

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 Nisar Ahmed 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:	<i>Garth Graham (garth.graham@sse.com)</i>
Company Name:	<i>SSE Generation</i>
Please express your views regarding the Code Administrator Consultation, including rationale. (Please include any issues, suggestions or queries)	<p><i>For reference, the Applicable Grid Code objectives are:</i></p> <ul style="list-style-type: none">(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.	[See our answer below]
2	Do you support the proposed implementation approach?	[See our answer below]
3	Do you have any other comments in relation to GC0143?	[See our answer below]

Question 1: Do you believe GC0143 better facilitates the Grid Code Objectives? Please include your reasoning.

To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity

This proposal is neutral in terms of this Applicable Objective.

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);

If, as the proposer sets out in the proposal (but, tellingly declines to do so in the legal text) as well as in the title, that the disconnection of some embedded generation¹, via GC0143, is to be a last resort “if no further actions were available to the ESO either commercially or in the BM” (page 6 of the consultation document) then we believe

¹ See our comments within Question 3 below in terms ‘(f) Compliance with EU Law’ in the context of GC0127, the System Defence Plan and Significant Grid Users in GB.

that this proposal would be better in terms of this Applicable Objective as it will be 'facilitating effective competition in generation' as the competitive market will not have been distorted by the ESO's issuance of the GC0143 related Emergency Instructions.

However, if this proposal results in the ESO issuing BC2.9.3.3(f) Emergency Instructions to disconnect some embedded generation when other commercial options / actions, including via the Balancing Mechanism, are available to the ESO (but are not taken by the ESO ahead of issuing the BC2.9.3.3(f) EIs) then this would be detrimental in terms of 'facilitating effective competition in generation' (as the competitive market will have been distorted by the ESO's issuance of the GC0143 related Emergency Instructions) and therefore GC0143 would not better achieve this Applicable Objective.

Notwithstanding the above, with respect to competition in generation, it is also important to ensure that the effects of the ESO's issuing of BC2.9.3.3(f) Emergency Instructions to disconnect some embedded generation is done in a way that the balance position of the affected Suppliers; in the GSP and /or DNO area to which the EIs are actioned; are neutralised to the effects of those emergency actions by the ESO.

This is because as demand is artificially inflated on the T system by generation on the D system being disconnected, this means that the balance position of suppliers in a GSP / across a DNO area / across GB could be adversely impact (to the expense of the Suppliers impacted) whose contracted energy, from the disconnected embedded generation, is usurped by the ESO - this will not facilitate competition in the supply of electricity. There is a need to ensure that Suppliers are held neutral to the effects of any BC2.9.3.3(f) Emergency Instructions to avoid distorting competition in supply.

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;

Given the lack of justification provided by the Proposer as to why this proposal better meets this Applicable Objective, we are hesitant to answer this question.

If, this change is required to ensure the security of the NETS then it would 'promote the security of the transmission system' and, therefore, it would, in those circumstances, better meets this Applicable Objective.

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

It is not clear, given the obligations on the TSO (ESO); as set out within Network Code for Emergency & Restoration² (NCER) and the System Operation Guideline³

² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R2196&from=EN>

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1485&from=EN>

(SOGL); that this proposal does better meet this Applicable Objective⁴. It could therefore be detrimental in terms of this Applicable Objective.

To promote efficiency in the implementation and administration of the Grid Code arrangements.

It seems strange that the proposal sets out (i) that “*Amendments will be made to the Grid Code to clarify the ability of the ESO to do this*” (page 4 of the consultation) and (ii) that “*the proposed changes seek to clarify these arrangements*” (page 5 of the consultation) ...and yet the Proposer does not think that the provision of this ‘*clarity*’ will ‘promote the efficiency in the implementation and administration of the Grid Code Arrangements’?

This perhaps lends weight to the arguments that some stakeholders have made (on Friday 1st May in industry discussions⁵ held with Ofgem, BEIS, NGESO and others) about GC0143 that this proposed change is not to provide ‘clarification’ of an existing obligation but rather to introduce an entirely new obligation (as witnessed by the length of the proposed new text in the form of the BC2.9.3.3(f)).

