

**Workgroup Consultation Response Proforma****GC0117: Improving transparency and consistency of access arrangements across GB by the creation of a pan-GB commonality of Power Stations requirements**

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 [grid.code@nationalgrideso.com](mailto:grid.code@nationalgrideso.com) by **5pm on 5 August 2022**. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration.

If you have any queries on the content of this consultation, please contact Ruth Roberts [ruth.roberts@nationalgrideso.com](mailto:ruth.roberts@nationalgrideso.com) or [grid.code@nationalgrideso.com](mailto:grid.code@nationalgrideso.com)

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**I wish my response to be:**

(Please mark the relevant box)

 Non-Confidential Confidential

*Note: A confidential response will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.*

**For reference the Applicable Grid Code Objectives are:**

- a) *To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity*
- b) *Facilitating effective competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);*
- c) *Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole;*
- d) *To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and*
- e) *To promote efficiency in the implementation and administration of the Grid Code arrangements*

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

Standard Workgroup Consultation questions														
1	Do you believe that the Original Proposal and WAGCM1 better facilitates the Applicable Objectives?	<p>Mark the Objectives which you believe each solution better facilitates:</p> <table border="1" data-bbox="619 510 1463 629"> <tr> <td data-bbox="619 510 858 568">Original</td> <td data-bbox="866 510 962 568"><input type="checkbox"/>A</td> <td data-bbox="970 510 1066 568"><input type="checkbox"/>B</td> <td data-bbox="1074 510 1169 568"><input type="checkbox"/>C</td> <td data-bbox="1177 510 1273 568"><input type="checkbox"/>D</td> <td data-bbox="1281 510 1377 568"><input type="checkbox"/>E</td> </tr> <tr> <td data-bbox="619 568 858 629">WAGCM1</td> <td data-bbox="866 568 962 629"><input type="checkbox"/>A</td> <td data-bbox="970 568 1066 629"><input type="checkbox"/>B</td> <td data-bbox="1074 568 1169 629"><input type="checkbox"/>C</td> <td data-bbox="1177 568 1273 629"><input type="checkbox"/>D</td> <td data-bbox="1281 568 1377 629"><input type="checkbox"/>E</td> </tr> </table> <p>Elexon is the code manager for the BSC. We generally support the intent of these proposals to simplify and standardise the arrangements so they may apply more fairly and consistently.</p>	Original	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E	WAGCM1	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E
Original	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E									
WAGCM1	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E									
2	Do you support the proposed implementation approach?	<p><input type="checkbox"/>Yes <input type="checkbox"/>No</p> <p>At this stage we do not believe the solutions are sufficiently developed to be able to confidently advise on the impacts on the BSC. Therefore, we cannot say to what extent the options may require more or less change to the BSC to facilitate and to what extent the proposed implementation approaches are appropriate.</p> <p>Nevertheless, there is a high volume of scheduled and expected change to the BSC and BSC Systems over the coming years which means that any substantive changes necessary to support GC0117 would need to be better defined in order that they can be assessed in relation to existing plans.</p> <p>As it stands GC0117 is expected to be implemented as a change to the Grid Code 10wd following a decision to approve by Ofgem but a proposed go-live date could be between 10wd of Ofgem’s decision up to 2027 (depending on which option is implemented and based on an initial assessment by NGESO). Understanding when a change is required to be implemented/go-live, or if nothing else the relative urgency of a change, is helpful because it enables us to review it, and its priority, alongside other changes scheduled or proposed for implementation at the same time or whose implementation projects might overlap.</p> <p>We have set out our initial thoughts on BSC Impacts in response to question 13 below.</p>												

