

## Final Modification Report

# GC0162: Changes to OC6 to amend the operational timings for the delivery of the additional demand reduction above 20%, with a focus between 20% and 40%

**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	<b>Proposal Form</b> 20 July 2023
2	<b>Workgroup Consultation</b> 11 September 2023 - 18 September 2023
3	<b>Workgroup Report</b> 09 October 2023
4	<b>Code Administrator Consultation</b> 13 October 2023 - 14 November 2023
5	<b>Draft Final Modification Report</b> 20 November 2023
6	<b>Final Modification Report</b> 23 November 2023
7	<b>Implementation</b> 10WD after Authority Decision

**Have 5 minutes?** Read our [Executive summary](#)

**Have 20 minutes?** Read the full [Final Modification Report](#)

**Have 30 minutes?** Read the full Final Modification Report and Annexes.

**Status summary:** This report has been submitted to the Authority for them to decide whether this change should happen.

**Panel recommendation:** The Panel has recommended unanimously that the Proposer's solution is implemented.

**This modification is expected to have a: **High impact****  
Distribution Network Operators and Customers

**Modification drivers:** GB Compliance, System Security

**Governance route** Urgent modification proceeding under a timetable agreed by the Authority

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## Executive summary

This modification proposes changes to Operating Code 6 (OC6) of the Grid Code to amend the operational timings for the delivery of Demand Disconnection above 20%, with a focus between 20% and 40%. The need for this Grid Code change has been identified by the Electricity Shortfall Prioritisation Review (ESPR) which is led by DESNZ. Raising this Grid Code modification received unanimous support from all the GB Distribution Network Operators' representatives on the ESPR group.

### What is the issue?

OC6 is one of the tools which enables the Electricity System Operator (ESO) to reduce Demand on the National Electricity Transmission System (NETS) to either avoid or relieve operating problems. Currently, the operational timing required for Demand Disconnection between 20% and 40% means that Electricity Supply Emergency Code (ESEC) blocks cannot be used and thus critical sites cannot be protected even if technically possible.

### What is the solution and when will it come into effect?

**Proposer's solution:** The solution amends wording within OC6 to change the operational timing requirements of Demand Disconnection between 20% and 40% of Demand.

**Implementation date:** By 15 December 2023.

**Workgroup conclusions:** The Workgroup concluded unanimously that the Original better facilitated the Applicable Objectives than the Baseline.

**Panel recommendation:** The Panel has recommended unanimously that the Proposer's solution is implemented.

### What is the impact if this change is made?

This modification will have an impact on Distribution Network Operators and Customers. It will change DNO operational timings and allow the utilisation of the ESEC protected site list, for Demand Disconnection above 20%, with a focus between 20% and 40%, where technically possible.

### Interactions

The Workgroup considered whether this modification would cause changes to be made to the Distribution Code. The Workgroup concluded that this modification would cause changes to be made to the Distribution Code, and these changes were consulted on as part of modification [DCRP/23/05/PC](#).

This modification interacts with Grid Code modification [GC0161](#), which was approved on 15 September 2023 and implemented on 02 October 2023. GC0162 builds upon the work undertaken as part of [GC0161](#), which removed a barrier for protection of critical sites. These clauses are required for the intent of GC0162 to be achieved.

The Workgroup concluded that this modification does not impact Electricity Balancing Regulations.

## 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 with no or at 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. The legal text changes from [GC0161](#) currently allow for utilisation of Electricity Supply Emergency Code (ESEC) blocks for the first 20% of Demand to be disconnected. This will allow for critical sites to be protected, where technically possible. However, the existing operational timing requirement of the Grid Code for Demand Disconnection between 20% and 40% means that ESEC blocks cannot be used and thus critical sites cannot be protected.

The need for this Grid Code change has been identified by the Electricity Shortfall Prioritisation Review (ESPR) which is led by DESNZ. Raising this Grid Code modification received unanimous support from the GB Distribution Network Operators' representatives on the ESPR review group.

## Why change?

The UK Government wants to align Grid Code Demand Control and ESEC 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 in such a way that DNOs can provide protection of critical sites, where technically possible, when there is a requirement to reduce Demand between 20% and 40%.

