

GSR027: Review of the NETS SQSS Criteria for Frequency Control that drive reserve, response and inertia holding on the GB electricity system

30th September 2020

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SQSS Workgroup Consultation Response Proforma

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses to box.sqss@nationalgrideso.com by **5pm on 30 September 2020**. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

If you have any queries on the content of this consultation please contact Paul Mullen paul.j.mullen@nationalgrideso.com or box.sqss@nationalgrideso.com.

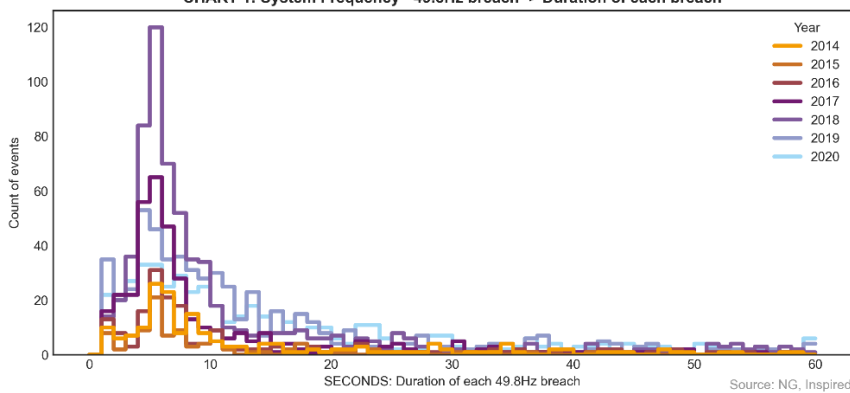
Respondent details	Please enter your details
Respondent name:	Eamonn Bell
Company name:	Inspired Energy
Email address:	Eamonn.bell@inspiredenergy.co.uk
Phone number:	01772 675246

For reference the SQSS objectives for GSR027 are:

- i. *facilitate the planning, development and maintenance of an efficient, coordinated and economical system of electricity transmission, and the operation of that system in an efficient, economic and coordinated manner;*
- ii. *ensure an appropriate level of security and quality of supply and safe operation of the National Electricity Transmission System;*
- iii. *facilitate effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the distribution of electricity; and*
- iv. *facilitate electricity Transmission Licensees to comply with their obligations under EU law.*

Please express your views regarding the Workgroup Consultation in the right-hand side of the table below, including your rationale.

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Standard Workgroup Consultation questions GSR027		
1	Do you believe that the GSR027 Original solution better facilitates the SQSS Objectives? Please explain your rationale.	<p>Yes, we believe that the GSR027 Original Solution better facilitates the objectives of the SQSS. The static nature of the current SQSS requirements do not facilitate the rapidly evolving nature of the GB electricity network. We support the introduction of the Frequency Risk and Control Report (FRCR) as a way of tying real system conditions to the services and actions that the ESO calls upon.</p> <p>We can see that the system frequency is becoming harder to keep under control when we look at the second by second system frequency data, published by the ESO on their data portal. If we define a frequency 'breach' as the instance where the system frequency deviates in one direction below or above a specified target and then returns back through that target at a later time in the other direction, then we can make a count of the number of breaches in any given time window.</p> <p>CHART 1: System Frequency - 49.8Hz breach -> Duration of each breach</p>  <p>As an example, if we count the number of breaches of 49.8Hz – the ESO's low frequency 'Operational' limit – per year then we can see in Chart 1 that not only has there been a year-on-year growth in the total number of breaches below this operational level, but we are also seeing more and more instances of longer breaches. It is becoming harder to maintain the system frequency within the operational band of +/- 0.2Hz either side of 50Hz. The evidence of the growth in the number of operational breaches, and the lengthening of the average breach duration, supports the introduction of the FRCR in order to better manage the system against changing parameters.</p>

