ELEXON'S RESPONSE TO THE PROJECT MARI CONSULTATION

Introduction

On 21 November, European Project MARI, which is creating a European platform for the exchange of manually-activated Frequency Restoration Reserve (mFRR), issued its first public consultation on various aspects of the project. This consultation can be found on the European Network of Transmission System Operators for Electricity (ENTSO-E) website here.

As Project MARI is very similar to Project TERRE, it is likely to have significant impacts on at least the BSC and Grid Code. ELEXON has responded to the consultation as follows.

Format of this document

Responses to the consultation had to be in a set format loaded into a web interface on the ENTSO-E website.

This document was used to develop the ELEXON response in the format required and represents the submission made. We did not answer all the consultation questions. Only the questions to which ELEXON made a substantive response are listed below.

Matt Roper & Steve Wilkin, 19 December 2017

Consultation Questions to which ELEXON responded and the ELEXON Response

1. Introduction

Question F. What types of organization do you represent?

ELEXON Response: Other

If selected "Other", provide description of your organization

ELEXON Limited delivers the electricity balancing settlement, imbalance settlement and related data publication services that are critical to the successful operation of Great Britain's (GB's) current electricity trading arrangements under the national GB Balancing and Settlement Code. We are not a TSO, but we undertake operations that, in some other EU Member States, are undertaken by TSOs (see Europex documentation on Third Party Market Operators).

The views expressed in this consultation response are those of ELEXON Limited alone, and do not seek to represent those of the Parties to the GB Balancing and Settlement Code which we administer.

Based on our experience to date with designing local arrangements to fit with Project TERRE (the EU Replacement Reserve project), we expect that the MARI project working packages will also include MARI TSO-BSP/BRP settlement and MARI data publication. Subject to our NRA's approval, ELEXON will be incorporating these MARI aspects into our existing GB arrangements, as we are doing with TERRE. We will also rely on MARI settlement data to calculate the GB imbalance price.

So in our view it is imperative that Project MARI and ELEXON closely engage and coordinate at all times on all changes that MARI is considering making to the TSO-BSP/BRP settlement and data publication aspects. This will enable ELEXON to incorporate them in a timely and consistent fashion with MARI so that, for example, BSPs and BRPs are paid/charged appropriately as soon as our TSO, National Grid, participates in the live operation of MARI. If this coordination and liaison does not happen, then it will be much more difficult to implement MARI on time in GB.

It may be worth taking account of how the XBID (intraday) project is coordinating with Local Implementation Projects (LIPs) and seeing what parallels/lessons can be used by the MARI Project.

It is also very important in our view that the EU balancing projects are consistent and when possible harmonised, e.g. TERRE and MARI Projects should not take decisions on their respective market designs in isolation. But rather they should cooperate and make sure that their designs are consistent with each other and do not cause difficulties for us in trying to incorporate inconsistent TERRE and MARI product activations into our settlement processes.

2. Product and Process

Q7. Do you have any additional comments to the characteristics and shape of the product?

We note that should the defined Direct Activations (DA) have a maximum duration of delivery of 20 minutes and the desired product shape have 10 minute ramps (i.e. a maximum product duration of 40 minutes) that it would be possible for one MARI DA Acceptance to deliver balancing services volumes in multiple (up to 4 QH) settlement periods. Therefore depending on the acceptance structure and pricing model to be adopted one MARI acceptance 'block' could significantly impact affect multiple ISP imbalance positions and price calculations. If indeed the acceptance data is to be contained within one auction period or 'block' (assumed to be one QH) then we would question whether this is appropriate or not.

We also note that Project TERRE faced the same issue and limited the impact by defining the Standard Project Shape so that 83.33% of the volume is contained with the acceptance 'block'. Under the current proposal MARI could have a little as <10%. From ELEXON's experience designing a local Settlement solution to interface with TERRE, having volumes outside the acceptance 'block' / period has added significant complexity to the Settlement process and the Imbalance Price calculations.

