

GC0182 : Metering Polarity

Workgroup 10, 11 September 2026

Online Meeting via Teams

WELCOME

Agenda

Topics to be discussed	Lead
Introduction	Chair
Timeline	Chair
Action log review	All
Review of the following: • Legal text • Workgroup Report	All
Workgroup Vote	All
AOB	Chair
Next Steps	Chair

Workgroup Responsibilities and Membership

Ren Walker – 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	Company
Proposer	Thomas Goss	NESO
Workgroup Member	Hao Guo	NESO
Workgroup Member	Garth Graham	SSE Generation
Workgroup Member	Alan Creighton	Northern Powergrid
Workgroup Member	Andrew Allan	RWE
Workgroup Member	Harry Burns	EDF
Workgroup Member	Alan Convery	SP Transmission
Workgroup Member	Paul Youngman	Drax
Workgroup Member	Roger Carter	Transmission Investment
Observer	Rhiannon Whitty	NESO
Observer	Angie Gwozdz	NESO
Observer	Aman Sharma	NESO
Observer	Elena Fry	NESO
Observer	Rebecca Coan	NESO
Observer	Pritesh Patel	NESO
Authority Representative	Paul Drew	OFGEM

Objectives and Timeline

Ren Walker– NESO Code Administrator

GC0182 Timeline

Milestone	Date	Milestone	Date
Modification presented to Panel	24/07/25	Code Administrator Consultation	06/10/26 - 06/11/26
Workgroup Nominations (15 business days)	29/07/25 - 18/08/25	Draft Final Modification Report (DFMR) issued to Panel (5 business days)	18/11/26
Workgroups 1, 2, 3, 4, 5 and 6	• 15/09/25 • 20/10/25 • 25/11/25 • 20/01/26 • 09/02/26 • 23/03/26	Panel undertake DFMR recommendation vote	26/11/26
Workgroup Consultation (21 business days)	13/04/26 - 12/05/26	Final Modification Report issued to Panel to check votes recorded correctly	01/12/26 - 08/12/26
Workgroups 7,8,9,and 10	• 07/07/26 • 23/07/26 • 06/08/26 • 01/09/26 • 07/09/26	Final Modification Report issued to Ofgem	09/12/26
Workgroup report issued to Panel	16/09/26	Ofgem decision needed by	TBC
Panel sign off that Workgroup Report has met its Terms of Reference	24/09/26	Implementation Date	TBC

Action Log

Ren Walker– NESO Code Administrator

Action Log Review

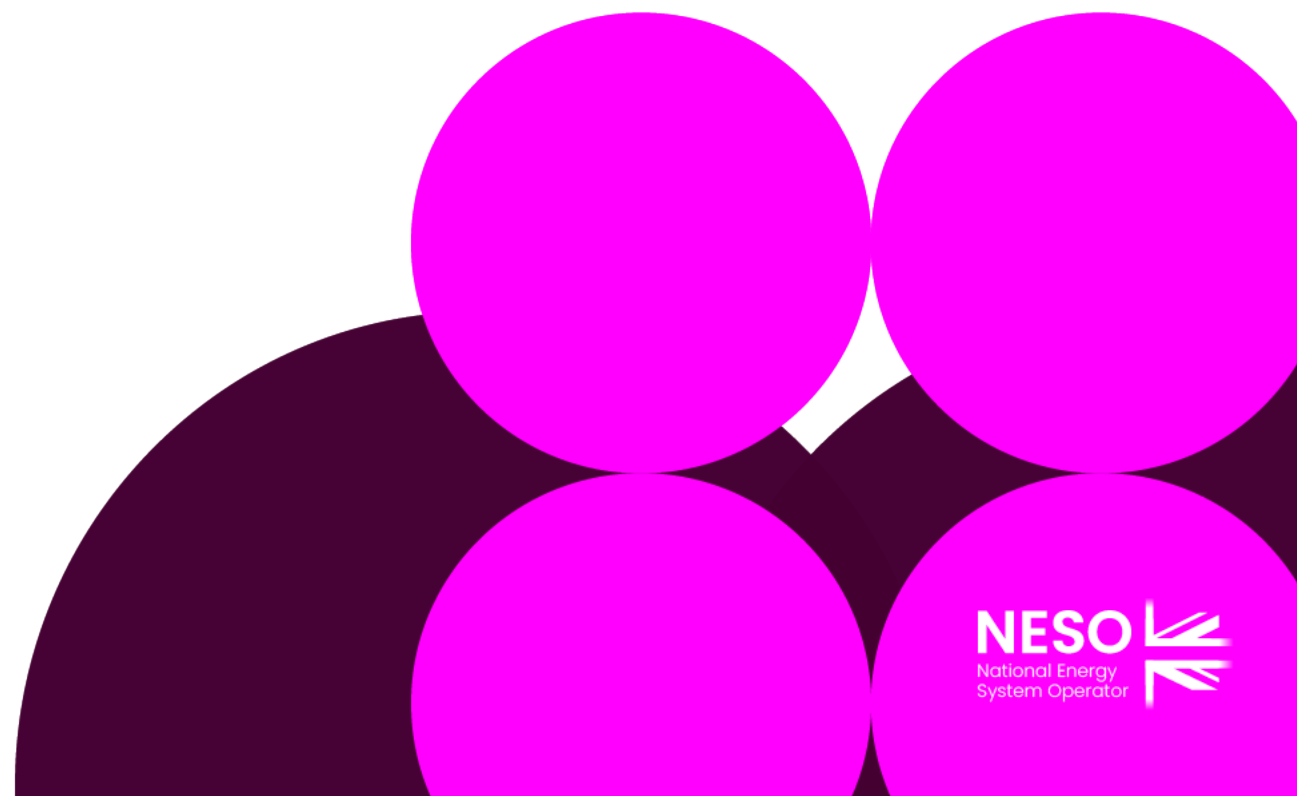
Action	Owner	Status
51) Clarification of Prospective vs Retrospective Application and Media Figures: Ensure the work group report and wider publication clearly state that the proposal is prospective only, not retrospective, and clarify the illustrative nature of the £100 million figure in light of recent media reports.	All	Open WG report will be updated to incorporate the clarifications.
52) Legal Text Review and Mutual Agreement Scenarios: Review and update the legal text to clarify scenarios requiring mutual agreement, including the use of terms such as "modification" and "upgrade", and ensure alignment with the correct definitions and obligations for GB and EC code users.	TG/HG	Updated Legal Text to indicate as long as the operational metering equipment is related to a Modification (regardless of significant or not) on/after actual cut-off date, the requirement will be applicable. See section Legal Text Review for details.
56) Modification Classification: Clarify how substantial or material modifications are determined for network operators and ensure the distinction and trigger are expressed consistently in the legal text, supported by appropriate examples.	TG/HG	Open