## What is the solution?

### Proposer's solution

The solution amends wording within OC6 of the Grid Code. This will allow changes to the operational timing requirements to implement Demand Disconnection between 20% and 40% of Demand. It also clarifies that all the 5% Demand blocks referred to in OC6 are actually Demand blocks between 4% and 6%, in line with operational practices. Some other changes to legal text are also proposed to clarify the implementation of the revised arrangements.

## Workgroup considerations

The Workgroup convened 6 times to discuss the perceived issue, detail the scope of the proposed defect, devise potential solutions and assess the proposal in terms of the Applicable Objectives.

### **Consideration of the Proposal by the Grid Code Review Panel on 27 July 2023**

The Grid Code Review Panel agreed to update the modification title to include 'with a focus between 20% and 40%'.

## Consideration of the proposer's solution

The Original Proposal covered changes to OC6.5.5(c) only, altering the operational timings for Demand reduction between 20% and 40% so that ESEC blocks can be utilised where technically feasible. Following discussion within the Workgroup, it was agreed to make additional changes to OC6.1.5, OC6.5.3, OC6.5.4 and OC6.5.5. These changes were to ensure consistency within OC6, clarify what would occur in the case of multiple Demand Control instructions being issued by the ESO, and to ensure that OC6 is in line with operational practices. It was agreed that all references to “five per cent” should be changed to reflect the “between four and six per cent” reduction in Demand that would be expected to be delivered in practice due to the continual fluctuations in demand. Some other minor changes are proposed to ensure clarity in other sections of OC6. The Workgroup considered that these changes would be achievable within the timeframe outlined in the Ofgem Urgency decision letter.

The Proposer asked for confirmation from all Distribution Network Operators (DNOs) that the new operational timings would be technically feasible. This was agreed by all DNOs; however, it was noted that some DNOs could potentially disconnect multiple blocks in a shorter time than the 5 minutes proposed to be allowed for each additional, incremental 5% between 20% and 40%. At Workgroup 1, it was noted that not all DNOs were represented on the Workgroup and the remaining DNOs were encouraged to join.

One Workgroup member queried the 16:00 hours (day ahead) National Electricity Transmission System Warning referred to in OC6.5.4(c) and asked whether DNOs would be expected to reduce Demand if the ESO had not issued this warning in time. An ESO representative clarified that they would work with DNOs to implement as much Demand reduction as possible, however stated that DNOs would not be obliged to reduce Demand in this case.

Several Workgroup members queried whether DNOs would be at risk if they were to disconnect protected sites if not operationally feasible to protect them. The Workgroup agreed that the existing OC6 legal text, following implementation of [GC0161](#) on 02 October 2023, has sufficient provision for this as it is clear that, for the purposes of OC6, site protection (in terms of ESEC) is not guaranteed.

The Workgroup discussed the possibility of a perverse result of OC6 Demand Disconnection causing Demand to increase rather than decrease, as a consequence of Embedded Generation on some distribution networks. Several Workgroup members thought this was a possibility, especially in the April to September period (compared to the October to March period). However, the ESO and DNOs stated that they would attempt, when setting up the operational switching arrangements, to avoid disconnecting Demand blocks with significant embedded generation by seeking, where possible, to ensure that the ESEC blocks that would be utilised to implement Demand Disconnection of between 20% and 40% had minimal levels of embedded generation.

The Workgroup also considered altering Terms of Reference (k) and (l) for this modification, to make it clear that the focus of this modification relates to operational timings, rather than the arrangements for designating critical sites (which falls under the governance of ESEC, rather than the Grid Code). The proposed changes to the Terms of Reference were approved at the Grid Code Review Panel on 24 August 2023.