We would ask the MARI project team to further consider the Settlement (more specifically Imbalance Price calculations) impact of an extended (i.e. > 5 min) full delivery duration and we would welcome moves to align the Standard Product Shape with that of Project TERRE. We feel this would reduce solution complexity for both TSO and BSP and therefore reduces costs and impact on the wider market and its participants. ELEXON would be more than happy to assist with any such work and, indeed, would welcome the opportunity to do so.

Q9. Which alternative for the sequence between the direct activation (DA) and scheduled activation (DA) process has your preference: DA before SA or DA after SA? In case DA is after SA, do you prefer the option deactivation in quarter hour (QH) 0 and QH 1 or deactivation in QH 1 only?

Direct activation before scheduled activation; or Direct activation after scheduled activation?

Please explain your preference

We have a preference for Scheduled Activations (SA) to be processed before Direct Activations (DA), i.e. a preference for Alternative 2 with deactivation in quarter hour QH 0 and QH 1 as this solution ensures that most of the energy is delivered within the appropriate QH. (See also our answer to Question 7.)

Our primary concerns with Alternative 1 (DA before SA) centres around conflicts between the TERRE auction results and the MARI auction results. Specifically how a settlement system would prioritise / create an acceptance order (especially since under this proposal DA could be activated T-22.5) given the different timings of the different product outputs. Guidance would be needed on the prioritisation of acceptances to facilitate accurate settlement. Especially considering the additional complexity that any specific (local TSO) balancing products (with their own timescales) add as the local TSO- BSP Settlement systems would have to account for them as well.

Therefore, we believe that MARI cannot be considered in isolation from TERRE (and perhaps PICASSO too, though we are not involved in PICASSO in GB). We would welcome further thought on how best to implement project MARI with project TERRE with interactions / dependencies identified as a priority.

Q10. Do the countries with replacement reserves consider a gate closure time for the balancing service providers of T-30' for the direct activation (DA) before scheduled activation (SA) option, or T-25' for the scheduled activation before direct activation option acceptable?

T-30' for the DA before SA; or T-25' for the SA before DA?

Please explain your preference

Similar to our response to Question 9, we would like to reiterate that our primary concerns around Gate Closure timings centre around conflicts between the TERRE auction results and the MARI auction results and how a Settlement system would prioritise / create an acceptance order.

With that in mind we would express a preference for T-25' for the scheduled activation before direct activation option. This option would provide the most clarity for settlement acceptance ordering as the results of the TERRE auction would be known.

Therefore, we believe that Project MARI cannot be considered in isolation from TERRE (and perhaps PICASSO too, though we are not involved in PICASSO in GB). We would welcome further thought on how best to implement project MARI with project TERRE with interactions / dependencies identified as a priority.

Q13. Are technical links between bids in different quarter-hours necessary?

If yes, which should be implemented and why?

We support for this functionality as we can see potential benefits for having this data item made available to TSO settlement systems for use in settlement acceptance ordering, volume allocation and reporting.

3. Specification of Activation Optimization Function

Q22. Are all relevant outputs being addressed in the clearing algorithm design?

If not, could you please state the elements that you are missing?

We note that the consultation only provides a high-level view of the clearing algorithm outputs and as such it is difficult to provide a detailed response.

We note the similarities between project MARI and project TERRE. We also note the time and resource already committed to implement project TERRE (as have other involved TSOs). We would welcome the alignment of project MARI algorithm outputs with project TERRE algorithm outputs for consistency and reduced development costs. There will need to be consideration of resource availability across industry/market participants/organisations to ensure both projects are progressed in a timely manner.

Of particular interest to ELEXON would be the project MARI acceptance structure which we believe needs special consideration as the impacts of this could be significant. ELEXON would be more than happy to assist with any such work and would welcome the opportunity to do so.

4. Settlement

Q32. Which of the TSO-TSO volume settlement options do you prefer?