		<p>As we learn more about the potential impacts of and the requirements necessary to support the different options, we will endeavour to complete a more thorough assessment of the costs and timescales necessary to support GC0117 and will pass this on to the workgroup.</p>
3	<p>Do you have any other comments?</p>	<p>As noted elsewhere in this response, we have struggled to provide a more detailed assessment of its impacts. We believe this is in part because the consultation document has not described the options, their impacts and assumptions in more detail.</p> <p>It isn't clear whether the proposals only apply to embedded Power Stations or to Transmission/Directly connected Power Stations too? Much of the explanation focuses on impacts for embedded generators but the legal texts apply to directly connected generators too. How do changes in thresholds affect directly connected generators? What are the (most significant) differences in the requirements for Small, Medium and Large directly connected Power Stations?</p> <p>We are keen for more detailed impacts (and associated assumptions) to be explained. This is important for us to assess consequential impacts for the BSC as we explain in our response to Q13 below. In addition, more detailed analysis of the impacts would help to support workgroup and industry's view on the costs and benefits of the different options. For example, NGENSO raised concerns with some options that might reduce their visibility and control of smaller Power Stations. It would be helpful to better understand these concerns and the scale of their potential impact on system operation, including BM participation. It is also worth noting that even if mandatory requirements to participate in the BM apply to a narrower set of Power Stations, this doesn't necessarily preclude voluntary participation or through other Parties.. Proposed legal texts aren't red-lined so it wasn't clear what is original and what is new text.</p> <p>Proposed Solution section doesn't describe in detail what the solution or alternatives are! In any case, the section entitled 'What is the solution?' doesn't actually describe a single definitive option, let alone describe definitive alternatives. Rather it states that 'there appears to be six broad options'. This is contrary to the Executive Summary that does a better job of describing the Original and alternative solutions.</p>

		Questions in response proforma do not match all of the questions in the consultation document. For example, not all questions on page 13 and 14 have been added to this proforma? Consequently we have not answered these missing questions as per the instruction to use this proforma.
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Click or tap here to enter text.

Specific Workgroup Consultation questions		
5	Do you believe it is appropriate to change the definition of Demand Capacity and associated Grid Code definitions so that they align with the changes to Large, Medium and Small Power Stations? If so, do you think this should be addressed as part of this Grid Code modification or separately?	<p>Is the proposal to change the definition of Demand Capacity or to change the thresholds in BC1.4.2(a)(1)(i) and BC2.5.5 that trigger the requirement to provide PNs, or to commence or cease participation in the BM?</p> <p>I suspect that the proposal is actually to modify the thresholds that BC1.4.2(a)(1)(i) and BC2.5.5 rely on, rather than the meaning of Demand Capacity. That is, the thresholds in BC1.4.2 and BC2.5.5 align with the existing thresholds that define Small and Medium Power Stations and so if the thresholds that define Small Power Stations change as proposed by GC0117 it would make sense to consider whether the thresholds described in BC1.4.2 and 2.5.5 should be maintained.</p> <p>The meaning of Demand Capacity in the Grid Code is derived from the meaning in the BSC. Demand Capacity in the BSC is set by Lead Parties (or automatically under the Code) and reflects the</p>

		<p>expected maximum demand during a BSC Season. The fact that DC and Registered Capacity are consistent with each other is because it is likely that a Lead Party will set their Demand Capacity at or close to their import capability. However, DC is set in response to expected operation so may be set lower than Registered Capacity in response to commercial, operational and/or seasonal considerations.</p>
6	<p>Do you see any unintended consequences of this changing the definition of Demand Capacity? If so, what are your reasons for this?</p>	<p>Changing the meaning of Demand Capacity (rather than the thresholds in BC1.4.2 and 2.5.5) would complicate Users understanding of the meaning of Demand Capacity as it would have two meanings – one in the BSC and another (whether entirely different or at least an extended/modified meaning) in the Grid Code. Should a change in the meaning of Demand Capacity be progressed it might be appropriate to consider an alternative defined term to avoid confusion.</p>
7	<p>Do you think the suggested change in the definition of Registered Capacity is appropriate and do you think this change should apply across the original and Alternative solutions proposed? If not, please state your reasons.</p>	<p>In general, we are in favour of seeking to clarify the arrangements and so we support the intent here.</p> <p>The proposed legal text appears to apply only to Power Stations connected after 'xxx'. In other cases, where an existing plant or connection is substantively modified then they may become subject to Grid Code provisions introduced since they first connected. Should the proposed meaning of Registered Capacity also apply to existing plant that are the subject of a substantive change?</p>

