

**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](mailto: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](mailto:Nisar.Ahmed@nationalgrideso.com) or [grid.code@nationalgrideso.com](mailto:grid.code@nationalgrideso.com)

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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?	Not on its own. The problem is that this mod addresses the need for wording in the Grid Code, but by being a partial solution this could have a negative impact on competition between impacted parties (some are interrupted more than others), making it negative against objective b.
2	Do you support the proposed implementation approach?	<p>No – this needs to be an end to end process and should only be approved when appropriate arrangements are established by the DNOs via the DCUSA as well.</p> <p>We are disappointed that National Grid has not raised a DCUSA change to define the process that the DNOs will follow to implement any instruction received by the ESO. Who do they call, how do they act in a non-discriminatory manner, how do they communicate to gencos (to go off and come back), where is the transparent communication to the market, etc.</p> <p>Coming up with half a solution addresses none of the issues that the FGG raised in relation to GC0143 over the summer. We would urge NGESO to help progress formalising a whole process, not just wash their hands at the point they instruct DNOs. We think a failure to address the whole process means that NGESO has no assurance that the DNOs have processes to make sure, for example, not NBM plant providing ancillary services is not interrupted.</p> <p>FGG also believes that a CUSC mod is needed to cover the way impacted parties are compensated. Again it is disappointing that NGESO has not developed a whole solution to this issue. How payments get back to interrupted generators needs more consideration, but however it is to be done does need to be codified.</p>
3	Do you have any other comments?	This change is the equivalent of constraining off a BMU (say wind) because the demand is too low. It is therefore vital that there is compensation for the impacted gencos in the same way as if they were BMUs being constrained off, despite having the same effect on the system. If customers are

		<p>disconnected they are also compensated. With no compensation the mod would look unduly discriminatory, and we do not believe that an option with no compensation is necessary or desirable.</p> <p>with no information on the costs of the actions there is no way to judge the economic consequences of such actions. We note that NGESO has been talking about a further ODFM style product, but as yet nothing has come forward. So until there is an easy way to offer generation reduction an administered compensation price is required. We would assume this would be paid to the DNOs who can pass onto the impacted sites. This payment must be similar to the payments to constrained off plant (which we assume would have been enacted first) and remuneration received in a timely manner.</p> <p>It is disappointing that a new ODFM product is also not being developed with the market to try to make available a robust commercial services. NGESO seems more focussed on a route to cut parties off than a focus on developing new services. FGG would welcome an early consultation on any new service.</p>
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	<p>No, on the basis that NGESO has assured us they will put to Ofgem a change that includes compensation.</p> <p>FGG believe that the argument put forward by NGESO against compensation are incorrect. While an embedded generator may not contractually have TEC, that is because most of the time, most embedded generators do not use the transmission network. An embedded plant may be located where their output is all being used locally in the event envisaged, but they are still disconnected to help the rest of the system users. This unlikely to be a zero cost action and should be compensated.</p> <p>It is unduly discriminatory to pay off some generators, to pay interrupted customers, but not to pay a class of embedded generators. In the circumstances envisaged the point of connection is not relevant, the commercial impact is what should be considered. This is irrelevant of any EU laws and regulations.</p>

		<p>We would ask the workgroup considers an appropriate way to construct such a compensation value/price. FGG believes that consideration should be given to using a price derived from other accepted actions to reduce generation. This could be BM actions or the new ODFM service, or a combination of both. We welcome the consideration the group has already given to this, but a firm proposal needs to be raised as a CUSC mod before this change is approved.</p> <p>In principle FGG favours economic solutions, and as noted in this response are happy to work with NGESO to devise a better ODFM product, making better use of the flexibility in the market.</p>
<b>Specific GC0147 Workgroup Consultation questions</b>		
5	How can it be ensured that all reasonable commercial alternatives have been pursued first before emergency instructions are used as a last resort?	<p>NGESO will have to define a long-term product that looks like ODFM and ensure that product, along with all BM actions (and any demand turn up) have been taken before command and control actions are instigated.</p> <p>It is then important that if DSOs have commercial flexibility open to them they also take those commercial services first before command and control comes in. We note DCP317 is trying to encourage flexibility service use before disconnection of customers via smart meters and all DNOs are also developing flexibility markets. So once the ESO has used all of its commercial services, the DNOs must use theirs before calling mandatory interruptions. This needs to be codified in the DCUSA.</p> <p>After any interruption of embedded gencos, there should be an audit, with public reporting, to ensure all ESO and DSO actions were taken before interruption. This will also help inform the services that the ESO and DSOs are procuring, allowing for adjustment in the need for such services, in the same way GSR027: “Review of the NETS SQSS Criteria for Frequency Control that drive reserve, response and inertia holding on the GB electricity system” is checking reserve levels, downward flexibility services may also need expanding.</p> <p>It is increasingly clear that the market needs to value flexibility and develop flexible services, so</p>

		NGESO should commit to bring forward new proposals on downward flexibility services quickly. It will be a market failure if this mod ever has to be used.
6	Are there any further alternatives to emergency disconnection that have not been considered?	<p>As noted above, their needs to be more focus on commercial solutions to meet future flexibility requirements.</p> <p>It would also have been helpful if NGESO had developed a new ODFM style product in parallel with this modification. They seem to be in more of a rush to put in command options than commercial solutions. FGG would be happy to engage with NGESO over this, but it should not be left to the last minute.</p> <p>It is not explicit in this mod, and we are not convinced the Grid Code is the place to put it, but ALL commercial actions need to be taken by the ESO and the DNOs before there are disconnections. Whether there can be an instruction first to the DNOs (or is it the wider warning?) to take commercial actions at their disposal as well needs to be addressed somewhere. A change to the CUSC/BSC may also be required to clarify if the associated cost is born via cash-out and/or BSUoS, or not.</p>
7	In terms of possible safety implications of disconnection, are there any specific risks in relation to this solution? What is the additional risk?	
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?	See answer 4.

