DS3 System Services Consultation – Qualification Process

This questionnaire has been prepared to facilitate responses to the consultation. Respondents are not restricted to this template and can provide supplementary material if desired.

Please send responses in electronic format to DS3@eirgrid.com or DS3@soni.ltd.uk

Respondent Name	*William Carr*
Contact telephone number	*+353 1 702 9423*
Respondent Company	*ESB GWM*

Note: It is our intention to publish all responses. If your response is confidential, please indicate this by marking the following box with an "x". Please note that, in any event, all responses will be shared with the Regulatory Authorities.

Response ☐ **confidential**

The closing date for responses is Thursday, 21 July 2016.

General Comments

ESB Generation and Wholesale Markets (GWM) welcomes the opportunity to submit a response to the Consultation Paper on the DS3 System Services Qualification Trial Process. We have provided answers to each question in the template provided, and summarise our key issues below:

Key Issues

- The electricity system as a whole will benefit when the qualification trials process is complete and a wider range of system services and providers become available to the TSO. The success of these trials requires that service providers have a high technical capability and resource level to problem solve any unexpected issues. The commercial terms offered do not reflect the value that successful participation will create and may not be sufficient to incentivise services providers to come forward.
- Where a new category of technology comes forward to provide system services there is a need for the TSO to establish the technology's ability to deliver reliably in advance of depending on the technology to maintain system stability. The proposed qualification trials should allow new technologies to demonstrate their ability to provide system services however given the limited volume proposed to be trialled, ESB GWM is concerned that the process may result in a delay to the deployment of these technologies.
- In relation to the Provenability Trials, to avoid a situation where a potential service provider who cannot provide either POR or RM3 and are therefore excluded from the process even when the trials are not fully subscribed ESB GWM proposes that the TSO specifies a ranking order for each of the services in the Reserve and Ramping service categories. The TSO can base their view of the services relative value. This ranking can then be applied to the selection process, in this way potential providers of all services have access to the trial process.
- ESB GWM isconcerned that the number of service providers in the Provenability Trials is relatively small. For example, in the case of POR provision by Demand Side, if all the service providers were at the maximum size of 5MW then there would only be four service providers participating in the trial. If these service providers were to fail to pass the trial then other service providers could find that they are frozen out of the market until the next trial begins.
- For conventional synchronous generators the provision of the Fast Post Fault Active Power Recovery (FPFAPR) and Dynamic Reactive Response (DRR) services are inherent capabilities similar to Synchronous Inertial Response (SIR). This has previously been recognised during the DS3 System Services consultation process. On this basis there is no need for conventional synchronous generator to pass through the Measurability Trials.

Question	*Response*
Consultation on Qualification Process	
Question 1: Do you agree that the Qualification Process should focus on both "Provenability" and "Measurability"?	**ESB GWM recognises the need for the TSO to act prudently in procuring system services. Where a new category of technology comes forward to provide system services there is a need for the TSO to establish the technology's ability to deliver services reliably in advance of depending the technology to maintain system stability.** **The proposed qualification trials should allow new technologies demonstrate their ability to provide system services however given the limited volume to be trialled we are concerned that the process may delay the deployment of these technologies.**
Question 2: Do you agree that the Provenability Trials should focus on proving only two System Services, as representative of all System Services in those categories of System Services?	**It is not clear which system services new technologies will be capable of providing. In selecting POR as representative of the reserve category and RM3 as representative of the ramping there seems to be an indication that these services are of greatest value to the TSO. If this is the case then it is understandable that the TSO would prioritise these services in the trials process. However it is possible that there are potential service providers who cannot provide either or both of these services and as such are effectively excluded from the trails process even if the volume of service provision to be trialled is not fully subscribed.** **ESB GWM proposes that the TSO specifies a ranking order for each of the services in the Reserve and Ramping service categories based on their view of**

	the services value and this ranking can then be applied to the selection process. In this way potential providers of all services have access to the trial process which may lead to a greater likelihood of success.
Question 3: Do you agree that the Provenability Trials should focus on the Reserve and Ramping categories of System Services?	**ESB GWM agrees that the Inertia and Reactive categories are inherent capabilities in the technology that is providing the service and as such there is no benefit to including these categories in the trials process. As a point of clarity, is it the case that while the Provenability trials are on-going the TSO will not be depending on the services being delivered through the trials i.e. that the volume under trial will not be factored into the RCUC algorithm?**
Question 4: Do you agree that the technology classes targeted in the Provenability Trials should be wind, demand side and 'other technologies'?	**Of the prospective technologies to provide system services, Wind and Demand Side are the largest non-conventional energy providers however it is not clear that they have the capability or the commercial incentive to participate in the technology trials. It is possible the either the Wind or Demand Side classes could be under subscribed while the Other Technologies class could be over subscribed. To avoid this it is proposed that any unused volume for any of the classes would be recycled back to any class that is over subscribed.**

