBC	TBC	TBC



M7 Maintenance Windows

Date & time	Impact	Reason	Communication
10/09/2024	Maintenance	TBC	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
08/10/2024	Maintenance	TBC	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
12/11/2024	Maintenance	TBC	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
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*Regular maintenance: Between 18:40 and 21:15 GMT/IST every 2nd Tuesday of the Month.



SEMOpX Updates

Multiple Auction Trading System (MATS)

- New Auction Trading System for DAM & IDAs - will replace existing ETS application
- Web-based trading platform with RESTful API (intuitive API solution)
- API Push mechanism (notifications to members in real time when new data is available)
- MATS will be implemented across all Markets managed by EPEX
- Benefits include:
 - Improved trading system design and features
 - Future-proofing solution
 - Compatibility with multiple Market Time Units (15', 30', 60')
 - Compatibility with EU IDAs with Cross-Product Matching
- Communication issued to members on 22nd Aug 2024



SEMOpX Updates

Multiple Auction Trading System (MATS)

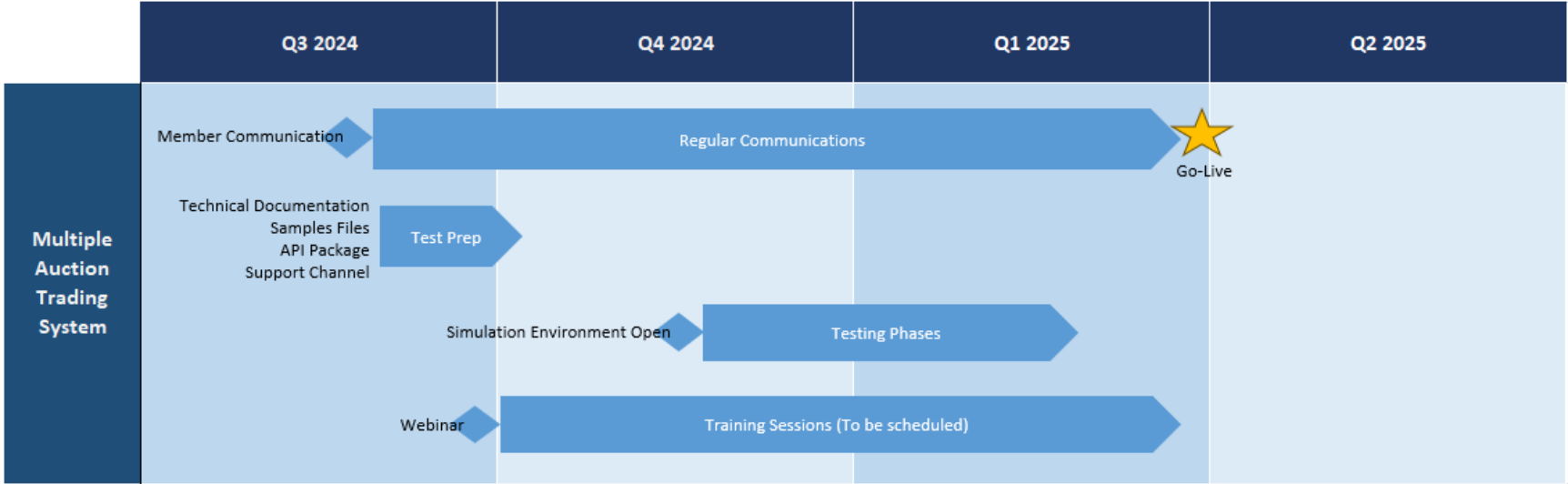
- Outline of changes - New Features:
 - Hybrid Linear Curves
 - Supports both stepwise and piecewise volume/price points
 - Removes the need for the trader to choose the bidding format, and reduces the risk of unforeseen rejected incorrect bids
 - Bulk import functionality
 - Submissions of multiple orders for several portfolios of one auction with a single file import/API request
 - Improvements to UX such as:
 - Filtering options, drop-down visuals, intuitive action buttons, comprehensive overviews



