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Final Modification Report

GC0175: Removing references to “Fax” or “Facsimile” within the Grid Code

Overview: This modification seeks to remove references to “fax” and “facsimile” from the Grid Code in order to reflect both current and future methods of communication between relevant Users and the National Energy System Operator (NESO) due to the national decommissioning of the Public Switched Telephone Network (PSTN).

Modification process & timetable



Have 20 minutes? Read the full [Final Modification Report](#)
Have 90 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: Medium impact on Generators, Demand Users, Interconnectors, Distribution Network Operators, NESO

Modification drivers: Efficiency, EU Compliance, GB Compliance, New Technologies, System Operability, System Security, Transparency

Governance Route Standard Governance modification which proceeded to Code Administrator Consultation

Who can I talk to about the change?	Proposer: Stuart McLarnon stuart.mclarnon@nationalenergysystemoperator.com	Code Administrator Contact: Lizzie Timmins Elizabeth.timmins@nationalenergyso.com

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Contents

What is the issue?	3
What is the proposer’s solution.....	3
What is the impact of this change?	4
Proposer’s assessment against Grid Code Objectives	4
Code Administrator Consultation Summary.....	5
Panel Recommendation Vote.....	6
Panel conclusion.....	10
When will this change take place?	10
Implementation date	10
Date decision required by	10
Implementation approach	10
Interactions	10
Acronyms, key terms and reference material	10
Annexes.....	11

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What is the issue?

NESO currently use fax machines within the Electricity National Control Centre to send and receive data from Primary and some Secondary Balancing Mechanism Units (BMUs). A number of these data submissions from BMUs support critical functions such as System Restoration, by transmitting data such as Unit Availability. Fax machines are ageing technology, with hardware support contracts ending (or have ended) and replacement parts difficult to source. The management of paper output is also time-consuming for reporting and audit purposes.

Why change?

The Public Switched Telephone Network (PSTN) that fax machines use, is due to be switched off by the start of 2027¹ which will result in all non-voice services that use this network ceasing. In readiness for the PSTN switch off, an alternative method of communication between relevant Users and NESO will need to be established to ensure current interactions can continue. It should also maintain the stability and audit trail that the current fax solution provides.

What is the proposer's solution

While there is an option to upgrade existing faxes to utilise digital line technology (via a digital adapter), this still does not address the current issues with the use of faxes in terms of hardware support and paper management. With this in mind, the Proposer believes a more future proof digital solution is required that provides the same functionality of the current fax solution but improves efficiencies and costs for Users.

The solution, (to be defined under an “umbrella term” as the “Designated Information Exchange System”), will be an Azure based platform which will allow both Users and NESO to provide web form submissions and acknowledgements which are currently transmitted via fax through the use of paper forms.

The platform will be accessed through the User's Internet Service Provider (ISP) via a secure, encrypted login which will be maintained and administered by NESO.

The platform will require no software licence obligations from the User and will be designed to be extendable to ensure any future requirements can be incorporated, and scalable to accommodate both existing and future Users.

A phased approach will be introduced following the implementation of the proposal with Users being moved across to the new platform over a period of time that NESO and the User agree. The rationale for a phased approach is to ensure Users are fully comfortable with the use of the new platform prior to the phase out of fax machines.

The proposed new definition of the “Designated Information Exchange System”, will also include “facsimile” in order for the solution to accommodate the phased roll out of the platform from the implementation of the proposed changes where both the use of faxes and the platform will be in use.

¹ <https://business.bt.com/why-choose-bt/insights/digital-transformation/uk-pstn-switch-off/>

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This proposal will also take the opportunity to update references to fax or facsimile within the Grid Code that relate to “non-Control Room” activities. For example, Connections Compliance to reflect the current methods of communication that now takes place for these interactions, such as email.

Legal text

See **Annex 5** which details the proposed changes across the Grid Code. The legal text consulted on at Code Administrator Consultation can be found in **Annex 2**.

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 The proposal should create efficiencies in relation to communication between Users and NESO and replace outdated technologies.
(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
(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 The proposal should create efficiencies in relation to communication between Users and NESO and replace outdated technologies. This in turn should have a positive impact from a system security point of view as increased response times should be realised.
(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	Neutral
(e) To promote efficiency in the implementation and administration of the Grid Code arrangements	Neutral

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Code Administrator Consultation Summary

The Code Administrator Consultation was issued on the 29 October 2024 closed on 29 November 2024 and received 5 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 3**.

Code Administrator Consultation Summary	
Question	
Do you believe that the GC0175 Original Proposal better facilitates the Grid Code Objectives?	4 respondents believed the proposal better facilitates objective (a), 5 respondents believed the proposal better facilitates objective (c) and one respondent believed the proposal better facilitates objective (e).
Do you support the proposed implementation approach?	All 5 respondents supported the implementation approach.
Do you have any other comments?	<p>Respondents were generally supportive of the proposal, as it will improve efficiencies in communication by replacing outdated technology.</p> <p>One respondent queried if the new platform was intended to be captured in the definition of Critical Tools and Facilities. NESO subsequently advised that this was not the intention, however noted that the platform is intended to be as resilient as possible.</p>
Legal text issues raised in the consultation	
Two respondents highlighted typographical legal text issues in the Code Administrator Consultation. A summary of the legal text queries and proposed changes can be found in Annex 4 , and the provisional typographical amendments made to the legal text can be found in Annex 5 for the Panel to review.	
EBR issues raised in the consultation	
All 5 respondents believed the proposal impacts the Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Grid Code. 2 respondents noted that this was a minimal impact.	