Action Log Review

Action	Owner	Status
57) Network Operator Status: Confirm whether network operators remain GB code users or transition to EU code users when entering a new bilateral connection agreement, and determine the resulting obligations for the metering polarity standard.	TG/HG	Open
58) Terms Of Reference: Record in the Workgroup Report that Terms of Reference G was considered and explain the conclusion regarding active and reactive power-flow clarity.	RW	Open
59) Media Clarification: Capture in the work group report that the previously cited cost figures were illustrative, that actual costs are in the hundreds of thousands rather than hundreds of millions, and that the modification is forward-looking rather than retrospective.	All	Open

Questions from Workgroup 9

Thomas Goss– Proposer



Questions from WG9

Q1: Will modification be applicable to Network Operator? Will a Network Operator (classified as GB Code User) become an EU Code User if it has a new or amended BCA after 2019?

[NESO] Modification will be applicable to Network Operator classed as a GB Code User and it will not become an EU Code User if it has a new or amended BCA after 2019.

Because according to Grid Code definition, “a Network Operator would still be classed as a GB Code User where its entire distribution System was connected to the National Electricity Transmission System at one or more GB Grid Supply Points, even where that entire distribution System may have one or more EU Grid Supply Points but still comprises of GB Grid Supply Points.”

The legal text for CC6.5.6 is updated to include the situation where Network Operator could have new Plant and Apparatus to reflect this.

Questions from WG9

Q2: What does the material change mean? Do we need more clarification/definition on the legal text?

[NESO] The material change will no longer be relevant for legal text because the legal text will clearly specify situations for GB Code Users and EU Code Users. Regardless of whether a GB Code User will change to an EU Code User and whether the modification is significant or not, the revised CC and ECC will cover the Code Users who are supposed to follow the standard after the cut-off date.

For CC legal text:

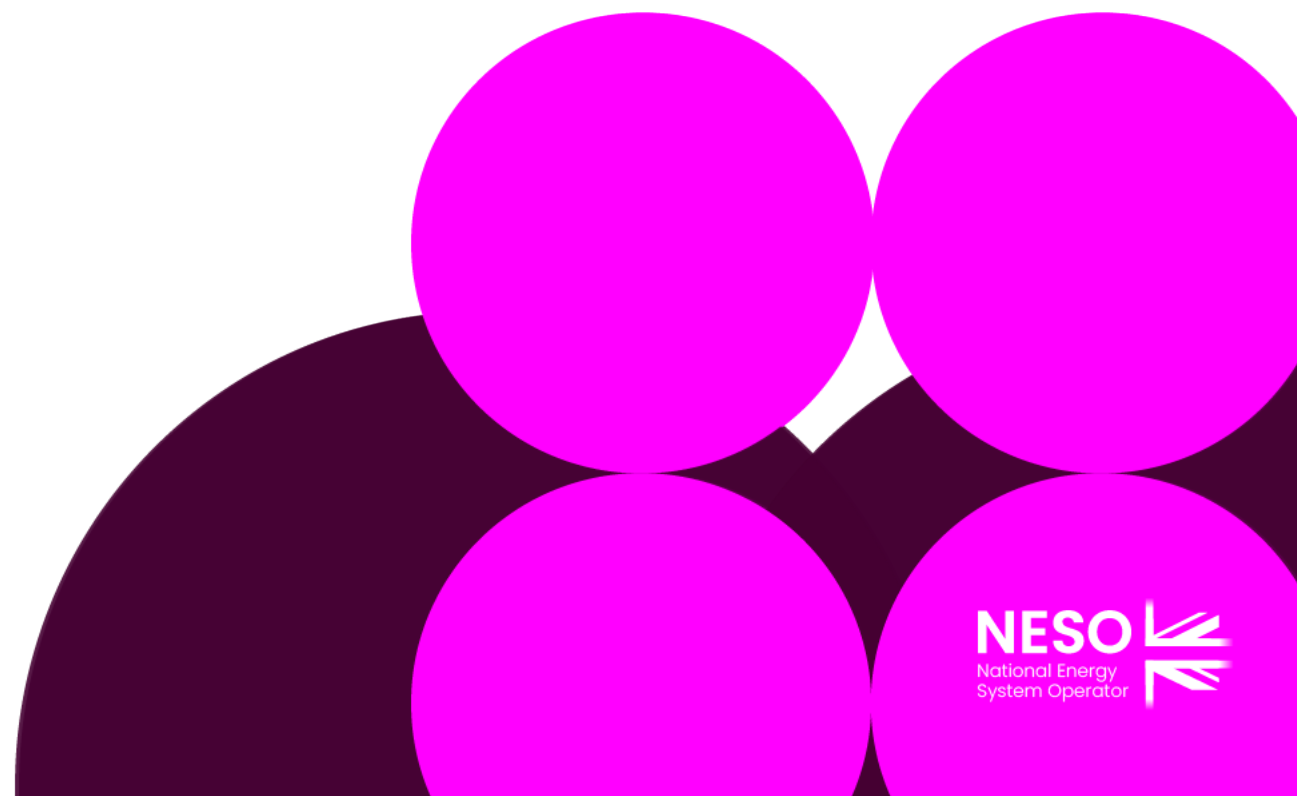
- The Network Operator classed as a GB Code User has Plant and Apparatus with a Completion Date on/after 540 days.
- The GB Code User's Operation Metering equipment is installed or subject to a Modification on/after 540 days, regardless if the Modification is substantial or not.

