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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](mailto: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](mailto:grid.code@nationalenergyso.com)

Respondent details	Please enter your details	
Respondent name:	Paraic Higgins	
Company name:	ESB Generation and Trading	
Email address:	Paraic.higgins@esb.ie	
Phone number:	+353 1 676 5831	
Which best describes your organisation?	<input type="checkbox"/> Consumer body <input type="checkbox"/> Demand <input type="checkbox"/> Distribution Network Operator <input checked="" 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?	<p>Mark the Objectives which you believe the Original Solution better facilitates:</p> <table border="1"> <tr> <td>Original</td> <td><input checked="" type="checkbox"/>A <input checked="" type="checkbox"/>B <input checked="" type="checkbox"/>C <input checked="" type="checkbox"/>D <input checked="" type="checkbox"/>E</td> </tr> </table> <p><a href="#">Click or tap here to enter text.</a></p>	Original	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> E
Original	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> E			
2	Do you support the proposed implementation approach?	<p><input checked="" type="checkbox"/>Yes</p> <p><input type="checkbox"/>No</p> <p>In respect of the “Implementation Approach” in the consultation that “No systems will have to change as a result of this modification” there is no issue. Concerns in respect of the implementation approach of collecting the models are detailed further below.</p>		
3	Do you have any other comments?	Detailed comments provided in specific workgroup consultation questions.		
4	Do you wish to raise a Workgroup Consultation	<p><input type="checkbox"/>Yes (the request form can be found in the Workgroup Consultation Section)</p> <p><input checked="" type="checkbox"/>No</p>		

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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 In light of the provision of a cost recovery mechanism, ESB GT believes it is reasonable to request the models. ESB GT is in agreement with the importance of accurate modelling on power system design, operation, and post event analysis. However, it is important to stress that the PC.A.9.2.1.1 text <i>"GB Code Users shall provide electromagnetic transient models within 9 months of a request from The Company <u>unless otherwise agreed</u>"</i> given that some older plant may not be able to provide an EMT model, or if they can it may not be reasonable within the 9 month (or 3 month for EU Code Users) timeframe.
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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 checked="" type="checkbox"/> No  ESB GT has experience of procuring a new EMT model for an older CCGT plant in Ireland and the timeline from procurement start to end of the study was from 2.5 years. This is considered to be “fast-tracked” by the OEM concerned. These timelines will be exacerbated in GB by the requirements of this modification on many plants at the same time and therefore reasonable timeline accommodation needs to be made for the provision of these models.
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  Yes, given the cost associated for the provision of EMT models existing plant that needs to procure these models would be at a commercial disadvantage relative to plant that have the cost of such provision assumed in initial project Capex.  CUSC Mod CMP398 (GC0156 Cost Recovery mechanism for CUSC Parties) has been cited as a relevant example and this would appear to be the correct precedent to follow for the provision of EMT models.
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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No  ESB GT agrees that including the guidance under the suite of Electrical Standards referenced in the General Conditions provides appropriate governance and is a good compromise versus the alternatives of (a) a bespoke Appendix was added to the Planning Code (requiring full Grid Code modification for updates) or (b) a separate guidance note published on the NESO's website (which would be subject to no governance arrangements). However, it is understood the guidance

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	an alternative approach?	has not yet been published, even in draft format, and therefore it is not possible to fully determine its appropriate governance without seeing the content.
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  ESB GT has no objections to PSCAD Version 5.
12	Do you believe that the timeline proposed for the Workgroup meetings and target date of September 2025 are reasonable?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Given that any cost recovery mechanism in CUSC should be fully decided on and implemented before models are requested (and a solution for cost recovery for LEEMPS projects found), this timeline may not be achievable.

13	Does this proposal deal adequately with LEEMPSs?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  If pre-September 2022 LEEMPS generators need to provide an EMT Model in the same way as other plant then they should be subject to same compensation, otherwise they will be at a commercial disadvantage. As this is not possible through the “ <i>CUSC and Bilateral Agreement</i> ” as stated in PC.A.9.2.2.2 then there needs to be provision in the code and with the DNO (and Distribution Code/DCUSA as necessary) to enable. As per Question 12, this compensation needs to be available at the same time as other projects and before the obligation to provide the models is implemented.
14	Please could you share your rationale for a cost-recovery mechanism to	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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	be put in place supported by evidence, where available. If no cost recovery mechanism were available, what do you believe the implications would be?	In the example mentioned in Question 8 where ESB GT recently procured an EMT model for an older CCGT plant in Ireland, the cost is a significant sum. If no cost recovery mechanism is available, this will affect the competitiveness of the existing assets relative to newer assets that have built this cost into initial Capex.
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