When setting the scope for GC0162, the Grid Code Review Panel asked the Workgroup to consider any impacts on frequency response & reserve requirements and security of

supply. The Workgroup analysed a number of scenarios under which Demand Disconnection of between 20 – 40 % under OC6.5.4 and OC6.5.5 could potentially occur. It was noted that the use of these areas of OC6 would be reliant on a National Electricity Transmission System Warning - High Risk of Demand Reduction notification issued by The Company by 16:00 hours the day prior and therefore should be considered as actions that can be planned rather than just initiated in real time. In directing Demand Disconnections under OC6.5.5, the ESO's Electricity National Control Centre would plan to enact the Demand reduction to minimise any disturbance on the National Electricity Transmission System. The increased switching times have potential to reduce the impact on the system of any disturbance resulting from reduction of Demand. It was therefore concluded by the Workgroup that the planned nature of the Demand Control instruction would not bear a material impact on security of electricity supplies to customers generally and that the current frequency response requirements would mitigate any adverse implications due to the increased switching time.

Several scenarios for the timing around a Demand Disconnection instruction being issued by the ESO to the DNO(s) were discussed by the Workgroup. As a result of these scenarios some members queried whether concurrent (rather than consecutive) instructions could potentially be given by the ESO. The Workgroup concluded that concurrent instructions could not be feasibly implemented by DNOs, and the ESO confirmed that they would aim to minimise the number of instructions, ideally with just one instruction being given. This would not always be the case operationally however, and the ESO may give instructions separated by several minutes to minimise stress on the NETS.

Nevertheless, in the event that a second concurrent instruction was given by the ESO to a DNO, the ESO confirmed that this should be treated as a consecutive instruction by the DNO, and that the DNO should implement the first instruction before implementing the second instruction. It was discussed that if the DNO had completed the action for the first instruction ahead of the minimum time specified in OC6 then they would be free to start to implement the second instruction as soon as possible.

One Workgroup member queried whether there would be operational issues for the ESO if Demand Disconnection above 20%, where instructed, was completed much quicker than the 5 minutes allowed for each 5% (e.g. implementation of a further 15% (35% in total) of Demand Disconnection in say 6 minutes, rather than the 15 minutes proposed to be allowed). The ESO advised that it would be useful for them to know in advance of the instruction(s) being implemented from the DNO, and the ESO will do this through discussions with the DNOs.

Impacts on other codes were also discussed by the Workgroup, and it was agreed that minor changes would need to be made to the Distribution Code as a result of GC0162. A consultation paper was drafted to incorporate these changes, and this was discussed by the Workgroup prior to consulting on the change. The Workgroup did not highlight impacts on any other codes.

The Workgroup discussed changes to the legal text in OC6.5.4(b) and it was highlighted that the clause 'measured at the time the Demand reduction is required' does not reflect current practice. It was proposed that all references to this requirement be removed throughout OC6 (five instances of this in three clauses: OC6.5.3, OC6.5.4 and OC6.5.5; all clauses that are currently being considered as part of this modification). It was also highlighted during the Workgroup that further work needs to be considered to unify methods undertaken by DNOs to establish the Demand blocks utilised for Demand

Control events, although the Workgroup agreed that this is not within scope for modification GC0162.

The Workgroup also considered the new clause in OC6.5.3(e) that had been added as part of modification [GC0161](#), to reference the ESEC protected site list and to allow protection of critical sites where technically feasible. The Workgroup agreed that this clause would only apply to Demand Disconnection stages referred to in OC6.5.3(a), and discussed moving this clause so it would be applicable to Demand Disconnection above 20%, as in OC6.5.5. It was agreed by the Workgroup to move this clause to OC6.1.5 and to refer to Demand Disconnection stages in OC6.5. The clause was subsequently reworded to avoid repetition.

The Workgroup considered a potential scenario where the ESO gives a Demand Disconnection instruction under OC6 followed by a further instruction to either cancel that instruction or to restore the Demand (that had been disconnected). It was clarified by several DNOs that their systems were not capable of cancelling Demand Disconnection operations once they had been initiated and were underway. Several Workgroup members expressed an opinion that Demand restoration instructions are not within the scope of this modification, however Workgroup members asked for the legal text to be specific in considering only Demand Disconnection instructions (where multiple instructions are issued) and not cancellation instructions or Demand restoration instructions.

