

# **GC0183: Generator and Interconnector Availability During a Severe Space Weather Event**

Workgroup 4, 04 September 2025

Online Meeting via Teams

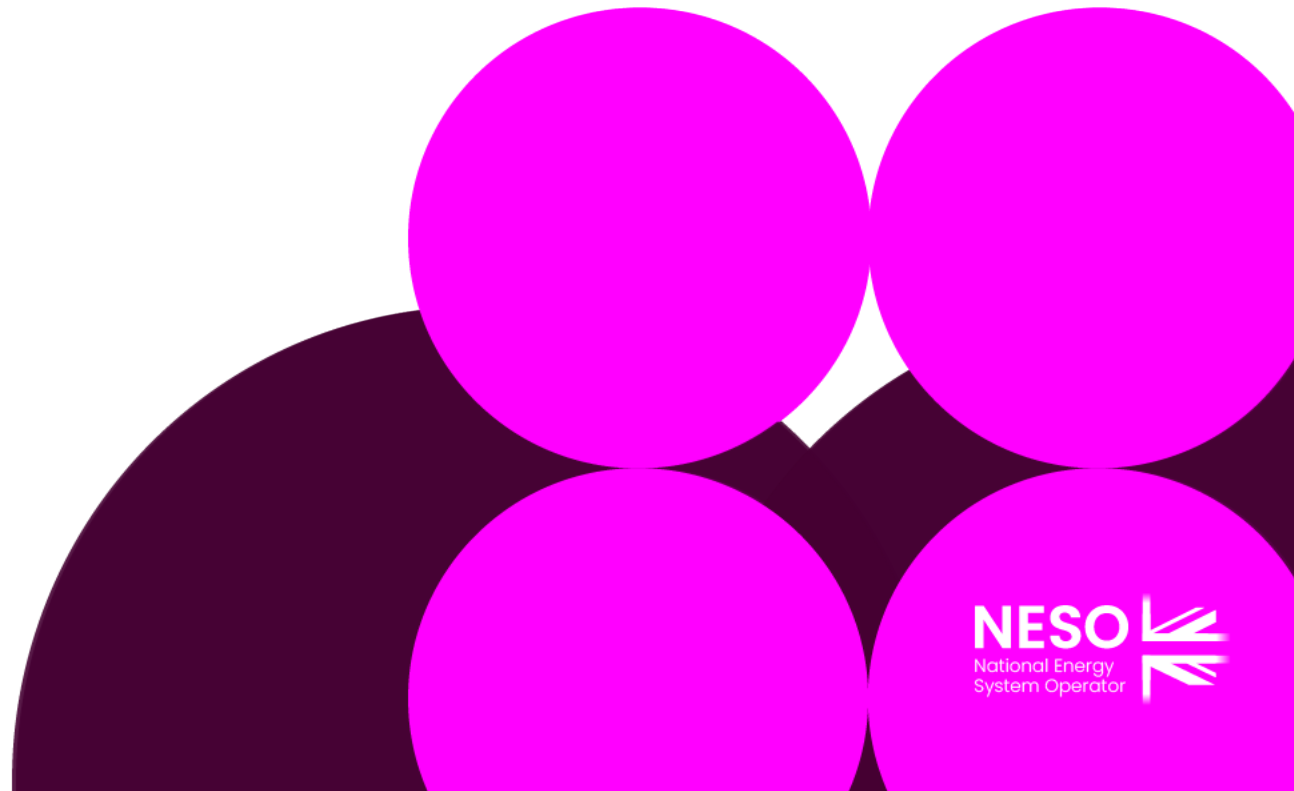
# WELCOME

# Agenda

Topics to be discussed	Lead
Introductions	Chair
Workgroup Responsibilities and Membership	Chair
Timeline and Objectives	Chair
Review Workgroup Consultation Responses	All
Proposer's Update and Legal Text	HN
Review Draft Workgroup Report	Chair
Terms of Reference	All
Action Log Review	All
Any Other Business	Chair
Next Steps	Chair

