

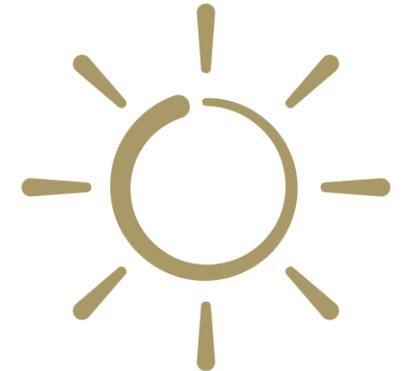
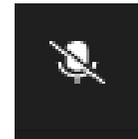
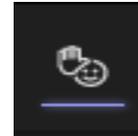
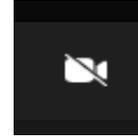
Market Operator User Group

14th September 2023



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

Claire Kane



Agenda Items	Presenters
Welcome	Claire Kane
Release Program	Mark Hogan
Ex-Ante Markets	Joaquin Iniguez de Gante
Repricing	Michael Atcheson
SEMOpX Update	Michael Atcheson
Settlements	Sean O'Rourke
System Operations	Emma Morris
Future Markets	David Carroll
Market Interface	Rosaleen Fanning



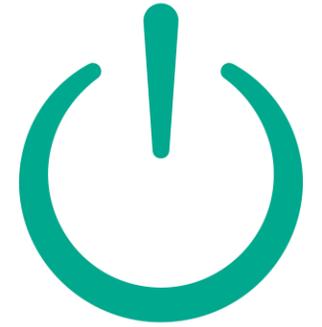
Release Program Update

Mark Hogan



Release Program Update

- Release K and L was deployed as one release on August 15, 2023
- This was to allow SEMO to support the treatment of emergency generation in the market before September 2023
- Release M will include changes for Greenlink and will be tested Spring 2024. The deployment date is subject to overall Greenlink deployment requirements.
- Release N will include first tranche of changes for Schedule and Dispatch and schedule is to be confirmed.
- Extensive market infrastructure refresh project underway
- Microsoft has committed to supporting Microsoft Edge with IE mode until “at least 2029” ([link](#)) so we continue to recommend that approach until we have implemented native Edge and Chrome compatibility.



Release K Contents

Change Request ref.	Description
CR-241b QBOA Undo scenario 3	In certain conditions there have been incorrect pricing and settlement outcomes due to bid offer acceptance volumes not being correctly calculated.
CR-279 30 min MTU	Change the Market Time Unit (MTU) such that the DAM can be processed in 30-minute increments from the current 60-minute increments.
CR-263 transfer of units	Transfer a registered Resource ID from one Participant ID to another within the Balancing Market and/ or one Member ID to another within the SEMOpx Market.
CR-282 Automation of CSB Settlement Processing	The automation of manual procedures; the combination of separate, daily pre-calcs into one function; and automation of daily settlement statement and reporting process.

Release L Contents

Change Request ref.	Description
CR-288 Treatment of Emergency Generation	Support the treatment of Emergency Generation in the market systems
CR-294 Option to treat Pumped Storage as a Long-Term Unit	Bring flexibility to scheduling of pumped storage generation
CR-297 Mod_08_22 Weekly Strike Price	Supports calculation of strike price on a weekly basis to better align with increased volatility in commodity markets
CR-224b Improved participant user updates in the MPI	Improves ability of the Registration team to see changes submitted by participants



Release M & N Contents

Release	Change Request ref.	Description
M	212	CSB/MI Value Import Screen Change
	301	Issuing audio alarms for any failing MMS applications
	303A	Greenlink: Registration, Market Information and Market Participant Interface changes required for Greenlink
	303B	Greenlink: Market Application changes required for Greenlink
	304	Treatment for Firm Curtailment (Part of SEM 22 009 decision - CEP Article 13.7)
N	SDP_01	Operation of Non-Priority Dispatch of Renewables
	SDP_02	Energy Storage Power System Integration requirements

