Headline Report – Grid Code Review Panel

Meeting Name	Grid Code Review Panel
Meeting Number	35
Date of Meeting	5th February 2009
Time	10:00am – 3:30pm
Venue	National Grid House, Warwick

This note sets out the headlines and key decisions of the Grid Code Review Panel held on the 5th February 2009. Full minutes of the meeting will be produced and subsequently approved at the next Panel meeting and will then be published on the website.

1) Minutes of Previous Meeting

The minutes of the Grid Code Review Panel (GCRP) meeting held on 20th November 2008 were APPROVED subject to minor amendments. The minutes will be accessible from the Grid Code website in due course.

2) Basic Electrical Safety Competence (BESC)

National Grid reported that it had introduced the BESC arrangements at its sites from 1st February 2009. National Grid agreed to circulate the letter from Chris Murray to industry contacts dated 27th January 2009 about the arrangements to Panel Members after the meeting. Any queries/comments on the proposals should be forward to Steve Bath (steve.bath@uk.ngrid.com).

3) Delegations of Authority (DOAs)

National Grid updated the Panel on progress with the review of the DOA contracts. It was intended that development of the DOA contracts could utilise the format and wording from the Multi-User Switching (MUS) contracts which were also currently being reviewed. A further update would be provided at the May GCRP.

4) Transmission Outage Notification using TOGA

National Grid gave the Panel a presentation about the new Transmission Outage Notification arrangements using TOGA. Panel Members were grateful for the presentation. It was noted that the outage planning interface to TOPAM for the Scottish Companies would also now operate through TOGA.

5) New Grid Code Amendments

Housekeeping Amendments (pp09/05)
National Grid presented pp09/05 and requested that any further housekeeping changes that had been observed by Panel Members or Alternates should be provided to the Secretary for incorporation in the table attached to pp09/05. The Panel agreed that National Grid should then proceed to industry consultation on these amendments.

Record of Inter-System Safety Precautions (RISSP) (pp09/06)
National Grid presented pp09/06 and explained that the RISSP process provided a written record of safety precautions that are to be utilised in accordance with the applicable provisions of OC8 of the Grid Code. However, the current wording in the RISSP form only permitted a four digit number to be assigned to the RISSP form and was inconsistent with current operational practices in NGET's transmission area. National Grid agreed to discuss with the NOC whether the reference in the Grid Code could be made flexible to accommodate changes more easily rather than specify a particular number of digits and circulate some wording to Panel Members that could be incorporated into the subsequent consultation for agreement via e-mail. The proposed

changes will be applicable to the relevant clauses in OC8A (Safety Co-ordination in England and Wales) and OC8B (Safety Co-ordination in Scotland).

6) Working Group Reports

Compliance Working Group Report (pp09/07)
National Grid presented the Working Group Report. The Compliance Working Group had been established by the Grid Code Review Panel in September 2007, primarily to make proposals for inclusion within the Grid Code of a compliance process to be followed by NGET and generators. The Group was also tasked with clarifying the roles of DNOs and NGET in the compliance assessment of LEEMPS.

The Working Group proposed that the assessment process will be largely based on the existing process described in NGET's Guidance Notes. The proposals include details of the process, describing four different operational notifications that may be issued, data submission requirements, testing requirements, and simulation studies.

For LEEMPS the Working Group proposed that:

- By default NGET is responsible for compliance assessment of new LEEMPS up to the point when they first demonstrate Grid Code compliance. From then on, the responsibility is the DNO's
- A DNO make elect to take on responsibility for all new LEEMPS in its area
- Where a LEEMPS has already begun a compliance assessment process with a DNO, the DNO will retain responsibility unless NGET, the DNO and the generator agree to transfer it to NGET

The proposals also introduce the concept of a manufacturer's performance report, which will allow performance data on turbines to be submitted to NGET and then referenced by generators in place of demonstrating a turbine's performance during commissioning.

Most of the proposals had been fully supported by all members of the group. A small number of issues for which one generator has expressed concern were described in the report. These relate to

- The validation of models
- The demonstration of a generator's capability to operate in an island situation
- The submission of certain PSS performance data.

NGET had acknowledged these concerns. In respect of the first two it is proposed to delay the requirements until 2012 to allow further discussions on how best to meet the requirements. For the third issue, NGET believes that all of the requested data is required.

