

## The National Grid Company plc

**Minutes of the  
Grid Code Review Panel  
NGT House, Warwick  
20 May 2004**

**Members/Alternates**

Ben Graff (BG) ) (Chair)  
 David Payne (DP) ) (Secretary)  
 Patrick Hynes (PH) )  
 Nasser Tleis (NT) ) National Grid  
 Rachel Morfill (RM) )

Ian Gray (IG)  
 Mike Kay (MK) Network Operators  
 Graeme Vincent (GV)

Bridget Morgan (BM) OFGEM

John Norbury (JN) ) Generators with Large  
 John Morris (JM) ) Power Stations with  
 Claire Maxim (CM) ) total Reg. Cap.> 5GW

Malcolm Taylor (MT) Gens without Large  
 Power Stations

Roger Salomone (RC) BSC Panel

Nick Carter (NC) Suppliers

\*For Agenda Item 6.2

\*\* For Agenda Item 6.3

**Advisors/Observers**

Robert Lane (RL) CMCK  
 John Greasley (JG) NGT  
 Shafqat Ali (SA) NGT\*  
 Louise Wilks (LW) NGT\*\*

**1 APOLOGIES FOR ABSENCE**

1740 Apologies were received from:

- Dave Ward (Gens <5GW)
- Francois Boulet and David Nicol (EISO)
- Nick Carter (Suppliers)
- Charlie Zhang (Advisor for Gens >5GW)
- No representative for Non Embedded Customers had been identified.

**2 APPROVAL OF MINUTES OF PREVIOUS MEETING (040226drpm)**

1741 BM had provided some minor comments on the minutes just prior to the meeting and these would be incorporated into the final minutes.

1742 The minutes were otherwise agreed as a true record of the previous meeting.

### 3 MATTERS ARISING FROM PREVIOUS MEETING (not covered below)

1743 With respect to minute 1693 (related to the Regulatory Impact Assessment process) MT asked if Ofgem expected to consult on the process for carrying out Regulatory Impact Assessments (RIA). BM explained that Ofgem was currently considering the best approach.

#### 3.1 Summary of actions (GCRP 04/09)

1744 Action 1572 – RoCoF reporting of incidents related to increasing system frequency. In response to a question from MK, RM explained that the data collection process was under consideration and any proposals would be brought to the Panel for discussion.

1745 Action 1657 - Data exchange under the Grid Code – BM explained that as indicated in her comments on minute 1687, the Scottish GCRP had offered to assist Ofgem in reaching decisions about which E&W Grid Code changes would also require GB consultation.

1746 Action 1677 – Publication of consultation paper responses on the website. It was reported that responses would be published as soon as practical after consultation. It remained for the issue to be discussed further with NGC. This action to remain ongoing but for BG now to discuss with MT.

1747 All other actions were complete and/or covered by other Agenda items.

### 4 GRID CODE DEVELOPMENT ISSUES (GCRP 04/10)

#### 4.1 Report On Progress Of Consultation Papers (GCRP 04/10Table 1)

1748 Table 1 of paper GCRP 04/02 detailed the current position with consultations. The following additional points were noted.

1748 D/01 – Provisions relating to Embedded Large Power Stations. Ofgem continued to consider this issue. MT pointed out that in all probability if not resolved before September 2004 the issue may be closed as there would be no England and Wales Grid Code to modify. BM stated that every effort was being made to come to a decision before BETTA. The issue had been included in the last GB Grid Code consultation and comments sought. PH also pointed out that there would be a mechanism to carry over ongoing work to the GB Grid Code.

1749 JN expected that BETTA would exacerbate the problem as an increasing number of power stations would be exposed to a significant change in obligations and unless the position was clarified there would be no compensation for inability to access the transmission network. In Scotland all significant generation was subject to charges. BM responded that there were differences between the England and Wales and Scottish trading arrangements and that it was expected that aspects of commercial mechanisms (including compensation arrangements for Transmission network constraints) would be addressed in the development of BETTA. Matters relating to Distribution constraints should be raised with the Distribution Director.

1750 C/04 – OC8 and Safety Keys. This consultation was in progress and responses were required by 21 May. PH stated that the Scottish GCRP members had raised a concern that the consultation paper at first reading appeared to be only relevant

to generators rather than all Users, which was not the intention. The opinion of GCRP members was sought on whether they felt the consultation paper should clarify the intended audience.