		<p>CHART 2: System Frequency - 49.8Hz breach -> 50Hz time to recover</p> <p>Count of events</p> <p>Year</p> <ul style="list-style-type: none"> 2014 2015 2016 2017 2018 2019 2020 <p>MINUTES: 49.8Hz breach to return frequency to 50Hz</p> <p>Source: NG, Inspired</p> <p>We note as well in Chart 2 that over the period 2014-2020 it is taking longer and longer for the ESO to return the system frequency back to 50Hz each time a breach of 48.9Hz occurs. Chart 2 shows us that more time and energy is needed in 2020 to return the system frequency back to the nominal 50Hz level than was needed in 2014, and that there has been a clear progression to this state in the intervening years.</p> <p>The ESO is addressing these frequency stability problems with new faster Frequency Response services, inertia products, and via the ALoM Change Programme.</p> <p>However, it will be via the FRCR that the market providers of the necessary services see the full impact of these changes in the ESO's programme.</p>
2	Do you support the proposed implementation approach?	We support the proposed implementation approach.
3	Do you have any other comments?	<p>The ESO's System Needs and Product Strategy (SNAPS) programme, as well as the Faster Acting Services Response and Reserve Roadmap, has been updating and amending the set of Balancing Services which the ESO procures and puts into place to secure the system frequency against the faults which the FRCR will address.</p> <p>A central pillar of these programmes was the removal of bilateral contracts from Balancing Services procurement, and a commitment to fully market-based solutions.</p> <p>As there are a known set of defined Balancing Services markets, and as the ESO has committed to procuring all of their required Response & Reserve volumes from competitive tenders and auctions, then market participants should be able to clearly see in the FRCR how any decisions will affect specific markets.</p> <p>The FRCR should be directly and explicitly linked to the ESO's procurement strategy, as it is vital to provide providers of critical services with the clearest of roadmaps showing how the markets they operate in will grow or evolve. This could involve stating in the FRCR what volume of Response or Reserve will be needed at different speed-of-response levels, or duration of delivery levels.</p>
4	Do you wish to raise a	No.



	Workgroup Consultation Alternative Request for the Workgroup to consider?	
Specific GSR027 Workgroup Consultation questions		
5	Do you agree with the proposed SQSS legal text?. Please provide the rationale for your response.	Yes.
6	Do you agree with the proposed Governance framework? Please provide the rationale for your response.	We agree with the proposed governance framework.
7	The vast majority of the Workgroup believe that the Governance framework should be housed within an annex or appendix to the SQSS. The Workgroup have also considered other options, namely Transmission Licence conditions or the Grid Code. Do you agree with the Workgroup's conclusions? Please provide the rationale for your response.	We agree with the Workgroup's conclusions.
8	The ESO's illustrative FRCR methodology articulates the risks and impacts to be assessed in version 1 of the FRCR. Section 8 sets out what could be considered in future versions. Do you agree with the ESO's conclusions on what will covered	Yes.



	in version 1 and future versions? Please provide the rationale for your response.	
9	Section 10 of the illustrative FRCR Methodology sets out the input data the ESO believe is required to produce the FRCR. Do you agree that this is suitable? Do you have any thoughts on how the data to remove ESO's working assumptions may be gathered?	No.
10	The Workgroup have proposed 2 options for which body the 'FRCR Approver' could be. Do you agree and which is your preference? Please provide the rationale for your response.	<p>We support the option: "An independent industry body appointed by Ofgem".</p> <p>The FRCR should be a report presented to the SQSS panel and should have contributions from independent parties representing different parts of the industry.</p> <p>The electricity system is evolving and input from as many component elements of the system as possible should be assessed and sought on a regular basis. Having the FRCR assessed and written by an independent panel will encourage wider participation and a greater pool of experience and views.</p>

Inspired Energy

29 Progress Business Park . Orders Lane
Kirkham . Lancashire . PR4 2TZ

inspiredenergy.co.uk

T 01772 689 250 **F** 01772 689 251
hello@inspiredenergy.co.uk

Registered in England: No. 07639760 Registered address: As stated VAT No: 123379519

