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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@nationalenergyso.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@nationalenergyso.com

Respondent details	Please enter your details	
Respondent name:	Alan Creighton	
Company name:	Northern Powergrid	
Email address:	alan.creighton@northernpowergrid.com	
Phone number:	07850 015515	
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 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

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- b) *Facilitating effective competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made 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 license* 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*

* 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
		Requiring generators to provide EMT models where they are reasonably required by NESO seems reasonable provided that adequate provisions are in place that cater for situations where those models are not currently available.
2	Do you support the proposed implementation approach?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Northern Powergrid support the implementation approach provided that NESO only request EMT models when they are reasonable required and where appropriate compensation arrangements are in place.
3	Do you have any other comments?	Yes. Please see our comment embedded in the attached versions of the draft legal text: <ul style="list-style-type: none"> • General Conditions • Planning Code

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		These documents form part of our consultation response.
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	<input type="checkbox"/> Yes (the request form can be found in the Workgroup Consultation Section) <input checked="" type="checkbox"/> No 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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In general yes, provide that NESO reasonably require EMT modelling to be carried out. After having read the draft text several times we remain unclear about which Users need to provide EMT models by default, and which Users need to provide them when specifically requested by NESO.
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	design, operation and post event analysis?	We are not convinced that the draft text in PC.A.9.2.2 does actually set out which Users that should provide EMT models as it is focussed on agreements between NESO and Users rather than Users – although minor editorial changes could rectify this. It would be good if the body of the Planning Code itself clearly set out which Users could be required to provide EMT models.
8	Do you believe the timelines proposed for the submission of an EMT model as drafted in PC.A.9.2.2.1 are appropriate?	<input type="checkbox"/> Yes <input type="checkbox"/> No We don't have a view on the timescales, although in the case of a LEEMPS, given that there is an additional party (the DNO) involved, perhaps there should be additional time available.
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 It is important for there to be a cost recovery framework to enable parties incurring unexpected costs to be compensated. Such arrangements should be in place before GC0168 is implemented. The workgroup should also consider the compensation arrangements for LEEMPS owners / operators as this may require a DCUSA change as well a CUSC change. Compensation arrangements should be in place before NESO request EMT models from users.
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	<input type="checkbox"/> Yes <input type="checkbox"/> No Our understanding of the guidance is that it would be focussed on the process for providing the EMT models. It is important that there is appropriate governance for all guidance documents hence it should either be embedded within the Grid Code or be an Electrical Standard. If there was a feeling that the text might change over a short space of time, then an Electrical Standard would probably be more appropriate.

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	an alternative approach?	
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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No <div>Click or tap here to enter text.</div>
12	Do you believe that the timeline proposed for the Workgroup meetings and target date of September 2025 are reasonable?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>September 2025 seems a reasonable date for finalising the Grid Code modification, but consideration need to be given to the timeline for the associated CUSC (and potentially DCUSA) modifications required to implement the compensation arrangements. Both the technical and commercial arrangements should be in place before GC0168 is implemented.</p>
13	Does this proposal deal adequately with LEEMPs?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <p>Based on our understanding of the draft legal text, the arrangements for obtaining EMT models from a LEEMP owner / operator is not clear. Please see our comments on the draft Planning Code.</p> <p>As drafted the implication is that the RMS/EMT model of a LEEMPS also includes a model of the DNO network between the Connection Point (GSP) and the User System Entry Point (the connection point between the LEEMPS and the DNOs network). Assuming that this is not intended we have included is some proposed text in the marked-up version of the Planning Code.</p>

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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
		<p>Where EMT models are available to a generator then providing them to NESO should be relatively straightforward although they might need to be converted into the prescribed format. Where models are not readily available then the generator will need to use reasonable endeavours to provide the best models they reasonably can, and hence incur costs. Given that this proposal, unlike most Grid Code modifications, is retrospective, requiring models from older plant without any compensation arrangements would discriminate against older plant. If there was no cost recovery mechanism there is the possibility of either the generator applying for a derogation or ultimately being de-energised for non-compliance.</p>