

## Workgroup Consultation Response Proforma

### GC0137: Minimum Specification Required for Provision of GB Grid Forming (GBGF) Capability (formerly Virtual Synchronous Machine/VSM Capability)

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@nationalgrideso.com](mailto:grid.code@nationalgrideso.com) by 5pm on **30 April 2021**. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

If you have any queries on the content of this consultation, please contact Kavita Patel [Kavita.patel@nationalgrideso.com](mailto:Kavita.patel@nationalgrideso.com) or [grid.code@nationalgrideso.com](mailto:grid.code@nationalgrideso.com)

Respondent details	Please enter your details
<b>Respondent name:</b>	Antony Johnson
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### 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 available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);*
- 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;*
- 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*
- To promote efficiency in the implementation and administration of the Grid Code arrangements*

Please express your views regarding the Workgroup Consultation in the right-hand side of the table below, including your rationale.

Standard Workgroup Consultation questions		
1	Do you believe that the GC0144137 Original	Yes – We believe this modification is essential in facilitating the operation of a low carbon

	Proposal better facilitates the Applicable Objectives?	transmission system in a safe, secure and economic manner and in this respect particularly facilitates Grid Code objectives a), b) and c).
2	Do you support the proposed implementation approach?	Yes – especially as the proposal is non-mandatory which would promote the use of market based arrangements. We believe this is the best way of maintaining System Security using low carbon generation sources in the most economic manner.
3	Do you have any other comments?	We have worked with many stakeholders as part of this work and would wish to note the extensive research many stakeholders have undertaken in particular some have undertaken full scale live trials to demonstrate the capability of the technology.
4	Do you wish to raise a Workgroup Consultation Alternative Request for the Workgroup to consider?	No
<b>Modification Specific Workgroup Consultation questions</b>		
5	Do you believe it is appropriate <a href="#">to</a> specify GB Grid Forming as a non-mandatory requirement in the Grid Code and be accessed by future market arrangements rather than as a mandatory requirement?	Yes – We believe this is the most appropriate and economical approach and is also technologically neutral. The approach taken, which would be combined with a future market, would enable developers to decide if they wished to participate in this market, it enables providers of conventional synchronous technologies to compete as well as newer technologies and also provides an additional revenue stream for a set of capabilities which have traditionally been provided for free.
6	Do you believe the current proposal is sufficiently flexible and facilitates a range of technologies? If not, please state why you feel this to be the case and what type of technologies have been excluded?	Yes
7	Do you believe the proposal will result in excessive equipment costs? This excludes development costs whilst recognising plant can be also be de-loaded?	No. The requirements are not mandatory so cannot expose developers to higher costs. The specification has been developed to be as flexible as possible including the option to de-load so we hope that any party wishing to provide this capability would not result in excessive costs,

		particularly in respect of the higher semiconductor ratings which may be required.
8	Do you believe the proposed Grid Code proposals sit better in the Planning Code, Connection Conditions / European Connection Conditions and Compliance Processes / European Compliance Processes bearing in mind the proposals are non-mandatory or do you think it would be better to have a new standalone section	The ESO's preference is to have the specification included in the European Connection Conditions with the data requirements in the Planning Code and Compliance Requirements in the European Compliance Processes. We are however relaxed on this issue and will await to see the feedback provided by other Stakeholders.