NGET believed that the proposals reflect the objectives and Terms of Reference of the group and are appropriate for ensuring system security. NGET recommend that the GCRP approves taking the proposals to industry consultation.

The Panel generally agreed with this recommendation and acknowledged the amount of work (from all participants) which had gone in to developing the proposals to date. Nonetheless, The Panel acknowledged the importance of submitting a high quality report to the Authority on this complex issue and noted that there were a few matters which still required further consideration:

- Interaction between LON/OC5 process.

- Proposed way forward for the outstanding issues on i) validation of models, ii) demonstration of a generator's capability to operate in an island situation and iii) submission of certain PSS performance data.
- Certain parts of the LEEMPs proposals .
- Possible Interaction with the STC (STC19-3)

The Panel therefore agreed the following approach:

- Two extra weeks will be given for GCRP Members (and their constituents) to provide further comment on the Working Group report and associated recommendations indicating any particular issues of concern;
- The Working Group should consider comments received and agree a way forward (potentially via a Working Group meeting);
- The Working Group should proceed with an industry consultation once agreement has been obtained regarding the outstanding issues (subject to notifying the GCRP that agreement has been achieved).

Rated MW Working Group Report (pp09/08)
National Grid presented the Working Group Report and gave the Panel a presentation on the work of the Group which was subsequently circulated to Panel Members. The Working Group had been asked to assess the impact on the GB Transmission system of Synchronous Generating Units exceeding Rated MW for any length of time. The Grid Code was silent on such operation and therefore ad hoc arrangements had developed. National Grid had undertaken analysis of the effects of widespread generation above Rated MW and these studies indicated that this would be very expensive requiring additional investment in MSCs and would be complex operationally.

The Working Group proposed that current arrangements for existing generators should remain. However, for new generators and existing power stations with an increase in CEC the generating unit must be capable of continuous operation at least 0.9pf lagging. Leading capability will be based on the under excitation limiter characteristic. National Grid would also be able to request that generating units submit a PN no higher than its Rated MW (at no cost) should it see a system need. The recommendation of the Working Group was that National Grid should proceed to consultation.

During discussion, it was noted that there would be costs to generators when they were requested to submit a PN no higher than Rated MW for system need but they would gain revenue when operating above Rated MW. In addition, generation technology was improving over time in the context of provision of greater amounts of reactive power. However, these issues were more for the separate Grid Code Working Group that will consider the wider issue of the provision of reactive power by all types of generation across the whole of their operating range.

The Panel agreed that the Working Group had fulfilled its remit and agreed that the issue should now proceed to consultation.

Gas Insulated Switchgear (GIS)
National Grid gave the Panel a presentation on the progress of the Working Group to date which was subsequently circulated to Panel Members. The issues associated with the two solutions, that the Group had decided to concentrate on, were complex involving enduring ownership, operational and safety issues and one of the solutions (the RWE solution where ownership of certain generation circuits would be transferred to National Grid) required regulatory changes that would require clearance through National Grid's internal governance process and discussion of the consequential funding issues with Ofgem. The actual changes to the Grid Code were expected to be minor and straightforward. The CUSC Panel would be briefed on the issues in March. Implementation as a whole and the extent of any retrospection were also important issues that the Working Group needed to consider in more depth. There may also be a need for transitional arrangements. The Working Group was therefore seeking an amendment to its Terms of Reference to report back to the Panel in May 2009. The Panel agreed to this extension for the Group to report back to the May 2009 Panel meeting.

Frequency Response
National Grid reported that the second meeting of the Working Group had been held on 29th January 2009. The Group were considering the studies that would be required to examine system needs for frequency response under various scenarios representing the possible the future generation mix. They could then undertake some cost/benefit analysis and consider commercial approaches to the provision of frequency response. Other issues the Group would be considering were European requirements and demand side provision of frequency response.

E3C - Small Embedded Generators Frequency Obligations
Terms of Reference (pp09/9)
National Grid reported that the first meeting of the Working Group was held on 22nd January 2008. It was noted that this was a joint Grid Code/Distribution Code Working Group and therefore joint Terms of Reference would need to be developed. National Grid confirmed that a final report about the incident on 27th May 2008 would be provided to the Working Group before its next meeting. During discussion it was noted that the Working Group was considering issues of materiality and the potential for islanding embedded generators. The Panel also agreed that the generic issues raised by embedded generation loss risk of high system frequency incident (agenda item 13) should also be considered by this Working Group subject to assessment as to whether the issues could be addressed within the November 2009 timeline for completion of the Group's work.

