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Our Ref: EN01-005353

29 April 2016

Dear Rob,

**Re: GC0048 Industry Consultation Response**

Renewable Energy Systems Limited (RES) is the UK's largest independent renewable energy developer with interests in onshore wind, wave and tidal, offshore, solar, energy storage and demand-side response. A wholly owned UK company at the forefront of innovation and infrastructure development around the world, RES now employs over 1,000 people and has built over 1,000MW of wind energy assets in the UK – around 10% of the UK's total installed capacity.

RES welcomes the opportunity to respond to this important consultation regarding the maximum capacity thresholds for classification of power generating modules in the GB implementation of Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators (RfG).

This consultation response is not confidential.

General comments

The consultation document and the consultation questions follow the narrative that National Grid has used consistently throughout the GC0048 working group meetings i.e. that the choice of threshold values should be justified by a cost benefit evaluation. During the working group meetings it was clear that, in National Grid's opinion, the B/C threshold could be lowered from the maximum level permitted by RfG (50MW, which coincides with the level at which the Grid Code mandates generator frequency response capabilities) to a lower level which would increase the availability to the System Operator of generator frequency response capability.

There was a counter argument consistently proposed by several GC0048 working group members (including RES) that National Grid has failed to demonstrate a need to increase the supply of generators providing frequency response facilities (such as prescribed by RfG for Type C generators).

The above counter argument is not reflected in the consultation questions which:

- were drafted solely by National Grid, not the GC0048 working group;
- were not included in the draft consultation document circulated to the GC0048 working group for review; and
- place a pre-emptive frame around the consideration of the consultation document which could limit the range of responses.

RES' responses to the consultation questions are as follows:

**i) From your perspective, which of the banding options presented in the consultation document ('high', 'medium', and 'low' is most suitable to apply in the GB synchronous area for the next three-five years?**

The high option is the most suitable to apply to the GB synchronous area for at least the next three to five years until National Grid can justify a proposal to Ofgem for a review.

The consultation document and the work group report do not propose a needs case to increase the availability of the facilities prescribed by RfG for Type B, C or D generators by lowering the banding thresholds.

**ii) In respect of your preferred banding option stated in question (i), please can you provide a supporting justification, particularly focusing on quantifying any costs/savings/benefits (the attached template is provided as a guide), when it is compared to the other two options presented in this report.**

The high option presents the least risk to transmission and distribution users in GB. It is reasonable to conclude that using the high threshold banding will protect more users from incurring high capital costs associated with the technical requirements of the RfG when compared the to the other two options.

In principle, the more assets that are captured in higher bands by lowering the banding threshold, the bigger the cost to asset owners and developers who must adhere to the correspondingly higher requirements. Therefore choosing either the medium or low banding thresholds would be potentially damaging for new GB generators.

Cost benefit analysis is not required for public consultation in accordance with RfG articles 5 and 10. Cost benefit analysis is not mentioned in the consultation document sections 2.1.7 and 2.1.8 which describe the process for setting banding levels.

If National Grid believes that there are net benefits to be obtained by increasing the supply of frequency responsive generation, this argument could have been made (and could still be made) independently of the introduction of RfG by means of the existing and enduring regulatory processes.

National Grid has not proposed any details of the potential financial benefits of reducing the B/C threshold (the consultation report section 4.7.1 says "*benefits were difficult to quantify*") but is asking respondents to divulge details of their costs to do so. This is clearly the wrong order. Until there is a clearly identified need for new and increased capabilities leading to clear benefits, corresponding mandatory requirements should not be placed on new smaller generators as they would be under the medium and low options.

Despite having been invited to do so several times at GC0048 working group meetings, National Grid has not provided evidence that there is or will be insufficient supply of frequency responsive generation to meet

system needs now or later under the Future Energy Scenarios. Work group participants provided evidence that National Grid presently has access to much more frequency responsive generation capability than it uses. Therefore it would be inefficient and uneconomic to oblige new smaller generators to invest in enhanced capabilities for which there is no evidence of need.

Further mandatory provision of frequency response capability (by adopting the medium or low option) could add to the present over supply of frequency response and thus further distort this market to the cost of new and existing generators and to the benefit of National Grid. This would prevent efficient allocation of resources.

The issue of a potential inadequate availability of frequency responsive generation would be a system operability matter but the System Operability Framework 2015 does not recognise this as a challenge (even the mitigation options for inertia challenges in SOF 2015 sections 4.2.3, 4.3.3 & 4.4.4 do not envisage the need for more traditional response, they seek faster services and inertia solutions).

In the absence of any evidence of insufficient availability of frequency responsive generation capacity and no need to provide accost benefit analysis to satisfy RfG, then there is no justification for any banding threshold option other than the high option which most closely resembles the existing situation.

**iii) Does your preferred banding level adequately protect the interests of all Transmission System and Distribution System Users? If not, why does it fail to do so?**

Yes.

The System Operator has not demonstrated a need for enhanced capabilities (particularly frequency response) from new smaller generators and therefore it would be unreasonable to impose those costs on such generators and ultimately on demand customers.

**iv) Do the proposed banding levels strike an appropriate balance between the needs of the System Operator, Network Operators, Generators and other interested parties? If not, why do they fail to do so?**

Yes.

The System Operator has not demonstrated a need for enhanced capabilities (particularly frequency response) from new smaller generators and therefore it would be unreasonable to impose those costs on such generators and ultimately on demand customers.

**v) Are there additional considerations for the banding level which the Workgroup has so far not taken account of in this report?**

There are considerations in the GC0048 work group report which have not been mentioned in this consultation report. Specifically work group members have challenged National Grid to provide a needs case for lowering the B/C threshold and National Grid has not done so.

**vi) Please provide any other comments you feel are relevant to the proposed change.**

No further comments.

**vii) How do you believe your preferred banding level facilitates the Grid Code/Distribution Code objectives?**

**Objective (i) to permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;**

The high banding option will provide access to a range of new/enhanced generator capabilities which will assist with this objective.

The banding thresholds can be reviewed if required when GB circumstances change.

**Objective (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);**

The high banding option will provide access to a range of new/enhanced generator capabilities which will facilitate the operation of the system allowing the connection and operation of further quantities of renewable generation. It will also avoid imposing unnecessary requirements onto new plant which would damage competition and discourage smaller developers who cannot deliver on high capital costs. Therefore enhancing the above competition.

**Objective (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;**

The high banding option will provide access to a range of new/enhanced generator capabilities which will facilitate the operation of the system allowing the connection and operation of further quantities of renewable generation thus enhancing the above security and efficiency.

**Objective (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.**

The high banding option will help the licensee to comply with Regulation (EC) No 714/2009 and Regulation (EU) 2016/631(RfG).

**Do you have any additional comments?**

No

This consultation response is offered to assist all stakeholders to achieve our national renewable energy targets. If you should have any questions about this consultation response, please contact me.

Yours sincerely,

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