DCRP/MP/17/05 (Now Superseded by DCRP/MP/20/06)

Background

Distribution Network Operators (DNOs) received a number of connection applications for Distribution connected energy storage devices and which highlighted an apparent lack of clear provisions in the Distribution Code. In addition, Ofgem's "Call for Evidence" stakeholder responses informed the Authority that further technical guidance for the connection of Storage was required in the Distribution Code and/or the Code's relevant annex 1 qualifying standards.

In May 2016 the Grid Code Panel agreed to commence work on a modification proposal to clarify the Grid Code requirements for storage and subsequently established Grid Code Work Group GC0096. The modification to the Grid Code accommodates a diverse range of technology type energy storage devices that may be connected to the Transmission System.

The work of GC0096 involved DNO representatives on the working group. At the meeting held on 10 April 2017, and following discussions with National Grid and Ofgem, it was agreed that a collaborative joint panel working group should continue but in addition to the Grid Code modification proposal. DCRP/MP/17/05 was prepared and submitted to the Distribution Code Review Panel (DCRP) for consideration/approval.

On the 8 of June 2017 this modification proposal was approved by the DCRP for the continuation of the Grid & Distribution collaboration in GC0096 but also considered and agreed that this modification's deliverables include an assessment of the appropriate Distribution Code provisions for energy storage devices and to propose any consequential changes that may be required to the Distribution Code or any of the relevant annex 1 qualifying standards for example Engineering Recommendations G83 and G59.

This was particularly significant given that energy storage devices were (and remain) not covered under any EU Network Codes. Energy storage devices have the capability to act as a source of either generation or demand, therefore it was considered necessary to establish a set of requirements which were consistent with existing industry codes/standards (for example: the Planning Code and the Data Registration Code), and ensures equitable treatment with other Users including any wider changes that may be required for example energy storage connections and queue management.

Work was carried out including drafts documents for G98 and G99. Work has then halted before the group was re-convened in 2020. Once reconvened DCRP/MP/17/05 will be superseded by a new modification reference.

Summary

The aim of this modification proposal is to identify and clearly specify Distribution Code requirements for a range of electricity storage devices of diverse technology type which could reasonably be considered to fall outside of the existing code provisions.

All sections of the Distribution Code are considered for review but the major elements of change are expected to be to the Planning Code and G98/G99. Some general areas considered are listed below:

- Frequency variations, frequency response
- Voltage variations, reactive power capability, voltage control capability, voltage waveform quality and response to voltage fluctuations
- Fault ride through and behaviour under fault conditions
- Modelling data