

GB SQSS Industry Review Group (Final)

Terms of Reference GSR016 – Embedded Generation Assumptions and Application of Economy Criteria

Introduction

Background

A number of areas have been identified that need further addressing to resolve emerging challenges due to the application of the planning criteria for Chapter 2 (generation connection) and Chapter 4 (Planning MITS):

- A. Impact of Small and Medium embedded generation on Planning criteria:
 - Embedded generation which is not classified as 'large' power stations is not explicitly modelled in MITS studies of SQSS Chapter 4. There is also a requirement to provide clarity on how the impact of Small and Medium embedded generation should be taken into account for Chapter 2 studies. In both Chapter 2 and Chapter 4, the effect of Small and Medium embedded generation is presently netted off gross demand. It is recognised that this approach may no longer be suitable as the penetration of embedded generation increases, potentially resulting in significant under estimation in the determination of the required transmission capability in Chapter 2 and Chapter 4 studies.
- B. Application of economy criteria as per GSR009 (SQSS Chapter 4)
 - The use of Investment Planning Assumptions (STCP 16-1) results in significantly different network reinforcement requirements from those determined from use of Construction Planning Assumptions (STCP 18-1), especially for future years with significant wind penetration.

Purpose:

The purpose of the group is to:

- a) determine more realistic dispatch levels of generation for setting up a network model to undertake the Chapter 2 and Chapter 4 capability studies as specified in the SQSS with appropriate treatment of Small and Medium embedded generation.
- b) Review the application of economy criteria of GSR009, and the extent of challenge in terms of planning with regard to Investment Planning Assumptions used (STCP 16-1), and (STCP 18-1) and make necessary recommendations to STC Panel.

For the avoidance of doubt, the working group is not reviewing the scaling factors used as per GSR009.

Scope and Objectives

A number of objectives set for the working groups to:

- Review and quantify extent of these challenges;
- Determine a suitable method criteria for dealing with embedded generation in Chapter 2 and Chapter 4 studies;
- Carry out an impact assessment of the proposed method above for dealing with Small and Medium embedded generation (Security & Economy);
- Review the potential interaction, of proposed methods for planning background and dealing with embedded generation, with framework documents/codes
- Propose SQSS modifications to address the issues raised.

Deliverables

- Determine the planning criteria of small and medium Embedded Generation;
- Recommendation to other industry codes to achieve the objectives of this working group.

Participants:

SQSS Review Panel, Working Group Members.

Accountability:

The individual members of the GB SQSS review group will report back to their respective companies/stakeholders as each member see fit.