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| **Open Letter to Key Stakeholders who hold CUSC Contracts with the ESO** | National Grid ESO  Faraday House  Warwick Technology Park,  Gallows Hill  Warwick  CV34 6DA |

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| October 2021  **European Network Codes – Emergency and Restoration Code**   |  | | --- | |  | |
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In March 2011, the European Third Energy Package became law which aims to develop a more harmonised European Energy Market for gas and electricity. While achieving this, it also facilitates the integration of renewable energy sources in order to maintain System security and also enhance competition.

In developing these objectives, the European Commission have approved a suite of Network Codes of which one is the Emergency and Restoration Code.

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

The aim of the Emergency and Restoration Code is to minimise the impact of an incident on the electricity system and to facilitate efficient and rapid restoration were an incident to occur.

Although the UK has now officially left the European Union, the majority of the requirements defined in the European Emergency and Restoration Code are still applicable in GB as they have been transferred into GB law via Statutory Instrument.

# National Grid in their role as the Electricity System Operator (NGESO) are, together with industry stakeholders, updating the GB Codes and associated documentation to ensure they are consistent with the Emergency and Restoration Code. This has required a number of actions including the publication of a System Defence Plan and System Restoration Plan and the development of a number of minor changes to the GB Grid Code (GC0108 Black Start Testing requirements for Generators, GC0125 Black Start Testing Requirements for Interconnectors, GC0127 (Requirements resulting from the System Defence Plan and GC0128 Requirements resulting from the System Restoration Plan). Details of these consultations are provided in Appendix 1 to this letter which were approved by Ofgem in February 2020

# As part of the implementation of the EU Emergency and Restoration Code, (which now falls under UK law) NGESO is also required to formally notify parties affected by the European Emergency and Restoration Code of any actions that they need to take. NGESO sought to fulfil this by listing the categories of users designated as Significant Grid Users (SGU’s) in Appendix A and B of the System Defence Plan and System Restoration Plan as submitted in December 2019. Ofgem in their decision letter, while seeking certain amendments agreed with this treatment as

# *‘…it is impractical for the ESO to resubmit an amendment every time a new relevant SGU enters the market. Therefore, we believe that it is proportionate that the list of SGUs sets out the criteria that any SGU would have to meet in order to comply with those obligations. We also believe that the list needs to be accessible to all SGUs, so that all relevant parties have clarity on their obligations.’*

# When the issue was discussed with stakeholders in August 2019 the general feedback received was that GB parties affected by the European Emergency and Restoration Code should be formally notified rather than relying on a document published on the National Grid ESO website but this process should only take place once the SGU list had been approved by Ofgem.

On 13th July 2021, Ofgem approved the Electricity System Operator’s proposal for the Terms and Conditions to act as Defence and Restoration Providers, for the list of Significant Grid Users responsible for implementing on their installations measures from other EU Network codes, and for the list of high priority Significant Grid Users which is available as item 7) attached in Appendix 1 of this letter.

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# Table 1 in Appendix 2 of this letter is taken from Issue 3 of the draft System Defence Plan and Issue 3 of the draft System Restoration Plan as published on the National Grid ESO website (and details which GB parties would have obligations under the Emergency and Restoration Code, which in summary is any party holding a CUSC contract with the NGESO. These parties already have to satisfy the requirements of the Grid Code and as such already comply with the requirements of the Emergency and Restoration Code with the exception of the minor changes being progressed as part of the Grid Code modifications noted above.

# The purpose of this letter is therefore to advise that if you are already or intending to be a party with a CUSC Contract you will already be within the scope of the European Emergency and Restoration Code and through fulfilling the requirements of the Grid Code will be satisfying these requirements. There is therefore no further action required. The provisions of the EU Emergency and Restoration Code apply in two phases. The first phase (which covers the majority of the requirements) were submitted to Ofgem in December 2019. The second phase relates to Articles 15(5) – 15(8) (Low Frequency Demand Disconnection Relays and netted Demand), Article 41 (communications resilience) and Article 42 (1),(2) and (5) (critical tools and facilities) which have to be implemented by 18th December 2022. In addition, Article 48(3) relates to the Test Plan which needs to be implemented by 18th December 2024. Within GB it is proposed to address all of these changes through Grid Code Modification GC0148, further details of which are available under item 8) in Appendix 1 of this letter.

Should you have any questions regarding this issue please email

[Grid.Code@nationalgrideso.com](mailto:Grid.Code@nationalgrideso.com)

If you wish to participate in any of these workgroups or consultations, or should you have any questions regarding the Emergency and Restoration Code, please email [europeancodes.electricity@nationalgrid.com](mailto:europeancodes.electricity@nationalgrid.com).