*(Post Meeting note. A message has been sent to all AEO's indicating that the paper was intended for all Users. The response deadline was extended by two weeks to 4<sup>th</sup> June.)*

## General

1751 MT raised the question of whether any other reports would be subject to RIA and suggested that the Panel could be informed of whether a particular consultation was likely to require a RIA in the early stages to minimise the effort put in. BM reported that the relevant legislation had been relatively recently introduced and had required legal interpretation. BM noted that an assessment of the need for a RIA was now part of Ofgems decision making process in relation to proposed changes to the Grid Code..

### **4.2 Other Issues (GCRP 04/10Table 2)**

1752 With respect to the issue of Capacity terms used in the Grid Code JN asked if it was intended to include Output Usable. PH responded that the scope of the relevant review had not yet been determined but GCRP members could be actively involved in such a review.

1753 In response to a question from CM it was agreed that relevant issues from the Scottish GCRP should be carried over to the GB GCRP.

## **5 PROGRESS ON CURRENT GRID CODE MODIFICATION PROPOSALS**

### **5.1 LEEMPS Update**

1754 NGC had now circulated draft proposed Grid Code changes to LEEMPS working group members. There were issues of clarity on what provisions would apply to LEEMPS to take forward and discuss at next working group meeting. The two main issues were associated with OC5 and BC3. With OC5 there was an issue of the liability for carrying out testing. NGC's drafting placed the obligation on the relevant DNO. DNO's felt that although they should have the obligation, their role should be more as facilitator. National Grid had agreed to redraft the text to take account, as far as possible, the DNO concerns.

1755 With respect to BC3 the main issue was associated with operation in Limited Frequency Sensitive Mode and how it applies to LEEMPS. However there was a view that this issue was not covered by the scope of work for the LEEMPS working group. Panel members were asked to comment on the applicability to the LEEMPS working. NGC felt that if not covered by the working group the issue would need to be covered separately. PH agreed to prepare a paper for the next LEEMPS meeting to explain current thinking. It was also intended to hold meetings more regularly.

1756 JN stated that generators did not believe that the Balancing Codes had any relevance to LEEMPS who had not registered as a BMU. Additionally JN stated that some generators had agreements with NGC and others did not. JN felt it was not clear how the need for an agreement was determined and expressed concern over the growth in the number of agreements that appeared to be at odds with the

Grid Code. JG stated that anyone was allowed to enter into an agreement with NGC.

- 1757 MT felt the Panel discussion indicated that the working group were considering Grid Code obligations as well mechanisms and asked whether the Terms of Reference for the working group were appropriate. National Grid believed that the existing ToR were such that consideration could be given to this issue. However BG invited Panel members to consider the ToR and provide comments outside the meeting on the their relevance to the issue.

## **5.2 Generic Provisions (Paper GCRP 04/15)**

- 1758 Paper 04/15 summarised the current position. Following the Report to Ofgem in Oct 2003 on Consultation D/03, Ofgem had requested that the Scottish and E&W proposals were aligned and discussions held with manufacturers. This had been done and Ofgem had held two forums with interested stakeholders to go through the revised proposals. Minutes of the forums were available on the Ofgem website.

- 1759 JN stated that with respect to frequency control the paper suggests obligations could be met at minimal cost. However JN did not agree as there was a cost associated with control systems that manufactures could not be aware of. NT said that the only additional costs were associated with site-specific software changes to the SCADA system which would be a one-off and negligible cost according to the manufacturers. The manufacturers declare that they optimise and standardise the design of their plant based on requirements of several national and international markets in which they operate and build generic frequency control capability into the SCADA and turbine software. Settings could then be user adjustable. NGC had also asked the manufacturers of any ongoing operational costs such as wear and tear etc, and 6 out of 8 manufacturers had said that operational costs were negligible (the remaining two had not replied yet). NT stated that one of the key outcomes form discussions with manufacturers was that the technical capabilities required were available either now or by end of 2004/Spring 2005.

- 1760 MT stated that it would be helpful if the paper could clarify whether the frequency control technical capability applied to Power Park Modules or to individual turbines. MT also felt that there was clearly a concern as to whether manufacturers would stand by the statements made during the discussions. NT stated that the requirement applies to Power Park Modules rather than to individual turbines and that NGC and Ofgem recommended during the Forums that developers confirm the validity of statements in relation to capability made with their potential manufacturers.

