SEMOpx User Group Meeting

Dublin - 16th May 2019



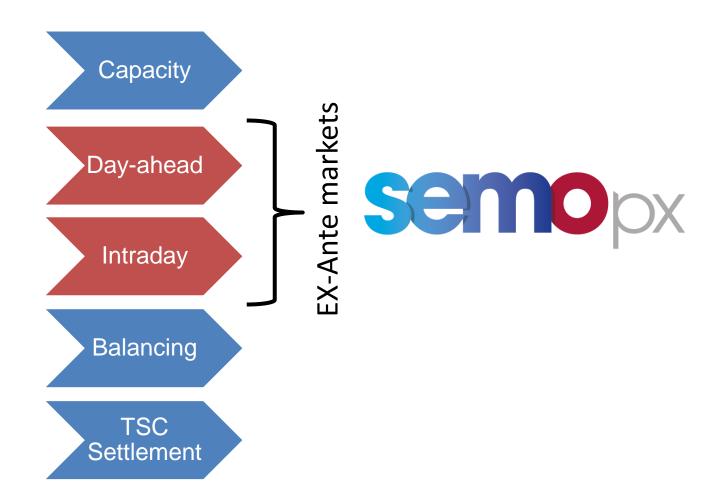
Agenda

- ☐ SEMOpx operation since go-live
- ☐ Service Improvements
- ☐ Helpdesk and Registration
- ☐ European Integration
- ☐ Service Development
- ☐ Question and Answer





SEMOpx in the context of the SEM





SEMOpx operation since go-live

Exchange Members

48

€1.4b

E8m
Traded per Day

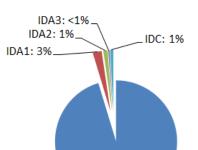
20 TWH

Traded in first 6 months

Traded in first 6 months

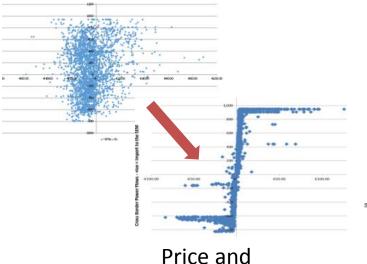
Auctions Successfully Completed

>850

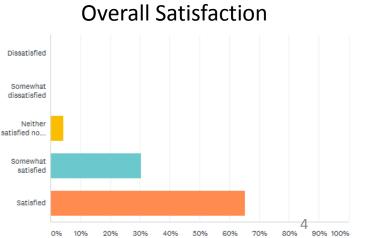


DAM: 95%

Volumes by Market



Price and Interconnector Flows





Exchange Committee

- Forum for <u>modifications</u> to be considered to SEMOpx Rules and Procedures
- Committee setup and <u>committee members</u> appointed
- Meets twice yearly, or more often if needed

Sat	Fri	Thu	Wed	Tue	Mon	Sun
	2	1	30	36	29	18
1	9	8	7	•	5	•
1	16	15	14	13	12	n
2	23	22	21	20	19	18
	30	29	28	27	26	25





NEMO Designation

- SEMOpx want to continuing to provide Ex-Ante services to the SEM
- Re-designation required as current designation finishes on 2nd October 2019

Recent Activities

- RA Consultation and Decision on NEMO Regulatory Framework
- SEMOpx submission of application for designation (10th May)
- Awaiting outcome of application



- Future Activities dependent on successful designation
 - Price Control submission, consultation and approval
 - SEMOpx Tariffs for 2019/2020 approved



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Service Improvements

Query Management

- Improvement Made: both timing and quality of responses
- But as always, more work to do...

Registration

- Improvement Made: Some of you experienced delays in processing and queries around go live, but have seen the improvement since
- Future Improvements: direct phone contact, welcome pack

REMIT

- Improvement Made: Submission to ACER and Weekly publication on website
- Future Improvements: DPuG will be updated, Automatic D+2 publication to website

Market Results Graph

• Improvement Made: Cosmetic fix to axis label

Static Report – Data Retention

- Were only available for 2 months
- Improvement Made: monthly files IDC Order, Trade, Auction Bid Files, Results
- Future Improvement: Extend to 1 year

Static report -Data Publication

- Ad hoc issues
- Improvement Made: Fix implemented 26/04/2019

Auction Prices & Volumes

- Some users need a quick view
- Improvement Made: Consolidated into one file and published monthly

