



# Grid Code Review Panel

Thursday 27 April 2023

Faraday House

# WELCOME



# Purpose of Panel & Duties of Panel Members

The **Panel** shall be the standing body to carry out the **functions** referred to in the Governance Rules (**GR3.1.1**)

## Functions (GR.3.2)

The **Panel** shall endeavour at all times to operate:

- in an **efficient, economical and expeditious manner**, taking account of the complexity, importance and urgency of particular Modification Proposals; and
- With a view to ensuring that the **Grid Code** facilitates **achievement of the Grid Code Objectives**.

## Duties of Panel Members & Alternates (GR.3.3)

1. Shall act **impartially** and in accordance with the requirements of the **Grid Code**; and
2. Shall not have any **conflicts of interest**.  
Shall not be representative of, and shall act without undue regard to the particular interests of the persons or body of persons by whom he/she was appointed as Panel Member and any Related Person from time to time.

# Approval of Panel Minutes

Approval of Panel Minutes from the Meeting held

30 March 2023



# Action Log





## Chair's Update

# Future System Operator (FSO) - Implementation of Code Changes

## Grid Code Review Panel



OFG1161

This is a working document. Any views expressed in or implied by this document are without prejudice to and shall not limit the discretion of Ofgem or DESNZ in the exercise of existing or future powers in relation to policy, legislation, licences and codes. Equally, views expressed by participants to meetings or workgroups related to this document or the development of code solutions from it will not prejudice or limit any relevant consultation or response to such consultation.

This document is not for circulation beyond the parties to which it is presented.

**27 April 2023**

## **AGENDA**

### **1. Share our work-to-date on establishing the FSO**

- Update from intent in 2022 publications that 'codes need to change'
- Principles we are working to:
  - Soliciting stakeholders' expert input to adapt delivery plans
  - De-risking the latter stages of implementing the changes
  - Helping stakeholders understand and navigate the change process
  - Concurrency and Coordination
- Specifics: approach, timetable, role of parties
- Plans for a cross-code workgroup

### **2. Discussion & Questions**

- Validating the approach, incl. streamlined templates and consultations
- Timing a cross-code workgroup, incl. collaboration and coordination
- Testing assumptions about roles of code admins/parties
- Activities & Outputs: Reviewing draft solution/s + Filling gaps and drafting/amending legal text
- Identifying system impacts
- Signalling readiness for changes
- Engagement strategy: near-term and ongoing

### **3. Conclusions**



# 1. Approach

## DESNZ and Ofgem will use bespoke processes to deliver FSO licences and code changes based on stated policy aims and the parameters of the Energy Bill

### Policy Journey

*There will be "work to shape the new licensing and codes arrangements necessary to deliver smooth, rapid change", moreover, "codes will need to be modified where necessary to take account of the new arrangements, with consultation of industry stakeholders where appropriate" -- April-2022 response*

- **2021-Jan:** Ofgem published "Review of GB energy system operation"
- **2021-Jul:**
  - Ofgem-DESNZ consultation on creation of independent system operator (FSO)
  - Ofgem-DESNZ consultation on the design and delivery of energy code reform (Code Governance Reform, CGR)
- **2022-Apr:** Consultation responses published on FSO and CGR
- **2022-Jul:**
  - Energy Bill introduced in Parliament – Part 4, Independent System Operator and Planner ("the ISOP")
  - Ofgem-DESNZ consultation on the future ownership of Elexon
- **2023-Mar:** Consultation response published on Elexon ownership

### Work to the Present

- **Policy Development:**
  - FSO roles and responsibilities
  - Creation of two new FSO licences, one gas and one electricity
  - Consequential licence changes to classes of gas and electricity licences
  - Commercial and Operational workstreams driving the transition of NGESO to the FSO
- **Engagements**
  - Legislation
  - Elexon ownership
  - Work-in-Progress licences and codes | CM090 / PM0130 approved for April implementation

### Energy Bill 2023

*Intra vires activities are those "in preparation for the designation of a person (as the ISOP) under section 113(1), or in connection with or in consequence of the designation of a person under that provision" s.120(3) -- Energy Bill as laid, July-2022*

- **Energy Bill sets the:**
  - **legislative framework** of the FSO, including its roles, functions and duties
  - **powers** which DESNZ and Ofgem will use to enable the transition to the FSO, and for a 'sunset' period following its creation
  - **boundaries** governing the activities for which those powers will be used
- **Energy Bill powers enable us to:**
  - **modify licences and codes**, not existing processes under s.11A EA89 / s.23 GA86 or codes provisions which follow from SLCs and SSCs in licence
  - **provide guidance and instruction to industry parties** on what assistance will be required and following which timeline
  - **streamline the process**, e.g. no alternative proposals, or betterment
  - **promote coordination**, so things happen simultaneously, i.e., choreograph when changes take effect, rather than directing the solution
- **End-stage choreography will be set out in due course:**
  - Under the Bill, GEMA (the Authority) and/or SoS DESNZ are relevant authorities who can use a range of Bill powers
  - **expect the relevant authority to**
    - make facilitation governance modifications
    - publish notices about proposed modifications (licences/codes),
    - consider representations about those modifications,
    - publish notices about modification decisions (licences/codes),
    - make changes directly in licences and codes

*See annex for list of Bill provisions by section*
  - **expect modification effective date(s)** for FSO-related changes across licences and codes to be **aligned to a 'trigger' event**

## Day 1 FSO is narrowly scoped and dictates work packages. Non-FSO policy areas may progress their own licences and codes changes in parallel

### 'Rules' of change

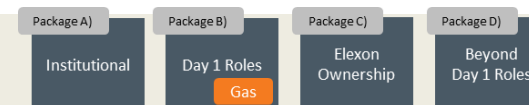
**General**, i.e. those applicable to Licences, Codes and wider Operational Readiness

- Scope limited to **Day 1 requirements**:
  - as a consequence of Statute, e.g., to hold two new category of licences
  - to establish the FSO (as a public corporation), and
  - to deliver new roles (as new / amended conditions, across both licences)
- Scope must be in **alignment** with:
  - capabilities discussed / agreed with NGESO in high-level design planning,
  - NGESO readiness in operational capability,
  - Business Plan 2 outputs and expectations, and
  - The project's roadmap for licences, guidance, codes, and incentives regime

### Codes

- **Policy Scope for Day 1** (expanding on general scope above):
  - Enduring code changes are to be **facilitative of new roles** (additive), rather than new or separate obligations; obligations removed from licences should also cascade directly into codes
  - **Gas**: FSO to have a relationship with the UNC; with minimal impact on electricity codes except to normalise data for new FSO roles, e.g., advisory
  - **Elxon Ownership**: remaining in industry ownership, public ownership only where industry ownership is undeliverable to the FSO timetable
- **Out of Scope for Day 1**:
  - Ultra vires proposals
  - Code administration & Governance arrangements, e.g., with respect to membership, accession, modification. FSO will have the administrative duties and functions where NGESO does so currently
  - Changes to substance of code conditions, e.g., Standard Condition C17 and similar. Expect modernisation such as language tidying, section headers
  - Non-FSO policy areas, e.g., Code Governance Reform (CGR), Competition / Network Review. These while complementary are run as separate policy areas to their own timelines

