Public

Grid Code Development Forum

04 February 2026

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Agenda

1	Introduction, meeting objectives and review of previous actions - **Claire Newton, NESO**
2	Code Administrator Update – **Kat Higby, NESO (Code Administrator)**
3	System Restoration Proposed Grid Code Changes Post ESRS – **Antony Johnson, NESO**
4	Update to EDL Reason Codes: Introducing new 'ITB' code – **Sudha Saji, NESO**
5	Update on Guidance Notes – **Amanda Rooney & Mohamed Fawzy, NESO**
6	Review of GB Ramping Arrangements: Brief Update – **Frank Kasibante & James West, NESO**
7	AOB and Meeting Close - **Claire Newton, NESO**

GCDF – Objectives and Expectations

Objective
Develop ideas, understand impacts to industry and modification content discussion, in relation to Grid Code related issues.
Anyone can bring an agenda item (not just NESO!).

Expectations
Explain acronyms and context of the update or change.
Be respectful of each other's opinions and polite when providing feedback and asking questions.
Contribute to the discussion.
Language and Conduct to be consistent with the values of equality and diversity.
Keep to agreed scope.

The Forum will be recorded and made available on the GCDF webpage along with summary notes.

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Code Administrator Update

Kat Higby, NESO (Code Administrator)

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Key Updates since last GCDF

New Modifications / Nominations

GC0185 'Grid Code Changes for Mandatory Frequency Response Replacement' was presented at the January Grid Code Review Panel. The Panel did not agree that GC0185 had a clearly defined defect and scope, so the Proposer will complete some further work on the proposal and present it again at a future Panel meeting.

Decisions

There have been no Authority decisions on Grid Code Modifications.

Implementations

There have been no new implementations of Grid Code Modifications.

Key Consultations in March

Workgroup Consultations

GC0182 'Standardisation of Power Flow Metering Polarity' – opens on 02 March, closes on 20 March

GC0181 'Enhance the Effectiveness of System Incidents Reporting' – opens on 27 March, closes on 20 April

GC0178 'Temporary Overvoltage - Specification of Limits and Clarification of Obligations' – opens on 23 March, closes on 01 May

Code Administrator Consultations

GC0168 'Submission of Electro Magnetic Transient (EMT) Models' – opens on 30 March, closes on 30 April

GC0164 'Simplification of Operating Code No.2' – second Code Administrator Consultation opens on 30 March, closes on 13 April

Appeals Window

None

Useful Links

Ofgem's expected decision dates/ date they intend to publish an impact assessment or consultation, for code modifications that are with them for decision are available here

Updates on all Modifications are available on the Modification Tracker here

The latest Grid Code Review Panel Headline Report and prioritisation stack are available here

If you would like to receive updates from the Code Administrator on Grid Code modifications, please join the distribution list here

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System Restoration Proposed Grid Code Changes Post ESRS

Antony Johnson, NESO

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Background

- During the Code Development of the Electricity System Restoration Standard (ESRS) (Code Mods GC0156, CM089/CM091, PM0128/PM0132, CMP398/412) NGET queried at the STC Panel if there was any possibility of treating NGET in the same way as SPT and SHE Transmission during a System Restoration event (particularly in respect of autonomy and switching in the post Local Joint Restoration Plan (LJRP) and Distribution Restoration Zone Plan (DRZP) phases).

- It was agreed the above Code Mods would proceed as normal until Authority Approval, and NESO would then engage with NGET, SPT and SHE Transmission to progress the issue.

- An informal working group meeting was established in Summer 2024 which has since held regular meetings to understand the issues and develop a way forward. The DNOs then joined these meetings in September 2025.

- As part of this work, it has since become apparent that the work will include several issues over and above the original request, many of which reside in the Grid Code (see next slide).

- The proposal is to therefore raise a Grid Code mod and then shortly after that raise a consequential STC Mod.

Scope

- The initial proposal was to update Grid Code and STC/STCPs to ensure consistent treatment of NGET, SPT and SHETL during restoration events (particularly regarding autonomy and switching in the post LJRP and DRZP phases).