Question & Answers Section



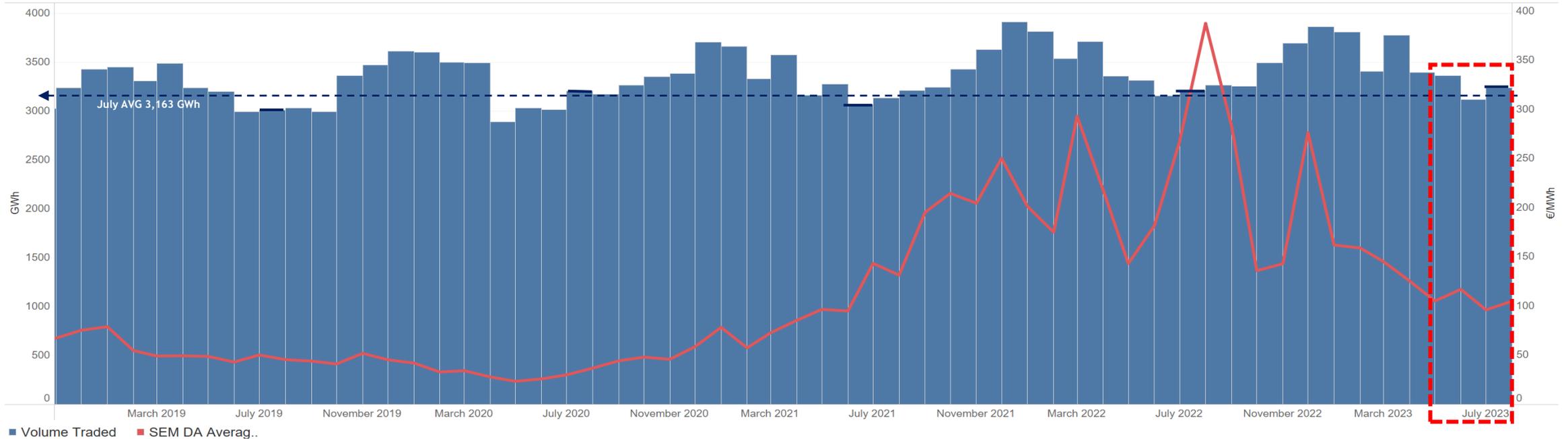
Ex-Ante Markets

Joaquin Iniguez de Gante



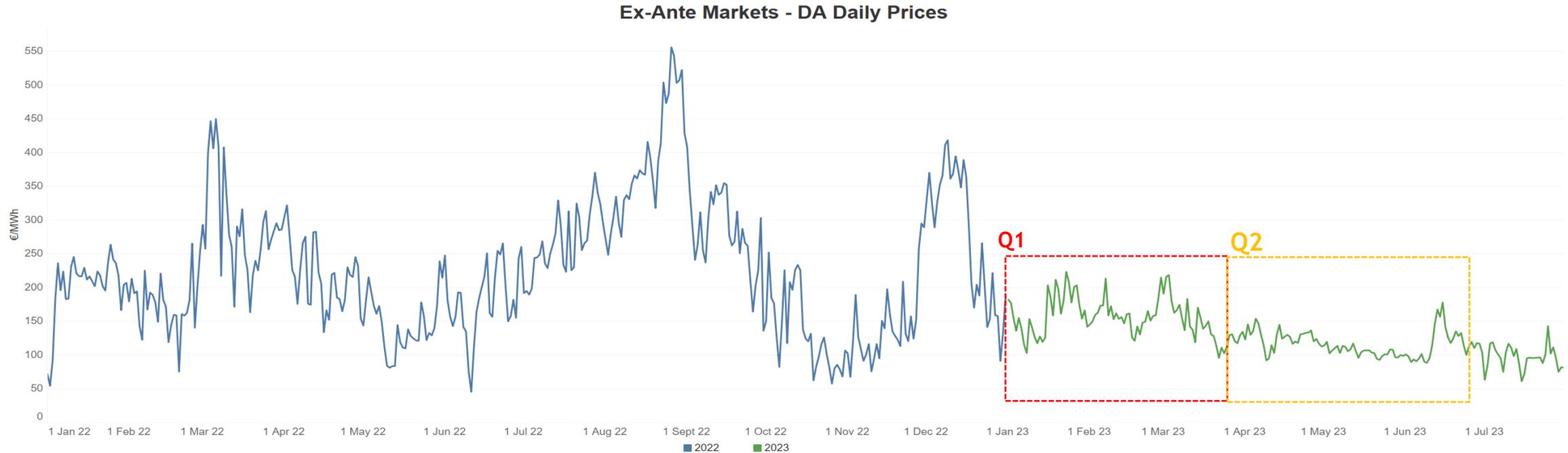
Ex-Ante Markets

Volume Trade vs Average Price (DAM)



- Traded Volumes in the DAM remain at similar levels to historical trends.
- DAM prices continue to decline, showing a decrease of approximately 13% compared to the first quarter of 2023.

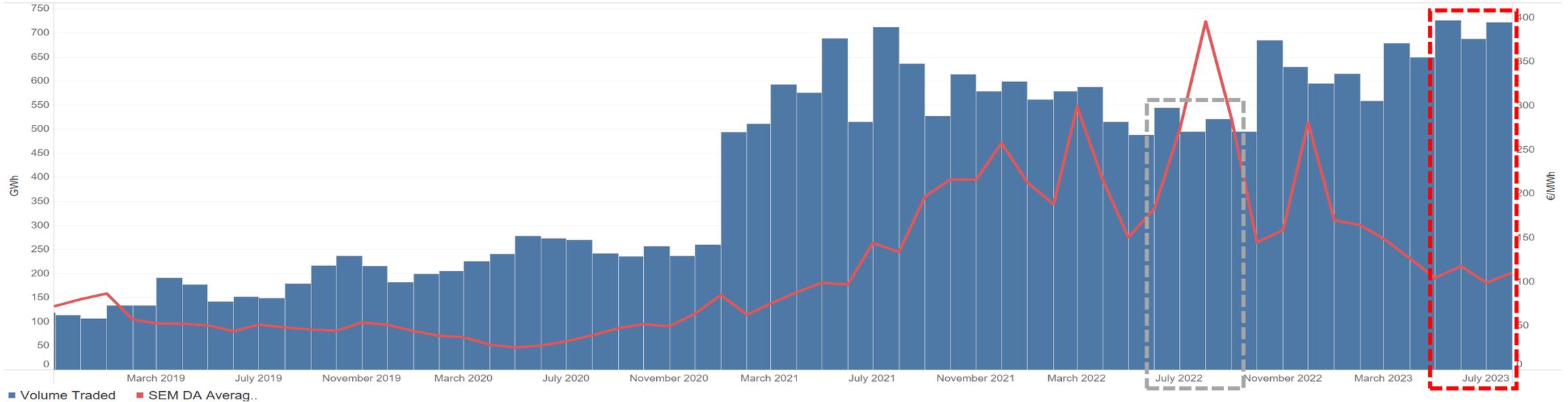
Ex-Ante Markets



- The Highest price between April and July 2023 cleared at approx. 178.1 Eur. (unexpected increase on gas prices at middle June)
- Higher prices occurred during periods of low wind and higher net demand.

Ex-Ante Markets

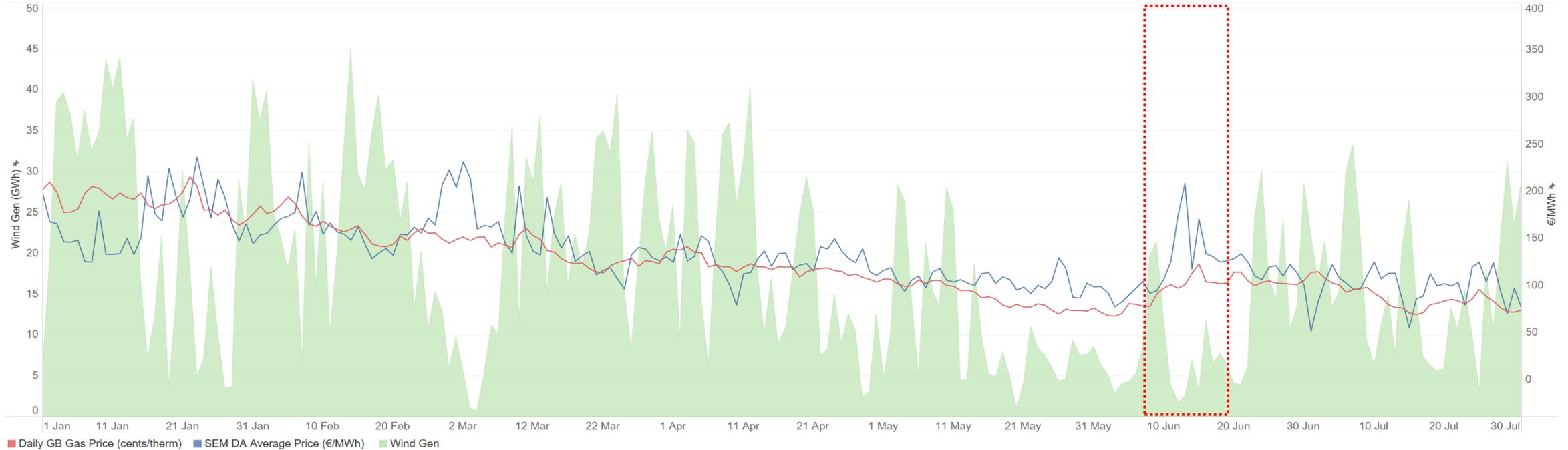
Volume Trade vs Average Price (IDA)



- Price trends follow closely DAM pattern.
- Traded Volume continue to be influenced by interconnection
- Noticeable increase in volumes on the second quarter of 2023, maybe attributable to the increase on imports and decrease of wind generation

Ex-Ante Markets

Average SEM Price vs Wind Generation (Jul 2023)



- There was a noticeable spike in prices at mid May and beginning June 2023. There was low wind on these dates with more thermal generation clearing in the ex-ante auctions.
- Prices continued to reduce in line with lower gas prices.

