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Grid Code modification GC0143: Last resort disconnection of Embedded Generation – review of consultation responses

Dear Ofgem,

As part of your decision on 7th May 2020 approving modification GC0143 you required the ESO to address the responses from each of the consultees and provide a detailed report within two weeks from issue of the decision. These responses should also be used to inform the work on an enduring solution.

Alongside this letter we are submitting a summary of the 67 non-confidential consultation responses that were submitted to the GC0143 consultation which was run from 1-5 May 2020. A further two confidential responses are not included as these were shared only between the Code Administrator and Ofgem.

Summary of consultation responses

Analysing the key themes from the responses already formed part of the GC0143 final modification report. However, having had a longer period to assess these we can now expand on this analysis and how we are acting upon it.

Most respondents stated that they understood the reasoning behind the modification being raised and the threat to security of supply that the current situation (COVID-19) leading to unprecedented low demand levels poses for the GB National Electricity Transmission System (NETS). However, a number of concerns were raised, which we have summarised below, fitting broadly into three themes: the modification process for GC0143; how emergency instructions would be carried out; and the impacts of disconnection.

1. The development of modification GC0143

Time taken to raise the change	It was highlighted by some respondents that in their view the ESO could have raised this change earlier and that the ESO had the opportunity to do so in the lead up to the paper being raised on the 30 April 2020.
Use of urgency	Concerns were raised at the modification being treated as urgent, the limited opportunity for industry engagement, and whether there would be unintended consequences of the modification being implemented as a result. Although there was broad support that the defect needed addressing, many respondents felt that it should have be done in a more thorough, considered way ahead of implementation. Some respondents also stated that there was not enough time to get plans in place ahead of implementation on 7 May 2020.
Enduring solution required	Many respondents highlighted the need for an enduring solution to be developed as soon as possible. It should address the points raised in the GC0143 discussions and consultation responses, and should ensure that all relevant stakeholders are both made aware of the proposal and given suitable opportunity to engage in developing the solution.

	Some also stressed that the temporary solution, having been approved and implemented, should not set a precedent for the enduring solution.

2. Carrying out emergency instructions

Clarity required over order of disconnection	Many stakeholders wanted more clarity over the order in which generators would be disconnected and how this would be decided, with some suggesting that certain generators, or types of generators, should not be subject to disconnection. Several factors were recommended as considerations that should be included: • The government's carbon net zero targets, with the view that renewable generation should not be disconnected ahead of fossil fuel generation. • Security of connection - those power stations providing the greatest level of security of supply should be the last to be disconnected. • The consequences for customers, particularly those for whom generation formed part of a more complex industrial site, or where deenergisation of generation would also mean cutting off local demand, or as referenced below, could have environmental impacts.
'Last resort' only	Respondents wanted assurance that this mechanism would only be used in an emergency situation and as a last resort after all other options had been exhausted. Several suggested that this should be included in the legal text. It was also felt that there should be more transparency over the steps that would be taken ahead of any instructions being given, and that these details should be in the public domain.
DNOs' visibility	There was concern over the visibility that the DNOs have of the information required to carry out emergency instructions, and how they would know what to disconnect.
Clarity over instruction	Respondents wanted more clarity over the disconnection process, including what the instruction from the ESO would look like, how DNOs would comply with the instruction and how generators would be notified.
Notice period before disconnection	Stakeholders were concerned at the potential lack of notice generators would receive before being disconnected, and wanted clarity over how much notice they could expect.
Reporting requested	Responses included the request that reporting is made publicly available detailing any emergency instructions of this type that are given by the ESO, including the rationale.

3. Impacts of emergency disconnection

Commercial impact / lack of compensation	One of the most frequent concerns raised in the responses was the lack of compensation that would be provided to any embedded generators that were disconnected via this process. This was seen to be a financial risk to generators, with many believing this demonstrated the absence of a level playing field and that the process was detrimental to competition since, in contrast, transmission connected generators and those that are in the Balancing Mechanism would receive compensation should the instruction be enacted.