For ECC legal text:

- The EU Code User whose Plant and Apparatus has a Completion Date on/after 540 days.
- The EU Code User's Operation Metering equipment is installed or subject to a Modification on/after 540 days, regardless if the Modification is substantial or not.

Legal Text Review

Hao Guo– NESO Representative



Legal Text – Updated as Sep 2026

– What has been changed for Legal Text since WG 9:

- Propose to **switch back to original proposal** and **use only the Completion Date as the cut-off date** for **Code Users with new plant and apparatus**
- Add **Clause i in CC** to cover the situation of **Network Operators (DNOs) classed as a GB Code User** who may have **new Plant and Apparatus**

WG 9 CC

GB Code Users shall ensure the **Active Power** and **Reactive Power** measurement signals from their **Plant** and **Apparatus** conforms to the Operational Metering Polarity Convention for Power Flow Data as provided for in the **Electrical Standards**, where the **GB Code User's** operational metering equipment as described in CC.6.5.6 is installed or subject to a **Modification** on or after DD/MM/YYYY (i.e. around 540 days after implementation of GC0182).

WG 10 CC

GB Code Users shall ensure the **Active Power** and **Reactive Power** measurement signals from their **Plant** and **Apparatus** conform to the Operational Metering Polarity Convention for Power Flow Data as provided for in the **Electrical Standards** where:

- the **Plant** and **Apparatus** of a **Network Operator** classed as **GB Code User** has a **Completion Date** on or after DD/MM/YYYY (i.e. around 540 days after implementation of GC0182); or
- the **GB Code User's** operational metering equipment as described in CC.6.5.6 is installed or subject to a **Modification** on or after DD/MM/YYYY (i.e. around 540 days after implementation of GC0182).

Legal Text – Updated as Sep 2026



– What has been changed for Legal Text since WG 9:

- Propose to **switch back to original proposal** and **use only the Completion Date as the cut-off date** for **Code Users with new plant and apparatus**

WG 9 ECC

EU Code Users shall ensure the **Active Power** and **Reactive Power** measurement signals from their **Plant** and **Apparatus** conforms to the Operational Metering Polarity Convention for Power Flow Data as provided for in the **Electrical Standards**, where:

- The **EU Code User** enters into a **Bilateral Agreement** on or after DD/MM/YYYY (i.e. implementation of GC0182) and its **Plant** and **Apparatus** has a **Completion Date** on or after DD/MM/YYYY (i.e. around 540 days after implementation of GC0182); or
- the **EU Code User's** operational metering equipment as described in ECC.6.5.6 is installed or subject to a **Modification** on or after DD/MM/YYYY (i.e. around 540 days after implementation of GC0182).

WG 10 ECC

EU Code Users shall ensure the **Active Power** and **Reactive Power** measurement signals from their **Plant** and **Apparatus** conform to the Operational Metering Polarity Convention for Power Flow Data as provided for in the **Electrical Standards** where:

- the **EU Code User's Plant** and **Apparatus** has a **Completion Date** on or after DD/MM/YYYY (i.e. around 540 days after implementation of GC0182); or
- the **EU Code User's** operational metering equipment as described in ECC.6.5.6 is installed or subject to a **Modification** on or after DD/MM/YYYY (i.e. around 540 days after implementation of GC0182).

Legal Text – Updated as Sep 2026

Proposal: to use only the Completion Date as the cut-off date for Code Users with new plant and apparatus

– Advice from NESO Legal rep suggests:

- **before signing a connection agreement**, a person who is not already a CUSC Party **must become a party to the CUSC Framework Agreement** by signing a CUSC Accession Agreement. Clause 4.1 of the CUSC Framework Agreement gives the CUSC contractual effect and makes it binding upon each CUSC Party from the **Effective Date**. This is the date of the CUSC Framework Agreement with respect to the original parties to it and, with respect to a new CUSC Party, is the date of their CUSC Accession Agreement.
- Under **CUSC section 6.3 (Compliance with Grid Code/Distribution Code)**, each **CUSC Party** agrees with each other CUSC Party to be bound by and to **comply with** the **provisions of the Grid Code** insofar as applicable to that CUSC Party (subject to a direction from Ofgem relieving a CUSC Party from this obligation under its licence or to the extent that NESO and a User which does not have a licence can and have agreed in any bilateral agreement or in relation to any Connection Site etc. that the User need not comply with the Grid Code). “Grid Code” is defined in the ESO Licence as the Grid Code drawn up pursuant to the ESO Licence, **as from time to time revised**.
- Consequently (and subject to the exceptions noted in the preceding paragraph), the **Grid Code is binding upon each User from the time they become a CUSC Party** (insofar as it is applicable to them) and, subject to its terms, **a modification to the Grid Code** will be **binding upon each User from the time at which the modification becomes effective**.