ETS Simulation

- Simu 3 only offered current production testing
- Future Improvement: The move to Simu 1 and 2 will allow testing of both production (1) and new improvements due for release (2)



Future Service Improvements

Website Navigation & Search

• Improved categorisation, keywords, and internal links

Dynamic Reporting

 Auction Prices & volumes presented in easy to view dashboard format, retrievable for configurable date ranges

IDC table/chart

• IDC equivalent of market results tables for DAM, IDAs

Calendar

• Some of you asked about our <u>calendar</u>

Operational Market Messages

- Document published at go live
- But new version in progress with further clarification
- We already facilitate the possibility of registering a team email address as a Trader for alerts

Maintenance Window Comms

• Working with our vendor to give as much notice as possible



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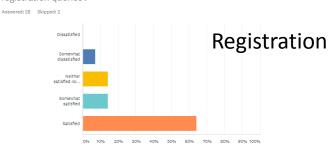


SEMOpx Helpdesk - Stats

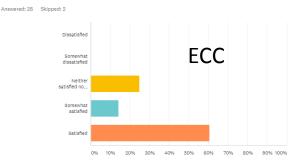
How satisfied are you with your experience with the How satisfied are you with your experience with the info@semopx.com team that are responsible for general SEMOpx queries: marketops@ops.semopx.com team responsible for urgent auctions and continuous queries? Answered: 28 Skipped: 2 Answered: 28 Skipped: 2 Dissatisfied Dissatisfied **General Queries** Market Ops - Urgent satisfied no. satisfied no. Satisfied Query Stats Oct'18 and Apr'19 Only 9 queries open* Mar'19 Approx. resolution time for general query, 3 days Feb'19 ■ Closed Jan'19 Received Dec'18 Oct'18

50

How satisfied are you with your experience with the registration@semopx.com team responsible for processing applications and registration queries:



How satisfied are you with your experience with the clearing@ecc.de team responsible for invoicing queries:



SEMOpx Helpdesk - Get in touch

SEMOpx Helpdesk

Republic of Ireland:	1800 283 010
Northern Ireland:	0800 008 3010
International:	+353 1 668 8183

The SEMOpx Helpdesk is available Mon-Fri from 9.00am until 5.00pm, for all general queries or non-urgent operational queries.

1. Urgent Auction operational issues:	24 hr	marketops@ops.semopx.com
2. Urgent Continuous operational issues:	24 hr	marketops@ops.semopx.com
3. General queries:	9-5	info@semopx.com

SEMOpx customer support for urgent queries is available 24/7, 365 days a year.

- You asked, we aim to deliver...
- Option <u>4</u> routing of calls to the SEMOpx registration team
-in the meantime, the team are already available 9-5 at registration@semopx.com

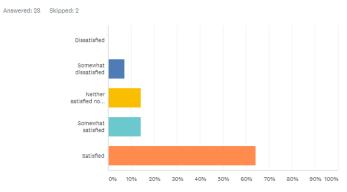


SEMOpx Registration

Members	Total 48
Go live 30/09/18	39
By today 16/05/19	9
In Progress	5

Unit Type	Total 387
Assetless	43
Generator	228
Supplier	100
Demand Side	15
Trading Unit	1

How satisfied are you with your experience with the registration@semopx.com team responsible for processing applications and registration queries :





SEMOpx Registration – Things to note

Registration Timelines

- On receipt of your registration pack, it can take up to 60 working days to make the new Party, Participant and Unit and Users effective in the Balancing Market Interface and the Member, Unit, Users and Traders in SEMOpx Platforms (ETS & M7)
- Addition of New Members: requires 10 working days to implement in the systems after admission confirmed, and must be effective on a Wednesday.
- Addition of New Units: requires 5 working days to implement in the systems after admission confirmed, and must be effective on a Wednesday.
- For other changes to setup: e.g. New Users, Traders, change in ACER code, Trade Recall contact change, IT contact change, typically requires 5 working days to implement in the systems after approved, but may be facilitated in short timeframes (dependent on volumes)

