

1 Grid Code Industry Consultation Response Proforma

GC0107 / GC113: The open, transparent, non-discriminatory and timely publication of the generic and/or Power Generating Module specific values required to be specified by the relevant TSO(s) and / or relevant system operator et al., in accordance with the Requirements for Generators (GC107) and Demand Connection Conditions (GC113)

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 by **06 September 2019** to Grid.Code@nationalgrideso.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration.

Any queries on the content of the consultation should be addressed to Paul Mullen at paul.j.mullen@nationalgrideso.com

These responses will be considered by the Workgroup at their next meeting at which members will also consider any Workgroup Consultation Alternative Requests. Where appropriate, the Workgroup will record your response and its consideration of it within the Final Workgroup Report which is submitted to the Grid Code Review Panel.

Respondent:	<i>Rob Wilson</i>
Company Name:	<i>NGESO</i>
Please express your views regarding the Workgroup Consultation, including rationale. (Please include any issues, suggestions or queries)	<p><i>(i) To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity</i></p> <p><i>(ii) 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);</i></p> <p><i>(iii) 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;</i></p> <p><i>(iv) 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</i></p>

	<p><i>Commission and/or the Agency; and</i></p> <p><i>(v) To promote efficiency in the implementation and administration of the Grid Code arrangements</i></p>
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Standard Workgroup consultation questions

Q	Question	Response
1	Do you believe that GC0107/113 Original proposal better facilitates the Applicable Grid Code Objectives?	<p>No. At the moment, while the workgroup have developed a solution that fully embodies the proposal, it will add no value for consumers; filling in the proposed spreadsheet will be an overhead for network operators and it is also unclear what if any benefit it will provide to generators.</p> <p>If a benefit to generators, developers or manufacturers can't be demonstrated then the proposal will be neutral against objectives (i)-(iv) and negative against (v) in applying an administrative burden to network operators without a clear rationale.</p>
2	Do you support the proposed implementation approach?	If the proposal is found to have a benefit and is approved, yes.

Q	Question	Response
3	<p>Do you have any other comments?</p>	<p>As part of the workgroup development, a detailed exercise was carried out in which the ability of network operators to agree specific values for settings made in accordance with the Requirements for Generators European Network Code was checked clause by clause. A limited number of clauses were identified in which settings could theoretically be made specific to an individual connection agreement of which an even smaller number realistically ever would be. In the Grid Code these are as follows:</p> <ul style="list-style-type: none"> • Frequency or voltage ranges (very unlikely for transmission connections) • Disconnection conditions (eg intertripping arrangements) • Pre- and post-fault short circuit levels • Quality of supply parameters • Reactive power requirements to maintain constant terminal voltage • Power oscillation damping <p>These items appear to be allowably site specific on the basis of their relevance to local network conditions or topography only, and so it is unclear what benefit another generator would be able to derive from them, particularly since as proposed and to preserve contractual confidentiality/anonymity it would not be clear in the proposed spreadsheet where in the country or to which substation a connection was being made that was subject to specific conditions.</p> <p>Beyond the items highlighted during this exercise that could be agreed specific to an individual connection, to vary any other settings from those agreed in the implementation of RfG would require a derogation from Ofgem and to therefore follow the process set out by Ofgem to achieve this. The results of any approved derogations are already in the public domain.</p> <p>It would appear therefore that this modification proposal is based on the misconception that the setting of parameters resulting from RfG could be made on a site specific basis rather than having been made once for GB as part of RfG implementation. As also discussed within the workgroup, ENTSO-E have produced an implementation monitoring spreadsheet that shows all of the parameters and settings defined within each member state as part of RfG implementation; rather than requiring a code modification, this would appear to provide all of the information that this proposal requires and would also be of much greater use to GB manufacturers and developers in providing them with information for prospective connections across Europe.</p>

Q	Question	Response
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	No. If the benefit of this proposal cannot be clearly demonstrated we would support the baseline.

Specific questions for GC0107 & GC0113

Q	Question	Response
5	Do you believe that the obligation to track variations from standard parameters should be placed on the 14 ¹ Distribution Network Operators (DNOs) (as opposed to just the ESO) for distributed generation, and do you believe the obligation should also be extended to the 13 ² Independent DNOs (IDNOs) for the generation connected to their networks? In this latter case, how do you think the obligation on the IDNOs should be imposed?	<p>If there is justification to do this it should apply equally to all Network Operators and should cover all GB generator connection agreements.</p> <p>To apply an obligation to IDNOs we think that a requirement would need to be placed within the Distribution Code that would then apply to IDNOs through their connection agreements with DNOs. Realistically it would be useful to consider the volume of generation connected within IDNOs to see if this is really worthwhile but a level playing field would be better.</p>
6	This modification imposes a new requirement on DNOs for them to share some limited technical data from individual distribution connected customers' connection agreements with the ESO in an anonymous form or with Ofgem (if they request it). Do stakeholders have any views on this, and in particular how distribution connected customers can be made appropriately aware of the proposal?	<p>This embodies the proposal so we would also be interested to see customers' views.</p> <p>In terms of how distribution connected customers could be made aware, we would suggest through the Distribution Code Review Panel and the ENA; possibly also at customer seminars and through direct customer contacts via their connecting network operator.</p>