Legal Text – Updated as Sep 2026



Proposal: to use only the Completion Date as the cut-off date for Code Users with new plant and apparatus

Advice from NESO Legal rep suggests:

- A User who enters into a Bilateral Connection Agreement (BCA) with NESO is a party to the CUSC Framework Agreement. This is reflected in **recital (D) of the BCA template** in Schedule 2, Exhibit 1 to the CUSC (as seen on the right).
- **Condition E2.7 of NESO's ESO Licence** states that NESO must only enter into arrangements for Connection and Use of System that are in conformity with any relevant provisions of the CUSC. **Recital (E) of the BCA template** (as seen on the right) reflects this position by stating that the BCA is entered into pursuant to the CUSC and shall be read as being governed by it.

THIS BILATERAL CONNECTION AGREEMENT is made on the [] day of [] 20[1]

BETWEEN

- (1) **The Company** registered in England with number 11014226 (**"The Company"**, which expression shall include its successors and/or permitted assigns); and
- (2) [] a company registered in [] with number [] whose registered office is at [] (**"User"**, which expression shall include its successors and/or permitted assigns)

WHEREAS

- Pursuant to the **ESO Licence**, **The Company** is required to prepare a Connection and Use of System Code (**CUSC**) setting out the terms of the arrangements for connection to and use of the **National Electricity Transmission System** and the provision of certain **Balancing Services**.
- The **User** has applied for [Connection to] [and use of] [Modification of its existing Connection to [and use of]] the **National Electricity Transmission System** and pursuant to the **ESO Licence** **The Company** is required to offer terms in this respect.
- The **User** has applied for connection [and use] in the capacity of a [] as set out in Paragraph 1.2.4 of the **CUSC**.
- The Company** and the **User** are parties to the **CUSC Framework Agreement** (being an agreement by which the **CUSC** is made contractually binding between **CUSC Parties**).
- This **Bilateral Connection Agreement** is entered into pursuant to the **CUSC** and shall be read as being governed by it.
- The parties are also on even date herewith entering into a **Construction Agreement**.
- This **Bilateral Connection Agreement** is entered into on the basis of the **Connect and Manage Arrangements**. [Directly Connected power Station and Distribution System where associated with Connect and Manage Power Station.]
- This is a [Gate 1 Agreement][Gate 2 Agreement].

Legal Text – Updated as Sep 2026

Proposal: to use only the Completion Date as the cut-off date for Code Users with new plant and apparatus

– NESO's Original Proposal during WG Consultation:

- Only use **Completion Date** as the **cut-off date** for **Code Users with new plant and apparatus** to follow the standard
- **540 days window/grace period before the cut-off**
 - NESO understands that certain Code Users may have already entered into connection offers when there was neither the Electrical Standard for Metering Polarity nor the requirement to follow such standard.
 - NESO also understands that certain Operational Metering equipment may have already be designed and undergoing construction and installation.
 - To accommodate such situations and help Code Users better prepare to comply with the new metering polarity requirements, NESO proposed that the legal text provides a **540 days (approx. 18 months) window** before the actual enforcement.
 - The reason why a **540 days window** was selected is because the **NESO Compliance process typically starts around 18 months before the Completion Date** and the **obligation to follow the meter polarity could be passed to Code Users and will be captured at the beginning of the compliance process** even though the Bilateral Agreement (signed before the implementation of

Legal Text – Updated as Sep 2026

Proposal: to use only the Completion Date as the cut-off date for Code Users with new plant and apparatus

– NESO's Original Proposal during WG Consultation:

- Only use **Completion Date** as the **cut-off date** for **Code Users with new plant and apparatus** to follow the standard
- **540 days window/grace period before the cut-off**
 - For those who have already **installed Operational Metering equipment before this modification**, but with **completion date expected to be after the cut-off date** (after 540 days window), **NESO accepts the option where Code Users achieve the compliance through software changes on the Users' end.**
 - Therefore, NESO thought it reasonable to use the **540 days window/grace period** before the **actual cut-off date**.

Legal Text – Updated as Sep 2026

Proposal: to use only the Completion Date as the cut-off date for Code Users with new plant and apparatus

– NESO's Original Proposal during WG Consultation:

- **Concern** with using the **date entering into the Bilateral Agreement** as part of the cut-off for **Code Users with new plant and apparatus**
 - If the date when Code Users enter into the Bilateral Agreement is used for compliance (with the compliance date being the Grid Code change approval date), **many new connections** who will connect to the Grid in the near future (e.g. 2029 – 2030) **may not be captured** and **the issue will continue to deteriorate**.
 - The **use of only Completion Date** ensures **connections in the queue will be captured**, preventing the issue of inconsistent polarity increasing further.