### Packages of Work



### Core

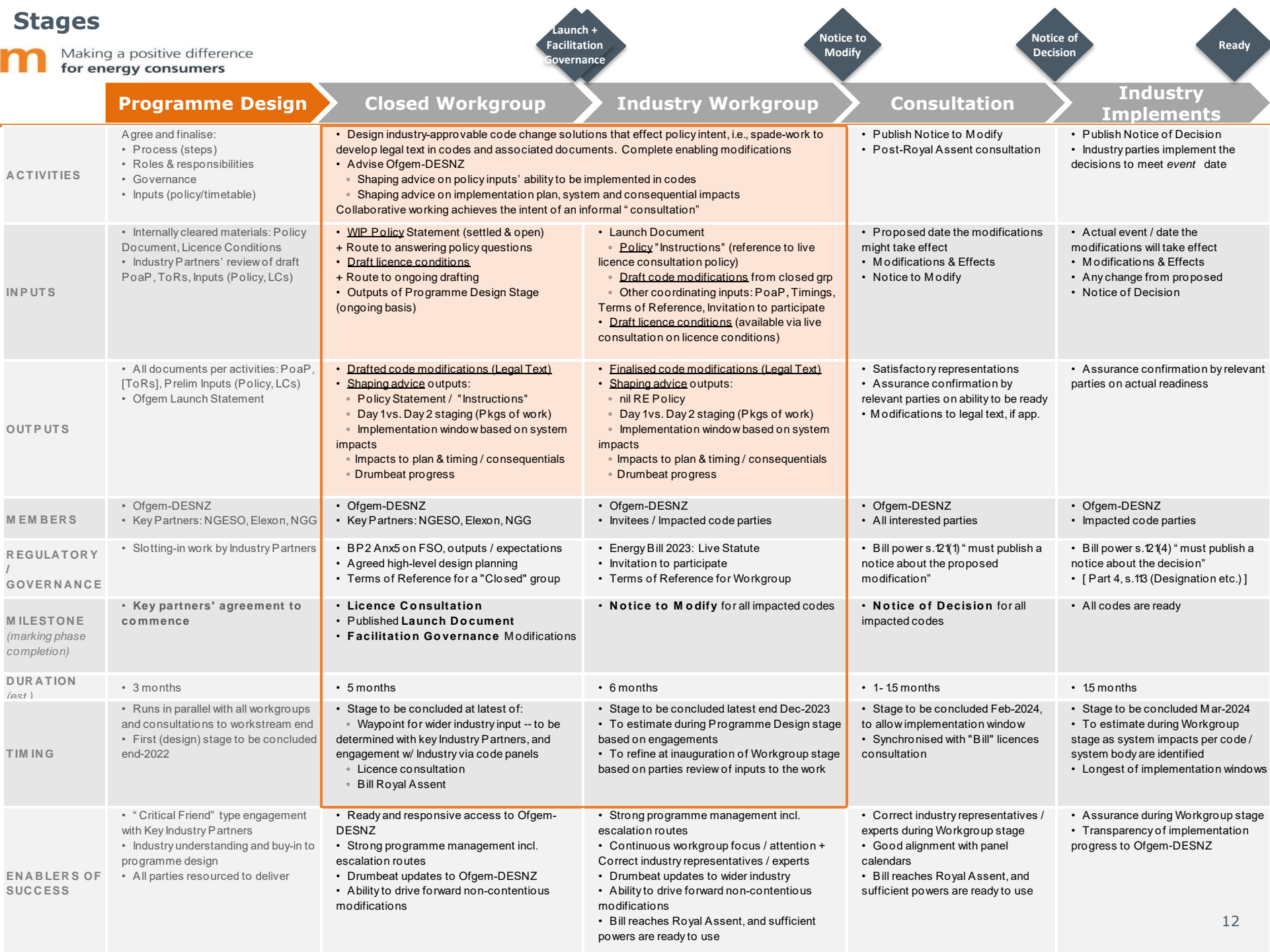
- Changes required to setup and establish a fully functional ISOP organisation ("**Institutional**"), which include:
  - Definition of the new Company
  - References to its new (category of) licences
  - References to new licences structure and nomenclature
  - Consequential reference changes
- Changes associated with new and enhanced roles to be obligated by licence on Day 1 ("**Enablers of Day 1 roles**"), which we expect to be driven by:
  - New interactions between gas and electricity regulated persons
  - Information exchange, Advisory, Whole systems, Planning
- Elxon transfer to a consortium of BSC funding parties ("**Elxon Ownership**")

### Non-Core

- Changes associated with *anticipated* new and enhanced roles which may become obligated by licence beyond Day 1 ("**Enablers of beyond Day 1 roles**")

### Principles

- **Licence changes cascading directly into codes**, including removal of deprecated or legacy conditions, e.g., BETTA transitional arrangements
- **No betterment**, which is required for:
  - intra vires working
  - meet Day 1 requirements
  - avoid novel or contentious changes
  - meet project timeline
- Language modernisation, where applicable and with consensus
- Transcription or typographical remedies, where applicable and with consensus
- **No alternative proposals** – consensus on single solution per impacted code
- **All modifications as single package of changes under Bill powers**



**Drafting** of code changes **by and with project partners NGESO, Elexon, and NGT** is expected to **capture the majority of changes**, with **limited impact** on other parties. While the Bill requires only that GEMA/DESNZ gives notices of modification and decision with legal text of changes attached, we think **it is essential to convene a cross-code workgroup** to: review and revise the work, gap-fill any cross-code changes, participate in at least one informal consultation so that the **final text** appended to 'Bill' notices **is industry-supported**

### Steps

- **Phase 1 – Codes analysis and drafting between Ofgem/DESNZ and project partners continues up to ISOP licences consultation and Bill Royal Assent**
- **Phase 2 – Codes launch will provide two things:**
  1. A proposed modification document to code admins for each impacted code. To include:
    - a) 'What is the issue';
    - b) 'The proposed solution';
    - c) rules for change;
    - d) draft legal text;
    - e) summary view of sections where a change is to be made and the category of change;
    - f) expectations of when the changes will take place
  2. Coordinating documents to enable review and revision work. To include an invitation to participate in a cross-code workgroup with terms of reference which will set out:
    - a) principles, e.g. no alternate solutions; no betterment
    - b) outputs, e.g. finalised drafts, a workgroup report on the agreed solution, impact analysis (systems, users), timetable to implement (incl. release cycles)
    - c) streamlined (versions of existing) templates
    - d) a timetable to which all modifications need to be reviewed, revised and informally consulted on and agreed;
    - e) constitution, including chair (Ofgem + TBA), admin (joint) representatives

### Request of Code Admins

1. In this design phase, **provide any critical friend feedback** on our coordinating documents
2. **Facilitate our invitation to participate** (broadcast, user notification) by validating / supplementing our constitution with the appropriate or best representatives, to convene workgroup within [ 3 ] weeks from launch
3. Provide a **systems and user impact assessment** – we believe this to be low, but will seek assurance for each code; and that objectives are not breached
4. Provide the **parameters** for Ofgem **to set the implementation window** from Bill notice of decision to effective date, considering release cycles
5. **Facilitate**, where appropriate any parallel **sub-workgroups** separate from the central Ofgem cross-code workgroup so that outputs of those discussions (revision work, actions, risks, issues, dependencies, policy questions) are consolidated and fed back into the Ofgem one
6. To **open and close** a workgroup **consultation** and industry consultation on the final draft changes to the timetable set out in the terms of reference

### Request of Workgroup attendees

1. Work in a **coordinated, cooperative fashion** with a foundational principle of **early transparency / no surprises**, in addition to the spirit of CACoP
2. At your discretion, convene code specific sub-workgroups, including pre-modification forums, e.g., CISG, TCFM, GCDF to discuss code solutions
3. To **maintain a consensus mindset** to avoid cycling through options, i.e., alternates will not be considered
4. To **participate in an informal workgroup consultation** to signal support

**There are notable departures from normal processes, including not having panel votes, final modification reports, or minimum consultation periods. Modifications will not be raised by industry parties**

**Code changes need a robust review cycle**, i.e., more than one stakeholder developing the final solution, wide stakeholders' input to supplement and assure solutions and to identify where changes impact them. We want the **FSO process to avoid unintended consequences or interactions**