Question & Answers Section



Repricing Update

Michael Atcheson



Repricing

Two historical repricing dates that remain unresolved, impacting 16 Imbalance Settlement Periods.

Trading Day	Imbalance Settlement Period(s)	Manifest Error To Be Resolved
05/08/2021	03:30 to 04:00	Duplicate COD in database; resulting in incorrect commercial data to be used for three units. Issue caused by transactions being submitted milliseconds apart.
	08:30 to 10:00	
	11:00 to 11:30	
	12:00 to 13:30	
	14:30 to 15:00	
	15:30 to 16:00	
05/11/2021	08:00 to 08:30	Complex COD applied instead of Simple for a subset of ISPs. Issue caused by submission times of COD records, being overwritten by the submission times of later submitted COD data.
	10:00 to 11:00	
	15:30 to 17:00	

- **Status of Repricing:** Unable to determine materiality, attempted resolution has further increased the error margin.
- **Impact of Issue:** **0.8%** of all **1896** Imbalance Settlement Periods.
- **Next Steps:** Proposal is that these **16 periods** are not repriced, as we are unable to determine materiality. Move forward with BAU repricing and close historical backlog.

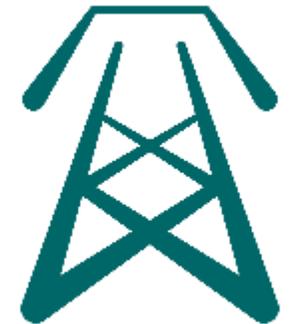


Repricing

BAU Repricing

- Two other trading days still open, defect fix now deployed on 15 August 2023.
- **RPC11** “Imbalance Pricing is applying a zero PBOA for Pump Storage units when dispatched from a negative PN to zero MW; where no zero quantity has been submitted in the Price Quantity Pairs”.
- Publication date to be scheduled and communicated in the coming weeks.

Trading Day	Imbalance Settlement Period(s)	Billing Period End Date	Manifest Error ID	Materiality Assessment	Reprice Publication Date
01/07/2022	19:30 to 20:00 21:00 to 23:00	09/07/2022 (Week 28)	RPC11	Post Release K	Post Release K
02/07/2022	01:00 to 06:00	09/07/2022 (Week 28)	RPC11	Post Release K	Post Release K



SEMOpX Update

Michael Atcheson



ETS Releases

Version	Content	Client	Impact	Timeline*
V3.7.2	<p>ETS Features:</p> <ul style="list-style-type: none"> • Trading limit exposure displaying improvement • REMIT Trading on Behalf Reporting • API Changes: <ul style="list-style-type: none"> ○ Decommission of 3.4 API Schema ○ New features with 3.7 API Schema ○ Retrieve Trading Limits method ○ REMIT ToB data: Optional Beneficiary and Trading Capacity attributes 	Upgradable (if on the fixed client, new client must be downloaded)	ETS Features and API Changes	Go-Live 25/10/23, Maintenance Window 24/10/23

**Planned go live is subject of successful testing of the given release*



ETS Maintenance Windows

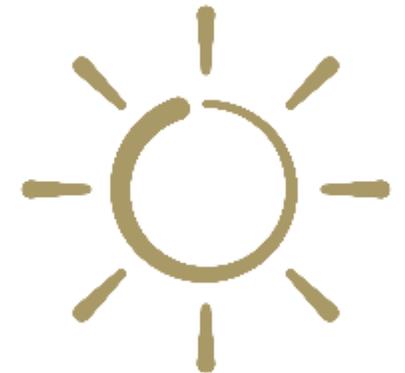
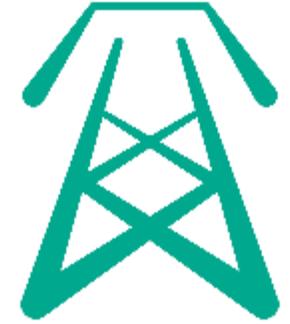
Date & Time	Impact	Reason	Communication
26/09/2023	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)
17/10/2023	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)
24/10/2023	Maintenance	Ad Hoc Maintenance, ETS 3.7.2 Release	OMM message (email sent a week in advance and on the same morning)
14/11/2023	Maintenance	Monthly Maintenance	OMM message (email sent a week in advance and on the same morning)
12/12/2023	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
V6.16	API performance: mandatory broadcast queue creation precisions	TBC	Q4 2023 (Date TBC)



M7 Maintenance Windows

Date & time	Impact	Reason	Communication
26/09/2023	Maintenance	TBC	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
17/10/2023	Maintenance	TBC	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
14/11/2023	Maintenance	TBC	M7 chat message (1 hour before the maintenance) + OMM message (email sent a week in advance and on the same morning)
12/12/2023	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 18:40 and 21:15 GMT/IST every 2nd Tuesday of the Month.**

30 Min MTU Project

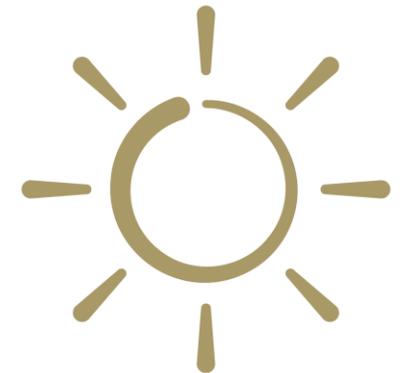
Background

- Article 8 of the Clean Energy Package (CEP) outlined harmonization of Market Time Unit (MTU) & Imbalance Settlement Period (ISP) coming into effect on 01/01/21
- Article 8.2 - Participants shall have the opportunity to trade energy in same time resolution as ISP
- All EU regions moving to 15 min MTU, with SEMOpx being the exception, as SEM Regulatory Authorities granted exemption (from moving to 15 min ISP) remaining at 30 min ISP

