

Workgroup Consultation Response Proforma**GC0156: Facilitating the Implementation of the Electricity System Restoration Standard**

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 by **5pm** on **30 December 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 Banke John-Okwesa banke.john-okwesa@nationalgrideso.com or grid.code@nationalgrideso.com

Respondent details	Please enter your details
Respondent name:	Nicola Barberis Negra
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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 using the tick boxes and text box spaces provided in the right-hand side of the table below.

Standard Workgroup Consultation questions								
1	Do you believe that the Original Proposal better facilitates the Applicable Objectives?	<p>Mark the Objectives which you believe each solution better facilitates:</p> <table border="1"> <tr> <td>Original</td> <td><input type="checkbox"/>A</td> <td><input type="checkbox"/>B</td> <td><input type="checkbox"/>C</td> <td><input type="checkbox"/>D</td> <td><input type="checkbox"/>E</td> </tr> </table> <p>We are unable to provide a blanket yes or no against the applicable objectives – although we see some benefits of the proposal, some areas need to be addressed further.</p>	Original	<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			
2	Do you support the proposed implementation approach?	<p><input type="checkbox"/>Yes <input checked="" type="checkbox"/>No</p> <p>We have concerns with respect to the proposed new requirements to be applicable retrospectively for existing Users, even when not being a System Restoration provider: in particular amended clauses CC.6.3.5.2, CC.6.3.5.4, CC.7.10, cc.7.11 (and equivalent clauses in ECC) will require existing plants to meet certain new requirements to support system restoration.</p> <p>We believe some of these changes will require a large amount of investment to implement, especially with respect to older plants and we are concerned that a cost/benefit analysis has not performed before these changes are proposed. We would recommend that a detailed cost assessment on a project-specific basis should be performed before these changes are implemented to avoid any unwanted outcome for existing Users.</p> <p>Please note that this is an initial response, we can provide further details in due course and support further the main topics of our response.</p>						
3	Do you have any other comments?	<p>As an overarching comment, Ørsted do not believe that the process used is suitable to implement all changes within this Mod, given that several elements – in our view – stray outside the Terms of Reference. With regard to the specific requirements, we've detailed in Q2 and in the rest of our response it is our view that a separate Mod or working group should be formed with relevant parties involved to ensure the correct impact of such changes are evaluated. Further detail on our position can be found in our response to the specific questions in the workgroup consultation.</p>						
4	Do you wish to raise a Workgroup Consultation Alternative Request	<p><input type="checkbox"/>Yes <input checked="" type="checkbox"/>No</p> <p>Click or tap here to enter text.</p>						

	for the Workgroup to consider?	
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Specific Workgroup Consultation questions

5	Do you believe that a cost benefit analysis should be undertaken by the Workgroup and if yes what factors should be considered?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>Our understanding of the current proposal is that some requirements will be imposed retrospectively to Generators (e.g. CC.6.3.5.2, CC.6.3.5.4, CC.7.10, CC.7.11 (and equivalent clauses in ECC)): some of the proposed changes have not been factored in when these plants were designed many years ago and some are operating with equipment that may be difficult to upgrade to account for the new requirements. For example, this would be true for offshore wind farms, where wind turbine technology has rapidly evolved over the past 15 years.</p> <p>We believe that a CBA should be performed on a case-by-case basis, but also acknowledge that some plants may not be able to accommodate any of the proposed changes: plants should not be penalised for this reason.</p> <p>An effective-from date should be applicable here, should some of the proposed changes be approved and in any case pending the outcome of the CBA assessment</p>
6	Do you believe that parties obligated by GC0156 should have a cost recovery mechanism in place?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>This should be assessed following the CBA exercise for each project: we expect some of the proposed changes to have large economic impacts for the projects in question and a mechanism to recover such costs should be considered.</p>
7	Do you think that the proposals are sufficient and cost effective to ensure that NGESO can meet its ESRS licence obligations? Please provide a rationale for your answer	<input type="checkbox"/> Yes <input type="checkbox"/> No <p>No comments</p>
8	Do you agree that all the costs associated with TO/DNO implementation of	<input type="checkbox"/> Yes <input type="checkbox"/> No