If this proposal provides *clarity* of an existing provision; which means BC2.9.3.3(f) Emergency Instructions do not apply to most embedded generation in GB⁶; then this proposal does better meet this Applicable Objective.

However, if this proposal introduces instead any new obligation(s) then this proposal is neutral in terms of this Applicable Objective⁷.

Question 2: Do you support the proposed implementation approach?

We support the proposed implementation approach set out in Section 9 of the consultation which, we note, includes both a sunset clause and the prospect of a more enduring solution.

Question 3: Do you have any other comments in relation to GC0143?

We have six additional comments, (a)-(f), in relation to GC0143 that we set out below and would urge the Grid Code Review Panel and Ofgem to take into consideration when voting on their recommendation / opining on the proposal.

⁴ See also our comments within Question 3 below in terms ‘(f) Compliance with EU Law’ in the context of GC0127, the System Defence Plan and Significant Grid Users in GB.

⁵ Energy UK hosted call on Covid-19

⁶ See our comments within Question 3 below in terms ‘(f) Compliance with EU Law’ in the context of GC0127, the System Defence Plan and Significant Grid Users in GB.

⁷ But would be detrimental in terms of Applicable Objective (d) as such new obligation(s) would be incompatible with the NCER requirements - see our comments within Question 3 below in terms ‘(f) Compliance with EU Law’.

In summary our overall view on this GC0143 proposal are:

- This urgent modification (along with ODFM) should not set a precedent for an enduring long-term solution – and the Open Networks is the right forum for the discussions of that longer-term solution;
- The process to be adopted by the ESO when instructing DNOs needs to be transparent and understood by all parties, including generators, who will be impacted commercially and operationally;
- We recognise that in the interests of the system a short-term measure may be needed (with GC0143);
- The ESO could have given parties more time to consider the proposals considering it's been thinking about them since mid-March and that would have been better due process;
- The procedure introduced by GC0143 is absolutely a last resort for the ESO behind using the commercial options that it has available to it to use;
- The Grid Code text should reflect the above to avoid unintended consequences on market participants, DNOs and the ESO;
- In the case of ODFM there appears to us to be a risk that NGENSO has not followed due process and therefore concern that there could be a legal challenge;
- Given the system security concerns highlighted in GC0143 we would strongly urge Ofgem to rapidly consider our GC0133 proposal, which is being sent to them imminently by the Grid Code Review Panel, as it ensures stakeholders are aware of the system state in real time; and
- It is not certain that GC0143 is in compliance with the requirements set out in the Network Code for Emergency & Restoration, including in respect of the Grid Code changes introduced by GC0127 together with the proposals with Ofgem for the System Defence Plan and the terms and conditions for defence service providers.

(a) 7-8 weeks delay in the ESO raising GC0143

It is concerning that the ESO delayed raising GC0143 by circa 7-8 weeks, which then afforded the Grid Code Review Panel, stakeholders and Ofgem just some 7-8 days to give due consideration to this important matter.

This time delay manifested itself in the ESO's 25th March 2020 (ENCC) industry Covid-19 webinar⁸.

On slide 6 of the presentation it was stated that:

"Our [ESO] initial analysis conducted a few weeks ago, provided a range of potential demand scenarios; all of which showed a decline in GB electricity demand" [emphasis added]

⁸ The ESO's slides can be found at: <https://data.nationalgrideso.com/backend/dataset/b3c55e31-7819-4dc7-bf01-3950dccbe3c5/resource/c9ffb39d-452c-46b6-869f-73ae3e415804/download/ngeso-covid-19-preparedness-webinar-25-03-20.pdf>

Note the reference here to ‘a few weeks [plural] ago’.

The 25th March webinar was held just over five weeks before GC0143 was raised. Therefore, adding ‘a few weeks’ to the 5 weeks means it was 7 or 8 weeks prior to GC0143 being raised that the analysis was undertaken by the ESO.

This analysis, according to the next slide (7) of the 25th March ENCC webinar presentation:

“has indicated a spread of demand suppression between 96% and 83%”
[emphasis added]

The purpose of GC0143, according to the front of the proposal was that:

“The requirement for this is due to the unprecedented societal changes brought about by the COVID-19 pandemic which has led to demands out-turning up to 20% lower than predicted” [emphasis added]

Yet the ESO’s own analysis from early March pointed to a 17% demand suppression – so why wait till the last day in April to raise a Modification to address it?

