
Consultation response | RfG banding options 16 May 2016

Context

The Association for Decentralised Energy (ADE) welcomes the opportunity to respond to the National Grid consultation Requirements for Generators – GB Banding Threshold.

The ADE is the UK's leading decentralised energy advocate, focused on creating a more cost effective, efficient and user-orientated energy system. The ADE has more than 100 members active across a range of technologies, and they include both the providers and the users of energy. Our members have particular expertise in combined heat and power, district heating networks and demand side energy services, including demand response.

Consultation questions

Q1. From your perspective, which of the banding options presented in this report ('high', 'medium', and 'low' [please see section 4.3]) is most suitable to apply in the GB synchronous area for the next three-five years?

The ADE supports the 'high' banding option.

Q2. 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 when it is compared to the other two options presented in this report.

'High' option

Compared to the other options, the 'high' banding option aligns most closely to the current GB thresholds, which have been demonstrated historically to be at an acceptable level. The current thresholds have been considered sufficiently robust for several years. As such the 'high' option also represents the lowest risk.

'Medium' option

This option would limit impact on sub-10 MW generators, but would still place the strongest requirements on relatively small generators on the electricity network. These figures move further away from the current requirements, which have been considered successful for a number of years. There would also be an increased price of generators for the Type C and D bandings.

Further, the 'medium' banding thresholds would not align with the largest EU synchronous area, and so would prevent manufacturers of generators from building one type for many markets by designing for volume manufacturing. This would result in higher capital costs as generator manufacturers would have to provide specific, low volume modifications for the GB market.

'Low' option

In terms of the 'low' option, none of the generators on the market would be able to deliver the requirements of RfG. Manufacturers would struggle to deliver new designs in the timescales required. The consumer cost of energy from distributed generation will rise significantly, as providing such requirements would result in a significant increase in the price of compliant generators. This option also deviates from the majority of the EU synchronous areas. The result risks manufacturers not investing in designs which meet the GB requirements, leading to higher costs for GB energy consumers and developers compared to other European markets.

Further, the active management demands on DNOs and TSOs would be significant, with nearly every distributed generator required to be actively managed.

Q3. How do you believe your preferred banding level facilitates the Grid Code/Distribution Code objectives?

The preferred banding level best facilitates the Grid Code/Distribution Code objectives. The 'high' banding option aligns most closely to the current GB thresholds, which have been demonstrated historically to be at an acceptable level and in line with the Grid Code and Distribution Code objectives.

Q4. 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?

The 'high' banding thresholds aligns with the largest EU synchronous area, and so provides the best possible approach, allowing manufacturers of generators to build one type for many markets by designing for volume manufacturing.

By aligning with the EU synchronous area, it would better facilitate the Energy Union, maximising fair competition across different European energy markets.

Without sufficient data and analysis showing that the costs of lower banding thresholds are outweighed by the benefits, thresholds that best align with the current system would best protect the interests of electricity system users.

Q5. 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.

Q6. Are there additional considerations for the banding level which the Workgroup has so far not taken account of in this report?

No.

Q7. Please provide any other comments you feel are relevant to the proposed change.

The challenges associated with LVFRT requirements (U_{ret} & t_{clear}) brought in for Type B generators is an area of concern for small scale embedded generators due to inherent power control problems associated with reciprocating internal combustion engines which are commonly used for <5MW synchronous generating modules. We are aware that matter has been discussed at length within WG0048 and a technical position paper submitted by AMPS.

We believe the proposal and supporting arguments put forward by AMPS justify the current proposed recommendation for an adoption of U_{ret} being set at 30% and t_{clear} being set at 140ms. These are challenging and costly but achievable limits however should this proposal not be recommended and a lower U_{ret} or longer t_{clear} be adopted we believe there will be a serious impact upon the GB embedded generator market.

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