- 1761 Fault Ride Through (FRT) had been considered to be the most difficult issue under debate by all parties. Appendix 3 of the paper provided further clarification of the meaning and effects of Fault Ride Through as noted at Ofgem's Forums. National Grid was currently preparing drafts of Grid Code text and would welcome comment from the Panel. Work would also continue in parallel with the Scottish Licences.

- 1762 JN questioned the need for Fig 2.6 in the paper which appeared to show an Envelope of curves. In the event that the diagram was included in the Grid Code it should be clear that this was an Envelope of curves and not a specific requirement. NT stated that this is the intention in the Grid Code text being drafted because

clarity would be required in the Grid Code. The large number of curves implied by the envelope of Figure 2.6 would be difficult to describe clearly using text alone hence the need for the illustrative curves shown in this paper. Also, the use of this envelope diagram as a requirement is not unique to the E&W Grid code and is consistent with international Codes hence the manufacturers familiarity with it. The views of the Panel were welcomed on the use of text to describe the diagram. NT also pointed out that FRT requirements applied to 400/275 kV voltage levels as indicated in figures 2.6 and 2.7.

- 1763 IG pointed out that the requirements do not apply to faults on 132 network. NT explained that the Scottish proposals had originally applied to faults on the 132 kV network but the Generic Provision group could not see any issues arising in the near future in terms of generation loss risk to a single fault exceeding 1320MW and so agreed should apply at 400/275kV. The Scottish Licencees had now removed the requirement for 132kV faults. Having the requirement at 400/275 means that the 132kV requirement would be less onerous.
- 1764 JN pointed out that the relationship of 1320 MW loss with FRT capability had not been referred to in the paper and asked what would be the trigger to review 1320MW level in relation to this. NT replied that this issue had been discussed at the Ofgem's Forums where NGC provided information demonstrating that it would not be economic to secure the system for generation infeed loss risk greater than 1320MW. Therefore, NGC does not consider that there is a further need to review this again at this time but Innogy can separately ask Ofgem to request NGC to review any part of its Security and Quality of Supply Standard.
- 1765 NGC would now go ahead and initiate a consultation in parallel with the Scottish Licencees.

## **6 OTHER GRID CODE RELATED ISSUES**

### **6.1 Grid Code Reactive requirements (GCRP 04/11)**

- 1766 The paper had been prepared following an action from the February GCRP meeting and summarised the background to the issue. Discussion was invited on where the Reactive requirements issue rests and whether there was a need to initiate work in the commercial arenas e.g. CUSC.
- 1767 JN stated that the paper had not addressed arrangements for generators to 'buy out' (on a zonal basis) of the Grid Code Connection Conditions requirements for reactive capability. JN felt this would provide a route for new entrants to meet Grid Code requirements by entering into a Bilateral Agreement with existing participants or NGC. JG felt that this could be considered if a review of the current arrangements was initiated. However there was minimal competition in this area even on a zonal basis and thus little perceived need for market arrangements.
- 1768 MT agreed that the issue of 'buy out' had not been addressed by the CUSC BSSG which had concentrated on market arrangements with existing players. MT felt that in the Grid Code relaxation of the technical obligations at the point of connection could be considered. Such relaxation would then impact on how players purchase requirements.
- 1769 JG considered the most appropriate way forward would be to suggest that the CUSC BSSG consider the issue of 'buy out'. With respect to technical obligations

it was suggested that the status quo remained and if necessary the issue could be brought back to the GCRP at a latter date e.g. if and when the commercial arrangements change.

1770 **Action:** *JG to raise the issue of reactive 'buy out' at the BSSG.*

## 6.2 Review of Electricity Market Information (GCRP 04/12)

1771 The paper described an internal review being carried out by National Grid with the aim of improving clarity and consistency of information to enable market participants to take appropriate actions and allow NGC to balance generation and demand effectively. Required changes had been categorised as:

- Cat 1 – minimal changes with no Grid Code changes or other document/system changes. It was intended that these changes would be delivered before winter 04/05.
- Cat 2 – These would require relatively minor Grid Code changes which could hopefully be implemented before winter 04/05.
- Cat 3 – These required significant Grid Code changes and changes to other codes and IS. It was not expected that these changes could be implemented prior to winter 04/05.