# Workgroup Responsibilities and Membership

Claire Goult – NESO Code Administrator



## Expectations of a Workgroup Member

Contribute to the discussion

Be respectful of each other's opinions

Language and Conduct to be consistent with the values of equality and diversity

Do not share commercially sensitive information

Be prepared – Review Papers and Reports ahead of meetings

Complete actions in a timely manner

Keep to agreed scope

Email communications to/cc'ing the .box email

## Your Roles

Help refine/develop the solution(s)

Bring forward alternatives as early as possible

Vote on whether or not to proceed with requests for Alternatives

Vote on whether the solution(s) better facilitate the Code Objectives



# Workgroup Membership

Role	Name	Alternate	Company
Proposer	Helen Newman		NESO
Workgroup Member	Garth Graham	Andrew Urquhart	SSE Generation
Workgroup Member	Patrick Murphy	Kevin Anaafi-Brown	Eleclink Limited
Workgroup Member	Allan Holton	Graeme Vincent	SP Energy Networks
Workgroup Member	Ross McFarlane		Northern Powergrid
Workgroup Member	Tim Ellingham	Andrew Allan	RWE
Workgroup Member	Charles Dolan		EDF Energy - Hinkley Point C
Workgroup Member	Kevin Cowan	Ali Gill John Reilly	EDF (Existing Nuclear Generation)
Observer	Andrew Larkins		Sygensys
Observer	Calum Beckwith	James Porter	VPI
Observer	Maria Lopez		NESO
NESO SME	Graham Lear	Antony Johnson	NESO
NESO SME	John Zammit-Haber		NESO
Authority Representative	Alice Siri		Ofgem

# Timeline and Objectives

Claire Goult– NESO Code Administrator

# Timeline

## Objectives

Review Workgroup Consultation Responses

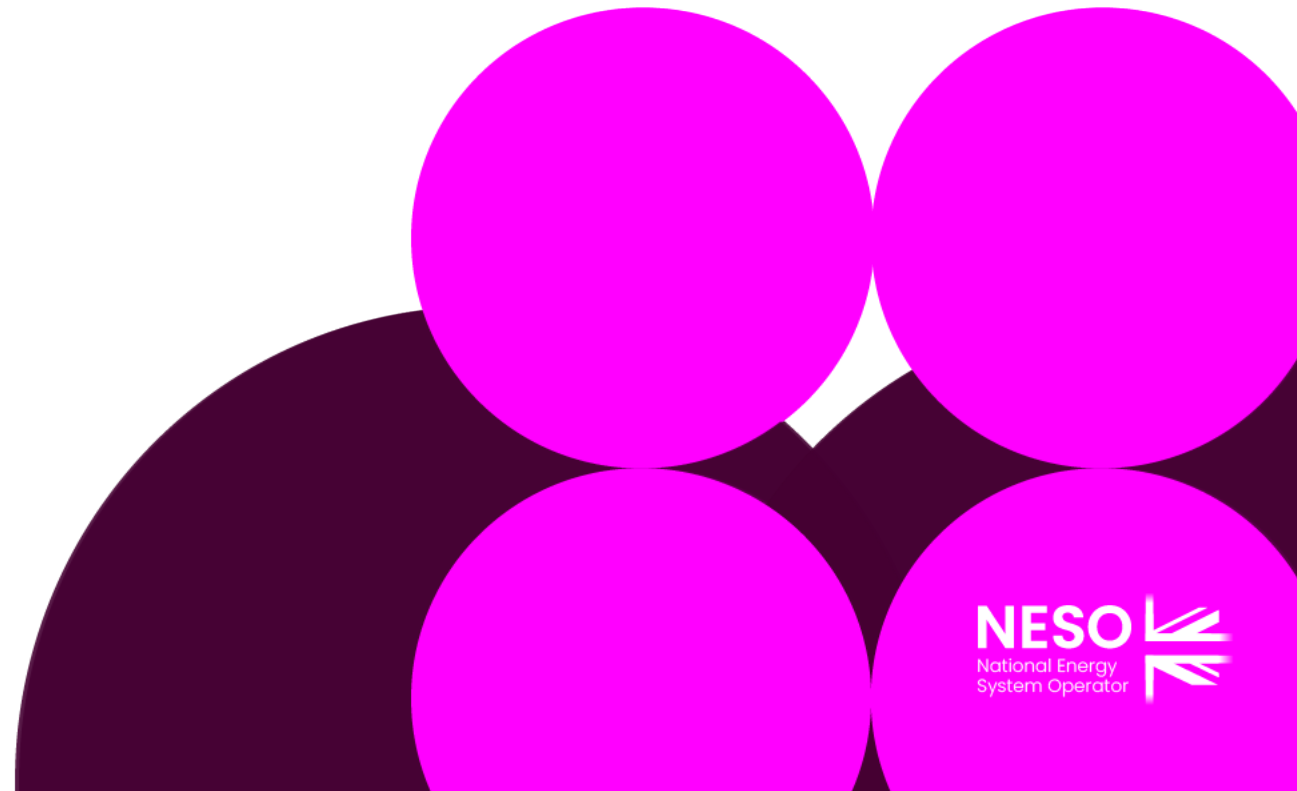
Review any action required following Workgroup Consultation