The Workgroup considered whether there were impacts on other areas of OC6. One Workgroup member queried whether OC6.6.3 would interact with the proposed new clause in OC6.5.5(d), however the Proposer discussed this with the ESO legal team and concluded that there was no interaction.

During previous information requests ahead of Winter 2022/23 from Ofgem and DESNZ, the ESO and DNOs acknowledged that using ESEC blocks could potentially overlap with LFDD stages. This could reduce the efficacy of LFDD however this risk currently exists if ESEC was to be initiated and has been recognised by industry, Ofgem and DESNZ. It has been recognised by the ESPR that future work is required to acknowledge the interactions between different Demand reduction tools including ESEC and LFDD.

As part of the ESPR, it was identified that further work is required on LFDD improvements and interaction between the tools the ESO has available to manage the system. This Workgroup would be supportive of further work being undertaken on this, however noted that any work completed would not be in the scope of modification GC0162.

The ESO investigated a scenario internally in the case that Demand Control under OC6.5 was instructed, and during that enaction, another event on the system triggered LFDD. This would cause a reduction in Demand due to LFDD, followed by a further reduction in Demand through Demand Disconnection under OC6.5. It was queried whether Demand could become too low, causing the frequency to become higher than 50Hz. The ESO advised that this scenario would be very unlikely, due to the extremely low probability of either event occurring, however they advised that for LFDD to be initiated, the system frequency would be at 48.8Hz and falling. LFDD is designed to arrest the falling frequency by disconnecting Demand, but not return the frequency back to 50Hz which would require additional actions by the ESO ENCC. Reducing Demand by an additional percentage would increase the frequency back towards 50Hz. If the ESO were planning

to use OC6.5, they would consider holding additional frequency response if possible, which could help manage any potential increase in frequency above 50Hz.

The Workgroup considered costs and concluded that there are no material cost impacts of GC0162 as the Network Operators already have processes for implementing OC6 Demand Control instructions. Therefore, the proposed GC0162 solution would have a minor, mainly 'administrative' related cost which would be greatly outweighed by the wider societal benefits of being able to afford (where technically feasible) protection to certain sites in the event of an OC6.5 Demand Disconnection instruction being implemented.

### Examples of OC6.5 Operational Timings

Below are a series of simple, illustrative, examples that the Workgroup used when examining what might (or might not) happen practically with the timings for instructions covered under GC0162.

Any numbers shown in square brackets refer to time elapsed since the initial instruction. Where 5% blocks are used, these refer to the Demand reduction blocks of between 4% and 6%, or voltage reduction stages. Where this is used for reducing Demand by up to 20%, integral multiples of these blocks or stages will be used.

#### Scenario 1 – Demand reduction of 20% under OC6.5.3

Time	Action	Demand Level at the Time
14:49	ESO issues single instruction to DNO	100%
14:51 [+2]	DNO must have commenced Demand reduction	100%
14:54 [+5]	DNO must have completed Demand reduction	80%

This scenario covers initial Demand reduction of 20% Demand, where the DNO has up to two minutes to initiate Demand reduction, and up to five minutes to complete it.

#### Scenario 2 – Demand reduction of 25%; 20% under OC6.5.3 and 5% under OC.6.5.5 – one single instruction

Time	Action	Demand Level at the Time
14:49	ESO issues single instruction to DNO to reduce Demand by 25%	100%
14:51 [+2]	DNO must have commenced Demand reduction	100%
14:54 [+5]	DNO must have completed Demand reduction to 80% and commenced the next 5% stage of Demand reduction	80%
14:59 [+5+5]	DNO must have completed Demand reduction to 75%	75%

This scenario covers an initial Demand reduction of 20% Demand, as in Scenario 1 above, followed by another 5% Demand Disconnection. The DNO has 5 minutes to

complete the additional 5% Demand Disconnection, following completion of the first Demand reduction stage of 20%.