Process comparison		
✓	[ Proposer ] raises: • Need for change • Solution rules	<u>Ofgem + Project Partners phase</u> Ofgem-DESNZ launch document will provide: • Need for change • Initial solution rules • Initial solution • Initial drafts <i>Note, there is no Proposer or Raising</i>
✓	[ Workgroup ] Develop solution	
✓	[ Relevant code party ] Draft legal text	
✓	Workgroup Develop solution + Draft legal text (for <u>any gaps</u> in Ofgem phase)	<u>Cross-code workgroup phase</u> • Only one iteration permitted, if / where the workgroup consultation determines further work is needed • No second workgroup consultation after an iteration • Direct to Code Admin consultation • Workgroup vote (?) • Direct to Bill consultation
✓	Workgroup Refine legal text (from Ofgem phase)	
✓	<b>Workgroup Consultation</b> – to get comments on the solution and legal text, [ 20 ] working days	
✓	Workgroup Iteration – ONE revision iteration (develop/draft + refine) based on consultation responses	
X	Workgroup Iteration – raise alternatives	
X	Panel Evaluation / Vote: • has the Workgroup fulfilled its Terms of Reference • suggest further changes or send the solution back	
✓	<b>Code Administrator Consultation</b> – stakeholders invited to signal agreement with final proposal, [ 20 ] working days	Not a statutory requirement based on the Energy Bill vires, but ideal. Also useful for ' <b>readiness</b> ' requirement
X	Workgroup Vote – is the task complete	
X	Panel Vote: • whether the solution is complete, • whether it meets the code objectives, • whether any further changes are required	
X	Decision – depending on the governance route: to Panel or Ofgem for approval	Final proposal goes into a ' <b>Bill</b> ' Consultation

**Is this the best streamlining of '**consultations**' to meet a tight timetable, provide rigour and achieve widest support?**

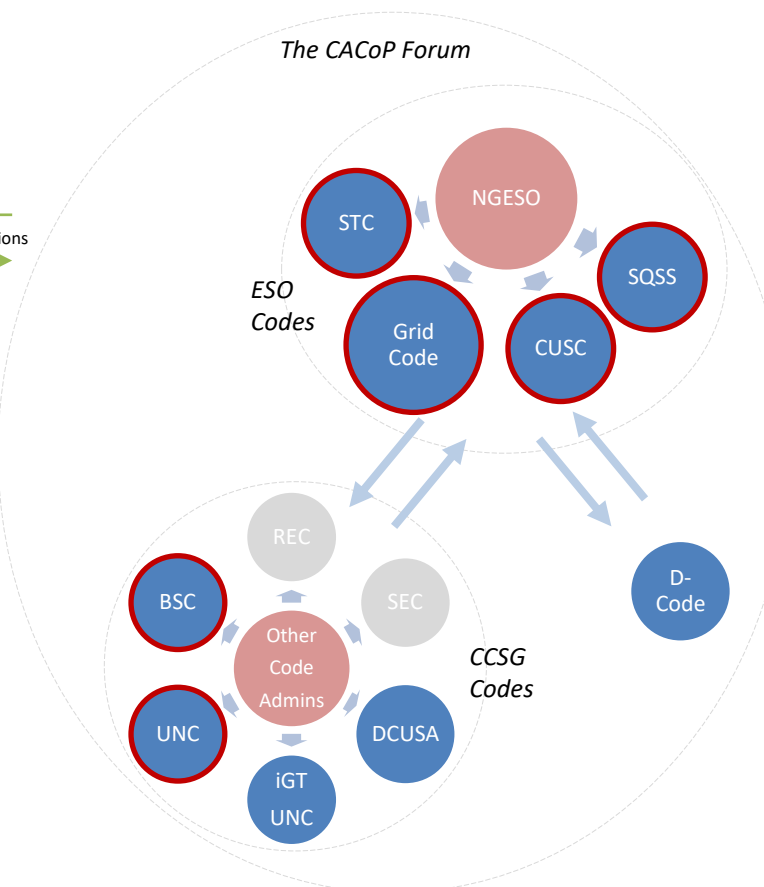
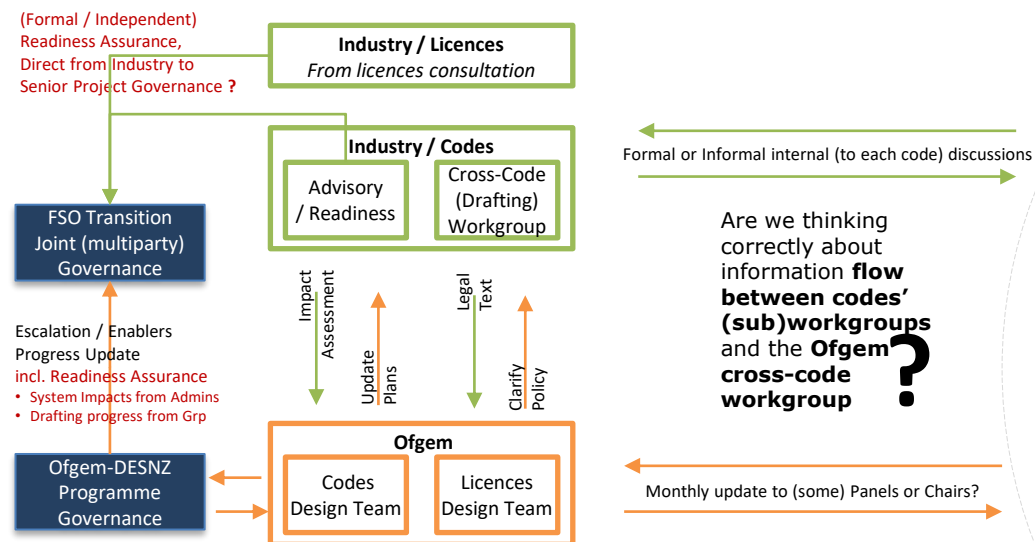
The **heavy-lifting of project partners** would deliver **draft code changes** with **~2 months for cross-Code workgroup** attendees to review, revise in advance of an informal workgroup consultation

Key Deliverables / Milestones	Owner	Decision	Target Date
Cross-Code Workgroup Coordination Documents <ul style="list-style-type: none"> <li>Instructions, supplemental to ISOP licences consultation</li> <li>Terms of Reference,</li> <li>Templates</li> </ul>	Ofgem	Ofgem	June 2023?
ISOP licences (informal) consultation	Ofgem	Ofgem	June 2023
Code modification drafts – first iteration	Joint: ESO / Elexon / NGT	Ofgem	June 2023
Cross-Code workgroup convened	Joint: Ofgem / Code Admins ?	Ofgem	June 2023
Energy Bill consultation on Facilitation governance modifications <ul style="list-style-type: none"> <li>Notice(s) to modify</li> <li>Notice(s) of decision</li> </ul>	Ofgem	Ofgem	July 2023
Workgroup (informal) consultation on all code changes	Joint: Code Admins?	Ofgem	September 2023
Code Admin (informal) consultation on all code changes	Joint: Code Admins?	Ofgem	November 2023
Energy Bill consultation on all FSO code changes <ul style="list-style-type: none"> <li>Notice(s) to modify</li> <li>Notice(s) of decision</li> </ul>	Ofgem	Ofgem	January to February 2024
Energy Bill consultation on ISOP licences <ul style="list-style-type: none"> <li>Notice(s) to modify</li> <li>Notice(s) of decision</li> </ul>	Ofgem	Ofgem	January to February 2024

**Is this timetable achievable? What needs to be true to make it so?**



**CACoP** has supported the **harmonisation of templates** across codes. While the **CCSG assesses and monitors cross-code impacts** with in-built terms of reference (ToR), **CACoP receives both** updates on the CCSG's discussions, and potential cross-Code changes from those Codes not on the CCSG. CFWI-003 continues thinking on expanding CCSG membership to all CACoP Codes. We believe it is sensible to **leverage existing work**: learning from CCSG ToRs for the FSO cross-Code workgroup, modification and workgroup reports



**Majority of FSO-related changes** will be **codes that NGESO** is code administrator for, with changes to the **BSC** for Elexon Ownership and changes to the **UNC** to reflect new FSO gas capabilities. Only minor updates are expected for other codes



## 2. Discussion & Questions

## Welcome reflections on over-arching approach and feasibility. Interested in blockers and issues, how Ofgem/DESNZ can minimise impact, facilitate, support

### Timing

- There are project-level dependencies which affect the earliest start date of a cross-code workgroup, nevertheless are we including wider industry at the correct time based on the plan?
- What are the timing risks involved in these types of modifications? Is the time allocated achievable?

### Cross-Code Change Programmes

- What issues may arise during cross-code working? What works well?
- What are the preferred ways to organise this cross-code working, including how solutions are worked through and drafts shared?
- Should electricity be solved for separately from gas? ESO-administered codes separately from others?