Legal Text – Updated as Sep 2026

CC.6.5.6(f)

GB Code Users shall ensure the **Active Power** and **Reactive Power** measurement signals from their **Plant** and **Apparatus** conform to the Operational Metering Polarity Convention for Power Flow Data as provided for in the **Electrical Standards** where:

- i. the **Plant** and **Apparatus** of a **Network Operator** classed as **GB Code User** has a **Completion Date** on or after DD/MM/YYYY (i.e. around 540 days after implementation of GC0182); or
- ii. the **GB Code User's** operational metering equipment as described in CC.6.5.6 is installed or subject to a **Modification** on or after DD/MM/YYYY (i.e. around 540 days after implementation of GC0182).

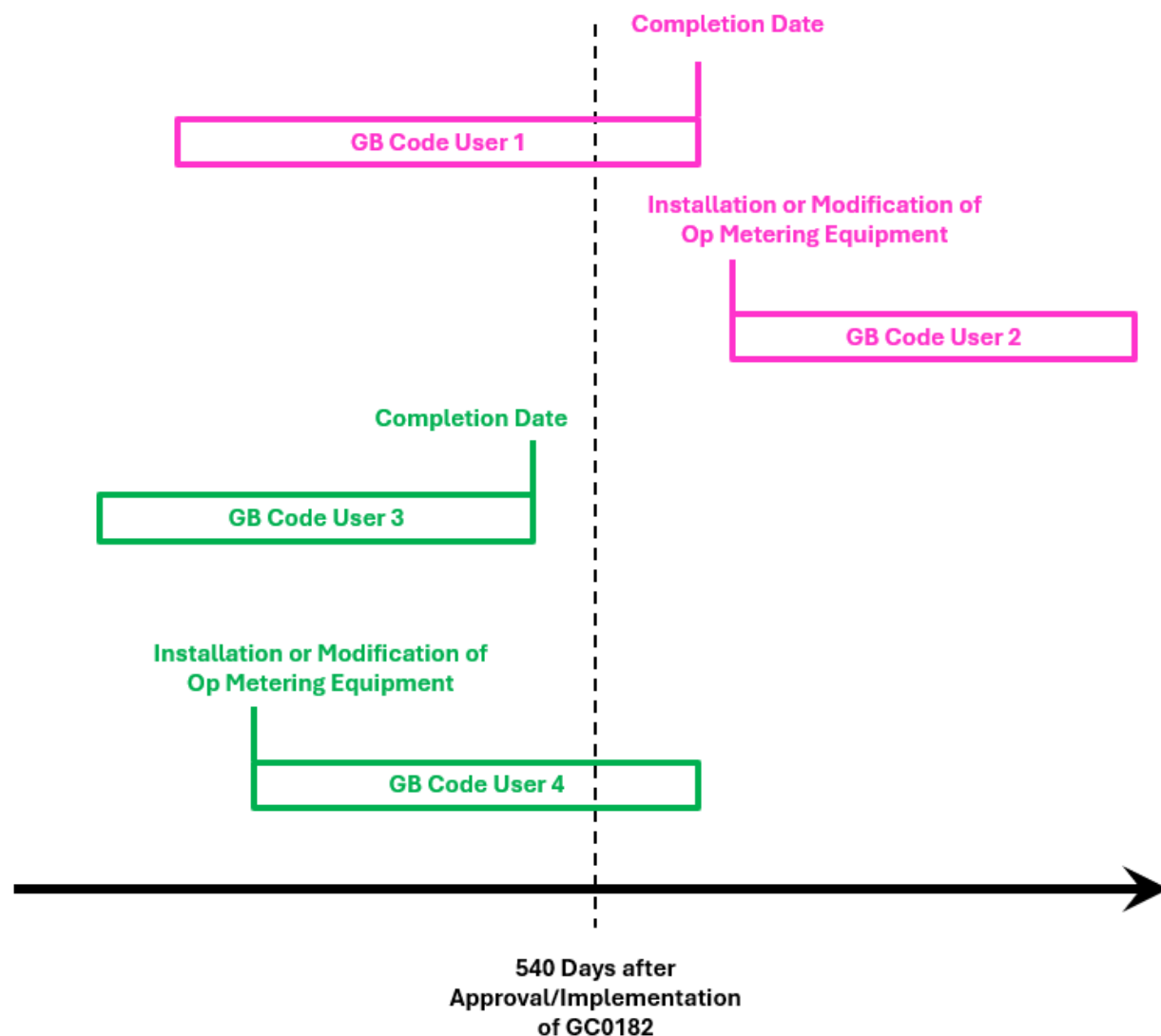
The **GB Code User** shall confirm they have provided the **Active Power** and **Reactive Power** measurement signals in accordance with the requirements of the **Bilateral Agreement**. The **Company** shall validate and check the **Active Power** and **Reactive Power** measurement signals provided.

In all other situations, **the Company** shall seek mutual agreement with **GB Code Users** to implement the requirements of the Operational Metering Polarity Convention for Power Flow Data as provided for in the **Electrical Standards**.

Legal Text – Updated as Sep 2026

Different Scenarios for GB Code User

- GB Code User 1: obligation to follow polarity standard
- GB Code User 2: obligation to follow polarity standard
- GB Code User 3: no obligation
 - User can choose to follow the guidance note, or
 - NESO shall seek mutual agreement with GB Code User if it is deemed the User should follow the standard
- GB Code User 4: no obligation
 - User can choose to follow the guidance note, or
 - NESO shall seek mutual agreement with GB Code User if it is deemed the User should follow the standard



Legal Text – Updated as Sep 2026

ECC.6.5.6.4(f)

EU Code Users shall ensure the **Active Power** and **Reactive Power** measurement signals from their **Plant** and **Apparatus** conform to the Operational Metering Polarity Convention for Power Flow Data as provided for in the **Electrical Standards** where:

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- ii. the **EU Code User's** operational metering equipment as described in ECC.6.5.6 is installed or subject to a **Modification** on or after DD/MM/YYYY (i.e. around 540 days after implementation of GC0182).

