

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?	Yes - but it falls short in explicitly taking into account safety and environmental impacts of disconnection. One of the objectives of the proposal is to take into account safety and environmental issues associated with disconnection and these issues are not explicitly covered in the priority order for disconnection. The environmental issues associated with these proposals are not questioned in this feedback form whereas safety related matters have been included in the question set. The omission of the environment from this proposal needs to be addressed.
2	Do you support the proposed implementation approach?	<p>In principle but the environmental and safety impacts of disconnection need to be explicitly contained with the proposal. NRW would expect that those generators that could lead to increased environmental impact or environmental risk should be explicitly covered in the priority order – under priority 3.</p> <p>These types of synchronous generators include landfills Anaerobic digestion plants and some energy from waste plants. For example, at landfill the generation of electricity from combustion of landfill gas is the principle means of controlling landfill gases Disconnection from the grid would mean that no electricity could be exported or imported to the landfill. All sites have back-up flares to combust landfill gas in the event of the engines being turned off. However, these flares also require electricity from the grid to operate. The potential impact of disconnection from the grid is that landfill operators would be unable to extract or combust landfill gas.</p>
3	Do you have any other comments?	Yes – The proposal only considers disconnection and it could venture into reconnection and the order that capacity is brought back on – the two scenarios are related.
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	Yes

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?	
6	Are there any further alternatives to emergency disconnection that have not been considered?	
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>The environmental and safety impact of disconnecting landfill gas engines or gas engines associated with landfills and anaerobic digestion (AD) plant could lead, either directly or indirectly, to</p> <ul style="list-style-type: none"> • The sub-surface migration of landfill gas to nearby receptors, and the risk to human health from fire and explosion • the venting of landfill and other gases which in turn could lead to odour complaints • an increase in leachate levels inside the landfill and a consequential risk of ground water pollution • the release of greenhouse gases as well as a waste of energy resources. <p>On that basis NRW asks that those sites that could lead to increased environmental impact or risk on their disconnection be <u>explicitly</u> included in category 3 in the table in OC6B.6.1(d).</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 should be compensated?	

9	What mechanism could compensation be achieved by?	
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)	
11	Is compensation a requirement of the Clean Energy Package legislation? Please expand where possible on why or why not.	
Form/Implementation of instructions		
12	What form should an instruction take? (eg % or MW; registered capacity or active power output)	
13	What priority order should generators reasonably be disconnected in? Have a link in the report to the guidance note on priority order.	<p>The order looks reasonable providing that the safety and environmental considerations are explicitly included in the order and those with the potential for significant environmental impact – such as</p> <ul style="list-style-type: none"> • landfill gas management at landfill sites (closed & operational), • anaerobic digestion of waste (AD), • anaerobic digestion of wastewater treatment sludge and; • Energy from Waste plants that generate electricity from renewable energy sources <p>should be included in priority 3 in the table in OC6B.6.1(d).</p>
14	What arrangements are necessary for restoration?	When restoration is considered the reverse priority should be applied in that priority 4 should be the first plant back on line then 3 then 2 etc.
15	How much of the detail of how an instruction should be implemented	

	needs to be codified rather than in a guidance document?	
Legal Text		
16	Do you agree with the proposed Grid Code legal text? Please provide the rationale for your response and any specific comments.	