SEMOpX Updates

Multiple Auction Trading System (MATs)

- **Sept 2024** - Publication of Technical documentation, sample files and API Packages; SEMOpX will set up of webinars to present changes and additional features to API packages
- **Q4 2024 to Q1 2025** - Training sessions and testing phases
- **Late Q1/early Q2 2025** - Go-Live



SEMOpX Updates

30 Minute MTU Project

- Technical documentation, sample files and API packages available in Sept 2024
- Dependency on MATS Go-live - alignment with 30 Min MTU Go-live



Registration Transfer of Units

- Go-live of new process on 18th Sept 2024 - any submissions from this day forward
- When executing a de-registration & re-registration across both the SEMOpX and Balancing Market, units will no longer be issued brand new Unit ID's, but rather will retain the given ID in the initial registration, but will be moved to the registering party's existing PY and PT IDs



SEMOpX Useful Resources

- Documentation:
 - [SEMOpX Auction Timing and Market Message document](#)
 - Relating to Auction Delays, Postponement of Orderbook Gate Closure, Partial and Full Decoupling, Second Auction, HMMCP increase/decrease
 - Unplanned system outages relating to ETS and M7
 - ETS [Trading on Behalf](#) fallback solution
 - M7 [Trading on Behalf](#) Template
- Training and Testing Sessions:
 - Long Clock Change Daylight Savings Time Test (date TBC: Sep/Oct 2024)
 - Upcoming IDA Member Decoupling Training Session (date TBC)
- Website Materials:
 - [ETS Trader Client Guide](#)
 - [M7 ComTrader Client User Guide](#)
 - [SEMOpX - Training Category Location \(Technical/Training etc\)](#)



Imbalance Pricing Outages

Michael Atcheson



Imbalance Pricing Outages

Imbalance Pricing

Outage Type

Reasons for Downtime (Jun-Aug 24)

Planned

- EDIL Outages
- Balancing Market System Maintenance
- Release M - Bi-annual System Release
- System maintenance impacting Imbalance Pricing data inputs

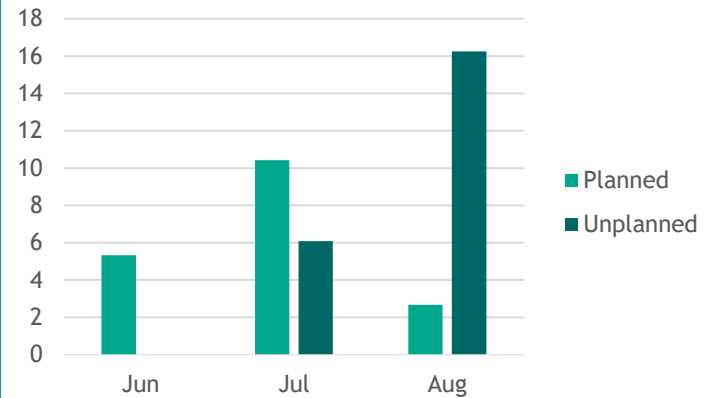
Unplanned

- Crowdstrike/Microsoft Issue
- Upstream System Issues directly impacting Imbalance Pricing or RTD.

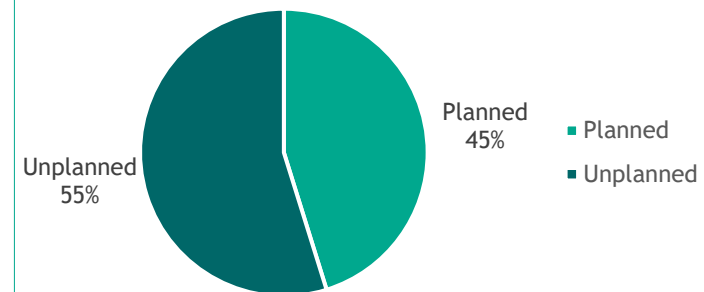
Upcoming Outages

- 24th September 2024 - Imbalance Pricing
- 25th September 2024 - MPI & Imbalance Pricing