**Scenario 3** – Demand reduction of 40% under OC6.5.3 and OC6.5.5 – one single instruction

Time	Action	Demand Level at the Time
14:49	ESO issues single instruction to DNO to reduce Demand by 40%	100%
14:51 [+2]	DNO must have commenced Demand reduction	100%
14:54 [+5]	DNO must have completed Demand reduction to 80% and commenced the next 5% stage of Demand reduction	80%
14:59 [+5+5]	DNO must have completed Demand reduction to 75%, and commenced the next 5% stage of Demand reduction	75%
15:04 [+5+5+5]	DNO must have completed Demand reduction to 70%, and commenced the next 5% stage of Demand reduction	70%
15:09 [5+5+5+5]	DNO must have completed Demand reduction to 65%, and commenced the next 5% stage of Demand reduction	65%
15:14 [5+5+5+5+5]	DNO must have completed Demand reduction to 60%	60%

As per Scenario 2 above, the DNO has 5 minutes to complete each additional 5% Demand Disconnection block over 20% (up to, in this example, 40%), following completion of the first Demand reduction stage of 20%.

**Scenario 4** – Demand reduction of 25%; 20% under OC6.5.3 and 5% instructed subsequently under OC6.5.5 with a 3 minute period after completion of the first instruction before the second instruction is given

Time	Action	Demand Level at the Time
14:49	ESO issues first instruction to DNO to reduce Demand by 20%	100%
14:51 [+2]	DNO must have commenced 20% Demand reduction	100%
14:54 [+5]	DNO must have completed 20% Demand reduction to 80%	80%
14:57 [+5+3]	ESO issues second instruction to DNO to reduce Demand by a further 5%	80%

14:59 [+5 +3 +2]	DNO must have commenced the additional 5% Demand reduction	80%
15:02 [+5+3+5]	DNO must have completed Demand reduction to 75%	75%

This scenario covers where a second Demand Control instruction is given after completion of the first Demand reduction instruction, with the DNO given 5 minutes to complete the Demand reduction stages associated with the first instruction and a further 2 minutes to initiate (and 5 minutes to complete) the Demand disconnection required by the second instruction.

**Scenario 5** – Demand reduction of 30%; 20% under OC6.5.3 and 5% under OC.6.5.5 issued as a single instruction – and 5% instructed subsequently under OC6.5.5 three minutes after the first instruction – two separate instructions.

Time	Action	Demand Level at the Time
14:49	ESO issues first instruction to DNO to reduce Demand by 25%	100%
14:51 [+2]	DNO must have commenced 20% Demand reduction	100%
14:52 [+3]	ESO issues second instruction to DNO to reduce Demand by a further 5%	100%
14:54 [+5]	DNO must have completed 20% Demand reduction to 80%	80%
14:54	Deemed time for receipt of ESO (second) instruction to DNO to reduce Demand by a further 5%	N/A
14:59 [+5+5]	DNO must have completed Demand reduction to 75%, and started next 5% stage	75%
15:04 [5+5+5]	DNO must have completed Demand reduction to 70%	70%

This scenario covers where a concurrent instruction is issued by the ESO (at 14:52). As in the scenarios above, the first instruction is completed (at 14:54), with the first 20% of Demand reduction initiated within 2 minutes (at 14:51) of that initial instruction being issued (at 14:49) and completed within 5 minutes (at 14:54), when a further two 5% blocks of Demand Disconnection is then initiated, each having an additional 5 minutes for each 5% block being disconnected. The second instruction is only initiated (at 14:54) by the DNO following completion of the first instruction (at 14:54) and the second instruction is then completed (at 15:04).

### **Workgroup consultation summary**

The Workgroup held their Workgroup Consultation between 11 – 18 September 2023 and received 4 non-confidential responses (and 0 confidential responses). The full

responses and a summary of the responses can be found in Annex 5. Key points are summarised below:

- All respondents agreed that the Original Proposal better facilitates Applicable Objectives (c) and (d). Three respondents agreed that Applicable Objective (a) is better facilitated, and one respondent agreed that Applicable Objective (e) is better facilitated.
- All Workgroup Consultation respondents supported the implementation approach.
- All respondents agreed with the proposed changes to OC6, and that the current legal text is reflected in the above scenarios.
- Three respondents agreed that changes need to be made to the Distribution Code as a result of GC0162, with one respondent highlighting that the changes should be consistent with the Grid Code.
- One respondent highlighted the links between GC0161 and GC0162.
- One respondent suggested some minor legal text changes; these were discussed and agreed by the Workgroup.