Block settlement; or Settlement in each quarter hour affected

Please provide reasons for your preference

Option 1 is consistent with Project TERRE Replacement Reserve Acceptances. However, it must be noted that this has led to a number of issues during solution design that, whilst have been resolved for Project TERRE, suggests that Project MARI will require a significantly more complex solution and would present a significant challenge for TSOs, market participants and us. Especially since our settlement processes would have to factor in local specific products, as well as TERRE and MARI standard products.

Option 2 most accurately reflects the physical actions / volumes related to the Project MARI product. ELEXON has concerns regarding 'block' acceptances that deliver volumes covering multiple ISPs (please see Question 7) and note that this Option 2 approach would mitigate those concerns.

ELEXON feels these options need further consideration and would welcome consistency with project TERRE. We would ask project MARI project to explore what synergies there are to align the two (MARI and TERRE) solutions.

Q33. Do you prefer pricing option category A or B?

Please provide reasons for your preference

Whilst ELEXON cannot comment on what would be an appropriate clearing price, we would like to note the effectively these options allow different prices (clearing and / or max DA bid) for a QH period for different products (SA & DA) with the possibility of using a clearing price from a different QH (depending on whether it is greater or not). This conditional pricing would add levels of complexity to settlement and reporting / transparency and could prove a significant challenge for those who administer imbalance settlement and those receiving reports as well. Engaging with imbalance settlement administrators (both in house TSO functions; and third parties such as ourselves) early in the process can provide insight and benefit for all and we hope to add value to these discussions.

Irrespective of the pricing option chosen, we would welcome a defined price to be included with all project MARI acceptances (i.e. if a QH-1 acceptance should be settled at QH clearing price this information should be included in the acceptance data / output of the algorithm) for all volumes associated with the Acceptance.

Otherwise we would only like to note that Option A would be simplest to implement in settlements.

Q34. Do you agree with the proposed criteria, weights and scoring for the assessment of pricing options?

Please explain your view

ELEXON Response:

We do not wish to comment on any specifics of pricing options, other than to note (as in the previous answer to Question 33) that we would welcome a defined price to be included with all MARI acceptance reporting.

Q35. Would you consider additional pricing options?

Please explain your preference

ELEXON Response:

We do not wish to comment on any specifics of pricing options, other than to note (as in the previous answer to Question 33) that we would welcome a defined price to be included with all MARI acceptance reporting.

Q36. Which of the pricing options do you prefer? Please choose up to 3 options.

☐ **A1** ☐ **A2** ☐ **A3** ☐ **A4** ☐ **A5** ☐ **A6** ☐ **B1** ☐ **B2** ☐ **B3**

Please explain your preference

ELEXON Response:

We do not wish to comment on any specifics of pricing options, other than to note (as in the previous answer to Question 33) that we would welcome a defined price to be included with all MARI acceptance reporting.

Q37. Which of the pricing options would incentivize you the most to submit Direct Activatable bids? Please select one option.

○ **A1** ○ **A2** ○ **A3** ○ **A4** ○ **A5** ○ **A6** ○ **B1** ○ **B2** ○ **B3**

Please explain your preference

ELEXON Response:

We do not wish to comment on any specifics of pricing options, other than to note (as in the previous answer to Question 33) that we would welcome a defined price to be included with all MARI acceptance reporting.

5. Congestion Management

40. Do you have specific comments regarding the congestion management options presented here?

Please provide your input

ELEXON Response:

We suggest confirming which options are legally compliant with the Electricity Balancing Guideline before proceeding further.

Q42. Following the list of elements provided in the Chapter Harmonization, could you indicate your top three harmonization priorities?

