

Market Operator User Group

Dublin, 16 May 2019

Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

Background

- Typical of large complex market implementations both modifications to the underlying code and defects have been identified within the ISEM market design since go-live. These have implications for the resettlement schedule and the funding requirements for EirGrid. On this basis the EirGrid Executive made the decision to postpone M+4 Resettlement
- EirGrid is engaging with RAs to explain the potential market impacts and agree the payment and recovery method, and the schedule for outstanding No Load Costs and Make-whole Payments.
- Responsibility and accountability for the maintenance of the Trading and Settlement Codes rests with the RAs. Any proposed recommendations would require consultation with the RAs and final decisions should be communicated to participants.

Drivers for larger funding facility requirements

- Identified changes to the market (detailed on next slide)
- Commencement of resettlement
- Higher DBC costs - influenced by a more variable balancing market
- Low tariff estimate approved for the start of ISEM

Overview –Resettlement Materiality

(i) Modifications - where the Trading and Settlement Code (TSC), as written, may not deliver the desired market outcomes.

Two high priority modifications relating to Fixed Cost Payments* have been identified:

- CR77 (Mod_07_19) - Amendment of calculation of No-Load Costs
- CR73 (Mod_34_18) - Removal of Make-Whole Payments for biased quantities and negative imbalance revenue

(ii) Fixed Charge Defect - a data transfer defect resulted in low Fixed Costs* being paid to Participants from October 1, 2018 to 27 January 2019. This has accrued valid Fixed Charges of €32 million that will be paid out over 16 weeks on the commencement of M+4

**Fixed Cost Payments or Charges (CFC) - the differences between how a Participant would ideally run their unit to meet its ex-ante market commitments and how the unit was operated to support a secure operate power system.*

High priority modifications

CR 77 (Mod_07_19) - Amendment of calculation of No-Load Costs

No-Load Costs - operating costs incurred to keep a unit running at its minimum output.

The TSC, relating to the Determination of No-Load Costs and Start Up Costs is not as intended. The test for setting No-Load costs to zero is

- set No Load Cost to zero if the PN has a non-zero value within the period AND
- the Metered Quantity has a value of zero for the period.

The intent of the market design should be “set No Load Cost to zero if either condition (not both) applies.

Market impact - No Load Costs are inappropriately paid more frequently than the original market design intended. **Effective date: May 3rd, 2019**

CR73 (Mod_34_18) - Removal of Make-whole Payments

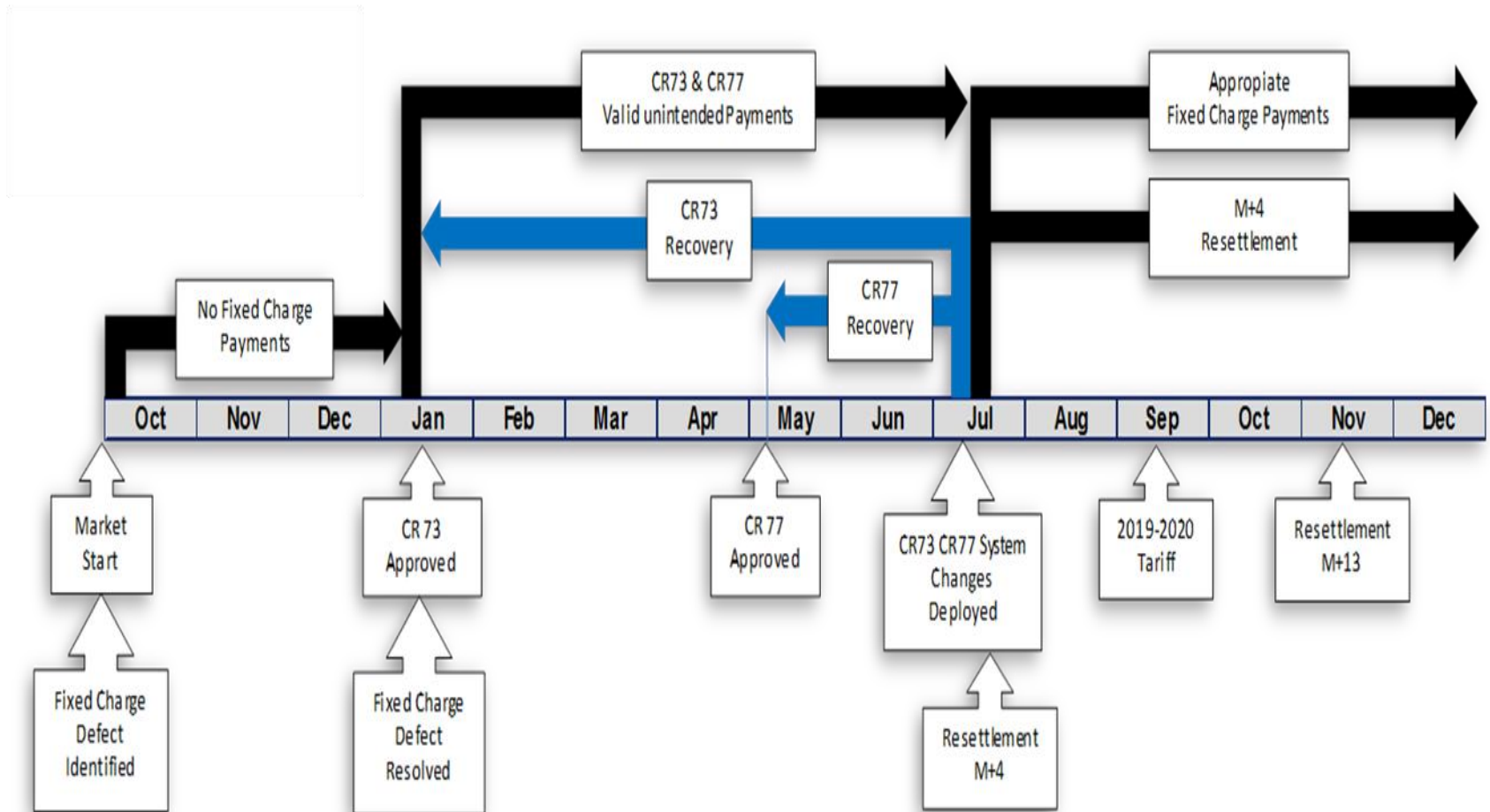
Make-whole payments - allow Participants to recover valid fixed costs that have not been recovered through their market revenues.

The TSC and related business processes and systems allow some Participants to be inappropriately paid make-whole for their negative imbalance revenue where a unit has no balancing market related costs (variable or fixed)

The impact to the market is that some Participants are inappropriately paid make-whole payments

Effective Date: 27th January, 2019

Chronology of Events October 2018 – December 2019



Proposed Actions

By June 2019	Increase in funding facility discussions with RAs and EirGrid Board
June	System upgrades for CR73 and CR77 deployed (subject to passing test)
June – mid July	Data preparation, loading of use cases and preliminary checks leading to Instruction Profiling (Inc. QBOA) re-runs and import into the Billing System
Mid July	<ul style="list-style-type: none"> • Commence M+4 resettlement (Included in Settlement Documents) • Commence payment of accrued Fixed Charges from October 2018 – January 19 (Approximately €32.0m - €2.0m per week for 16 weeks) <p>Once rolling M4 period covers the modifications effective dates:</p> <ul style="list-style-type: none"> • M4 recovery of CR 73 payments back to January 27 <ul style="list-style-type: none"> □ (Approximately €19.2m - €0.80m per week for 24 weeks) • M4 recovery of CR 77 payments back to May 3 <ul style="list-style-type: none"> □ (Approximately €6.0m €1.5m per week for 4 weeks)
September 2019	Confirm the inclusion of the increased Fixed Charges in 2018-2019 in the 2019-2020 tariff
November 2019	Commence M+13

Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

Settlements : April 2019 data key process updates

Settlement Dates	Run Category	Run Type	Runs completed	On Time	Delayed – Same Day publication	Delayed > 1 Day
1 st – 30 th	Settlements	Indicative	30	17	-	13
1 st – 30 th	Settlements	Initial	30	18	3	9
1 st – 30 th	Settlement Documents	Weekly	4	4	-	-
1 st – 30 th	Credit Reports	Daily	60	58	2	-
1 st – 30 th	Payments In	Weekly	4	4	-	-
1 st – 30 th	Payments Out	Weekly	4	4	-	-

Key issues impacting publication timelines

Key Date (s)	Issue	Impact to schedule timelines	Issue Status
Tuesday 23 rd	DI Instruction time for one unit incorrectly set to midnight for Initial run of the 14 th	<ul style="list-style-type: none"> Initial publication for the 14th re-published Caused delays to the Initials of the 15th / 16th also 	Temporary workaround is in place.
Wednesday 24 th	Missing price periods for the 24 th & 25 th April had to be manually loaded into settlement systems	<ul style="list-style-type: none"> Indicative runs for the 24th & 25th April were delayed to the following days 	Temporary workaround resolved the issue.

Other Key points:

- **Additional** catch-up days in April due to the backlog of runs caused by above events (on top of normal Bank Holiday & Thursday catch-up days)
- **Sequence of initial settlement runs** : Current dependency on weekly Friday run to be completed before continuing to Saturday run (weekly fixed costs)
- **Additional pro-active analysis** continues re: “Incorrect IPQBOA values (KIR ID: 5893)” – impact to processing timelines to perform required analysis

Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

DMAT Defect

- QBOAs above DMAT are dropping out of the bid stack.
- DMAT <1MW per half hour or 0.17MW per 5 minute period.

BOA Quantities and Prices						
Source Name	Time stamp	BOA Order Number	Acceptance Time	Band Number	Energy MWh Of Accepted	
					Offer	Bid
	29/03/2019 06:50:00 GMT	1	29/03/2019 06:40:00 GMT	1	0	0
	29/03/2019 06:50:00 GMT	1	29/03/2019 06:40:00 GMT	2	0	0
	29/03/2019 06:50:00 GMT	1	29/03/2019 06:40:00 GMT	3	0.00	0
	29/03/2019 06:50:00 GMT	1	29/03/2019 06:40:00 GMT	4	0	-1.64
	29/03/2019 06:50:00 GMT	1	29/03/2019 06:40:00 GMT	5	0.0015	0

- IF Offer OR Bid is less than DMAT exclude BOA.
- IF Offer is less than DMAT exclude Offer BOA AND/OR IF Bid is less than DMAT exclude Bid BOA
- Occurrences: Less than 2%

Disputes & Repricing Update

Issue ID	Manifest Errors	Status	Release Date
Rpc1	Incorrect QBOA for a Unit	Will be resolved through repricing	NA
Rpc2	Incorrect QBOA for a Decommissioned Unit	Will be resolved through repricing	NA
5720	Negative Reserve Flag	Fixed in Systems	24th October 2018 Release
5739	Exchange Rate	Fixed in Systems	24th October 2018 Release
5712	Non Controllable Wind QBOAs	Fixed in Systems	29th January 2019 Release
5785	Complex COD being used instead of Simple COD	Fixed in Systems	26th March 2019 Release
5831	Cancelled Dispatch Instructions being processed in Imbalance Pricing	Fixed in Systems	26th March 2019 Release
5737	Units being skipped in QBOA calculations	Fixed in Systems	26th March 2019 Release
5806	Incorrect Application of Dispatch Instructions for Pump Storage Unit	Planned implementation in Release C	Open
5817	Initial Conditions being incorrectly applied	Planned implementation in Release C	Open
112877	Type 3 PNs Validation Error	Will be resolved through repricing.	Open
Rpc4	Wind Dispatch Instructions Data Feed Error	Will be resolved through repricing	NA
Rpc3	Processing of Dispatch Instruction greater than 20 minutes	Will be resolved through repricing	NA

Disputed/manifest errors identified:

01/10/2018 – 24/10/2018

27/10/2018 – 29/10/2018

01/11/2018 – 15/05/2019

- It is expected that further disputes will be submitted until the existing identified manifest errors have been resolved in pricing.
- Planned Repricing Implementation Date: August 2019* - Release D

Pricing Materiality Threshold

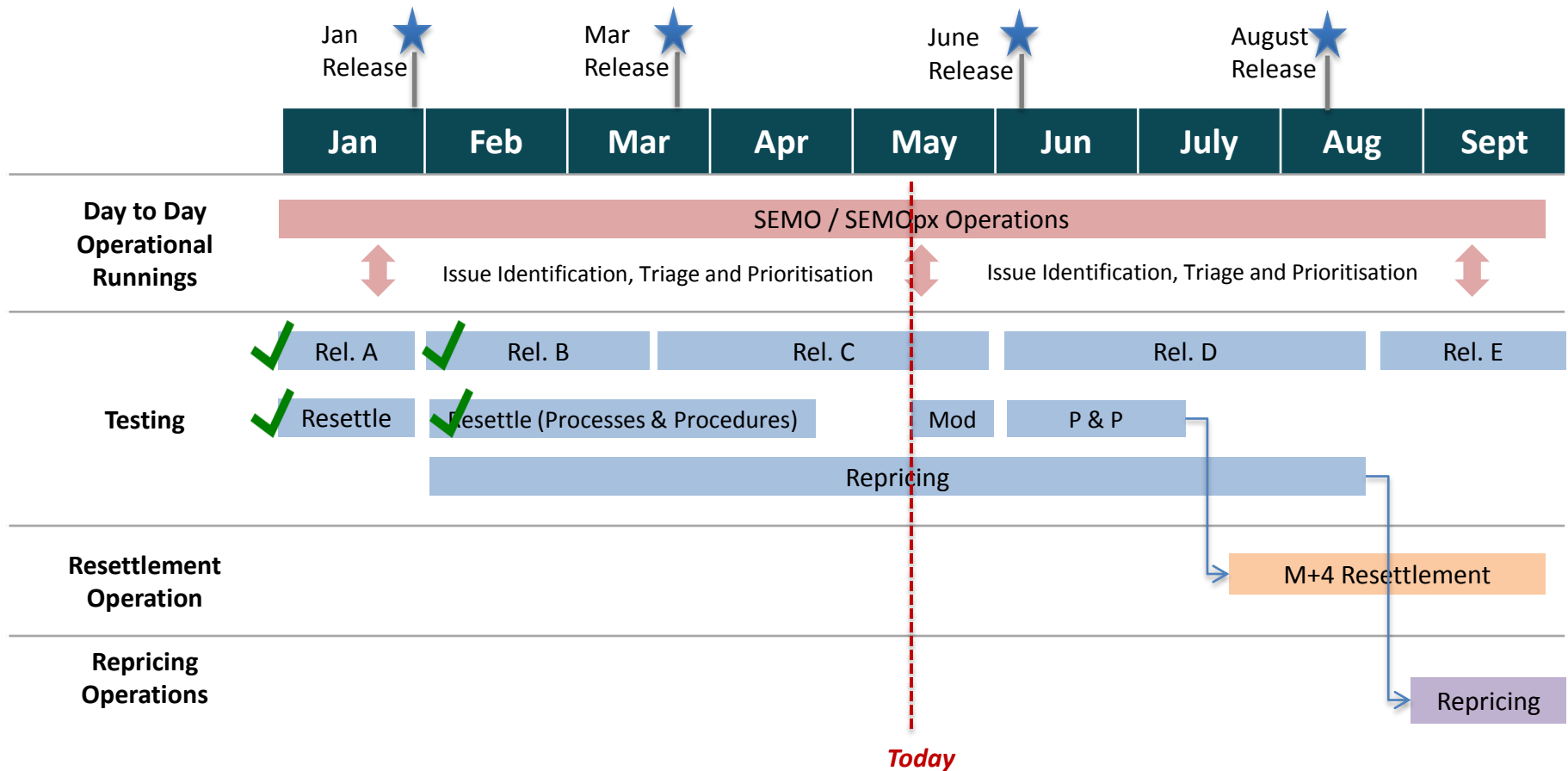
- Currently set at 5% of Imbalance Price
 - <https://www.semcommittee.com/sites/semcommittee.com/files/media-files/SEM-17-046%20I-SEM%20Policy%20and%20Settlement%20%20Dispatch%20Parameters%20Decision.pdf>
- Threshold designed to avoid uneconomic repricing where the cost of repricing is greater than the benefit to the market
- However a repricing exercise is required for many hours since Oct 2018 and perversely the cost of repricing, and time taken to complete, would increase if materiality applied
- Should a temporary TSC mod to remove the Pricing Materiality Threshold be applied from Oct 2018 until Aug 2019 (when repricing is due to commence)?
 - All periods except those for which the back-up price was applied would be repriced.
- Views welcome

Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

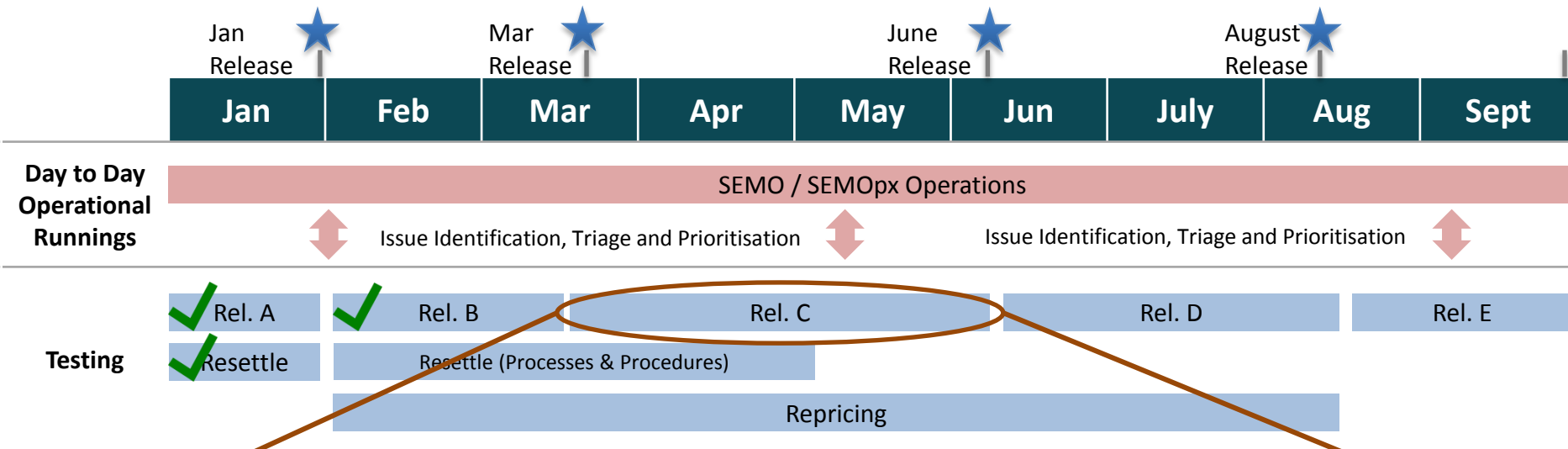
I-SEM Day 1+, High-Level Indicative Release Timeline

- ABB release A deployed to production Tuesday 29th January
- ABB release B (MA 26 / CSB 1.2.2) deployed to production on 26th of March 2019
- ABB release C is currently in test

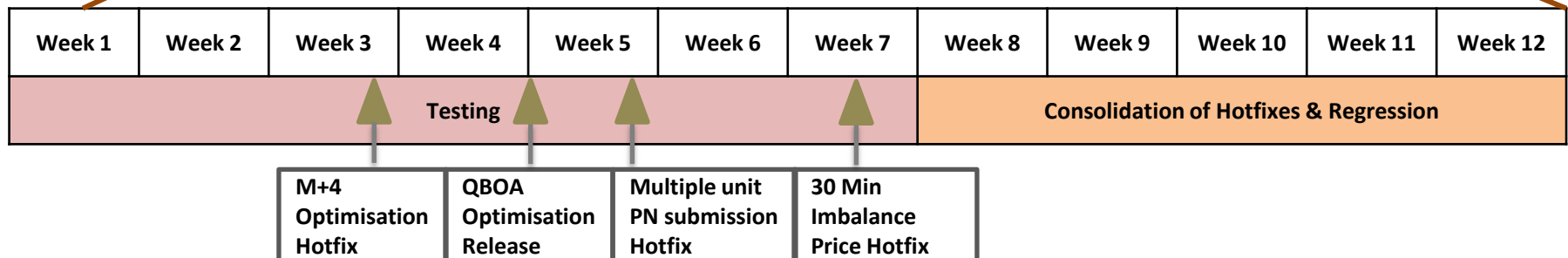


I-SEM Day 1+, Release C Test Plan

- ABB release C contains 21 known issues as well as a number of operational improvements.
- A number of hotfixes have been received to production which need to be incorporated into the test cycle for Release C
- The below graphic illustrates the planned test cycle for ABB Release C and indicative production release timeline






Indicative Test Schedule for Release C




Known Issues Update – Summary (1 of 2)

- Known Issues continue to be analysed and prioritised as and when they occur.
- Once a defect has been raised, the issue will be assessed in the wider defect pool and assigned to a code drop in line with its severity and priority.
- Drop dates to test have been agreed with our vendor, with release to production plans provided based on successful test closure.
- The table below presents a breakdown of the upcoming releases, Known Issues coverage and expected benefit.

Release Bundle	Status	Known Issues Coverage	Expected Benefit
Release A 	Deployed to production on the 29 th of January 2019	14 Issues	<ul style="list-style-type: none"> • Resolution to a number of settlement issues including Fixed Cost complex bid resolution, Interconnection charges, and Autoproducers difference payments and charges fix • Report 44 incorrect values for QCOB and QCNET • Report 102 publication issue • Internal operational improvements • Improved resettlement and repricing functionality
Release B 	Deployed to Production on the 26 th of March 2019	4 Issues	<ul style="list-style-type: none"> • Improvements to QBOA function including resolution to units being skipped • Improved resettlement and repricing functionality • Hotfixes were deployed to address difference charges for Interconnectors and supplier units • Bill case optimisation
Hotfixes 	Ad Hoc deployments to Release B	2 issues	<ul style="list-style-type: none"> • Multiple unit PN submissions with units under test • M+4 optimisation hotfix • QBOA Optimisation Hotfix • 30 Minute imbalance price not being produced (in test

Known Issues Update – Summary (2 of 2)

- Known Issues continue to be analysed and prioritised as and when they occur.
- Once a defect has been raised, the issue will be assessed in the wider defect pool and assigned to a code drop in line with its severity and priority.
- Drop dates to test have been agreed with our vendor, with release to production plans provided based on successful test closure.
- The table below presents a breakdown of the upcoming releases, Known Issues coverage and expected benefit.

Release Bundle	Status	Known Issues Coverage	Expected Benefit
Release C 	Testing in Progress	21 Issues	<ul style="list-style-type: none">• Fixes for Reports highlighted as priorities from participants• Incorrect MW QTY values in REPT_078/079• CFC improvements• Improvements to the QBOA function• Consolidation of hotfixes
Release D	Expected June 2019 to test	13 issues	<ul style="list-style-type: none">• Improvement to CFC• REPT_082 publishing data for de registered units• REPT_042 Net Interconnector schedule incorrectly calculated• REPT_066 Aggregated Metered Demand not being published• Error in the calculation of CDIFFCNPB and CDIFFCNPA
Release E	TBC	TBC	<ul style="list-style-type: none">• TBC

Known Issues Update – SEMOpX

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
SEMOPX.001	Production of Bid/Ask Curves Report	Bid/Ask Curves report fails to generate following an auction, for a given jurisdiction, when there are no orders received for that auction.	Low impact to Members as the file would otherwise be empty.	Closed	To be removed as not planned for delivery
SEMOPX.003	REMIT Reporting	Known issues with the delay in reporting SEMOpX Member transaction to ACER REMIT platform. Testing of solution ongoing	SEMOpX Member transactions are not reported to ACER until this is resolved.	Closed	Jan 2019
SEMOpX.004	M7 'Own Orders'	"The latest M7 version brought a display bug in the system. When traders enter orders using M7 client, orders from the logged in trader are shown in white instead of coloured. This was resolved in ComTrader version 6.6.100 deployed for SEMOpX members 03/05/2019. Our service provider has advised no downtime will be required for this deployment however, SEMOpX Members were advised that the new ComTrader version is available for download via a dedicated link, via an operational message issued to registered Traders."	No material impact to SEMOpX Members; impacts user experience with platform as 'own trades' cannot be easily differentiated from competitors.	Closed	"Resolution: EPEX are actively working on a solution"

Known Issues Update – SEMOpx

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
92601	ETS Auction Results	Message log is not retaining the message indicating availability of the ETS Auctions	No material impact to SEMOpx Members. Members can view all auction results. Members will need to look at auction results reports/screens to determine availability of auction results, as opposed to reviewing the message log.	Unplanned	No Confirmed Delivery date

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5635	REPT_102: Hourly Dispatch Instructions Report Intermittently Fails to generate in XML format.	Some instances of the PUB_HrlyDispatchInstr report (REPT_102) in XML format have failed to generate on the MPI and as a result, are also not appearing on the public website. The report is generated and available in HTML format.	The instance of the Hourly DI Report is not available in XML format until it is published as part of the Daily DI Reports, which are unaffected by this issue. The report is available in HTML.	Closed	Release A Jan 29 th 2019
5737	Units being skipped in QBOA calculations	Unit being skipped in pricing due to “Error in Slope Calculation” causing periodic drop in NIV	QBOA is missed for a Unit, resulting in impact to Imbalance Price	Closed	Release B March 26 th 2019
5831	Cancelled Dispatch Instructions are being processed in pricing	Dispatch Instructions which are cancelled with a ‘Not Accepted’ status are being processed in pricing	Incorrect QBOA values, resulting in impact to Imbalance Price.	Closed	Release B March 26 th 2019

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5785	RTQBOA: PBOA COD	Intermittent switching PBOA from Simple to Complex COD	Incorrect PBOA values, resulting in impact to Imbalance Price	Closed	Release B March 26 th 2019
5844 (PNs)	REPT_042	The Forecast Imbalance Report is not calculating the some of the data within the reports correctly.	The PNS are currently being calculated incorrectly. The report presents inaccurate information.	Closed	After further investigation with the vendor, this report is working as correctly and as per the design for the TSO Demand Forecast column.
5913	REPT_042	The Forecast Imbalance Report is not calculating the some of the data within the reports correctly.	The TSO Demand Forecast value is inaccurate as it reads from the all island values and reports inaccurate figures. The report corrects itself and is accurate leading up to the gate closure	Closed	After further investigation with the vendor, this report is working as correctly and as per the design for the TSO Demand Forecast column.
108598	Imbalance Pricing workflow producing backups	The Imbalance price is using the market backup price for multiple periods at a time during the night.	Participants are receiving the market backup price for multiple periods at a time.	Closed	The performance of the Imbalance Pricing function has improved and no Market Back Up Prices have been used since the release on 26th March 2019.

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5641	Incorrect MW QTY values in REPT_078/079	MW QTY values in REPT_078, _079, _080 are not being calculated correctly.	Participants cannot rely on these data until the issue is resolved. Participants should use alternate means to formulate these totals. These data are available at the individual portfolio (unit) level in the ETS Market Results files published D+1.	Planned Resolution Date	Release C, June 2019 .
5751	REPT_014: Daily Demand ControlData	REPT_014 is producing incorrect demand control values	The data in the report are incorrect and not available from other sources	Planned Resolution Date	Release C, June 2019 .
5870	REPT_081 hourly Anonymized INC and DEC Curves	REPT_081 can contain records for a full day rather than on a 30 minutes basis as per design	Report can publish inaccurate data	Planned Resolution Date	Release C, June 2019 .
5644	REPT_011 Duplicate Entries	Entries for each COD offer type (Simple/Complex) leading to the duplicate entries in Daily Technical Offer Data Report	Impacting units with both Simple and Complex COD submissions. Participants to continue to use report as normal	Planned Resolution Date	Release C, June 2019 .

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5740	Annual CLAF Report not produced and available via MPI	REPT_023: Annual CLAF Report is not produced and available via the MPI.	The Annual CLAF is published to the SEMO website in XLS format. The production of the XML version (specified as REPT_023) is subject to a software update from the vendor. Market Participants and General Public audiences can download the data from the SEMO website, albeit in a different format.	Planned Resolution Date	Release C, June 2019 .
105605/ 5753	List of Registered Units' report	Report currently creates multiple records for each registered unit, each one with a different trading site. It will create these multiple records for each trading site which is assigned to the unit's participant. It is also creating multiple (duplicate) records with a N/A trading site	Report contains duplicate records	Planned Resolution Date	Release C, June 2019 .
5497	VTOD Soak Times	When retrieving VTOD from the MPI via type 2 or type 3, the SOAK WARM QUANTITY values are incorrect. The values shown are the SOAK HOT QUANTITY values. Please note: the integrity of the VTOD set is unaffected. This is simply an incorrect display in the MPI.	This leads to confusion for MPs as they cannot view the accurate Soak WARM QUANTITY values. The SO and MO approve the correct values, and those are used in the Scheduling & Dispatch process.	Planned Resolution Date	Release C, June 2019 .
5806	DESY Pumped Storage instructions are not processing correctly	DESY Pumped Storage instructions are not processing correctly	Incorrect QBOA values, resulting in impact to Imbalance Price. A workaround has been put in place for this issue.	Planned Resolution Date	Release C, June 2019 .

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5756	REPT_011	Various flags incorrect in REPT_011 (Daily Technical Offer Data Report) – PUMP_STORAGE FLAG, Fuel Type for Pumped Storage Units (linked to PUMP_STORAGE FLAG issue), Firm Access Quantity defaulting to zero for all units (should be Trading Site FAQ)	Participants to continue to use report as normal	Planned Resolution Date	Release C, June 2019 .
5957	LOCL/LCLO not working across settlement day boundaries	LOCL/LCLO is not applying correctly across the calendar day boundary.	LOCL instruction is not applied resulting in the QBOA to be dropped.	Planned Resolution Date	Release C, June 2019 .
5817	Initial conditions being incorrectly reset in some circumstances	Initial conditions being incorrectly reset in some circumstances	Incorrect QBOA values, resulting in impact to Imbalance Price	Planned Resolution Date	Release C, June 2019 .
5806	DESY Pumped Storage instructions are not processing correctly	DESY Pumped Storage instructions are not processing correctly	Incorrect QBOA values, resulting in impact to Imbalance Price. A workaround has been put in place for this issue.	Planned Resolution Date	Release C, June 2019 .