### The Task

- Are we providing the correct inputs?
- Do the activities and outputs make sense?
  - Participating in a cross-code workgroup to refine, design and recommend solution/s
  - Reviewing the 1<sup>st</sup> drafts from the closed group + Identifying other changes to all relevant codes to get to final changes
  - Determining system or user impacts
- Before the FSO can be designated, assurance from industry on its readiness for code changes is required – can code admins support that assurance for the project? Are alternate routes preferred, e.g. convening a 'readiness' forum, letters from industry representatives?

### Resource

- Given the scope of change, competing priorities and pressures on your codes resource, are you resourced to deliver?
- In your view, what other support do you require to deliver this?

### Validation / Engagement

- Where else should we seek input to assess and validate the approach?
- Is our engagement approach correctly timed to guide stakeholders through the change process?

## 3. Conclusions

We welcome reflections, so please do get in touch

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# Annex

- Potential Code Changes
- Energy Bill extract for licences and codes
- Comparing some steps of the FSO process to normal processes
- Responsibility Assignment Matrices (RACI/RAPID)

The majority of the necessary FSO-related changes will be **codes that NGENSO is code administrator for**. Changes to the **BSC** are required for the Elexon Ownership change. Changes to the **UNC** will be needed to reflect new gas capabilities in the FSO

Package	Category of change	Example
Institutional	'The Company' definition	<del>"The Company"</del> <del>National Grid Electricity System Operator Limited (No. 11014226)</del> [XXX – company name] whose registered office is <del>1-3 Strand, London WC2N 5EH</del> [address] as the holder of the <del>transmission licence</del> [ISOP ESO licence] granted, or treated as granted, pursuant to Section 6(1)(b) of the Act <del>and as amended by the Energy Bill 2024</del> and in which <del>section C</del> [ref] of the <del>ISOP standard transmission</del> licence <del>conditions</del> applies.
	Type of ISOP licence	Holder of the "ISOP ESO licence" - s.6(1)(da) EA89, inserted by clause [ 117(4) ] of the Energy Bill
	Licence references	* Sections, e.g., 'Section C' * Condition #'s, e.g., 'Standard Condition [B12, C1, C26, C17, etc.]' * Paragraphs, e.g., 'under paragraph 15 of Standard Condition B12 of its Transmission Licence or under paragraph 4 of Standard Condition E13' * Schedules, e.g., 'Schedule 1'
	Defining the business of the ISOP	<b>"Main Business"</b> any business of The Company which it must carry out under its <del>licence</del> <del>Transmission Licence</del> ;
	Adding the 'ISOP ESO Licence' and its derivatives into applicable uses of 'Transmission Licence' and its derivatives	New definitions for <b>"ESO Licence"</b> , <b>"ESO Licence Conditions"</b> , <b>"ESO Licensee"</b> to mirror <b>"Transmission Licence"</b> a transmission licence granted or treated as granted under section 6(1)(b) of the Act, <b>"Transmission Licence Conditions"</b> the conditions contained in and amended from time to time in accordance with a Transmission Licence, and <b>"Transmission Licensee"</b> the holder for the time being of a Transmission Licence – and appending new ESO definitions as appropriate . The alternative of expanding Transmission Licence to include the ISOP 'for the purposes of this code' discounted.
Elexon Ownership		To be determined
New Roles		
Gas		
Miscellaneous	Remove British Electricity Trading and Transmission Arrangements (BETTA) Transition References	STC (Core Document), Section I, PART 1: BETTA TRANSITION
	Remove Seven Year Statement References	<b>"Seven Year Statement Works"</b> <b>"Seven Year Statement"</b> <b>"Interim SYS"</b>

**Licences and code changes will not follow normal processes** – The powers to support delivery of licence and code changes for the establishment of the ISOP will be based on the [Energy Bill](#) and will **not be Ofgem’s usual s.11A EA89 / s.23 GA86 modification powers, nor those code modification provisions in the SLCs/SSCs of electricity and gas licences** and their corresponding standard terms in respective code documents

- From the [Energy Bill](#) introduced on 6<sup>th</sup> July 2022,

a “**relevant authority**” – meaning the DESNZ Secretary of State or GEMA, per s.120(8) and s.121(9):

### General power and Scope

- ☐ s.120(1) **may modify a relevant document**, which includes documents required to be maintained under conditions of licences, such as industry codes; **subject to a three-year sunset period** s.120(6)
- ☐ s.120(3) **in preparation for the Secretary of State’s designation** of, or **in connection with or in consequence of** the Secretary of State’s designation of [an ISOP], and s.120(4) where the operation or management of a relevant document **is affected by steps taken in connection with or by preparation** for such designation

### Process

- ☐ s.121(1) **must publish a notice about the proposed modification**
- ☐ is **obliged to consult**. That is, s.121(1)(c) to consider any representations made within the period specified in the notice, and state how those considerations were taken into account 121(5)(d) before making the modification, is a consultation.
- ☐ s.121(4) **must publish a notice about the decision** (if it decides to make the modification)
- ☐ where the **effective date of modifications is to be choreographed relative to the effective date of the ISOP designation and new ISOP gas and electricity licences** under Part 4, s.113 (Designation etc)
- ☐ s.118 (instead of granting an electricity system operator licence) **direct that a pre-commencement transmission licence is to have effect as an electricity system operator licence**. A direction under this section may make amendments and “include such terms and conditions as are specified, or of a description specified, in the direction”

### Relevant Authority

- ☐ **s.120(8) makes GEMA a relevant authority by default**; likewise in s.121(9). s.120(5) provides for the DESNZ SoS to have discretion to direct GEMA to exercise the s.120(1) modification power, if appropriate

- Observations relevant to process design

- ☐ **Preparatory work will take place in advance of Bill commencement**, including consultation obligations which “may be satisfied by before the passing of this Act”
- ☐ **EA89 licence modifications under s.120 or s.118 are expected to be the same, where optionality of delivery instrument is for choreography**
- ☐ **Activities** which may only take place **after commencement of Bill powers**:
  - i. **Facilitation governance changes** in licences or codes
  - ii. **Process steps** (i.e., issuing notices)
  - iii. **Implementation** at Designation (i.e., choreography of when code changes take effect may be bound to a *go-live* event)

**Notable departure from normal codes processes:** Bill-based process is not meant to circumvent the assurance and validation provided by industry experts, but rather achieve streamlined choreography and deliverability of code changes in line with the ISOP timetable. We propose only informal workgroup consultations to arrive at final package to be modified under the Bill

	STEP REMOVED / MODIFIED	FEATURES OF EXISTING STEP	IMPACT / MITIGATION
✓	<b>Workgroup Consultation / Code Admin Consultation</b>	While the form and process may vary per code, workgroups form consensus views via vote (or other) on code modification proposals (incl. alternates) in order to present the best set of draft reports for the panel. Code Admins provide validation or support for final proposal	<ul style="list-style-type: none"> <li>In the 1<sup>st</sup> role of the Workgroup, i.e., designing the code changes, an output is contextual recommendation of the best solution per code, if/where there are multiple shortlisted options.</li> <li>A principle of the FSO code process is no alternate code modification proposals by the conclusion of the workgroup. The terms of reference for the workgroup is not prescriptive on how consensus is achieved, only that it is. Replication of a workgroup vote or consultation is one route to consensus.</li> </ul>
✗	<b>Panel Vote and Recommendation</b>	Workgroup participants may be different from the corresponding Panel representatives. The panel vote provides the second of a <i>two-factor authentication</i> and sift of the report(s) of the workgroup to arrive at the final modification report (FMR)	<p>The Energy Bill requires the relevant authority to consider representations during the period from notice of modification to notice of decision.</p> <ul style="list-style-type: none"> <li>This consultation window permits any party – a constituent of a code panel, of the workgroup, or other – to provide representations, allowing all views to be captured.</li> <li>Validation of the constitution of the workgroup is part of its terms of reference, and is designed to be sufficiently comprehensive to captures all requisite perspectives.</li> <li>Finally, in the 1<sup>st</sup> role of the Workgroup, i.e., designing the code changes, an output is contextual recommendation of the best solution per code. All combined should fulfil the sifting role of the final panel vote.</li> </ul>
✗	<b>Panel Assessment of Modification Proposal</b>	<ul style="list-style-type: none"> <li>Panel recommendation on governance route</li> <li>Panel consideration of complexity, urgency and materiality in determining timetable</li> <li>Panel recommendation on prioritisation against pipeline</li> </ul>	<p>The Energy Bill provides the relevant authority with powers, the consequence of which are:</p> <ul style="list-style-type: none"> <li>governance route is for the relevant authority to decide;</li> <li>timetable based on the Bill powers and legislative choreography for the designation of the ISOP is for the relevant authority to decide;</li> <li>complexity assessment is built into the 2<sup>nd</sup> role of the Workgroup, i.e., shaping advice on the ability of policy to be put into codes</li> </ul>
✗	<b>s.11A EA89 / s.23 GA86 modification of conditions of licences powers</b>	<p>The removal of the below provisions are based on the ambitions of statute, and for coordination and choreography with the overall project's activities, including designation of the ISOP</p> <ul style="list-style-type: none"> <li>28 days minimum for representations following notice of modification</li> <li>56 days standstill period from notice of decision</li> <li>CMA appeal route against the relevant authority for proceeding with a decision following notice of decision</li> </ul>	

