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Grid Code Modification Proposal Form

GC0162: Changes to OC6 to amend the operational timings for the delivery of the additional demand reduction above 20%

Overview: The modification aims through minor alterations to OC6 to amend the operational timings for the delivery of the additional demand reduction above 20%.

Modification process & timetable

1. **Proposal Form**
   20 July 2023
2. **Workgroup Consultation**
   12 September 2023 - 18 September
3. **Workgroup Report**
   25 September 2023
4. **Code Administrator Consultation**
   02 October 2023 - 02 November 2023
5. **Draft Final Modification Report**
   08 November 2023
6. **Final Modification Report**
   13 November 2023
7. **Implementation**
   10WD after Authority Decision

Status summary: The Proposer has raised a modification and is seeking a decision from the Panel on the governance route to be taken.

This modification is expected to have a: High impact

Distribution Network Operators, Customers

Modification drivers: GB Compliance, System Security

Proposer's recommendation of governance route	Urgent modification to proceed under a timetable agreed by the Authority (with an Authority decision)	
Who can I talk to about the change?	**Proposer:** Usman Farooq usman.farooq@nationalgrideso.com 07895310280	**Code Administrator Contact:** Jonathan Whitaker jonathan.whitaker@nationalgrideso.com 07354901925

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What is the issue?

Operating Code 6 (OC6) is one of the tools which enables the Electricity System Operator (ESO) to reduce Demand on the National Electricity Transmission System to either avoid or relieve operating problems. It is designed to be used at no or short notice.

There has been an increased focus on the tools the ESO has available to reduce demand to ensure the GB Electricity System remains balanced in the event of an operational situation where there is a need to reduce National Demand.

In an event where demand disconnection is required, OC6 stipulates the operational timings to achieve this. If GC0161 is approved, the first 20% of demand to be disconnected will be able to utilise Electricity Supply Emergency Code (ESEC) blocks, which allow for critical sites to be protected. However, operational timing required for demand disconnection between 20% and 40% mean that ESEC blocks cannot be used and thus critical sites cannot be protected.

The need for this Grid Code changed has been raised through the Electricity Shortfall Prioritisation Review (ESPR) which is lead by DESNZ. Raising this Grid Code modification received unanimous support from all the GB Distribution Network Operators representatives on the review group.

Why change?

Government wants to align Demand Control products following the Electricity Shortfall Prioritisation Review (ESPR). To enable the ESO, during a supply shortfall, to instruct the Distribution Network Operators (DNOs) to utilise OC6 Demand Control, so that there can be protection of critical sites when there is a requirement to reduce demand between 20% and 40%.

What is the proposer's solution?

The solution will amend wording within section OC6.5.5 of the Grid Code which dictates the operational timing requirements of demand disconnection between 20% and 40% of demand.

Draft legal text

OC6.5.5

(a) If **The Company** has given a **National Electricity Transmission System Warning - High Risk of Demand Reduction** to a **Network Operator**, and has issued it by 1600 hours on the previous day, it can instruct the **Network Operator** to reduce its **Demand** by the percentage specified in the **National Electricity Transmission System Warning**.

(b) **The Company** accepts that if it has not issued the **National Electricity Transmission System Warning - High Risk of Demand Reduction** by 1600 hours on the previous day or if it has issued it by 1600 hours on the previous day, but it requires a further percentage of **Demand** reduction (which may be in excess of 40 per cent of the total **Demand** on the **User System** of the **Network Operator** (measured at the time the **Demand** reduction is required) from that set out in the **National Electricity Transmission System Warning**, it can only receive an amount that can be made available at that time by the **Network Operator**.

(c) ~~Other than with regard to the proviso, the provisions of OC6.5.3 shall apply to those instructions.~~

Other than with regard to the proviso, the provisions of OC6.5.3 shall apply to those instructions, except in regards to OC6.5.3(d) where **Demand Control** initiated by **Demand Disconnection** shall be initiated as soon as possible but in any event no longer than two minutes from the instruction being received from **The**

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Company, and the first 20% of **Demand Disconnection** completed within five minutes of the instruction being received from **The Company**, and any further **Demand Disconnection** above 20% to take 5 minutes for each extra 5% of **Demand** being disconnected.

