

Grid Code Compliance (Technical Performance) Working Group

Meeting Name	Grid Code Compliance (Technical Performance) Working Group
Meeting No.	1
Date of Meeting	15 th January 2008
Time	10:00am – 2:00pm
Venue	Room B2.1, National Grid Offices, Warwick

This note outlines the key points from the first meeting of the Grid Code Compliance (Technical Performance) Working Group

Members Present:

Mark Perry	MP	Chairman
Richard Dunn	RD	Secretary
Mark Horley	MH	National Grid
Helge Urdal	HU	National Grid (Item 5 only)
Chris Berry	CB	Scottish Power Networks
John Norbury	JN	RWE Trading
Claire Maxim	CM	E.On
John Morris	JM	British Energy
Damien McCool	DM	Scottish Power Renewables
Mike Kay	MK	Electricity North West
Bridget Morgan	BM	Ofgem

Apologies:

Mick Chowns	MC	RWE Trading
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1. Introductions/Apologies for Absence

1. Apologies for absence were received from Mick Chowns.
2. MP welcomed Working Group Members and explained that National Grid envisaged that the work of the Group would come under three headings:
 - i) Codify the technical performance requirements currently contained in the Guidance Notes where appropriate;
 - ii) Review the compliance process during the initial connection of a power station and the compliance process during the lifetime of the plant and codify the process where appropriate;
 - iii) Review of Grid Code OC5 which covers the monitoring and compliance of existing generation and propose changes where appropriate.
3. This first meeting of the Group would concentrate on i) above.

2. Working Group Terms of Reference

4. Draft Terms of Reference had been circulated to Members before the meeting. MK had also circulated a paper before the meeting arguing for a change in the Terms of Reference to include a review of the responsibilities for compliance. This would involve amending the current wording under Scope of Work - (b) Compliance Process to read (new wording in red):

“Working Group will consider and make applicable recommendations regarding the the codification of the compliance process (commissioning and lifetime phase), including the respective responsibilities of Users and NGET, into the Grid Code.”
5. MK explained that during the consideration of the changes to the Grid Code and the CUSC to accommodate LEEMPS between 2003 and 2005, the Working Group

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envisaged that responsibility for compliance for new power station connected to DNOs' networks would lie with the power stations, but that any scrutiny of the detail of compliance would remain National Grid's responsibility. There clearly was a role for DNOs to communicate the compliance requirements to such generators since DNOs had a contractual interface with them. However, since LEEMPS was introduced and changes made to the Grid Code, the CUSC and the Distribution Code in 2006, it now transpired that National Grid believed that DNOs would also be responsible for ensuring compliance. However, DNOs do not have the expertise necessary for the compliance process and are not funded through their price control arrangements to carry out this significant body of work. For example DNOs were in no position to deal with an issue relating to non-compliance where this occurred. He did not believe that placing the responsibility for compliance on the DNOs was actually the original intention as part of the LEEMPS arrangements. Discussions had been held with National Grid about this but the issue had not been resolved.

6. MK therefore believed that this Working Group should review the responsibilities for compliance and develop drafting to codify these responsibilities where appropriate hence his suggestion to broaden the Terms of Reference for the Group.
7. CB confirmed that his experience was similar to that of MK. He reiterated that DNOs did not have the expertise to implement generator compliance and supported the suggested change to the Terms of Reference.
8. MP & MH indicated that the LEEMPS arrangements were now incorporated into the Grid Code and CUSC and clearly placed obligations on the DNOs. National Grid took the view that the responsibilities for LEEMPS flowed from the obligations since DNOs had the contractual relationship with LEEMPS generators. National Grid had no contractual relationship with LEEMPS generators. National Grid were happy to help and advise the DNOs to discharge these responsibilities but believed that final responsibility for compliance with the LEEMPS arrangements should rest with the DNOs.
9. BM indicated that Ofgem had expected responsibilities for compliance under LEEMPS to remain with National Grid. BM also acknowledged that price control arrangements for DNOs made no allowance for the costs of generator compliance under LEEMPS.
10. It was agreed that the issue should be considered at the February GCRP on 7th February as part of the Panel's consideration of approval of the Group's Terms of Reference. MK agreed to re-draft his paper for the GCRP and provide this to National Grid in due course for circulation with the other Panel papers (circulation day is 24th January).

Action: MK

11. CM requested a further change to the Terms of Reference under Scope of Work – (a) Technical Performance. The sentence should begin (new wording in red) “Working Group to review, and identify and resolve any disparity”. The Group agreed to this change.

Action: National Grid

12. JN believed that it was important to highlight the business drivers behind the need to review compliance arrangements. Manufacturers were increasingly providing generators with standardised equipment which did not necessarily meet Grid Code requirements. The equipment then had to be subject to further development to meet compliance arrangements. This further development could not be justified in a business context if the status of the requirements were unclear. DM agreed and cited the example of turbine suppliers for windfarms who would not consider implementing the level of testing envisaged in the Guidance Notes given that the status of the Guidance Notes was not mandatory. CM acknowledged that the Guidance Notes were helpful but it was important to clarify their status so that generators could be clear on the required compliance arrangements. DM agreed that the Guidance Notes

were helpful but had taken on a life of their own which was confusing and undesirable. There should be one preferred path towards compliance but he would like to see as much flexibility as possible for Users for ways to achieve that compliance.

13. MH accepted that that there was a need to regularise the compliance arrangements especially in the areas of IONs and FONs, links in to the Construction Agreement and synchronisation. National Grid agreed that it was important to make the requirements clear and unambiguous so that new and existing generators could know precisely the requirements that that they would need to meet. However, National Grid did not want to spend an inordinate amount of time on compliance for smaller generating plant as this was an inefficient use of scarce time.