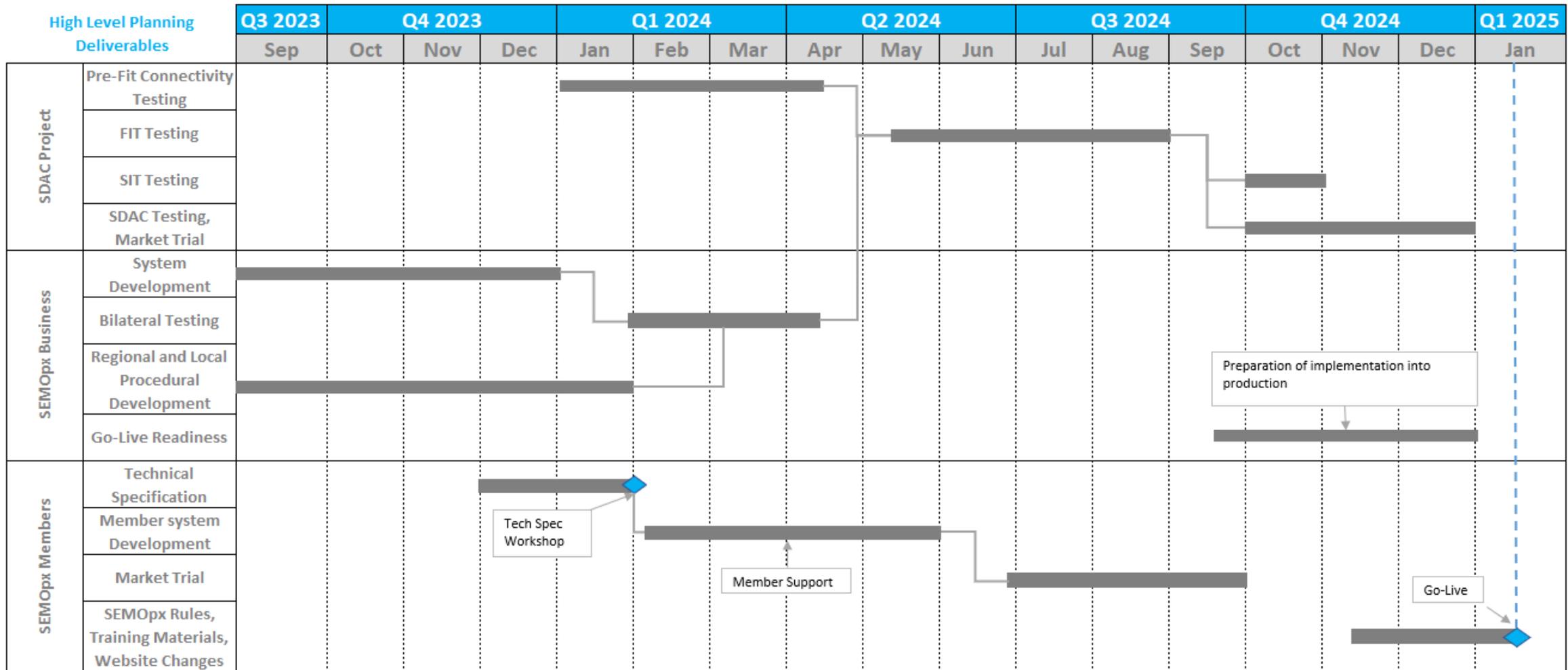


What this means for SEMOpx

- The total number of Trading Periods in the DayAhead Auction will increase from 24 to 48, with the time resolution moving from 60 min to 30 min MTU.
- Changes to the ETS system and API, reflected in Market Results files etc
- Go-Live Q1 2025
- Alignment with SEM-GB IDA's (30min TR)
- 30min MTU in place reconnection to SDAC via Celtic (2026), allowing for cross-border cross-matching



30 Min MTU Project - Timeline



SEMOpX EU Re-Integration Update

SEM Ex-Ante Market Design For EU Re-integration

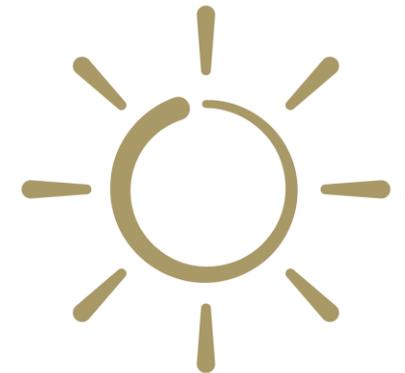
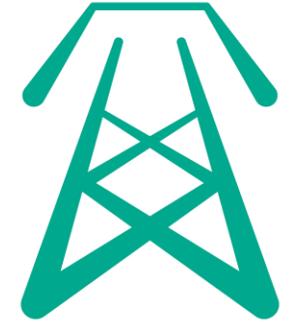
‘A revision of the current SEM market structure is necessary to facilitate new cross-border trading opportunities between SEM and France, whilst maintaining cross-border trading opportunities between SEM and GB’

- 29th May 2023 - Information paper published on the future design of the SEM Ex-Ante Markets.
- 12th June 2023 - Workshop held with 90+ attendees to provide further understanding of the design.
- 20th July 2023 - Feedback received from Participants on the future design.
- August 2023 - Review of feedback and consideration of options by Eirgrid and Soni
- September 2023 - Discussions with RAs on target design
- End of September 2023 - Publications of target design



SEMOpX Update

- Daylight Saving Time Change (DST 23 / Long Clock Change) - Test on ETS trading system
- Daylight Saving Time change in the night of Saturday 28th October 2023 to Sunday 29th October 2023
- Communication issued out on last week in September, outlining:
 - DST order submission and market results
 - API DST behaviour description and sample requests
 - Sample files for market results and daily auction reports
 - Environment connection details
- Test submissions in the ETS SIMU2 environment, with a test planned on 02nd week in October (date TBC). Test is optional but participation is strongly recommended



SEMOpX Re-Cap

- **SEM-GB Harmonized Minimum and Maximum Clearing Price - Implementation Date (SEMOpX IDA's 1 & 2 (10/7) and 3 (1/9))**
 - In line with SDAC, a SEM IntraDay HMMCP methodology has been developed and applied to the SEMOpX IDA's 1, 2 and 3
 - A summary of the HMMCP methodology is:

Harmonized Maximum Clearing Price	Harmonized Minimum Clearing Price
Harmonized max. clearing price will be increased by €500 EUR/MWh if the clearing price exceeds 70% of the max. price in at least 2 market time units in at least 2 different dates within 30 rolling days from the 1st price spike	Harmonized min. clearing price will be increased by €100 EUR/MWh if the clearing price exceeds 70% of the min. price in at least 2 market time units in at least 2 different dates within 30 rolling days from the 1st price spike
Implementation of price increase/decrease 28 days after instance has occurred	
The referenced harmonized maximum clearing price for SEM IDA auction shall be +€3000 EUR/MWh	
The referenced harmonized minimum clearing price for SEM IDA auction shall be -€150 EUR/MWh	
During the period between the event occurring and the price cap increase / price floor decrease, the price cap will remain as the current level	