It is regrettable that as a result of this delay on the part of the ESO we (and other stakeholders) have only been afforded two working days⁹ to respond to this consultation.

(b) Not an enduring solution

As noted above, the ESO has had some two months (since early March) to consider the impacts of the demand suppression of up to 20% and develop (i) the new Optional Downward Flexibility Management (ODFM) balancing service¹⁰ and (ii) the GC0143 solution.

However, in stark contrast, industry is being given just two working days to consider and comment on this GC0143 change (and was given no time to consider and comment on the ODFM changes).

Changes being carefully deliberated upon; by the UK Government, the Authority, DNOs, generators, suppliers and customers; within the Open Networks and other

⁹ Consultation issued on 18:29 on Friday 1st May, closes at 17:00 on Tuesday 5th May.

¹⁰ We have set out in an email on Friday 1st May; to the ESO (copied to the DNOs, Ofgem, BEIS and others); significant legal concerns about the proposed new ODFM balancing service. However, for the purposes of this GC0143 consultation response we assume that those legal concerns have been fully addressed. If they have not then this will have serious implications for the application of GC0143; which is predicated on the ESO first using the commercial options via ODFM (as well as the BM and other commercial options) ahead of issuing Emergency Instructions according to the new paragraph (f) of BC2.9.3.3 that is introduced by GC0143.

industry forums, to give the ESO access to demand and generation connected to the distribution system, which those stakeholders might have thought could come into effect months or years later are; via the ODFM and GC143 changes; proposed to be implemented in a matter of a few days.

We all need to recognise that in rushing these two sweeping fundamental changes through in a matter of a few days that the important details and compromises (between the needs of all the parties concerned) that would normally be hammered out to ensure an optimum arrangement for consumers are not being done in the 7-8 days that stakeholders have now been afforded by the ESO.

There is likely to be profound unintended consequences as a result of the radical truncating of the careful examination of all the options and the detailed preparation of the solution(s) that in normal times the Grid Code Review Panel, industry parties and Ofgem would afford such profound changes as the new ODFM balancing service and GC0143.

The ESO should not assume that these hastily invoked changes are set in stone and that they represent the settled will of the wider industry on the matter of the ESO controlling assets connected at distribution. An enduring solution; which may look radically different from the ODFM and GC143 solutions; needs to be developed in due course with the involvement of all stakeholders and we must not be 'bounced' into accepting the ODFM and GC143 solutions as the 'starting point' for those deliberations. Rather, we should put those two solutions to one side and ensure that a long-term workable outcome is developed that maximises the benefits to consumers and wider society.

It is also relevant to note that whilst there is general acceptance that potentially very low demand may occur over the forthcoming early and late May Bank Holidays; which would need to be managed; that, nevertheless, this problem should ease in the coming weeks, according to press reports about the steps being taken by the UK and Devolved Governments, as more economic activity restarts across GB. As such it may not be appropriate to continue with the GC0143 solution until the October 25th clock change.

(c) Transparency of Emergency Instructions

We are concerned at the lack of any meaningful transparency when any BC2.9.3.3 (f) Emergency Instructions are actually issued, by the ESO, to the DNOs.

Given that, according to the proposed legal text for GC0143, (i) the **specified Embedded Power Station(s)** to be disconnected; and (ii) the **specified value** of the **aggregate Registered Capacity** to be disconnected; and (iii) the **specified proportion of the aggregate Registered Capacity** to be disconnected; for each Network Operator, are all known to the ESO (as they are contained within the Emergency Instructions they issue to the DNOs) it is somewhat bizarre that the ESO cannot simply make that information available; in real time; in the interest of openness and transparency (which the ESO's own Performance Plan liberally makes reference to) to market participants, especially given the distortions to competition that could arise

(from the issuing of these Emergency Instructions) in terms of Suppliers and, potentially, Generators.

In our view the ESO should make this information available, in real time, given the existing transparency obligations placed in law (i.e. SOGL¹¹ and NCER¹²) upon the ESO¹³.

We hope the ESO will recognise that we all are operating in unprecedented circumstances during the ongoing Covid-19 situation – the ESO is not acting alone.