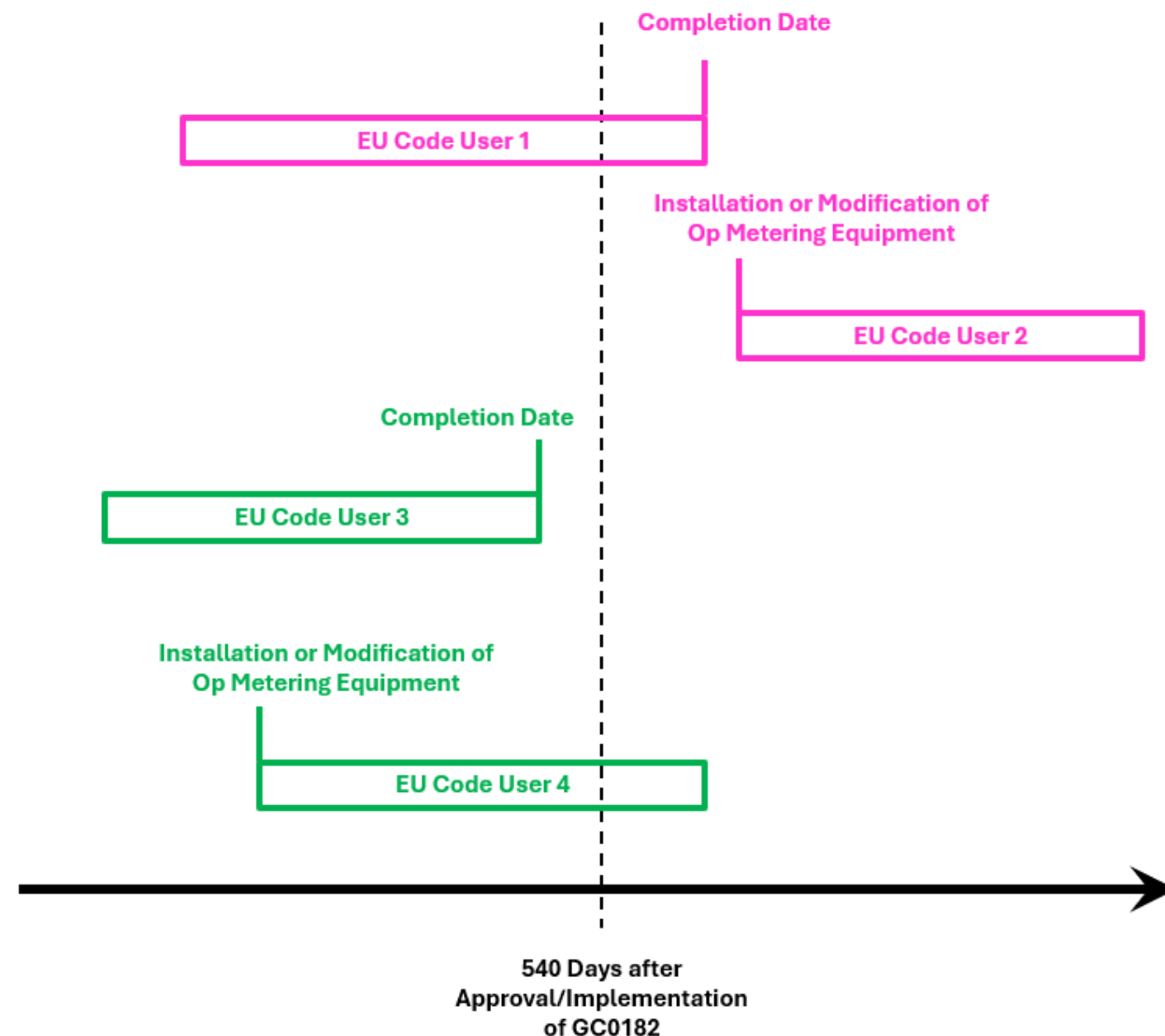
The **EU Code User** shall confirm they have provided the **Active Power** and **Reactive Power** measurement signals in accordance with the requirements of the **Bilateral Agreement**. The **Company** shall validate and check the **Active Power** and **Reactive Power** measurement signals provided.

In all other situations, **the Company** shall seek mutual agreement with **EU Code Users** to implement the requirements of the Operational Metering Polarity Convention for Power Flow Data as provided for in the **Electrical Standards**.