- Since the first meeting held in the Summer of 2024, there have been various developments which will require Grid Code changes and STC / STCP changes.

- Requirements include:
  - Equitable treatment of NGET, SPT and SHE Transmission during a restoration event (OC9).
  - Introduction of Regional Restoration Plans (RRPs).
  - Changes to OC5.7.2.1(g) to accommodate testing (dead-line charge tests).
  - Obligations on parties to ensure sufficient switching speed to facilitate the ESRS.
  - House keeping changes in particular consistency between the Planning Code (PC.A.5.7) and Data Registration Code (DRC Schedule 16).
  - Requirements for Restoration Contractors with multiple sites but one Control Point.
  - Confidentiality in LJRPs and DRZPs between Restoration Contractors.
  - Distribution Code changes and other cross code impacts.

- We propose the modification is first progressed through joint Grid Code / Distribution Code workgroups and then a consequential mod is raised for the STC and STCPs.

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High Level Proposed changes to Grid Code: G&D, PC, CC, ECC

- Glossary and Definitions:
  - Introduction of a new definition “Regional Restoration Plan”.
  - Clarifications to definition of Anchor Plant Capability.
  - Consequential changes as necessary to other defined terms.

- Planning Code:
  - PC.A.5.7 – Language to be improved and any updates to be consistently applied in Schedule 16 of the DRC.
  - PC.A.5.7 – Current requirements only refer to directly connected and Large Power Stations and this requires review.

- Connection Conditions / European Connection Conditions:
  - Clarification around total loss of supplies and cold start.
  - Ability for Providers with one Control Point but multiple sites with Restoration Contracts to operate their plant in the required timescales.