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5929	LCLO Instruction for whole 5 minute period to drop	Issuing an LCLO within minutes 1 – 5 of a 5 minute pricing period should still result in a QBOA value being created for that period up until the LCLO instruction is issued.	QBOAs are dropped for the relevant 5 minute pricing period.	Planned Resolution Date	Release C, June 2019 .
5796	REPT_042	The Forecast Imbalance Report is not calculating the some of the data within the reports correctly.	The Net Interconnector Schedule value is incorrectly reporting as 0 when both interconnectors are on full export. The data for the Moyle Interconnector are sometimes not contained within the calculated and reported value for the Net Interconnector Schedule attribute.	In Analysis	In Day 1 plus scope, Target to include in Rel. D Resolution: Software update from vendor
5977	REPT_082	REPT_082 PUB_AvgOutturnAvail is publishing data for de-registered units	May cause issues for Market Participants that are validating against PUB_DailyRegisteredUnits	In Analysis	In Day 1 plus scope, Target to include in Rel. D Resolution: Software update from vendor
5845	REPT_022: Initial Interconnector Flows and Residual Capacity	This report is appearing EMPTY in the MPI and website.	There are no data available in the report.	In Analysis	In Day 1 plus scope, Target to include in Rel. D Resolution: Software update from vendor CR currently in review

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5812	REPT_068 UOM error	The Dispatch Quantity report (REPT_068) erroneously calculates the “Dispatch Quantity” field as MW for P/S units when in pumping mode. These values should be calculated and reported as MWh.	MPs will observe incorrect values for pumping mode MWh values in this report until remedied. Settlement is unaffected as those calculations use metered generation.	In Analysis	In Day 1 plus scope, Target to include in Rel. D Resolution: Software update from vendor
5329	Reports missing 1st ISP of Trade Day	Reports not showing first ISP interval for trade date in report. REPT_078: Aggregated Contract Quantities for Generation REPT_079: Aggregated Contract Quantities for Demand REPT_080: Aggregated Contract Quantities for Wind	The MPs will not be able to source data for the first ISP of a trade date from this report until the issue is remedied. These data can be sourced elsewhere. They are available in the ETS Market Results published on the SEMOpX website, D+1.	In the process of submission to the RA's for approval	In Day 1 plus scope, Target to include in Rel. E Resolution: Software update from vendor
5991	Application of De Minimis Acceptance Threshold (DMAT) in Imbalance Pricing	Imbalance Pricing validation is resulting in QBOA volumes greater than DMAT to not be included in Imbalance Pricing calculations. Where a Unit has an Accepted Offer and Accepted Bid, one of which is below DMAT, both volumes are being omitted from the calculation.	Incorrect QBOA values, resulting in impact to Imbalance Price	In Analysis	In Day 1 plus scope, target to include in Rel. E Resolution: Software update from vendor
5942	VTOD Changes Taking Effect on Approval	Approved changes to VTOD are taking effect on the operational day that the change is approved, rather than the next Trading Day for which Gate Closure 1, has not yet occurred.	VTOD changes will take effect in the market systems on the date of approval. Note – SEMO are implementing a workaround whilst this defect remains open.	In Analysis	In Day 1 plus scope, Release TBC Resolution: Software update from vendor

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5952	REPT_008: Imbalance Price Report	Total Unit Availability field within the Imbalance Price Report is being calculated incorrectly.	The report may display incorrect Total Unit Availability values. The report presents inaccurate information.	In Analysis	In Day 1 plus scope, Release TBC Resolution: Software update from vendor
5195	Report display	HTML report is displayed in UTC rather than always in local time.	This issue affects 39 reports. This is a display issue only, as the values and corresponding time interval are correct.	In Analysis	In Day 1 plus scope, Release TBC Resolution: Software update from vendor
82044	The Interconnector NTC report	Report is designed to show NTC (Net Transfer Capacity) values however is currently showing the TTC (Total Transfer Capacity) values. This is due to a configuration change requested by National Grid prior to go-live	Report is designed to show NTC (Net Transfer Capacity) values however is currently showing the TTC (Total Transfer Capacity) values. This is due to a configuration change requested by National Grid prior to go-live	In Analysis	TBC Resolution: SEMO are carrying out an impact assessment as this impacts multiple IT systems and also has a knock on impact for other processes.

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
SEMO_WEB.001	SEMO and SEMOpx ongoing issues	The SEMO and SEMOpx website currently has issues with the dynamic reporting, report retention and ongoing manual workaround to publish reports	This impact report availability to participants as well as use of dynamic reporting to provide an accurate representation of the static reports. All reports are available in the static section and manual workaround are carried out on a daily basis to ensure reports are not missed	In Analysis	TBC Resolution: Software update from vendor
SEMO_WEB_002	SEMO and SEMOpx website File retention	The SEMO and SEMOpx websites currently does not show historical reports.	MPS are unable to download historical reports from the SEMO and SEMOpx website. A CR has been raised with the website vendor to make these files available	In Analysis	TBC Resolution: Software update from vendor
112877	Type 3 PNs Validation Error	TSO rejection of Under Test PNs that have been submitted in the same Type 3 transaction (multiple units in the same xml) as other PNs (i.e. not Under Test) will result in the rejection of all PNs at gate closure. Rather than reverting to the previous approved submission as per the design, the system will apply a 'null value'.	This will result in PNs reverting to a 'null' value for the entire period covered by the rejected PN submission. Note – SEMO would ask Market Participants to submit Type 3 Under Test PNs in separate submissions.	In Analysis	TBC Resolution: Software update from vendor

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
109895	Daily Meter Data Report (Website)	Duplicate entries are appearing in the Dynamic report for Daily meter data.	Data is currently duplicated on the following dates in the dynamic meter data report on the website. 17th + 27th Nov 7th Dec has 3 line entry per timestamp 13th Dec 11th + 19th Jan.	In Analysis	TBC Resolution: Software update from vendor
5317	REPT_088 Net Imbalance Forecast	The report is published every hour instead of every half hour , as specified by the ITS, Volume C.	Information is available less frequently. Market Participants continue to use the information as available.	In Analysis	TBC Resolution: Software update from vendor
110321	Incremental & Decremental Price quantity pairs	When a participant submits 9 Price Quantity Pairs for Incremental and Decremental costs curves the sequences do not see the prices as monotonically increasing and then defaults them to zero. This is a defect and has knock on impacts on the scheduling of LTS, RTC and RTD	As a workaround participants are requested to not submit 9 PQ pairs when submitting Commercial Offer Data.	In Analysis	TBC Resolution: Software update from vendor

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5587	Missing Reports on the new SEMO Website	2 Reports are currently not publishing to the new SEMO website. REPT_027 (Four Day Rolling Wind Forecast) and REPT_013 (Daily Commercial Offer Data)	No material impact to Market Participants or General Public as these reports are now being uploaded manually to the SEMO website.	In the process of submission to the RA's for approval	TBC Resolution: Software update from vendor
5603	REPT_081 hourly Anonymized INC and DEC Curves	Currently the report cumulatively adds each MW quantity to the last MW quantity rather than the difference. This results in erroneous MW values in the report.	The PQ pairs reported in REPT_081 erroneously report values that exceed the generation capacity in Ireland. The report is inaccurate and the commercial bidding behaviour of the aggregated generation on the Island is not accurately represented.	In the process of submission to the RA's for approval	TBC Resolution: Software update from vendor
5841	REPT_102: Hourly Dispatch Instructions Report	This report will now generate even if there is a null Dispatch Instruction. However this conflicts with the XSD schema for the report	Market Participants Market tools may fail to pull this report where a dispatch instruction contains a null dispatch instruction. Report is now available in all cases where before the report was available intermittently.	In Analysis	TBC Resolution: ITS Update
5794	REPT_030, REPT_103	The Daily and Hourly SO Interconnector Trades reports are failing to publish to the MPI and subsequently to the SEMO website	Participant unable to acquire these data until this issue is addressed	In Analysis	TBC Resolution: Software update from vendor

Known Issues Update – Balancing Market

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5845	REPT_022 Showing Empty	The Initial Interconnector Flows and Residual Capacity Report (REPT_022) is produced EMPTY on the MPI, and subsequently to the SEMO website. This is an error with the vendor design that causes the report to fail when no SO Trades are available in the system.	Report unavailable to Market Participants and General Public.	Unplanned	No Confirmed Delivery date
102081	REPT_006: Daily DI Report	For P/S Units, intermittent representation of duplicate values (MWOFF) instructions appearing. This is due to internal processing of records and does not affect the Instruction Profiling process, only the outbound report.	For P/S units, the Market Participant will need to ignore the duplicate entry until resolved.	Unplanned	No Confirmed Delivery date

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5654	Incorrect result for CDISCOUNT and CPREMIUM for the IRCU unit in REPT_043	In REPT_043, the CPREMIUM & CDISCOUNT charge calculations for the IRCU unit are incorrect due to missing data.	The REPT_043 will be incorrect for these charge types until the issue is resolved within the software.	Closed	Release A Jan 29 th 2019
5658	REPT_044, incorrect values for QCOB, QCNET	Settlement Report is reporting QCOB and QCNET as daily values instead of 30 minute values, the calculation is working as designed using each ISP values in the Settlement calculations.	Minimal Impact the report only represents a single value for both QCOB and QCNET in REPT_033, the settlement calculation is unaffected.	Closed	Release A Jan 29 th 2019
5741	FPN / Controllable Wind (DQ)	PN and Availability are not being profiled correctly i.e. the start and end of trading period effective values.	DQ values not correct, leading to incorrect settlement charge calculations in all settlement artefacts	Closed	Release A Jan 29 th 2019

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5757	The FPN value in IP is different from CSB	QFPN being calculated in MMS based on values of FPN profile on each half hour boundary point only and not considering changes in profile within the half hour.	FPN within period leading to incorrect Instruction Profiling outcomes, affecting quality of data used for settlements determinants and charge type calculations.	Closed	Release A Jan 29 th 2019
5761	Fixed Costs	Current logic needs to be modified so that CSB gets the correct complex offer data for when a complex bid has been used for a BOA. Fixes required on both Settlements System (CSB) and upstream Market Systems (MA/MI).	Some Fixed Cost calculations are incorrect.	Closed	Release A Jan 29 th 2019
5766	Actual Availability	IP Time Weighted Average calculation of qAA only referencing beginning and end of trading period	In some cases, qAA not correct.	Closed	Release A Jan 29 th 2019

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5652	Interconnectors	CIMB, Premium & Discount for IRCU and IEU not using QAO and QAB.	Interconnector settlements for CIMB, CPREMIUM, CDISCOUNT not correct.	Closed	Release A Jan 29 th 2019
5646	Autoproducers	Traded positions of TU units are not being considered for difference payments and charges.	Difference Charges and Payments for autoproducer units not correct when traded positions exist.	Closed	Release A Jan 29 th 2019
5710	Currency adjustment charge defect	CCA is not being calculated for Supplier lite windfarms registered as suppliers. CCA should be calculated for all supply units (currently only being charged if QMLF < 0)	Settlement Reports/Documents/Statements incorrect	Closed	Release A Jan 29 th 2019

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
103722	CFC not available in Settlement artefacts	Due to internal data transfer issues, the CFC costs are not available in the settlement artefacts	CFC not available in Settlement artefacts	Closed	Release A Jan 29 th 2019
5799	Incorrect CFC and Premium Payments	Caused by incorrect QBOA calculation in particular circumstances	CFC and Premium data incorrect	Partially Closed	Release A Jan 29 th 2019
5743	CRM Sttl, W/in Day Difference Charges	CRM Within Day Difference Charges will not make use of a BOA where there is both a QAO and a QAB.	Calculation incorrect at the time.	Closed	Release A Jan 29 th 2019

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5804	No Load Cost calculation in CFC	Recoverable No Load Costs in CFC double what they should be	Incorrect value in CFC for these cases	Closed	Release A Jan 29 th 2019
5881	Settlement Document	Settlement Document incorrect amount for New gross amount and Net amount when Settlement Calendar is configured with 2 AH runs for a Billing Period	Incorrect amounts reported in Settlement document when settlement calendar is configured with 2 AH runs for a Billing Period	Closed	Release A Jan 29 th 2019
5881	Settlement Document	Settlement Document incorrect amount for New gross amount and Net amount when Settlement Calendar is configured with 2 AH runs for a Billing Period	Incorrect amounts reported in Settlement document when settlement calendar is configured with 2 AH runs for a Billing Period	Closed	Release A Jan 29 th 2019

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5883	Difference Payment Calculation sets final QDIFFTRACK to zero if there are no intraday trades - Supplier Unit	Difference Payment Calculation sets final QDIFFTRACK to zero if there are no intraday trades - Supplier Unit	Difference payment Calculations are incorrect when a supplier unit has no intraday trades	Closed	Feb 19th 2019 Closed as hotfix
5931	ISEM_OUI and CSB_CIMB incorrectly been charged to interconnectors	CSB is not calculating the interconnectors CIMB incorrectly	No impact to market participants manual workaround is in place.	Closed	Feb 18th 2019 Closed as hotfix
5884	QDIFFTRACK Error for CAU units	QDIFFTRACK was calculated incorrectly where a capacity market unit only has day ahead trades.	Settlement reports/documents/Statements were delayed in publication to participants	Closed	Feb 2nd 2019 Closed as hotfix
5657	Biased Quantities for Generator Units registered as part of an Autoproducer site	Biased Quantities are currently being calculated for all generator units which is registered as part of an Autoproducer site	The SEMO settlements team has developed a work around for this issue. We will retain the item on this list, but it has no impact on the Market Participants.	Closed	Release B March 26 th 2019
5688	Bills case performance	Bill cases taking over two hours to run and process	Affects Settlement operations meeting agreed upon publication time lines	Closed	Release B March 26 th 2019

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5888	Metered Quantity for DSUs	DSUs should not have an undelivered quantity. Metered quantity must be made equal to the dispatched quantity	Affecting settlement calculations for DSUs, resulting in non-zero undelivered quantities, which should be zero.	Planned Resolution Date	Release C, June 2019 .
5886	Settlement reports are only being kept for 2 months	All Settlement reports produced in MMS currently only have a retention of 2 months in the MPI. They are then archived and not available through the front end	Settlement reports/documents/Statements unavailable to participants after 2 months through the MPI. Temporary workaround applied on the 21/01/2019 ensures that no further report will be removed from the MPI. Vendor is working on solution to republish all Settlement reports/documents/Statement to MPI	Planned Resolution Date	Release C, June 2019.
5940	MPOP FPN Misalignment with MMS	Period of Market Operation Trading Period Starting points in CSB not aligned with the MM, including incorrect application of minute resolution. Should be 30 min resolution.	Not applying the correct starting points for FPNs in relation to the calculation of fixed costs for the Period of Market Operation	Planned Resolution Date	Release C, June 2019.
5909	BOA and Start up / no load cost not being calculated when first BOA = 0	System changes between Simple and Complex COD use when the Order of the first BOA does not equal 1.	This affects CFC calculation	Planned Resolution Date	Release C, June 2019 .

