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Code Administrator Meeting

Summary

Workgroup Meeting 12: GC0168 – Submission of Electro Magnetic Transient (EMT) Models

Date: 27 February 2026

Contact Details

Chair: Kat Higby, Katharine.higby@neso.energy

Proposer: Frank Kasibante, Frank.kasibante@neso.energy

Key areas of discussion

The Chair outlined the agenda, which review of legal text for both the Original and WACGM1, and review of the Electrical Standards.

Review of Actions

The Chair noted that all Actions taken at the last Workgroup meeting have been actioned. It was noted that some late comments were received on legal text and Electrical Standards and these were to be discussed in the Workgroup.

Legal Text Review for Original

The Proposer presented updated legal text reflecting previous feedback, and the Workgroup confirmed that both the legal text and associated Electrical Standards were unchanged from the previous meeting. Discussion focused on addressing late comments, improving clarity and drafting, and ensuring the text was robust and future-proofed ahead of final sign-off. Workgroup members considered comments relating to clarity over responsibility for model submission and agreed that introducing explicit wording to remove ambiguity was helpful, even where obligations were already implied elsewhere. Further editorial comments aimed at improving readability and grammatical precision were discussed, with minor wording changes agreed during the meeting.

Further discussion focused on the interaction between GC0168 and GC0139, with concern that changes under GC0139 could unintentionally undermine GC0168 requirements. The Workgroup agreed in principle that two versions of the legal text may be required, depending on whether GC0139 is approved, with explicit “for the avoidance of doubt” wording included where necessary. It was agreed that this interaction should be clearly explained to the Panel and Ofgem in the Workgroup Report, and that this approach would allow GC0168 to progress without delay while managing risk.

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Legal Text Review for WAGCMI

The Proposer confirmed that the updated cost-recovery legal text for WAGCMI had been reviewed with NESO Legal.

The Workgroup then considered the alternative WAGCMI legal text, which addresses circumstances where retrospective Electromagnetic Transient (EMT) model submissions may be deferred unless an appropriate cost-recovery mechanism is available. Discussion focused on refining the drafting to ensure the agreed intent was clearly reflected, namely that requirements should not apply unconditionally where users could face material costs without a recovery route. Revised drafting was presented that sought to simplify the text and avoid unnecessary duplication while maintaining the substance of the Workgroup’s earlier agreement, including differentiated timeframes linked to requests from NESO and compliance contingent on agreement not being unreasonably withheld.

A Workgroup member raised concerns that, although the revised drafting was legally equivalent, it was less clear than the version previously agreed, particularly in how the qualification “not unreasonably withheld” applied across the provision. The Workgroup generally agreed that clarity for code users should take precedence over avoiding duplication, noting that users may focus on individual subsections in isolation. The drafting was therefore amended during the meeting to explicitly repeat the qualifying wording in both relevant subparagraphs. The revised text was reviewed in non-tracked form and confirmed to retain the intended legal effect while providing greater clarity and certainty. The Workgroup agreed this amended WAGCMI alternative legal text, concluding that it better reflected prior discussions and strengthened protections for users in the absence of a cost-recovery mechanism.

Electrical Standards Review

The workgroup confirmed that the document is being progressed as a formal Electrical Standard, not a guidance note. It is intended to sit alongside the Grid Code and, if GC0168 is approved, will supersede the existing EMT modelling guidance. This approach reflects industry feedback that requirements should be embedded in code-adjacent documentation rather than introduced via guidance.

Workgroup members confirmed that the EMT modelling document associated with GC0168 is being progressed as a formal Electrical Standard rather than a guidance note. It is intended to sit alongside the Grid Code and, if GC0168 is approved, will supersede the existing EMT modelling guidance. This approach was supported as a response to industry feedback that technical

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requirements should be embedded within code-adjacent documentation rather than introduced through non-binding guidance.

