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
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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?	Mark the Objectives which you believe each solution better facilitates:	
		Original	☐A ☐B ☐C ☐D ☐E
		Overall, as currently drafted, the original proposal does <u>not</u> better facilitate Applicable Grid Code Objectives (b) and (d) whilst being neutral in terms of (e) and being positive in terms of (a) and (c). The primary reason why it does not better facilitate Applicable Grid Code Objective (b) is that it fails to take into account that it will commercially disadvantage some obligated parties (which is direct contravention of UK Government policy: see, for example, our answer to question 6 below). As such it does not facilitate effective competition in the generation and supply of electricity. The primary reason why it does not better facilitate Applicable Grid Code Objective (d) is that, as noted in our answer to question 7 below, it fails to take into account the statutory requirements on all 'Restoration Service Providers' (as defined, currently, in law) and, in particular, with respect to all 'Significant Grid Users' (as defined, currently, in law).	
2	Do you support the proposed implementation approach?	☐Yes ☒No	
		Whilst in principle the change to the legal text can be introduced within ten working days, this does not reflect the practical time that will be required in order for obligated parties to transition to meet the new (GC0156 proposed) obligations. As we set out to BEIS and Ofgem[1] in the spring and summer of 2021, there are eight significant phases of work that will be required to be successfully undertaken before obligated parties will be in a position to implement any new obligations introduced by ESRS (as now set out here in GC0156). We summarised those eight significant phases in our recent CMP398 proposal[2]: (i) design an on-site solution to that Grid Code approved obligation; (ii) identify costed solutions;	

[1] And later the ESO.
[2] download (nationalgrideso.com)

		(iii) seek and obtain the necessary planning permission(s) and associated other permits etc.; (iv) procure; (v) construct; (vi) commission; and (vii) train the necessary staff (as well as possibly recruit more staff). The 'missing' phase[3] (that we identified in spring/summer 2021) came between (iii) and (iv) above which was namely to contract with the ESO as a Restoration Service Provider. The principle of this 'missing' phase is securing the necessary funding in order to be able to proceed from 'concept' (i-iii) to 'completion' (iv-vii) and remains relevant here – hence why we have raised CMP398 to seek to ensure there is a funding route in place for all GC0156 obligated parties. At that time (spring/summer 2021) we placed great emphasises on the point that obligated parties could only commence the first of the eight phases of significant work (in order to implement the requisite changes) once the Authority had approved the Code changes – it was for this reason that we advocated those code changes being raised, with alacrity, in the summer / early autumn of 2021 and treated as urgent (with a final Authority decision in late 2021 / early 2022) in order to allow obligated parties the maximum possible time to complete the eight phases of significant work ahead of December 2026. It is therefore of deep regret to us that circa 18 months will have been lost (from late 2021 / early 2022 to summer/autumn 2023) before the Authority decision on the Code change is forthcoming. This, in turn, will delay by circa 18 months the commencement of phase (i) (of the eight phases) which is needed to practical implement GC0156. The proposed implementation approach for GC0156 does not currently reflect the need for a transition phase; from when GC0156 is approved and 'implemented' ten working days later into the Grid Code; in order to allow for obligated parties to successfully complete the practical implementation (if that is now possible for December 2026) on the plant and apparatus.
3	Do you have any other comments?	We are mindful that the proposed definitional approach *noted* on page 7 of the consultation document will lead to unnecessary confusion and potentially inadvertent illegal actions going forward.

[3] The whole premise of CMP398 is centred around this phase and thus it did not need to be identified, per se, for that proposal (and so was excluded from the initial list of eight phases for the purposes of CMP398).