E3C – LFDD Scheme Review
Terms of Reference (pp09/10)
National Grid reported that the first meeting of the Working Group was held on 22nd January 2008. The Group would report back to the May 2009 Panel meeting in keeping with the timeline set by the E3C.

6) Review of OC6.6

National Grid informed Panel Members that the Authority had recently granted a time-limited derogation to NGET and a User regarding Grid Code provisions OC.6.6.6. In granting the derogation, the Authority requested that NGET undertake a formal review of the appropriate Grid Code provisions to ensure that they properly reflect system requirements.

National Grid informed the Panel that this review had been completed and that the provisions were appropriate, taking account of the need to ensure secure and economic operation of the GB system together with equitable treatment of all users.

National Grid acknowledged that the existing wording may benefit from additional clarification such that the intent of the provisions was clear and concise. National Grid was currently considering the appropriate changes to the existing wording and will report back to the GCRP (with the proposed amendment) in due course.

National Grid confirmed that the review OC6.6.6 provision was separate from the review of the LFDD scheme that was being undertaken by the E3C Working Group.

7) Short Circuit Ratio (SCR) (pp09/12)

National Grid presented pp08/12 and explained that following the discussion of this issue at the September and November 2008 Panel meetings it had been in contact with manufacturers of large turbo alternators up to 2000MVA. Insufficient evidence had been received from Manufacturers to date as to whether the continuation of the SCR at 0.5 would create any problems and therefore this issue was not considered significant enough to pursue.

A Panel Member indicated that National Grid had been briefed on this issue separately and confirmed that this was an important issue in the context of the transportability of large turbo alternators that would be associated with new nuclear power stations. National Grid agreed to re-open this issue in the light of this confirmation. Another Panel Member

agreed to coordinate input to National Grid on this issue from generators. National Grid confirmed that it would ensure that confidentiality of any information from generators would be respected.

8) Planning Data – PC4.4.2

National Grid reported that it had now reviewed the provisions of PC4.4.2 thoroughly and concluded that the requirement for submission of planning data 28 days after contracts were signed was still appropriate given the additional flexibility already provided in PC4.4.2 i.e. that a later timescale could be agreed between National Grid and the developer on a case by case basis. Discussions with the BWEA were continuing to explore whether generic data for wind farms could be employed using the concept of "preferred turbine" where the contracted connection date was beyond the SYS horizon. Several Panel Members continued to believe that the default position on PC4.4.2 should be that provision of the data was linked to the connection date rather than 28 days after contractual commitment.

One Panel Member asked if National Grid could give an indication of how sensitive the data provided by generators at present was for transmission planning and how the provisions (and associated data) interacted with the potential new Transmission Access Arrangements which are being developed through CAP161-166. National Grid agreed to provide such an indication in due course.

9) Embedded Generation Loss Risk on High System Frequency Incident (pp09/13)

National Grid presented pp09/13 and circulated a revised table for pp09/13 at the meeting. National Grid explained that following the update provided to the Panel at the November 2008 meeting it had continued to work to improve the quality of the data. However, National Grid was still concerned that there is insufficient information to assess and quantify the level of risk to the security of the GB system posed by the potential loss of embedded generation consequent during a system high frequency excursion. National Grid would welcome further help from Panel Members to finalise the data. Panel Members discussed ways in which the data could be utilised more effectively (e.g. applying load factors for different technologies) but agreed with National Grid that efforts should continue to improve the quality of the data before moving on to analyse a policy response based on the data.

10) Adoption of CUSC Environmental Code Guidelines (pp09/14)

National Grid presented pp09/14 and gave the Panel a presentation on the background to the Guidelines which was subsequently circulated to Panel Members. Following the presentation the Panel agreed to adopt the Guidelines in considering future amendments to the Grid Code. Further background to the Guidelines is available at:

http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandinggroups/Environment/

11) Industry Code Governance Review (ICGR)

National Grid gave the Panel a presentation on the ICGR which was subsequently circulated to Panel Members. A Panel Member questioned whether the Regulator had the legal powers to implement some of the changes to Code Governance mooted in the review documentation.