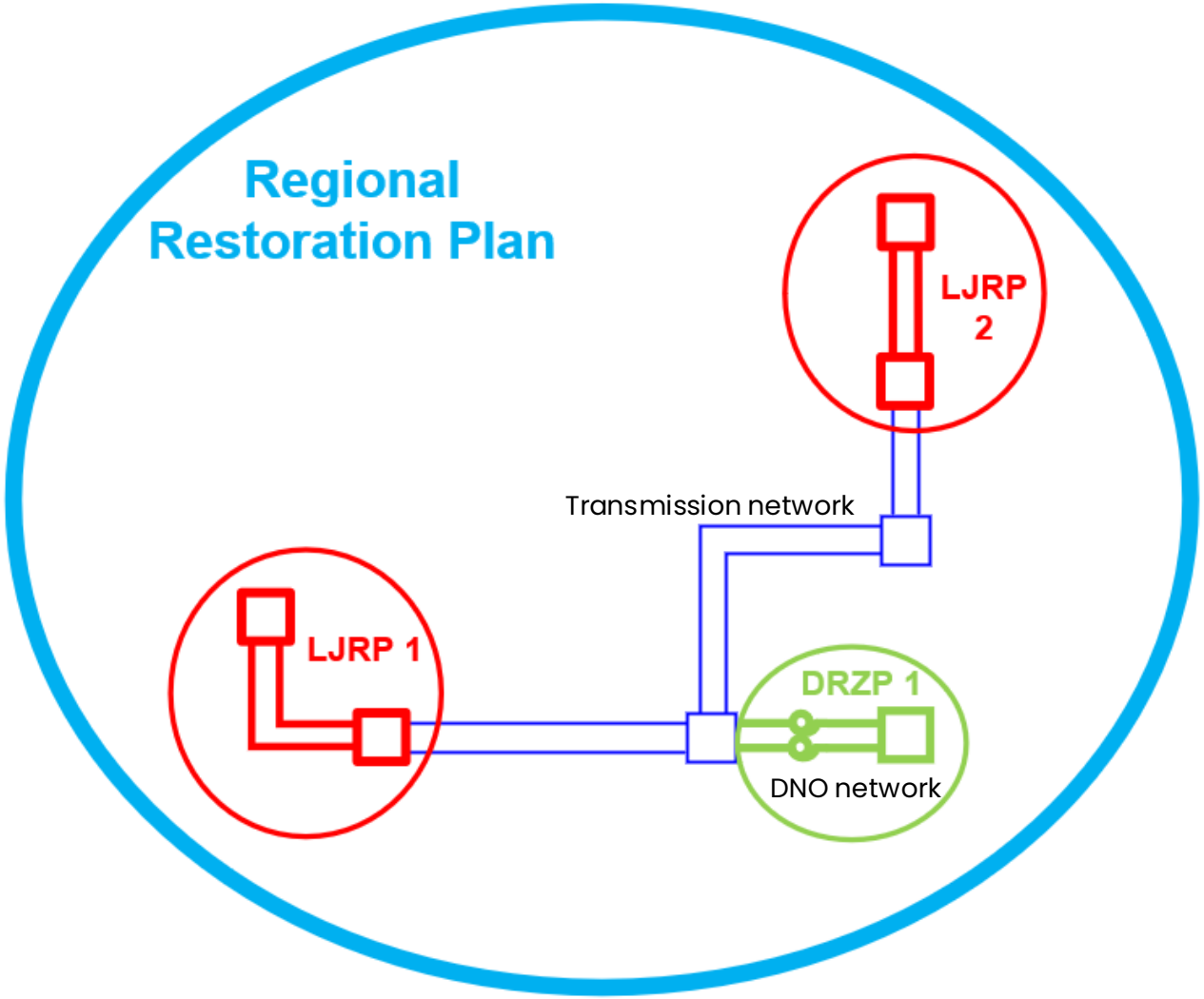
Operating Code 5

- Operating Code 5:
  - OC5.7.2.1 (g) and OC5.7.2.3(d).
  - OC5.7.2.1 (g) (ii) refers to energising a dead section of the Total System, in respect of Anchor Generating Units, whereas OC.5.7.2.3(a) refers to energising the busbar of the disconnected AC substation, although OC.5.7.2.3(d)(ii) has the same wording as OC5.7.2.1(g)(ii).
  - NGET have expressed concerns over:
    I. The implications on protection systems as a result of this test.
    II. The differences between the requirements on Anchor Generating Units and Anchor HVDC Systems.
    III. Whether for testing purposes it would be more appropriate to energise up to the circuit breaker with the close coils removed for testing purposes.
  - Additional testing requirements need to be included for Restoration Contractors who have one Control Point but multiple sites to ensure they can operate individual plants within the required timescales.

Operating Code 9

- Operating Code 9:
  - Introduce the concept of Regional Restoration Plans within the structure of OC9.
  - Introduce a new section on Regional Restoration Plans (Establishment, Testing Provisions and Operation).
  - Equitable treatment of NGET, SPT and SHETL (mainly autonomy and flexibility) but still allowing for differences where necessary and permitting for some limited control of generation in Scotland were agreed.
  - Clauses to be introduced to ensure TOs and DNOs can switch at sufficient speed to meet the requitements of the ESRS (10 minutes has been suggested).
  - Ensure DNOs are happy with the proposals and consider any Distribution Code changes – A joint Grid Code / Distribution Code Working Group is suggested.
  - Take the opportunity to address any house keeping changes as necessary.

Regional Restoration Plans



There will be an RRP for each of the 7 regions on the network (2 Scot & 5 E&W).

RRPs will detail how the local power islands created by LJRPs and DRZPs in each region will be used to create regional power islands. RRPs will also consider other priorities in each region such as CNI and secondary generation.

Regional power islands will be synchronised together until there is a single power island across the network.

Data Registration Code / Other

- Data Registration Code:
  - Principle areas of update relate to Schedule 16 in particular ensuring consistency between Grid Code PC.A.5.7 and OC5.
  - The opportunity will also be taken to correct any housekeeping issues associated with DRC Schedule 16 and clarify / add new tests were necessary.