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5950	Difference & NP Charges for DSUs	DSUs Day Ahead, Within Day Difference Quantities & Charges are being incorrectly applied to DSUs as per F.18.4 & F18.5 of the TSC. Calculation of QDIFFTRACK for DSUs being incorrectly applied to DSUs Day Ahead, Within Day Difference Quantities & Charges and Non-Performance Charges	DSUs specific – The calculation of QDIFFTRACK should be zero as per F.18.5 exclusion clause within the TSC including F2.1.2. Ex-Ante quantities are tracked via the FNDDS calculation.	Planned Resolution Date	Release C, June 2019 .
5972	Incorrect CNLR to Generators	There are two problems: a) The Fixed Cost calculation of CNLR will for (most) periods of MPOP include the interval prior to MPOP start in the summation. b) The Fixed Cost calculation of CNLR will for (most) periods of MPOP not do correct check on Dispatch Quantity for the last interval.	Incorrect CNLR to Generators	Planned Resolution Date	Release C, June 2019 .
5799	Incorrect CFC and Premium Payments	Caused by incorrect QBOA calculation in particular circumstances	CFC and Premium data incorrect. Improvement in QBOA Calculation	Planned Resolution Date	Release C, June 2019 .

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5979	Error in Import of Dispatch Instruction Profiles to Settlement	Dispatch Instruction Profile is not being imported correctly into CSB where there are updated values from MA	Contiguous Periods of Operation are not being applied correctly where the Dispatch Instruction Profile has not imported correctly. Resulting in incorrect CFC calculation for affected Settlement Day/units.	Planned Resolution Date	Release C, June 2019 .
5990	Difference Payment Calculation does not set final QDIFFTRACK to 0 if there are no Day Ahead or Intra Day trades	System not considering the scenario where there are no Day Ahead trade and thereby no QDIFFDA. QDIFFDA should default to 0 in calculation of QDIFFTRACK.	QDIFFPIMB not being calculated where there are no Day Ahead Trades. Missing trading Period calculation & data on reports where there are no Day Ahead trades.	Planned Resolution Date	Release C, June 2019 .
6010	Trading Site Units not linked to GU/SU IDs in CSB	Registration Import for Trading Sites(TS) is creating an Error for future effective date elements and end dating TS registration Data.	Trading Site Reg data being end dated in the settlement system when Error occurs, therefore correct TS config and calculations are affected. Settlement check and Manual workaround in place to ensure Trading site configuration is applied before running settlement.	In Analysis	In Day 1 plus scope, target to include in Rel D Resolution: Software update from vendor

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5936	Multiple instances of QAO and QAB being inconsistent i.e. large positive QAO and a large negative QAB when FPN and QD are similar.	Multiple instances of QAO and QAB being inconsistent i.e. large positive QAO and a large negative QAB when FPN and QD are similar.	Multiple instances of QAO and QAB being inconsistent	In Analysis	In Day 1 plus scope, Target to include in Rel. D Resolution: Software update from vendor
5893	Incorrect IPQBOA values	BOAs were intermittently calculated incorrectly when QD was equal to the FPN with a BOA generated. Also where QD is similar to FPN yet large variances in QAO and QAB.	FPN yet large variances in QAO and QAB. IPQBOA values were not correct. Temporary workaround is in place. Permanent solution to be provided by ABB	In Analysis	In Day 1 plus scope, Target to include in Rel. D Resolution: Software update from vendor
5944	FPN Curve not applying Heat State to CFC inputs correctly	CSB not receiving correct FPN curve from Balancing Market resulting in incorrect Start-Up status.	Incorrect or No Heat State being applied within CSB, therefore Start-Up costs not being included within the CFC calculation	In Analysis	In Day 1 plus scope, Target to include in Rel. D Resolution: Software update from vendor

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
6001	ISEM Slope Error	31st Indicative related to long day affecting 11 units - still being investigated by ABB	Multiple units had no BOAs created for the 31st March Indicative Settlement IP run.	In Analysis	In Day 1 plus scope, Target to include in Rel D Resolution: Software update from vendor
6004	Error in calculation of CDIFFCNPA and CDIFFCNPB	The system shall calculate the CDIFFCNPB and CDIFFCNPA as zero in the 1st and last ISP of the capacity year for each CMU.	Calculation is currently setting the last and first ISP to $\text{CDIFFCNPA} / B_{(\Omega(\gamma-1))}$ for the Capacity Tear for each CMU	In Analysis	In Day 1 plus scope, Target to include in Rel D Resolution: Software update from vendor
5910	Startup flag for CSUR with Warmth State	MA is currently providing Startup Flag and Warmth State for Synchronize Dispatch Instructions that relates to CSU calculation	This affects CFC calculation	In Analysis	In Day 1 plus scope, Target to include in Rel. D Resolution: Software update from vendor

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5923	Metered Volumes by Jurisdiction (REPT_066) - Zero Metered Demand	Aggregated Metered Demand not being published on RET_066. Currently only reporting Aggregated Metered Generation	Unable to view the Aggregated Metered Demand within the Report	In Analysis	In Day 1 plus scope, Target to include in Rel. D Resolution: Software update from vendor
5922	Stop Loss Limits (CSLLA/CSLLB) is not being calculated for IU and CAU	The Stop Loss Limits (CSLLA/CSLLB) calculation is looping over units with Reliability Options that are associated with a Trading Site. The settlement calculation should also include units with Reliability Options that are not associated with a Trading Site like CAU and IU units.	Stop Loss limits are not being calculated for IU and CAUs for the application of the a calculated % applied to the Non-performance	In Analysis	In Day 1 plus scope, Target to include in Rel. D Resolution: Software update from vendor
5322	REPT_048 Collateral Report	PUBLICATION_TIMESTAMP attribute is incorrectly assigned the start time of the credit assessment, rather than the finish time.	The difference in time is very brief and has no material effect on the report quality	In Analysis	In Day 1 plus scope, target to include in Rel E Resolution: Software update from vendor

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5339	REPT_043	Incorrect rounding applied to detail records. Summary and Detail records do not sum correctly.	Inconsistency between detailed and summary records within the same REPT_043. Research indicates this to be small amount relative to document totals.	In Analysis	In Day 1 plus scope, target to include in Rel E Resolution: Software update from vendor
5808	FMOC FX rate applied not aligned with the Trade and settlement code 1.3.9.	FMOC is applying the trading day exchange rate of the last day of the month.	FMOC is applying the trading day exchange rate of the last day of the month.	In Analysis	In Day 1 plus scope, target to include in Rel E Resolution: Software update from vendor
5980	CRM Unit Capacity values being knocked off following Reg import due to overlapping date ranges	A number of unit CRM Unit capacity is being set to zero following the import of registration data. This is due to a system defect of how it handles overlapping dates	Where the CRM unit capacity was replaced with a zero due to overlapping dates, Capacity payments will not have been calculated due to missing qCCOMMISS value	In Analysis	In Day 1 plus scope, target to include in Rel E Resolution: Software update from vendor
5988	NI units CNL & CSU in REPT_44 being displayed in EUR. Report should be in GBP	The CNL & CSU are being displayed in REPT_044 for NI units in EUR. These costs are to be reported in GBP as per the report registered currency.	Issue with shadow settling CNL & CSU as report determinants are in EUR.	In Analysis	In Day 1 plus scope, drop TBC Resolution: Software update from vendor

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
5943	Simple/Complex COD	Simple/Complex COD: Flags and Tags are not being applied in the half hours they should. Prices are being applied only to the period where the DI is effective then persisting for all associate BOAs.	Prices are being applied only to the period where the DI is effective then persisting for all associate BOAs.	In Analysis	In Day 1 plus scope, drop TBC Resolution: Software update from vendor
5772	Capacity Charges/Payments	CCC, CCP and CSOCDIFFP settlement for NI units not applying the Annual Capacity Exchange rate as per G.1.3.5 & G.1.3.6. Balancing market FX rate incorrect being applied.	CCC, CCP and CSOCDIFFP settlement for NI units not correct.	In Analysis	TBC Resolution: Software update from vendor
5980	QD and QM not matching on long day (28/10/18)	Long Day Trading periods not aligned between MAMI and CSB.	Trading Periods misalignment has resulted in the Long day trading periods being incorrectly settled within Initial Settlement.	In Analysis	TBC Resolution: Software update from vendor
105608	Dropdown filters not available on the SEMO website Settlement Calendar	SEMO Website Settlement Calendar > Publication > “Settlement Documents” is not present for users to filter.	11/03/2019 operational day is not available and possibly additional trade dates. We will confirm these dates once available	In Analysis	TBC Resolution: Software update from vendor

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
113784	ISEM_OUI_ExPost_Instruction_Profiler_M+4_Generator Operational Characteristics _changes required for 01/10/2018 and going forward	The Controllable flag status in registration details contained within Generator Operational Characteristics that also has Technical Offer Data don't match what's in the Resource Balancing screen. This is an issue while trying to rerun IP for M+4. The registration details within Initial Ex-Post \ Initial Instruction Profile \ Instruction Profile Input \ Generator Operational Characteristics screen are incorrect compared to what's in Market Information \ Registration\ Interface Views\ Resource Balancing this is affecting controllable flag status	M+ 4 Resettlement will move back into a regression test phase for a short period and re-planned for production. An update will be provided by the settlement team with the appropriate changes made to the settlement calendar.	In Analysis	TBC Resolution: Software update from vendor
5997	ISEM CSB FX rate after short day incorrect	After the clock change the push & or CSB is not applying the FX rate to the trading period 23:30 and & 00:00 correctly when they change.	Inaccurate settlement due to FX rate for 1hour period	In Analysis	TBC Resolution: Software update from vendor
5998	Differences in BOA values between OUI and CSB	Differences in BOA values between OUI and CSB intermittently	Missing volumes from Initial IP leading to inaccurate balancing settlement	In Analysis	TBC Resolution: Software update from vendor

Known Issues Update – Settlement

ID	Name	Description	Impact to Market Participants	Status	Resolution Date
113353	QBOA defect for Error in Slope messages resulting in no QBOAs	There are no IP QBOAs created for GU_X at the end of the day error message appears: Error in Slope calculation for unit GU_X	No BOA volumes are generated for the units in question for certain trading periods. This results in missing BALIMB payments and charges in the billing runs. To date this has only affect thermal generator units and DSUs.	In Analysis	TBC Resolution: Software update from vendor
5953	Report 044 missing Accept time for QAO and QAB determinants	Settlement Report not showing Accept Times for QAO & QAB	Market Participants unable to view the accept time of QBOAs used within Settlement	In Analysis	TBC Resolution: Software update from vendor
5314	REPT_043, _044	The timestamp attribute in the Value element contains +1 second, which it should not	Market participants and any third-party system providers should ignore the additional 1-second on the timestamp and consider the time to be exactly on the ISP interval.	Unplanned	No Confirmed Delivery date
5722	Capacity Charges/Payments	CCC, CCP and CSOCDIFFP settlement for NI units not applying the Annual Capacity Exchange rate as per G.1.3.5 & G.1.3.6. Balancing market FX rate incorrect being applied.	CCC, CCP and CSOCDIFFP settlement for NI units not correct	Unplanned	No Confirmed Delivery date

Agenda

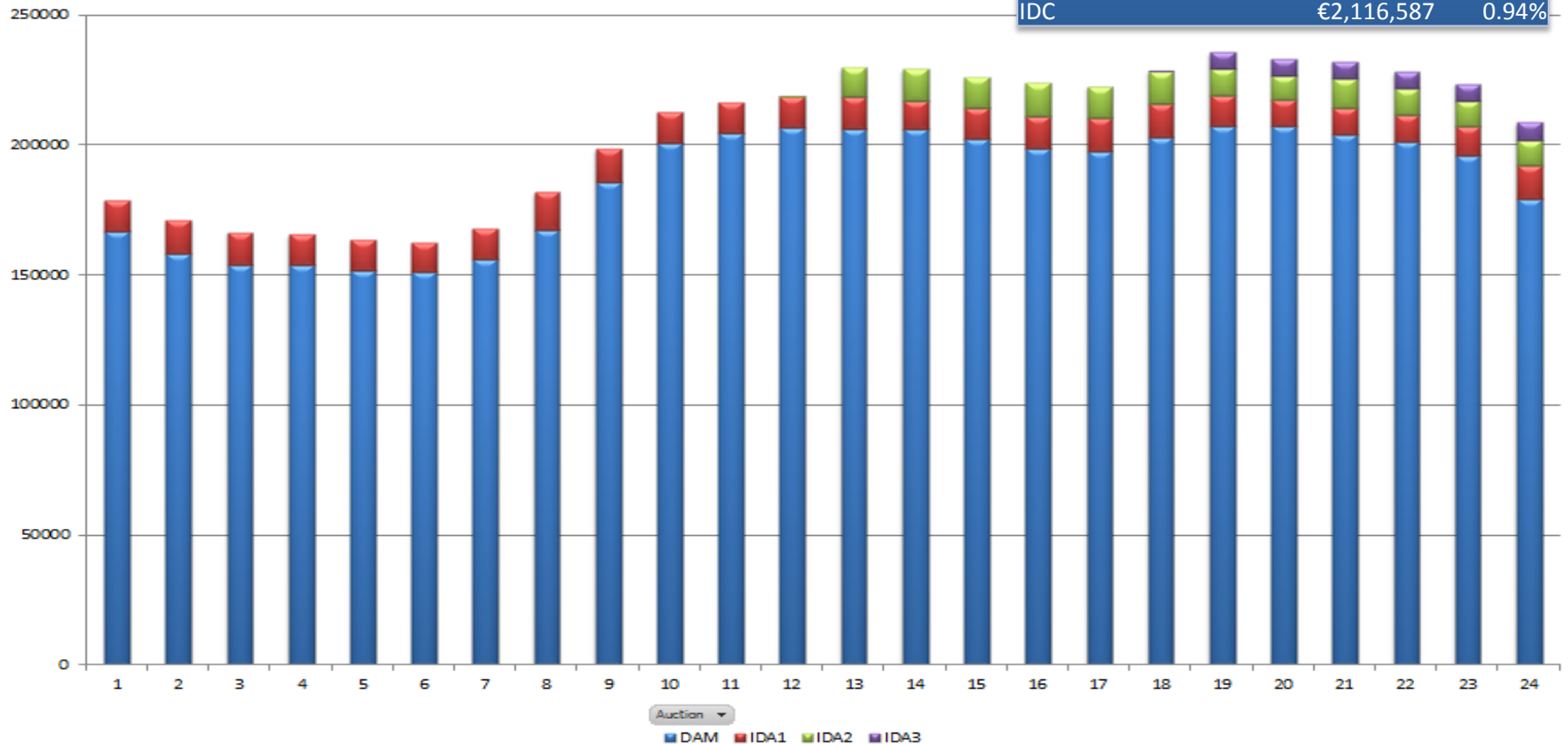
Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