		<p>We note the consideration of the Grid Code meaning of Registered Capacity and Net Declared Capacity in relation to licensing. Whilst it may be reasonable/necessary for these definitions to be different, in my experience their meanings are conflated (to simplify discussion/advice) and/or confused in the context of considering the regulatory implications of market entry, i.e. connecting and operating different sized plant. That is, one may consider the Grid Code's Power Station Registered Capacity thresholds to be equivalent to the Net Declared Capacity values used to define Class Exemptions from holding a Generation Licence. Indeed Annex 10 refers to Alternative 1 aligning with Licensing requirements but presumably this isn't always the case if Registered Capacity is not the same as Net Declared Capacity.</p> <p>Whilst it may remain appropriate for the two definitions to be different, NGESO and others should be mindful of how they refer to these different terms.</p> <p>Finally, whilst the Consultation Document refers to it, the legal advice is neither shared or summarised as part of the consultation. It would be helpful if NGESO shared the legal advice (or at least a summary) that explains the differences between Registered Capacity and Net Declared Capacity.</p>
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8	Of the solutions proposed (i.e., the Original and Alternatives) which solution do you favour and why?	Elexon is the code manager for the BSC. We generally support the intent of these proposals to standardise the arrangements so they may apply more fairly and consistently. In this regard we can see how each proposal might resolve the Modification Proposals stated issue by standardising arrangements across GB. .
9	Do you think there are unintended consequences in defining Type 1 and Type 2 Licence Exempt Embedded Medium Power Stations (LEEMPS) separately? If so, please state your reasons.	The consultation document does not define Type 1 or Type 2 LEEMPs. Given the context we have assumed that Type 1 is existing LEEMPS and Type 2 are the proposed LEEMPS Plus (which is described in the document).
10	Do you think that there is merit in establishing a holistic net-zero view of the technical and commercial arrangements for connecting new and operating existing and new generators to meet the requirements of all stakeholders, then developing the necessary cross code changes to implement the new framework, rather than just change the definitions of power station sizes with this Grid Code modification?	It isn't entirely clear from the consultation what the problem is and therefore why this question has been asked? Furthermore, the consultation could have more clearly described the case for and against establishing a holistic view of the technical and commercial arrangements versus developing proposals under GC0117. From what I can gather from the consultation document it appears that a holistic review is already being taken forward by the Open Networks project and that this work is running in parallel with GC0117. Therefore, is the question whether GC0117 potentially goes beyond its stated issue and should be stopped or paused in preference for awaiting the outcomes of the Open Networks work? For example, to recognise that the Open Networks work may make more substantive and holistic recommendations for change to industry arrangements, including how to ensure consistent and common treatment for

		generators wherever they are connected in GB, and so continuing with GC0117 may be considered a duplication of effort and which might make recommendations that are contrary to proposals under Open Networks.
11	Do you agree that the revised arrangements should apply to new generators connected to the system i.e., not applied retrospectively?	No comment
12	Should the same approach on retrospectivity apply to all options?	No comment
13	Can you identify any potential consequential impact from the GC0117 modification proposal(s) on current electricity market or balancing arrangements as set out in other code frameworks (e.g., BSC, CUSC)? If yes, please identify these.	<p>We understand that part of a workgroup's role and of its consultation of industry is to help explore the proposal(s) so they may be further developed and assessed. Unfortunately, at this point the description of the options and presentation of impacts of the options has made it hard to assess the consequential impacts on the BSC. This is because (some of) the solutions lack detailed requirements describing how they might work in practice and the potential impacts (and assumptions used) of the options lack sufficient detail and explanation.</p> <p>We plan to continue to monitor the development of GC0117 options and will provide further assessment of the options and their impacts on the BSC as we are able to.</p> <p>As it stands we envisage impacts in the following areas</p> <p><b>BSC relies on the meaning of Small Power Stations</b> Changing the meaning of Small Power Station would affect certain BMU registration provisions. That</p>