The roles proposal is based on impact to and expertise of relevant parties, as well as the Energy Bill provisions

- To be agreed, and subsequently codified in Terms of Reference
- Follows on from "Workgroup Stages" and describes expectations on roles and responsibilities
- Members are indicative and have not been formally agreed
- Roles are indicative and have not been formally agreed

	Activities / Stakeholder Group	Programme Design	Workgroup #1				Workgroup #2			Consultation			Industry Implements	
			Member	(a) Content Design • Draft Code Legal Text	(b) Shaping Advice • Systems/User Impacts • Delivery to PoaP		Member	(a) Content Design • Draft / Revise Code Legal Text with Cross-Code impacts	(b) Shaping Advice • Systems/User Impacts • Delivery to PoaP	Notice of Modification (Bill)	Consultation	Notice of Decision (Bill) / Consultation Response	Post Notice of Decision / Engagement RE Readiness	Implementing code modification
	Ofgem / DESNZ	Perform / Agree / Decide	Ofgem / DESNZ	Agree	Agree / Decide		Ofgem / DESNZ	Agree	Agree / Decide	Perform / Decide	Perform / Decide	Perform / Decide	Agree	Agree
Code Admins	NGESO	Input	NGESO	n/a	Input		NGESO	n/a	Input	n/a	n/a	n/a	n/a	n/a
	Elexon	Input	Elexon	Perform	Input	BSC	Elexon	Perform	Input	n/a	n/a	n/a	n/a	n/a
	Joint Office	Input	Joint Office	n/a	Input		Joint Office	n/a	Input	n/a	n/a	n/a	n/a	n/a
	All others	n/a		n/a	n/a		All others	n/a	Input	n/a	n/a	n/a	n/a	n/a
	All Code Admins	Input		n/a	n/a			n/a	n/a	n/a	Input	n/a	Input	Perform
Code Bodies	Electricity Transmission Owner / Operators	Input	NGESO	Perform	n/a	CUSC, GridCode, STC, SQSS	NGESO, et al.	Perform	n/a	n/a	n/a	n/a	n/a	n/a
	Electricity Distribution Network Operators	n/a		n/a	n/a	DCUSA, D-Code	Respondee to invitation	Perform	n/a	n/a	n/a	n/a	n/a	n/a
	Electricity Generators	n/a		n/a	n/a			n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Electricity Suppliers	n/a		n/a	n/a			n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Gas Shippers	n/a		n/a	n/a			n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Gas Suppliers	n/a		n/a	n/a			n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Gas Transporters / Distribution Network Operators	Input	NGG	Perform	n/a	UNC	NGG, et al.	Perform	n/a	n/a	n/a	n/a	n/a	n/a
	Supplier Agents	n/a		n/a	n/a			n/a	n/a	n/a	n/a	n/a	n/a	n/a
	All Code Parties	Input		n/a	n/a			n/a	n/a	n/a	Input	n/a	Input	Perform
	System Bodies	n/a		n/a	n/a			n/a	n/a	n/a	n/a	n/a	n/a	n/a

**RAPID** - focusses on decision making and actions

- **Recommend:** Recommend a decision or course of action
- **Agree:** Formally agree to a decision - views will/must be reflected in final proposal
- **Perform:** Being accountable for delivery
- **Input:** Provide input to a recommendation - views may or may not be reflected in final proposal
- **Decide:** Commit to a course of action



**Ofgem is the Office of Gas and Electricity Markets. We are a non-ministerial government department and an independent National Regulatory Authority, recognised by EU Directives. Our role is to protect consumers now and in the future by working to deliver a greener, fairer energy system.**

**We do this by:**

- **working with Government, industry and consumer groups to deliver a net zero economy at the lowest cost to consumers.**
- **stamping out sharp and bad practice, ensuring fair treatment for all consumers, especially the vulnerable.**
- **enabling competition and innovation, which drives down prices and results in new products and services for consumers.**

# Authority Decisions and Update



The Authority's publication on decisions can be found on their website below:

<https://www.ofgem.gov.uk/publications/code-modificationmodification-proposals-ofgem-decision-expected-publication-dates-timetable>



# Inflight Modification Updates

Milly Lewis, Code Administrator

# GC0155: Clarification of Fault Ride Through Technical Requirements Request to change Terms of Reference

The Workgroup would like to amend the following within their Terms of Reference:

## Amend Workgroup Term of Reference

- e) ~~Minor~~ Changes and clarifications to the existing Grid Code Fault Ride Through (FRT) requirements specifically but not limited to consideration of the following areas:
  - i. Clarify instances where User plant is required to trip in order to clear transmission system faults
  - ii. Amending requirements for generating maximum reactive current during faults where these may be unachievable for some generators
  - iii. Amending post-fault active power requirements to consider whether generators at low load may have greater levels of oscillation than permitted
  - iv. To consider clarifying and or defining requirements for over-voltage during a fault

## GC0155 - the asks of Panel

- **AGREE** the amended point within Terms of Reference



# Panel Tracker

Milly Lewis, Code Administrator

## Prioritisation Stack

Mod Number	Previous Priority No:	Priority No	Title
GC0148	1		Implementation of EU Emergency and Restoration Code Phase II
GC0139	2		Enhanced Planning Data Exchange to Facilitate Whole System Planning
GC0156	3		Implementation of the Electricity System Restoration Standard
GC0117	4		Improving transparency and consistency of access arrangements across GB by the creation of a pan-GB commonality of PGM requirements
GC0154	5		Incorporation of interconnector ramping requirements into the Grid Code as per SOGL Article 119
GC0155	6		Clarification of Fault Ride Through Technical Requirements
GC0103	7		The introduction of harmonised Applicable Electrical Standards in GB to ensure compliance with the EU Connection Codes
GC0159	8		Introducing Competitively Appointed Transmission Owners
GC0140	9		Grid Code Sandbox: enabling derogation from certain obligations to support small-scale trials of innovative propositions



# Workgroup Report

**GC0156: Facilitating the Implementation of the Electricity  
System Restoration Standard (ESRS)**

Milly Lewis

# Key points to note to the Panel

- Complex modification with high level of industry interest with Workgroup attendance averaging 30 individuals (inclusive of observers) across 21 parties.
- Based on current timelines the full suite of ESRS modifications will be issued to the Authority between July and November 2023.



# Solutions and Workgroup Vote

## Summary of solutions:

Both solutions aim to restore the system and supplies as quickly as possible in the most economic manner. The implementation of the ESRS is to put in place measures, tools and procedures via the Grid Code such that in the event of a Total or Partial Shutdown of the GB Electricity System, 60% of Demand can be restored within all regions of GB in 24 hours and 100% of Demand can be restored in 5 days nationally.