- Other sections of the Grid Code will be updated to either:
  I. Correct, improve or clarify errors introduced through GC0156.
  II. Update the Code in respect of consequential changes as a result of the updates reflected on the previous slides.

Progress to Date and Next Steps

- So far substantive progress has been made to developing the Grid Code legal text, in particular:
  - European Connection Conditions (ECC).
  - Operating Code 5 (OC5).
  - Operating Code 9 (OC9).
  - Some minor changes have been made to the Glossary and Definitions which requires further work.

- The draft legal text has been shared with NGET, SPT, SHE Transmission and DNOs through the informal working group.
- Further work – which is largely consequential – needs to be made to other sections of the Grid Code. This would be part of the formal modification.
- The informal working group have been happy with progress so far and we now believe it is appropriate to present this issue at the Grid Code Review Panel (targeting February 2026) with the aim of progressing a Grid Code modification via the Standard Governance arrangements.

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Update to EDL Reason Codes: Introducing new ‘ITB’ code

Sudha Saji

Network Services

NESO
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Background

Purpose of Constraint Management Intertrip Service (CMIS)

CMIS is a commercial service designed to reduce constraint costs by post-fault tripping generators instead of curtailing them pre-fault.

Why CMIS Matters

- Reduces reliance on expensive pre-fault BM actions.
- Enables more clean generation on the system.
- Has produced significant financial benefits (e.g., >£120m realised in B6).

How CMIS works

- Providers agree to be armed against specific circuits and are paid an arming fee to remain available for automatic disconnection following network faults.
- If a fault occurs, the Operational Tripping Scheme (OTS) sends a signal, and the armed unit either:

Stability Trip

- Fast-tripping signal to trigger the opening of required circuit breaker(s), thus disconnecting the User from the transmission system in as close to 150ms as possible.
- Usually expensive.
- To secure transient stability following a major fault.

Thermal Trip

- A de-load signal to reduce the User MW export within 10 seconds.
- Brings the speed down to 0 first.
- Usually cheaper.
- Used where a slower relief is sufficient.

- The Control Room can choose to arm the generator for either a Stability Trip or a Thermal Trip (assuming both speed options are available).
- This allows NESO to operate closer to network limits while maintaining security.

What is EC5 Enduring?

Contract Award

- The CMIS EC5-Enduring will replace the CMIS EC5-Interim service and will come into operation in July 2026. It is expected to run until the end of September 2029.
- EC5 boundary covers circuits in the East Anglia region.
- The CMIS EC5-Enduring is expected to save approximately £170m for consumers during the life of the service.
- Whilst NESO is under no obligation to arm successful units, the forecasted spend in deploying this service during its lifespan is estimated at c. £42m.

	B6 (Scotland)	EC5 - Interim (East Anglia)	EC5 - Enduring (East Anglia)
Current Contract Dates	Oct 24 – Sep 27	Feb 24 – Jun 26	Jul 26 – Sep 29
No. of contracted sites	15 live (2 under construction)	3	3 bidders (4 units)
Trip Types supported	Stability Trip	Thermal Trip (de-load)	Stability Trip Thermal Trip (de-load)
Arming Fee	Arming Fee (£/MWh)	Arming Fee (£/MWh)	Arming Fee (£/MWh)
Tripping Fee	Trip Fee - £xxxx	Trip Fee - £xxxx	Stability Trip Fee - £xxxx Thermal Trip Fee (Optional) - £xxxx

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Problem Statement

Issue:

EC5-Enduring introduces two distinct arming modes:

1. Commercial Stability Arming (fast trip: ~150–200ms).
2. Commercial Thermal Arming (de-load to 0 MW within ~10s).

But EDL Reason Codes currently only support:

- ITA – Intertrip Armed.
- ITD – Intertrip Disarmed.

