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Code Administrator Meeting Summary

Workgroup Meeting 7: Enhance the Effectiveness of System Incidents Reporting

Date: 22 June 2026

Contact Details

Chair: Keren Kelly, keren.kelly@neso.energy

Proposer: Guy Nicholson, guy.nicholson@statkraft.com

Key areas of discussion

The Chair outlined the agenda, including updates from the Proposer, review of open actions, legal text discussion, and revisiting the timeline.

Proposers update

The proposer provided an update drawing on material shared with the Workgroup, including NESO responses from the Operational Transparency Forum and recent Freedom of Information (FOI) requests. The update highlighted ongoing challenges with data availability and consistency, particularly in relation to Phasor Measurement Unit (PMU) deployment and system incident reporting.

- PMU data availability and inconsistencies:** The Proposer raised concerns about inconsistent and contradictory information regarding PMU rollout and data availability, noting difficulty progressing work due to unclear inputs. The Proposer indicated a shift towards using FOI and external forums to obtain information. A Workgroup member suggested submitting further FOI requests to clarify industry compliance with PMU installation deadlines set out in the STC, noting uncertainty about whether NESO or TOs are responsible and the lack of clarity on industry-wide adherence.
- Exploration of FOI responses and data gaps:** The Proposer presented findings from FOI responses concerning coincident events, including a transmission fault and interconnector trip. It was noted that precise timestamp data was not available at millisecond resolution, and that monitoring of phase jump angles was not active. Concerns were raised about inconsistent reporting practices, including the use of “representative time” instead of actual event time. The discussion highlighted uncertainty around whether events occurring in close temporal proximity were related, and the limitations of available data in determining causality.
- Clarification of coincident events and system incidents:** The NESO SME clarified that the coincident events presented were determined to be unrelated based on investigations with relevant parties, despite occurring at the same second. One event was attributed to a transmission tower collapse associated with flooding,

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while the other was an Interconnexion France–Angleterre (IFA) trip due to an undisclosed issue on the French side, confirmed by National Grid Ventures, the counterparty for the IFA interconnector responsibilities on the GB side. Both events were determined to be unrelated after investigation using technical and operational evidence. The Proposer reiterated the need for probabilistic analysis of event coincidence, maintaining that understanding likelihood remains important even if events are deemed unrelated.

- **Timestamp accuracy and event sequencing:** Workgroup members discussed challenges in obtaining precise timestamps from protection systems, noting reliance on data reception time rather than actual event occurrence. It was emphasised that accurate sequencing of events within seconds is critical to understanding cascading failures. A Workgroup member proposed leveraging PMUs and digital fault recorders to obtain high-precision timestamps, reducing reliance on manual data retrieval. A new suggestion was raised to require generators to automatically provide fault recorder data following trips to improve post-event analysis. The NESO SME noted the positive intention behind this but that it would be necessary to consider if the means to obtain this does not already exist.
- **Electric time error and data reliability:** A Workgroup member highlighted discrepancies between reported and actual electric time error data, stating that FOI results showed frequent exceedance of established limits set out in the SQSS. This raised broader concerns about data accuracy and consistency across reporting channels. The importance of reliable and transparent data was emphasised as a key driver for the modification.
- **Data sharing, monitoring capabilities and commercial sensitivity:** The Workgroup discussed the potential for enhanced monitoring using dynamic system monitoring platforms and remote access to generator data. The NESO SME described ongoing work to develop a platform for aggregating such data. Concerns were raised regarding commercial sensitivity of generator data, balanced against the benefits of shared learning and system reliability. It was argued that transparency should take precedence where it supports system security.

Action log review

The Chair led a review of open actions from previous meetings, with contributions from Workgroup.

