

Grid Code Workgroup Consultation

GC0134:

Removing the telephony requirements for small, distributed and aggregated market participants who are active in the Balancing Mechanism

Overview: Participation in the Balancing Market currently requires participants to operate telephony 24 hours every day. The proposal is to allow small users below a threshold to be exempt from the telephony requirement outside of office hours, in order to allow greater participation while minimising risks to system security.

Modification process & timetable

- Proposal form
- •14 October 2019
- Workgroup Consultation
- •12 May 03 June 2020
- Workgroup Report
- •25 June 2020
 - Code Administrator Consultation
 - •01 July 22 July 2020
 - Draft Code Modification Report
 - 27 August 2020
 - Final Code Modification Report
 - •08 September 2020
 - Implementation
 - •27 October 2020

Have 5 minutes? Read our Executive summary

Have 20 minutes? Read the full Workgroup Consultation document

Have 30 minutes? Read the full Workgroup Consultation document and annexes

Status summary: Workgroup Consultation. The Workgroup are seeking your views on the work completed to date to form the final solution(s) to the issue raised

This modification is expected to have a: high /Medium/Low

Aggregators, DG

ENCC

Existing BM participants

impact

Governance route

This modification will be assessed by a Workgroup and Ofgem will

make the decision on whether it should be implemented

Who can I talk to about the change? Proposer: Peter Dennis

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Code Administrator Chair: Nisar Ahmed

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How do I respond?	Send your response proforma to grid.code@nationalgrideso.com by
	5pm on 03 June 2020.



Executive Summary

The aim of this proposal is to remove a barrier to entry to allow additional participants to access and be responsive to the Balancing Market.

Current requirements include having a telephone connection to the Electricity National Control Centre, operated 24/7. For potential participants this is an onerous and costly requirement to begin operating outside of UK office hours and hence a barrier to access. Telephone despatch is part of the NGESO Contingency Despatch process, utilised under two distinct conditions:

- I. Planned BM System outages.
- II. Unplanned IT/System failures.

Under these conditions, the telephone is used to maintain the integrity of the Balancing Mechanism and security of supply.

An exemption for small users, defined by a threshold, is proposed to reduce the costly start-up burden.

The benefit to the ENCC of allowing entry of new participants is greater visibility of distributed units and the ability to dispatch these units via conventional EDL or the Wider Access API.

The risks are that: i) existing participants eligible for the exemption may choose to abandon their 24 hour telephony, thereby somewhat reducing system resilience. ii) NGESO will not be able to call-off balancing services from these participants during the periods where IT systems are compromised. These risks are mitigated by setting the exemption threshold to a level low enough for the loss to be negligible. A key area for the consultation should be to seek the views of existing participants to understand the likelihood of them reducing their use of telephony in response to this.

Overall, the result should be a net increase in visibility and control for the ENCC plus additional competition entering the BM.

What is the issue?

Staffing a 24/7 control point is an onerous requirement for BMUs as small as 1MW. Wider Access has created the option for units as small as 1MW to participate in the Balancing Market. If the change isn't made, the barrier created by the current telephony requirements makes it less likely such small units will be able to afford to participate independently and may discourage many from doing so at all. The result of this may be that a proportion of distributed generation could remain outside of the control of the ENCC and not supply operational metering.

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

Proposers solution:

A solution could be to define a threshold below which units are small enough to be immaterial in the event that the ENCC is unable to dispatch them via electronic methods (EDL/API).

10MW per site and 50MW per aggregated control point is suggested as thresholds that may be acceptable.

Implementation date:

In support of the Wider Access project, the aim is to implement the change as soon as possible and therefore to keep the change simple. An exemption in a similar format to that in CC.7.9 could be a suitable example to follow when drafting the legal text.



Implementation should be targeted for this year (2020), ideally by October 2020.

What is the impact if this change is made?

The intended impact is to bring additional capacity into the control of the BM and visibility of operational metering. This would reduce the potential errors in forecasting distributed generation and allow greater control and visibility for the ENCC.

The unintended consequences are i) the potential for existing participants to abandon their 24/7 telephony in favour of only using electronic methods of communication outside of office hours. ii) Small participants will be unable to be despatched during any IT outage or system failure, thereby reducing resilience in the short term. However, they should be weighed against the above benefits.

Who will it impact?

- ENCC Greater visibility of distributed generation, control over more units, risk of reduced control over some existing participants.
- ENCC reduced access to Balancing Services during IT outages or failures.
- BM Participants Option of ceasing 24/7 telephony if below threshold.
- BM Participants loss of revenue during IT outages or failures if ceasing 24/7 telephony.
- New entrants to the BM Lower barriers to entry.

