Grid Code Administrator Consultation Response Proforma

GC0143: 'Last resort disconnection of Embedded Generation'

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

Please send your responses by **17:00** on **5 May 2020** to grid.code@nationalgrideso.com. Please note that any responses received after the deadline or sent to a different email address may not be included within the Final Modification Report to the Authority.

Any queries on the content of the consultation should be addressed to Christine Brown at christine.brown1@nationalgrideso.com

These responses will be included within the Draft Grid Code Modification Report to the Grid Code Panel and within the Final Grid Code Modification Report to the Authority.

Respondent:	*Jack Presley Abbott; jack.presleyabbott@centrica.com; 07557 615587*
Company Name:	*Centrica*
Please express your views regarding the Code Administrator Consultation, including rationale. **(Please include any issues, suggestions or queries)**	*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.

Code Administrator Consultation questions

Q	Question	Response
1	**Do you believe GC0143 better facilitates the Grid Code Objectives? Please include your reasoning.**	We believe that this Grid Code modification in its current format does not better facilitate objectives (b) and (c). This modification results in the curtailment of distribution-connected generation without compensation, which does not facilitate effective competition of all generation types across the whole system. We believe that if this modification is amended (or an accompanying modification is raised) to ensure compensation for curtailed embedded generators, then we believe that objectives (b) and (c) will be better facilitated. This code modification will better meet objectives (a), (d) and (e) of the Grid Code as it will clarify arrangements and will better enable the security of the system.

2	**Do you support the proposed implementation approach?**	The ESO needs to have all the tools to manage the unprecedentedly low forecasted summer demand driven by the Covid-19 pandemic. We are responding strictly on the understanding that the proposal is explicitly only for emergencies (i.e. after all other routes have been exhausted by the ESO). We welcome that the proposal is time limited. However, it would be unreasonable to introduce this action without simultaneously providing a fair and reasonable mechanism for compensating affected assets. Curtailment without compensation negatively impacts commercial contracts already entered into and will increase the risk profile (and hence cost of capital) on embedded generation projects. The ESO needs to consider an interim compensation methodology via the appropriate industry codes for the curtailment of embedded generation. If this cannot be done in advance of the first May Bank Holiday, the ESO must commit to developing this methodology in a more thorough review in May after the first Bank Holiday. Unless and until a mechanism for compensation is incorporated, the 'sunset clause' should be absolute (i.e. not capable of extension) and set at just a few days or small number of weeks rather than several months as currently proposed. We are concerned with the speed that this modification is being introduced. A more thorough discussion (with workgroups) should be carried out after the 1st May Bank Holiday. Therefore, the sunset clause should be set at the end of May at the latest. This will enable this modification to be properly scrutinised, with the development of a methodology to appropriately compensate affected embedded generators. For example, we believe that compensation in the interim could be set at the loss of revenue for the embedded generator (determined through evidence ex post) or it could be set at the level of the most expensive commercial balancing action. Market participants require clarity from the ESO and DNOs regarding the decision process for curtailing embedded generators. Suppliers, aggregators and customers need clarity on how the embedded generators to curtail would be chosen and how this curtailment would be communicated and carried out.

Q	Question	Response
		The DNOs and ESO need to provide clear guidance to embedded generators on these matters as soon as possible. We have noted some areas of consideration for the DNOs on this matter: • How will DNOs ensure that sensitive sites are not affected? For example, CHPs on hospital and other essential infrastructure sites should not be curtailed. This is even more important during a pandemic. • Some embedded generators provide resilience for customers and provide thermal energy as well as electrical energy, through cogeneration. DNOs and the ESO need to consider the impact of curtailing the electrical output of embedded generators and the resultant loss of infrastructure resilience in either an electrical or thermal capacity. • Some generation assets may need a managed shutdown. This needs to be carefully considered by DNOs. Shutdowns that are not appropriately managed could lead to maintenance costs. An example would be a generating asset that is linked to a waste heat steam boiler plant; this asset would require a level of managed soft shutdown for safety and maintenance reason. • This modification must not lead to additional cost for generators connections and use of system. We would therefore expect simple implementation, for example by making use of existing provisions in G99.

3	**Do you have any other comments in relation to GC0143?**	There must also be an associated methodology to ensure that Suppliers positions are appropriately corrected, if embedded generators are curtailed due to emergency instructions from the ESO. We would suggest this is urgently progressed with the development of compensation for embedded generators. We expect this will need to be addressed in the Grid Code and in the BSC. The ESO must commit to procuring and using the new 'Optional Downward Flexibility Management' service (ODFM) service to its full extent, to ensure that the emergency instructions are only required after all possible commercial options are exhausted. Therefore, especially as the introduction of the ODFM service was not subject to industry consultation, the ESO must engage further with providers to assess whether the parameters could be adjusted to maximise the number of providers of this commercial service. For example, by introducing an Availability fee (even at the day-ahead stage, as per Optional Fast Reserve) in to the ODFM product, we believe this could bring forward a greater number of participants. Further changes that could be made to the ODFM service include changes to the product duration, removing the prohibition of assets operating under and Active Network Management (ANM) and allowing aggregation in a wider geographical area than GSP. We believe the latter two parameters have not been appropriately justified and appear arbitrary. As the system decarbonises and decentralises, summers with lower transmission demand will become an enduring operability challenge for the ESO to manage. Therefore, it is imperative that a long-term solution is delivered (which the ESO acknowledges is needed) on emergency instructions that provides a level playing field between transmission and distribution connected assets. This workstream should commence this summer and endeavour to deliver an enduring solution in time for next summer. More broadly, this demonstrates the difference in the arrangements for distribution and transmission-connected assets. Another example is the difference in financial firmness of connections between distribution and transmission connected assets; transmission-connected assets are able to connect to the system

Q	Question	Response
		ahead of network reinforcement (via the ‘Connect and manage’ scheme) and are appropriately compensated if curtailed due to network constraints. On the other hand, if assets wish to connect to the distribution network in a constrained area, this is possible via an ‘Active Network Management’ scheme, but such an asset is required to be curtailed without compensation for an unknown duration of the year. This increases the cost of capital for distribution-connected assets compared to transmission-connected assets, leading to an unlevel playing field.