Question & Answers Section

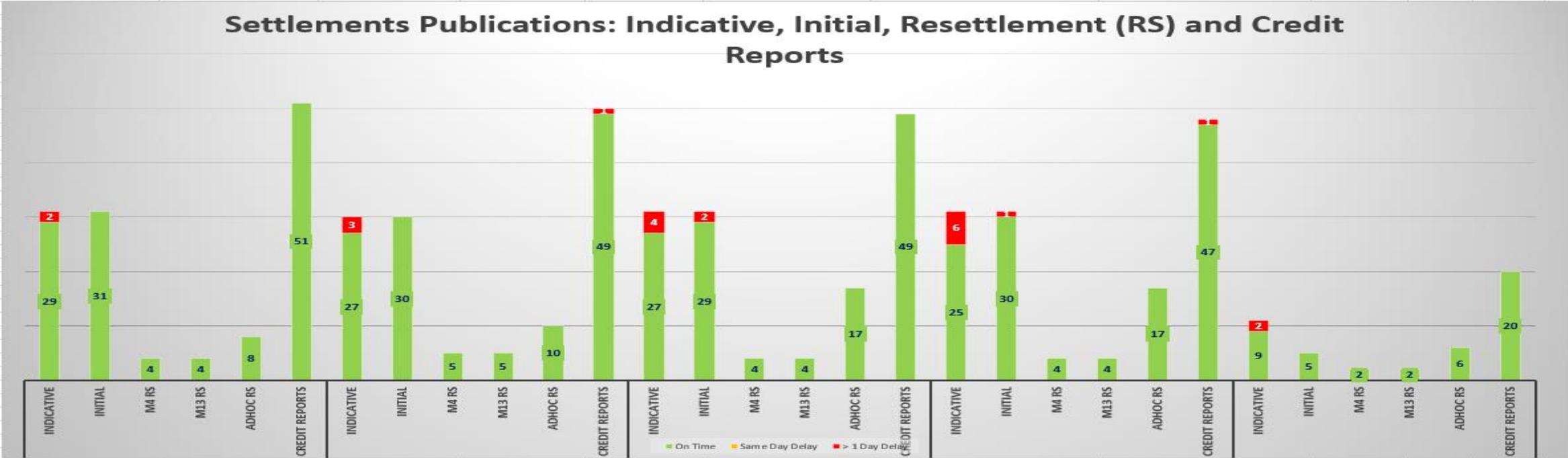


Settlements Update

Seán O'Rourke



Settlement Publications & Timelines: May - September 12th, 2023



May 2023

- **127** settlement publications on time
- 2 delayed indicatives due to delayed MDP data (SONI (1), MRSO (1))
- All issues now resolved

June 2023

- **126** settlement publications on time
- 3 delayed indicatives due to delayed MDP data (EirGrid/SONI ACTAs)
- All issues now resolved

July 2023

- **130** settlement publications on time
- 4 delayed indicatives due to delayed MDP data (1), CRM Calculation issue (1) & Instruction Profiler Issues (2)
- All issues now resolved

August 2023

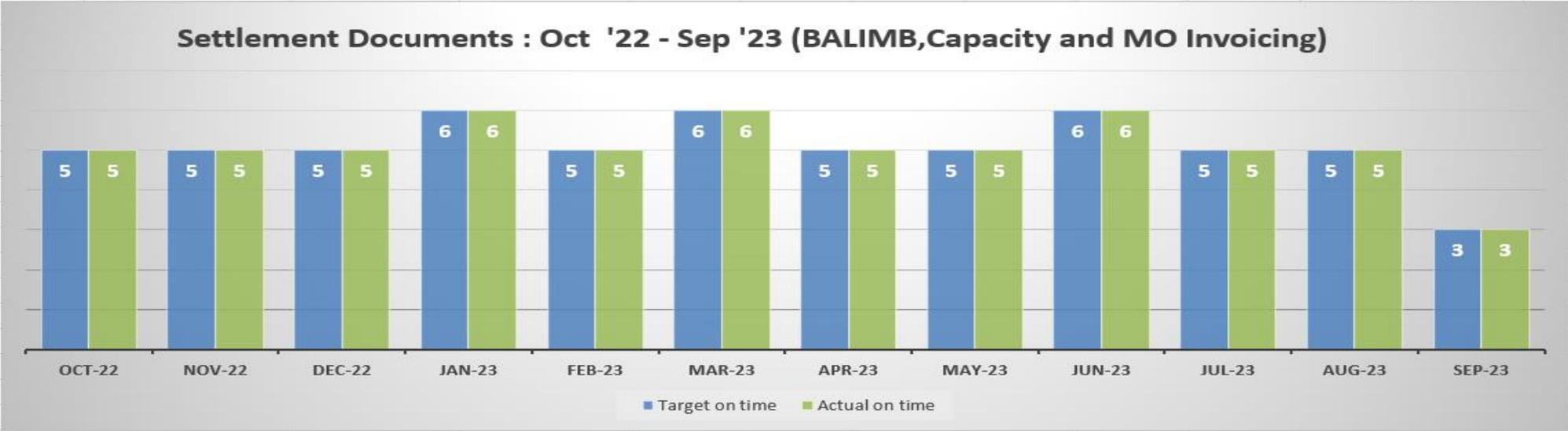
- **127** settlement publications on time
- 6 delayed indicatives due to delayed MDP data (3), CRM Calculation issue (1) & Instruction Profiler Issues (2)
- Credit report issued morning of Aug 16th had incorrect PCA value (due to timing error updating weekly strike price), issue resolved for afternoon Credit report.

Sept 2023 (up to Sept 12th)

- **44** settlement publications on time
- 2 delayed indicatives due to systems calculation performance issue
- All issues now resolved



Settlement Document Publications: Oct '22 - Sept 12th, 2023



Settlement Document updates:

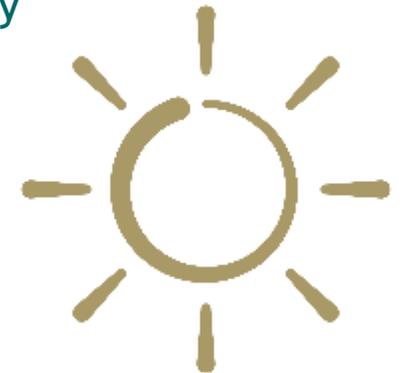
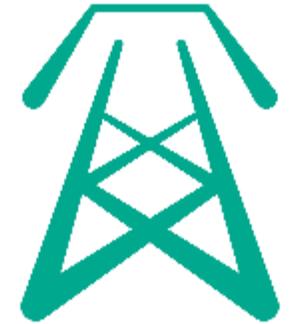
- **All** Settlement Documents (SDs) published on time between Oct 2022 and Sept 8th 2023 (includes BALIMB, Capacity and MO Invoices)
- **FMOC rate** issue for MO invoice published on Nov 15th : [Market message published](#) on the 18/11/2022. See next slide for a further update.
- Issue with **Ad hoc resettlement for CRM for April 2021** [Market message published](#) on the 16/06/2023. Due to a STL Calendar input error, the billing period was listed as one week instead of one month within the Settlement Document. As per market message, decision was made not to republish the SD as Ad hoc CRM had zero values for all weeks in April 2021. Apologies for any inconvenience caused to those market participants who experienced any validation issues when processing the SD file.