Yours sincerely

# Appendix 1 – Emergency and Restoration Code Consultations

# Grid Code Consultation GC0108 (Emergency & Restoration: Black start testing requirement).

# <https://www.nationalgrideso.com/codes/grid-code/modifications/gc0108-eu-code-emergency-restoration-black-start-testing-requirement>

# Grid Code Consultation GC0125 (EU Code Emergency & Restoration: Black Start testing requirements for Interconnectors).

# <https://www.nationalgrideso.com/codes/grid-code/modifications/gc0125-eu-code-emergency-restoration-black-start-testing-requirements>

# Grid Code Consultation GC0127 (EU Code Emergency & Restoration: Requirements resulting from System Defence Plan).

# System Defence Plan – Consultation.

# <https://www.nationalgrideso.com/codes/european-network-codes/meetings/emergency-and-restoration-consultation-open>

# System Restoration Plan – Consultation.

# <https://www.nationalgrideso.com/codes/european-network-codes/meetings/emergency-and-restoration-consultation-open>

# Grid Code Consultation GC0128 (EU Code Emergency & Restoration: Requirements resulting from System Restoration Plan).

1. Decision on the Electricity System Operator’s proposal for the Terms and Conditions to act as defence and restoration providers, for the list of significant grid users responsible for implementing on their installations measures from other EU Network codes, and for the list of high priority significant grid users

[Decision for NCER proposals TCs, SGU list, HP SGU list (4).pdf](file:///C:\\Users\\antony.johnson\\Downloads\\Decision%20for%20NCER%20proposals%20TCs,%20SGU%20list,%20HP%20SGU%20list%20(4).pdf)

**8)** GC0148: Implementation of EU Emergency and Restoration Code Phase II

# https://www.nationalgrideso.com/industry-information/codes/grid-code-old/modifications/gc0148-implementation-eu-emergency-and-0