Users vs Traders

- User is the actual user name and password to log into ETS, or M7 or SMSS
- Trader Is the individual i.e. a real person who has been authorised as a trader by the member

https://www.semopx.com/joining-the-market/how-to-join/



Tips for Staying Informed

- Ensure new employees subscribe to
 - SEMOpx Market Messages
 - SEMO Market Messages
- Regularly review your Traders registered with SEMOpx to ensure they receive operational market messages
 - You can request your current list of traders from <u>registration@semopx.com</u>; and request the latest S07 form for completion
- Every Friday expect the Known Issues Report to be <u>published</u>



Agenda

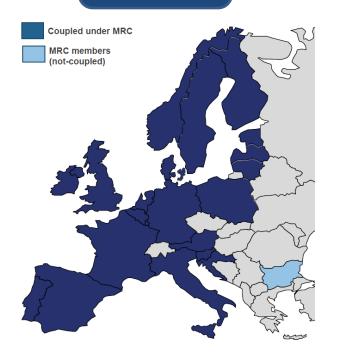
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Day-Ahead/Intraday Markets

European Coupling



GB



SEM

Coupled in SDAC
Not yet coupled in SIDC

Two ID Auctions

One ID Auction &
ID Continuous



Key Current Discussions/Activities

Single Day-Ahead Coupling

- Conclusion of agreements among NEMOs and between NEMOs and TSOs
- Algorithm Change of Control Methodology (also applies to SIDC)
 - Methodology, not a procedure/process
 - Discussions with NRAs
 - Consultation shortly before summer

Single Intra-Day Coupling

- 2nd wave of countries expected September/October 2019
- Intraday Auctions
 - Current technical work conducted by TSO and NEMOs on methodology
 - Consultation shortly before summer

SEM-GB Regional Auctions

Working towards the implementation of GB MNA



Algorithm Change Control Methodology

- Ensures Request for Change (RfCs) are managed in a nondiscriminatory way by establishing common principles
- Sets principles for submission, evaluation, decision and implementation of RfCs for SDAC/SIDC algorithm
- Such as:
 - Typology of RfC
 - Minimum information to be included in RfC
 - Timing of RfC Go-Live (approx. 1 to 1.5 years after submission)
 - Assessment of RfC based on set of criteria
 - Escalation process/Arbitration
 - Corrective measures (limitation of usage)
- ACCM discussed with ACER, shortly out for consultation



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Roadmap for Market Development

Plan to be released end of May for all SEM Markets

Project list, relevant for SEMOpx

- EUPHEMIA MNA –Live 03/04/19
- IDA GB MNA Go-Live for July 2019 (SEM-GB testing from June 19)
- SEM MNA Longer term project
- Capacity Allocation (variable NTC over day)
- EU Coupled Continuous Market (XBID)
- EU Coupled Auctions
- Additional Products for both Auction and Continuous markets under consideration based on your feedback and experiences thus far after 7 months of operation

Potential EUPHEMIA changes

- MIC variable component change. In R&D and potential to remove the variable component of the MIC
- Brexit uncertainty but workable plans in place to mitigate risk and provide flexibility



EUPHEMIA - Order Types in SEMOpx

Simple Orders

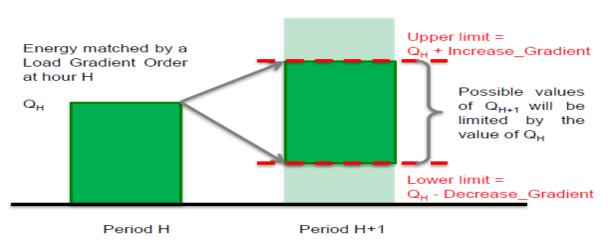
- PQ pairs with no conditions attached
- Orders aggregated into hourly curve

Complex*

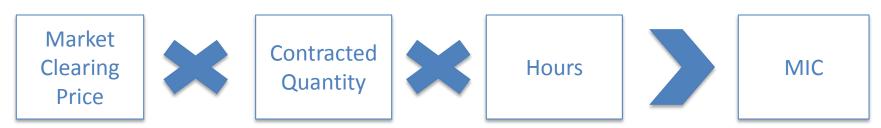
- Price-quantity pairs with conditions
- Explicit representation of TOD and COD



Complex Orders



- Two main conditions:
 - Load gradient (above) provides an hourly average ramp limit
 - Minimum income condition (MIC below) defines minimum revenue
 - MIC has a fixed (e.g. start up) and variable* (e.g. fuel cost) element





Product Updates

Based on what we know now and your feedback in the survey;

30 min Complex Order

- Part of original offering, to implement need full scope of project and testing with SEM-GB - Development of product on hold
- Complex bids in IDA (still needed or not?) Have you found ways to mitigate infeasible scheduling prior to IMB Market?