### Legal text

The legal text for this change can be found in Annex 4.

## 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	<b>Positive</b> 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);	<b>Neutral</b> 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;	<b>Positive</b> OC6 Demand Control will provide better overall security to the system, protecting critical sites where technically feasible.
(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	<b>Positive</b> 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	<b>Neutral</b> 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	<b>Positive</b> 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	<b>Neutral</b> This change will have no impact to customers' bills.
Benefits for society as a whole	<b>Positive</b> Certain critical sites could be protected when there is a Demand Disconnection requirement of between 20% and 40%.
Reduced environmental damage	<b>Neutral</b> This change will have no direct impact to environmental damage levels.
Improved quality of service	<b>Positive</b> GB Customers will be better off as Demand Disconnection between 20% and 40% will still allow for critical sites to be protected.

### Workgroup vote

The workgroup met on 03 October 2023 to carry out their workgroup vote. The full Workgroup vote can be found in Annex 6. The table below provides a summary of the Workgroup members view on the best option to implement this change.

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

The Workgroup concluded unanimously that the Original better facilitated the Applicable Objectives than the Baseline.

Option	Number of voters that voted this option as better than the Baseline
Original	8

### **Code Administrator Consultation Summary**

The Code Administrator Consultation was held between 13 October 2023 – 14 November 2023 and received 2 non-confidential responses (and 0 confidential responses). A summary of the responses can be found in the table below, and the full responses can be found in Annex 8.

Code Administrator Consultation summary	
Question	
Do you believe that the GC0162 Original Proposal better facilitates the Grid Code Objectives?	All respondents stated that the Original Proposal better facilitates objectives a, c and d.
Do you support the proposed implementation approach?	All respondents stated that they support the proposed implementation approach.
Do you have any other comments?	One respondent said they support the NGESO view that other sections of OC6 should be reviewed in the near future to reflect the current position for demand reduction, e.g. the process and criteria for calculation of demand disconnection blocks, the potential overlap between manual and automatic demand disconnection blocks etc.

### **Panel Recommendation Vote**

The Panel met on 23 November 2023 to carry out their recommendation vote. They assessed whether a change should be made to the Grid Code by assessing the proposed change against the Applicable Objectives.

**Vote 1:** Does the Original facilitate the objectives better than the Baseline?

Panel Member: **Alan Creighton, Network Operator Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original	Y	-	Y	Y	-	Y
Voting Statement						
The Original solution will reduce the risk to customer sites, named in the Protected Sites List under the Electricity Supply Emergency Code, connected to the Northern Powergrid network where loss of supply may have a societal impact.						

Panel Member: **Graeme Vincent, on behalf of Matthew White, Network Operator Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original	Y	-	Y	Y	-	Y
<b>Voting Statement</b>						
In amending the timing requirements to complete demand control under Grid Code OC6.5 this modification removes one of the technical barriers faced in protecting PSL customers.						

Panel Member: **John Harrower, Generator Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original	Y	-	Y	Y	-	Y
<b>Voting Statement</b>						
This modification facilitates protection being given to Protected Sites and clarifies timescales to execute Demand Control.						

Panel Member: **Noel McGoldrick, on behalf of David Monkhouse, Offshore Transmission Licensee**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original	Y	-	Y	Y	-	Y
<b>Voting Statement</b>						
The original proposal better facilitates the objectives of the proposed modification.						

Panel Member: **Robert Longden, Supplier Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original	Y	-	Y	-	-	Y
<b>Voting Statement</b>						
The work group has identified a number of "follow on issues" which require to be addressed, for completeness. These do not have a significant impact on the evaluation of GC0162, which should be implemented. Two key issues identified by the work are the need to ensure system resilience is maintained with "longer times to take action" and the importance of effective two way operational communication with DNOs in situations where these measures may be used. The ESO should provide a positive confirmation that these have been fully addressed (in due course) in addition to the "first pass" contained in the FMR.						

