

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

**Minutes of 7th Meeting held on 12 October 2004 at NGT House, Warwick**

Present

Ben Graff	National Grid (Chair)
Patrick Hynes	National Grid (by conference call)
Sue Newbould	National Grid (Technical Secretary)
Jo Hutchison	National Grid
Guy Nicholson	Econnect
John Norbury	RWE Trading
Mike Kay	United Utilities
Nigel Turvey	Western Power
Chris Berry	SP PowerSystems

Apologies

Bridget Morgan/Steve Argent	Ofgem (observer)
Charlie Zhang	EDF
Claire Maxim	E.ON UK

**Review of minutes of 6<sup>th</sup> Meeting held on 26 August 2004**

1. The minutes were agreed as being accurate.

**Review of actions**

2. The outstanding actions were reviewed. The new actions resulting from this meeting have been included in the attached new and ongoing actions record.
3. With respect to Action 12/10/04 1, JN advised that he and CM had discussed this but were not in a position to table numbers because of the following variables:
  - Generator's costs – variable depending on market prices prevailing at the time
  - Testing costs – depends on time taken and other variables
  - Engineering costs – depends on timing, complexity etc

MK asked whether there is any history of costs for directly connected generators. PH thought a directly connected generator puts itself in a position to do tests. JN advised that commissioning tests are essentially built into the procurement of the plant with the manufacturer and it is usual to carry out NGC frequency response tests at the same time.

JN went on to say that if on-going testing was required then this was usually covered by a Bid-Offer Acceptance (BOA). PH said that if the re-test was a result of a Grid Code issue then NGC would not issue a BOA. JN said the Grid Code was not clear on the issue but if there was a requirement to carry out OC5 tests which were not carried out at the same time as commissioning then this was covered under the provisions of the Grid Code which says a BOA is issued. JN took an action to confirm the Grid Code reference which requires NGC to issue a BOA in respect of OC5 tests.

PH thought that if NGC issues BOAs for directly connected sets then it would be reasonable to do the same for embedded generation but PH was not aware that NGC could BOA directly connected sets.

JN advised that two types of testing are carried out ie commissioning tests and OC5 ongoing tests when there is a problem. PH advised that normal tests carried out between a generator and manufacturer should be sufficient for Grid Code compliance. If the generator was not Grid Code compliant then NGC and the generator would enter into discussions on remedies and hopefully would not need to do testing.

JN said the bulk of tests for directly connected generators is frequency response tests and these should not be needed for embedded generators. JN asked what tests does the DNO expect to be carried out. PH said that provided the manufacturer can show the generator is compliant then that should be sufficient.

MK read OC5.5.2.3 and he thought it implies testing under OC5 would be under BOAs. PH advised that he did not think this applies to all cases. NGC took an action to look at the types of tests which apply and in what circumstances.

4. With respect to Action 18/6/04 7, GN thought the involvement of NGC in the DNO's offer process would extend timescales. The WG agreed that the interaction between the DNO and NGC would need to be managed and that there should be no surprise issues to the generator when they get the offer from the DNO. It was agreed to note on the flow chart that significant issues from NGC/DNO are highlighted to the generator before the offer is issued.

#### **Review of GB G Code drafting**

5. JH gave the WG the background to the drafting. JH and PH used the GB text and put the LEEMPS drafting in. There is no drafting for BC3 now. JH advised that the biggest impact from BETTA is the way Genset is defined post BETTA which means that some of the drafting for LEEMPS is now not required. The drafting for OC5 has not changed much and the drafting for OC2 has been simplified. Following the background, the WG then page turned the GB G Code drafting.
6. JN queried what is the "Embedded Development Agreement." JH advised this is the agreement between the DNO and unlicensed embedded medium power station. JN asked if this could be better defined. PH suggested adding "Connection" in front of "Agreement". The WG thought "Development" is confusing because it triggers construction works in people's minds. It was thought that "Embedded Connection Agreement" might be a better term than "Embedded Development Agreement." Certain members of the WG thought the reference to the use of the network operator's system was not needed because it was covered by the Authorised Export Capacity. PH thought the use of system reference was required for distribution interconnectors. JH thought the "Embedded Development Agreement" came from PC4.4 which refers to the "User Development." NGC took an action to think of a clearer term and definition.
7. JN asked where "Embedded Small Power Stations" came from in PC.4.1(b) as the WG was considering MPS. PH advised this referred to those who have asked for an agreement and was put in for clarification. JN agreed to the reference remaining.
8. JN queried what the application referred to in PC.4.4.3 is for. NGC took an action to clarify that the application relates to a connection to the DNO network.
9. JN queried the inserted test in PC.5.4. JH advised this replicated the previous sentence. JH said that the clause says how NGC can use the embedded development data. NGC took an action to revisit clause PC.5.4 and to clarify it

is the CUSC Contract data plus the embedded data plus the other data referred to in the clause.

