

I-SEM: What Next?

Day 2 Candidates – *For Discussion at PMG*

6 November 2018



Day 1+ and Day 2 Projects

- With I-SEM live, it is now appropriate to consider “***what next***”?
- Two Projects are proposed:
 1. **Day 1+** is a short-term “clean-up” project, principally to fix the higher priority defects which were deferred for I-SEM Go-Live
 - this is a sprint, for a defined period of time, to fix known defects in MMS.
 - it may also address a limited number of other short-term priorities which are required prior to the commencement of a more substantive Day 2 Project.
 - participant facing defects have been appropriately prioritised.
 2. **Day 2** will implement new or amended functionality:
 - change will be driven by regulatory policy; market pressure; performance issues; the need for efficiency or reliability improvements; or to deliver deferred functionality.
 - likely too many of candidates for potential new functionality.

Day 1+

Revised Auction Formats for Capacity Market:

- Revised Auction Formats for Capacity Market are being progressed:
 - Requirement flows from the State Aid Decision.
 - Needed in advance of the inaugural T-4 Auction in early March 2019.
 - The CM Code describes how the auction algorithm works, providing scope for a simplified algorithm to be used rather than an optimisation.
 - The changes for the first T-4 auction allow for more options to configure how the auction is run - although, they still apply the same basic simplified algorithm, which was used for the first T-1 auction.
 - In particular, where previously hard limits were imposed on some auction features, these now have a functional dependency on the unconstrained auction price, thereby providing more levers to control what is scheduled.
 - *Indicative Timings (TBC):*
 - *Vendor Development:* Oct 2018 – Nov 2018
 - *System Testing:* Dec 2018 – Jan 2019
 - *Certification Testing:* Jan 2019 – Feb 2019

Day 2

Candidate Scope

Presented for Discussion; Nothing Agreed!



Background

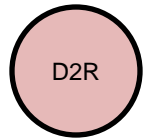
- In this presentation, we set out an initial set of potential candidates for a Day 2 Project; they are changes which are legislated through policy, or for which there is a known need. None are yet agreed.
- The purpose of today's PMG is to consider these candidates, to seek views on what's included, to discuss and understand priorities, and to get suggestions for other candidate changes which are missing. It starts a debate and a consultation process.
- As for any new market, there are likely to be more candidates than we have a realistic chance of delivering in a reasonable timescale.
- As an industry, we'll need to cut our cloth accordingly to determine the final scope of a Day 2 Project.
- Whilst we are finalising scope, the process can begin for each of us to secure budgets, commence procurement, and identify resources.

Initial List

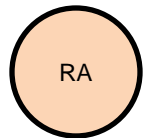
- The candidate items listed are offered for discussion only, to:
 - provide insight into items which will likely make the final scope (e.g. to meet an obligation); and
 - understand other items which are also being considered (e.g. enhancements to functionality).
- The scope is still to be locked down and agreed:
 - hence, inclusion in this deck should not be seen as that candidate necessarily making the final cut.
 - equally, omission from this deck does not necessarily mean that a candidate is excluded.
 - additional suggestions for candidates are therefore welcome.

Day 2 Scope Categories

Candidates may be categorised as:



Day 2 Requests from the I-SEM Project



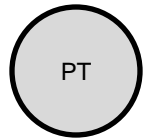
Policy implementation items



Functionality that will deliver necessary improvements to performance, efficiency, or compliance reliability



Requirements of EU Network Codes, legislation etc

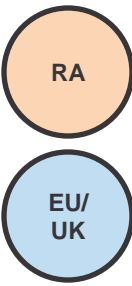


Participant changes

Day 2 Requests

To close out de-scoped Day 1 functionality, first need to review and, where agreed, deliver:

- **D2R_01: Capacity Market Secondary Auctions**
 - secondary auctions of capacity, as per the original Capacity Market design.
 - ability to trade in reliability options should benefit the end consumer, as the cost of capacity should reduce with improvements to the ability to trade effectively and efficiently.
- **D2R_02: Three Intraday Auctions**
 - need for three intraday auctions will driven by external factors (e.g. market liquidity)
- **D2R_03: NEMO Credit Reports and Non-Acceptance of Contracted Quantities**
 - inclusion of SEM NEMO Credit Reports and Non-acceptance of Contracted Quantities (clauses G.12.2 and G.12.3 of the TSC).
 - being progressed via the Modifications process, for possible deployment in advance of Day 2 ?
- **D2R_04: Ex-Ante Quantity (QEX) Product Types**
 - the inclusion of provisions in relation to the calculation of Ex-Ante Quantity (QEX).
 - dependency on 2020 Pan European Intraday Auction.
- **D2R_05: Information Imbalance Charges**
 - inclusion of Information Imbalance Charge in Settlement Statements and Reports.
- **D2R_06: Effective Until Time form of MWOFF Dispatch Instruction**
 - need or otherwise for this functionality to be determined by TSOs.

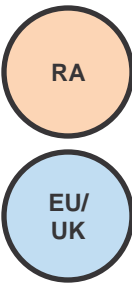


State Aid Decision

As part of the State Aid approval for the Capacity Market, it is a requirement to:

- 1. Deliver changes to CM Algorithm for T-4 Auction**
 - in the Day 1+ timeline, not Day 2
 - scheduled for deployment by early March 2019
- 2. Review the treatment of DSUs in advance of the CM T-1 Auction in December 2019**
 - the RAs will consult on this first
- 3. Review Cross Border Zonal Arrangements**

Wider European Initiatives



As part of the Wider European Initiatives, RAs are reviewing:

1. Facilitation of Multiple NEMOs

- various aspects of the systems design are not fully compatible with multiple NEMOs operating in I-SEM, including MMS registration.
- delivery of virtual hub solution (across multiple vendors) to support multiple NEMOs.

2. Balancing Network Code implementation

- Project Terre, including delivery of Common Merit Order list to allow exchanging of balancing energy from Replacement Reserves
- exchange of balancing energy using standard products
- coordinated calculation and utilisation of balancing capacity

3. XBID accession

- systems changes to support continuous energy trading involving cross-zonal transmission capacity through implicit continuous allocation

4. Implications of the Clean Energy Package

SEMC Decisions



The RAs are reviewing the implications of previous SEMC Decisions:

- 1. Implementation of BMPCOP**
- 2. Intermediary Arrangements**
- 3. Forward Markets and Liquidity**

TSO/MO Operational Changes

candidates for Day 2



- **TSO Scheduling & Dispatch**

- Improved modelling of generation technologies (e.g. solar)
- Network modelling
- Modelling of area constraints
- Pumped Storage Transition Time Modelling
- Solar Forecasting
- Treatment of Demand Side Units in the scheduling system
- Co-optimisation of energy and system services
- DS3 Implementation impacts on SEM

TSO/MO Operational Changes

candidates for Day 2



- **MO Operations**
 - Changes to improve registration processes across all I-SEM markets
 - Improvements to reporting approach across all I-SEM markets
 - Improvements to market surveillance and analysis

Participant Changes

candidates for Day 2

- *Over and above what's already listed, we'd welcome suggestions from market participants on their candidates for Day 2.*
- *Recognising that priorities and timelines will largely be determined by regulatory policy, we'd also welcome understanding participants' views on their priorities and timelines.*
- *It would also be good to understand the appetite for change.*

Day 2 Timeline

- Timeline is yet to be determined
 - will depend upon the scope which is agreed and be driven by regulatory policy and critical path of system delivery
- Likely not to commence in substantive form before next summer, to allow time to:
 - focus on bedding down Day 1 operations
 - deliver Day 1+
 - consult on, and determine the scope of, Day 2
 - agree the Day 2 deliverables and timeline
 - complete the budgetary and procurement processes
 - secure resources

Major Risk

- **Brexit**
 - Implications of Brexit unknown, but potentially significant
 - Likely to impact within the Day 2 timeframes