Block Orders in Continuous Market

 Current block products have a trade execution function with IOC, FOK and NON. Adding the AON* execution type would not be possible without removing the NON execution type

Block Orders in Auctions

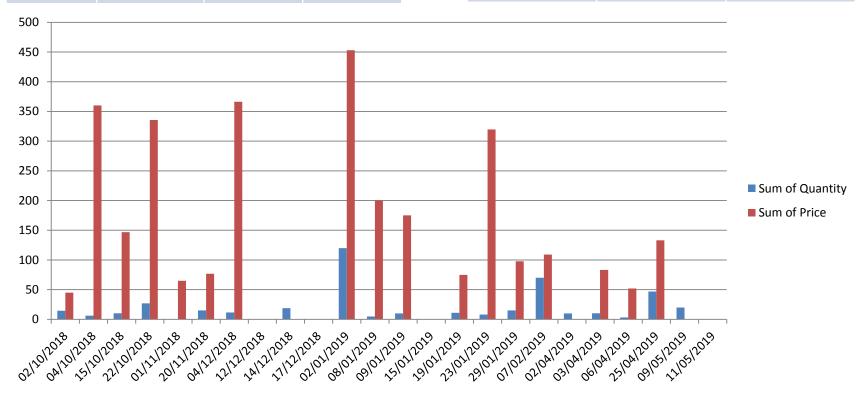
 Previous tests would need to be performed again, with no change to performance and additional markets being added to MRC this is highly unlikely



Trade Recall Trends Since Go-Live

Total	High Trade	Low Trade	Average
Recalls**	Value	Value	Trade Value
47*	€7,630	€26	€872

Oct 18-Dec18***	Jan19-Mar19	Mar19-Today
21	13	13



^{*15} Recalls from 1 Member



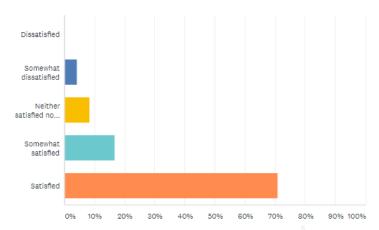
^{** 1} Recall rejected

^{***}Automated Dec 18

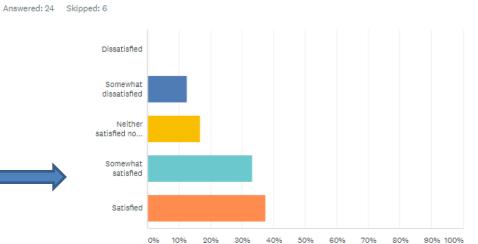
ETS/M7 - Satisfaction

How satisfied are you with the Auctions trading system (ETS)?

Answered: 24 Skipped: 6



Multiple implementations led to some need for performance improvements and outages



How satisfied are you with the Continuous Platform (M7)?



Releases

• ETS

Version	Content	Impact	Expected Timeline
V3.3.1	Functionality improvements for API services. Safety settings for order submission. Improvement of member exclusion process.	No impact on output files	End of June or beginning of July 2019 – TBC [Amend post meeting to: 19th June 2019, see alert]

• M7

Version	Content	Impact	Expected Timeline
V6.7	To be confirmed.	The TC Report XSD schema will change.	Quarter 2 2019 - TBC



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Q & A

Presentation Section	Question	Answer
SEMOpx in the Context of the SEM	Where are Financial Transmissions Rights (FTRs) managed in the context of the SEM?	FTR auction management is entirely separate to SEMOpx. The <u>Joint Allocation Office (JAO)</u> is the single point of contact for information on the FTR market, handling registration, systems, auctions and settlement.
NEMO Designation	SEMOpx submission for NEMO redesignation was submitted on 10th May, but when is the outcome likely to be advised?	Decision is with the RA's and there is no defined deadline for the outcome. Based on discussion with the RA's though it is hoped that further details on the designation will be available by the end of May.
NEMO Designation	Have NORDPOOL pass ported in or not yet?	The RA's have accepted Nordpools request to operate in the I-SEM and arrangements to allow multiple NEMOs to operate in I-SEM are now being considered by the RAs and TSOs (as implementers).