What is the impact of this change?

Proposer's assessment against Grid Code Objectives	
Relevant Objective	**Identified impact**
(a) To permit the development, maintenance, and operation of an efficient, coordinated, and economical system for the transmission of electricity	**Positive** Currently, the text doesn't allow, under certain circumstances, for the efficient operation of the electricity system.
(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);	**Neutral** The modification is related to demand control in the event of there being a shortfall in active power to meet demand. There is no implication to fair competition of assets.
(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;	**Neutral** OC6 Demand Control aims to manage the system under events when there is a shortfall in active power.
(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	**Positive** This modification will enable DNOs to remain compliant to Grid Code obligations in the event of a shortfall in active power.
(e) To promote efficiency in the implementation and administration of the Grid Code arrangements	**Neutral** This modification will not promote additional efficiency.

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Proposer's assessment of the impact of the modification on the stakeholder / consumer benefit categories	
Stakeholder / consumer benefit categories	**Identified impact**
Improved safety and reliability of the system	**Positive** It is aimed at efficiently managing scenarios where there has been a shortfall in active power to meet required demand.
Lower bills than would otherwise be the case	**Neutral** This change will have no impact to customers' bills
Benefits for society as a whole	**Positive** Certain critical sites could be protected when there is a demand disconnection requirement of between 20% and 40%.
Reduced environmental damage	**Neutral** This change will have no direct impact to environmental damage levels
Improved quality of service	**Positive** GB Customers will be better off as demand disconnection between 20% and 40% will still allow for critical sites to be protected.

When will this change take place?

Implementation date
10WD from Authority decision. Ten days to communicate the changes to the control rooms once approved.

Date decision required by
End of November 2023.

Implementation approach
It is envisaged that DNOs will need to make changes to their processes to allow demand disconnection of between 20% and 40% to utilise ESEC blocks.

Proposer's justification for governance route
Governance route: Urgent modification to proceed under a timetable agreed by the Authority (with an Authority decision)

If we don't urgently resolve this issue, there is a risk that there could be a significant shortfall event on the electricity system this winter 23/24, which would result in critical sites being disconnected. This would result in a detrimental impact on society including an increased risk to life. This modification will amend the operational timing requirements to disconnect between 20% and 40% of demand, allowing ESEC style blocks to be used, thereby enabling the protection of critical sites.

DNOs could become non-compliant with OC6, if they were directed by a Government body to protect sites during demand disconnections.

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Interactions

☐CUSC	☐BSC	☐STC	☐SQSS
☐European Network Codes	☐ EBR Article 18 T&Cs[1]	☐Other modifications	☒Other

Changes to this mod will cause changes in Distribution Code as DNOs will need to disconnect sites & customers.

Acronyms, key terms, and reference material

Acronym / key term	Meaning
BSC	Balancing and Settlement Code
CUSC	Connection and Use of System Code
DNOs	Distribution Network Operators
EBR	Electricity Balancing Regulation
ESEC	Electricity Supply Emergency Code
ESPR	Electricity Shortfall Prioritisation Review.
GC	Grid Code
STC	System Operator Transmission Owner Code
SQSS	Security and Quality of Supply Standards
T&Cs	Terms and Conditions
ESO	Electricity System Operator
OC6	Operating Code 6

Reference material

- Electricity Supply Emergency Code

[1] If your modification amends any of the clauses mapped out in Annex GR.B of the Governance Rules section of the Grid Code, it will change the Terms & Conditions relating to Balancing Service Providers. The modification will need to follow the process set out in Article 18 of the Electricity Balancing Regulation (EBR – EU Regulation 2017/2195). All Grid Code modifications must be consulted on for 1 month in the Code Administrator Consultation phase, unless they are Urgent modifications which have no impact on EBR Article 18 T&Cs. N.B. This will also satisfy the requirements of the NCER process.