1772 The Cat 3 proposals were currently being further developed and it was expected to provide further information at the September GCRP meeting. JG explained that the Cat 1 and 2 proposals represented a package of improvements that could be implemented for Winter 04/05. These proposals had not been discussed with market participants due to time constraints. NGC believed that it was necessary to improve BMRS information to provide more accurate information to the market. CM was concerned that the changes to the BMRS had not been discussed with market participants to establish the view on whether the proposals were useful to the market. NGC felt that the package presented an opportunity to update the current BMRS package.

1773 JN expressed concern with the apparent piecemeal approach to OC2 changes given that there were two existing modification proposals under consideration (F/03 and E/04). NGC acknowledged that further changes would be proposed to OC2 with Cat 3 changes but it was felt that these proposals required more in depth discussion and could not be implemented for winter 04/05.

1774 MT noted that changes to OPMR were envisaged and asked whether the current coherent methodology was to be abandoned. JG stated that it was intended to move to a day ahead requirement to avoid step changes between OPMR updates on BMRS. It was expected that the new methodology would result in more useful, less variable information which would indicate the levels of reserve being held for a particular day.

1775 MT was also concerned that the Operational Forum in June would be introducing even more changes as part of the larger initiative on transparency. It was pointed out that REMI was just part of the transparency review although it was expected that no further Grid Code changes would be introduced at the Operational Forum in June.

1776 Having taken into account comments from the GCRP, NGC intended to initiate a wider consultation.

### 6.3 Maximum Generation Service (GCRP04/13)

- 1777 This paper described a Grid Code change proposal associated with CUSC Amendment CAP071. It was explained that the Grid Code and CUSC consultations needed to run in parallel. The Grid Code consultation was expected to be issued in early June.
- 1778 The paper included a Grid Code text proposal put forward by Innogy but National Grid did not intend to take this proposal forward as it raised a cross governance issue between the Grid Code and the Balancing Principles Statement. The BPS was the document which defined how actions are taken forward and would be subject to parallel but separate consultation. JN explained that the Innogy text had been proposed as there was uncertainty of what actually constituted an Emergency and also what National Grid's actions would be in an Emergency Situation and the sequence of such actions. JN felt that any action taken by NGC could be influenced by NGC's incentive scheme. Maximum Generation Service was a further service being introduced and JN felt that the Grid Code should clarify the order in which services are used should be set out in the Grid Code.
- 1779 National Grid intended to initiate a wider Grid Code consultation in early June along with a CUSC consultation and a consultation on changes to Licence AA4 documents (BPS). National Grid undertook to inform GCRP members when the associated CUSC and AA4 consultations were initiated.
- 1780 **Action:** *NGC to inform Panel members when Grid Code, CUSC and AA4 consultations released.*

### 6.4 Intertrips

- 1781 BSC Modification proposal P87 (Generator Intertrip schemes – removal of market risk) had been rejected by the Authority. This modification could have had an impact on the Grid Code but Ofgem had now directed that National Grid should consider intertrips in the CUSC or Transmission Access fora.
- 1782 National Grid had been holding internal discussions and was considering the CUSC amendment route. Consequential Grid Code changes would be expected.

### 6.5 Information on units within CCGT modules (GCRP 04/16)

- 1783 The paper described a proposed Grid Code change to the BC1 text associated with Other Relevant Data. This was indirectly related to the issues raised at the February Panel meeting related to a letter sent out by National Grid to enable collection of data on additional output available from CCGT's. Having considered the issue National Grid was proposing a relatively minor change to enable submission of this data under the umbrella of Other Relevant Data.
- 1784 JN felt that Other Relevant Data was not the place for this data and would prefer to see the required process included in the Balancing Codes.
- 1785 GCRP members were asked to consider the proposals and feed comments back to RM. NGC would take into account any comments received and re-circulate the Consultation paper to the GCRP before initiating a wider industry consultation.

- 1786 **Action:** *RM to re-circulate a consultation paper taking into account comments received from GCRP members.*

## **7 BSC/CUSC MODIFICATION PROPOSALS (GCRP 04/14)**

### BSC

- 1787 P162 – Changes to the definitions of Imports and Exports. This clarification modification was now in the report stage. No impact on the Grid Code had been identified.
- 1788 MT reported that a paper on the limit for small scale generation had been raised at the BSC meeting. It was anticipated that a consultation would be initiated considering raising the limit from 16Amps TO 30MW.

### CUSC

- 1789 CAP068 - Competing arrangements for Transmission Access. The draft report on the alternative amendment had been prepared. No impact on the Grid Code had been identified.
- 1790 CAP070 – Short term firm access service. The working group reporting period had been extended. The scope of the required Grid Code work was being determined.

