

Workgroup Consultation Response Proforma**GC0147: Last resort disconnection of Embedded Generation – enduring solution**

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 **27 November 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 **Nisar Ahmed**, Nisar.Ahmed@nationalgrideso.com or grid.code@nationalgrideso.com

Respondent details	Please enter your details
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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 regarding the Workgroup Consultation in the right-hand side of the table below, including your rationale.

Standard Workgroup Consultation questions		
1	Do you believe that the GC0147 Original Proposal better facilitates the Applicable Grid Code Objectives?	<p>A usable solution in a last resort emergency situation lessens the risk of any impact on security of supply during very low demand periods and has a clear positive impact therefore on objective (c).</p> <p>If compensation is allowed there is potentially a small positive impact on (b) in facilitating competition but since an emergency instruction is a last resort to be used only on the exhaustion of all commercial alternatives (and it is hoped that it will never be used), so the impact to users will be very small.</p> <p>There is a greater negative impact on (d) if compensation is included as by requiring further arrangements to be codified in the CUSC and DCUSA this is a less efficient solution when there are much simpler commercial mechanisms for compensation that it would be preferable to use.</p>
2	Do you support the proposed implementation approach?	Yes
3	Do you have any other comments?	No
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	Yes – compensation has been the key question debated by the workgroup so to frame this debate and allow for submission of both options to Ofgem we would like to raise an alternative that includes compensation, while the original proposal will exclude it.
Specific GC0147 Workgroup Consultation questions		
5	How can it be ensured that all reasonable commercial alternatives have been pursued first before emergency instructions are used as a last resort?	The ESO will always exhaust viable commercial alternatives first as they are easier to instruct and with a more assured result. It would be difficult to put an absolute test into the code without rendering emergency instructions in this situation unuseable as they could require the ESO to prove that no commercial alternatives remained which would be difficult to demonstrate had been fulfilled in the time available. The ESO is committed to acting in line with the spirit of the modification and, as is the case with demand control which could in theory be used to manage non-emergency system conditions,

		would expect to be subject to an appropriate level of scrutiny over its handling of events of this type.
6	Are there any further alternatives to emergency disconnection that have not been considered?	Setting up a replacement to the ODFM commercial service that was successfully employed to avoid a last resort situation in 2020 has been discussed and would significantly reduce the likelihood for the ESO to use emergency instructions for embedded generation control. However, it would be the ESO's long-term preference to facilitate greater control of generators through increased participation by wider BM access. BM participants are already compensated for any emergency actions through arrangements detailed in the CUSC, Grid Code and BSC, none of which can apply directly to non-BM embedded generators.
7	In terms of possible safety implications of disconnection, are there any specific risks in relation to this solution? What is the additional risk?	<p>In terms of the safety implications of a disconnection, any plant can already become non-operational at any moment for a wide variety of reasons. If there are serious safety concerns these exist now for such plant. It is likely that the incidence of events driven by internal reasons would be greater than the number of times that a disconnection due to a last resort situation could be anticipated. DNO standard connection terms also allow for deenergisation of a point of connection for a range of reasons.</p> <p>While there is a small additional risk of disconnection in the unlikely event that an emergency instruction is used, the priority order included in the solution should ensure that any generation forming part of an inflexible industrial process or with safety concerns would be at the bottom of such a list where disconnection is even less likely.</p>
8	How should embedded generators that are not participants in the balancing mechanism be compensated for emergency control actions including disconnection? Is it your opinion that they	<p>We don't believe that compensation is compatible with the concept of a last resort emergency action and it is not payable for the equivalent actions in terms of demand control.</p> <p>Under the Clean Energy Package article 13.7 compensation is a requirement for parties with firm access agreements and is therefore not applicable to generators that are not part of the BM (and therefore do not pay for access to the market which</p>

	should be compensated?	<p>would be expected to compensate them), and which hold connection agreements with the DNOs that are subject to de-energisation of their connection points for a range of conditions as set out in the Standard Connection Terms.</p> <p>There are better and simpler commercial mechanisms for compensation available either by participating in the BM or in any commercial service that is developed as a replacement to ODFM.</p>
9	What mechanism could compensation be achieved by?	<p>This would be complicated as the ESO has no means of directly compensating embedded generators with whom they have no contractual relationship.</p> <p>In outline it could be achieved by compensating DNOs through the CUSC on the basis of the volume of MW taken off perhaps at a price determined by the final or average of the last several commercial actions taken by the ESO. An arrangement could then be developed in the DCUSA through which the DNOs could pass this on to the affected embedded generators.</p>
10	Would modifications to any other GB Codes be required? [for example, imbalance and cash-out arrangements in the BSC, arrangements with DNOs, suppliers or embedded generators in the CUSC and DCUSA)	<p>Yes – to the CUSC and DCUSA.</p> <p>Note that in a very low demand situation where embedded generators being disconnected caused suppliers to be subject to a shortfall in MW, the imbalance price would probably be negative actually resulting in a payment to any supplier so affected.</p>
11	Is compensation a requirement of the Clean Energy Package legislation? Please expand where possible on why or why not.	<p>No. As detailed in the answer to question 8 and the ESO's input to the consultation document we don't believe that this is a requirement for generators that do not hold firm access agreements. It was also not the intent of the drafting of the Clean Energy Package which was intended to deal with non-emergency situations and to prevent the use of non-market based redispatching without compensation in normal situations - which could stifle the growth of renewable generation.</p>
Form/Implementation of instructions		

12	What form should an instruction take? (eg % or MW; registered capacity or active power output)	The easiest form of an instruction will be for a reduction in active power expressed in MW but with some flexibility for the DNO to implement this in the best way possible dependent on the time and options available to them.
13	What priority order should generators reasonably be disconnected in? Have a link in the report to the guidance note on priority order.	As in the legal text forming part of the solution: <ul style="list-style-type: none"> - Non-synchronous generation - Synchronous generation - Generation within an industrial complex This order is on the basis that during a low demand period it is vital to the ESO to maintain system inertia inherent in synchronous generation. This situation may however change if other means of system support (such as through the stability pathfinder or VSM) are developed. While a code change to adjust this order would be a future requirement, the legal text has been written with some flexibility to allow for unknown future developments.
14	What arrangements are necessary for restoration?	This should be on instruction from the DNO which in turn will be on instruction from the ESO and cancellation of the Emergency Instruction.
15	How much of the detail of how an instruction should be implemented needs to be codified rather than in a guidance document?	The balance in the draft legal text is about right. There needs to be some flexibility to allow the ESO and DNO Control Room staff to act to avert disruption but it was recognised that stakeholders wanted more detail than there had been time to provide in the temporary GC0143 solution, therefore we have added additional detail into the legal text
Legal Text		
16	Do you agree with the proposed Grid Code legal text? Please provide the rationale for your response and any specific comments.	Yes – other than the points made above leading to the need to raise an alternative including compensation arrangements while these are not included in the original. While preparing this response we have also considered what further reassurance could be provided to ensure that a last resort event as described would be very rare. It could be more acceptable to make the solution subject to a reopener requiring compensation arrangements to be reviewed if last resort actions were taken more than twice in any year.