Interactions

This modification does not impact any other codes.

Workgroup Consultation Introduction

This document is the GC0134 Workgroup's Consultation. This document outlines:

- What is the issue?
- What is the solution?
 - Proposer's solution
 - Workgroup considerations
 - Potential solutions
 - Draft legal text
- What is the impact of this change?
- When will the change taken place?
- How to respond
- Acronym table and reference material

The Workgroup are seeking views on the proposed change and what has worked on so far. The questions it is seeking answers on are embedded within the document and outlined in the **How to respond** section.



What is the issue?

What is the issue?

Connection Code CC.6.5 requires all Balancing Mechanism (BM) participants to install control telephony between their control point and the ENCC. This can be a significant cost burden when applied to the small, distributed and aggregated participants expected to join as part of Wider Access to the BM. CC 6.5 as currently drafted is a barrier to market entry for these smaller market participants.

Why is it an issue?

Manual 24-hour operation of the telephone would require the introduction of additional shift workers for any organisation that does not currently operate 24/7. This is a substantial increase in cost for a system that is unlikely to see regular use and of limited direct benefit to the BM participant. It may be preferable for smaller users to be despatched by electronic methods only, accepting that potential revenue will be lost during periods of IT outages or failures.

Lowering this barrier will facilitate additional capacity of distributed generation to provide operational data and join the BM to be dispatched according to system needs.

What is the solution?

Proposer's solution:

Add an exemption into clause CC.6.5 that allows single assets up to 10MW or an aggregator limit of up to 50MW per control point to be active in the BM while only operating telephony within office hours. This will allow such units to enter the market and become established. The danger of existing participants abandoning their telephony in response to this is limited by the low thresholds.

Workgroup Considerations

The Workgroup convened four 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 Grid Code Objectives.

Through the Working Group several elements of the proposal have been discussed.

- What would the threshold be?
 - o It was suggested that this should be aligned to existing thresholds within the industry. The aim here is to have it sufficiently high to bring in meaningful volumes of distributed generation without presenting a significant risk to system security. This proposal suggests 10MW per site and 50MW per control point as thresholds that could be acceptable.
- Who would the threshold apply to?
 - The two concerns for the ESO here are to avoid sizeable capacity being out of contact and to limit how much of it can be concentrated in any one part of the network.
 - Applying it to BMUs was considered but this doesn't provide sufficient information on where a site is within the network as BMUs can be spread over several GSPs
 - An individual site threshold of up to 10MWs aligns with licence exemptible generation thresholds.



- An up to 50MW per control point limit allows aggregators to become established before requiring 24/7 telephony.
- What rules would apply for exemption?
 - Participants below the threshold would not be required to operate telephony at their control point outside of UK office hours, but in this case would be accepting that they can only be called via EDL at those times.
 - What backup measures could be imposed for contingency operation? –
 BAU operation during planned and unplanned outage of electronic communication: Ultimately the threshold should be set so that such communication outages are of negligible impact.
 - In these cases, it could be argued that it's a poor use of ENCC engineer's time to be manually dispatching sub 10MW plant. Effective mitigations here could be:
 - implementation of automated dispatch for small control points
 - minimise the duration and frequency of planned outages
 - increased resilience and redundancy of electronic communication
- What backup measures could be imposed for contingency operation? –
 Emergency / Safety situations:
 - There is a precedent set by CC.7.9 (and ECC.7.9) in which compliance with BC2 is not required for specified Embedded Power Stations. In these cases, the control point is only manned between the hours of 0800 and 1800 each day. This proposal is recommending similar treatment for participants that fall below the 10MW or 50MW threshold to be exempt from the BC2.9 emergency provisions outside of office hours.
 - Alternatively, the workgroup discussed the option of using techniques similar to Telecommand for participants that fall below the 10MW or 50MW threshold to control the plant under emergency conditions outside of office hours. However, it was agreed that current technology and operational arrangements for providing such a solution would be unsuitable, but this may change in the future.
- What is the impact on existing providers?
 - The danger to network resilience here is if a substantial number of 10MW sites or 50MW control points that currently operate 24/7 telephony opt for office hours only telephony operation as a result of this change. It may be worth surveying these participants through the consultation on whether this change would cause them to change the way they operate. Based on this response an assessment could be made of the scale of this risk versus the expected benefit of connecting new participants.
- How would the solution be presented in Grid Code and associated documents?
 - Suggest an amendment to the CC.6.5 clause outlining the thresholds for exemption and the expectation for telephony to only be required in office hours.