The ESO has thrown down the gauntlet and asked the wider industry, in the form of embedded generators and suppliers, to help the ESO in these difficult times by embracing GC0143 with just a few days' notice.

In return we wish to throw down the gauntlet here to the ESO for them to be much more open and transparent about what they are doing in respect of using the GC0143 powers and publish, in real time, the Emergency Instructions the ESO will issue; under items (i)-(iii) of paragraph (f) of BC2.9.3.3, that GC0143 introduces; in a way that stakeholders can quickly and easily see them.

Our GC0109 proposal will achieve this transparency in terms of all Emergency Instructions etc.; however, in the interim we believe that the ESO should act in the spirit of GC0109 and agree to make the BC2.9.3.3 (f) Emergency Instruction information available to stakeholders at the same time as they implement GC0143,

This maturity of approach, on the part of the ESO, in making the BC2.9.3.3 (f) Emergency Instructions available will go a long way to demonstrate to stakeholders that we are all in this together whereby all sides do what they can – and avoid the impression that it's a one-way street whereby the ESO wants stakeholders to act, but the ESO itself fails act to take even such simple steps, around transparency, to help those stakeholders in return.

(d) Transparency of System State

In light of the rapidly changing circumstances arising from Covid-19 that; according to the ESO in its case for GC0143; impacts on the security of the NETS, it is now necessary, in our view, for Ofgem to consider the rapid acceleration of its decision on our GC0133 Modification Proposal. Ideally this decision (and implementation date) for GC0133 should be forthcoming for the same date / time as GC0143

This is so that DNOs and embedded generators know, in real time, when the NETS is moving from¹⁴ the 'Normal State' to either an 'Alert State' or an 'Emergency State' during the low demand periods; that the ESO is highlighting will occur over a third of

¹¹ See, for example, the requirement in Article 4(1)(g) to “ensuring and enhancing the transparency and reliability of information on transmission system operation” as well as 4(2)(b).

¹² See Article 4(1)(b) which obliges the TSO (and NRA) to “ensure transparency”.

¹³ And NRA.

¹⁴ Or 'reversing' from a state of 'Emergency' to return to 'Alert' or 'Normal'.

the time in the four months to (and including) August 2020; which could see the BC2.9.3.3 (f) Emergency Instructions being issued.

The availability of the system state information, via the GC0133 solution, enhances system security in these dangerous times, as without the GC0133 change DNOs and embedded generation have no visibility of what, if anything, is happening on the NETS and thus what, if anything, they may need to prepare for.

As we have set out in the GC0133 solution, everything needed by the ESO to implement¹⁵ GC0133 by 8th May 2020 exists today – as the ESO already determines what the system state is in real time¹⁶ and they already use the BMRS for reporting information to stakeholders.

We have observed the unusual alacrity with which the ESO has brought forward the ODFM and GC0143 solutions. In our view, if ESO can develop / introduce a whole new balancing service, namely ODFM, and the GC0143 changes in such a short space of time then it is perplexing, to say the least, that they need ~six months to “...allow National Grid ESO the time to develop, with stakeholders, the right messaging required and limit the risk of misinterpretation¹⁷” in order to implement GC0133. In our experience media messages can often be developed in a matter of minutes or hours and not weeks, or in this case many months.

As the ESO has set out in GC0143, time is of the essence in terms of needing that particular change for system security reasons and, likewise, time is of the essence in terms of system security reasons (as we detailed in our recent response to the GC0133 Code Administrator Consultation¹⁸) as to why stakeholders need transparency of the state of the system at any moment in time (as well as changes to that system state as they occur), hence why we would strongly urge Ofgem to opine on, and approve, GC0133 this week so that the ESO can implement it alongside GC0143 (if considered appropriate and approved by Ofgem).

(e) Issue with the new Optional Downward Flexibility Management service

An issue arises, with the introduction of the new ODFM balancing service alongside GC0143 in terms of the three types of Emergency Instruction; itemised in paragraph (f) of BC2.9.3.3; that would be introduced by GC0143, in respect of how will it work in practice where an embedded generator has signed up to the new ODFM balancing service?

The reason for the issue is that the ESO has clearly stated in Section 3 of the proposal, that:

¹⁵ Namely (1) being able to determine, in real time, the system state and (2) place that information on the BMRS.