	ESRS should be recovered through their respective price controls? If not, what funding mechanism do you favour?	No comments
9	The ESRS restoration target is expressed in terms of transmission demand rather than total demand (see Glossary and Definitions). Do you understand the implications of this, and are you happy with those implications?	<input type="checkbox"/> Yes <input type="checkbox"/> No No comments
10	Do you think that there is a common understanding between stakeholders of the demand to be restored in GB required by ESRS?	<input type="checkbox"/> Yes <input type="checkbox"/> No No comments
11	Do you see any barriers for Network Operators and Users to deliver the changes proposed to implement the ESRS by December 2026?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>WE believe some of the requirements that are proposed to be applicable retrospectively to every GB Generators (e.g. CC.6.3.5.2, CC.6.3.5.4, CC.7.10, cc.7.11 (and equivalent clauses in ECC)) could not be implemented for every User and further consideration should be given to the proposed changes. Some plants have been in operation for many years and their equipment may not be suitable for the proposed changes without considerable investment (potentially in the region of £m), which would require years for their completion. This could lead to a delay and could take longer than 4 years.</p>
12	Do you believe there are further changes to the network i.e. NETS and/or Distribution Network required to implement ESRS obligations?	<input type="checkbox"/> Yes <input type="checkbox"/> No No comments
13	The Annex (pages 29 – 32) in the Future Networks subgroup report covers 2 scenarios where site supplies are lost up to 72 hours. Which	<input type="checkbox"/> Scenario 1 <input type="checkbox"/> Scenario 2

	of these 2 scenarios is the most realistic? (The full details of these scenarios can be found on pages 29 – 34 of the Future Networks subgroup report in Annex 4)	
14	What are your views on the scope of the parties being impacted by the mandatory changes proposed as part of GC0156?	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>As highlighted in responses 5, 6 and 11. We believe that further work needs to be done before the mandatory requirements for all GB Generators are implemented, especially when it comes to their retrospective applicability. We do not consider the proposed changes to be entirely within the ToR of the Working Group, as it is not clear – in our view – that this Mod should have focused on amending existing requirements for Generators in operation. Therefore, we believe that a separate Mod or working group should be setup with relevant parties involved to ensure the correct impact of such changes are evaluated.</p> <p>We are also unsure that the ToR are currently met by the proposed changes: the first item in the ToR Scope of work, clearly states that “Cost and implementation” should have been considered. However, in the WG report it is stated that the “Communication and Infrastructure” subgroup “had insufficient time to make an assessment of the costs that might be incurred by stakeholders”. We see a shortage on the work to support the proposal and suggest that further work is done on this before retrospective requirements are implemented in the Grid Code</p>
15	The GC0156 proposed solution 72 hrs resilience is expected to be applied retrospectively to existing CUSC parties. Do you agree with this retrospective application and if not, what is your rationale / view about this?	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>We don't believe this could be a blanket requirement applicable to any Generator of any size and age. For instance, with respect to offshore wind turbines, there is a large difference in the range of capabilities depending on how long such machines have been in operation for: newer wind farms may be more suitable due to the use of SST/TIM or similar preventing dry-out solutions for converters; but older turbines may not have such capability. This should be assessed on a project-by-project basis, against existing technology and accounting for cost implications</p>