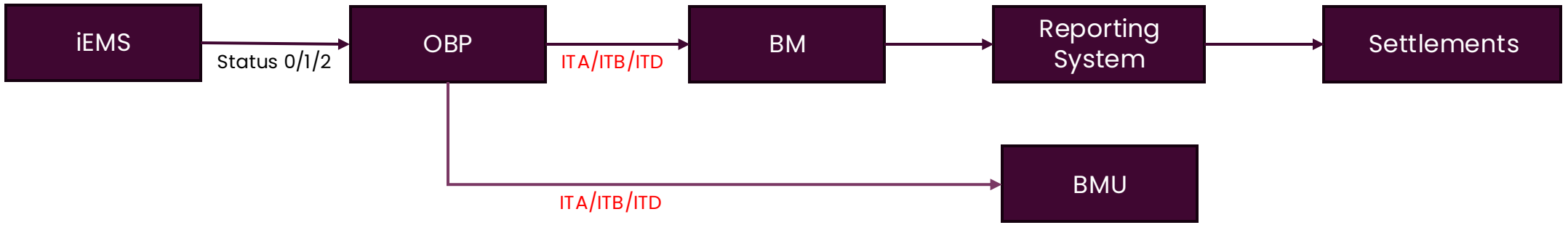
There is *no* way to differentiate reason codes for Stability or Thermal Arming.

This creates multiple operational, commercial, and settlement risks.

Problem Statement

Why this is a problem:

- The Control Room cannot distinguish which arming mode is active using EDL signalling.
- iEMS sends discrete SCADA statuses (0/1/2); without ITB, Thermal = “Stability”, breaking automation.



- Settlements cannot correctly classify trips where Stability and Thermal arming have distinct tripping fee structures.
- Reporting Systems (DAP), creating Daily/Monthly reports, cannot differentiate utilisation events.
- EC5 Enduring contracts explicitly require arm-type transparency.
- EDL Reason Codes list becomes misaligned with commercial reality.

Proposal

Proposed Solution: Introduce EDL Reason Code “ITB”.

ITB – Intertrip Commercial Thermal Armed

Triggered when a BMU is armed for Thermal CMIS arming under EC5 Enduring.

Note: ITA will then be repurposed for stability only **(ITA – Intertrip Commercial Stability Armed)**

Key attributes:

- Ensures automation in BM/OBP → Settlements flows.
- Reflects actual arming mode in operational logs and market instructions.
- Simplifies the notification process for generators as they don’t need to receive an email/fax and can acknowledge the code via EDL.
- Maintains consistency with existing naming scheme: ITA / ITB / ITD.

Proposal

Alternative Options Considered:

1. Reuse ITA for both arming types → discarded
    - Cannot support settlement split.
    - Needs manual logging by the ENCC to keep track.
    - Removes generator visibility.
    - Breaks EC5 contract compliance.
2. Use an internal flag within OBP only (no new code) → discarded
    - Breaks the transparency principle of EDL signalling.
    - Downstream systems rely on EDL-level reason codes.
    - Non-standard; fails under industry governance scrutiny.

Benefits

Benefits:

- Operational Clarity: ENCC uses “Stability” vs “Thermal” arming explicitly.
- Accurate Settlement: Correct tripping fee application; no manual intervention.
- Automated System Flow: SCADA/iEMS → OBP/BM → Settlements work seamlessly.
- Compliance with Contracts: EC5 Enduring contractual requirements fulfilled.
- Improved Reporting: DAP show disaggregated arm-type utilisation, providing better data lineage.
- Future Scalability: Supports expansion to other CMIS boundaries (e.g., B2-B5).

When are we expecting these changes to be in place?

- We currently have 4 contracts due to go live in July 2026 as part of EC5 enduring service.
- We aim to have this new reason code in place by July 2026 and will keep the contracted parties informed.
- We are speaking to our IT team to see if the necessary system changes could be made sooner.