## **8 REPORT FROM SCOTTISH GCRP**

- 1791 An informal report had been provided by David Nicol and is attached with these minutes.
- 1792 The Scottish Licencees proposals for wind farm requirements in the Grid Code had been the main topic.

## **9 BETTA**

- 1793 BG pointed out that Ofgem had published the conclusions document on the governance of the GB Grid Code Review Panel. BG was expecting a letter inviting the GCRP to set up the GB Panel and it was expected that the GB Panel would be in place by September 2004. As such this May meeting would probably be the final meeting of the E&W GCRP.
- 1794 BM stated that for Grid Code purposes it would be acceptable for each Panel to provide formal nominations. The Authority would make a final decision in the event there were too many nominations for a particular seat. All nominations should be made to the chairman of the relevant Grid Code Review Panel (GCRP or SGCRP). BM also indicated that the SGCRP would need to continue to meet separately until BETTA was fully in place. In this case it was suggested that the GBGCRP would meet in the morning and the SGCRP meet in the afternoon of the same day, thus it may be necessary to set up video conferencing facilities for communication between the two Panels.
- 1795 BM also stated that the GB Grid Code Consultation had now been published.

**10 ANY OTHER BUSINESS**AOB1

1796 PH explained that there was an outstanding consultation from the SGCRP related to the Scottish Grid Code DRC. This had at one time been two codes (covering ScottishPower and Scottish and Southern) which had now been combined into one code. One issue raised in the consultation was related to information on fault levels supplied to connectees. BWEA had stated that there should be an obligation on Licencees to provide such information. This was to be added to the development list so that it was not lost. However it was generally agreed that the current process was sufficient.

AOB2

1797 CM stated that some difficulty had been experienced associated with the protocols for reviewing target frequency and asked if a review could be considered. National Grid agreed to consider.

1798 **Action:** *National Grid to consider a review of protocols associated with Target Frequency*

AOB3

1799 JN reported that following implementation of GES in the Grid Code one of his constituents had noted that the connection documentation refers to a substantial number of NGT's that are not included on the GES.

1800 BG stated that the suite of NGTS's had been identified in the initial stages as the documents most relevant and material to the user. Any changes to the list could be proposed by any user through the appropriate Grid Code representative.

**11 DATE, TIME & VENUE OF NEXT MEETING**

1801 Thursday **23<sup>rd</sup> September 2004**, starting at **10:30 am**, at NGT House, Warwick.

**Attachment****Notes from David Nicol on Scottish Grid Code Review Panel meeting 13 May 2004**

1. Chairman of SGCRP is now Chandra Trikha, Vice Chairman is David Nicol
2. Windfarms .. a lengthy debate on the topic:
  - Two Scottish Licensees tabled an early draft of a fresh consultation on windfarms.
  - The licensees brought the Panel up to date on windfarm activities since January, including
    - Manufacturers meetings
    - Text Convergence
    - The output of the two Ofgem forum meetings
  - The SGCRP endorsed the need for PARALLEL consultation on NGC and the Scottish Windfarm consultations
  - Noted that the major outstanding issue was fault ride through, but that Guy Nicholson is writing to Gareth Evans re some studies the BWEA will be carrying out on behalf of the windfarm community. While recognising that this shouldn't be an open check-book on timescales, would prefer that all licensees should take a little extra time to resolve issues if possible.
  - Noted a few divergences still between Scottish & NGC text, and would prefer that these are properly bottomed out before the Parallel consultation.
  - Scottish Companies will go back round SGCRP Panel by Email before the consultation is sent out.
3. Noted the letter from Bridget re GB Wide issues on Proposed Changes to Existing Grid Codes, and noted need to work together to get info to Scottish Users
4. Noted the NGC process for Governance of Electrical Standards, and affirmed that the Scottish Licensees would work to a similar process even though it will not be documented in the Scottish Grid Code. Licensees to bring forward appropriate lists.
5. Were given an update on Licence Exempt Embedded Medium Power Stations Working Group
6. Noted E&W Consultation Papers C, D & E
7. Were given an update by BM on Regulatory Matters and GB Grid Code
8. Asked questions about transition
  - elections to GB Panels, continuing existence or otherwise of E&W Panel
  - how do Gens transition from Scottish Grid Code requirements to GB ones where these might be different (eg droop requirements)
9. Next meeting, end August.