

**Joint Grid Code and Distribution Code Review Panels Working Group**  
**Implementation of Technical Requirements for Licence Exempt Embedded**  
**Medium Power Stations**

**Notes of First Meeting held on 23 September 2003 at NGT House, Warwick**

Present

Andy Balkwill	National Grid (Chair)
Sue Newbould	National Grid (Technical Secretary)
Mike Kay	United Utilities
Patrick Hynes	National Grid
Claire Maxim	Powergen
John Norbury	Innogy
Guy Nicholson	Econnect
Nigel Turvey	Western Power
Chris Berry	SP PowerSystems

Apologies

Charlie Zhang	EDF Energy plc
James Glennie	BWEA
Bridget Morgan	Ofgem (observer)

**Notes and Actions**

Background to Working Group

1. AB welcomed the Working Group members and gave the background to the WG and previous related initiatives including the Generic Provisions Working Group (out at consultation), CUSC Clause 6.5.1 Working Group (CAP002) (contractual relationship between embedded generators and NGC) and the Embedded Power Stations Working Group (data exchange).
2. Currently, prior to granting an individual licence exemption order, the DTI requires the licence exempt embedded generator to enter into a special bilateral agreement with NGC which includes a minimum set of technical requirements. However, this special bilateral agreement route is seen as a short term measure and not a long term solution.
3. In May 2003 a joint paper by the DNOs and NGC was presented to the Grid Code and Distribution Code Review Panels proposing that a mechanism be put in place requiring licence exempt embedded medium power stations to meet a minimum set of technical requirements.

Terms of Reference

4. The WG considered the comments CZ submitted on the Terms of Reference previously circulated by AB and agreed them. The amended ToR are attached.
5. GN agreed that he would write a note about the ToR of this WG in relation to Scotland as he sits on the Scottish Grid Code Panel. GN submitted the note post meeting, see attachment.

**Action : GN (completed).**

### Issues arising

6. AB advised that wind turbines are a relatively new technology connecting to NGC and there is therefore a gap in the Grid Code as the Grid Code is predominantly based on synchronous machines. Fault ride through is one instance that needs to be addressed in the Grid Code because of its implications on the system.
7. CB queried whose responsibility it is to carry out studies on stability issues (fault ride through) as part of the connection process for off-shore windfarms especially as there are data confidentiality issues and a gap between the D Code and G Code. AB advised that the intention of CUSC 6.5.1 (CAP 002) was to set out the contractual relationship but CAP 002 was ultimately rejected by Ofgem. CB requested a copy of CAP002.

**Action : NGC (SN)**
8. NGC explained that it is concerned over the impact of potentially large amounts of embedded generation that has no obligation to meet what it regards as minimum technical requirements.
9. MK explained that DNOs are concerned that they do not have the expertise and resources available to deal with the compliance testing if responsibility for this were to be transferred to them. Further, they would be likely to have difficulty in justifying what were essentially NGC's requirements to generators.
10. JN advised he would like a mechanism whereby generators' views were aired at Grid Code Panels. JN's view was that if a generator wishes to contest or debate a modification then they should be able to discuss this with NGC.

### The options

11. AB summarised the WG's discussion as having concluded that any fundamental requirements should be clearly set out in the Grid Code. The WG needs to identify how to ensure generation in the relevant category then meets those Grid Code requirements eg by:
  - direct contract between NGC and the licence exempt embedded generator (which is the current spur by DTI and the licence exemption route);
  - requirement in CUSC on DNO to ensure Connection Agreement references the section of the Grid Code;
  - use Grid Code to impose obligations on DNO
12. The following models were tabled for consideration:
  1. **CUSC → DNO → Generator** - CUSC places obligation on DNO to ensure that generator complies (either via D Code or DNO Connection Agreement) with certain Grid Code provisions.
  2. **Grid Code → DNO → Generator** - Grid code places obligation on DNO to ensure that generator complies (either via D Code or DNO Connection Agreement) with certain Grid Code provisions.
  3. **NGC → Generator** - direct agreement between NGC and generator.
  4. **CUSC → Supplier → Generator** - CUSC places obligation on supplier to ensure it only contracts with "Grid Code compliant" generators.
  5. **Distribution Code → Generator** - requirements identified in D Code which apply directly to the embedded generator.

6. **Review Licence Exemption criteria** - change to Generator Licence such that 50-100MW are in a licence exempt category with certain Grid Code conditions.
  7. **Grid Code → Supplier → Generator** - Grid Code places obligation on supplier to ensure it only contracts with "Grid Code compliant" generators.
  8. **Market solution** - no Grid Code requirements on this type of generation.
13. The WG explored the pros and cons of each of the possible models identified above and these are set out in the attached table.

#### Next steps

14. The WG agreed that once the issues for each possible model have been formalised in writing, the WG would identify the most viable options and look at the impact on the relevant documents eg Grid Code, D Code, CUSC.  
**Action : All (next meeting)**
15. MK suggested that the DNOs should consider the implications of the options on them in terms of Scottish Transmission Code relationships, testing and contractual issues.
16. JN asked whether for completeness sake, all obligations in the Grid Code on medium power stations should be reviewed so that there is no discrimination between directly connected and embedded medium power stations.  
**Action : NGC (AB)**

#### Next meeting

17. The next meeting was scheduled for **Tuesday 14 October 2003** (NGT House, Warwick, A3.4 starting at 10:30).