		The simplest solution (shown in red text change below) to avoid this confusion and illegality risk is to swap the terms around to namely: i) a ~~GB~~ Restoration Service Provider which would be defined as "A User or a party with a legal or contractual obligation to provide a service contributing to one or several measures of the System Restoration Plan"; ii) a GB Restoration Service Provider which would be defined as "An Anchor Restoration Service Provider or a Top Up Restoration Service Provider This therefore applies the same legal definition of a 'Restoration Service Provider' (as per statute) within the Grid Code. In addition, it is also necessary to ensure that GC0156 addresses all the requirements in terms of Significant Grid Users, something which, currently, it appears not to have considered (let alone addressed).
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	☐Yes ☒No
		Click or tap here to enter text.

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?	☒Yes ☐No Yes. We note the ESO's comments in the recent CMP398 workgroup meeting that a CBA was, in their view, required in order to understand what the cost implications, that arise from GC0156, are likely to be. At the very least the factors that the GC0156 CBA should consider are the following: (i) design an on-site solution to that Grid Code approved obligation; (ii) identify costed solutions; (iii) seek and obtain the necessary planning permission(s) and associated other permits etc.; (iv) procure; (v) construct; (vi) commission;

		(vii) train the necessary staff (as well as possibly recruit more staff); and (viii) the ongoing OPEX[4] to maintain the obligated requirements. These costs, including the associated CAPEX[5], should form part of the GC0156 CBA as the costs only arise, for obligated parties, from GC0156 (and not, for example, from CMP398).
6	Do you believe that parties obligated by GC0156 should have a cost recovery mechanism in place?	☒Yes ☐No The table at the bottom of page 6 / top of page 7 of the consultation document lists all the parties that will, to a greater or lesser extent, be obligated according to the proposed GC0156 legal text. It is an important principle of the GB regulatory framework; and in particular the Licencing regime as governed by Statute; that parties who face such obligations; and especially where that is to be applied, retrospectively, to existing plant; have the ability to recover those costs and not be placed at a commercial disadvantage. Furthermore, we are also mindful of the UK Government policy, when introducing the new 'Electricity System Restoration Standard' [6] (ESRS) in April 2021, which stated that: "*All parties have been supportive of the establishment of a new Electricity System Restoration Standard, so long as it is implemented in a way which does not commercially disadvantage individual parties*." "*In the interim, Ofgem would put in place processes to monitor the implementation of the new Standard to ensure that the ESO remains on track with meeting this provision as part of its licence obligations and that any new services will not commercially disadvantage individual parties*." [emphasis added]

[4] Examples of operating expenses include rent, depreciation, supplies, materials, insurance, repairs and maintenance expenses, utility expenses, rates, staff costs, travel costs, commodities, fuel and overheads.
[5] Also known as capital expenses, capital expenditures can include the purchase of items such as new equipment, machinery, plant, land, buildings, business vehicles, software and intangible assets such as a patent or license.
[6] Introducing a new 'Electricity System Restoration Standard': policy statement - GOV.UK (www.gov.uk)

		Of all the parties listed in the aforementioned table, all <u>except</u> non-contracted CUSC parties have such a funding route available to them (or have the option not to incur the obligation by, for example, not entering into a contract to do so). It was to address this inequitable exception that we raised CMP398 to ensure (like all other GC0156 obligated parties) that non-contracted CUSC parties have such a funding route available to them.
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	☐Yes ☐No
8	Do you agree that all the costs associated with TO/DNO implementation of ESRS should be recovered through their respective price controls? If not, what funding mechanism do you favour?	☒Yes ☐No As we understand it, there is already mandated in law, for network operators, a recovery mechanism route for all reasonable, efficient and proportionate costs that they incur when implementing system restoration measures. We therefore see no need for another funding mechanism to be established.
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?	☐Yes ☐No Whilst we understand the implications of this proposed definition, we are very concerned about the implications that arise from it. Thus, whilst answering positive in the first part of the question we'd answer no to the second part. As we noted during the Workgroup deliberations on this matter, the effect of basing the restoration percentage upon the total demand on the transmission system alone and <u>not</u> the overall whole system[7] will be that at certain times of the year (when demand on the distribution system, such as with low importing GSPs or net exporting GSPs for example, supresses 'total demand' if measured only as transmission demand) that a