Review Legal Text

Workgroups		
GC0183 Workgroup 1	05 August 2025	Agree ToR/Timeline
GC0183 Workgroup 2	11 August 2025	Refine Solution/Legal Text
GC0183 Workgroup 3	18 August 2025	Finalise WG Consultation
GC0183 Workgroup Consultation	19 August –29 August 2025	7 Business Days
<b>GC0183 Workgroup 4</b>	<b>04 September 2025</b>	<b>Review Responses</b>
GC0183 Workgroup 5	10 September 2025	Finalise Workgroup Report/ Agree ToR/ Vote
GC0183 Workgroup Report to Panel	15 September 2025	2 Business Days
Special Panel	18 September 2025	To agree GC0183 has met its Terms of Reference
Post Workgroups		
GC0183 Code Administrator Consultation	19 September – 20 October 2025	1 month due to likely impact regulated sections
GC0183 Draft FMR to Panel	27 October 2025	2 Business Days
Panel undertake DFMR Recommendation Vote	30 October 2025	Grid Code Review Panel
GC0183 FMR to Ofgem	30 October 2025	Same day as Panel
GC0183 Implementation Date	10 Business Days post Authority Decision	



# Review Workgroup Consultation Responses



# Workgroup Consultation Summary

## Responses

The Workgroup Consultation ran from **19 August 2025 – 29 August 2025** and received **6 non-confidential responses** and **0 confidential responses**.

Responses were received from **ONE System Operator, TWO Generators, TWO Interconnectors**, and **ONE Generator/Storage**.

## Applicable Grid Code Objectives

The table below summarises the number of respondents who believed the Original Proposal better facilitates the Grid Code Objectives than the baseline.

**One respondent** stated that the Original Proposal **did not better facilitate any of the Grid Code Objectives**, due to the **lack of a standardised method to assess the impact of GICs** on electricity assets, **potential high prices for consumers** during a space weather event, and the **introduction of new, expensive requirements**.

Applicable Grid Code Objective	Number of respondents who believed the Original better facilitates each objective
i	5
ii	3
iii	5
iv	1
v	0
None	1

# Workgroup Consultation Summary

## Implementation approach

**3 out of 6** respondents **supported** the proposed implementation approach. Of those that **did not support the approach**:

- A **Generator respondent** referred to the **lack of clear assessment guidance from NESO**.
- An **Interconnector respondent** requested **clarity on the process, IT systems, and format** for submitting Space Weather Output Usable Declarations.
- Another **Interconnector respondent** raised **concerns about the short 10 Business Day implementation timeframe**, which may not allow sufficient time for industry to make necessary IT and procedural changes.

## Alternative Requests

**No Alternative Requests** were raised as part of the Workgroup Consultation.

## Draft Legal Text

**3 out of 6** respondents believed the legal text **satisfied** the intent of the modification. Of those that **did not agree**:

- A **Generator respondent** stated that it **puts the onus on the Generator to carry out GIC assessments, without a standard way** to undertake the assessment.
- An **Interconnector respondent** stated use of the term '**Possible**' Notification implies a tentative state and **suggested using 'Imminent' to better reflect the urgency**. They also requested more clarity around the meaning of "undue delay".
- Another **Interconnector respondent** believes the 'best estimate' nature of the 'Space Weather Output Usable Declaration' and the requirement to maintain that position **may lead to non-compliance in evolving situations**.