Imbalance Pricing Outage (hours)



Outage % By Type



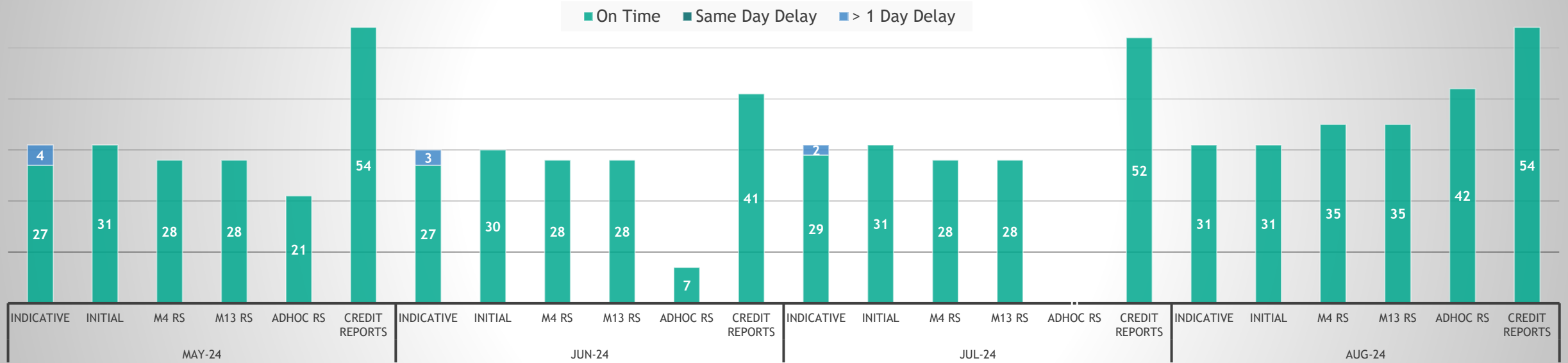
Settlements

John Tracey



Settlement Publications & Timelines: May - August 2024

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



- ### May 2024
- **189** settlement publications on time
 - 2 delayed indicatives due to delayed receipt of metering data, 2 further delayed Indicatives due to delayed Actual Availability data
 - 4 non-published credit reports due to Settlements database issue
 - All issues now resolved