☐ **Maximum bid size** ☐ **Price limits** ☐ **Requirements for DA and for SA products** ☐ **"Expected shape" of a trapezoid with 10 min ramps** ☐ **Definition of the "accepted shape" of the product** ☐ **Application of XMBP to the BSP activated bid** ☐ **Energy settled** ☐ **Incentives applied to the BSPs:** ☐ **"Desired shape":** ☐ **Existence of penalties** ☐ **Penalties price principles** ☐ **XBMP to the energy scheduled and exchanged** ☐ **Energy settled** ☐ **Prequalification requirements** ☐ **IT requirements** ☐ **Back-up requirements** ☐ **Transfer of balancing obligations** ☐ **Independent BSP:** ☐ **Scheduling requirements** ☐ **Real time measurement requirements** ☐ **mFRR gate opening time for BSPs** ☐ **mFRR gate opening time for TSOs** ☐ **mFRR gate closure time for BSPs** ☐ **mFRR gate closure time TSOs** ☐ **Nature of mFRR market** ☐ **Activating bids for other purposes than balancing** ☐ **Possibility to send elastic need** ☐ **Transparency**

Please explain your preference

Wherever possible, the balancing pilot projects, e.g. MARI and TERRE should harmonise their approaches to balancing to avoid inconsistencies and to allow for a simpler implementation across the EU TSOs, third party market operators (such as ELEXON), BSPs and BRPs.

Harmonisation of imbalance settlement will also be required under the EB GL Article 52. It seems inefficient to require harmonisation under MARI, TERRE, etc. independently of the pan-European harmonisation of imbalance settlement project. To avoid conflicts these projects should work jointly on harmonisation aspects.

However, where the these projects do not overlap in scope, we need to know if MARI will propose to harmonise any aspects as soon as possible, e.g. Transparency, as harmonisation is likely to impact the local implementation arrangements.

Q43. In your opinion, which elements should be harmonized before the MARI project goes live?

☐ **Maximum bid size** ☐ **Price limits** ☐ **Requirements for DA and for SA products** ☐ **"Expected shape" of a trapezoid with 10 min ramps** ☐ **Definition of the "accepted shape" of the product** ☐ **Application of XMBP to the BSP activated bid** ☐ **Energy settled** ☐ **Incentives applied to the BSPs:** ☐ **"Desired shape":** ☐ **Existence of penalties** ☐ **Penalties price principles** ☐ **XBMP to the energy scheduled and exchanged** ☐ **Energy settled** ☐ **Prequalification requirements** ☐ **IT requirements** ☐ **Back-up requirements** ☐ **Transfer of balancing obligations** ☐ **Independent BSP:** ☐ **Scheduling**

requirements ☐ Real time measurement requirements ☐ mFRR gate opening time for BSPs ☐ mFRR gate opening time for TSOs ☐ mFRR gate closure time for BSPs ☐ mFRR gate closure time TSOs ☐ Nature of mFRR market ☐ Activating bids for other purposes than balancing ☐ Possibility to send elastic need ☐ Transparency

Please explain your preference

See our response to Question 44.

Q44. In your opinion, which elements should foster harmonization, but not necessarily before the MARI project goes live?

☐ Maximum bid size ☐ Price limits ☐ Requirements for DA and for SA products ☐ "Expected shape" of a trapezoid with 10 min ramps ☐ Definition of the "accepted shape" of the product ☐ Application of XMBP to the BSP activated bid ☐ Energy settled ☐ Incentives applied to the BSPs: ☐ "Desired shape": ☐ Existence of penalties ☐ Penalties price principles ☐ XBMP to the energy scheduled and exchanged ☐ Energy settled ☐ Prequalification requirements ☐ IT requirements ☐ Back-up requirements ☐ Transfer of balancing obligations ☐ Independent BSP: ☐ Scheduling requirements ☐ Real time measurement requirements ☐ mFRR gate opening time for BSPs ☐ mFRR gate opening time for TSOs ☐ mFRR gate closure time for BSPs ☐ mFRR gate closure time TSOs ☐ Nature of mFRR market ☐ Activating bids for other purposes than balancing ☐ Possibility to send elastic need ☐ Transparency

Please explain your preference

None.

Given the extended time we all have to implement MARI under the Electricity Balancing Guideline (probably until December 2021), we would prefer that the elements that are to be harmonised should be agreed well before the MARI project goes live to give us time to implement the changes in our local (GB) arrangements. We do not wish to see an endless series of tweaks to our IT systems as further elements are agreed to be harmonised after 2021, although a well-planned and phased approach to harmonisation could be acceptable.

END