Potential options

No alternative options were proposed by any of the Workgroup Members.

Draft Legal text



The Workgroup discussed and agreed the business rules that are outlined in the solution section above for the legal text to be based on. This will be developed following the closure of this consultation.

What is the impact of this change?

Who will it impact?

- ENCC Greater visibility of distributed generation, control over more units, risk of reduced control over some existing participants.
- BM Participants Option of ceasing 24/7 telephony if below threshold.
- New entrants to the BM Lower barriers to entry.

What are the positive impacts?

 To bring additional capacity into the control of the BM and visibility of operational metering. This would reduce the potential errors in forecasting distributed generation and allow greater control and visibility for the ENCC.

What are the negative impacts (if any)?

- There is the potential for existing participants to abandon their 24/7 telephony in favour of only using electronic methods of communication outside of office hours.
- Small participants will be unable to be despatched during any IT outage or system failure, thereby reducing resilience in the short term.

Proposer's Assessment against Code Objectives

Impact of the modification on the 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	
(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);	Positive	
(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;	Positive	
(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	None	



decisions of the European Commission and/or the Agency; and	
(e) To promote efficiency in the implementation and administration of the Grid Code arrangements	None

Workgroup Consultation question: Do you believe that GC0134 Original proposal better facilitates the Applicable Grid Code Objectives?

When will this change take place?

Implementation date:

This change will be implemented after the decision by the Authority and is currently planned to be 27 October 2020. This date is subject to revision based on outcomes at Panel and implementation of GC0132 when consultation period may get extended from fifteen working days to twenty working days.

Implementation approach:

This modification is not impacting on any systems.



How to respond

Standard Workgroup Consultation questions:

- 1. Do you believe that GC0134 Original proposal better facilitates the Applicable GC0134 Objectives?
- 2. Do you support the proposed implementation approach?
- 3. Do you have any other comments?
- 4. Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?

Specific Workgroup Consultation questions:

- 5. Has the workgroup considered all the issues arising from GC0134 / are there any unintended consequences of this modification?
- 6. Do you believe there are any other options that this workgroup has not considered?
- 7. Do you have any other suggestions that the workgroup may not have considered to operability and security of out of hours operations?
- 8. The workgroup believes it is appropriate for the NGESO to consider the cost/risk/benefit of this proposal and keep this under ongoing review going forwards. Do you have any suggestions or comments?
- 9. Would this solution help facilitate you entering the Balancing Mechanism? If so, what volume would you anticipate offering into the Balancing Mechanism?
- 10. For those already in the Balancing Mechanism, would this solution encourage you to stop providing 24/7 Control / System Telephony coverage? If so, approximately what volume do you currently offer into the Balancing Mechanism?
- 11. Do you see any issues with the thresholds per unit or in aggregation?
- 12. Would you propose any alternative thresholds and what is your rationale?
- 13. In order to implement this change are there any compromises which need to be made?
- 14. Do you believe there is an alternative method for contingency dispatch which could provide at least the same level of reliability, resilience and accuracy as fixed telephony?

The Workgroup is seeking the views of Grid Code Users and other interested parties in relation to the issues noted in this document and specifically in response to the questions above.

Please send your response to grid.code@nationalgrideso.com using the response proforma which can be found on the National Grid ESO website via the following link: https://www.nationalgrideso.com/codes/grid-code/modifications/gc0134-removing-telephony-requirements-small-distributed-and

In accordance with Governance Rules if you wish to raise a Workgroup Consultation Alternative Request please fill in the form that can be located at the above <u>link</u> or get in contact with us via email at <u>grid.code@nationalgrideso.com</u>



If you wish to submit a confidential response, please note that information provided in response to this consultation will be published on National Grid ESO's website unless the response is clearly marked "Private & Confidential", we will contact you to establish the extent of the confidentiality. A response marked "Private & Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the CUSC Modifications Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response. Please note an automatic confidentiality disclaimer generated by your IT System will not in itself, mean that your response is treated as if it had been marked "Private and Confidential".

Acronym table and reference material

Acronym	Meaning
API	Application Programming Interface
BM	Balancing Mechanism
DNO	Distribution Network Operator
EDL	Electronic Dispatch and Logging
ENC	Electricity Network Company
ENCC	Electricity National Control Centre
ESG	Electricity Steering Group
ESO	Electricity System Operator

Reference material:

n/a

Annexes

Annex	Information
Annex 1	Proposal form
Annex 2	Terms of Reference