3. Transfer of Performance Requirements from Compliance Process to Grid Code – Paper by National Grid

14. MH presented this paper to the Group and explained that the paper identified parts of the Guidance Notes where requirements had been set out and that differed from the Grid Code. The intention was to codify these requirements. National Grid had asked an independent engineering consultant to compare the Grid Code with the Guidance Notes and highlight where requirements were not reflected in the Grid Code. This process had originally highlighted 15 areas but many of these had been taken up subsequently in Grid Code Consultations G/06 and D/07 which were now with the Authority for determination, There were therefore four remaining areas where National Grid believed the requirements in the Guidance Notes should be codified which were:

- i) Droop Definition
- ii) Control System Models
- iii) Power System Stabiliser
- iv) Operation above 50.5Hz

15. MH indicated that i), ii) and iv) were against the current Grid Code baseline and iii) was against the baseline in Grid Code Consultation G/06. BM made the general point that all the proposed changes would need to be made against a clear baseline for Ofgem to consider.

- i) Droop Definition

16. MH explained that the G/06 included a change to CC6.3.7 (c)(ii) to improve the definition of droop in wind farms and a similar change was therefore recommended in Appendix A of the paper to the definition in the Glossaries and Definitions.

Action: National Grid

- ii) Control System Models

17. MH explained that H/04 partially addressed the need for National Grid to be provided with validated control system models in respect of non-synchronous generation. However, National Grid believed that the requirements should be extended to include the provision of such models for traditional synchronous generation. Appropriate drafting was included in Appendix B of the paper.

- iii) Power System Stabiliser

18. MH explained that the majority of the requirements for excitation systems had been transferred from Bilateral Agreements to the Grid Code as part of G/06. However, additional clarifications in the Guidance Notes should now be included in the Grid Code. In addition, changes relating to limiting the Power System Stabiliser output, clarifying the circumstances where limiter functions may curtail the excitation system output and specific drafting relating to the operation of Power System Stabilisers at

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Pumped Storage Stations were included in Appendix B.

- iv) Operation Above 50.5Hz
19. MH explained that if the frequency continued to rise above 50.5Hz then BC.3.7.1 (c) required stations to continue to reduce their output. This continual reduction capability was critical for system security and required to be reinforced in National Grid's view on the lines of the current drafting in BC.3.7.2 for the LFSM operation. Appropriate drafting was contained in Appendix D.

4. Working Group Discussions

20. During discussion, comments were provided by Members on the proposed drafting and National Grid agreed to consider the comments and re-draft the proposed wording accordingly. It was also agreed that Working Group Members should provide any final comments to National Grid on the paper by close of play on Thursday 31st January.

Action: National Grid/All WG Members

21. In response to a question from CM, MP indicated that National Grid would consider whether the work of the independent consultant could be released to Working Group Members to inform their comments on the paper by National Grid.

Action: National Grid

5. Next Steps

22. It was agreed that following receipt of final comments from Members, National Grid would draft a Working Group report to the GCRP and circulate this to Members for comment. The intention was to finalise this first part of the work of the Group in this report and obtain agreement from the May GCRP that this first phase could be put to industry consultation.

Action: National Grid

23. The Group agreed that HU should be invited to explain the approach to phase b) of the work of the Group (Review of the Compliance Process). HU explained that National Grid had described the compliance process for new power stations in a flow chart in Attachment A of the two versions (current drafts) of the Guidance Notes. The life time compliance of existing power stations is covered in section 2.8 of the Guidance Notes, both available on the web site under "Grid Code. Associated documents". An extract of these were covered in GCRP 07/35 which was considered at the September 2007 Panel meeting. This indicated the responsibilities of the Generator, System Operator and Transmission Owner at the relevant stages of the compliance process. Assessment of the adequacy of the generation technical data (dynamic) would probably be the most controversial area of the compliance review. Codifying the process into the Grid Code would involve setting out:

- i) what the relevant party was required to do;
- ii) who was responsible, including the split between GBSO and TO.

National Grid stated that the definition of what is required would be transferred into the Grid Code. This would leave the Guidance Document focusing on the practical experience of how to best demonstrate this, once all the success criteria have been moved into the Grid Code. National Grid stated that as this guidance is optional it is not well suited to coding and agreed that incorporating an element of optionality (e.g. testing, studies or modelling) for demonstrating compliance as part of the process was desirable provided each option produced the necessary compliance outcome. This optionality would probably best be reflected in the Guidance Notes (the "how"). In response to a question from JN concerning the compliance regime for new

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connections, HU indicated that the testing and monitoring regime currently in OC5 of the Grid Code was only a small element of overall compliance and agreed that the Group would need to consider the whole area of compliance in the round. For existing plant, it was important to provide National Grid with changes to the week 24 data as soon as possible. JN queried whether data submission was actually part of compliance. HU indicated that inevitably there were interactions with the week 24 submitted data.

24. CM asked if the Guidance Notes themselves could be subject to governance arrangements. HU did not believe that the Grid Code was the right place to include optional requirements. In addition, making the Guidance Notes subject to governance arrangements would make changes more difficult and slower to implement. JN pointed out that the generators took their obligations under the compliance process seriously and devoted considerable resources to this area. Changes to procedures were therefore expensive for generators so he would not like to see them subject to regular change, HU commented that National Grid would always endeavour to operate the compliance regime (the how) flexibly so that the cost burden on generators was minimised and reducing the cost of the process is often the reason for changes. The staff of the Generation Companies involved in compliance (particularly the many new Independent Generators dealing with wind) and the manufacturers have commented extensively to National Grid on the importance of this flexibility. The requirements and the success criteria (the what) should however be made subject to governance and this would safeguard the Generators interests.

6. Date of Next Meeting

25. The next meeting of the Group will be held on 8th April 2008 at NGH commencing at 10am.