[7] That is demand on both transmission <u>and</u> distribution systems.

		significant volume of overall demand on the GB whole system will not be taken into account when looking at the 24 hour target restoration quantum at the time of a total or partial shutdown. By way of illustration, it was pointed out to the Workgroup by a number of DNO representatives that it is increasingly common that there are periods of time in a year (and these are growing both in frequency and duration) where a DNO's total demand, as measured at the transmission system, is at or very near to zero MW. In such a situation then the 24 hour 60% restoration target, and indeed the five days 100% target could potentially be '*met*' at the moment of total or partial shutdown by virtue of there being no (zero MW) total demand (as defined). However, in such a situation there could be many hundreds of thousands of customers without power in the concerned DNO's area and it would be inappropriate; based on a limited (transmission system) 'total demand' definition; to not proceed to take active steps to restore such (distribution based) demand. Therefore, it would be appropriate to consider measuring the 60% and 100% restoration targets based upon total demand on the <u>whole system</u>.
10	Do you think that there is a common understanding between stakeholders of the demand to be restored in GB required by ESRS?	☐Yes ☒No Whilst we think there is a common understanding between GC0156 Workgroup participants (and, hopefully, those who have engaged in this consultation) we are not certain that this common understanding, of the demand to be restored, is shared between stakeholders beyond that.
11	Do you see any barriers for Network Operators and Users to deliver the changes proposed to implement the ESRS by December 2026?	☒Yes ☐No As we set out in our answer to Question 2 above, there are multiple phases to be undertaken, such as: (i) design an on-site solution to that Grid Code approved obligation; (ii) identify costed solutions;

		(iii) seek and obtain the necessary planning permission(s) and associated other permits etc.; (iv) procure; (v) construct; (vi) commission; and (vii) train the necessary staff (as well as possibly recruit more staff). Each of the above items, on their own (as well as collectively) is a barrier to the successful deliver (by Networks and Users) of the significant effort needed to be undertaken in order to meet the December 2026. Furthermore, many of these barriers are out with the direct or indirect control of the obligated party. For example, in terms of phase (iii), these are in the purview of external bodies (such as local councils and environmental bodies) who may be operating to different timescale to those needed, by the GC0156 obligated parties, in order to meet the December 2026 date. Another example concerns the procurement phase (iv) where multiple GB obligated parties will, at broadly the same time, be seeking, potentially from a small pool of providers / staff, a very specialist service / capability. Accordingly, it is distinctly possible (probable?) that these barriers will impede the overall delivery, by all parties collectively, of what's needed by the December 2026 deadline (which was why, in the spring/summer of 2021, we flagged these timing / delivery concerns).
12	Do you believe there are further changes to the network i.e. NETS and/or Distribution Network required to implement ESRS obligations?	☐Yes ☐No As an operator of assets that generate / provide power we are unable to comment in detail; from a position of operational knowledge or experience; on network specific aspects that may, or may not, be required to be implemented as a result of the GC0156 obligations.
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 of these 2 scenarios is the	☐Scenario 1 ☒Scenario 2 In our view it is very clear that in the event of a Total Shutdown that Scenario 2 will be realistic (and Scenario 1 will not be realistic).

