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Workgroup Consultation Response Proforma

GC0168: Submission of Electro Magnetic Transient (EMT) Models

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses to grid.code@nationalenergygyso.com **5pm on 21 February 2025**. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration.

If you have any queries on the content of this consultation, please contact grid.code@nationalenergygyso.com

Respondent details	Please enter your details	
Respondent name:	Graeme Vincent	
Company name:	SP Energy Networks	
Email address:	Graeme.vincent@spenergynetworks.co.uk	
Phone number:	Click or tap here to enter text.	
Which best describes your organisation?	<input type="checkbox"/> Consumer body <input type="checkbox"/> Demand <input checked="" type="checkbox"/> Distribution Network Operator <input type="checkbox"/> Generator <input type="checkbox"/> Industry body <input type="checkbox"/> Interconnector	<input type="checkbox"/> Storage <input type="checkbox"/> Supplier <input type="checkbox"/> System Operator <input checked="" type="checkbox"/> Transmission Owner <input type="checkbox"/> Virtual Lead Party <input type="checkbox"/> Other

I wish my response to be:

(Please mark the relevant box)

☒ **Non-Confidential** (this will be shared with industry and the Panel for further consideration)

☐ **Confidential** (this will be disclosed to the Authority in full but, unless specified, will not be shared with the Workgroup, Panel or the industry for further consideration)

For reference the Applicable Grid Code Objectives are:

- To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity
- Facilitating effective competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made

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available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);

- c) Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole;
- d) To efficiently discharge the obligations imposed upon the licensee by this licence* and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and
- e) To promote efficiency in the implementation and administration of the Grid Code arrangements

Commented [GV1]: This should refer to (a) and (b)

* See Electricity System Operator Licence

Please express your views in the right-hand side of the table below, including your rationale.

Standard Workgroup Consultation questions

1	Do you believe that the Original Proposal and/or any potential alternatives better facilitate the Applicable Objectives?	Mark the Objectives which you believe the Original Solution better facilitates:
		Original <input checked="" type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
		By ensuring that NESO have access to the appropriate EMT models this will ensure that the GB transmission system continues to be developed in an efficient, coordinated and economic manner whilst ensuring that the level of security is maintained and aid in any post-incident analysis.
2	Do you support the proposed implementation approach?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		SPEN are supportive of the approach to require users to provide EMT models when reasonably required by the NESO. Though it is important to ensure that an appropriate compensation mechanism exists for those users who will be asked to provide models on a retrospective basis
3	Do you have any other comments?	Click or tap here to enter text.
4	Do you wish to raise a Workgroup Consultation	<input type="checkbox"/> Yes (the request form can be found in the Workgroup Consultation Section)
		<input checked="" type="checkbox"/> No

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	Alternative Request for the Workgroup to consider?	Click or tap here to enter text.
5	Do you agree the Workgroup's assessment that GC0168 does not impact the European Electricity Balancing Regulations (EBR) Article 18 terms and conditions held within the Grid Code?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Click or tap here to enter text.
6	Do you have any comments on the Impact of GC0168 on the EBR Objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Click or tap here to enter text.

Specific Workgroup Consultation questions

7	Do you believe it is reasonable to require those Users identified in the draft legal text in PC.A.9.2.2 to provide an EMT model when requested by the NESO noting the importance of accurate modelling on power system design, operation and post event analysis?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Yes, in general we believe that is reasonable to require Users to provide an EMT model when requested by the NESO. The drafting of the text within PC.A.9.2.2 identifies Users by Connection Agreement Type and not by Users per se so it is perhaps not as clear as it could be as exemplified by the Embedded Medium Power Station entry.
8	Do you believe the timelines proposed for the submission of an EMT model as drafted in	<input type="checkbox"/> Yes <input type="checkbox"/> No

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	PC.A.9.2.2.1 are appropriate?	The timescales identified may need to be agreed on a bilateral basis with the User as these may vary depending on the technology and age of plant installed – the older the plant the more difficult it may be to develop an EMT model. Additional time may also be required for instances where LEEMPs generators are involved as there are additional parties and stages involved in the process.
9	Do you believe that it is appropriate to set out the remuneration and cost recovery provision of the models in the CUSC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>As previously noted we believe that it is important that there should be a cost recovery mechanism for those existing Users who will be caught by the retrospective aspects of this modification. It is also essential that any cost recovery mechanism includes consideration of LEEMPs generators. To provide surety it would be beneficial for any mechanism to be agreed prior to the requirement of GC0168 being implemented and avoid Users from potentially becoming non-compliant with the Grid Code.</p>
10	Do you believe it is appropriate to define the detail of the model submission in an Electrical Standard rather than in a specific part of the Grid Code, or as a separate guidance note. If you do not believe this to be the case, please state why you would support an alternative approach?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>We agree that it is appropriate for the detail of the model submission to be included within an Electrical Standard rather than within the Grid Code itself as this will still retain an appropriate governance regime whilst allowing the opportunity to affect changes more quickly than through the normal Grid Code modification processes. We do not believe that having a separate Guidance Note is appropriate given the lack of governance around such documents.</p>
11	As part of the electrical standard, it is expected that an EMT model would be submitted in PSCAD Version 5. Do you have any views on this approach and if so, please state what they are?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>Whilst PSCAD version 5 may be an appropriate format at the current time, we do have concerns about the future compatibility of models specified in this format with future versions of the software noting that the software has been around for a considerable number of years.</p>
12	Do you believe that the timeline proposed for the	<input checked="" type="checkbox"/> Yes

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	Workgroup meetings and target date of September 2025 are reasonable?	<input type="checkbox"/> No The timeline seems appropriate for the Grid Code modification but overall needs to be considered with the corresponding CUSC and STC modifications. It is important that both the commercial and technical arrangements are progressed and implemented in the same timescales.
13	Does this proposal deal adequately with LEEMPs?	<input type="checkbox"/> Yes <input type="checkbox"/> No PC.A.9.2.2.1 Within the text it could be clearer that in respect of (licence exempt) Embedded Medium Power stations not subject to a Bilateral Agreement that the GB Code User (or EU Code User) [ie the Network Operator] will be responsible for providing the data as the embedded medium power station is not a User. This would mirror the note within Table PC.A.9.2.2. The additional guidance referred to as being included within the Annex to the General Conditions is slightly misleading as the step by step approach isn't actually included as text – there is only a reference to a guidance document which actually gives these details.
14	Please could you share your rationale for a cost-recovery mechanism to be put in place supported by evidence, where available. If no cost recovery mechanism were available, what do you believe the implications would be?	<input type="checkbox"/> Yes <input type="checkbox"/> No As we have previously mentioned we believe that due to the retrospective nature of this modification that Users with older plant may incur additional costs compared with Users with newer plant where the model may be more readily available. If there was no cost recovery mechanism the presumably the User will require to apply for a derogation against this requirement or run the risk of being disconnected for being non-compliant with the Grid Code.