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Impacts

Impacts:

- Codes:
  - Update EDL Reason Codes list.
  - Add clarifications to BETTA Despatch Instruction Guide, Section 4.5.2.
- IT Systems:
  - OBP, BM, SCADA ingest of new status mapping (already scoped).
  - EDL validation logic updated.
- Industry Participants:
  - Generators receive clearer, mode-specific EDL operations.
  - No contractual cost increase; arming fees unchanged; tripping fee already differentiated.
  - There may be a need for customer/user testing, and we will confirm this shortly with relevant providers and aim to complete testing ahead of service go-live.

Industry Engagement

Feedback from industry:

Response Party 1 have no concerns to utilise EDL reason codes for the arming and disarming of the CMIS EC5-Enduring scheme and **welcome the use of different codes to improve clarity on reason for arming**.
Reason codes ITA and ITD are currently utilised for the original Constraint Management Pathfinder scheme, and we would suggest that both intertrip schemes align to standardise functionality.

Industry Response 1

We do not have an issue with a continued verbal arrangement for arming / disarming of an intertrip. However, **we can see the benefit of this being formalised through an EDL instruction**, **which allows a full audit trail and the potential ability to report usage.**

The proposed approach seems **pragmatic and achievable**. We will however need to confirm that our industry standard EDL client has the ability and is configured to receive and audibly indicate these instruction codes. Currently we are only utilising the EDL client for voltage / reactive power instructions received under our Mandatory Services Agreement.

Industry Response 2

Public

Update on Guidance Notes

Amanda Rooney &
Mohamed Fawzy, NESO

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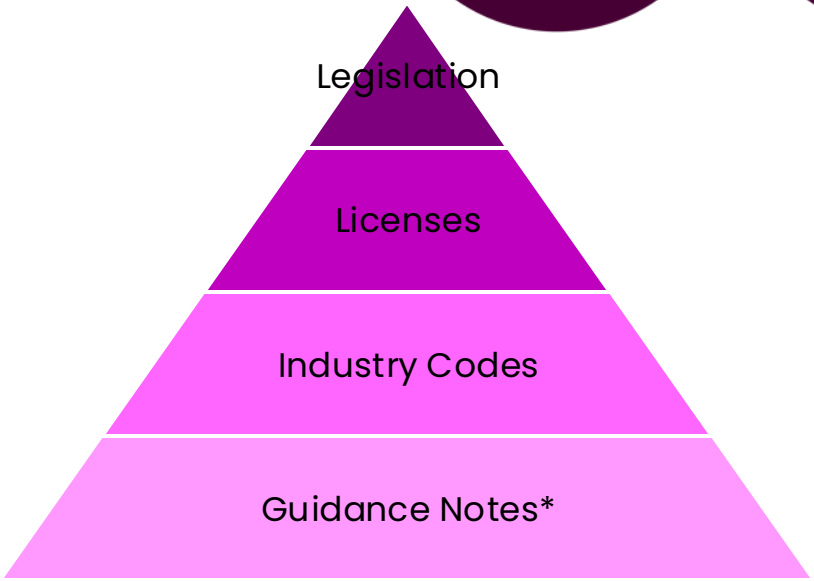
Background

NESO's Role in Grid Code (GC) Guidance Notes: NESO prepares and publishes Guidance Notes to aid comprehension and compliance with the Grid Code. Most Notes are not 'critical friend', but technical documents to aid Parties' interactions with NESO functions, such as Balancing, or Engineering Compliance.

Current Status: NESO publishes various documents, including Guidance Notes, to help GC Users comply with requirements and make Control Room interactions smoother.