	most realistic? (The full details of these scenarios can be found on pages 29 – 34 of the Future Networks subgroup report in Annex 4)	Whilst it is dependent upon the depth of the geographic (and electrical) area affected in a Partial Shutdown, it seems highly likely that Scenario 2 will also be realistic (and Scenario 1 less realistic) in a Partial Shutdown. Furthermore, (as with question 12 above[8]) in considering the answers from consultation respondents to this question it is important that the Workgroup takes into consideration whether the respondent is an operator (or not) of plant that would be affected by the Scenario 1 / Scenario 2 situations. For the avoidance of doubt, we are clearly a major GB (and non-GB) operator of generation plant that would be affected by the Scenario 1 / Scenario 2 situations.
14	What are your views on the scope of the parties being impacted by the mandatory changes proposed as part of GC0156?	☐Yes ☐No We have considered the analysis of the parties set out on pages 10-12 of the consultation document. Accordingly, in terms of non-network parties, it is our understanding that the proposed GC0156 obligations will be applied to <u>all</u> new <u>and</u> existing: (a) CUSC contracted parties[9], including generators, storage, pump storage and interconnectors; and (b) All BM Participants, including generators, Suppliers, Virtual Lead Parties (VLPs) and Aggregators. For the avoidance of doubt, as neither Anchor or Top Up is mandatory (it being a voluntary service that a party can choose, if they wish, to participate in) those providers are not relevant in terms of this question.
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?	☐Yes ☒No No, we do not agree with the proposed retrospective application to all plant irrespective of its technology type, fuel, size or age. Some of our generation plant was connected to the transmission system over 90 years ago and as the

[8] That question being about network aspects which, in an equal and opposite way to this question 13, only certain respondents to the consultation have the operational knowledge and expertise to answer.
[9] With, for example, a BCA, BEGA or BELLA.

		costing analysis gathered by the ESO[10] (and, bizarrely[11], not included in the consultation) shows some of these assets (according to that ESO analysis) are the most impacted, in terms of cost, whereas the volume of associated generation is often very small. In this regard we note that the ESO's proposed approach could well be discriminatory in requiring such plant to meet the 72 hours (non-communications) resilience when similar (or indeed larger) sized plant elsewhere in GB are not so obligated.
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)?	☒Yes ☐No
17	Do you agree that the draft legal text is appropriate and sufficient to implement GC0156? If not please provide your suggestions?	☐Yes ☐No
18	Are there any barriers to new entrants to provide restoration services that are not covered in the GC0156 legal drafting?	This question appears to centre around the comments at the bottom of page 12 / top of page 13 and seems to suppose that requiring parties that operate in the market to comply with the same obligations amounts to a barrier and not, in fact, a level playing field. According to the ESO it is a necessity, from December 2026 onwards, to place obligations on both new and existing electrical energy providers in order to meet the 24-hour (60%) and five day (100%) restoration targets. Looking ahead, to December 2026 and, more importantly, beyond, it is likely that a significant, and growing, proportion of the available electrical energy will be provided by parties that are today (in 2022) considered to be 'new entrants' but who will, by that future date, not be so.

[10] Via a request issued from BEIS.
[11] As the data summation, from some 200 of 600 sites, was anonymised there was nothing commercially confidential about it – we have seen the ESO publish similar information (without recourse to the 'commercial confidentiality' approach) and find it bizarre they did not do so in this case to enable respondents to this consultation to be able to fully respond to this important point.

		There is a danger, in the medium to long term, that if these 'new entrants' (in 2022) are exempt from the GC0156 obligations that this will impede the meeting of the ESRS obligations from 2026 and that, over time this detriment will grow. Given the above, the relevant point to consider is: '*if we are to embark upon this obligation (in order to meet and maintain the ESRS in the future) is it better we do so now, when there are few parties / assets concerned, so that new assets are complaint when they come along or do we ignore them (now) until such time as they become impossible to ignore (but the cost and impact upon them of retrospectively changing is substantially more than if they had been designed and operated from the start of their operational life in order to meet the ESRS needs)*'?
19	Do you believe there should be further assurance activities in addition to those described in the proposed legal text within OC5? If yes, please state the activity and explain why?	It is very important that the assurance activities demonstrate compliance by all parties including, especially, the ESO. It is not clear from the proposed legal text what the assurance activities; to demonstrate that the ESO itself is able to undertake what it itself is obliged to do to meet the GC0156 (and ESRS); are.
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?	☐Yes ☐No As an operator of assets that generate / provide power we are unable to comment in detail; from a position of operational knowledge or experience; on network specific aspects that may, or may not, be required to be implemented as a result of the GC0156 obligations
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	☐Yes ☐No We agree that a separate group, involving appropriate experts from across the industry, should be established to develop a set of technical requirements associated with restoration services: however, in our view this single (GB) set of technical requirements should be included within the Grid Code and subject to open governance and not be included in the Relevant Electrical Standards.