# Workgroup Consultation Summary

## Assessment of impact on EBR Article 18

**3 out of 6** respondents **agreed** with the assessment of the impact on EBR Article 18, **1 did not agree**, and **2 did not provide a response**.

- The **respondent that did not agree** with the assessment suggested **generators redeclaring their availability** during imminent space weather event **could affect the price stack**.

## Inclusion of draft Legal text in OC2 or BC1

**3 out of 6** respondents **agreed** with including the draft Legal Text in OC2, **1 did not agree**, and **2 did not provide a response**.

- The **respondent that did not agree** stated this was due to **the timescales involved of a few hours** and **stated OC2 is not the ideal method of implementation**.

## Consequential modification in the STC

**4 out of 6** respondents **agreed** it was appropriate to have a consequential modification in the STC, with **2 not providing a response**.

- Of those that agreed, **two stated** that it would ensure **TOs declare their asset capability in a similar manner to Network Operators**. **One respondent** noted that a consequential STC modification **should be communicated to affected parties as soon as possible**.

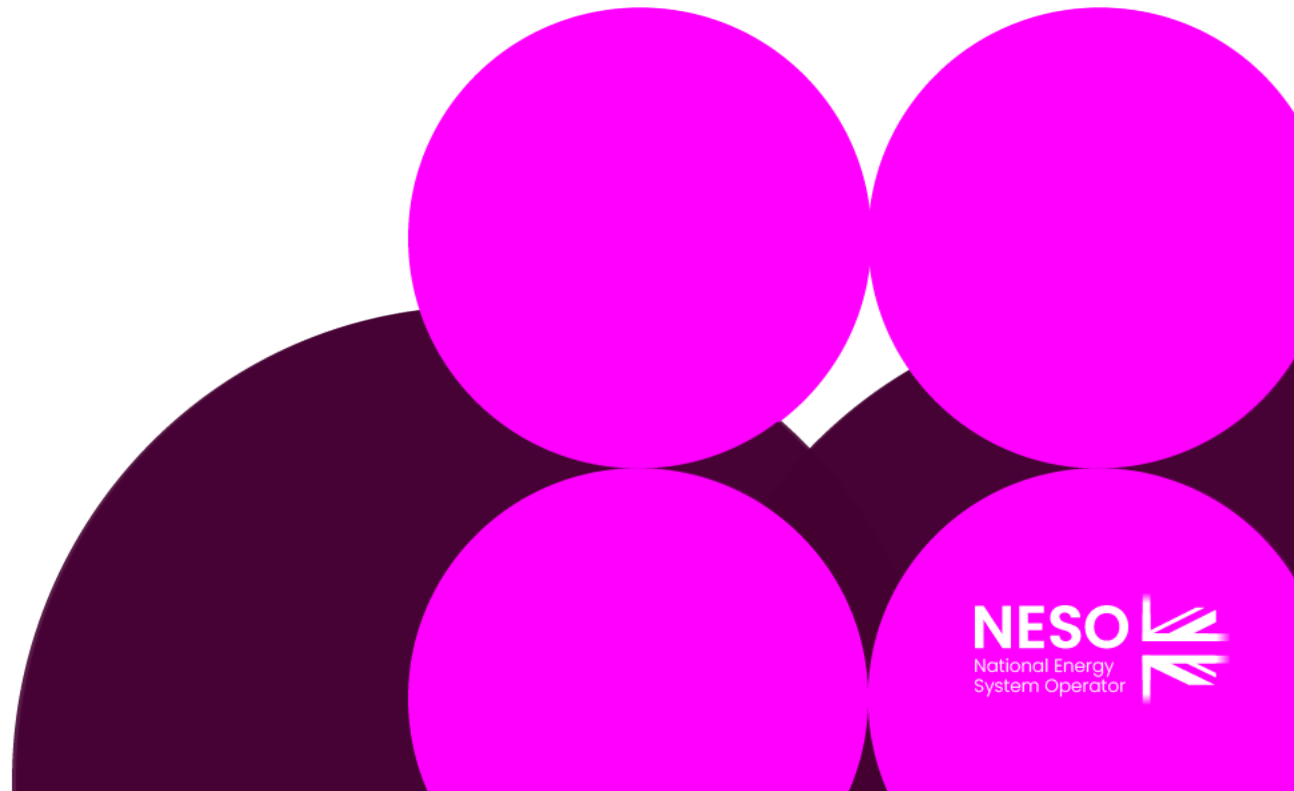
## Proposed changes in OC2's impact on EBR Article 18