¹ Eastern Power Networks Plc; Electricity North West Limited; London Power Networks Plc; Northern Powergrid (Northeast) Limited; Northern Powergrid (Yorkshire) Plc; Scottish Hydro Electric Power Distribution Plc; South Eastern Power Networks Plc; Southern Electric Power Distribution Plc; SP Distribution Plc; SP Manweb Plc; Western Power Distribution (East Midlands) Plc; Western Power Distribution (South Wales) Plc; Western Power Distribution (South West) Plc; and, Western Power Distribution (West Midlands) Plc.

² Energy Assets Networks Limited; Energetics Electricity Limited; ESP Electricity Limited; Fulcrum Electricity Assets Limited; G2 Energy IDNO Limited; Harlaxton Energy Networks Limited; Independent Power Networks Limited; Leep Electricity Network Limited; Murphy Power Distribution Limited; The Electricity Network Company Limited; UK Power Distribution Limited; Utility Assets Limited; Vattenfall Network Limited according to the public list on Ofgem's website <https://www.ofgem.gov.uk/electricity/distribution-networks/connections-and-competition/independent-distribution-network-operators>

Q	Question	Response
7	How often should the additional technical data be a) updated and b) published following bilateral agreement between network operator and User of site specific values – daily, weekly, monthly, quarterly, six monthly, annually?	We would be interested to see other views on this but feel that an annual process would be sufficient.
8	How do you feel you will benefit from this proposed modification – please quantify benefit where possible? The Workgroup would particularly like to hear from manufacturers on this point?	We would be interested to see views from stakeholders, particularly if these can be specific to the parameters that they feel will be of value to them and why or if any parties have particular experiences of having had different settings which have caused them to vary the specification of their equipment.
9	What costs and/or risks do you believe would arise from implementing this proposed modification – please quantify these where possible?	<p>There is a risk of breaching contractual confidentiality if individual generators are able to be identified.</p> <p>In terms of the cost, we would estimate that to administer this process, collect and validate all of the data, use it to fill in a centrally held spreadsheet and then update this on the NGESO website would probably take up to a FTE, which would incur a cost in the region of £50-100k including overheads. This assumes that there are no IS costs involved in doing this as a simple spreadsheet based solution will be used. Costs for DNOs and IDNOs would be in addition. None of the Network Operators are funded to do this through their current regulatory settlements.</p>
10	The code mapping spreadsheet produced as part of the GB implementation of the European Connection Codes (RfG, DCC and HVDC) includes all Grid Code references where settings required by RfG etc. were made. An ENTSO-E implementation monitoring spreadsheet ³ has also been produced showing the settings made in each member state. What additional value does this modification proposal deliver?	<p>The ENTSO-E monitoring spreadsheet would appear to have greater efficacy to manufacturers and developers in showing the range of values of parameters that they could be required to comply with across all member states.</p> <p>If, as is noted above, those values that can be defined specific to a single connection agreement add little or no benefit to other parties then this modification also adds no value.</p>

³ ENTSO-E implementation monitoring spreadsheet can be found at:
https://docstore.entsoe.eu/_layouts/15/download.aspx?SourceUrl=https://docstore.entsoe.eu/Documents/Network%20codes%20documents/CNC/CNC_Non_exhaustive_requirements.xlsm

Q	Question	Response
11	<p>How do you believe the template, which is being consulted on in spreadsheet form (Annex 1) for convenience should be incorporated into the Grid Code legal text? The options include converting it into a plain document table and including it in the Data Registration Code in line with all other formal data requirements, or somehow referring in the legal text to governed version of the spreadsheet. The Workgroup would be pleased to hear views on the balance of the certainty and rigour of the governance of the requirements versus simplicity?</p>	<p>We would propose that the template is included as an annex to the modification report and is referred to in the legal text which should list the criteria to be included.</p> <p>Ultimately the template should be stored in an appropriate area of the Grid Code website administered by NGESO, possibly in the listing of 'associated documents.'</p>
12	<p>Do you agree that this requirement should be drafted as a new Grid Code section (i.e. OC3) or would it be better to accommodate in the Planning Code alongside similar data?</p>	<p>OC3 would be better but this is purely presentational.</p>