16	Do you believe that cyber security requirements in accordance with the NIS standard are sufficient and as referenced in the proposed Grid Code drafting (available in Annex 6)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <p>Critical Tools and Facilities are essentially all systems needed for provision of a System Restoration. This means that in addition to the capacity statements of UK NIS (larger than 100MW), the proposed change is additionally requiring (in the Grid Code) that UK NIS must be upheld regardless for almost all systems, as CC6.3.5 implies that all System Restoration must be supported.</p> <p>While we understand the need for Cyber Security the convolution of Grid Code and Cyber Security is concerning, as UK NIS already has enforcement actions and penalties. A power plant must be secured if mis/mal-operation has an adverse impact to the electrical grid, hence the capacity threshold of UK NIS – this is not affected by the addition of System Restoration to the Grid Code. We wonder why this is needed as part of the Grid Code when it is adequately covered in the UK NIS regulation?</p> <p>Moreover, we understand that cyber security, which was not mentioned in the TOR, has been discussed under the Communication and Infrastructure sub-group: we believe that this inclusion is outside the scope of such sub-group and hence beyond the ToR. More clarity on this would have ensured that relevant experts in cyber security could have participated to the Working Group activity.</p>
17	Do you agree that the draft legal text is appropriate and sufficient to implement GC0156? If not please provide your suggestions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <p>Please see our responses above: we don't believe that sufficient consideration and background work has been performed to evaluate the impact that retrospective changes to the Grid Code will have for existing Users.</p>
18	Are there any barriers to new entrants to provide restoration services that are not covered in the GC0156 legal drafting?	No comments
19	Do you believe there should be further assurance activities in addition to those described	No comments

	in the proposed legal text within OC5? If yes, please state the activity and explain why?	
20	Do you think the right requirements have been identified for Network Operators in terms of Network design and operational capability as summarised in the consultation document and annex and as detailed in the proposed legal text in CC/ECC.6.4.6.3b and OC9?	<input type="checkbox"/> Yes <input type="checkbox"/> No No comments, assuming this refers to ECC.6.3.6.2(b) and CC.6.4.5.2(b)
21	Due to comments received from some Workgroup members on Appendix 9 (technical requirements associated with restoration services) of the ECC draft legal text, the ESO has proposed that a separate subgroup should be established under the umbrella of GC0156 to develop a set of technical requirements associated with restoration services for inclusion in the Relevant Electrical Standards which would include appropriate experts from across the industry. Do you believe this is an appropriate way forward if not why?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Yes, we support the creation of a separate subgroup to discuss the requirements in more details and with the involvement of experts from across the industry.
22	Are you aware that Anchor Plants may be expected to carry out a deadline line charge test and remote synchronisation test as described in OC5.7.2.2(h) / OC5.7.2.3(d)? If so, do you have a view on this test?	<input type="checkbox"/> Yes <input type="checkbox"/> No No comments

23	The distributed restart legal text has been drafted on the basis that ESO will lead on the procurement of restoration services. Do you think this should move to DNO led in future? If yes, please explain why	<input type="checkbox"/> Yes <input type="checkbox"/> No No comments
24	The distributed restart legal text has been drafted on the basis that: i) there will be a connection agreement with the DNO that binds an embedded restoration service provider to the Distribution Code and ii) a tripartite agreement that binds the embedded restoration service provider to the relevant parts of the Grid and Distribution Codes. Do you see any difficulties with this proposed contractual arrangement?	<input type="checkbox"/> Yes <input type="checkbox"/> No No comments
25	Do you believe it is appropriate to have a mains independence minimum resilience period of 24 hours as required by the NCER or 72 hours as a general GB standard for existing black start purposes as proposed with the GC0156 solution for Grid Code parties, BM parties, VLPs and restoration service providers? Do you agree with a retrospective application of this and if not, what is your suggestion / views about this?	<input type="checkbox"/> Yes <input type="checkbox"/> No No comments
26	As a stakeholder, are there any implications of the proposed future requirements which are not clear?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Please see our replies above

27	Do you have any views on how the requirements should be implemented into the Grid Code bearing in mind the requirements of the ESRS are not enforceable until 31 December 2026?	<input type="checkbox"/> Yes <input type="checkbox"/> No No comments
28	Do you agree with Ofgem's proposed approach to the DNO ESR re-opener?	<input type="checkbox"/> Yes <input type="checkbox"/> No No comments