Damage to assets	There was much concern at the potential for emergency disconnection to cause health and safety risks, damage to assets and the need for significant maintenance intervention. In some cases, forced disconnection could lead to wider plant shutdowns and disruption to industrial processes. They could be followed by further shutdowns after the system was restored. Some respondents wanted assurance from DNOs that essential infrastructure sites would not be affected. Respondents wanted clarity over the reconnection process, and suggested that, where restarting plants would require a site visit, this would be more difficult now due to the COVID-19 restrictions.
Risk to network stability	There were concerns at the impact to network stability if certain generators that provide services such as inertia and voltage control were disconnected.
Environment / public health risks	Many respondents were concerned that emergency disconnection of certain generators (including landfill, biomass, sewage gas generation and Energy from Waste sites) would lead to significant risks and potential harmful impacts to the environment and public health. Certain parties would also face environmental compliance risks as a result. Additional concerns were raised around utilities and their need to stay connected to the system, including some water companies who highlighted the risk of interruptions in public water supply.

New ESO product and related ongoing modifications

Some respondents stated that they would be open to have discussions with the ESO around what they could do to assist in the current situation. A new service being developed by the ESO for provision by generators, Optional Downwards Flexibility Management (ODFM), was noted and clarity was requested on how this proposed change would interact with the new product.

Some respondents referred to the two ongoing Grid Code modifications GC0133 ('Timely informing of the GB NETS System State condition') and GC0109 ('The open, transparent, non-discriminatory and timely publication of the various GB electricity Warnings or Notices or Alerts or Declarations or Instructions or Directions etc., issued by or to the Network Operator(s)'), stating that these need to be implemented as soon as possible to aid the transparency around the system state to compliment this proposed change so that industry are aware of the situation at any given time.

It was questioned by one respondent whether this modification is compatible with GC0127 'EU Code Emergency & Restoration: Requirements resulting from System Defence Plan' as many smaller generators do not have a CUSC contact.

Addressing consultation responses

During the development of GC0143 the ESO spoke directly to many of the respondents and many other stakeholders regarding their views on the proposal, including discussions of the points outlined above.

We believe it would be beneficial to clarify the following regarding the raising of GC0143 and the use of the 'urgency' process:

- National Grid ESO shared stakeholders' concerns about urgency, but believed that the pressing need to clarify the use of last resort powers to prevent wider impacts on consumers meant that this risk was unavoidable in establishing an intermediate solution while still needing to be addressed on a more enduring basis.
- In the proposal and in Ofgem's decision it was made very clear that the use of Emergency Instructions is allowable only as a last resort once all other possibilities have been exhausted and to avoid more significant disruption.

- The ESO would contend that the proposal was raised as soon as the requirement was clearly identified in a rapidly developing situation.

To address concerns about implementation of the temporary GC0143 solution we intend to share further detail outlining how emergency instructions could be implemented and have been working on this guidance in conjunction with DNOs. Broadly the expectation is that generators forming part of an industrial site, or where there are significant issues to do with an interruption, will not be affected as straightforward generation sites that also do not provide system inertia will be prioritised.

Finally, industry will have the opportunity to further explore any points raised during the development of GC0143 via the development of the enduring solution which will follow normal industry processes including engagement and consultation.

Enduring solution

Work on the enduring solution that will be necessary to replace GC0143 when this times out on 25 October 2020 will commence imminently. We are committed to continued engagement with all those parties who were involved in the development of GC0143 and/or those who provided consultation responses and will be in contact with them as the enduring solution commences development.

Key points that will be considered in the development of the enduring solution and may be reflected in the terms of reference include:

Process for carrying out emergency instructions	• Compensation arrangements • Priority of instructions • DNO actions and visibility of generators • Last resort nature • Notice of disconnection • Reporting on use of process
Impacts / risks of emergency disconnection	• Risks to network stability • Risks to assets • Risks to environment / public health • Restarting generators
Communications and reporting	• Clarity over the process to be followed and how this can be communicated • Use of system warnings • Post-event reporting

If you have any queries regarding the matters addressed within this letter, please contact me at Robert.Wilson2@nationalgrideso.com

Yours sincerely,

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