9	What mechanism could compensation be achieved by?	<p>The ESO can pay DNOs under the CUSC. The DNOs should know which sites have been interrupted and can credit the sites directly. They have full site lists, and having active contact details will help with the efficiency of the interruption and then allow for quick payment.</p> <p>It may take a longer time if the DNOs pay the suppliers. DNOs will know the supplier at the impacted supply point, as they will know this for billing use of system charges. Assuming all commercial actions have been taken, there should not be a huge number of sites, and the events should be rare, so a manual process may be the economic solution.</p> <p>Alternately, the ESO can be given a list of impacted sites and contacts and pay them directly. This would be FGGs preferred option as these actions should be infrequent and an ad hoc payment run to a few sites (given all commercial actions have been taken) should not be onerous.</p> <p>Assuming all commercial actions are taken, there is likely to be a small number sites impacted, so a manual process may be the most economic solution.</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>This change can only be implemented when a whole solution is defined. As we noted in response to GC143, it was incredibly unclear how this works in practice. The process needs to be subject to a DCUSA change so that the ALL the links in the delivery chain can be fully assessed and robustly addressed. It also needs a CUSC change so that the impacted parties can be compensated and arguably a BSC change to put the impacted volume into cash-out.</p> <p>If the ESO is concerned that this is an issue going forward, a DCUSA change would also be an opportunity to review and clarify the operation of the emergency rights. In particular, the transparency of actions to the wider market.</p> <p>There are a wide range of issues that the modification does not cover: How do the DNOs chose who to interrupt?</p>

		<p>Should they annually review notices and contacts for a more managed excise?</p> <p>Will there be a priority list as there is for customers?</p> <p>What is the process for ensure non-discrimination – the same sites are not called each time – review scripts?</p> <p>How does the DNO know not to call a plant if it is providing ancillary services to NGESO?</p> <p>What are the communications routes – to both call of and restore?</p> <p>How does the market know what the DNOs have instructed commercially, and then emergency disconnection?</p> <p>What are the DSOs doing to have their own OFM equivalent service?</p> <p>How will compensation be paid?</p>
11	<p>Is compensation a requirement of the Clean Energy Package legislation? Please expand where possible on why or why not.</p>	<p>As well as the points made above, FGG believe that the CEP principle was to compensate parties who are adversely impacted when an emergency arises. There should be no compensation to parties with interruptible connections (TO or DNO), but the point of connection is not relevant.</p> <p>FGG has long told NGESO the BEGA is not an appropriate way to link all embedded generators into the BM. When first envisaged, these agreements were for larger plants that caused exports and therefore did need TEC. The vast majority of the embedded generators buying a connection pay the DNO to get any associated TEC from the TO. Note where this is required the generator pays for this TEC though getting no formal right to use it. In reality the DNO's "TEC" is a shared ability of all the genos behind that connection to use their DNO rights to the TO network. So while not explicit, the rights are bought when required.</p> <p>We note the debate about "redispatch", but we would be surprised if that when this was discussed with Ofgem and BEIS the events in this mod were considered. If any generator received a message to stop running and then restart, that can be defined as a "despatch" instruction. The wording recognises the impact on parties not active in the market, so the wording could never have envisaged a "despatch" instruction of the type given to a BMU or ancillary</p>



		services provider. This could be clarified in a communications protocol under the DCUSA.
<b>Form/Implementation of instructions</b>		
12	What form should an instruction take? (eg % or MW; registered capacity or active power output)	Whichever the DNOs believe they can most accurately deliver.
13	What priority order should generators reasonably be disconnected in? Have a link in the report to the guidance note on priority order.	<p>FGG wants to see a process that is fair, in that if say only one site is taken off in one event it is not taken in the next event. We appreciate that there will be a tendency for DNOs to use larger, reliable responders first, but the principle of DSOs behaving in a non-discriminatory manner is important.</p> <p>The report suggests that a review of the current scripts used by DNOs may be a sensible action as part of a formalising the processes more clearly.</p>
14	What arrangements are necessary for restoration?	<p>There are two issues that need consideration:</p> <ol style="list-style-type: none"> <li>1. DNO to generator communications; and</li> <li>2. Wider market transparency.</li> </ol> <p>We feel the first needs addressing under the DCUSA. The second could involve the DNO giving information to the ESO who can then publish it on the appropriate industry platform (BMRS).</p>
15	How much of the detail of how an instruction should be implemented needs to be codified rather than in a guidance document?	FGG does not object to guidance, but the requirement to make it easy to find, be provided to customers, consulted on when changed, etc. should be codified.
<b>Legal Text</b>		
16	Do you agree with the proposed Grid Code legal text? Please provide the rationale for your response and any specific comments.	<p>FGG would like to see added to the text, possibly under OC6B.6.1, that in carrying out the instruction the DNO shall follow the processes set out in the DCUSA, ideally reference where. This will allow any embedded generator reading this to track to the details in the DCUSA.</p> <p>As noted, we believe this mod should only be approved once appropriate changes to the other codes (DUCSA, CUSC and BSC) and associated guidance has been developed.</p>