The following actions were agreed as completed by the Workgroup and closed:

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- **Action 31 (closed):** Phase jump angle as the 12-degree threshold has been included in the draft legal text.
- **Action 38 (Closed):** NESO shared findings from discussions with European TSOs, noting disparities in data reporting and sampling rates, and confirmed that the action on comparative learning could be closed.
- **Action 39 (Closed):** NESO provided update at this meeting.
- **Action 40 (Closed):** NESO confirmed that an alternative version of the legal text had been developed and shared with the Workgroup following the previous meeting.
- **Action 41 (Closed):** The Proposer confirmed that written guidance on phase angle reporting and associated thresholds had been provided to the Workgroup. It was agreed this material should be published alongside the modification as an Annex to the Workgroup Consultation.
- **Action 42 (Closed):** NESO provided initial input on asset naming, noting that existing approaches rely on general principles of unique and persistent identifiers, with inconsistencies often resolved through bilateral clarification. The Workgroup agreed further work is required to establish consistent naming conventions across BMUs, GSPs, and transmission circuits. The action was closed but combined with Action 44 to create a new consolidated Action 50.
- **Action 44 (Closed):** NESO confirmed that BMU and related asset naming is sourced from the Single Markets Platform, where participants register units and are assigned NESO BMU IDs. The Workgroup agreed this should be considered alongside Action 42, with further work required to establish a single, consistent naming standard; the action was closed but combined with Action 42 to create a new consolidated Action 50.
- **Action 46 (Closed):** A refined version of the Proposer's legal text has been developed and circulated to the Workgroup.
- **Action 47 (Closed):** NESO have reviewed the use of the term "auto reclosure" and identified varying terminology across the Grid Code. While recognising the benefit of standardisation, it was noted that changes would likely require a separate modification due to potential materiality; this will be explored further, with any follow-up via a separate modification.
- **Action 48 (Closed):** The proposer confirmed that requirements relating to exceptional event flexibility have been incorporated into the draft legal text.

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- **Action 49 (Closed):** The Workgroup discussed potential impacts on Transmission Owners and concluded that no significant additional requirements are currently anticipated, noting that much of the required infrastructure is already being developed through PMU rollout. The action was agreed as closed and replaced with a new action for NESO to present a high-level solution architecture to support understanding of delivery and implementation.

Open action updates:

- **Action 34 (Open):** NESO confirmed that a review of IEEE PMU standards had been undertaken, identifying that PMUs across GB operate to a mix of 2005, 2011, 2014 and 2018 versions, with the 2014/2018 standards broadly aligned. The action remains open, with a commitment to provide a written summary and clarify implications for compliance and any required updates to related documents.
- **Action 35 (Open):** NESO confirmed that work is ongoing to align STCP Appendix B data requirements with the proposed legal text and assessing how data would be shared with NESO. The action remains open, pending further clarity on the final legal text and any associated cross-code impacts.
- **Action 36 (Open):** NESO presented an initial view of current and planned HVDC links and PMU locations via mapping material, noting limitations in visualising all locations. The action remains open, with agreement to provide an updated approach using an itemised list of PMU locations alongside revised mapping.
- **Action 43 (Open):** NESO confirmed that the correct terminology for “system restoration regions” has been identified, however further clarification is required on how data should be made available (e.g. via data portal or API) within the legal text. The action remains open and will be addressed as part of the ongoing legal text review.

Legal text review

The Proposer led a detailed review of the revised legal text, with input from the Workgroup.

- **Reporting Frequency and Thresholds:** The Proposer proposed changing the reporting cycle from monthly to weekly and discussed thresholds for frequency excursions, voltage events, phase jump angles, and rate of change of frequency,

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several Workgroup members fed back on operational limits and the risk of excessive reporting.

- **Phase Jump Angle and Generator Trip Analysis:** The Sygensys workgroup observer’s analysis informed the inclusion of a 12-degree phase jump angle within 20 milliseconds as a trigger for system incident reports, with the Proposer and NESO SME debating the practicality and benefit of monitoring such events given current data limitations.
- **Nomenclature and Asset Naming Consistency:** The Workgroup discussed the need for consistent nomenclature in reporting, referencing BMU IDs and ETYS codes, and agreed to refine asset naming conventions based on NESO’s forthcoming investigation (Actions 42 and 44).
- **Data Publication Formats:** The Workgroup discussed the terminology for data publication, debating the use of 'downloadable API' versus 'data portal' or 'downloadable data format,' and agreed to revisit the wording in the legal text as the Modification progresses.
- **Annual Reporting and Trend Analysis:** The Proposer introduced a new section for annual reports to analyse trends and significant events. The NESO SME expressed concern around duplication with the existing reports, annual report on load-frequency control (LFC) and the annual report on the incident classification scale (ICS). One Workgroup member recommended NESO use generic naming 'incident report' terminology instead of the Modification reference that led to their creation, referencing the current NESO use of GC0105 and GC0151 System Incidents Reports.