Ex-Ante Markets

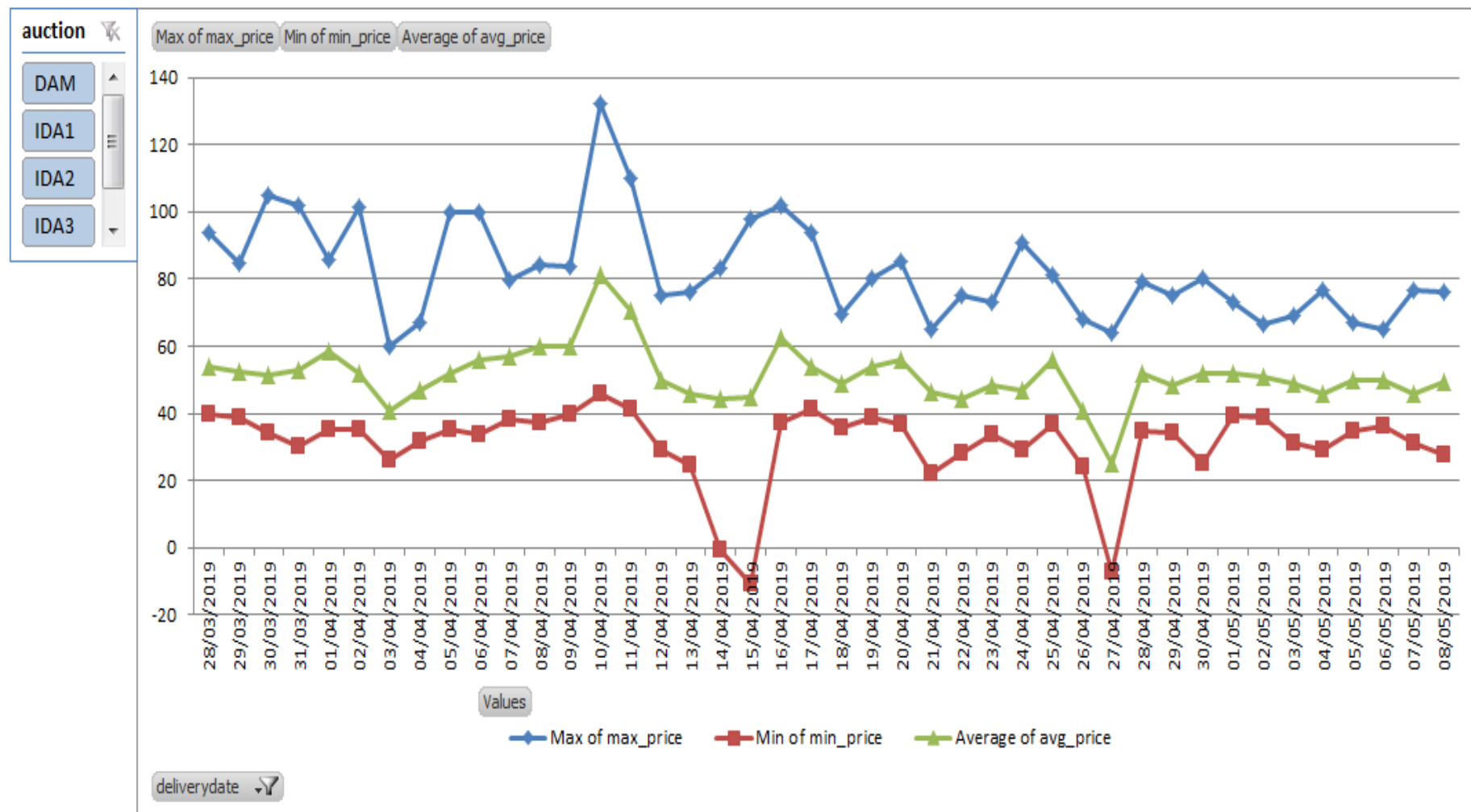
- Volumes from ex-ante (28th Mar – 8th May)
 - DAM** is dominant

**Using approx. prices*

Market	Value	% of DAM
DAM	€224,533,941	
IDA1	€14,021,080	6.24%
IDA2	€6,997,254	3.12%
IDA3	€2,362,355	1.05%
IDC	€2,116,587	0.94%

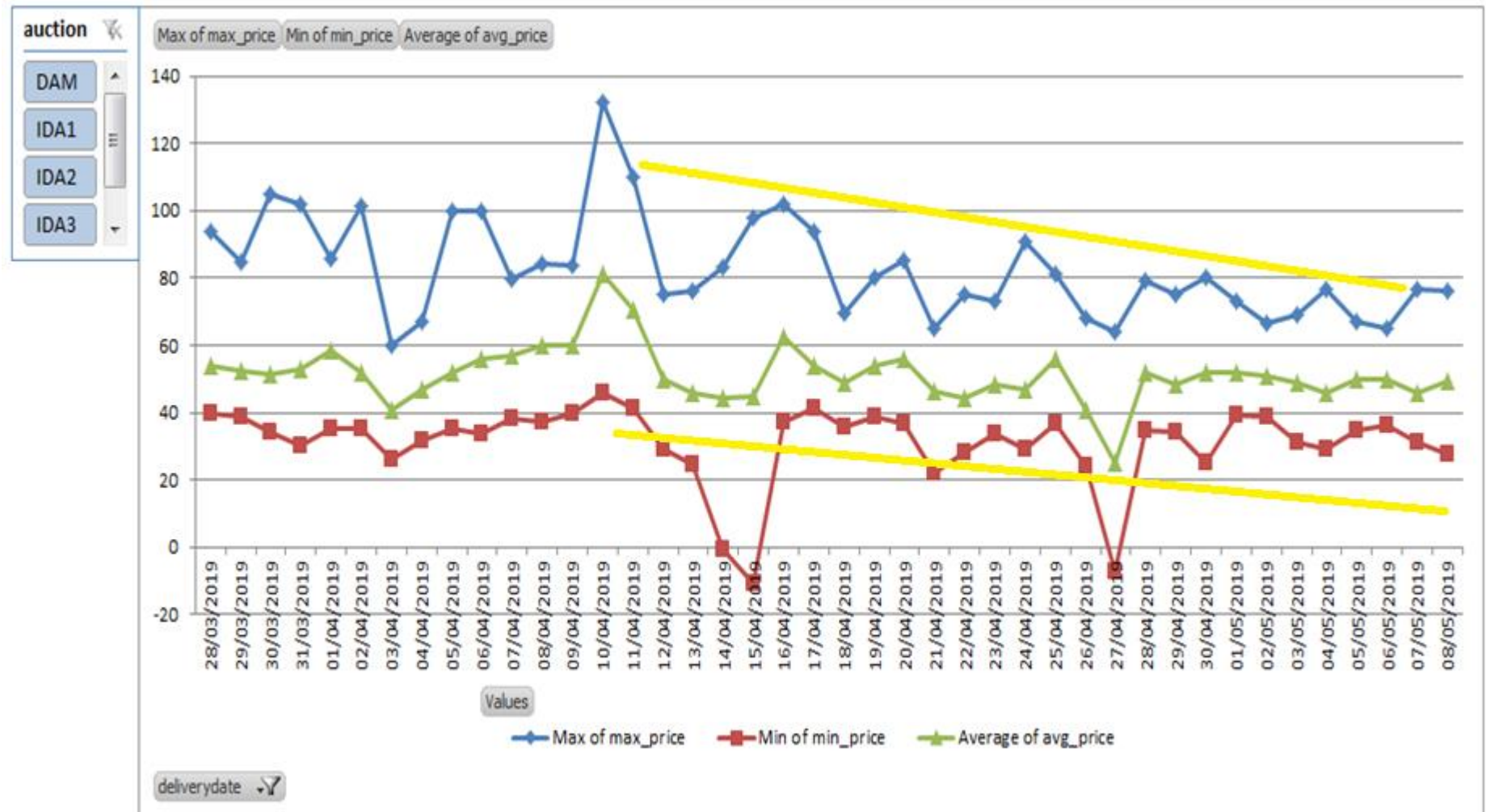


Ex-Ante Auction Price Look Back



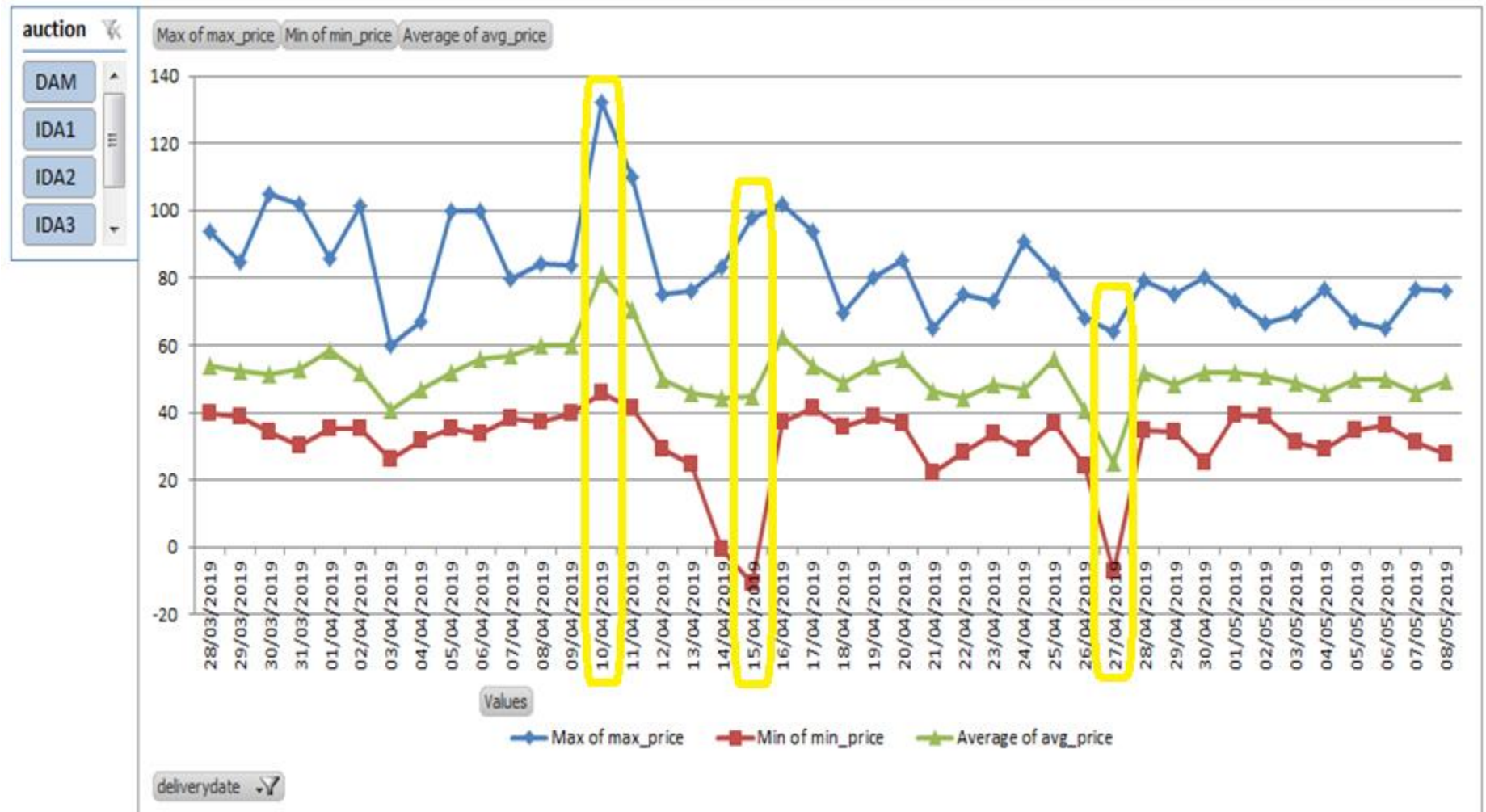
Ex-Ante Auction Price Look Back

- Moderating Prices and Highs and Lows ...



Ex-Ante Auction Price Look Back

- Outliers – What was happening in the market on these days?



Ex-Ante Day Ahead & Intra-day Market Analysis

Overview

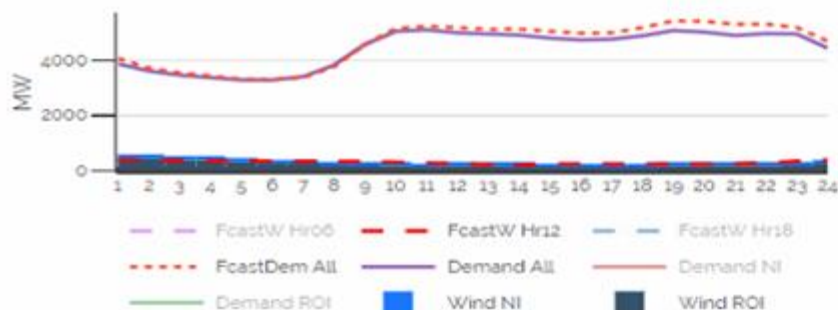
Market Structure

Analysis

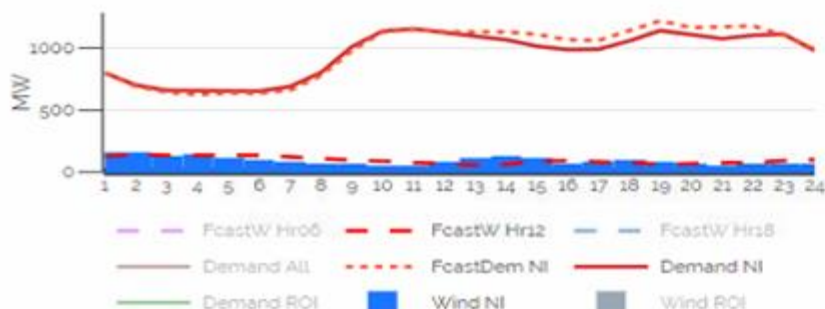
Auction Summary

2019-04-10

Forecast, Actual Wind v Demand - All Island



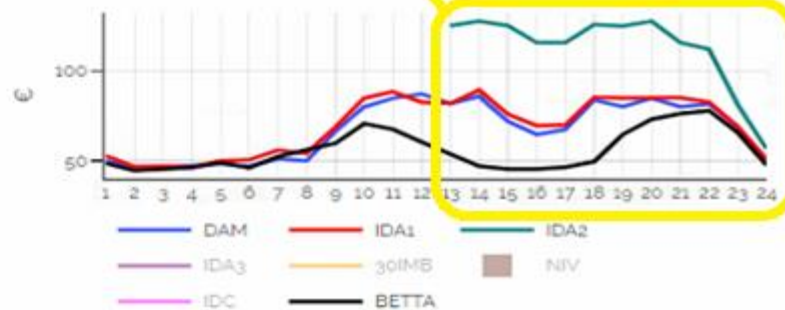
Forecast, Actual Wind v Demand - N.I.