10. JN asked whether “as soon as reasonable possible” could be used instead of “fully operational” in PC.5.5 on the grounds that certain data values come to light after the station becomes operational. The Statement of Readiness gives timescales for directly connected generators. The WG decided that reference to the EDA Completion Date in respect of embedded generators could not be made instead because the EDA does not have a completion date. NGC took an action to clarify what is needed and when. The WG took an action to look at the wording and what is meant by the term fully operational.
11. PH agreed that “PC5.5” in square brackets on page 16 should be “PC.A.5.5.” PH advised this text was in square brackets because it is a marker that it needs to be incorporated into the drafting following a change that came in force in the summer and has not previously been included. It refers to mothballed plants or alternative renewables. NGC’s view was because it is in the Grid Code and applies to MPS then it needs to be included here and in the D Code.
12. Although it was carved out in CC.5.3(b), MK could not see how CC5.2.2(d) worked. The User Site is the Connection Site between NGC and User or NGC and DNO. If embedded at network then it would not be at a User Site. JH said it would be the name of the Connection Site between the DNO and embedded MPS. MK queried the restriction of it not being the same name. JH took an action to review this.
13. GN queried reference to Site Responsibility Schedules in CC5.2.2(c) since CC.5.3(b) says items (c) and (e) are only needed where there is a shared Connection Site (shared with a User or DNO). NGC took an action to clarify the wording of CC.5.2.2 and CC.5.3.
14. Following a comment from MK that CC.5.2.2(f) also does not apply and that reference is made in CC5.2.2 to the EDA Completion Date an action was placed on the WG to email any comments they had on the drafting.
15. JN thought CC.6.4.4 went beyond what is required for a licensed embedded MPS and therefore he questioned why we are doing it for a LEEMPS. PH said licensed embedded MPS should have SCADA equipment where required in the BEGA.  
JN would like the drafting to say that NGC provides the SCADA equipment as per CC.6.5.6. PH said it was not envisaged to have SCADA equipment at each site. NGC is to draft words along the lines of CC.6.5.6 and to see if the CC.6.4.4 drafting could be placed in CC.6.5.6.
16. JN asked where the 1 January 2001 date came from in CC.A.3.1. JH said the obligation exists at the moment and is enforceable. JN said it is a new obligation on LEEMPS. PH will put the drafting in square brackets and highlight in the report to the Panel that the implementation date is a matter of debate and is an issue to be consulted upon.
17. JN thought CC.A.3.4 was over the top and queried whether it applied to any other stations. PH advised the drafting is in because it is an obligation in the Grid Code currently. JN is concerned the drafting turns it into an obligation. GN queried why NGC does not rely on the manufacturer’s data stating that the generator has the capability. PH reiterated that it will be highlighted in the report to the Panel that frequency response is an issue. JN suggested adding “in accordance with OC5” at the end of the drafting instead of “in accordance with NGC’s requirements” since the only obligation on carrying out tests is in

- OC5. PH said this does not work. NGC will revisit the wording to see if it can be aligned with the preceding wording and whether a link can be made to OC5.
18. CB queried that OC1.5.2(b) and OC1.5.3 now puts the obligation on the DNO to supply information. It was agreed that the consultation will state the role of the Network Operator.
  19. JN's view was that NGC only invokes OC5.8 to carry out testing if discussions break down. MK queried whether this was correct. The WG agreed not to change the OC5.8 drafting but the generators reserved the right to comment.

#### **Review of D Code drafting – DPC7 and DOC5**

20. MK took the WG through his DPC7 and DOC5 re-drafting. This incorporated comments from the last meeting and those received by email. The original drafting is in blue or red and the new in cerise.
21. MK to change references to “bilateral generation agreement” in DPC7.3.3(b) and other places to “Bilateral Embedded Generation Agreement.”
22. MK advised that DPC7.4.8.2 had been added for clarity. MK had added in “(England and Wales)” because he was not sure what impact BETTA would have. MK took an action to “BETTA” the D Code drafting.
23. MK advised he had added the last sentence to DPC7.5.4.1 for clarity. He wondered whether “before commissioning” should say “before becoming fully operational”. MK recognised re-drafting would be required once NGC's requirements had been clarified.
24. BC3 only applies to Gensets and therefore the WG agreed that DPC7.5.5 can be removed from the D Code drafting but can be reviewed by the Panel.
25. MK said he will circulate his initial drafting of DOC12 which deals with testing requirements.
26. Any comments on D Code drafting should be sent to MK.
27. JN asked about the security arrangements if the embedded generator triggered H part 1 works on the transmission system. The DNO representatives said they would expect to pass these costs through to the embedded generator. There would possibly need to be a chain of security arrangements. PH said CUSC 6.5 would need to deal with this circumstance.

#### **Next Steps**

28. The WG's aim is to report to the GB GCRP in November. PH is to draft the report and circulate it to the WG for comments. EELPS may impact on BETTA drafting.

#### **Any other business**

29. MK distributed a paper copy of the BETTA terms of reference for the DCRP. It is recognised there may be different timescales for LEEMPS and BETTA changes for the D Code.
30. GN raised the concept of unlicensed offshore transmission but PH advised this was outside the scope of this WG.

**Next Meeting**

31. No date was set for a further meeting.