

## **Grid Code Generic Provisions Working Group**

Notes of 2<sup>nd</sup> meeting held at National Grid House, Coventry  
29<sup>th</sup> November 2002

### Present

<u>Name</u>		<u>Company</u>
David Payne	(DP)	National Grid (Chairman)
Nasser Tleis	(NT)	National Grid
Steve Mortimer	(SM)	National Grid
Khadim Hussain	(KH)	National Grid (Secretary)
Mike Thorne	(MT)	National Grid
Dave Ward	(DW)	Magnox
John Norbury	(JN)	Innogy
Ham Hamza	(HH)	Innogy
John France	(JF)	Powergen
John Morris	(JM)	British Energy
Charlie Zhang	(CZ)	London Power Company
James Glennie	(JG)	BWEA
Hamish Dallachy	(HD)	Scottish Power
Elaine Grieg	(EG)	AMEC

### Apologies for Absence

Peter Lang	(PL)	Seeboard
Gareth Swales	(GS)	Electricity Direct

### Actions from Last Meeting

1. DP welcomed new members HH, JG, HD and EG. For the benefit of the new members DP stated the purpose of the Working Group (WG) was to develop generic provisions for all existing and anticipated generation technologies according to the Terms of Reference that were agreed at the last GCRP meeting. He asked if there were any comments on the last minutes of the meeting. There were no comments.
2. DP stated that all actions from the last minutes were completed. With respect to NGC's action to identify areas of the Grid Code which would require changes, he explained that the work had been initiated, and NGC had been looking at various technologies for this purpose.
3. HH asked about the purpose of circulating the Dowec document on Wind Farms. KH replied that it had been circulated at the request of WG members and to raise awareness. NT asked members if they could let the WG know of any other material available. EG noted a German document that she could make available. On a question on Scottish Guidance Note for the connection of Wind Farms, HD said that the Note provided guidance to their Grid Code change proposals.

### Proposed Approach to Review

4. DP/SM explained that a spreadsheet was being populated with technical characteristics of various generation technologies. It was expected that this should help to identify technologies with similar characteristics and enable NGC to formulate generic provisions. SM asked the WG for views on this approach.
5. HH said that given that technologies such as Wind Farms had not yet matured it would be difficult to formulate generic provisions but it should be possible to identify some minimum requirements. SM advised that the main aim of the GPWG was to assimilate new technologies into the Grid Code, and any specific changes to the provisions in the existing Grid Code that were identified as requiring investigation should be carried out through the GCRP.

### Interim Requirements for Medium Wind Farms

6. SM circulated an NGC draft document 'Interim Technical Performance Requirements for Medium (50MW-100MW) Wind Farms'. These were indicative requirements based on the existing Grid Code and were currently being made use of for connection applications.
7. EG was concerned about these requirements and stated that developers could not use unproven technology for Wind Farms. NT said that was not the case as some developers had proved their technology performance by simulation. EG suggested developers and manufacturers should be brought on board to gain better knowledge of the progress in this area. NT stated that NGC were discussing these requirements with developers and the outcome was positive. He added that NGC had also discussed these requirements with the DTI (discussion ongoing) who were indicating that medium Wind Farms would be licence exempt, and the use of agreed interim requirements would be a condition to this exemption. He stressed that it was important to propose these requirements from a system security point of view and to facilitate connection of new technologies. SM said that interim requirements were drivers for manufacturers.
8. EG suggested that a process should be written down for various working groups and their interaction in order to effectively raise and discuss issues concerning Grid Code and any new requirements. HH said that requirements had to be transparent. NT mentioned that NGC were working closely with developers and manufacturers to gain better understanding of requirements.
9. CZ raised several points which may prove comprehensive and mandatory frequency response requirements on Medium Offshore Wind Farms (MOWF) unnecessary. These points include: 1) part of the capacity of ageing nuclear plants may be displaced by that of MOWF. If so, frequency non-responsive MOWF would not result in any reduction of system

frequency response capability; 2) In order to be able to offer low frequency response, MOWF will need to run wind turbines off their maximum output for a given wind. This will lead to waste of free wind resource; 3) Low frequency response from MOWF has to rely on the availability of wind which cannot be guaranteed for any given time; 4) It is always desirable to avoid extra maintenance and repair requirement on any offshore installation. CZ suggested that an audit of system frequency response capability be carried out and all frequency response potential from the existing plants be exploited before putting frequency response requirement on MOWFs.

10. Commenting on the exemption issue, JN said all parties should be given equal treatment. NT suggested that developers had a choice to apply for exemption or BEGA (Bilateral Embedded Generation Agreement). JG said that requirements for offshore technology would be different from onshore technology. JF/DW/JN/HH/CZ were concerned about frequency response in relation to Wind Farms, the need of a process to be available, and some kind of agreement with NGC.

11. HH queried item 2(b) of the requirements which referred to 'steady wind conditions'. It was agreed that this should be re-phrased. EG asked if an electronic copy of the interim requirements could be made available for circulation to manufacturers, and this was agreed. In response to a query from KH, EG agreed to provide feedback to the WG with manufacturers views.

**Action: SM//KH/EG**

#### Interim Technical Requirements for Large Wind Farms

12. DW felt that the requirements for power factor and reactive limits needed further clarification. NGC agreed to clarify this reference.

**Action: SM**

13. NT asked members if they agreed with the connection point approach. There was considerable discussion but generally the Working Group was in agreement with the approach. NT explained that connection point requirements should prove to be less onerous. DW asked if these requirements should aim for voltage control or voltage control capability while JN thought there might be some potential for relaxed requirements on voltage control. DP asked that if there were any comments, they should be made available by Friday 6<sup>th</sup> December 02.

**Action: All**

#### Use of an additional document for Provision of Data

14. Data requirements for Wind Farms and other renewable generation technologies are largely unknown at this stage and are likely to be subject to ongoing updating. Because of this, SM asked members if the use of some sort of legally binding supplementary document to the Grid Code for

the provision of data would be feasible. The intention would be to progress any data revisions as fast as possible. The Working Group generally felt it would be better to keep within the GCRP approval process as data revisions were unlikely to be contentious and therefore should not take too long to implement within the Grid Code itself.

#### Any Other Business

15. DP informed members of the outcome of the HVDC Interconnection WG. He said that a final report had been produced and presented to the November GCRP meeting. At that meeting it had been agreed that the output from the HVDC working group should be passed on to the GPWG to consider and take advantage of the work done by the HVDC group. WG members requested a copy of the HVDC report.

**Action: DP**

#### Date of Next Meeting

16. Next meeting to be arranged between 6<sup>th</sup> Jan 03 – 10<sup>th</sup> Jan 03.

**Action: DP**