Settlements: Oct 2022 FMOC invoice update

FMOC Invoice published on Nov 15th included the incorrect CMOAU and CMOAV rates for ROI and NI market participants: Ref: [Market message](#) published on the 18/11/2022.

- As per updates provided at the MOUG on Dec 15th , SEMO Settlements are intending to publish an Oct 2022 MO Invoice which will reverse the original invoice issued, and to then re-publish the correct Oct 2022 MO invoice with the correct rates. The application of any interest due on the corrected invoice amounts is being investigated.
- MOUG May 25th update: Due to a dependency on the readiness of an end-to-end test environment required to complete the testing of this approach, this testing is now likely to be aligned with Release K UAT testing timelines (April / May) , with a definitive publication date to be confirmed with market participants once the scenario has been fully replicated and tested in the systems test environment.
- **MOUG Sep 14th Update:** Settlements to provide a verbal update on testing & analysis outcomes and proposed next steps in the process.



Ad hoc Resettlement: Status update September 2023

Scheduled Ad hoc resettlement completed to date - 1st iteration

Calendar Month	Mar-21 to Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
Ad hoc Iteration 1:	Oct-18 to July-20	Aug-20	Sep-20 to May-21					

Scheduled Ad hoc resettlement completed to date - 2nd iteration

Calendar Month	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23
Adhoc Iteration 2:	Oct-18 - Jan-19	Feb-19	Mar-19	Apr-19	May-19	N/A	Jan-19 to July-19 (11 weeks)	Aug-19 to June-20 (20 weeks)													

Ad hoc summary: March 2021 to September - 2023

- Ad hoc Iteration **1** is now closed out as of the **07/07/2023**
- Ad hoc iteration **1** resettlement consisted of **139** weeks / billing periods processed and published.
- Ad hoc iteration **2** resettlement is up to the 10/08/2019 . **20** weeks / billing periods remain to be processed and published.
- **21 weeks** of Adhoc processed in **Q1** (Oct 2022 - Dec 2022) meeting **KPI** target of 18 weeks over a 12-week period
- **22 weeks** of Adhoc processed in **Q2** (Jan 2023 - Mar 2023) meeting **KPI** target of 18 weeks over a 12-week period
- **18 weeks** of Adhoc processed in **Q3** (Apr 2023 - June 2023) meeting **KPI** target of 18 weeks over a 12-week period

Settlement Documents to issue Friday 15th Sept 2023

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

Settlement Documents Friday 15th Sep

INITIAL BALIMB - (03/09/23-09/09/23) - Week 36 2023

M+4 BALIMB - (14/05/23-20/05/23)- Week 20 2023

M+13 BALIMB - (14/08/22-20/08/22) - Week 33 2022

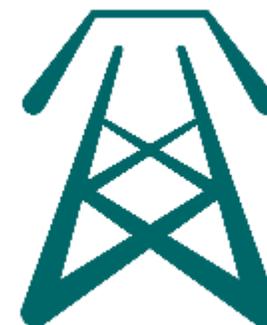
AH BALIMB - (11/08/19 - 17/08/19) - Week 32 2019 - IT2

AH BALIMB - (18/08/19 - 24/08/19) - Week 33 2019 - IT2

AH BALIMB - (26/12/21 - 01/01/22) - Week 52 2021 - Formal Dispute

AH BALIMB - (02/01/22 - 08/01/22) - Week 01 2022 - Formal Dispute

AH CRM - Dec 221 - Formal dispute



Question & Answers Section



System Operations Update

Emma Morris



System Operations Update

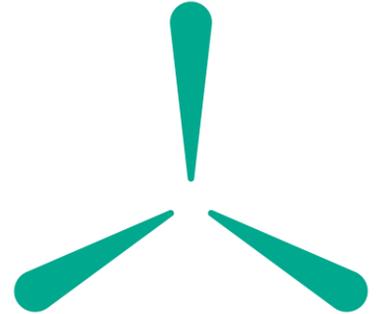
Recent system events

System Alert - Ireland 12 June 2023

- Scheduled and forced outages
- Extremely low wind and solar

System Alert - Northern Ireland 10 July 2023

- Scheduled and forced outages
- Only two large generators available in NI



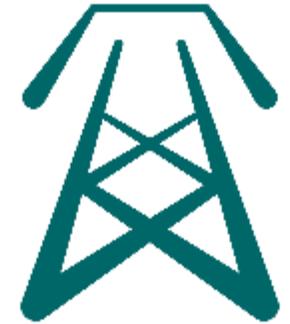
System Operations Update

System Outlook

- Kilroot Units K1 and K2 close on 30 September 2023
- Temporary Emergency Generation coming online in Ireland
- Winter Outlook will be published early October

Emergency Exercises

- PSECP exercise - Ireland 14 September 2023
- PSECP exercise - Northern Ireland 26 September 2023
- Various control room emergency exercises will run throughout Autumn/Winter



Question & Answers Section



Future Markets Update

David Carroll



Introduction

- Shaping our Electricity Future (SoEF) v1.1 outlines the EirGrid, SONI and SEMO view of the market changes needed over the coming years.
- Ultimately the market changes are the responsibility of the SEM Committee, and we will ultimately implement what we are requested to do.
- There is a significant pipeline of changes anticipated over the coming years. These are generally been driven by EU regulations, SEMC Decisions and National Legislation (e.g. Ireland Climate Action Plan and Northern Ireland Energy Strategy).
- Key in flight programmes include Scheduling and Dispatch and Future Arrangements for System Services.
- We are also looking at requirements associated with EU Trading arrangements (due to the Celtic Interconnector) and GB Trading arrangements (due to ongoing European Commission and UK Department of Energy Security and Net Zero).