	Summary of Update	Original	WAGCM1
Glossary and Definitions	Introduction of new definitions – changes to some existing definitions	✓	✓
Planning Code	Data reporting for Restoration Service Providers and Parties forming part of a Distribution Zone	✓	✓
Connection Conditions/ European Connection Conditions	Changes to Protection, Control and Governor Settings, amendments to Offshore to enable Offshore Generation to participate in Restoration, broad normalisation of Anchor Plant and Top Up Restoration Plant, introduction of Distribution Restoration Zones/obligations on Network Operators, reinforcement of Critical Tools & Facilities, introduction of Assurance activities	✓	✓
OC1	Notification Demand Data for System Restoration Purposes	✓	✓
OC2	Outage data in respect of Restoration Service Providers and Network Operators	✓	✓
OC5	Enhanced Testing and Assurance requirement including deadline charge and remote Synch tests	✓	✓
OC9	Fundamental restructure to include Local Joint Restoration Plans and Distribution Restoration Zone Plans	✓	✓
BC2, BC4 & General Conditions	Consequential changes	✓	✓
Data Registration Code	Consequential data changes	✓	✓
Asset resilience at site(s) for 72 hours after a Partial or Total Shutdown		All CUSC Parties	Contractual Arrangements only

## Summary of Workgroup Vote:

- 13 Workgroup Members voted, with 9 voting that the Original Solution was better than the Baseline and 11 that WAGCM1 was better than the Baseline.

# Terms of Reference

The Workgroup conclude that they have met their Terms of Reference and the references can be located below:

Workgroup Term of Reference	Location in Workgroup Report
a) Implementation and costs	“Workgroup Consideration” section
b) Review draft legal text should have been provided. If legal text is not submitted within the Modification Proposal the Workgroup should be instructed to assist in the developing of the legal text	“Workgroup Consultation Summary” section & “Legal Text” section
c) Consider whether any further Industry experts or stakeholders should be invited to participate within the Workgroup to ensure that all potentially affected stakeholders have the opportunity to be represented in the Workgroup. Demonstrate what has been done to cover this clearly in the report	“Workgroup Consideration” section
d) Consider EBR & ENCR implications	“Interactions” section
e) Consider the following elements: <ul style="list-style-type: none"><li>(i) Updating references in the Grid Code from “Black Start” to “Electricity System Restoration”.</li><li>(ii) Review the ESRS requirements as established by NGESO (in conjunction with the ESRS Steering Group), and as provided to the GC0156 group, to clarify whether:<ul style="list-style-type: none"><li>• the requirement to restore transmission ‘demand’ is unambiguously understood;</li><li>• the requirement to restore ‘60% and 100%’ of transmission demand is unambiguously understood;</li><li>• there is an unambiguous understanding of the time related requirements; and</li><li>• there is an unambiguous understanding of the term ‘region’, Understand, consider and develop requirements such that the necessary changes can be made in the Grid Code and Distribution Code to facilitate the implementation of the Electricity System Restoration Standard as directed by BEIS in Special Condition 2.2 of National Grid Electricity System Operator’s Transmission Licence.</li></ul></li></ul>	“Workgroup Consideration” section

## Workgroup Term of Reference

## Location in Workgroup Report

e) Consider the following elements (continued):

- iii. The workgroup considers and develops the necessary changes that can be made in the Grid Code and Distribution Code to facilitate the implementation of NGESO's interpretation of the Electricity System Restoration Standard as directed by BEIS in Special Condition 2.2 of National Grid Electricity System Operator's Transmission Licence. (i.e. 60% of Transmission Demand to be restored within 24 hours (all regions) and 100% of Transmission Demand within 5 days with the assumption that the Transmission System is in an operable state.)
- iv. Consider any feedback from the ESRS Steering Group in the solution and Final Workgroup Report.
- v. Ensuring measures are put in place in the Grid Code to facilitate the requirements of the ESRS (60% of Transmission Demand to be restored within 24 hours (all regions) and 100% of Transmission Demand within 5 days) with the assumption that the Transmission System is in an operable state.
- vi. Build on the proposed solutions set out in other Grid Code modifications such as GC0148 (Implementation of Emergency and Restoration Code Phase II) and other developments such as the Distributed ReStart NIC project to achieve the requirements of the Electricity Restoration Standard.
- vii. Consider what changes if necessary are required to the System Restoration Plan and Test Plan.
- viii. As part of this modification, take the opportunity to undertake a minor housekeeping correction to OC5.7.1(b)(i) that needs to be addressed following an error arising from the implementation of Grid Code modification GC0108 (EU Code: Emergency & Restoration: Black start testing requirement).
- ix. Review the findings of the seven ESRS workstreams to assess what information from those workstreams is relevant to the Grid Code and this Workgroup.
- x. Consider the need to update any associated RES documents, and whether such information should be included in the Grid Code.
- xi. Clarify the obligations and implications for Restoration Service Providers and other Users (Grid Code and Distribution Code) of meeting the ESRS.
- xii. Consider what the impact of a Fault Ride Through event as the cause (or suspected cause) of the national power outage, will be in terms of compliance with GC0151 and GC0155.
- xiii. Consider any relevant recommendations from other workgroups and E3C which would have an impact on the ESRS.

"Workgroup Consideration" section

Workgroup Term of Reference	Location in Workgroup Report
f) Consider revisions and updates to the legal text of the Distribution Code and G99.	“Legal Text” section & Annex 19
g) Ensure that the solution developed for this GC0156 modification takes into account the findings (to date) of the relevant Workstreams as detailed in Appendix 1 of these Terms of Reference.	“Workgroup Consideration” section
h) Consider any other cross codes impacts.	“Workgroup Consideration” section

# GC0156 – the asks of Panel

- **AGREE** that the Workgroup have met their Terms of Reference
- **AGREE** that this Modification can proceed to Code Administrator Consultation
- **NOTE** that this Modification does not impact the Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Grid Code
- **NOTE** the ongoing timeline and interactions with GC0148

# GC0156 Next Steps

Milestone	Date
Code Administrator Consultation	02 May 2023 to 5pm on 02 June 2023
Draft Final Modification Report issued to Panel	21 June 2023
Draft Final Modification Report presented to Panel	29 June 2023
Final Modification Report issued to Panel to check votes recorded correctly (5 working days)	03 July 2023 to 07 July 2023
Submission of Final Modification Report to Ofgem	11 July 2023
Ofgem decision date	TBC
Implementation Date	10 Business Days after Authority Decision



# **Grid Code Development Forum and Workgroup Day(s)**

Jamie Webb, NGESO

# Grid Code Development Forum – Previous and Next

**5 April 2023 (GCDF Cancelled)**

**3 May 2023 (Deadline for Agenda items - 25<sup>th</sup> April)**

**FAX Replacement** – The Control rooms currently use fax machines to send and receive data from primary and secondary BMUs. BT's Public Switch Telephone Network (PSTN) are due to be decommissioned at the end of 2025; ESO finding a replacement for the services provided.

**GC0103 Introduction of harmonised Applicable Electrical Standards in GB to ensure compliance with the EU Connection Codes mod is restarting** - Update on Modification ahead of Workgroup nomination being published on 4 May 2023.

Further agenda items TBC



## Standing Items

- Distribution Code Panel update (Alan Creighton)
- JESG Update (information only)
  - Previous meeting – 14 March 2023 [Meeting materials and Headline Report](#)
  - Next meeting – 09 May 2023



## Updates on other industry codes



# Electrical Standards

## Relevant Electrical Standards (RES) Review

Frank Kasibante

# Relevant Electrical Standards (RES)/GC0103 Interactions

## RES Review - considerations

- **What and where are the differences?**
- **Where are the gaps?**
- **What are the impacts to parties (where amendments to harmonise might arise)**
- **Governance arrangements (who owns the harmonised standards?)**
- **What are the risks (Technical/Compliance/Commercial)**
- **Timescales**

## Next Steps

- 1. Commence conversations with parties**
- 2. Pre work to and/or progress via GC0103**

Considerations will be undertaken within the GC0103 framework by analysing the GB RESs, establishing where similarities and gaps exist.