Next Steps

The Chair outlined plans for additional workgroup meetings prior to the Workgroup Consultation and confirmed that the timeline would be updated and presented to the July Grid Code Review Panel for approval. The Chair confirmed that the draft Workgroup Consultation would be shared with the Workgroup in advance of the next Workgroup meeting.

Actions

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

Action Number	Workgroup Raised	Owner	Action	Status	Date due by
31	WG4	FK/JSC	Define the degree or extent of the phase jump angle that qualifies as a significant event for inclusion in the legal text.	Closed	WG5
34	WG5	FK	Review and update references to PMU standards in relevant documents, ensuring alignment with the latest IEEE 2018 standard and STCP 2701 Appendix B, and recommend any necessary changes.	Open	Click or tap to enter a date.
35	WG5	FK	Align GC0181 data requirements with STCP 2701 Appendix B and clarify if a modification to the STC is needed to codify information exchange from TOs to NESO and NESO out.	Open	Click or tap to enter a date.
36	WG5	FK/JSC	Map current and planned PMU locations to restoration regions and provide a clear visual representation, including coverage of HVDC links and bootstraps, to ensure comprehensive system monitoring.	Open	Click or tap to enter a date.
38	WG5	FK	Contact EU TSOs to obtain information on any planned improvements to frequency data reporting and update the work group on future enhancements.	Closed	Click or tap to enter a date.
39	WG5	JSC	Confirm whether the OTF question regarding the correlation between double circuit faults and HVDC trips was addressed in today's OTF and	Closed	Click or tap to enter a date.

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			share the findings with the Workgroup.		
40	WG5	FK	Share the NESO edited legal text with the Proposer for review	Closed	
41	WG5	AL	Provide written guidance on phase jump angle reporting, including a proposed significance threshold (12°) and supporting rationale to inform legal text	Closed	
42	WG6	SMC	Review precedent for asset renaming in GC0139	Closed	WG7
43	WG6	SMC	Review terminology for online data portals and system restoration regions	Open	WG7
44	WG6	SMC	Investigate existing standards for asset referencing	Closed	WG7
46	WG6	GN	Refine legal text	Closed	WG7
47	WG6	SMC	Explore feasibility of defining “auto-reclosure”	Closed	WG7
48	WG6	GN	Propose “exceptional event” flexibility in timelines	Closed	WG7
49	WG6	GN	Define the specific data requirements and reporting activities proposed under GC0181, in order to enable Transmission Owners to assess the cost and resource implications of implementing the proposal	Closed	WG7
50	WG7	SMC	Provide a single, consistent source/list for BMU, GSP, and transmission circuit names.	New	WG8
51	WG7	SMC/JSC	Develop and share a high-level architecture diagram showing	New	WG8

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information flow from PMU rollout to NESO systems

52	WG7	JSC	Provide data on occurrences of voltage excursions below 0.85 and above 1.1 per unit for more than one second, to validate proposed reporting thresholds.	New	WG8
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Attendees

Name	Initial	Company	Role
Keren Kelly	KK	Code Administrator	Chair
Andrew Hemus	AH	Code Administrator	Technical Secretary
Guy Nicholson	GN	Statkraft	Proposer
Calum Watkins	CW	Ofgem	Authority Representative
Andrew Larkin	AL	Sygensys	Observer
Andrew Urquhart	AU	SSE	Workgroup Member
Gareth Williams	GW	SPT - on behalf of STC Panel	Workgroup Member
Jesus Sanchez Cortes	JSC	NESO	NESO SME
Mathew Chandy	MC	EDF Energy	Workgroup Member
Stuart McLarnon	SM	NESO	Workgroup Member
Tim Ellingham	TE	RWE	Workgroup Member