Question 5: Do you agree that the Measurability Trials should be technology neutral?	**In specifying the categories of system services to be trialled there is recognition that SIR and SSRP are derived from the inherent capability of the technology and that as such there is no need to extend the process to these services. This is aligned to the proposals under the draft Interim Arrangements Protocol Document for the Inertia and Reactive categories. In the draft Interim Arrangements Protocol Document the performance scalar methodology is limited to passing Grid Code testing in the case of the Reactive category and there is no proposed methodology for the Inertia category and this should be retained.** **In the case of conventional synchronous generators the provision of Fast Post Fault Active Power Recovery (FPFAPR) and Dynamic Reactive Response (DRR) services are also inherent capabilities. This has previously been recognised during the DS3 System Services consultation process. From the DS3 System Services Procurement Design (SEM-14-059) description of FPFAPR:** **"This service is provided automatically in the event of a fault – if the unit is capable. Synchronous units can inherently provide this service"** **And from the same paper's description of DRR:** **"This service will be provided automatically by connected generators in the event of a voltage dip… Conventional generation should be able to provide the service inherently"** **On this basis the FPFAPR and DRR services are inherently provided by conventional generators there is no need for them to pass through the Measurability trial. And furthermore there should be no requirement to invest in**

	equipment to record and demonstrate the provision of these services.
Question 6: Do you agree with the proposed service provision volumes and proposed number of Service Providers to be included in the Provenability and Measurability Trials respectively?	**ESB GWM are concerned that the number service providers in the Provenability Trials will be relatively small. For example in the case of POR provision if all the participating service providers were at the maximum size of 5MW then there would only be 4 service providers in the trial. If these service providers were to fail to pass the trial then other service providers could find that they are frozen out of the market until the next trial begins.** **Additionally in the case of both the Provenability and Measurability trials it is not clear that there is need for the volume to be split on a jurisdictional basis, the service definitions are the same in both jurisdictions as such the volume to be trialled can be pooled across the whole market.**
Question 7: Do you agree with the minimum sizes of Providing Unit proposed for the Provenability trials?	**ESB GWM supports applying the proposed lower minimum size in the Other Technology class and suggests that while the Demand Side class has been established in the SEM for a number of years, the provision of system services by Demand Side providers is novel. Therefore there maybe a period of time required for Demand Side provider to put in place the necessary IT infrastructure and commercial contracts across their portfolio and a lower minimum size may support their participation.**

	The proposed minimum size in the Other Technology class (100kW) does not align with the minimum size that was applied in the techical requirements of the main procurement tender process. In this process a 1MW minimum was specified for both the POR and RM3 services. To avoid a situation where a provider passes through the Provenability trial but is then unable to enter into a contract to proved the relavent service, can an assurance be given that the minimum size in any future tender process will be aligned to the trials process? **Additionally, does the maximum size of 5MW in the Provenability Trial relate to the maximum level of payment that a provider can receive as opposed to the maximum level of service provision?**
Question 8: Do you agree with the proposed evaluation criteria for the selection of participants to take part in the Provenability Trials?	**ESB GWM is concerned that the target of 5 to 6 events will not be realisable in the duration of the Provenability trial (up to 6 months). While there are 8-10 events a year, there is no pattern to the timing of these events and it is possible that there would not be 5 events in a 6 month period. Additionally it is possible that the service provision being trialled would not be available during a given event, in the case of Wind it is likely that system service provision will be aligned to the service provider's load factor.** **To avoid a situation arising were a trial does not meet the required number of events the possibility of monitoring a service providers response to lower levels of frequency disturbance could be explored.**

	Where a service provider passes a trial successfully they should be awarded a contract of system service provision for the remainder of the interim period. Additionally where the trial overlaps with the qualification process for the following contract period all service providers in that category should be allowed to provisionally pass through the qualification process until the trial is concluded.
Question 9: Do you agree with the proposed evaluation criteria for the selection of participants to take part in the Measurability Trials?	**Similar to the comments above, the FFR service trial will be dependent on there being sufficient frequency events to demonstrate the service providers response. To avoid a situation arising where a trial does not meet the required number of events the possibility of monitoring a service providers response to lower levels of frequency disturbance could be explored. If a lack of data does become an issue for the FFR product, a similar testing approach to the current Grid Code testing of the existing operating reserve services could also be developed.** **For the fast post fault active power recovery (FPFAPR) and dynamic reactive response (DRR) services as part of the product definitions, there are specified characteristics not just for the providers response but also for the nature of the voltage dip that necessitated the response. It is not clear that a voltage dip meeting these characteristics will occur in the three months indicated for the trial.**

Question 10: Given the stated aims of the Qualification Process, are there different criteria that would better achieve those outcomes than what is proposed here? If so, what are they and how will they work?	**In relation to the Provenability Trials, as note above the possibility of monitoring a service provider's response to lower levels of frequency disturbance could be explored.** **In relation to the Measurability Trials, given the dependence on the occurrence of a specific voltage dip at a given location, increasing the number of service providers to be trialled for the FPFAPR and DRR services could be considered.**