# Analysing the GB Relevant Electrical Standards (RES) - establishing where similarities and gaps exist

Reference Area	TO Area & Standard				Gaps/Variations
	SPT	SHET	E&W	International	
<b>BACK-UP PROTECTION GRADING</b>	13.1.4 Bushings High Voltage (HV) bushings shall be tested in accordance with IEC 60137.	Refs. NGTS Bushings shall comply with IEC 137/BS223  <a href="#">download (nationalgrideso.com)</a>	Bushings shall comply with BS EN 60137  <a href="#">Microsoft Word - TS 3.02.07 RES i1-so (nationalgrideso.com)</a>	36A/176/CDIEC-60137: INSULATED BUSHINGS FOR ALTERNATING VOLTAGES ABOVE 1 000  <a href="#">IEC - Advanced search &gt; Working Documents, Project Files and Work Programme</a>	SPT/E&W refer to IEC 60137. SHET(not updated) refers to NGTS.  <b><u>Conclusion:</u></b>  IEC 60137 could be adopted across TOs/ CATOS
<b>GAS INSULATED SWITCHGEAR</b>	Gas Insulated switchgear (GIS) shall meet the requirements of IEC 62271-203.  <a href="#">download (nationalgrideso.com)</a>	Gas Insulated Metal-enclosed for Rated Voltages of 72.5KV and above – IEC 517(BS5524) /NGTS 2.2  <a href="#">download (nationalgrideso.com)</a>	Gas-insulated switchgear (GIS) shall comply with IEC 62271-203  <a href="#">GAS INSULATED SWITCHGEAR (nationalgrideso.com)</a>	14/724/INFIEC 62271-211 - High-voltage switchgear and control gear - Direct connection between power transformers and gas insulated metal-enclosed switchgear for rated voltages of 72,5 KV and above  <a href="#">IEC - Advanced search &gt; Working Documents, Project Files and Work Programme</a>	SPT/E&W refer to IEC 62271 for this item. SHET (Sept '92 Spec – not updated) refers to 'Switchgear for the National Grid System'  <b><u>Conclusion:</u></b>  There is some alignment across the GB TOs with International Standards.
<b>ETC</b>	-----	-----	-----	-----	-----

Ask of Panel: Agree proposed approach and flag if any concerns

E&W = England and Wales

SPT = Scottish Power Transmission

SHET = Scottish Hydro Electric Transmission

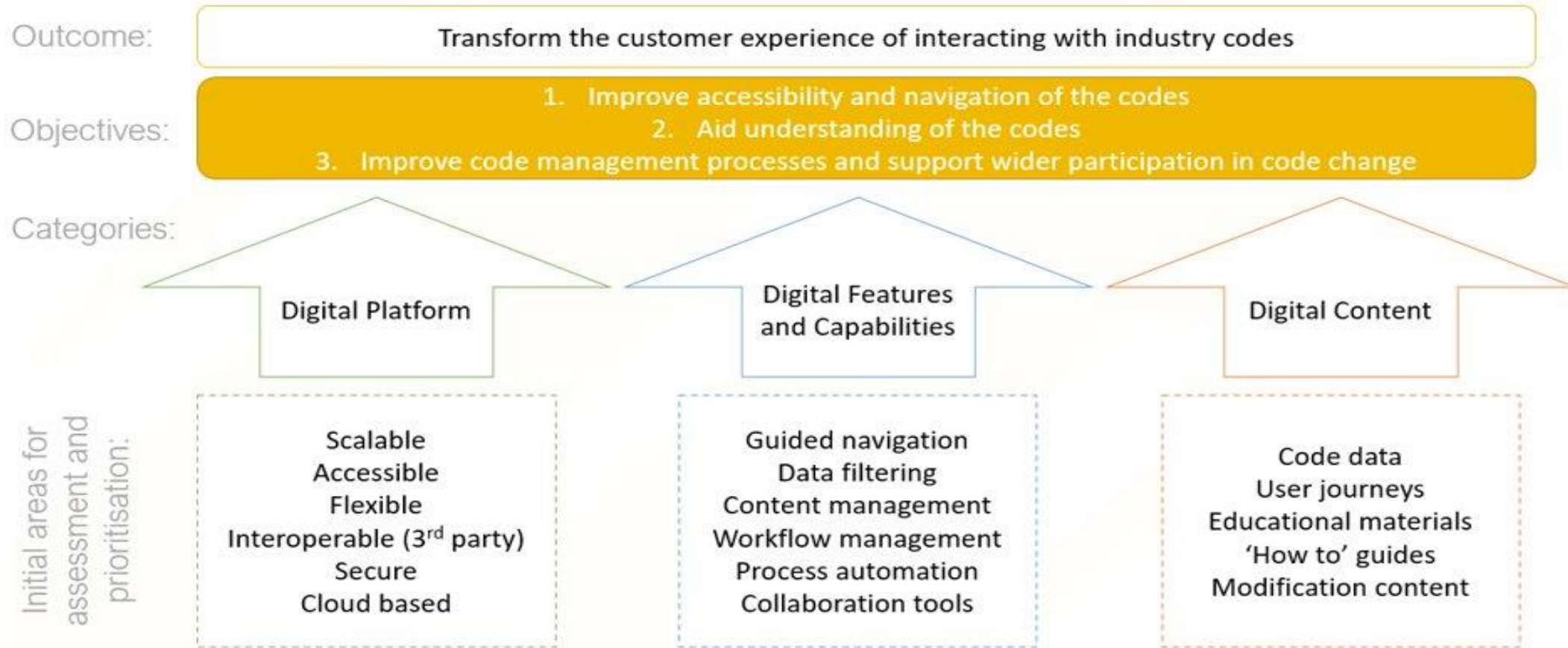


# **Code Administrator Update**

## **Grid Code Digitalisation Update**

Teri Puddefoot

# Objectives and Scope

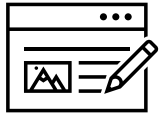


# Top challenges from user research – Synthesis

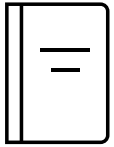
What	Why	Goal
User Experience	Ease of use	Access from all devices, clean journey across all ESO platforms
Search Data	Improved search functionality	Search digitalised code, section numbers, terms or phases, see the context of the search, see frequently searched items, search by mod number & industry proposer
Filter Data	Show relevant areas of the code	Ensure compliance
Glossary	Clear understanding of obligations	Look up words and phases
User journeys	Enable users to learn about the Grid Code	Show applicable areas of the code and how to use it
Version Control	Understand where changes have been made	To understand what has changed and when
Code Change Workflow	Digitalised workflow to provide simplification of process	Ease of Code Modification process, Clear auditable workflow, Access Management



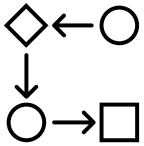
# DCM Hub – Features



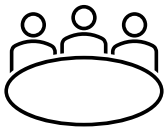
Authoring/Editing/Publishing  
Code change management