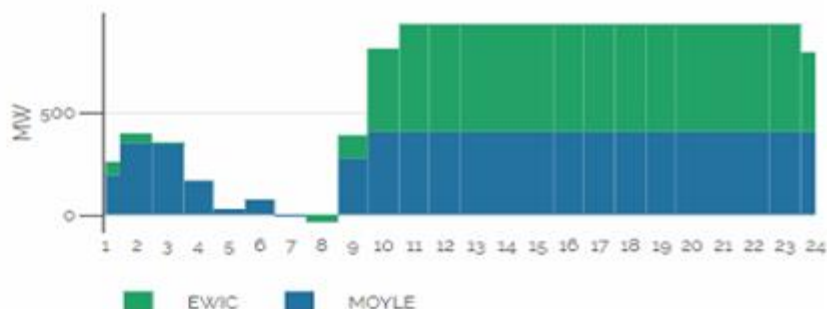
Auction Stats [Hi | Lo | Avg | MWh | €]

2019-04-10	DAM	€87.31	€46.44	€66.99	107,139	€7,177,610
2019-04-10	IDA1	€91.00	€45.72	€69.12	3,433	€237,260
2019-04-10	IDA2	€132.10	€54.88	€113.04	2,081	€235,291
2019-04-10	IDA3	€115.00	€52.50	€94.23	351	€33,093

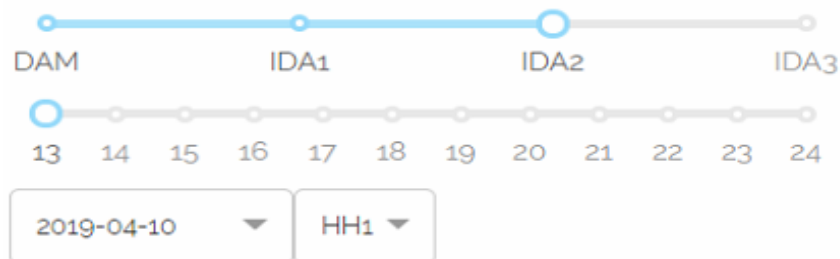
Auction Pricing



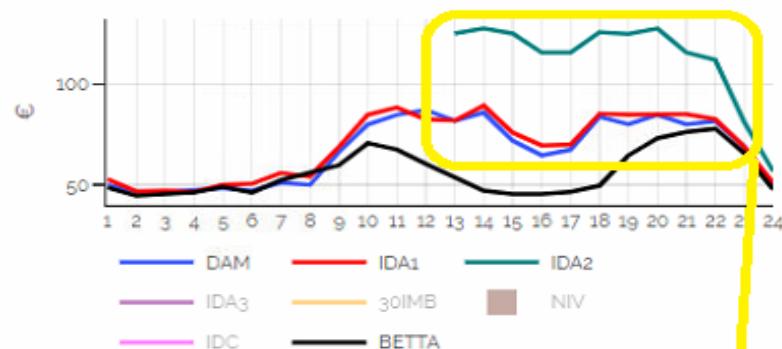
Interconnector Flows



Choose Auction



Historical Prices



Structure



Auction Book

	€319.00	-250.00
	€279.00	-150.00
	€249.00	-50.00
40.00	€125.50	
120.00	€97.00	
210.00	€67.00	
335.00	€37.00	

Auction Participants

DeliveryDate	auction	Participant	DeliveryHour	DeliveryInterval	unitid	Executedv
filter data...			filter data...			
2019-04-10	IDA2		13	1		22.2

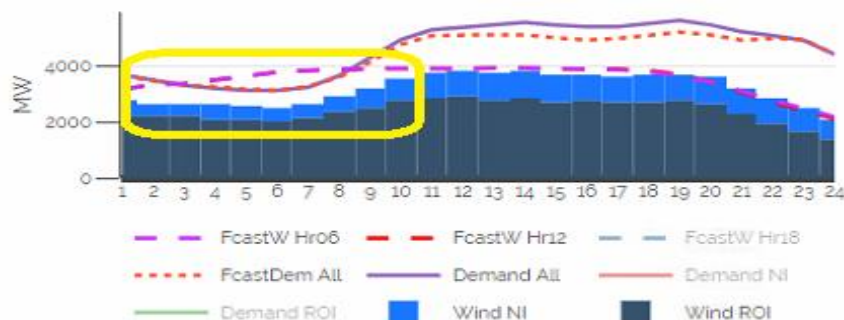
Ex-Ante Day Ahead & Intra-day Market Analysis

[Overview](#)
[Market Structure](#)
[Analysis](#)

Auction Summary

2019-04-15

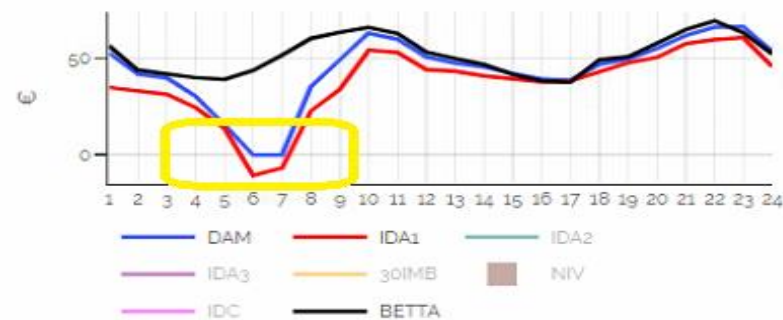
Forecast, Actual Wind v Demand - All Island



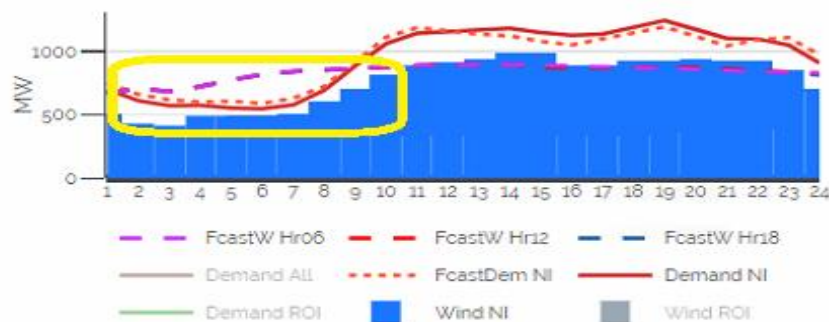
Auction Stats [Hi | Lo | Avg | MWh | €]

2019-04-15	DAM	€66.73	€-0.10	€43.96	109.241	€4,802.275
2019-04-15	IDA1	€62.45	€-11.00	€37.29	9.101	€339.394
2019-04-15	IDA2	€69.00	€35.47	€47.45	4.189	€198.785
2019-04-15	IDA3	€98.00	€51.00	€72.05	1.218	€87.763

Auction Pricing



Forecast, Actual Wind v Demand - N.I.



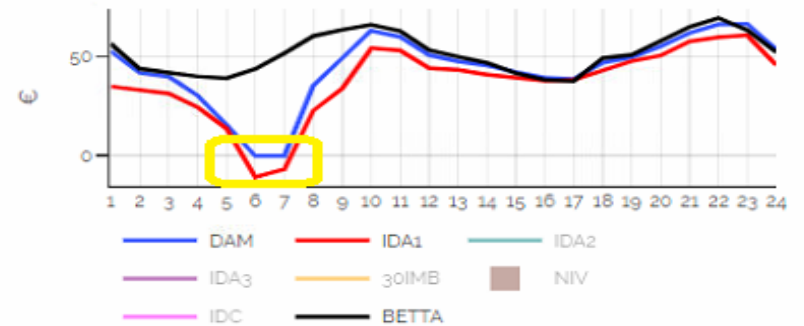
Interconnector Flows



Choose Auction



Historical Prices



Structure



Auction Book

Bids	Price	Offers
	€4,500.00	-6.00
	€1,500.00	-43.00
	€-8.13	-10.80
	€-9.35	-77.50
	€-9.57	-7.80
	€-11.00	-56.00

Auction Participants

DeliveryDate	auction	Participant	DeliveryHour	DeliveryInterval	unitid	ExecutedVol
filter data...						
2019-04-15	IDA1		6	1		-30
2019-04-15	IDA1		6	1		-4.8
2019-04-15	IDA1		6	1		-3

Ex-Ante Day Ahead & Intra-day Market Analysis

Overview

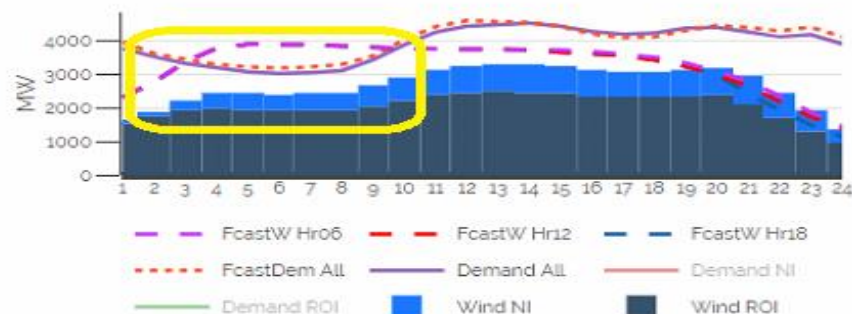
Market Structure

Analysis

Auction Summary

2019-04-27

Forecast, Actual Wind v Demand - All Island



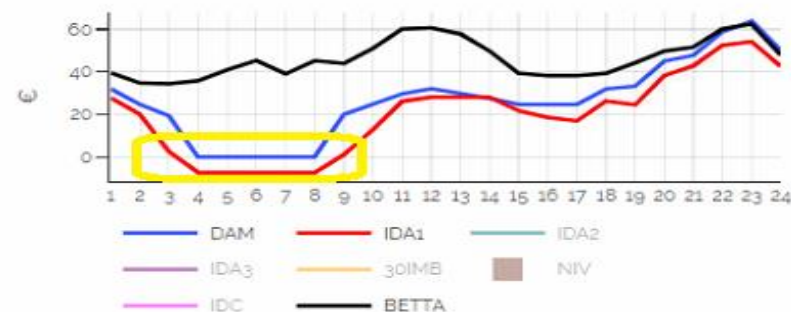
Forecast, Actual Wind v Demand - N.I.



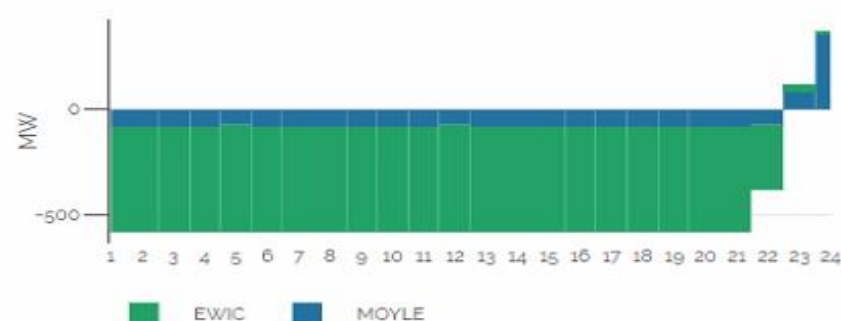
Auction Stats [Hi | Lo | Avg | MWh | €]

2019-04-27	DAM	€64.00	€0.00	€26.88	103,700	€2,787,955
2019-04-27	IDA1	€55.19	€-7.40	€19.84	6,414	€127,279
2019-04-27	IDA2	€60.00	€5.00	€27.71	2,671	€74,015
2019-04-27	IDA3	€55.00	€25.00	€39.40	338	€13,315

