1 Introduction

Following the implementation of CAP097 in July 2006: "Revision to the Contractual requirements for Small and Medium Embedded Power Stations", Section 6.5 of the CUSC requires a compulsory request for a Statement of Works from National Grid by the relevant DNO in respect of proposed embedded medium sized generators (<100MW and =>50MW NGET). For proposed embedded small generators (<50MW NGET, <30MW SPT, <10MW SHETL) however, a request for a Statement of Works from National Grid by the relevant DNO, is required only where that DNO believes that the proposed small power station connection may have a significant impact on the GB transmission system.

National Grid does not consider that the DNO has access to the necessary information to accurately assess the impact which a small embedded development, or the aggregate effect of multiple developments, may have on the GB transmission system. In practice, due to the varying interpretations of the wide range of issues which need to be considered by the DNO, it has not always been possible for National Grid and the DNO to agree when the development of a small embedded generator (or multiple generators) is likely to have a significant impact on the GB transmission system.

Consequentially, National Grid has raised CAP167, which proposes to amend the CUSC to provide definitive clarification in the assessment of whether a small embedded power station development (or the aggregate effect of multiple projects) is likely to have a significant impact on the GB transmission system. For the avoidance of doubt CAP167 does not propose to amend the existing Statement of Works application and offer process and any such changes are out of scope for this CUSC Amendment. The existing process is detailed in annex 1.

This paper aims to develop a process to be governed by the CUSC, identifying the relevant criteria which should be followed by National Grid, with cooperation from the TOs and the DNOs in assessing when a small embedded generation project is likely to have a significant impact on the GB transmission system and consequently, whether a request for a Statement of Works by the DNO is required or not.

It should be noted that the TO's are not party to the CUSC and reciprocal changes described below will be required within the STC to give effect to CAP167 as proposed.

2 Original CAP167 Amendment Proposal

This section details the criteria and process to be used by the GBSO when establishing and determining thresholds above which an Embedded Small Power Station is considered to have a significant impact on the GB Transmission System and hence when a DNO should submit a Request a Statement of Works in response to a connection request from a Embedded Small Power Station.

2.1 Criteria

1. The current Grid Code thresholds of =>10MW in SHETL area, =>30MW in SPT area and =>50MW in NGET area will not be amended by this process. The definitions for Small, Medium and Large will still apply. The criteria and

process below will apply to all Embedded Small Power Stations. The DNO will still be required to submit a request for a Statement of Works from National Grid for all medium sized embedded power station projects.

2. National Grid will publish MW thresholds (with co-operation from the relevant TO's and DNOs) above which it is necessary for a DNO to submit a request for a Statement of Works in response to a connection request from an Embedded Small Power Station. Such thresholds will be published on a GSP-specific basis having applied the process set out in section 2.2, and having considered each of the following criteria (which may or may not lead to the application of a de minimis value) which will be set out in the CUSC:

   1. **The impact on investment costs of reinforcing the GB transmission system as a result of that generator connecting.**

   2. **The impact on operational constraint and reserve costs of the GB transmission system as a result of that generator connecting.**

   3. **The administrative and cost burden on relevant small embedded generation projects.**

   4. **Consideration of technical issues at the connection point and on the MITS, such as but not limited to:**
      - Impact on MITS power flows.
      - Local demand.
      - Impact of generation on Supergrid Transformer circuit outages.
      - Voltage / voltage step change issues.
      - Fault levels.
      - Stability.

2.2 Process

The following text outlines the process by which National Grid as GBSO determines appropriate MW thresholds for each GSP on the GB transmission network based on the criteria identified in Section 2.1. This process will be set out in the CUSC.

1. CUSC requires GBSO to prepare a Relevant Embedded Small Power Station Methodology which details how the CUSC criteria will be applied in respect of the GSP thresholds.

2. GBSO consults with DNOs and TOs within reasonable timescales, regarding the draft Relevant Embedded Small Power Station Methodology.

3. GBSO publishes a draft Relevant Embedded Small Power Station Methodology on the NGET website (with links via the DNO websites) for industry consultation over a period of 28 days.

4. GBSO publishes final Relevant Embedded Small Power Station Methodology in cognisance of industry responses.

5. In accordance with the Relevant Embedded Small Power Station Methodology, the GBSO will publish indicative MW thresholds for each GSP with additional guidance providing justification for the thresholds.

6. GBSO consults with industry parties over a period of 28 days regarding indicative MW thresholds and justifications.

7. GBSO publishes final MW thresholds for each GSP on the National Grid website, with supplementary information to identify the basis upon which the threshold has been determined in accordance with the methodology.

8. GBSO has an ongoing obligation contained in the CUSC, to keep the thresholds under review, with an annual review of the methodology in co-operation with the DNOs and TOs. CUSC and interested parties have the right to raise comments and concerns at any point, to be considered by the GBSO when undertaking the review process.

9. The existing CUSC dispute resolution process in Section 7 shall apply to the methodology and the thresholds for CUSC parties (including the DNO's). CUSC parties will be able to dispute the methodology and thresholds if the GBSO has not followed the criteria or process in accordance with the CUSC.

10. The existing STC disputes process in Section H shall apply to the methodology and the thresholds. STC parties will be able to dispute the methodology and thresholds if the GBSO has not followed the criteria or process in accordance with the STC.

Having published MW thresholds, those generators with a registered capacity in excess of the threshold at the relevant GSP wishing to connect to the distribution network, the DNO on their behalf must request a Statement of Works from National Grid which will be assessed in accordance with the process below:

Annex 1