Appendix 2

Table 1

| **EU Criteria** | **New or Existing** | **List of GB Parties considered to be SGUs for purposes of the System Defence Plan (GB SGU’s)** | **Measures of the System Defence Plan** | **Comments** |
| --- | --- | --- | --- | --- |
| Existing and new Power Generating modules classified as Type C and D in accordance with the criteria set out in Article 5 of Commission Regulation (EU) 2016/631 | New | Any Generator who is an EU Code User who has a CUSC Contract with the ESO and owns or operates a Type C or Type D Power Generating Module | Applicable Grid Code requirements:  PC, ECC, ECP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, Generators with a CUSC Contract who own or operate a Type C or Type D Power Generating Module would meet one or more of the requirements of the System Defence Plan. | BC 3\* applies to Large Power Stations and directly connected Power Stations. The requirements for LFSM-O are covered in ECC.6.3.7.1. |
| Existing | Any Generator who is a GB Code User who has a CUSC Contract with the ESO | Applicable Grid Code requirements:  PC, CC, CP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  Generators with a CUSC Contract would need to comply with the applicable requirements of the Grid Code and in doing so would satisfy one or more measures of the System Defence Plan. | BC 3\* applies to Large Power Stations and directly connected Power Stations. The requirements for LFSM-O are covered in ECC.6.3.7.1. |
| Existing and new power generating modules classified as Type B in accordance with the criteria set out in Article 5 of Regulation (EU) 2016/631, where they are identified as SGU’s in accordance with Article 11(4) | New | Any Generator who is a EU Code User and has a CUSC Contract with the ESO and owns or operates a Type B Power Generating Module | Applicable Grid Code requirements:  PC, ECC, ECP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, Generators with a CUSC Contract who own or operate a Power Station comprising a Type B Power Generating Module would meet one or more of the requirements of the System Defence Plan. | As the Generator has a CUSC contract and obliged to satisfy the requirements of the Grid Code, then such parties would be within the scope of NCER.  BC 3\* applies to Large Power Stations and directly connected Power Stations. |
| Existing | Any Generator who is a GB Code User and who has a CUSC Contract with the ESO | Applicable Grid Code requirements:  PC, CC, CP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, Generators with a CUSC Contract would meet one or more of the requirements of the System Defence Plan. | As the Generator has a CUSC contract and obliged to satisfy the requirements of the Grid Code, then such parties would be within the scope of NCER.  BC 3\* applies to Large Power Stations and directly connected Power Stations. |
| Existing and new Transmission-connected demand facilities | New | Any Non-Embedded Customer who is an EU Code User and who has a CUSC Contract with the ESO | Applicable Grid Code requirements:  PC, ECC, ECP, DRSC\*, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, Non-Embedded Customers would meet one or more of the requirements of the System Defence Plan. | BC 3\* and the DRSC\* would also apply if the Non-Embedded Customer provided Ancillary Services. |
| Existing | Any Non-Embedded Customer who is a GB Code User and has a CUSC Contract with the ESO | Applicable Grid Code requirements:  PC, CC, CP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, Non-Embedded Customers would meet one or more of the requirements of the System Defence Plan. | BC 3 would apply if the Non-Embedded Customer provided Ancillary Services. |
| Existing and new Transmission Connected Closed Distribution Systems | New | Any Non-Embedded Customer who is an EU Code User and who has a CUSC Contract with the ESO | Applicable Grid Code requirements:  PC, ECC, ECP, DRSC\*, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, Non-Embedded Customers would meet one or more of the requirements of the System Defence Plan. | The Closed Distribution System is considered as a Private Network and not registered as a Network Operator or IDNO. The DRSC and BC3 would apply if the Non-Embedded Customer provided Ancillary Services. |
| Existing | Any Non-Embedded Customer who is a GB Code User and which has a CUSC Contract with the ESO | Applicable Grid Code requirements:  PC, CC, CP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, Non-Embedded Customers would meet one or more of the requirements of the System Defence Plan. | The Closed Distribution System is considered as a Private Network and not registered as a Network Operator or IDNO |
| Providers of redispatching of power generating modules or demand facilities by means of aggregation and providers of active power reserve in accordance with Title 8 of Regulation 2017/1485 | New & Existing | BM Participants | (ECC/CC 6.5 only) DRSC\*, BC1, BC2, BC3\* | In general a BM Party will also be a User and in this case they would be caught by the requirements of NCER. Users can fall into different categories and these are detailed above.  A BM party who is not defined as a User (such as an Aggregator) will have to satisfy the requirements of BC1 and BC2 and ECC/CC.6.5, and therefore would be considered to meet one or more requirements under the System Defence Plan.  A BM Party who also satisfies the requirements of the DRSC (ie they offer Ancillary Services and caught by the requirements of DCC (ie EU Code User’s) may also have to satisfy the requirements of BC3 but this would depend on the type of Ancillary Service offered.  In all cases a BM party would be treated as having to meet the requirements of NCER. |
| Existing and new high voltage direct current (HVDC) Systems and direct current connected Power Park Modules in accordance with the criteria set out in Article 4(1) of commission Regulation (EU) 2016/1447 | New | HVDC System Owners and Generators in respect of Transmission DC Converters and/or DC Connected Power Park Modules who are EU Code Users and have a CUSC Contract with the ESO | Applicable Grid Code requirements:  PC, ECC, ECP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, HVDC System Owners and Generators in respect of DC Connected Power Park Modules with a CUSC Contract would meet one or more of the requirements of the System Defence Plan. | BC 3\* applies to HVDC System Owners. The requirements for LFSM-O for HVDC Systems and DC Connected Power Park Modules are covered in ECC.6.3.7.1. |
| Existing | DC Converter Station Owners and Generators in respect of Transmission DC Converters who are GB Code Users and have a CUSC Contract with the ESO | Applicable Grid Code requirements:  PC, CC, CP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, DC Converter Station Owners with a CUSC Contract would meet one or more of the requirements of the System Defence Plan. | BC 3\* applies to DC Converter Station Owners |
| Existing and new Type A Power Generating Modules in accordance with the criteria set out in Article 5 of Regulation (EU) 2016/631, to existing and new Type B Power Generating Modules other than those referred to in paragraph 2(b), as well as to existing and new demand facilities, closed distribution systems and third parties providing demand response where they qualify as defence service providers pursuant to Article 4(4) | New | Any Generator who is an EU Code User and has a CUSC Contract with the ESO and owns or operates a Type A Power Generating Module.  Non Embedded Customers and BM Participants in respect of Closed Distribution Systems and Aggregators. | Applicable Grid Code requirements:  PC, ECC, ECP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, Generators with a CUSC Contract who own or operate a Power Station comprising a Type A Power Generating Module would meet one or more of the requirements of the System Defence Plan in the same way as a Generator who owns or operates a Type B Power Generating Module | As the Generator has a CUSC contract and obliged to satisfy the requirements of the Grid Code, then such parties would be within the scope of NCER.  BC 3\* applies to Large Power Stations and directly connected Power Stations. Type A Power Generating Modules are required to satisfy the requirements of ECC.6.3.7.1 (LFSM-O). |
| Existing and new Type A Power Generating Modules in accordance with the criteria set out in Article 5 of Regulation (EU) 2016/631, to existing and new Type B Power Generating Modules other than those referred to in paragraph 2(b), as well as to existing and new demand facilities, closed distribution systems and third parties providing demand response where they qualify as defence service providers pursuant to Article 4(4) | Existing | Any Generator Registered as a GB Code User which has a CUSC Contract with the ESO and owns or operates a Generating Unit or Power Park Module and is required to satisfy the requirements of the Grid Code  Non-Embedded Customers and BM Participants in respect of Closed Distribution Systems and Aggregators. | Applicable Grid Code requirements:  PC, CC, CP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  In satisfying the above Grid Code requirements, Generators with a CUSC Contract would meet one or more of the requirements of the System Defence Plan. | As the Generator has a CUSC contract and obliged to satisfy the requirements of the Grid Code, then such parties would be within the scope of NCER.  BC 3\* applies to Large Power Stations and directly connected Power Stations. |
| Type A and Type B Power Generating Modules referred to in paragraph 3, demand facilities and closed distribution systems providing demand response may fulfil the requirements of this Regulation either directly or indirectly through a third party under the terms and conditions set out in accordance with Article 4(4) | New and Existing | BM Participants | BC1, BC2,(ECC/CC.6.5 applies only) | This is a non-mandatory requirement.  If a BM Party owns or operates a Type A or Type B Power Generating Module, this would fall under the requirements of RfG. They would also need to comply with the requirements of BC1 and BC2 and therefore fall under the scope of NCER. If the party is also a EU Code User, the wider requirements of the Grid Code would apply (ie ECC’s ,ECP’s and OC’s would also apply in which case they would also considered to be within the scope of NCER.  If an existing BM Party owns or operates a Small Power Station they would need to meet the requirements of BC, BC2 and CC.6.5. They would be treated as being within the scope of NCER.  If an Aggregator registered as a BM Party has generation and/or demand and required to meet the requirements of the applicable Balancing Codes this would also fall under the requirements of NCER |
| This Regulation shall apply to energy storage units of a SGU, a defence service provider or restoration service provider which can be used to balance the system, provided that they are identified as such in the system defence plans restoration plans or service contract. | New | Any EU Code Generator which has a CUSC Contract with the ESO and which owns and operates Electricity Storage Modules would be classified as a Storage User as defined under the GC0096 Grid Code proposals | Applicable Grid Code requirements:  PC, ECC, ECP, OC1, OC5, OC6 (in particular OC6.6) , OC7, OC10, OC12, BC1, BC2, BC3\*, DRC  Under the GC0096 proposals, Electricity Storage Modules are treated in the same way as Power Generating Modules. Generators who have a CUSC Contract with the ESO who own and/or operate Electricity Storage Modules would therefore be within the scope of NCER. | Under the GC0096 proposals, when a Storage Plant is in an importing mode of operation, and the System Frequency falls automatic tripping is required in accordance with the requirements of OC6.6.  Within GB, the capability to switch from import to export during low system frequency conditions is not required. Tripping will be initiated prior to the start of Low Frequency Demand Disconnection which occurs at 48.8Hz.  All the other requirements of the Grid Code apply and therefore Storage Units caught under the proposed requirements of GC0096 would be considered to be within the scope of NCER. |
| Existing | Any CUSC Party who owns or operates Storage plant | Applicable Grid Code requirements:  PC, CC, CP, OC1, OC5, OC6, OC7, OC10, OC12, BC1, BC2, BC3\*, DRC | A CUSC Party owning a Storage plant would be required to satisfy the requirements of the Grid Code and hence would be considered to be within the scope of NCER.  The technical requirements applicable to the storage plant including the ability to trip during low system frequencies will be as specified in the Bilateral Agreement. |