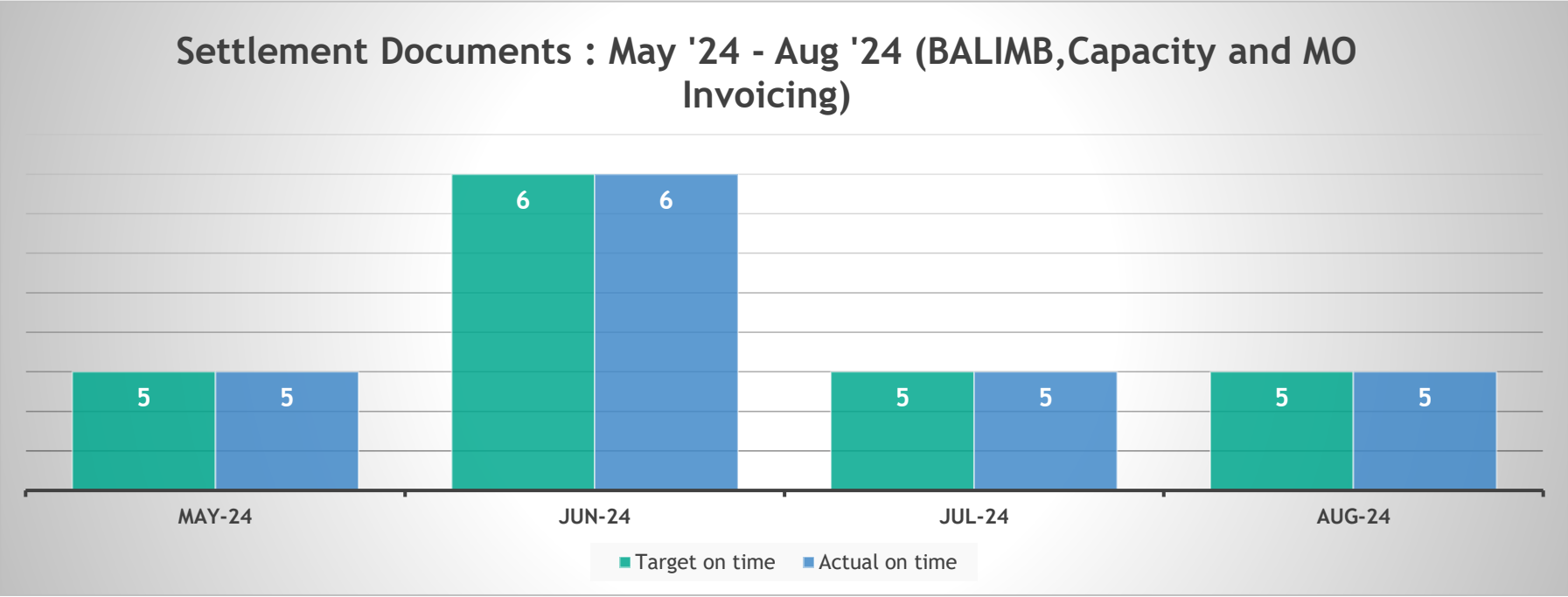
- ### June 2024
- **161** settlement publications on time
 - 3 delayed Indicative due to delayed receipt of metering data
 - All issues now resolved

- ### July 2024
- **168** settlement publications on time
 - 2 delayed Indicative due to delayed receipt of metering data
 - All issues now resolved

- ### August 2024
- **228** settlement publications on time
 - All publications on time



Settlement Documents Publications: May - August 31st 2024



Settlement Document updates:

- 21 Settlement Documents (SDs) published on time between May 2024 and Aug 31st 2024 (includes BALIMB, Capacity and MO Invoices)



Ad hoc Resettlement: Status update September 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	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	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	5	5	5
Adhoc1	[Green cells]																																																																																																			
Adhoc2	[Green cells]																																																																																																			

- Ad hoc iteration 1 is now fully complete.
- Ad hoc iteration 2 is now fully complete.

Cells in Red are adhoc weeks left to process

Cells in Green are settlements runs that have been issued

- There are 6 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 there are 5 weeks that cannot be fixed under the current systems. With 1 week to be scheduled for resettlement in the month of September 2024

Year	Ad hoc billing periods - number of weeks which under review	Specific billing period weeks which are under review	Settlement Calendar timeline
2020	1	10	tbc
2021	3	34,44,47	Week 44 - Sept 2024
2022	2	10,45	tbc
Total	6	System requirements under review	



Settlement Documents to issue Friday, 06th September '24

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

Settlement Documents Friday 6 th September
INITIAL BALIMB - (25/08/24-31/08/24) - Week 35 2024 INITIAL CRM - Aug 2024
M+4 BALIMB - (05/05/24-11/05/24)- Week 19 2024
M+13 BALIMB - (06/08/23-12/08/23) - Week 32 2023
AH BALIMB - (07/07/2024-13/07/2024) - Week 28 2024 AH CRM - July 2024



System Operations IE & NI

Conleth McAteer



Day-Ahead Interconnector Net Transfer Capacity Procedure

- The Day-Ahead Interconnector Net Transfer Capacity Procedure was introduced by EirGrid and SONI at a time of significant market uncertainty, as a safeguard against System Alert due to interconnector flows
- At the time of introduction, NTC reductions were frequently binding
- More recently, the market has stabilised and interconnector flows, NTC reductions are now rarely binding
- Since then we have built relationships with other TSOs and operational planning is undertaken regionally
- Generation Capacity Statement 2023 indicates adequacy challenges for both Ireland and Northern Ireland

SEMC Decision Paper on Compensation Arrangements for Net Transfer Capacity Reductions, SEM-24-025 of 28 March 2024 ([link](#))

6. Transparency

“The SEM Committee also requests that the TSOs review any existing procedure and publish a new procedure within three months of the publication of this decision paper.”

