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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:	Ross Strachan	
Company name:	EDF Renewables	
Email address:	Ross.Strachan@edf-re.uk	
Phone number:	07544823158	
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 checked="" 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
- 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 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</td> <td><input checked="" type="checkbox"/>B</td> <td><input checked="" type="checkbox"/>C</td> <td><input type="checkbox"/>D</td> <td><input type="checkbox"/>E</td> </tr> </table> <p>Click or tap here to enter text.</p>	Original	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> B	<input checked="" type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E
Original	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> B	<input checked="" type="checkbox"/> C	<input type="checkbox"/> D	<input 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>EDFR understands the need for accurate EMT models as the GB network continues to transition to a higher penetration of Inverter Based Resources.</p> <p>EDFR does support the proposed implementation approach, provided NESO are accommodating of User's in instances where accurate EMT models are challenging to deliver, particularly at older sites.</p> <p>EDFR would also highlight that delivering EMT models for all relevant operational sites in EDFR's portfolio will require significant time and resource, and a cost recovery mechanism must be established to give User's an opportunity to recover costs in meeting this requirement.</p>						
3	Do you have any other comments?	No						

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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 type="checkbox"/> Yes <input checked="" 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 EDFR considers it reasonable for NESO to require relevant Users to provide EMT models in accordance with PC.A.9.2.2, considering the importance of accurate modelling in enabling the secure connection of future IBR.
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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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>Yes – on the basis that “unless otherwise agreed” in the PC.A.9.2.2.1 legal text is reflective of NESO’s intention to be flexible in administering timelines and open to working with Users to agree reasonable timelines on a case-by-case basis.</p> <p>EDFR believes that timelines for each site will have to be considered on an individual basis and NESO should allow flexibility in timelines where reasonable. EDFR have no experience of developing EMT models for older operational sites, and cannot commit to firm timelines.</p>
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>EDFR believes it is appropriate to set out a cost recovery mechanism because this requirement is applicable retrospectively to sites that have already achieved FON.</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>Where it is reasonable, EDFR would prefer that GC0168 EMT model requirements are captured in the Grid Code. However, where some details are subject to regular change (e.g. acceptable software version numbers), and Grid Code Modifications become cumbersome, supports the use of Electrical Standards.</p> <p>Guidance Notes are useful for clarifying requirement already outlined in the Grid Code, but EDFR doesn’t rely on Guidance Notes because NESO disclaimer in the Foreword alluding to the completeness and accuracy of information contained within.</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,	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <p>Click or tap here to enter text.</p>

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	please state what they are?	
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 Click or tap here to enter text.
13	Does this proposal deal adequately with LEEMPs?	<input type="checkbox"/> Yes <input type="checkbox"/> No Click or tap here to enter text.
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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>EDFR sites connected prior to September 2022 were not required by the Connection Agreement or Grid Code to develop an EMT model. Contracts between EDFR and OEM's would not have specified a requirement for EMT models; EDFR would therefore be required to raise a variation request under Long Term Service Agreements (where these still exist) and pay the OEM to develop and validate an EMT model.</p> <p>A cost recovery mechanism is required because the User should not be required to pay for requirements that are introduced retrospectively by NESO.</p> <p>If no cost recovery mechanism were available, EDFR would not support the introduction of this Grid Code modification.</p>