		<p>is, BSC Section K3.1.2B allows a single BM Unit to be registered as a collection of smaller aggregations of Plant and Apparatus so long as the Registered Capacity of that collection is no larger than that for a Small Power Station. Also, Section K3.1.4 lists descriptions/configurations that are considered to be single BMUs (sometimes known as standard BMUs) and (cc) is a directly connected premises at more than one boundary point provided that the total Imports to the BMU are less than or equal to the value limits for a Small Power Station. In both cases, changing the meaning of a Small Power Station could increase or decrease the opportunity to register BMUs in accordance with these provisions. Without further investigation/consultation it isn't clear to what extent a change in the meaning of Small Power Station might encourage or discourage more BMU registrations that rely on these terms?</p> <p><b>Impact of LEEMPS+ and RDP arrangements on Imbalance Settlement calculations</b></p> <p>Arrangements and quantitative assumptions for LEEMPS+ and RDP (Alternative Options 2, 3 and 4) are not clear enough. If both LEEMPS+ and RDP options are intended to extend requirements for Medium Power Stations to participate in the BM but in a different/limited way to ordinary BM participation, how do NGENSO expect this to work in practice? For example, how do NGENSO plan to instruct these plant and how will these instructions be communicated/published for use in the BSC's System Price calculation and Imbalance Volume</p>
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		<p>calculations, is there a BOA or is it BSAD (and ABSVD)? Furthermore, if under LEEMPS+, NGESO is instructing an LDSO who in turns instructs an embedded generator, who is the counterparty to the BOA/BSAD? If it is the LDSO then do they need to register a BMU and be accountable for it? Or would LEEMPS+ generators be expected to operate with own BMUs or could they be part of another Supplier's BMU?</p> <p>We need to better understand the (possible) practical requirements for these arrangements. This way we can identify to what extent existing processes and interfaces may continue to support them or where new processes and interfaces are necessary. Clearly, new processes and interfaces are likely to be more expensive and time-consuming to implement.</p> <p>As well as considering the practical implications of LEEMPS+ and RDP options, the consultation does not provide any indication of the popularity of these arrangements. How many LEEMPS+ and/or RDP generators do NGESO estimate operating? How might these numbers be split between Supplier Base, Supplier Additional and CVA BMUs?</p> <p><b>Impacts on BMU Registration processes</b> In Annex 11, we note that NGESO have estimated ~650 new BMUs per year but this assumption needs further explanation as the number and type of BMUs required may have different</p>
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		<p>impacts on BSC processes and systems.</p> <p>Furthermore, it isn't clear how existing and future/expected BMUs may be (re-)allocated or assigned to the different categories of Power Station under the different options being considered under GC0117.</p> <p>Currently we expect ~30 BMU registrations per year. So on the face of it, an increase to 650 per year would be a substantial increase. It may require us to recruit additional resources to process the extra registrations and consider improvements to our systems to make the process more efficient (for example, through automation). In addition, we'd need to consider the impact on CVA data collection and assurance processes and systems.</p> <p>However, to better understand the nature of the impact we'd need to better understand the assumptions behind the 650 BMU value, more detailed requirements and a better understanding of how these additional BMUs breakdown between CVA and SVA registrations.</p> <p>Is the 650 BMU pa an estimate of the numbers of additional BMUs for Power Stations now considered to be Large Power Stations under the Original Proposal? However, Annex 11 cross-references this assumption for other options where the Large Power Station threshold does not change – does this mean that</p>
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		<p>LEEMPS+ generators are expected to be registered in a dedicated BMU? Seeing as the Small Power Station threshold for Alt options 3 and 4 stays at 50MW, does the 650 BMUs estimate still apply, if so how is it distributed between Large and RDP/LEEMPS+ generators?</p> <p>Are the 650 BMUs pa expected to be CVA BMUs only or does it contemplate some plant being registered by Suppliers in [SVA] Additional BMUs (e.g. LEEMPS+)? If so, what is the expected split?</p> <p>Based on a recent webinar hosted by NGENSO, my understanding is the estimate of 650 BMUs is based on an expected additional 6.5GW per year of generation capacity. This suggests NGENSO are assuming each BMU is for a 10MW Power Station or Generating Unit. It would be helpful to understand how NGENSO have derived these assumptions and to what extent there are alternative scenarios, e.g. presumably NGENSO are expecting some new plant to be much larger and some smaller than 10MW?</p>
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