Day-Ahead Interconnector Net Transfer Capacity Procedure

EirGrid and SONI reviewed and published a revised Day-Ahead Interconnector Net Transfer Capacity Procedure ([link](#))

- To provide transparency
- Avoid a high frequency of NTC reductions

Main updates to the procedure:

- A new risk-based approach to NTC reductions
 - Forecast generation adequacy in Great Britain;
 - Day-Ahead Market (DAM) price spreads between SEM & BETTA;
 - Current prevailing market-based interconnector flows & system conditions;
 - Indications from NGEESO of amenability to facilitate countertrades
- A decision-making step introduced

Since the introduction of the updated procedure, NTC reductions on EWIC and Moyle have significantly reduced

Day-Ahead Interconnector Net Transfer Capacity Procedure

28th June 2024

Revision 0

NTC reductions may be required to secure the Ireland and/or Northern Ireland System

Northern Ireland System Alert



System Alert in place from 13:00 5 August until 11:50 8 August 2024

- Due to planned and forced outages of large generators in Northern Ireland
 - Only two large generators available in Northern Ireland
 - Three large generators are required to be online in Northern Ireland to ensure the stability of the system
- Good availability of wind generation throughout the alert period helped support the NI system demand
- Maximised available support from Ireland and GB to secure Northern Ireland system
- New generation in receipt of Market Readiness Certificate was made available to the system
- Control room employed defensive and vigilant system management to ensure the security of the system during the alert period

System Alert passed without incident and no impact to customers

Ireland System Alerts & Margin Warnings

System Alerts

No adequacy-related System Alerts have been issued since 15th Nov 2023.

- Note: A System Alert was issued for Storm Isha on 21st Jan 2024.

System Margin Warnings

Two SEMO margin warnings issued to date:

- 15:25-20:30 on 18th Jul
- 17:08-19:00 on 23rd Jul
- Due to low wind and solar and a number of large unit outages.



System State	EirGrid Communication	Actions
Normal	None	Market-based measures to meet demand - including dispatching generators, dispatching demand side units, maximising imports (interconnector trades), and dispatching batteries. Note: considering appropriate dispatch of energy-limited.
	Margin Warning issued	(New) Temporary Emergency Generation considered in system margins and dispatched if required.
Alert Loss of single largest infeed would result in an emergency state	Alert State issued	Interconnector - Emergency Assistance requested (GB) Large Energy Users - prepare for possible Mandatory Demand Curtailment ESB Networks - prepares for possible Demand Disconnection
	Public Appeal	Public Appeal issued to reduce demand Voluntary Demand Reduction requested from large energy users and businesses
Emergency Demand reduction required to protect the power system	Emergency state issued	Interconnector - Emergency Instruction (0 MW if exporting) Large Energy Users - Mandatory Demand Curtailment (1 hrs notice) ESB Networks - Emergency Demand Disconnection (15 min notice) ESB Networks - Rota Demand Disconnection (12 hrs notice)