Panel Member: **Ross Kirkwood, Onshore Transmission Licensee**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original	Y	-	Y	Y	-	Y

**Voting Statement**

The original proposal better facilitates the objectives of the proposed modification.

**Panel Member: Sigrid Bolik, Generator Representative**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original	Y	-	Y	Y	-	Y

**Voting Statement**

Allows for important demand to stay connected, when generation is not meeting demand and also improves clarity in the process of demand disconnection instructions.

**Panel Member: Terry Baldwin, National Grid ESO**

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Better facilitates AO (e)?	Overall (Y/N)
Original	Y	-	Y	Y	-	Y

**Voting Statement**

This modification will provide better overall security to the system, protecting critical sites where technically feasible, and allow DNOs to remain compliant with Grid Code obligations.

**Vote 2 – Which option is the best?**

Panel Member	BEST Option?	Which objectives does this option better facilitate? (If baseline not applicable).
Alan Creighton	Original	A, C, D
Graeme Vincent	Original	A, C, D
John Harrower	Original	A, C, D
Noel McGoldrick	Original	A, C, D
Robert Longden	Original	A, C
Ross Kirkwood	Original	A, C, D
Sigrid Bolik	Original	A, C, D
Terry Baldwin	Original	A, C, D

**Panel conclusion**

The Panel has recommended unanimously that the Proposer's solution is implemented.

**When will this change take place?****Implementation date**

10 Business Days from an Authority decision. This is to allow time to communicate the changes to the ESO and DNOs' control rooms once approved.

**Date decision required by**

01 December 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.

## Interactions

- |  |  |  |                                |
|--|--|--|--------------------------------|
| <input type="checkbox"/> Grid Code                 | <input type="checkbox"/> BSC                                 | <input type="checkbox"/> STC                               | <input type="checkbox"/> SQSS  |
| <input type="checkbox"/> European<br>Network Codes | <input type="checkbox"/> EBR Article 18<br>T&Cs <sup>1</sup> | <input checked="" type="checkbox"/> Other<br>modifications | <input type="checkbox"/> Other |

The Workgroup considered whether this modification would cause changes to be made to the Distribution Code. The Workgroup concluded that this modification would cause changes to be made to the Distribution Code, and these changes were consulted on as part of modification [DCRP/23/05/PC](#).

This modification interacts with Grid Code modification [GC0161](#), which was approved on 15 September 2023 and implemented on 02 October 2023. GC0162 builds upon the work undertaken as part of [GC0161](#), which removed a barrier for protection of critical sites. These clauses are required for the intent of GC0162 to be achieved.

The Workgroup concluded that this modification does not impact Electricity Balancing Regulations.

## Acronyms, key terms and reference material

Acronym / key term	Meaning
BSC	Balancing and Settlement Code
DESNZ	Department for Energy Security and Net Zero
DNOs	Distribution Network Operators
EBR	Electricity Balancing Regulation
ENCC	Electricity National Control Centre
ESEC	Electricity Supply Emergency Code
ESO	Electricity System Operator
ESPR	Electricity Shortfall Prioritisation Review.
GC	Grid Code
GCRP	Grid Code Review Panel
LFDD	Low Frequency Demand Disconnection
NETS	National Electricity Transmission System
OC6	Operating Code 6
STC	System Operator Transmission Owner Code
SQSS	Security and Quality of Supply Standards
T&Cs	Terms and Conditions

## Reference material

- [Electricity Supply Emergency Code](#)

<sup>1</sup> If the modification has an impact on Article 18 T&Cs, it will need to follow the process set out in Article 18 of the Electricity Balancing Regulation (EBR – EU Regulation 2017/2195) – the main aspect of this is that the modification will need to be consulted on for 1 month in the Code Administrator Consultation phase. N.B. This will also satisfy the requirements of the NCER process.

**Annexes**

<b>Annex</b>	<b>Information</b>
Annex 1	Proposal form
Annex 2	Urgency letters
Annex 3	Terms of reference
Annex 4	Legal text
Annex 5	Workgroup consultation responses and summary
Annex 6	Workgroup vote
Annex 7	Workgroup attendance record
Annex 8	Code Administrator Consultation Responses