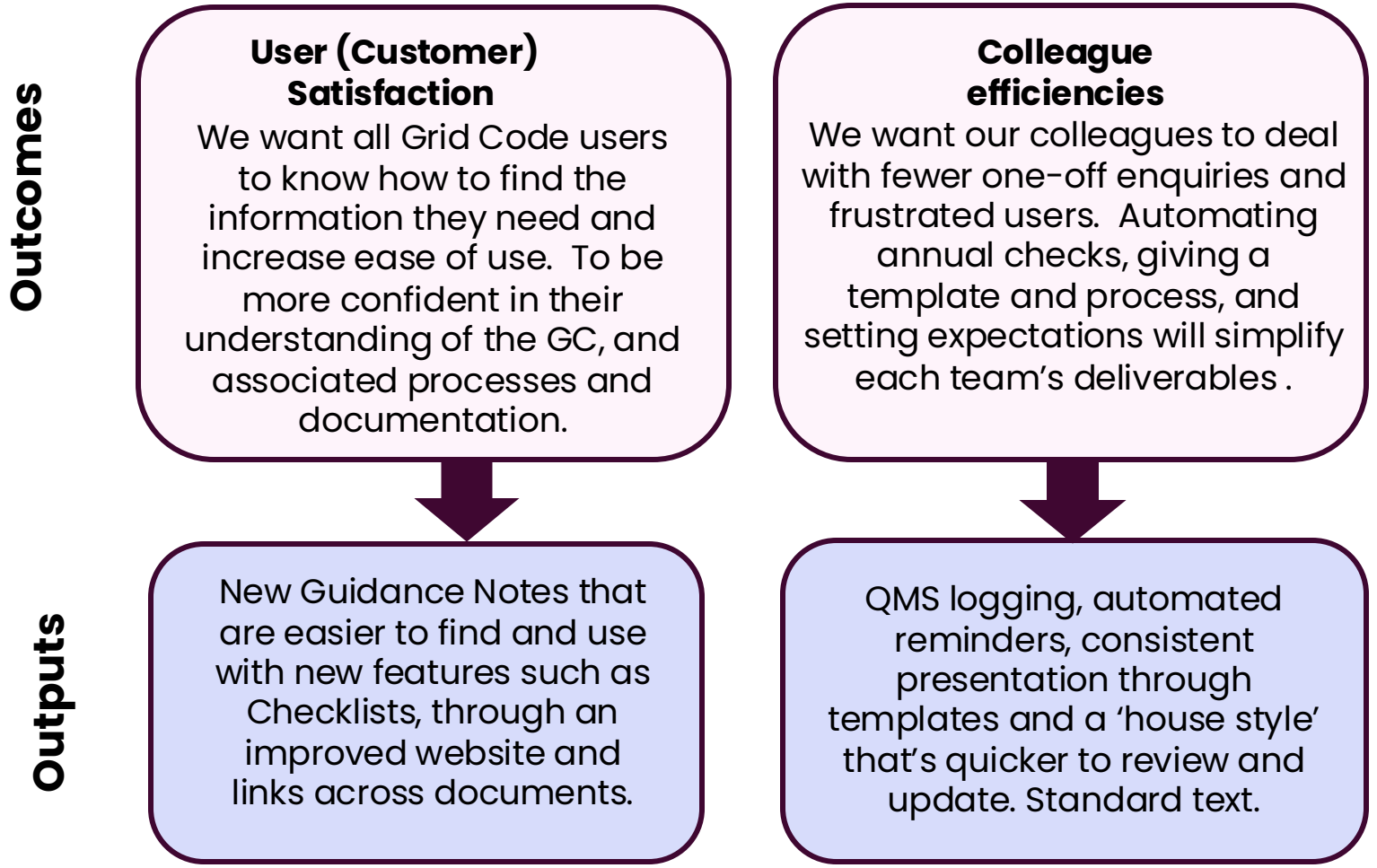
Issues identified by Users:

Stakeholders have vocalised frustrations including a lack of clear ownership, version control, and governance, lack of support and co-ordination, no formal governance procedures in place, changeable.

Also to note: Internal drafters and responsible staff report the update process is administratively burdensome, unclear, and the update request system is unclear

Desired Future Position

We are engaging across teams that operationalise and support the Grid Code.



Why and How

ERIC Element	How Guidance Note Standardisation fits.
Easy to Work With	We want all Grid Code Users to be able to work with us easily and efficiently.
Reliable	We want to be the people Users (customers) turn to for queries, based on quality outputs.
Impartial	We want our advice to aid in the removal of barriers to entry and increase efficiency.
Credible	We want all documents to be right, all the time.

