

## GC0087 Requirements for Generators Frequency Provisions Workgroup Terms of Reference and Membership

### Responsibility

1. The Workgroup is responsible for the evaluation of Grid Code Modification Proposal GC0087 “Requirements for Generators Frequency Provisions” tabled by National Grid Electricity Transmission at the Grid Code Review Panel meeting on 20<sup>th</sup> May 2015 and revised at the Grid Code Review Panel meeting on 16<sup>th</sup> September 2015.
2. The group will report to the GCRP and the proposal must be evaluated to consider whether it best facilitates achievement of the applicable Grid Code objectives.

### Scope of work

3. Implementation of the EU code Requirements for Generators is being progressed by the GC0048 Workgroup, which has developed a work programme consisting of 7 different workstreams. The GC0087 Workgroup has been tasked with progressing the Frequency workstream from the GC0048 work programme.
4. The workgroup shall also consider the interaction of its parameter setting with GC0091 the Demand Connection Code (DCC) workgroup and GC0090 the HVDC workgroup. The workgroup will also provide regular updates to the GC0048 workgroup.
5. The GC0087 Workgroup must consider the Frequency elements of EU Code Requirements for Generators (GC0048) implementation to ensure there is no discrepancy between the Grid Code and the EU Code. The scope of the work shall include:
  - Frequency Ranges
  - Limited Frequency Sensitive Mode – Overfrequency (LFSM-O)
  - Maintenance of Constant Active Power
  - Power Output with Falling Frequency
  - Limited Frequency Sensitive Mode – Underfrequency (LFSM-U)
  - Frequency Sensitive Mode (FSM)
  - Ancillary Services Business Monitoring (ASBMON)
  - Compliance with frequency requirements
  - Setting of the all the parameters associated with all frequency modes
  - Generators’ Rate of Change of Frequency (RoCoF) withstand capability
6. Liaise with any implementation group for managing the requirements of the European Code ‘Transmission System Operation Guideline (TSOG)’, to determine appropriate governance for system RoCoF operating limits and system inertia and determine how to assess impact on, and capability of, existing generation.

7. In its assessment of the proposals the workgroup will consider the costs, risks and benefits of each proposal incorporating the inherent characteristics of the relevant technologies.
8. The Workgroup will submit its final report to the Grid Code Review Panel meeting in September 2016 which will:
  - Detail the findings of the Group
  - Draft, prioritise and recommend changes to the Grid Code and associated documents in order to implement the findings of the Group, and
  - Highlight any consequential changes which are or may be required
9. If for any reason the Workgroup is in existence for more than one year, the Workgroup will produce a yearly update report, including but not limited to; current progress, reasons for any delays, next steps and likely conclusion dates.

## Membership

10. The Workgroup shall comprise a suitable and appropriate cross-section of experience and expertise from across the industry, which shall include:

Name	Role	Representing
Chairman	Graham Stein	National Grid
Technical Secretary	Franklin Rodrick	National Grid
National Grid Representative*	Fiona Williams	National Grid
Industry Representative*	Joe Duddy	RES Ltd
Industry Representative*	Alistair Frew	Scottish Power
Industry Representative*	Andrejs Svalovs	GE
Industry Representative*	Phil Jenner	Horizon Nuclear Power
Industry Representative*	Guy Nicholson	Element Power
Industry Representative*	Niall Duncan	Senvion
Industry Representative*	Clement Amerigo	EdF Energy
Industry Representative*	Ben Turner	ESB
Industry Representative*	Chris Marsland	Energ
Industry Representative*	Amir Daresobh	Nordex
Industry Representative*	Peter Woodcock	RWE
Industry Representative*		
Industry Representative*		
Authority Representative	Stephen Perry	Ofgem
Observers		

NB: The Workgroup must comprise at least [5] members (who may be panel members). The roles identified with an asterisk in the table above contribute towards the required quorum, determined in accordance with paragraph 8 below.

11. The Chair of the Workgroup and the Grid Code Review Panel Chair must agree a number that will be quorum for each Workgroup meeting. The agreed figure for GC0087 is that at least 5 Workgroup members must participate in a meeting for the quorum to be met.
12. The frequency and dates of Workgroup meetings shall be defined by the Workgroup Chair and agreed in advance to meet the scope and objectives of the work being undertaken in a timely manner.
13. National Grid will provide technical secretary resource to the Workgroup and handle administrative arrangements such as venue, agenda and minutes.

14. The Workgroup will have a dedicated section on the National Grid website to enable information such as minutes, papers and presentations to be available to a wider audience.