¹⁶ Indeed, we are reliably informed that the system state already appears on the system wall diagram within the ESO's system control room.

¹⁷ The ESO view on the implementation timescale for GC0133, as set out on page 15 of the GC0133 Draft Final Modification Report.

¹⁸ Contained in the GC0133 Final Modification Report <https://www.nationalgrideso.com/industry-information/codes/grid-code-old/modifications/gc0133-timely-informing-gb-nets-system-state>

“While the ESO is seeking to mitigate the operational risks due to this by establishing a new service for downward flexibility management, as a last resort if all commercially available options through this service and actions in the Balancing Mechanism (BM) have been taken it may be necessary to seek to control embedded generators.” [emphasis added]

Accordingly, the ESO will need to ensure; in respect of item (i) in paragraph (f) of BC2.9.3.3; that the ESO does not issue any Emergency Instruction(s) to a DNO to disconnect any specific embedded generator that has signed up to provide, to the ESO, a commercially available option via the new ODFM balancing service (or another ESO commercial route, such as the BM or STOR etc.,).

In terms of items (ii) and (iii) in paragraph (f) of BC2.9.3.3 it will be necessary for the DNOs to ensure that if notified by either the ESO or the relevant embedded generator(s) that an embedded generator has signed up to provide, to the ESO, a commercially available option¹⁹; be that via the new ODFM balancing service, the BM, STOR, Project TERRE, Project MARI or another route; that the DNO (1) records this information in a timely manner and (2) ensures that it does not disconnect the said embedded generator(s); as part of (ii) the **specified value of the aggregate Registered Capacity** to be disconnected or (iii) the **specified proportion of the aggregate Registered Capacity** to be disconnected; when receiving an Emergency Instruction from the ESO according to items (ii) and (iii) in paragraph (f) of BC2.9.3.3.

If, notwithstanding the above, an embedded generator was to be inadvertently disconnected in response to such an erroneously actioned BC2.9.3.3 (f) Emergency Instruction on the part of the ESO or Network Operator then it is possible that the affected generator could seek redress; for the lost revenue they would legitimately have expected to receive, via the new ODFM balancing service, the BM, STOR, Project TERRE, Project MARI or another commercial offering with the ESO; from the relevant network party.

(f) Compliance with EU law

Given the Authority’s very recent decision²⁰, some three months ago²¹, in respect of approving the GC0127 Original proposal and rejecting the WAGCM1²² proposal we are not certain how this GC0143 change, if it extends to disconnecting New and Existing Types A, B, C or D embedded generators who do not have a CUSC contract, is compatible with that GC0127 decision and the System Defence Plan²³.

¹⁹ Given the ESO’s statement in Section 5 of the proposal that “*This [GC0143 solution] would only be pursued as a last resort if no further actions were available to the ESO either commercially or in the BM.*” it will also be important that any DNO who is aware of any embedded generators that are providing to the ESO; ‘*either commercially or in the BM*’; services that it does not disconnect those generators either. Furthermore, ENW will, for example, need to be mindful of the commercial service it provides to the ESO, via its Project CLASS based product, and ensure that it does not disconnect any embedded generators ahead of its commercial option.

²⁰ <https://www.nationalgrideso.com/document/162761/download>

²¹ Issued on 5th February 2020

²² As well as the WAGCMs 2 and 3 proposals.

²³ <https://www.nationalgrideso.com/document/160016/download>

WAGCM1 would have extended the System Defence Plan measures to include non-CUSC parties in GB - as Ofgem summarised²⁴:

“WAGCM1 intends to include non-CUSC parties listed in the scope of application of the NCER Regulation as per Article 2 of the NCER Regulation. The legal text for WAGCM1 tries to achieve this by creating a new section of the Grid Code for non-CUSC parties. In practice, it states that non-CUSC parties will have to comply with the relevant provisions of the NCER Regulation, and that defence/restoration service providers²⁵ will have to comply with the SDP/SRP.”