The TEG units were not dispatched during the Margin Warnings

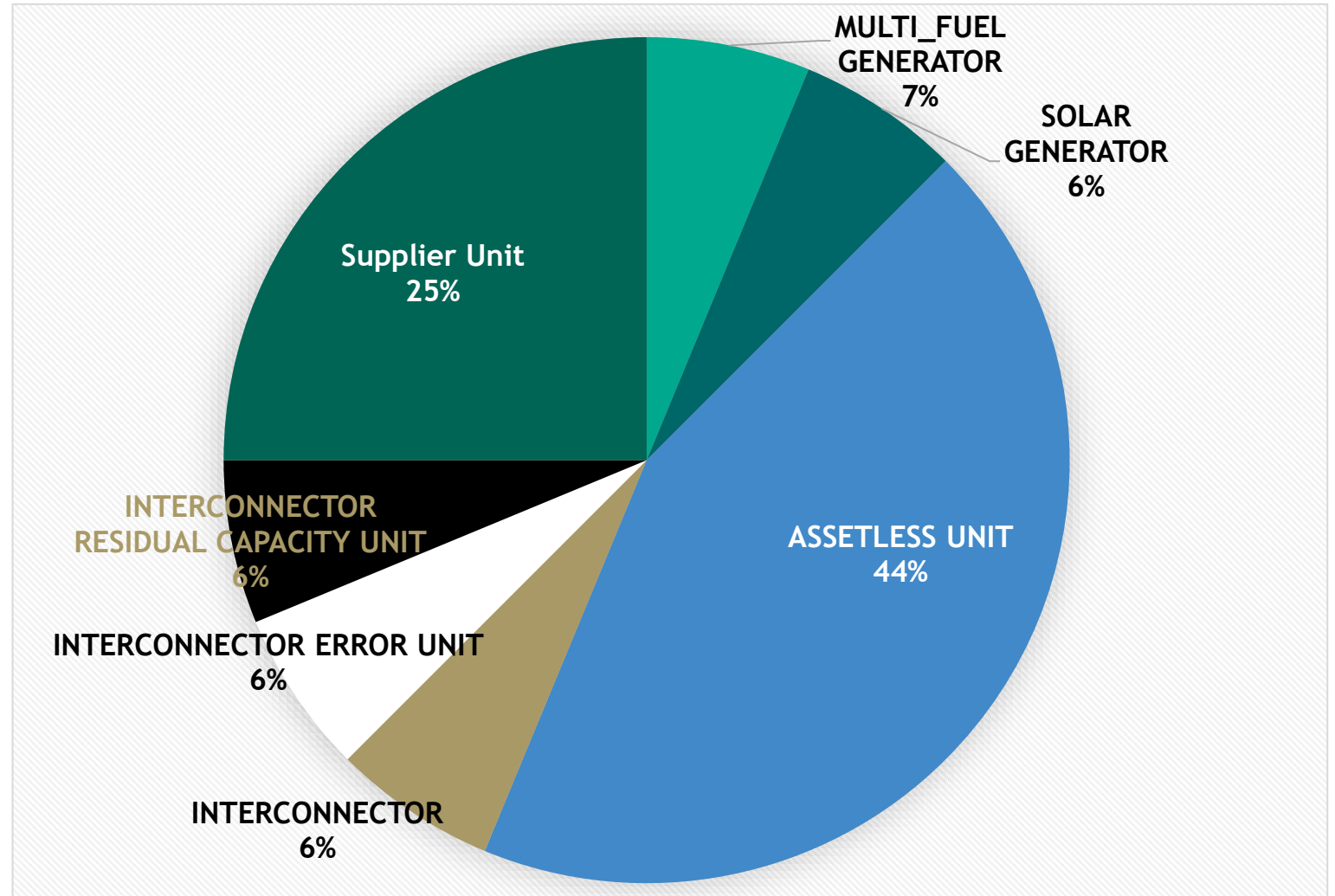
Market Interface

Rosaleen Fanning



Balancing Market Registration: May 2024 - August 2024

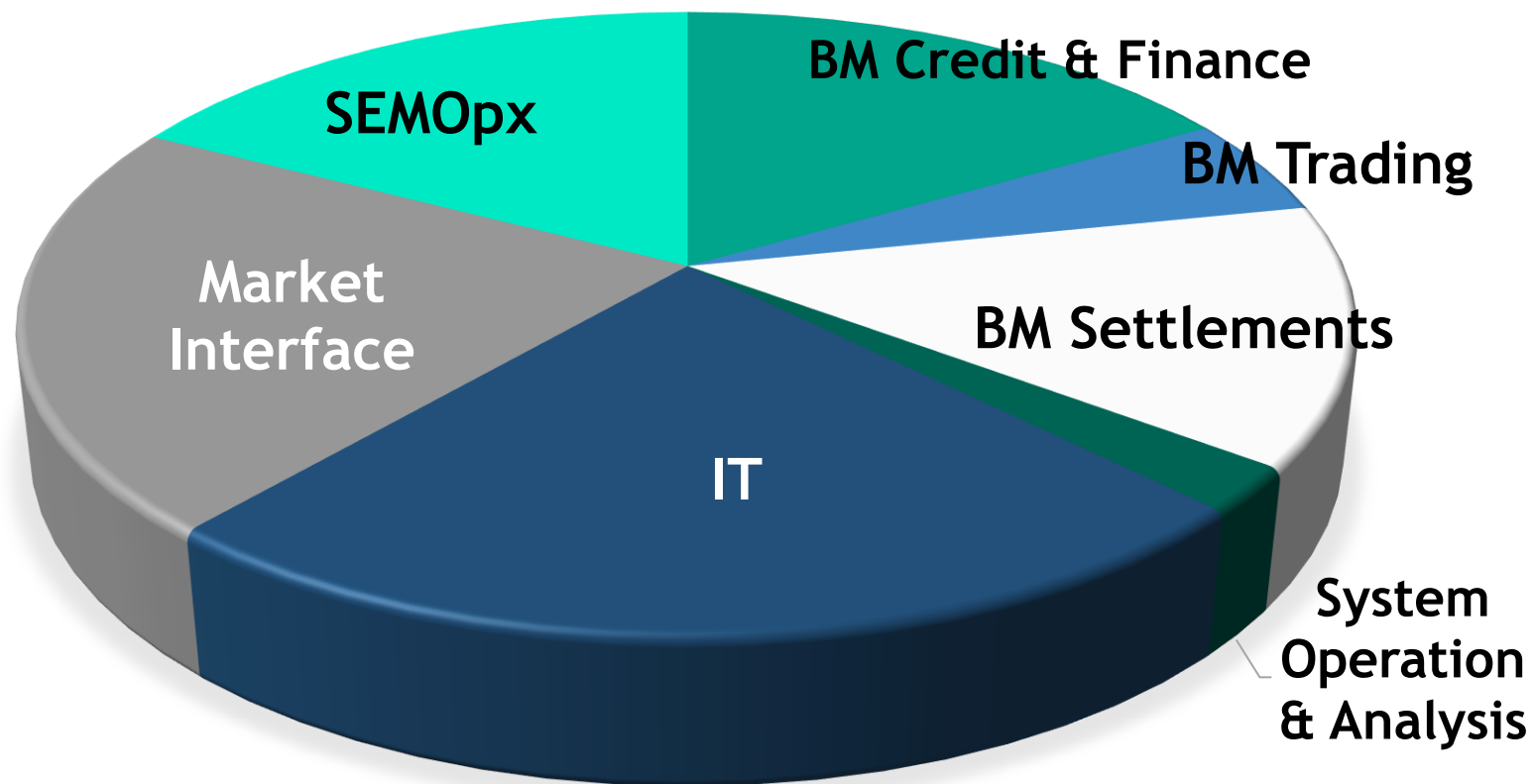
- 6 new Parties joined
- 18 Unit Registrations
- 4 Unit De-registrations



SEMO and SEMOpx General Queries: Since the beginning of the market (1st October 2018); 14,149 queries have been received and 13,948 are already closed.