Legal Text – Updated as Sep 2026

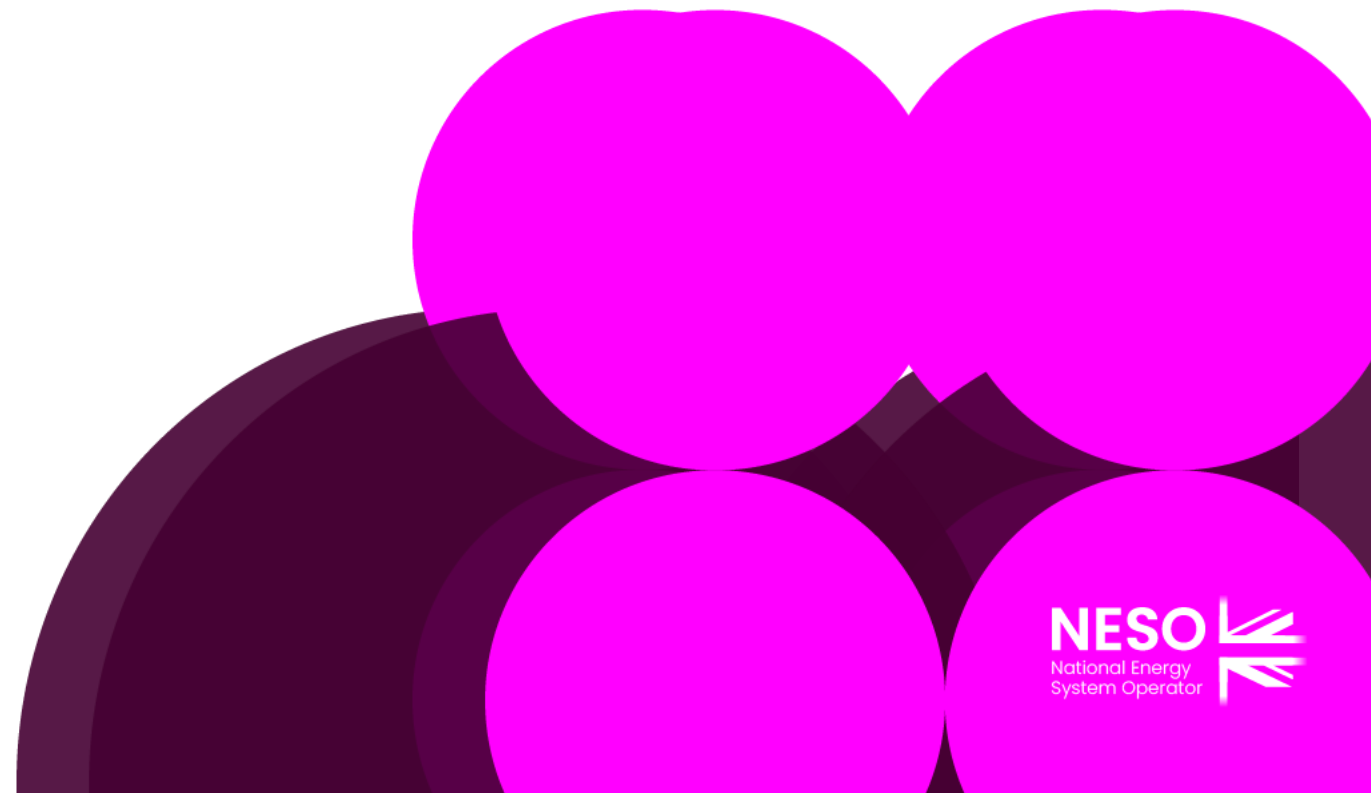
Different Scenarios for EU Code User

- EU Code User 1: obligation to follow polarity standard
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- EU Code User 3: no obligation
 - User can choose to follow the guidance note, or
 - NESO shall seek mutual agreement with GB Code User if it is deemed the User should follow the standard
- EU Code User 4: no obligation
 - User can choose to follow the guidance note, or
 - NESO shall seek mutual agreement with GB Code User if it is deemed the User should follow the standard