Commented [CA1]: Note: this should refer to CC.6.4.5.2 and ECC.6.4.6.2. to match the re-drafted current version of the CC and ECC legal text

	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?	
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?	☒Yes ☐No It is a necessity as we understand it for this capability be provided by Anchor Plant if any Top-Up Provider i perform their (subsequent) contracted service and therefore such testing would seem to be a pre-requisite for contracted Anchor Plant.
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	☐Yes ☐No It is very important, from a providers' perspective, that there is a single party (a) to whom they are contracted to, and (b) from whom they take instruction(s). There is a serious concern, as we understand it, expressed at the Workgroup that a provider might be subject to multiple instructions from either the ESO or DNO which brings with it the risk of those instructions being, from the point of view of the provider, in conflict with each other (as in the provider cannot comply with both instructions – one from the ESO and one from the DNO – at the same time).
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	☐Yes ☐No As we noted in our answer to question 23 above, it is very important, from a providers' perspective, that there is a single party (a) to whom they are contracted to, and (b) from whom they take instruction(s). There is a serious concern, as we understand it, expressed at the Workgroup that a provider might be subject to multiple instructions from either the ESO or DNO which brings with it the risk of those instructions

Commented [CA2]: Note: Appendix 9 text was initially drafted as part of ECC draft legal text within GC0156, however it was later suggested that it should be moved into the RES.

Therefore Appendix 9 is not in the published draft legal text.

The purpose of this question is to establish whether you agree with this approach?

	and Distribution Codes. Do you see any difficulties with this proposed contractual arrangement?	being, from the point of view of the provider, in conflict with each other (as in the provider cannot comply with both instructions – one from the ESO and one from the DNO – at the same time).
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?	☐Yes ☐No As we have set out in our answer to questions 15 and 18 above, we do not believe that retrospective application (especially in the absence of any cost recovery mechanism) is appropriate as it clearly breaches UK Government policy, when introducing the new 'Electricity System Restoration Standard' [12] (ESRS) in April 2021, which stated that: "*All parties have been supportive of the establishment of a new Electricity System Restoration Standard, so long as it is implemented in a way which does not commercially disadvantage individual parties*." "*In the interim, Ofgem would put in place processes to monitor the implementation of the new Standard to ensure that the ESO remains on track with meeting this provision as part of its licence obligations and that any new services will not commercially disadvantage individual parties*." [emphasis added]
26	As a stakeholder, are there any implications of the proposed future requirements which are not clear?	☒Yes ☐No Yes, for the reasons the ESO and the Workgroup noted, in terms of question 21 above: absent seeing the details of the (as yet to be developed) set of technical requirements the only logical conclusion is that the proposed future requirements are not clear at this time.
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?	☒Yes ☐No As we set out in our response to question 2 ('implementation approach') above there is a need for a transition period (to reflect the undertaking of the eight phases of significant works listed) as well as a need to reflect what happens if it is not technically possible to

[12] Introducing a new 'Electricity System Restoration Standard': policy statement - GOV.UK (www.gov.uk)

		retrospectively change a plant which is, in some cases, over 90 years old to meet the new requirements.
28	Do you agree with Ofgem's proposed approach to the DNO ESR re-opener?	☐Yes ☐No As an operator of assets that generate / provide power we are unable to comment in detail; from a position of operational knowledge or experience; on network specific aspects that may, or may not, be required to be implemented as a result of the GC0156 obligations. That having been said, we welcome Ofgem's acceptance as regards the need for a cost recovery mechanism for GC0156 obligated parties which accords with our view as, for example, we set out in our answer to question 6 above.