**1 out of 6** respondents **agreed** that the changes in OC2 would impact EBR Article 18, **2 did not agree**, and **3 did not provide a response**.

- The **respondent that agreed** suggested that the **proposed text in OC2 could be moved to BC1**, to **avoid ambiguity** and clarify that there is an EBR implication.

# Proposer's Update and Legal Text

Helen Newman – NESO



# Proposer Response to Concerns

- Implementation approach and timescales
  - We acknowledge the 10 business day implementation timescales stated are likely not to work operationally. NESO is still in the process of understanding the impacts to internal systems. We suggest instead that implementation is stated to be subject to confirmation of the timescales required to make available the necessary communications systems, and we welcome further industry discussion on this matter
- Format of the Space Weather Output Usable Declaration
  - OC2 already contains appendices relating to Output Usable. We acknowledge therefore there is also a need for the Space Weather Output Usable Declaration template to be provided in the code
- Concerns over the timescales in which to respond following notification
  - We acknowledge that the 3-hour timescale for a response may be tight, but believe this to be necessary to ensure there is enough time for NESO to consider the system impacts and take action if needed
- Could NESO consider the option to deviate from the Space Weather Output Usable Declaration?
  - This would undermine the proposal and so will not be considered
- Deviation due to a safety concern
  - We believe any deviation would undermine the modification and so would need to understand a specific example of when this would be an issue, noting the response regarding faults
- Could NESO consider the option to amend the Space Weather Output Usable Declaration?
  - It could be possible to modify the requirement so that, at a set frequency (daily?), and for a given timeframe in the future, where space weather continues, parties resubmit what their position is. We welcome Workgroup thoughts on this
- What are the implications if a fault occurs preventing the respondent from following their Space Weather Output Usable Declaration?
  - This would be no different from where a fault occurs during BAU