Workgroup members undertook a detailed review of the proposed Electrical Standard, with discussion focusing on its scope, structure, and interaction with the Grid Code. Members agreed that high-level obligations should remain within the Grid Code, while the Electrical Standard should provide the necessary technical detail and clarification without duplicating Grid Code provisions verbatim. It was agreed that drafting would be reviewed and rationalised to minimise duplication while preserving clarity and usability for code users.

Significant discussion took place on the title and structure of the Electrical Standard. Workgroup members agreed a revised title that more clearly reflects both the EMT model requirements and the process for retrospective submission, while avoiding unnecessary references to specific modification numbers or jurisdictions.

On technical content, Workgroup members discussed EMT simulation timestep requirements and confirmed that the proposed range of 10–20 microseconds reflect current industry capability and the outcome of engagement with OEMs and stakeholders. Workgroup members supported retaining flexibility rather than mandating a single fixed value, recognising the diversity of technologies and modelling tools in use.

Further discussion addressed the treatment of legacy and retrospective EMT models, including the acceptability of older model versions and the expectation that sufficient supporting information, such as block diagrams and transfer functions, would be provided where models cannot be directly reused. Workgroup members agreed that this information would enable benchmarking or redevelopment of models where necessary and aligns with existing obligations applicable to synchronous generators.

Workgroup members considered, but did not support, codifying detailed modelling practices within the Electrical Standard, such as specific methods for integrating models with different timesteps. It was agreed that such matters are better addressed through industry engagement and technical forums, given the evolving nature of EMT modelling tools and practices.

New Actions

New Actions taken during the meeting:

- **Action 42** – Original legal Text – Incorporate agreed minor drafting and editorial changes to improve clarity (including responsibilities for model submission and embedded medium power stations).
- **Action 43** – Develop two sets of legal text to manage GC139 interaction.
- **Action 44** – Explain rationale for two legal-text variants clearly in the Workgroup Report and onward submissions.

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- **Action 45** – Electrical Standard – Update and finalise before sending to Workgroup for final review ahead of next WG meeting
- **Action 46** – Clarify how network operators are notified of control-system changes. Consider offline whether additional clarification or consequential change (outside GC0168) is required.

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The Chair outlined next steps and confirmed the Actions with the Workgroup.

Actions

For the full action log, click [here](#).

Action Number Raised	Workgroup	Owner	Action	Due by	Status
38	WG11	FK	NESO to resolve and update the planning code legal text based on work group discussions. and share it with the Workgroup for review.	WG12	Closed
39	WG11	FK	NESO to redraft the electrical standard, incorporating all feedback and comments from the work group.	WG12	Closed
40	WG11	KH	Code governance to schedule an additional work group meeting to allow for further review and iterations.	WG12	Closed
41	WG11	FK	NESO to seek legal clarity and draft the alternative legal text for option two, deferring NESO's requirement to collect models, and share with the work group.	WG12	Closed

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Attendees

Name	Initial	Company	Role
Kat Higby	KH	NESO Code Administrator	Chair
Terri Puddefoot	TP	NESO Code Administrator	Technical Secretary
Frank Kasibante	FK	NESO	Proposer
Andrew Allen	AL	RWE	Workgroup member
Akshay Prajapati	AP	Orsted Power UK Limited	Workgroup member
Arsalan Zaidi	AZ	Ofgem	Authority
Gopi Yericherla	GY	NESO	NESO SME
Graeme Vincent	GV	SP Energy Networks	Workgroup member
Isaac Gutierrez	IG	Scottish Power	Workgroup member
Jayaraman Ramachandran	JR	NESO	NESO SME
Krishna Talasila	KT	Siemens Energy Limited	Workgroup member
Mike Kay	MK	P2 Analysis Ltd	Observer
Ranjan Sharma	RS	Siemens Gamesa Renewable Energy	Workgroup member
Ross Strachan	RS	EDF Renewables	Workgroup member
Srinivas Edla	SE	SSE	Workgroup member
Tim Ellingham	TE	RWE	Workgroup member