Recent & Upcoming Activity

- **Scheduling & Dispatch:**

- Recent workshop on Wednesday, 06th September 2023 attended by 100+ Participants - <https://www.sem-o.com/documents/general-publications/EirGrid-SDP-Industry-Workshop-20230906.pptx>
- We will hold monthly workshops with industry - invites will issue via info@sem-o.com

- **Future Arrangements for System Services:**

- EirGrid and SONI published a recommendations paper on Thursday, 07th September 2023 on the daily auction design from our advisors Dotecon/AFRY.
- <https://www.eirgridgroup.com/site-files/library/EirGrid/FASS-DotEconAfray-Recommendations-Paper-Cover-Note-EirGrid.pdf>
- <https://www.soni.ltd.uk/media/documents/FASS-DotEconAfray-Recommendations-Paper-Cover-Note-SONI.pdf>

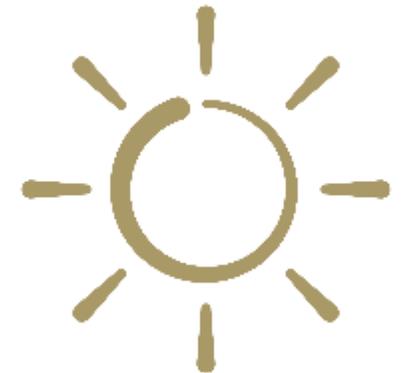
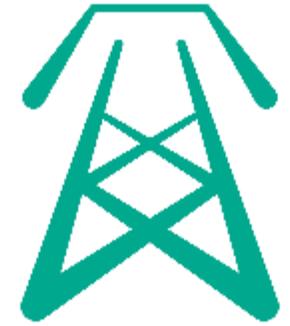
- **Long Duration Energy Storage**

- EirGrid and SONI will publish a Call for Evidence paper shortly in relation to options for a market mechanism to incentivise long duration storage.



Ongoing Stakeholder Engagement

- We will have a standing agenda item at the MOUG (including special topics where required).
- We will publish a monthly newsletter on future market changes.
- Standalone workshops will be held where deep-dives are needed.
- We will hold bilateral meetings with industry on specific items.
- We will provide updates at the Shaping our Electricity Future Industry Advisory Committee.