Auction Pricing



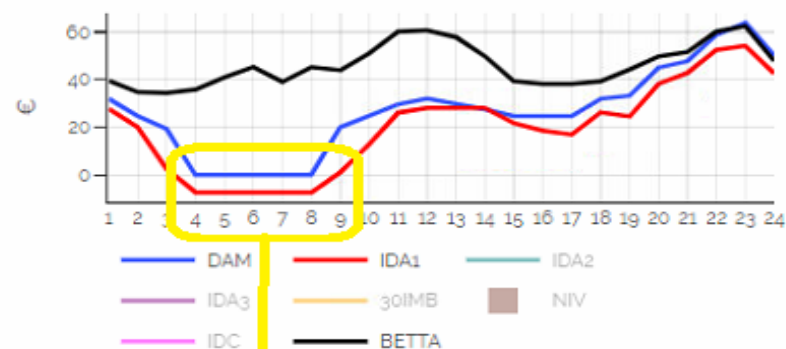
Interconnector Flows



Choose Auction



Historical Prices



Structure



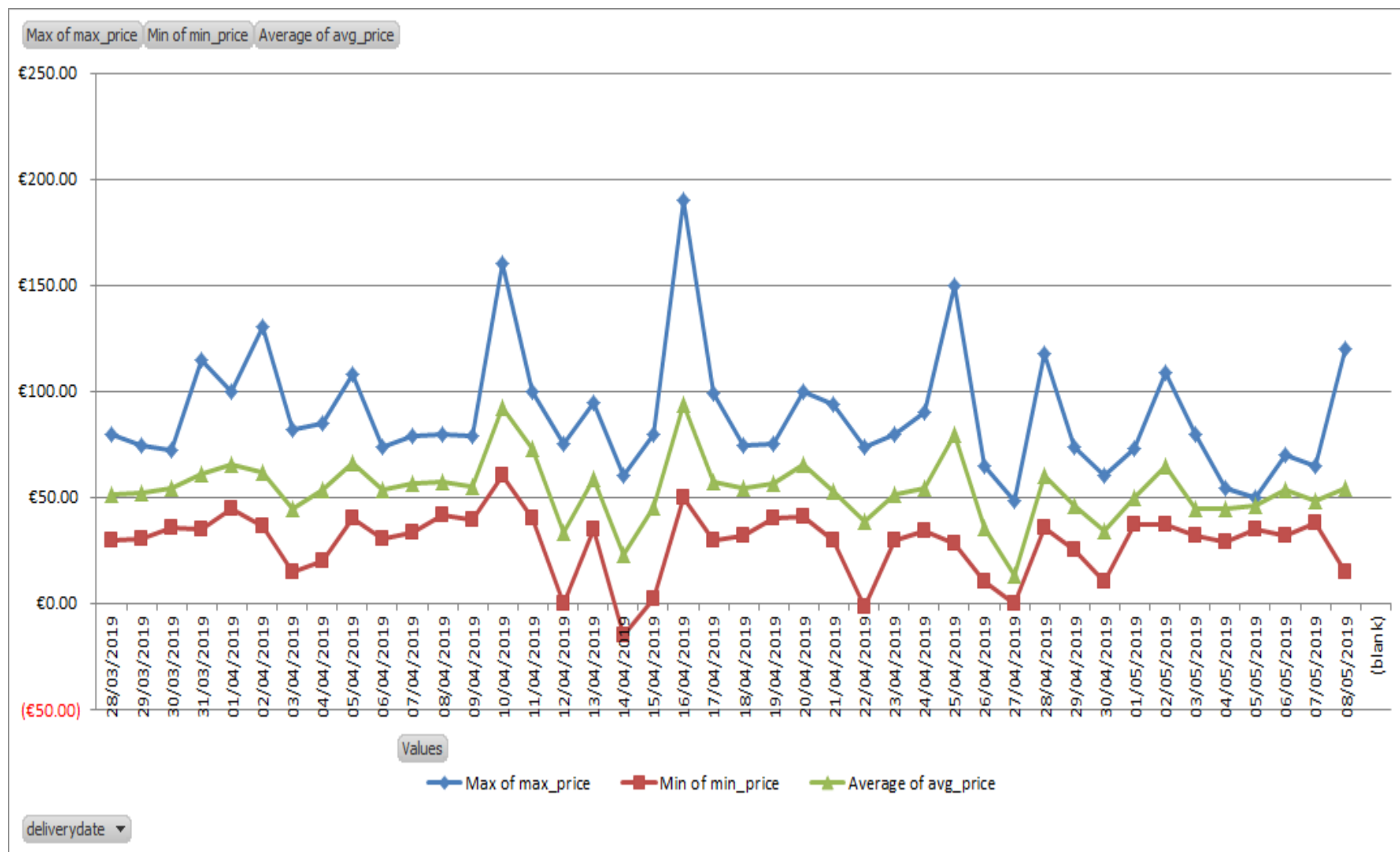
Auction Book

Bids	Price	offers
	€1,500.00	-130.30
	€-7.38	-130.30

Auction Participants

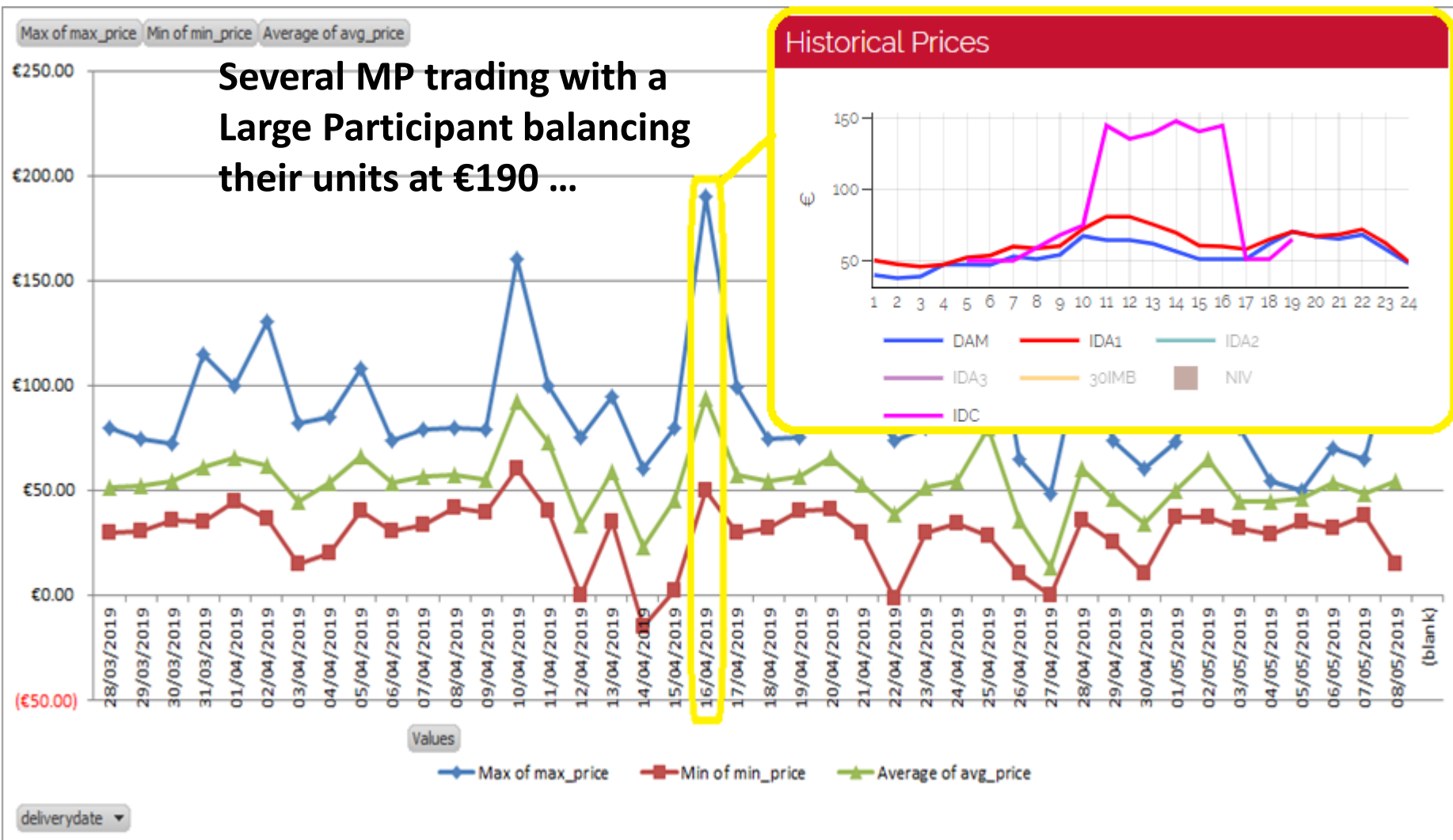
DeliveryDate	auction	Participant	DeliveryHour	DeliveryInterval	unitid	ExecutedVol
2019-04-27	IDA1		6	1		-40.6

Ex-Ante IDC Price Look Back



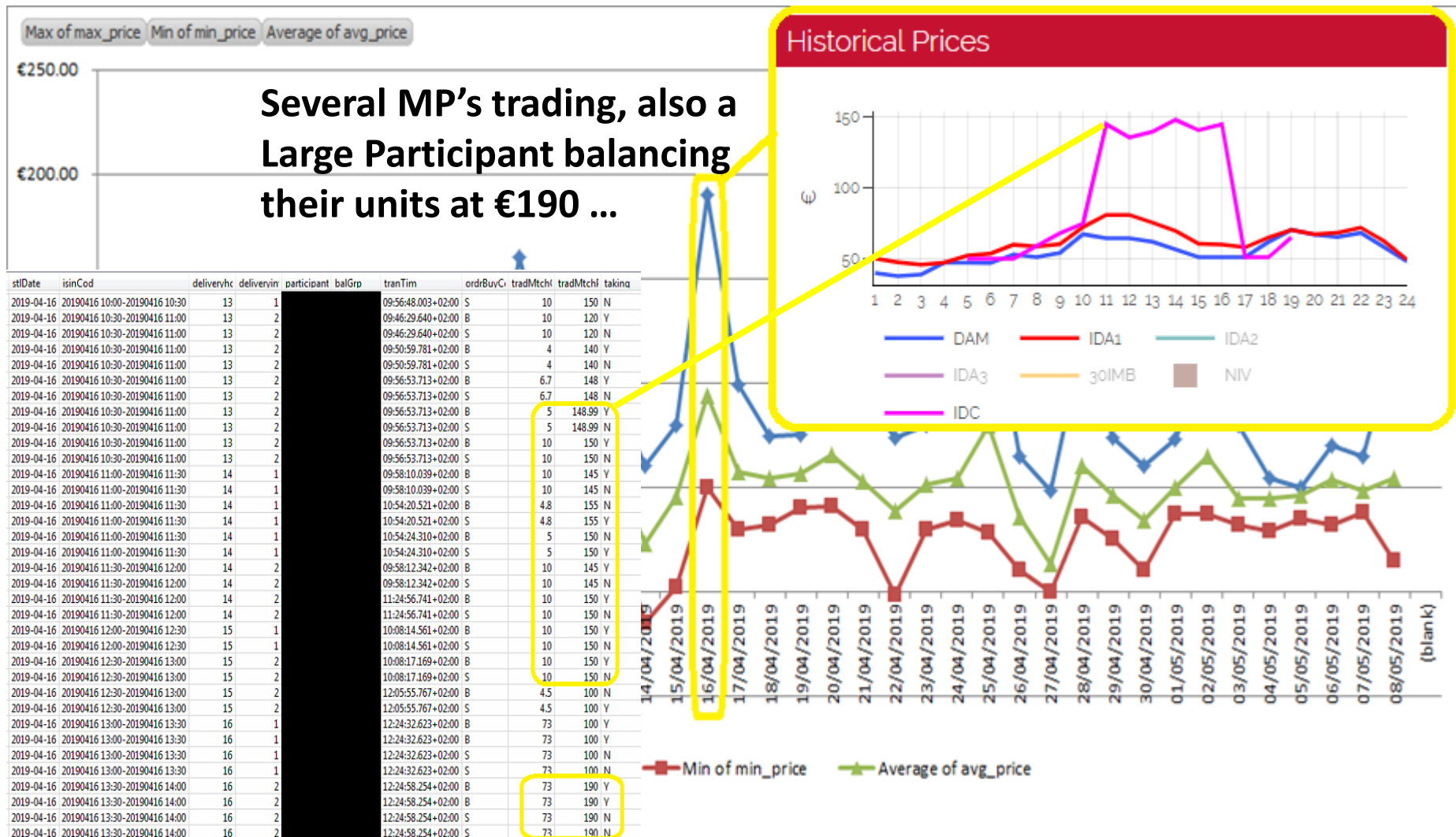
Ex-Ante IDC Price Look Back

Several MP trading with a Large Participant balancing their units at €190 ...



Ex-Ante IDC Price Look Back

Several MP's trading, also a Large Participant balancing their units at €190 ...



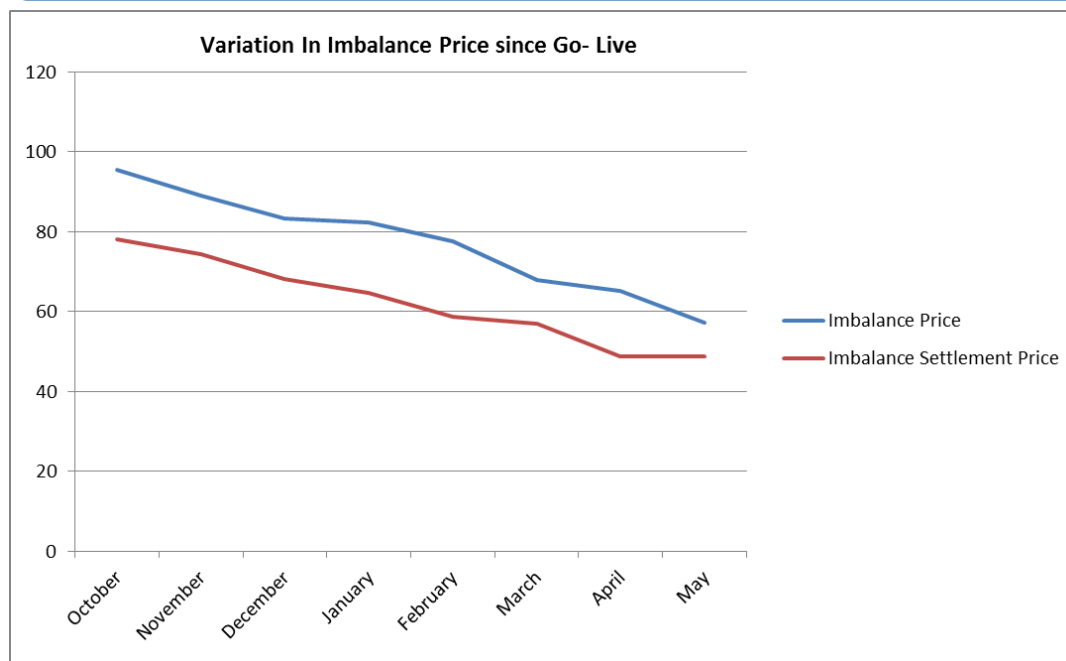
Ex-Ante Market Analysis

- In Summary
 - ✓ SEMOpx markets are in a healthy state
 - ✓ We continue to monitor trading actions and strategies of participants so they stay that way.
 - ✓ Processes are working!

Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

Balancing Market: Imbalance Price



*Excludes high prices on the 24th of January

April 01st to May 10th

	5 Minute	30 Minute
No of Prices Available	11,176 /11,520	1,908 /1920
No of Backup Prices Used		67
Minimum Price €	-€1,000.00	-€203.57
Max Price €	€496.31	€453.75
Standard Deviation	63.79	49.66
Average Imbalance Price €	€51.85	€51.52
Average Imbalance Price YTD	€61.33	€62.21

Application of Mod_09_19 in Imbalance Price

As part of Mod_09_19 locational constraints have been removed from the imbalance price calculation as of 02/05/2019, these include;

- S_MWR_NI
- S_MWR_ROI
- S_MWMAX_CRK_MW
- S_MWMAX_STH_MW

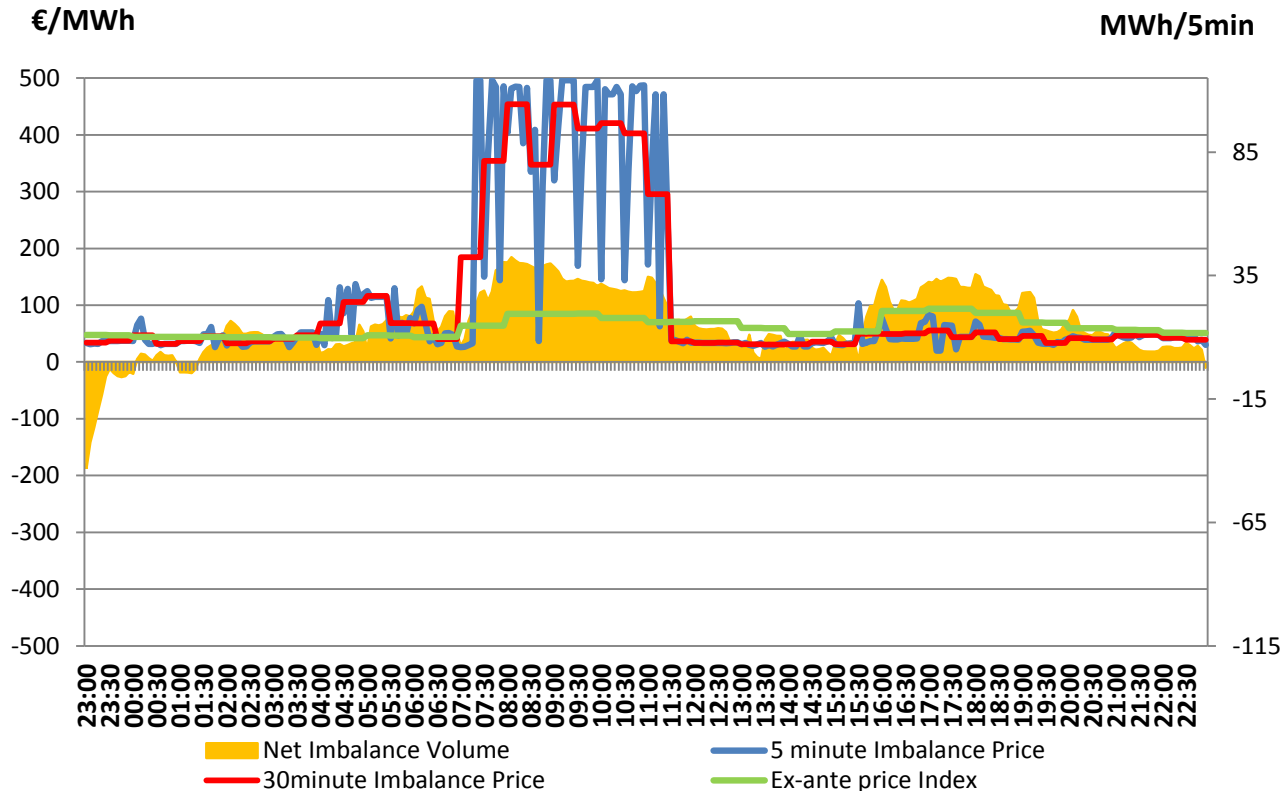
The Non energy flag is used to determine if a constraint is binding or not. (NE flag of 1 the constraint isn't binding, 0 the constraint is binding)

A unit can have a number of constraint against it in one period some of these binding and some not. The SO flag is the multiplication of all the Non Energy flags on a unit.