Panel agreed to submit a formal response to Ofgem's consultation on Major Policy Reviews and Self Governance (Closing date for responses 27th February 2009). Panel Members will indicate which information they would like to be contained in the response by **11th February 2009**.

12) Ofgem Consultation on the Environment and Code Objectives

A response on behalf of the Panel to this consultation had been sent to Ofgem by the Panel Chairman on 16th January and circulated to Panel Members before the meeting.

13) EWEA/EWIS Developments (post meeting update via e-mail)

The GCRP were informed that at a joint EWEA/EWIS meeting (which took place on 12th December 2008), EWEA presented their stage 1 (of 3 stages planned) in preparing a harmonised set of requirements. The GCRP received a high level summary of the difference stages:

1. Stage 1 – define the topics – see attached format paper – 224 topics (headings have been identified) – these cover requirements covered by any current Grid Code + contain also a few potential future items, such as synthetic inertia and damping requirements.
2. Stage 2 – define the requirements for each in words – next stage for EWEA to work on
3. Stage 3 – define the range of parameters to go with the words – defining envelopes of national choices

14) Offshore Transmission (post meeting update via e-mail)

The Authority provided an update on the development and implementation of the Offshore Transmission regime:

- Ofgem/DECC consultation on the proposed offshore transmission regime closed in early Jan 2009.
- We received responses from 17 organisations. Many respondents provided comments on the detailed change proposals for the transmission licence and industry codes (including Grid Code).
- We are considering responses and developing drafting of detailed change proposals with assistance of relevant code owners.
- We are planning further publications during Feb/Mar 2009 for:
  - Offshore Transmission Tender Process (including proposed tender regulations).
  - Offshore Transmission Regime (including changes to transmission licence and industry codes for implementation by Secretary of State designation decisions).
- The target date for Go-Active of the offshore transmission regime and designation of changes to transmission licence and industry codes is June 2009.
- The target date for Go-Live of the offshore transmission regime is June 2010.

15) Impact of Other Code Modifications (post meeting update via e-mail)

BSC

- **Timing of Gate Closure and Related Matters**
  BSC Issue 35 is currently seeking the Group's views on whether to have any further meetings or if the Issue should be formally closed. If another meeting is required it is anticipated that it will be held before the end of February 2009.

- **Black Start & Fuel Security Code – Modifications P231 & P232**
  P231 (Black Start and Fuel Security Code Procedures under the Balancing and Settlement Code) and P232 (Black Start and Fuel Security Compensation and Single Imbalance Price Derivation) are currently being evaluated by a BSC Modification Group. There is the potential for P231 to necessitate consequential Grid Code changes.

CUSC

- **Transmission Access Amendment Proposals CAP161-166**
  The Amendment Reports for CAP161- CAP165 were presented to the December 2008 CUSC Amendment Panel. These Amendment Reports have been delivered to Ofgem for their consideration and ultimately a decision by the Authority on whether the

amendments will be made. CAP166 has been granted an extension and will be submitted to Ofgem in March 2009. Subject to Authority's approval, the proposals will become effective from April 2010.

GB SQSS

- **GSR007 (Review of Infeed Loss Limits)**
  The consultation document for GSR007 (Review of Infeed Loss Limits) was issued on 4th February 2009. Responses to the GSR007 consultation document should be sent to GBsqss.Review@uk.ngrid.com no later than close of business on Friday, 6th March 2009.

Ofgem Consultation on the "Timing Out" of Authority Decisions on Modification Proposals

- Ofgem's consultation on 'the "timing out" of Authority Decision on Modification Proposals' does not impact the Grid Code. The arrangements for the Grid Code are already flexible in that the Grid Code report does not include specification of an implementation date. Rather, implementation dates are proposed by NGET on request by the Authority when they are in a position to formally publish their decision. Therefore, additional flexibility is not required under the Grid Code as it already exists through either not specifying the implementation date, or not fixing an implementation date until the Authority review is completed.

16) Any Other Business

AOB1 – Reactive Power from Power Park Modules

National Grid gave the Panel a presentation on a CUSC amendment that National Grid would be proposing to the February CUSC Panel meeting relating to reactive power from Power Park Modules. The presentation and the outline amendment proposal were subsequently circulated to Panel Members.

17) Next Meeting

The next meeting will be held on 21st May 2009 at National Grid House, Warwick commencing at 10:00am.