In the GC0127 decision letter, the Authority sets out its reasoning²⁶ for rejecting WAGCM1, including that:

“by requiring non-CUSC parties who are defence or restoration service providers to comply with the SDP²⁷ and SRP²⁸, we understand that the WAGCM would unduly extend the scope of application of the SDP and SRP. The SDP and SRP currently only identify measures to be implemented by CUSC parties and we do not believe that it is appropriate for the Grid Code to contradict the scope of the application of these plans. In this respect, we do not believe that WAGCM1 better promotes security or efficiency of the electricity system compared to the original.” [emphasis added]

The Authority also noted in its GC0127 decision letter that:

“... there is no obligation to extend the scope of application of those articles through modifications of the Grid Code and we do not believe that it is efficient to place such obligations on parties where it is not necessary for ensuring system security. Nevertheless, if a future edition of the SDP puts requirements on parties that are currently not in scope of the plan, we would expect the Grid Code to be amended to ensure its consistency with the SDP.” [emphasis added]

In the context of GC0143, the latest version of the System Defence Plan²⁹ (dated 20th December 2019) sets out, within Appendix A³⁰ (“GB Parties within the scope of the System Defence Plan”) which parties in GB fall within (and thus those parties out with) the scope of the plan in the following terms³¹:

“In accordance with EU NCER, Art 2 defines the SGU’s [Significant Grid User(s)] who fall within the scope of the European Emergency and Restoration Code. Table A1 defines the EU Criteria and how this translates to GB Parties including which of those parties are included within the scope of

²⁴ On page 5 of the letter.

²⁵ “Parties who have obligations under the SDP and/or SRP”

²⁶ On page 7.

²⁷ ‘System Defence Plan’, which is directly relevant to GC0143.

²⁸ ‘System Restoration Plan’ which is less relevant to GC0143.

²⁹ <https://www.nationalgrideso.com/document/160016/download>

³⁰ Pages 22-40.

³¹ On page 22.

the EU Emergency and Restoration Code and those which are not” [emphasis added]

As set out on in Appendix A, the SDP does not apply to any New³²:

“...Generator who does not have a CUSC Contract (i.e. Embedded) and owns or operates a Power Station comprising one or more Type C or Type D Power Generating Modules.”

It goes on to set out that the SDP does not apply to any Existing³³

“...Generator who does not have a CUSC Contract (i.e. Embedded) and owns or operates a Power Station comprising one or more Generating Units or Power Park Modules which i) have a maximum output of greater than 10MW but less than 50MW and connected below 110kV (equivalent to a Type C Power Generating Module) or ii) connected at 110kV or above or has a rated power output of 50MW or above (equivalent to a Type D Power Generating Module)”

The SDP makes clear it does not apply to any New³⁴:

“...Generator who does not have a CUSC Contract (i.e. Embedded) and owns or operates a Power Station comprising one or more Type B Power Generating Modules”

The SDP also does not apply to any Existing³⁵

“...Generator who does not have a CUSC Contract (i.e. Embedded) and owns or operates a Power Station comprising one or more Generating Units or Power Park Modules which have a maximum output of greater than 1MW but less than 10MW and connected below 110kV (equivalent to a Type B Power Generating Module).”

Similarly, the SDP is clear that it does not apply³⁶ to New or Existing Type A generators who do not have a CUSC contract.

The risk that at times of adverse system security (such as the ESO has set out in the GC0143 proposal) the scope of the SDP would not be extended to all relevant embedded generators in GB was, for example, set out in the GC0127 Workgroup deliberations (as noted on pages 19-20 of the GC0127 Final Modification Report³⁷):

“...one Workgroup member³⁸ considered that the definitions of an ‘SGU’, a ‘System Defence Provider’ and a ‘System Restoration Provider’ within E&R

³² See page 23 of the SDP.

³³ See page 24 of SDP.

³⁴ See page 25 of the SDP.

³⁵ See page 26 of the SDP.

³⁶ See pages 35-36 of the SDP.

³⁷ <https://www.nationalgrideso.com/document/163746/download>

³⁸ The Workgroup member referred to here was the person on the GC0127 Workgroup from SSE Generation (namely Garth Graham, the respondent to this GC0143 consultation response)..