Q & A Continued

Presentation Section	Question	Answer
European Integration	Is SEMOpx a full member of PCR?	We do not operate the PCR, but given that SEMOpx is present in all governance committees in Europe, both in Day-Ahead and Intra-Day, we represent the interests of our market in the discussions. In addition, we have two votes (SONI and EirGrid, as the Nominated Electricity Market Operators) at the table, and this is useful given that decisions in these fora need to be by unanimity.
European Integration (Algorithm Change Control)	Why does it take 1 -1.5 years for an Request for Change (RfC) to be progressed?	This is mainly attributed to the fact that there are a number of RfC's that need consideration, prioritisation and then implementation. These take time to evaluate, decide on priorities and implement in the contact of the multiple jurisdictions and parties involved in the EU market coupling. The methodology for managing RfC is a period of submission and evaluation (~6 months), then a period fo implementation (~6 months). Hence the approximation that any new RfC will at a minimum take 1-1.5 years to progress.



Q & A Continued

Presentation Section	Question	Answer
Service Development	Multiple member(s) reiterated concern regarding the MIC variable component change, noting that it was not only important for their units, but for Spanish market participants too. Members asked SEMOpx for clarity on how the	SEMOpx reiterated their support to prevent the proposed change from being progressed. SEMOpx participate in the relevant committees, and will provide feedback on behalf of members of the SEMOpx market. SEMOpx will also flag this with the RAs.
	potential change was allowed to come so far? The proposed change would significantly increase their risk.	SEMOpx asked members to provide their concerns in writing regarding the proposed change, to provide supporting arguments for discussion at European level. As PCR and MRC members SEMOpx would have to agree
	Members called for this to be raised with the Regulatory Authorities.	with any change to the products in Euphemia.
		See question in survey.
	Members asked if reducing the algorithm solve time was the only driver for this change, and if so, were other options explored?	SEMOpx advised they would check on the last question.



Q & A Continued

Presentation Section	Question	Answer
Service Development	A member asked why the progression of the 30 min Complex Order in the IDA would be impacted by the outcome of Brexit?	The speaker clarified that was not the intended comment. There is nothing preventing the implementation of the 30 min Complex Orders in the IDA apart from confirming that SEMOpx members support their product development. See question in survey.
Service Development	A member asked for clarity on why adding the AON execution type would not be possible without removing the NON execution type?	The service provider confirmed that a combination of NON and AON is not a possible matching type. NON and AON are mutually exclusive. AON, IOC and FOK can be combined together (without NON). To do this, and have the NON, IOC and FOK, SEMOpx would have to create additional blocks and believe this may make the user interface more cumbersome. However SEMOpx remain open to your comment on this item. NON: An order entered into the market, can be partially / fully matched, remaining quantity stay in the market. AON: All Or Nothing; An order comes into the market, stays in the market until it is fully matched FOK: Filled Or Killed; An order comes into the market, it is or fully matched, if not then the order is deleted IOC: Immediate Or Cancel; An order comes into market, will try to match against any quantity (so partial match possible), and or it is fully matched or it is partially matched and the rest of the order will be deleted. So the order doesn't stay in the market



Post Meeting Updates

Presentation Section	Question	Answer
Service Development	Clarification on Trade Recall timing	See section D.4.1.1 of the SEMOpx Procedures; within 5 minutes of the transaction
Post Meeting Update	SEMOpx Helpdesk, option 4	We are happy to advise that the option 4 on the Helpdesk line is already available for you to get in touch with the registration team directly
Post Meeting Update	Market Data Update	SEMOpx published our own "Ex-Ante Market Look Back" And will publish the IDC Prices & Volumes on a monthly basis going forward alongside the Auctions Prices & Volumes
Post Meeting Update	Simulation Environment Update	Market Message
Post Meeting Update	Notification of upcoming ETS Version 3.3.1	Market Message (Member test dates 07/06/2019 & 12/06/2019; if successful production go live 19/06/2019)



Next Meeting





Appendices



Useful Resources

- Technical Specifications
- Data Publication Guide
 - Static Reports
- Website Report API
- IDC XML Report Reference (based on M7 version 6.6)
- Training materials
- At all times we welcome your feedback on the content of these materials