Standardization

- All documents to use NESO branding.
- Standard version control, a contact .box / team.
- All documents to note the relevant section of the Grid Code they refer to.
- All documents to contain standard disclaimer.

Process

- Each document to be entered in the Quality Management System (QMS) to automate the annual checking of documents, and maintain log of document owners.
- Support and templates for responsible teams.

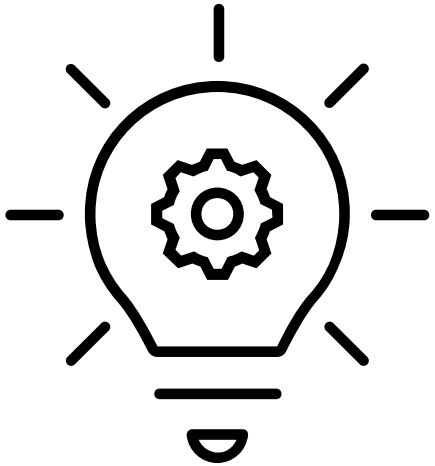
Website

- Provide one NESO page for all documents.
- Expand the title to provide more information and ease searching.
- Link to the online Grid Code (later stage change).

Publication

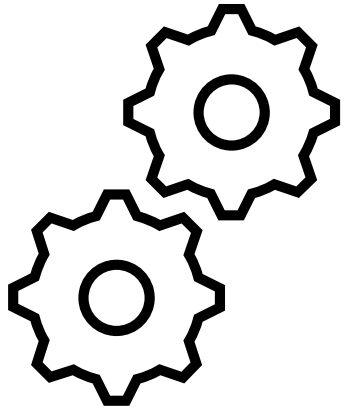
- Explore the role of Grid Code Panel/ other body in the introduction of new Guidance, removal of redundant documents, changes impacting operations and processes.
- Publicise the publishing of new documents better and invite feedback.

How- Approach for Updating EC Guidance:



Structural & Readability Improvements

- Visual Identity
- Professional Formatting
- Executive Summary
- Purpose, Scope & Navigation
- Merging multiple documents



Technical Sections Enhancements

- Technical requirements
- Simulation Studies
- Compliance Testing
- Checklists

Opportunities of merging multiple documents

Since BESS units are considered a type of PPM, their technical requirements are largely the same. The only distinctions relate to de-load functionality and the import-mode compliance specific to BESS.

We are in the process of combining the BESS guidance with the PPM guidance.

- This is the first Guidance Note going through this process.
- We hope to be able to share this in the near future: lookout for further information on the new version of this document in GCRP papers as well as this forum.

Next Steps

- First template developed with Engineering Compliance team. This is set to be the template for all other documents.
- External Communications team assistance with updating the GC website.
- Moving the documents into the NESO Quality Management System will bring the teams into line with internal control systems and processes, automating administration.
- We will be requesting your feedback on new documents as they come online. We welcome feedback on the overall system of Guidance Notes NESO maintains. We will do more to ‘advertise’ new Guidance Notes via the GC Panel papers and make them more prominent on the website.

Public

Review of GB Ramping Arrangements

Brief Update

Frank Kasibante/James West

NESO
National Energy System Operator

Review of GB Ramping Arrangements

Introduction

- The Grid Code currently has restrictions in place for how quickly generators and interconnectors can alter their power output.
- Existing GB ramp-rate limits were specified in the Grid Code in an era of fossil-fuel generation and thus have not evolved in line with recent technology and market developments.
- In recent times, NESO has observed rapid action/swings which are mainly driven by new technologies.

Updates

- NESO are reviewing GB ramping arrangements (also considering the GC0154 outcomes, current and expected future operational challenges).
- To provide the best outcome for both industry and NESO, we will be raising a Grid Code modification at an appropriate time, to provide an enduring long-term solution.
- We hope to carry out further assessment to ascertain what rates could be optimal based on system and market needs, as well as consumer value.

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Thank You

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