

Grid Code Frequency Response Working Group

Terms of Reference

Background

Papers were presented to the May 2008 GCRP (pp08/20, pp08/21 and pp08/26) highlighting a number of issues associated with the provision of system services, including frequency response, from new technologies. The GCRP recommended establishing a joint working group with the CUSC (Balancing Services Standing Group) to pursue the issues initially under the governance of the Grid Code, although any changes to the Codes that the Working Group may eventually recommend would need to be progressed subsequently under the relevant governance arrangements of each Code. There may also need to be changes to the SQSS arising from the deliberations of the Working Group.

Objectives

The objective of the group is to discuss the issues raised in pp08/20, pp08/21 and pp08/26 and agree a way forward regarding appropriate modifications to the Grid Code and the CUSC in respect of provision of frequency response. The Working Group will report back to the Panel and make recommendations. An overview of the formal governance process for both the Grid Code and the CUSC is detailed in a diagram in annex 1.

Membership

The membership of the working group will be drawn from the GCRP or their nominated representatives, the CUSC Panel or their nominated representatives, the Relevant Transmission Licensees and Ofgem.

Scope of Work

The group shall, as agreed by the GCRP:

- (a) Consider the issues brought about by new generation technologies with the potential to connect to the GB Transmission System by 2020. This shall include the following:
 - Super-Critical Coal Fired Power Stations
 - *Investigate whether revised grid code obligations concerning frequency response could be developed to allow an element of averaging*
 - *Investigate the potential to redefine the frequency response obligations on generating units when they are operating at significant de-loads*
 - *To examine the potential for a variable pricing structure for frequency response depending on the level of service provided by the generating unit*
 - *Investigate whether the compliance process may be relaxed for “prime-mover technologies” – i.e. allowing for a relaxation of the compliance process for the first generation of Power Stations connecting to the GB Transmission System that utilise a previously unused technology.*
 - Nuclear Power Stations
 - *Investigate the current capability of the next generation of nuclear power stations to meet the existing Grid Code obligations with regard to frequency response*
 - *Should there be an apparent shortfall investigate the appropriate way forward to remedy the “compliance gap”*

- Renewables
 - *Identify whether a requirement to provide system inertia should be incorporated within the Grid Code and if so, develop such a requirement*
 - *Identify whether there is a requirement to improve the power oscillation damping capability of asynchronous generating units*
 - CCGTs
 - *Investigate the performance of existing CCGTs under islanded operating conditions*
- (b) Identify a solution to the issues brought about by the recent Authority decision regarding the timescales over which primary response is delivered initially highlighted in Grid Code Consultation D/07.
- (c) Identify appropriate solutions to resolve the above issues
- (d) Identify the consequences of each solution considered for the Grid Code and CUSC and any other associated documents within the framework
- (e) Identify advantages and disadvantages of each option including an estimate of the cost implications
- (f) Identify any interactions and issues associated with the provision of frequency response and propose solutions to resolve any interactions and issues
- (g) Agree a preferred solution(s)
- (h) Consider implementation issues and propose a solution to resolve any issues

Deliverables

Based on the outcome of the Working Group's deliberations, National Grid will produce:

- a GCRP paper recommending a way forward on the above issues, taking into account the group discussions
- a CUSC Panel paper recommending a way forward on the above issues
- draft legal text of any proposed Grid Code changes and CUSC changes as appropriate

Timescales

The working group will aim to complete its work for the [May] 2009 GCRP meeting.

Annex 1