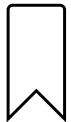
Code Management



Workflow



Workgroup collaboration



Classification



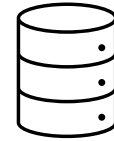
Meta-data tagging



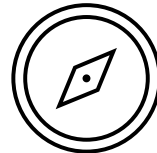
Find/Navigate



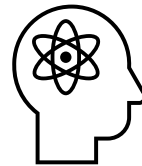
Search



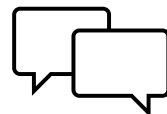
Indexing



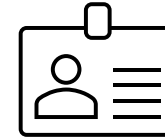
Guided Help



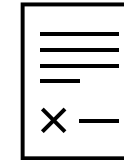
Knowledge Base



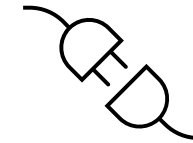
Conversational  
Bot



User  
Management



Contract



Connection



Dashboard/  
MyAccount



My IT

# Digital Transformation – Driving Value at the intersections

## *Business Transformation*

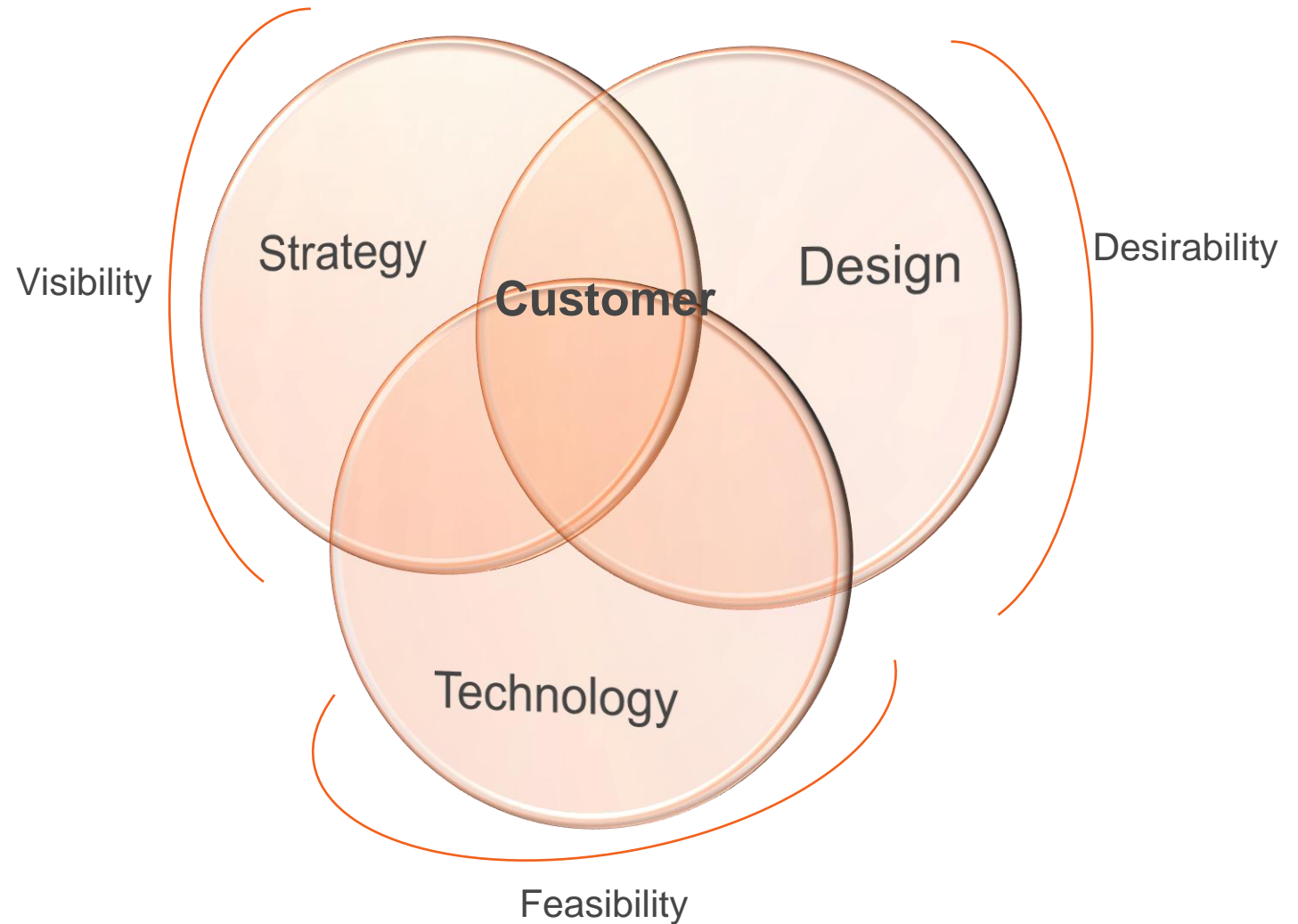
*Creating new business services based on customer experience*

## *Process Transformation*

*Transformation of business, process & technology for business services*

## *Engineering Transformation*

*Infusing engineering transformation and new ways of working*



# DCM Hub – Logical Architecture

## Benefits:

- Using DEP as single window of access
- Decoupled Architecture underpinning Digital Technology
- Design for hyper personalised experience
- Delivers ability for rapid UX changes
- Scalable Architecture to support interactive user journeys
- Cloud Native Architecture
- Cognitive Search
- Reusable architecture
- Reusable experience framework

### DCM Hub Touchpoints

Users get unified experience across multiple platforms



### DCM Hub Features

Persona based user journeys



### DEP Service Layer

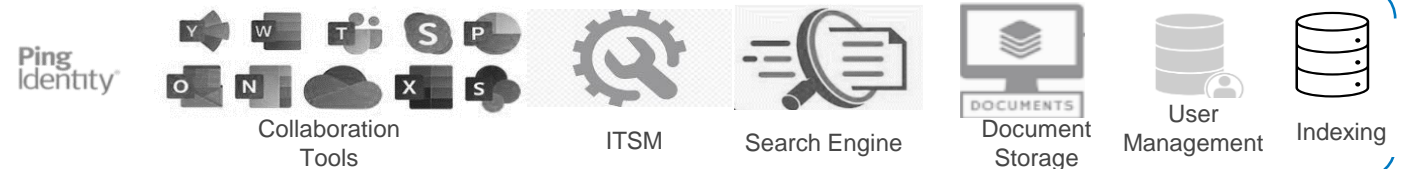
Microservices mapping to experience underpinned with digital technologies



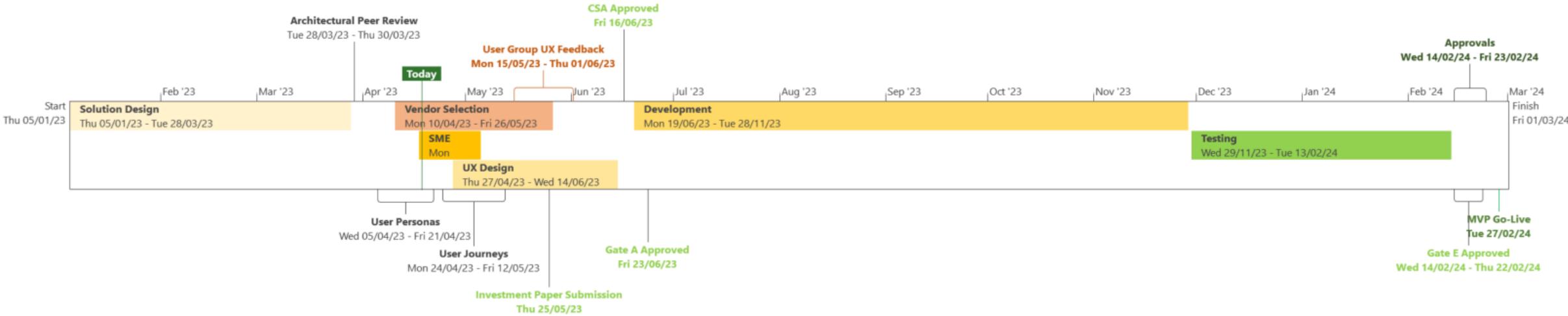
### Source Systems

Platforms Applications new or reuse from the current landscape

[this will be detailed post  
Technology fitment in next phase]



# Plan – On a Page



# Next Steps

- **Stakeholder Engagement**
  - Request to Stakeholders to re-form user groups
  - Obtain User group feedback on User Experience & Functional Design
- **NG Internal Architecture Approvals:**
  - Conclude Conceptual Solution Architecture (CSA)
  - CSA based on feedback and obtain sign-offs
- **Technology Partnerships:**
  - Conclude potential solution/vendor research and engage with a Request for Information (RFI)
  - Update requirements (if applicable) and develop High Level Design (HLD) based on RFI findings
  - Shortlist solutions/vendors, based on fit against HLD and requirements - undertaking solution/approach options appraisals if/where required.
  - Initiate & Review formal Request for Proposal (RFP) responses
  - Further shortlist vendors/solutions and undertake formal selection/scoring process
  - Select Technology Partner(s)
- **Detailed Design**
  - Complete Low-Level Design (LLD) to include User Experience (UX) & Functional Design
  - Finalise Detailed Design based on User Group feedback & internal approvals

## Asks

### Stakeholder Engagement

- User Persona – How do you interact with the Grid Code
- User Groups – Design review and challenge



**Any Other Business**

# Future Arrangements for Face to Face Meetings

The planned Face to Face Grid Code Review Panel are:

- 27 July 2023
- 26 October 2023

## Asks of Panel

- **AGREE** whether future Grid Code Review Panel should be held in a different location

## **Next Panel Meeting**

**Modification Proposals to be  
submitted by 10 May 2023**

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**Papers Day – 17 May 2023**

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**10am on 25 May 2023 - Teams**

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**Close**



**Trisha McAuley**  
Independent Chair, GCRP