- **Received - 786**
- **Resolved - 781**

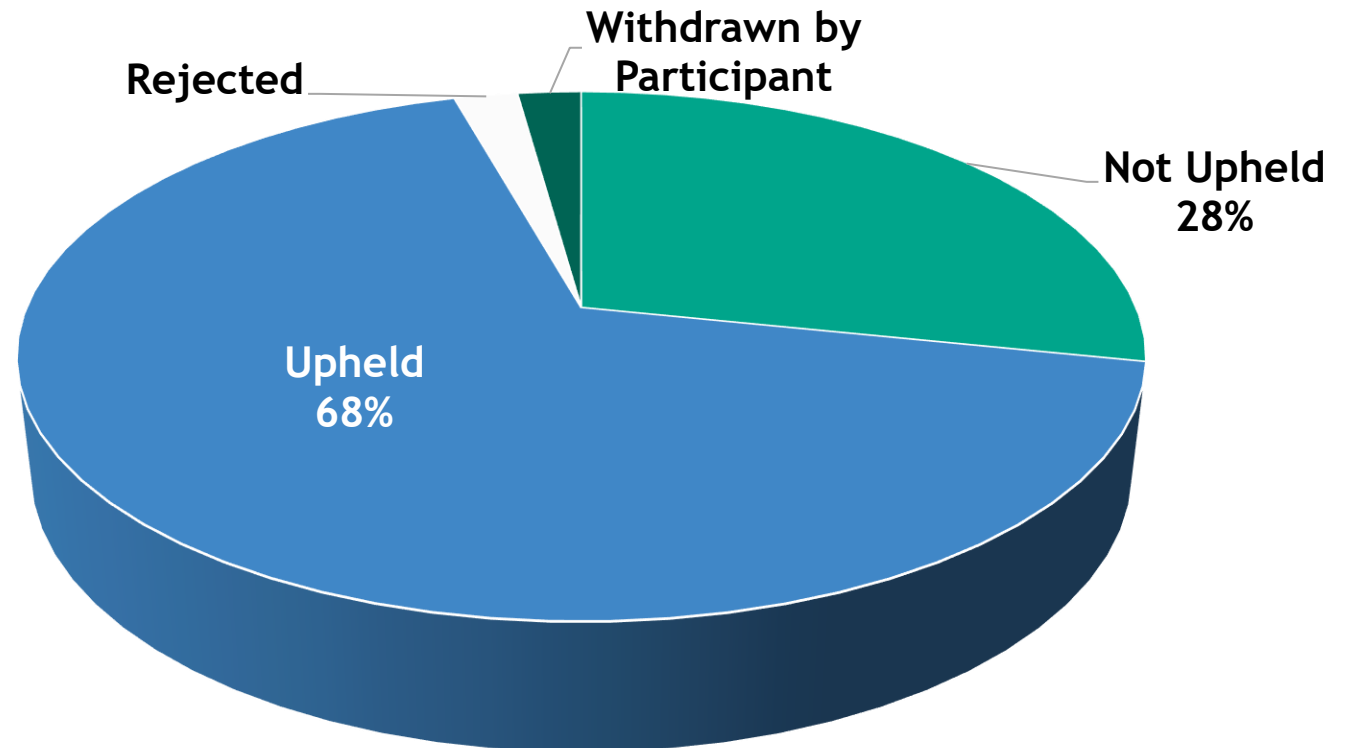
(13th May – 03rd of September 2024)



Disputes: October '23 - September '24 - No Disputes raised

Formal Settlement Queries: 13th of May - 03rd of September '24

- Received: 52
- Closed: 46
- Open: 13



Formal Queries Closed: 13th May - 03rd Sept '24

Dates for the Diary 2024

- The Future Power Market Industry Workshop is taking place on **Wednesday, 11th of September**
- The next Thursday Participant call @09.30am will take place on the **12th of September.**
- The upcoming Market Operator User Group (MOUG) meetings are scheduled on the following dates:
 - **07th of November**
 - **12th of December**



Thank you for your attendance

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

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

Capacity Market Contact:

- CapacityMarket@sem-o.com

SEMO & SEMOpX Contact:

- info@sem-o.com;

- info@semopx.com