NC is, in their view, much wider than that suggested by the Proposer and that this was in order to ensure that the system is secure from events which could endanger the security of the system and, in the event of a blackout, support the speedy restoration of the system and thus electricity supplies to end consumers. The Workgroup member noted, for example, that taking into account National Grid ESO's Interim Report into 9 August 2019 event that limiting System Defence Providers / SGUs to just those parties with a CUSC contract with National Grid ESO would be limiting the ability for National Grid ESO to call upon other providers which were envisaged within E&R NC to be used to help maintain system security; such as Type B generators (Article 2(2)(b)) and redispatchers of power generating modules and demand facilities (Article 2(2)(e)), if a similar emergency situation arose on the system."

The legal aspects of applying the GC0127 / SDP obligations to embedded generation was explored by the GC0127 Workgroup as set out in Appendix 5 and Appendix 6 of the Final Modification Report. Appendix 5 sets out the ESO's legal views and a number of those statements³⁹ seem, only a few months later, to be out of date. Appendix 6, which provides comments on Appendix 5, was prepared by the SSE Generation representative on the GC0127 Workgroup.

We also note that within the context of the System Defence Plan, that the requirements set out in Article 12 (3)-(5) (of the NCER) on the TSO (ESO) and / or DSOs to notify, "by 18 December 2018", Significant Grid Users in GB that are "connected to distribution systems of the measures which are to be implemented on their installations"⁴⁰ has still not been undertaken in GB.

This Article 12 notification, by the TSO (ESO) or DSO(s) ensures that the Significant Grid Users in GB are aware that their (generation⁴¹) assets form part of the operational plan for emergency situations, and therefore that those assets are at risk of disconnection. The provision of that notification thus allows the relevant embedded generators to appropriately prepare for such an emergency circumstance.

Equally, by not being classified as a Significant Grid User, according to the System Defence Plan, and / or not receiving the requisite Article 12 (3)-(5) notification then any embedded generator in GB can take comfort in the knowledge that the system defence measures that the TSO (ESO) can invoke directly (or indirectly via the DSO) in an emergency do not extend to them.

This could have implications in terms of the GC0143 solution.

³⁹ Such as "Given the costs and timescales we believe would be incurred for smaller parties, it would appear disproportionate to ask them to i) modify their plants or ii) comply with the GB Grid Code process (and the additional requirements this entails) in order to comply with the NCER when it is not clear that this size of plant is essential to preventing a widespread disturbance "

And "Focusing the application of NCER to only CUSC parties, i.e. those with contracts with National Grid Electricity System Operator Limited (NGESO), ensures there is a direct contractual link to these parties and the means by which to enact the Plans – via contractual instruction. Extending the application of NCER beyond this would require currently non-contracted parties to enter into contracts with NGESO, which would be a substantial administrative and time consuming process for all involved."

⁴⁰ NCER Article 12 (4) and (5).

⁴¹ In the context of GC0143, 'generation' is the relevant asset(s), but SGUs can include non-generation assets.

Therefore, given:

- (i) that the existing edition of the System Defence Plan, dated 20th December 2019, is still with the NRA for a decision;
- (ii) that the scope of System Defence Plan, in the context of generation connected at distribution, is limited to plant(s) with a CUSC contract with the ESO;
- (iii) the Authority's statement in the GC0127 decision letter (that it is not appropriate for the Grid Code to contradict the scope of the application of the System Defence Plan); and
- (iv) the statements⁴² within the GC0143 proposal from the ESO that that change is just to *clarify* the existing Grid Code arrangements;

then it follows that the GC0143 amendment cannot '*clarify*' by extending the scope of what (embedded generation) parties the Grid Code / System Defence Plan extends to – as that would not be a mere '*clarification*'. Accordingly, GC0143 can only apply to embedded generation which falls within the Significant Grid User definition established in Appendix A of the System Defence Plan, namely only to those embedded generators with a CUSC contract and, as a result, the ESO (TSO) and DNOs (DSOs) when issuing or acting upon any Emergency Instruction, arising from the new paragraph (f) of BC2.9.3.3, will need to limit their disconnection actions to those embedded generators with a CUSC contract only.

⁴² See, for example, Section 3 of the GC0143 proposal - "*Currently in the Grid Code the ability of the ESO to make such instructions is ambiguous and would potentially leave DNOs in a position that they would feel exposed them to legal risk; therefore, the proposed changes seek to clarify these arrangements.*" [emphasis added]