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NESO response to EBR issues raised in the Code Administrator Consultation

NESO agrees there is a minimal EBR interaction as a result of GC0175, however, the minimum EBR consultation requirement has been met, and the modification delivers benefits as set out in the Proposer’s assessment against Grid Code Objectives.

Panel Recommendation Vote

The Panel met on 30 January 2025 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.

Panel comments on Legal text

Ahead of the vote taking place, the Panel considered the legal text amendments proposed as part of the Code Administrator Consultation. The Panel agreed that some of the changes were typographical under GR.22.4(i), and in conjunction with the Proposer agreed that further changes were minor under GR.22.4(iii) and instructed the Code Administrator to make the changes. Details of the changes made can be found in Annex 4, including whether they were deemed to be typographical or minor.

Panel comments on EBR impacts

The Panel did not have any comments on EBR impacts.

Vote 1: Does the Original facilitate the Applicable Objectives better than the Baseline?

Panel Member: **Adegboyega Akomolafe, 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	Yes	Neutral	Yes	Neutral	Neutral	Yes
Voting Statement						
The modification adequately improves communication efficiencies by replacing the outdated 'fax' technology.						

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	Yes	Neutral	Yes	Neutral	Neutral	Yes
Voting Statement						
Developing an alternative communication system to replace fax machines seems very sensible.						

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Panel Member: **Andrew Allan, 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	Yes	Neutral	Yes	Neutral	Neutral	Yes
Voting Statement						
Enabling an alternative to Fax through code modification enables efficient progression.						

Panel Member: **Claire Newton, National Energy System 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	Yes	Neutral	Yes	Neutral	Neutral	Yes
Voting Statement						
The proposal should allow the replacement of outdated technologies and create efficiencies in relation to communication between Users and NESO and. This in turn should have a positive impact from a system security point of view, as increased response times should be realised. This Mod also addresses feedback from stakeholders around the mandating of outdated technologies.						

Panel Member: **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	Yes	Neutral	Yes	Neutral	Neutral	Yes
Voting Statement						
This modification allows for the replacement of obsolete technology and therefore enhances the efficiency of communications between Users and NESO.						

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Panel Member: **Graeme Vincent, 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	Yes	Neutral	Yes	Neutral	Neutral	Yes
Voting Statement						
The replacement of a soon to be obsolete system will continue to ensure the safe and secure operation of the transmission system.						

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	Yes	Neutral	Yes	Neutral	Neutral	Yes
Voting Statement						
This modification allows the phasing out of fax machines by introducing the term "Designated Information Exchange System" into the Grid Code for data exchange, including where the fax system is mandated.						

Panel Member: **Lewis Morgan, 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	Yes	Neutral	Neutral	Neutral	Neutral	Yes
Voting Statement						
I agree that the modification address the requirement to replace Fax communication with increased efficiency of application.						

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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	Yes	Neutral	Yes	Neutral	Yes	Yes
Voting Statement						
The Modification addresses the need to deal with the imminent demise of the FAX service and should be implemented.						

Panel Member: **Scott Green, 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	Yes	Neutral	Yes	Neutral	Yes	Yes
Voting Statement						
Agree with the removal of aging communication systems to improve the effective communication between The Company and the Users.						

Vote 2 – Which option best meets the Applicable Objectives?

Panel Member	Best Option	Which objectives does this option better facilitate? (If baseline not applicable).
Adegboyega Akomolafe	Original	A,C
Alan Creighton	Original	A,C
Andrew Allan	Original	A,C
Claire Newton	Original	A,C
David Monkhouse	Original	A,C
Graeme Vincent	Original	A,C
John Harrower	Original	A,C
Lewis Morgan	Original	A
Robert Longden	Original	A,C,E
Scott Green	Original	A,C,E

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Panel conclusion

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

When will this change take place?

Implementation date

10 working days after authority decision date.

Date decision required by

As soon as possible

Implementation approach

It is proposed that a phased approach will be introduced following the implementation of the proposal with Users being moved across to the new platform over a period of time that we will be agreed. The rationale for a phased approach is to ensure Users are fully comfortable with the use of the new platform prior to the phase out of fax machines.

Interactions

- CUSC BSC STC SQSS
- European Network Codes EBR Article 18 T&Cs2 Other modifications Other

Whilst EBR interactions do exist, these have been identified as minimal interactions.

Changes will also be required to the CUSC (CMP443) and STC (CM099) to reflect the changes that are being proposed to the Grid Code in respect of the removal of references to Fax and Facsimile.

Acronyms, key terms and reference material

Acronym / key term	Meaning
BMU	Balancing Mechanism Unit
BSC	Balancing and Settlement Code
CUSC	Connection and Use of System Code
EBR	Electricity Balancing Regulation
GC	Grid Code
GCDF	Grid Code Development Forum
ISP	Internet Service Provider

² 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.

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PSTN	Public Switched Telephone Network
STC	System Operator Transmission Owner Code
SQSS	Security and Quality of Supply Standards
T&Cs	Terms and Conditions

Annexes

Annex	Information
Annex 1	Proposal form
Annex 2	Legal Text consulted on at Code Administrator Consultation
Annex 3	Code Administrator Consultation Responses and Summary
Annex 4	Summary of Code Administrator Consultation legal text queries
Annex 5	Final Legal Text