# Proposer Response to Concerns

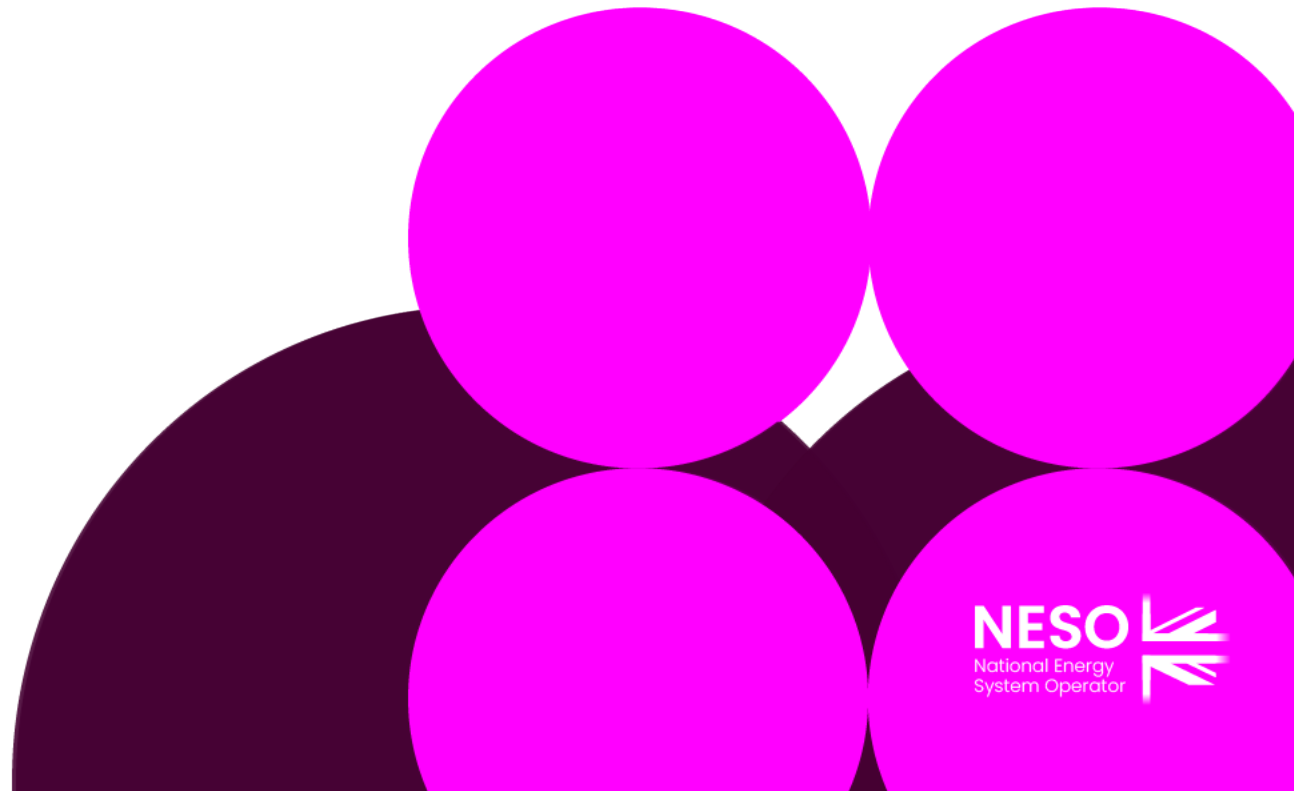
- NESO guidance on assessment of impacts
  - High level guidance on characteristics which may make assets more vulnerable for example, equipment type, location, geology, and other possible factors will be available within the Space Weather Industry Protocol which sits outside of the modification. However, whilst we appreciate the levels of uncertainty with regards to space weather, it would not be appropriate for NESO to advise asset owners how to proceed
- REMIT obligations where a party does not intend on making changes to availability based on space weather
  - To be clear, we believe that REMIT reporting only need be a requirement where a party is going to respond in a specific way due to space weather. Where a party intends to carry on with BAU operations this does not need to be reported.
- High prices for consumers
  - The modification covers technical considerations around data exchange to ensure safe secure operation of the network
- Planned vs unplanned outage
  - We have no strong opinion on whether this is considered a planned outage and are happy to not define this as such if this is the Workgroup preference
- Clarity of terminology
  - We are happy to amend legal text terminology under development where this is not clear
- BC1 vs OC2 and consideration of an EBR impact
  - After reviewing internally, we believe that there will be an EBR impact regardless of whether the text sits in BC1 or OC2. To avoid ambiguity, we therefore suggest that the text is captured in BC1 instead and have supplied a new set of legal text documents for Workgroup consideration

# Review Draft Workgroup Report

Claire Goult – NESO Code Administrator

# Terms of Reference

Claire Goult – NESO Code Administrator



# Terms of Reference

## Workgroup Terms of Reference

a. Implementation and costs;

b. Review draft legal text should it have been provided. If legal text is not submitted within the Grid Code Modification Proposal the Workgroup should be instructed to assist in the developing of the legal text;

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; and

d. Consider implications to sections linked to the Regulated Sections of the Grid Code