In order to remove the above constraints from the calculation the NE Flag for these constraints is automatically set to 1 irrespective of whether the constraint is binding

Balancing Market: Imbalance Price

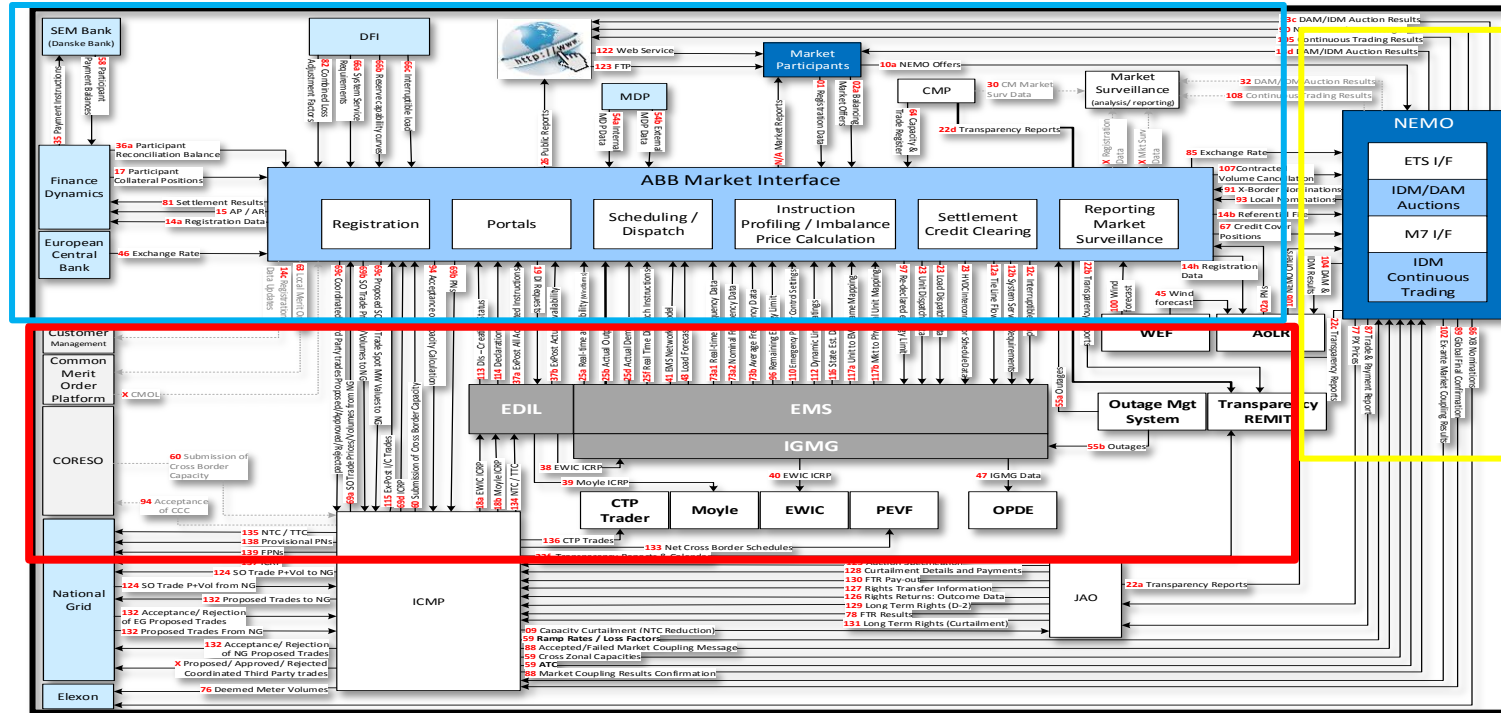
May 10th



Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

Monitoring & KPIs



Ex-Ante

MO

SO

- **Monitoring of Standard Enterprise/Infrastructure**
- **No monitoring** of certain bespoke solutions – known issues
- Working on improvements **have a submission ready**
- Currently focused on **functional defects** vs infrastructure

Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

Modifications to the Balancing Market

- The Modification Panel is a forum of industry representatives*:
 - 4 Generators;
 - 4 Suppliers;
 - 1 Assetless (Interconnector till next elections);
 - 1 DSUs;
 - 2 Regulatory Authorities (both NI and ROI);
 - 2 Transmission System Operators (both SONI and EirGrid);
 - 2 Meter Data Providers (both NI and ROI);
 - 1 Market Operator (MO also providing separate Secretariat function);
- Process mostly unchanged from previous Market.



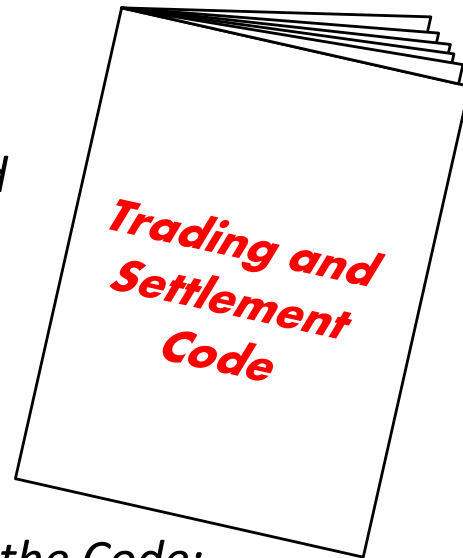
Modifications to the Balancing Market

- Participants Members are elected for a 2 year term;
- Half Panel renewed every year;
- Chair and Vice elected annually;
- Meetings at least bi-monthly, with strict requirements:
 - Quorum needed to vote on Proposals;
 - Voting rights depending on document affected;
 - Detailed minutes circulated for comments;
 - Actions followed up at every subsequent meeting;
 - Proposals deadline 2 weeks before meeting (unless proposal is deemed urgent with RA agreement);
 - Panel can vote in favor of approving/rejecting a Proposal but ultimately the final decision lies with the RAs and the SEM Committee;



Modifications to the Balancing Market

- Anyone can raise a proposal that facilitates the achievements of one of more of the T&SC Objectives (A.2.1.4):
 - *Must meet MO Licence obligations;*
 - *Must facilitate the efficient, economic administration and development of the SEM in a financially secure manner;*
 - *Must facilitate Participants to trade;*
 - *Must promote competition in the SEM;*
 - *Must operate SEM transparently;*
 - *Must ensure no undue discrimination between parties to the Code;*
 - *Must promote the short-term and long-term interests of electricity consumers;*
- The Panel can then request further work via a Working Group of SMEs, special legal advice, consultation or System Impact Assessments;



Modifications to the Balancing Market

- 42 Modifications completed before go-live;
- 12 Modifications and 2 Working Groups completed since go-live;
- 6 Modifications currently deferred due to further work required:
 - Limitation of Capacity Market Difference Payments to Metered Demand;
 - Clarification to Intraday Difference Quantity and Charges;
 - Indicative Settlement at weekend (related to provision of Credit);
 - Calculation of Back Up Price for 5mins instead of 30mins;
 - Autoproducer/DSU new rules for Credit Cover calculation (post WG);
 - Determination of PMEA/PIMB set by a unit in the opposite direction to the NIV (deferred until NIV tagging consultation);

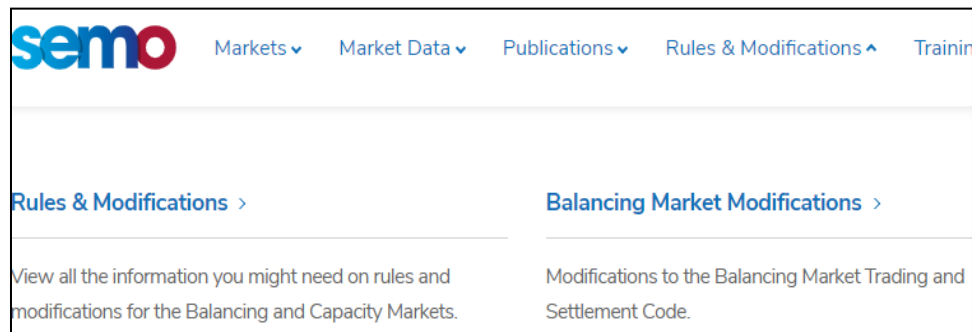
Modifications to the Balancing Market

- For further information:
 - Minutes, presentations, Modifications Proposals and any related documents) are all available at <http://www.sem-o.com/>;
 - In the T&SC, section B.17 is dedicated to the Modification process as well as AP12;
 - You can contact the MO representatives Katia Compagnoni and Chris Goodman for any support in raising Mods or understanding the T&SC;
 - You can contact your unit type representative on the Panel who will be able to advise you on their intentions to vote and take your views;
 - Any Participant interested can attend the meeting and participate in the discussions as an observer;
 - Any interested party can subscribe to mail alerts specific to Modifications.

Modifications to the Balancing Market

➤ Useful links:

➤ [Balancing Modifications Section:](#)



➤ [Subscription to alerts:](#) select Balancing Market Rules & Modifications

➤ [Meeting's calendar:](#)



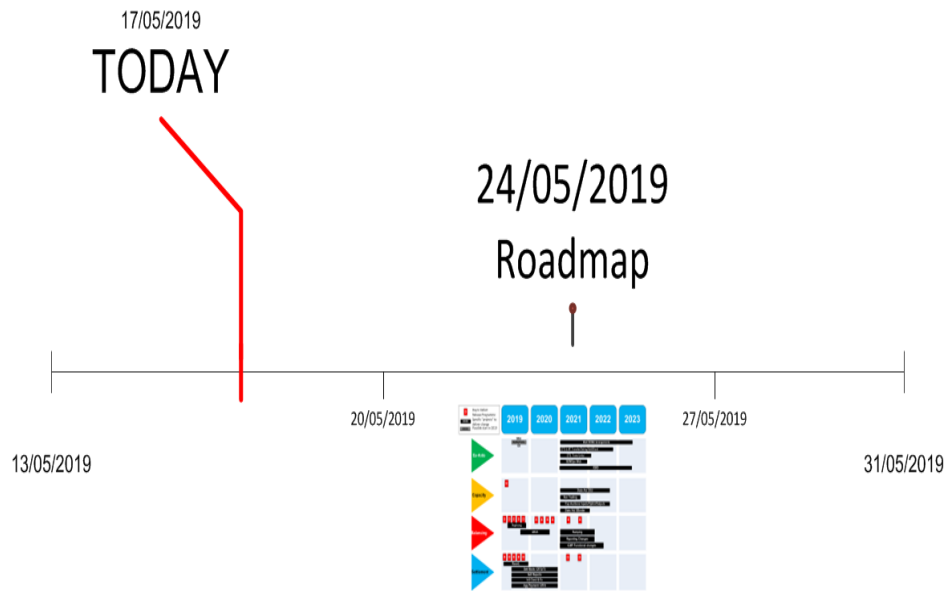
Balancing Modifications Committee Meetings 2019

➤ Queries and Proposal submissions: balancingmodifications@sem-o.com

Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

I-SEM Day 2 Roadmap

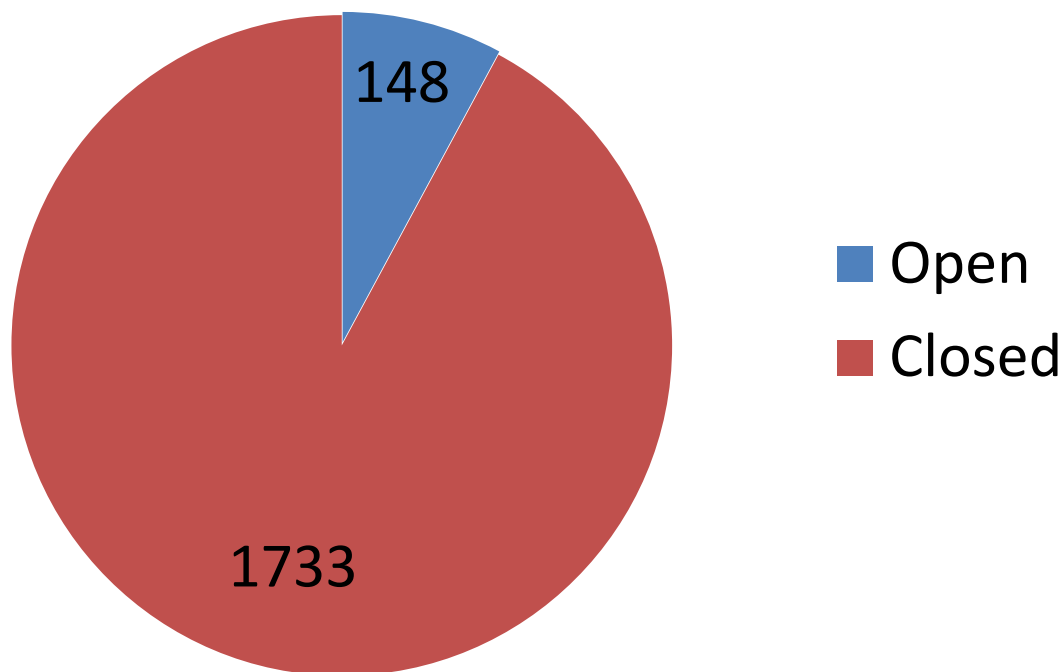


- **All ETA markets in Roadmap**
- **Market Participant Facing**
- **5 year horizon**
- Best information at this time **not necessarily RA approved**
- Repeated every **6 months**
- **Opportunity to input before next Roadmap**

Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

General Query Status – From Oct 2018



10% Decrease on open queries

Formal Queries and Disputes

Disputes:

Open: 4

Completed: 83

Rejected: 2

In total: **89**

Formal Settlement Queries:

Completed: 157

In progress: 27

In total: **184**

Agenda

Item	Presenter
Welcome	Mark Needham
M+4 Resettlement	Claire Kane
Settlements	Sean O'Rourke
Disputes & Repricing Update	Julie McGee
Known Issues Update	Eoin Farrell
Ex-Ante Market	Liam McAllister
Balancing Market	Rory Cafferky
Monitoring & KPIs	Mark Needham
Modifications	Katia Compagnoni
I-SEM Day 2 Roadmap	Mark Needham
Query Management	Claire Breslin
Q&A	

Close

- SEMO Website: <http://www.sem-o.com/>
- Semopx Website: <http://www.semopx.com/>
- Queries: Info@sem-o.com; Info@semopx.com

Thank you for your attendance.