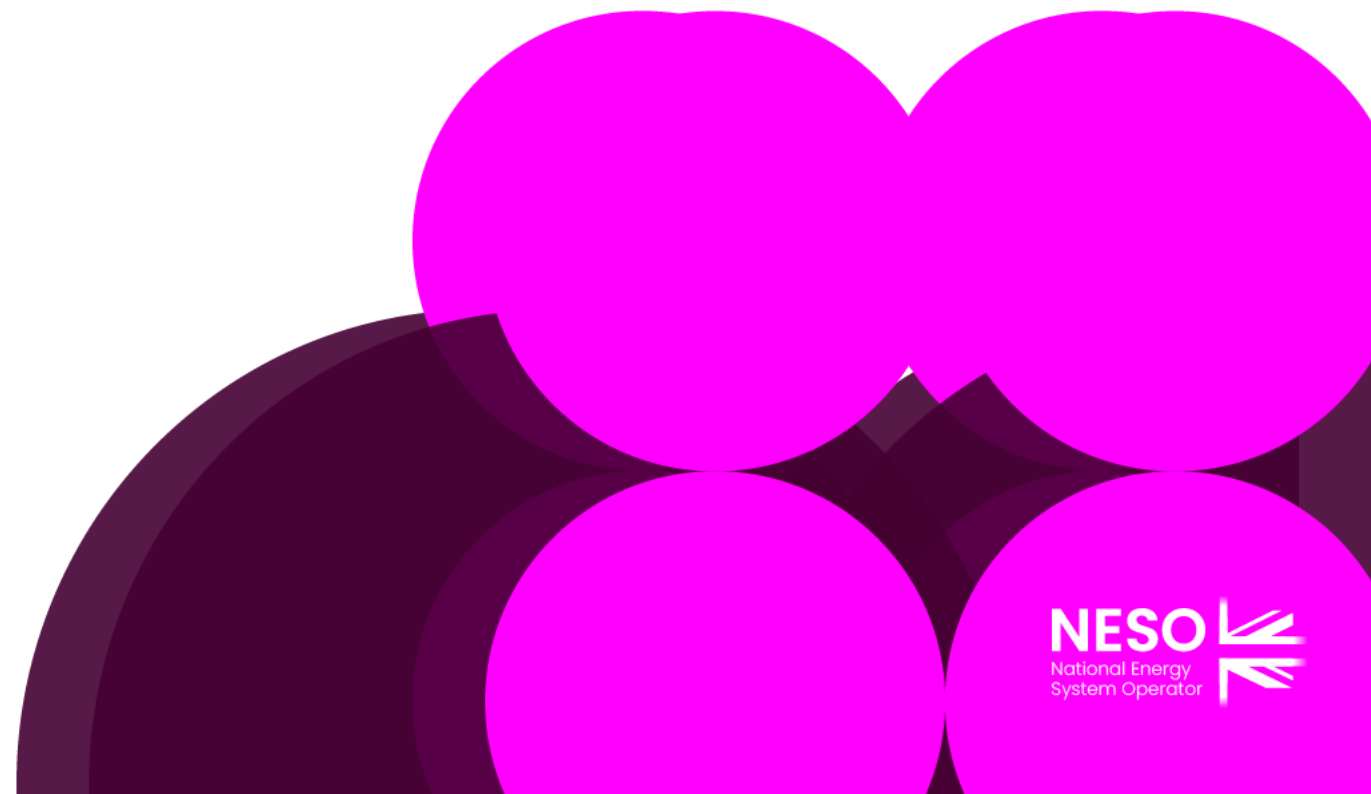
Workgroup Report Review

Ren Walker – Code Administrator



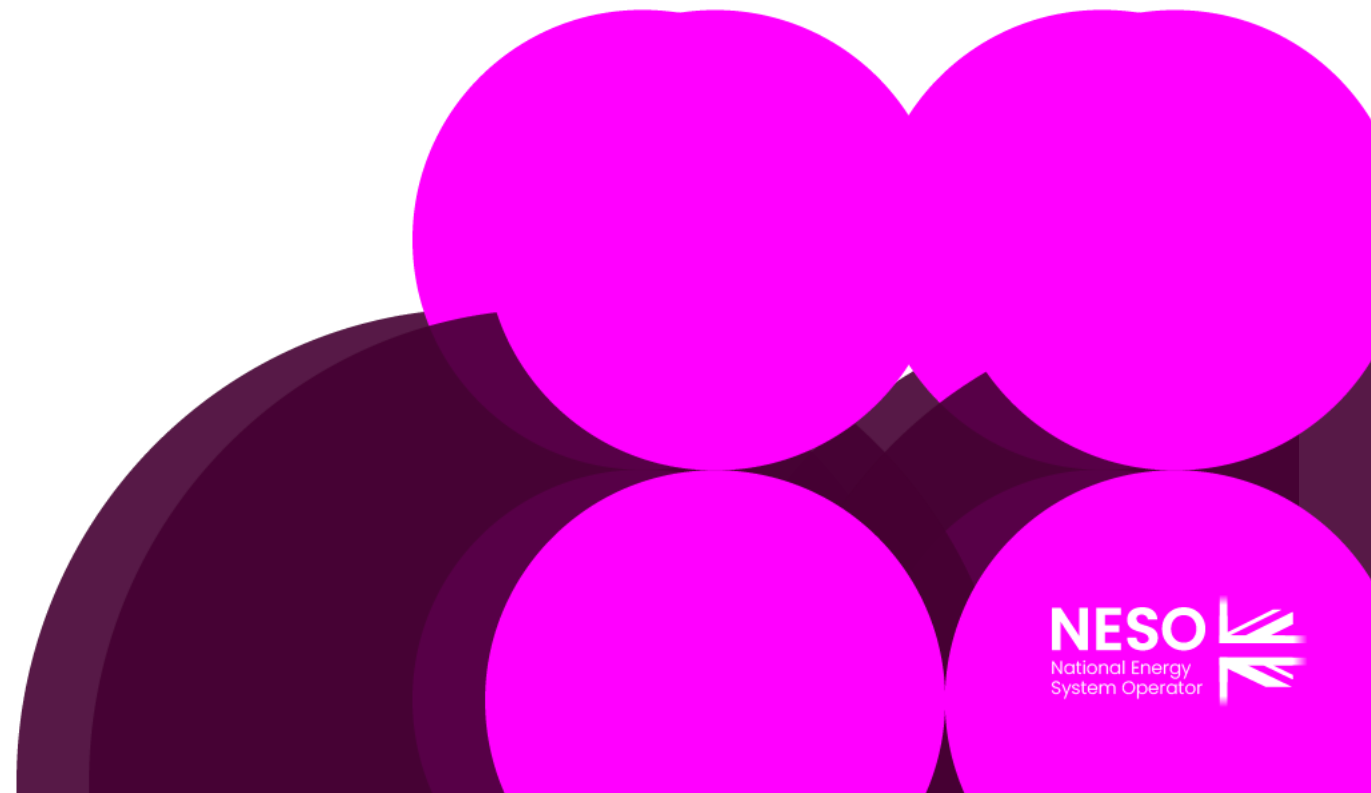
Workgroup Vote

Ren Walker – Code Administrator



Any Other Business

Ren Walker– NESO Code Administrator



Any other business

CACoP 2026 Stakeholder Survey Open

The 2026 CACoP Stakeholder Survey opens on 4 September 2026 until 2 October 2026.

The survey provides all code users and industry stakeholders with the opportunity to share feedback on the performance of Code Administrators and the services they provide across the GB energy industry.

The results will be reviewed by the CACoP forum and individual Code administrators to inform future improvements and enhance the support provided to stakeholders.

Please complete the survey using this [link](#).

Next Steps

Ren Walker– NESO Code Administrator