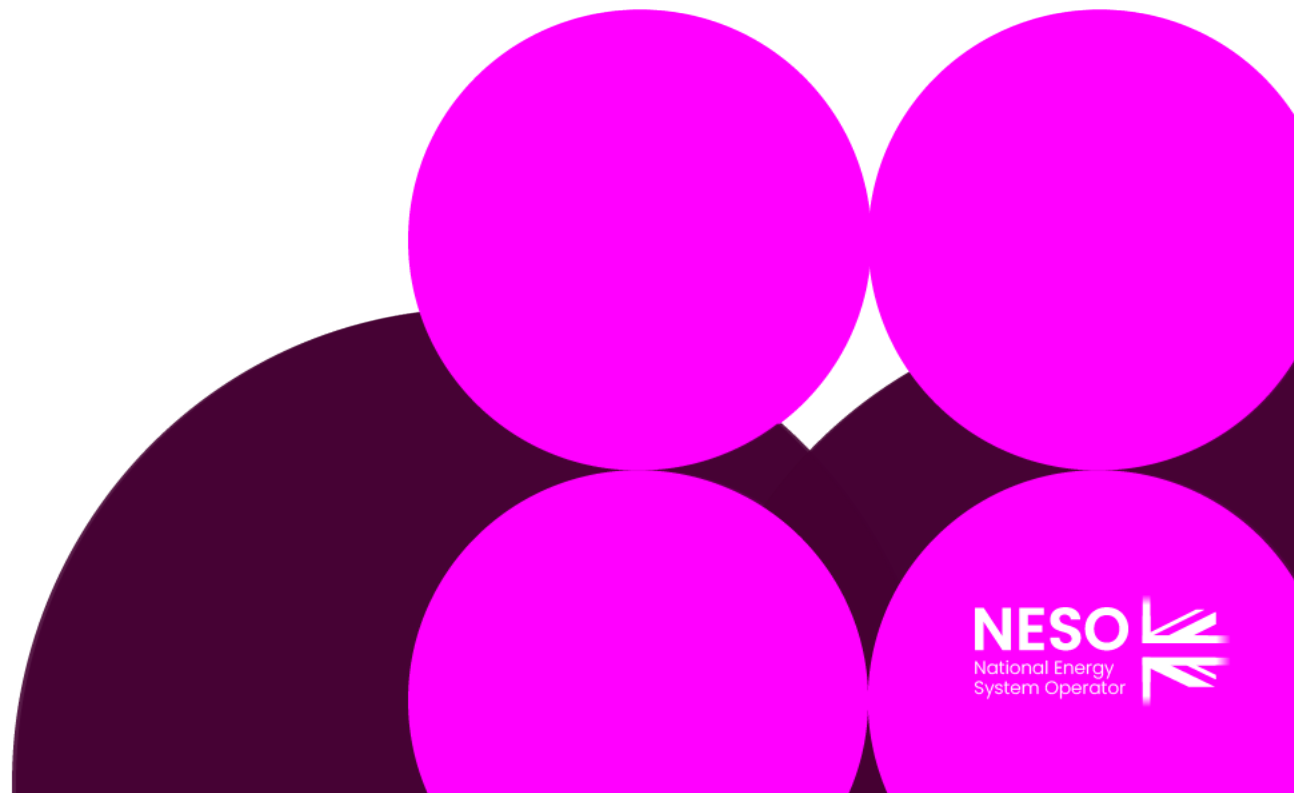
e. Consider the scope of work identified and whether this is achievable within the timeframe outlined in the Ofgem Urgency decision letter.

f. Consider interactions with other Industry related processes dealing with the issue of space weather and consider ways in which information should be incorporated. Where relevant suggest ways in which these might be taken forward.

g. Consider interaction with other obligations on stakeholders e.g. obligations relating to reporting of events under OC7.

