Grid Code Workgroup Consultation Response Proforma

GC0100 EU Connection Codes GB Implementation – Mod 1

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 **5pm** on **2 October 2017** to grid.code@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Chrissie Brown at Christine.brown1@nationalgrid.com

Respondent:	*Greg Middleton*
Company Name:	*AMPS*
Please express your views regarding the Workgroup Consultation, including rationale. **(Please include any issues, suggestions or queries)**	*For reference, the Grid Code objectives are:* i. To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity ii. To facilitate 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) 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 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 Commission and/or the Agency; and v. To promote efficiency in the implementation and administration of the Grid Code arrangements

Standard Workgroup Consultation questions

Q	Question	Response
1	Do you believe that GC0100 Original proposal, or any potential alternatives for change that you wish to suggest, better	The original proposal better facilitates the objectives.

	facilitates the Grid Code Objectives?	
2	Do you support the proposed implementation approach?	Yes
3	Do you have any other comments?	See comments elsewhere in this document about Uret.
4	Do you wish to raise a WG Consultation Alternative Request for the Workgroup to consider?	*No*

Specific GC0100 questions

Q	Question	Response
1	Removing More Stringent Requirements' concerns have been expressed by some Workgroup members that applying more stringent requirement on newly connecting parties (that fall within this scope of the EU Network Codes for generation, demand and HVDC systems) maybe incompatible with EU law. Do you have any views on this topic that could assist the Workgroup when they are considering the topic in due course?	AMPS support the view that the requirements must not be more stringent than the RfG, but the existing Grid Codes should also be observed where the RfG is silent.
2	Are you comfortable with using the EU definition of Maximum Capacity instead of the GB definition of "Registered Capacity"?	No Comment
	Fast Fault Current Injection questions	
3	What are your views on options 1, 2 and 3 as set out in paragraph 4.4 for Fast Fault Current Injection and which option (if any) would you prefer?	No Comment
4	Do you have any alternative fast fault current injection solutions noting that the requirement applies to the Converter not the wider Power System?	No

5	In considering the three Fast Fault Current Injection options 1, 2 and 3 in paragraph 4.4 do you have any comments in relation to technology readiness, cost implications, and can they be implemented date within the context of product development timescales?	No Comment
6	Do you have any evidence to support your views?	No Comment
7	Do you have any views on the specific costs related to the additional requirements?	No Comment
8	Is the current proposed wording for the remote end HVDC and DC Connected Power park modules sufficient to facilitate future new technology?	No Comment
	Banding questions	
9	What are the specific costs related to the additional requirements?	The different banding proposals don't have any direct impact on small synchronous generators, except they must support the Uret of 0.3. Refer to evidence that has already been submitted to GC0048 on the economic impact on small synchronous generators with a lower value of Uret
10	Do you have any views on the banding thresholds for the original and those suggest for the possible alternative?	See 9 above
11	Can you provide any feedback/comments on the associated legal text?	No Comment
	Fault Ride Through	
12	Do you support the fault ride through voltage against time curves If not please state why you disagree, what alternative you would recommend and your justification for any alternative?	Yes, if Uret remains at 0.3
13	Do you have any specific views about the proposal to modify the stage 2 under voltage protection for distributed generation interface protection?	AMPS supports this
	Other questions	

14	Does the Legal drafting contained in annex 2 and 3 deliver the intent of the solution outlined in section 3?	G98 drafts need considerable further work before they can be consulted on
15	Do you have any information based on the proposed solution in respect of implementation costs?	Refer to costings previously supplied to GC0048