Question & Answers Section



Market Interface

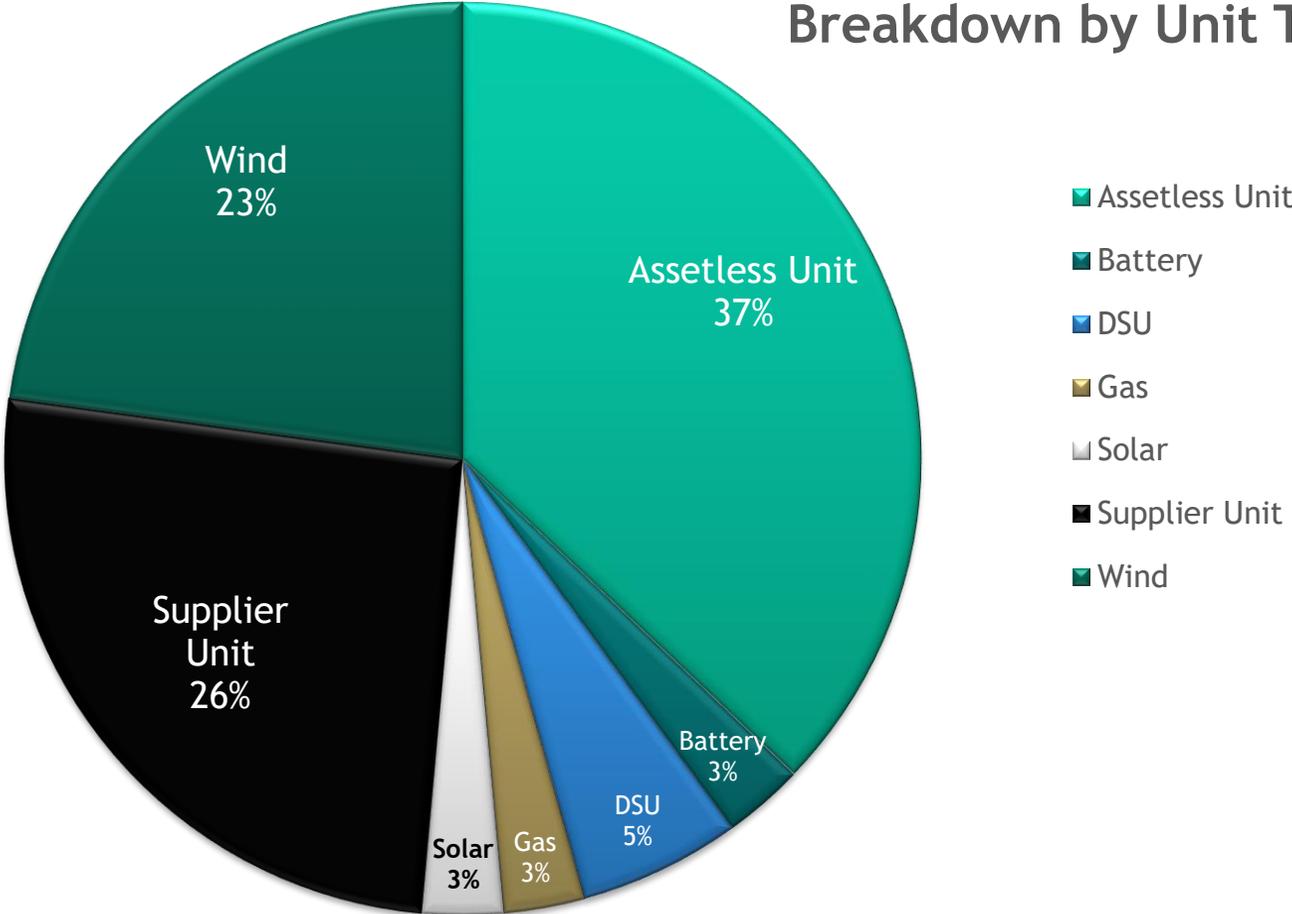
Rosaleen Fanning



Balancing Market Registration: January - September 2023

- 8 new Parties joined
- 35 Unit Registrations
- 10 Unit De-registrations

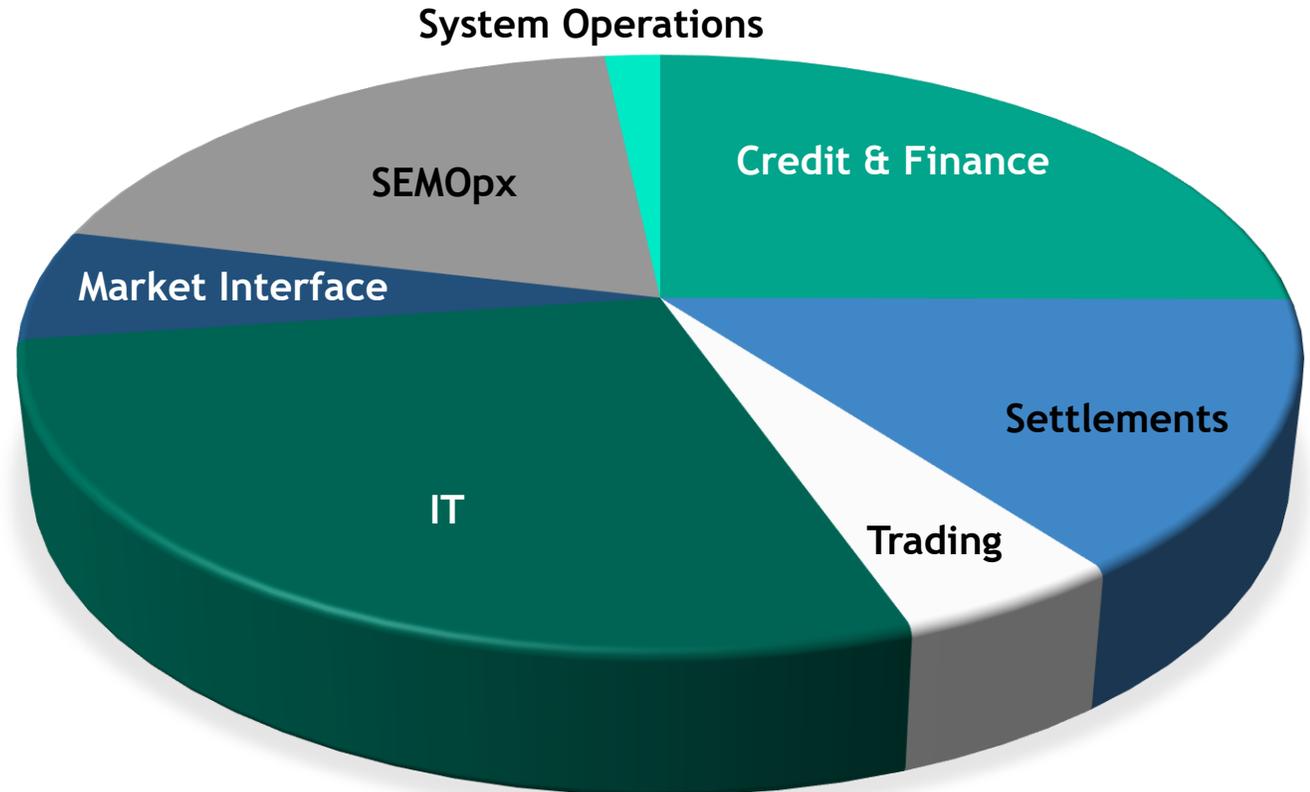
Breakdown by Unit Types



SEMO and SEMOpx General Queries: Since the beginning of the market (1st October 2018); 10,924 queries have been received and 10,898 are already closed.

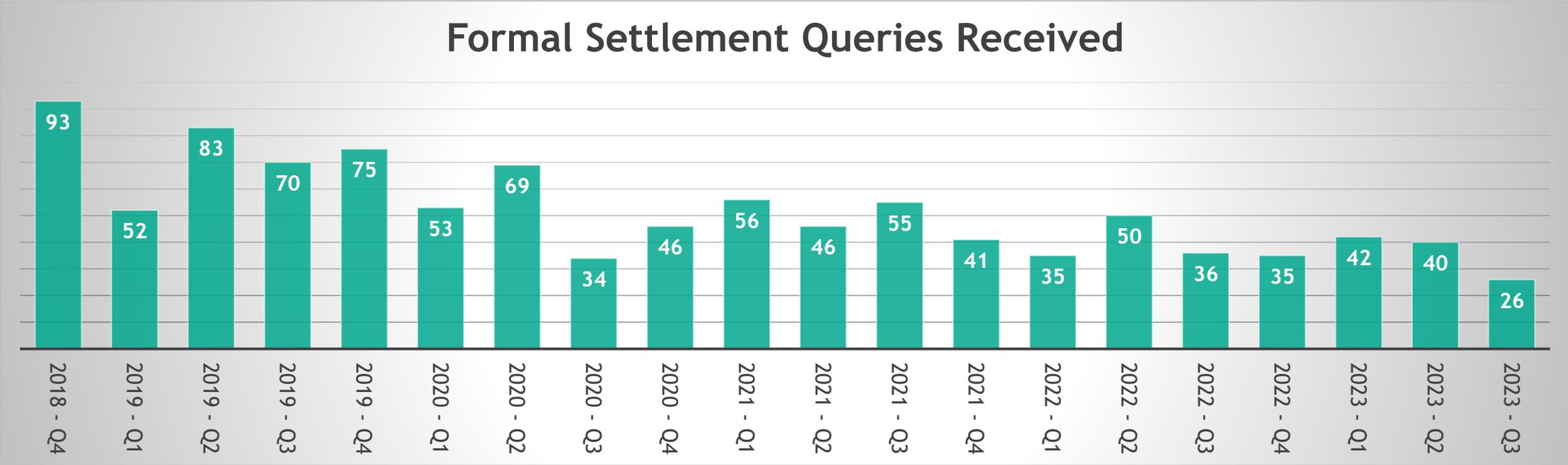
- Received - 579
- Resolved - 598

(20th May – 08th of September 2023)



Formal Settlement Query Statistics

From October 2018 to September 2023 - 1,037 have been raised.



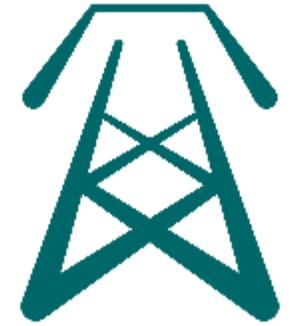
SEMO Decision	
Upheld	76%
Not Upheld	21%
Rejected	2%
Open	1%
Withdrawn	0%

SEMO Decision	
High Materiality	28%
Low Materiality	72%



Formal Queries and Disputes: May – September 2023

- **Formal Settlement Queries** - 49 received in total
 - 14 are currently ongoing
 - 35 completed (28 were upheld, 6 were not upheld and 1 was rejected)
- *We would like to remind Participants and per the T&SC Part B G.3.2.3 “A Settlement Query must be raised after publication of the relevant Settlement Statement and before 17:00 on the 20th Working Day after issuing the last set of scheduled Settlement Statements”*
- **Disputes** - During this period, no Disputes were raised.



Close

- SEMO Website: <http://www.sem-o.com/>
- SEMOpx Website: <http://www.semopx.com/>
- Contact: info@sem-o.com; info@semopx.com
- Capacity Market: CapacityMarket@sem-o.com

Thank you for your attendance.