# Action Log Review

Claire Goult – NESO Code Administrator



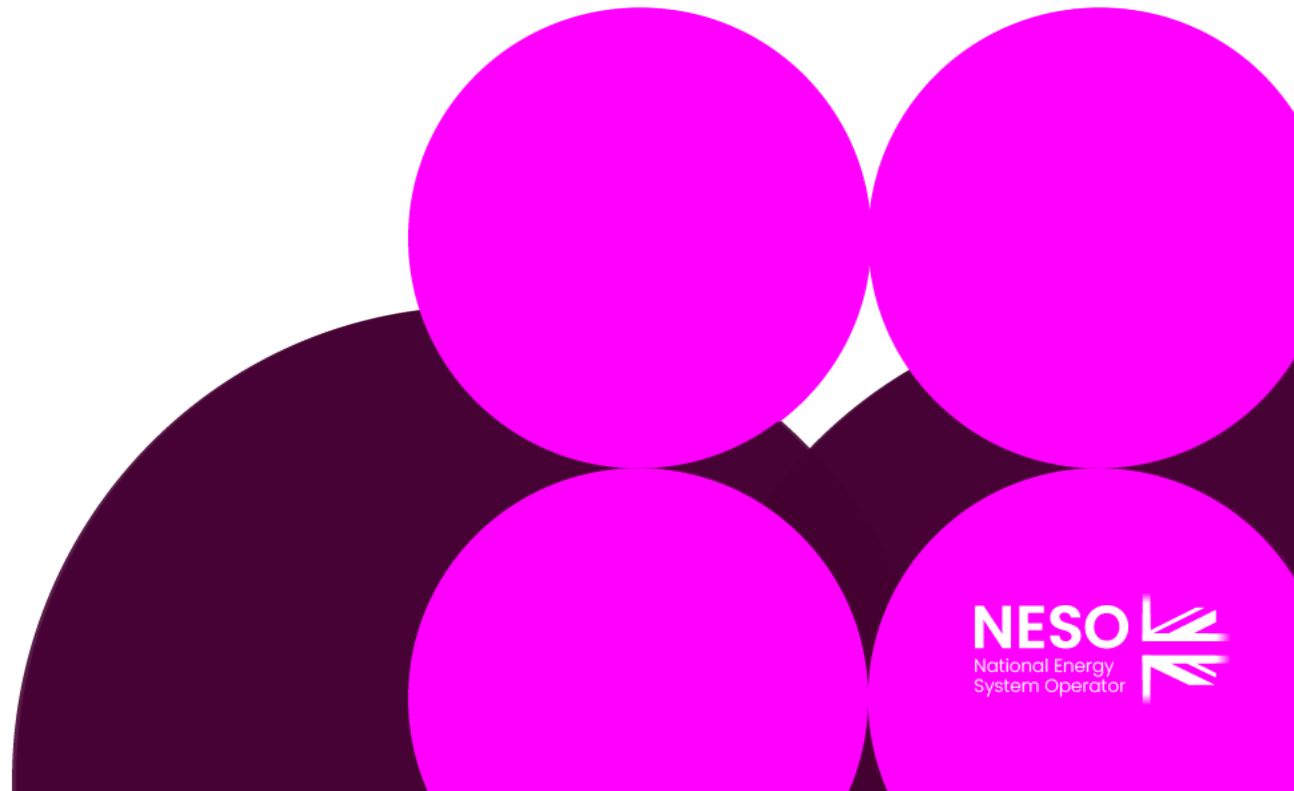
# GC0183 Actions

Action Number	Workgroup Raised	Owner	Action	Due by	Status	Latest
1	WG1	GG/AJ/GL/HN	Offline discussion to be arranged to make amendments to the draft legal text following WG1 comments	WG2	Closed	
2	WG1	CG	Draft the Workgroup Consultation for members to review prior to WG2	7 August	Closed	Drafted and placed in the collaboration space
3	WG1	CG	Create a GC0183 Collaboration Space for Workgroup members to review the documents	7 August	Closed	
4	WG1	CG	Clarify the role of a Workgroup Observer	WG2	Closed	
5	WG2	CG	Send updated legal text (G&D, OC2, OC7) and Workgroup consultation for final review	TBC	Closed	
6	WG2	AJ/GL	NESO Legal Team to review draft legal text	TBC	Closed	Initial review has taken place, further review expected over the consultation period
7	WG2	HN	Create a flow diagram to demonstrate the time sequence of the notifications	TBC	Closed	
8	WG2	HN/JZH	Discuss KC comments on legal text sections OC2 2.5.1 b) and OC2 2.5.2 b)	TBC	Closed	
9	WG2	CG	Update ToR and take slide to GCRP	21/08/25	Open – propose to close	Approved at the Grid Code Review Panel on 21 August



# Any Other Business

Claire Goult – NESO Code Administrator



# Next Steps

Claire Goult – NESO Code Administrator

