

Questionnaire Feedback

ESO completed Actions

- Sent to Grid Code Distribution List by email
- Added to the external ESO “Pluggedin” Newsletter
- Sent out by the Code Administrator Team
- Discussions held with the ENA and survey sent to the ENA in August 2021 for them to circulate via their Distribution Lists
- Verbal discussion with TO’s

Response Rate

- Number of responses:
 - Generators (including Storage Operator) – 4
 - Generator – 1
 - DNO - 3
- 3 of the 5 Generators own and operate an Embedded Small Power Station
- None of the Generators own and operate an Embedded Large Power Station
- None of the Generators have BEGA or BELLA Agreements

Questionnaire Responses

‘If you are a Generator and have a power station rated at less than 100MW and had a choice as to whether to get a BEGA, a BELLA or have no agreement with NGESO, what would you do?’

2 Responses

- ‘We are currently developing sites in Scotland which require this, we are going to opt for a BEGA because of the opportunity to be paid for constraints via the BM, however having no agreement would certainly streamline the process and make it cheaper’.
- ‘It would depend on the circumstances of that particular connection. In some circumstances, for instance a complex multi party Statement of Works process, a bilateral connection with NGESO may provide a more reliable means of securing network access. In general, cheaper less complex connections via the distribution network - where available - are preferable. A BELLA offers no discernible advantages for a medium sized developer with ambitions to be more involved in a more diverse range of revenue streams’.

Questionnaire Responses

‘If you are a Generator who owns and operates a Large Power Station how much does it cost to supply the data required under the Grid Code as required under the Data Registration Code (DRC) including the submission of Week 24 data. (£/annum)’

2 Responses

- ‘Not reached that point yet’.
- ‘Up to £25,000’.

Questionnaire Responses

‘If as a Generator you had a choice, what threshold would you set between a Small Power Station, and Large Power* Station across GB and why - bearing in mind most of the technical requirements (in GB) (excluding Control Telephony, Operational Metering and Electronic Data Communication Facilities) as defined in G99 and the Grid Code are consistent as these are determined by the Requirements for Generators (RfG) Network Code, which is part of UK law. *Note in GB we currently have the definition of Medium Power Stations between 50 – 100MW in England and Wales only (they do not exist in Scotland) which going forward would not be part of this solution’. * Please ignore the question if it is not relevant to you

2 Responses

- ‘Harmonise it at 50 MW, however with an option to participate in the BM if required. The medium power station distinction is confusing, please remove. It may have a bearing on a generation licence requirement, so this should also be harmonised’.
- ‘50MW and above’.

Questionnaire Responses

‘If you are Generator with a BELLA or BEGA Agreement are you aware of any other costs initial or enduring costs (not mentioned above) to which you are exposed when compared to a Small Embedded Power Station without a CUSC Contract. (£ & £/annum)’.

2 Responses

- ‘Application fee, modification fees’.
- ‘No’.

Questionnaire Responses

‘If you are a DNO, do you envisage any additional or fewer costs incurred at the time of connection and on an enduring basis that would arise from changing the threshold between a Small and Large Power Station and please state how these changes could arise (£ & £/annum)’.

2 Responses

- ‘Not Applicable’.
- ‘Each connection that becomes large will requires the customer to apply for a BEGA within the current process for combined queue management. This involves National Grid ESO completing a transmission impact assessment to gain a queue position. For customers this will add an additional application cost required by National Grid ESO (costs are for NGET 1 which covers UKPN region taken from National Grid ESO website 09/2021):
Entry Application Fee (<100MW) £26,450
BEGA Fee (<100MW) £12,650

The additional application costs and timeframes could be a significant blocker to the progress required to ensure the United Kingdom meets it’s Net Zero targets. The response time for National Grid ESO is based on their current applications, this will increase which National Grid ESO may not be prepared for at present. Consideration will be required for the additional administration required by National Grid ESO and the impact of this on them meeting their GSOP requirements and customers receiving all information within the standard 90 days. Connection statistics for UKPN from Jan 2020 to Aug 2021 to provide context:

Enquiries to UK Power Networks:

Size	Quote	Budget Estimate
10-30MW	273	457
30-50MW	203	485
50-100MW	62	73
>100MW	22	16

Questionnaire Responses

Each connection that proceeds through to connection as a large generator will require signoff of G99 documentation by both UK Power Networks and National Grid ESO, to date the additional sign off from National Grid ESO has added significant time to connections currently in progress. Will this lower connection voltages for these customers require National Grid ESO to have more detailed models of DNO networks?

Applying a 10MW threshold will mean that National Grid ESO will potentially need to model the distribution network at a more granular level. Assuming this is the case then this will lead to duplication of effort and have a significant impact on National Grid ESO resource requirements (see volumes data overleaf), where both companies are now modelling and studying the same network, as well as significantly increasing data transfers.

Customers will always look to reduce connection costs by connecting at lower voltage levels where possible. DNOs already have a number of ≥ 10 MW connections within their 11kV networks whereas the present 50MW limit for Medium Power Stations limits the potential connection points to close to GSPs or at BSPs where the data and models are already shared between National Grid ESO and DNOs.

The low threshold in Scotland was due to large levels of embedded generation several years ago and a requirement for a greater degree of control and visibility at sub-transmission. Whilst in England the volumes of DG have increased significantly over the past 5 years, so has whole system collaboration. New processes and programmes of work such as Regional Development Programmes and revisions to the Statement of Works process (i.e. Appendix Gs) have been put in place to give sufficient visibility and access to DG data without the need to change the Grid Code generator size thresholds. The methods in place are both efficient in terms of network assessments and also allow the connection process for customers to be expedited and streamlined. For all large generators there is an enduring requirement for data exchange (to National Grid ESO) and telephony that is not present for small, this will result in an additional ongoing cost to customers (this cost is not visible to a DNO so cannot quantify)'.