For the purposes of implementing the European Emergency Restoration Code, in GB, a Defence Service Provider is considered to have the same meaning as a GB SGU.

For the purposes of implementing the European Emergency Restoration Code, in GB, a Restoration Service Provider is considered to have the same meaning as a Black Start Service Provider (ie a Generator with a Black Start Station or an HVDC System Owner or DC Converter Station Owner with a Black Start HVDC System) or a GB SGU.

For the avoidance of doubt, the following GB Parties are not considered to be SGU’s and considered to fall outside the scope of the European Emergency and Restoration Code.

• Any Embedded Generator in respect of a Medium or Small Power Station which does not have a CUSC Contract with the ESO.

* Any Generator in respect of a Licence Exempt Embedded Medium Power Station (LEEMPS).
* A Demand Response Provider who does not have a CUSC Contract with the ESO
* Any HVDC System Owner or DC Converter Station Owner or Generator who owns and operates an HVDC System or DC Converter Station or Transmission DC Converter or DC Connected Power Park Module which does not have a CUSC Contract or Interconnector Agreement with the ESO.
* BM parties that are not required to meet the requirements of BC1, BC2 and CC.6.5 or ECC.6.5 of the Grid Code.

For the avoidance of doubt, the ESO, Transmission Licensees and Distribution Network Operators (including Independent Distribution Network Operators) are not classified as Significant Grid Users (SGU) though they are required to satisfy the requirements of the European Emergency and Restoration Code.

In complying with the requirements of the Grid Code, System Operator Transmission Owner Code (STC) and Distribution Code (as applicable), the ESO, Transmission Licensees, Distribution Network Operators (including Independent Distribution Network Operators) would be considered to satisfy the requirements of the European Emergency and Restoration Code.