

## The National Grid Company plc

**Minutes of the  
Grid Code Review Panel  
National Grid House, Coventry  
22<sup>nd</sup> May 2003**

**Members/Alternates**

Andy Balkwill (AB) ) (Chair)  
 David Payne (DP) ) (Secretary)  
 Patrick Hynes (PH) )  
 Nasser Tleis (NT) ) National Grid

Mike Kay (MK) )  
 Ian Gray (IG) ) Network Operators

Bridget Morgan (BM) OFGEM

John Norbury (JN) ) Generators with Large  
 John Morris (JM) ) Power Stations with  
 John France (JF) ) total Reg. Cap.> 5GW

Malcolm Taylor (MT) ) Generators without Large  
 Power Stations

Roger Salomone (RS) BSC Panel (Alternate)

Francois Boulet ) EISO  
 David Nicol )

**Advisors/Observers**

Robert Lane (RL) CMK  
 Ben Graff (BG) NGC

Charlie Zhang (CZ) LPC

Clare Maxim (CM) Pgen

**1 APOLOGIES FOR ABSENCE**

1432 Apologies were received from:

- Mike Calviou (National Grid)
- Chris Rowell (BSC Panel - represented by RS)
- Dave Ward (Generators with Large Power Stations totalling <5GW)
- Jeff Hunt (DNOs)
- Brian Sequeira (Suppliers).
- No representative for Non Embedded Customers had been identified.

**2 APPROVAL OF MINUTES OF PREVIOUS MEETING (030206drpm.doc)**

1433 Minute 1417 – A small typographical error was noted. The word ‘were’ needed to be included after ‘arrangements’.

1434 Minute 1389 – MT suggested that it should be made clear that intertrips were never used as a means of ‘permanently’ avoiding infrastructure reinforcement.

1435 The minutes were otherwise agreed as a true record of the previous meeting.

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

#### 3.1 Summary of actions (GCRP 03/09)

- 1436 Action – Intertripping. PH explained that having considered expanding paper GCRP 02/27 it was felt that no further detail could be added without going into detail on individual schemes, which was not appropriate. Further, the requirement for intertrips was covered in the Security and Quality of Supply Standards (SQSS) (*Reference – Glossary and Definitions – Definitions of Transmission Capacity and Operational Intertripping*) and the Grid Code referenced the SQSS (*Reference - Licence Standards*). National Grid did not employ intertripping as a means of avoiding infrastructure upgrading. National Grid was also in discussion with Users on the form of contracts and was taking the issue forward. PH proposed that the action was closed and National Grid would take the issue forward via bilateral discussions and if necessary the CUSC.
- 1437 JN stated that as intertrips were provided by generators as a service to National Grid then it should be a simple matter for the Grid Code to describe specific circumstances that would require an intertrip to be provided. JN felt that there would only be a limited number of circumstances when this would apply and was questioning National Grid's entitlement to impose intertrips on generators.
- 1438 PH stated that each case was considered on individual merits and was a locational/Bilateral Agreement issue and therefore it was not possible or appropriate for the Grid Code to specify requirements.
- 1439 DN stated that there were concerns associated with intertripping and felt that if National Grid believed intertrips were required for system operation purposes then the Grid Code should clarify this.
- 1440 JF asked if older schemes were now no longer required to allow NGC to operate its system, could the relevant requirements be removed? PH felt that there may still be site specific conditions that would need to be considered and each site would need to be considered on an individual basis. AB suggested that Generators may wish to contact the National Grid connections team to discuss options.
- 1441 MT stated that there was clear concern and differences of opinion with the issue of intertrips and felt that it should remain as an agenda item. It would also be helpful if generators could clarify their requirements to enable National Grid to make a clear response.
- 1442 **Action:** *Generator representatives to clarify to National Grid their concerns regarding the requirements for intertrips.*
- 1443 All other actions were either complete, ongoing or the subject of later agenda items.
- 1444 There were no other Matters Arising identified.

### 4 GRID CODE DEVELOPMENT ISSUES (GCRP 03/10)

#### 4.1 Report On Progress Of Consultation Papers (GCRP 03/10 Table 1)

- 1445 Table 1 of paper GCRP 03/10 detailed the current position with Consultations. The following additional comments were made.
- 1446 D/01 – Provisions relating to Embedded Large Power Stations. The Authority continued to consider the report. BM reported internal progress with this issue.
- 1447 A/02 – Implications to Grid Code of CUSC Amendment to clarify CUSC 6.5.1. The Authority was currently considering the report. A decision was dependent on the outcome of the CUSC amendment.
- 1448 E/02 – Proposed changes to Grid Code OC8. All objections from external parties had now been resolved and the Report to the Authority was in preparation.
- 1449 G/02 – Clarification of Phase Unbalance term and change of company name. This had been implemented as Revision 10 and could now be removed from the list.
- 1450 A/03 – Grid Code changes arising from new Capacity terms proposed in CAP 043. No negative responses had been received although some respondents required clarification on how data provided would be used/published. There were also some suggestions that the Grid Code change should go further and review the need for Registered Capacity.
- 1451 B/03 – Grid Code change arising from BSC Modification proposal P80. Responses were being considered. Differing views had been received with some respondents not accepting the need for a change to the Grid Code. It had been pointed out that the Grid Code changes were required as a consequence of the BSC P80 proposal.
- 1452 C/03 – Proposed Grid Code changes required as a result of changes to the Data Validation, Consistency and Defaulting Rules. No negative responses had been received but an inconsistency in the text of the Defaulting rules had subsequently been identified and it was proposed to deal with this in the Report to the Authority. Some other issues had been raised but it had been pointed out that these issues would need to be the subject of a separate consultation.
- 1453 JN stated that one issue was in connection with the definition of Generation Capacity (GC), which, according to the Defaulting Rules, appears to be equal to Registered Capacity. The two quantities are defined differently in the BSC and Grid Code respectively. PH recognised that this causes confusion and further work was required. JN also stated that a further issue was the continued need for NGC to test PN's against GC, given that GC is no longer used as a basis for TNUoS charges. JN agreed to forward his questions to PH separately to enable clarification of the issue. However it was felt this issue was not for the current consultation. It was agreed that the issue would be included on Table 2 Issues List.
- 1454 **Action:** *JN to forward detailed query to PH on Generation Capacity vs Registered Capacity. PH to respond to JN's query and also prepare a paper for the September GCRP meeting on further work required.*
- 1455 **Action:** *Add to Table 2 the issue of Generation Capacity Definition in the Data Validation, Consistency and Defaulting Rules.*

#### 4.2 Other Issues (GCRP 03/10 Table 2)

- 1456 HVDC Interconnector provisions. It was agreed that this should now be incorporated into the Generic Provisions issue and could be removed as a separate issue.
- 1457 With respect to NTO MT asked for clarification on how the 2 minutes provision was applied as it appeared that there were some Users with NTO in excess of 2 minutes. PH understood that the 2 minutes was the time in which a User was expected to respond to an instruction but would need to confirm this. He was also not aware that there were Users with NTO in excess of 2 minutes although it was possible that there may be a database which included such Users who were not participating in the Balancing Mechanism. MT and PH agreed to discuss the issues further outside the meeting.
- 1458 PH also stated that following on from the CAP043 associated Grid Code change an additional item should be added to the Issues list related to a review of all capacity terms in the Grid Code.
- 1459 **Action:** *DP to ensure Issues List updated to reflect comments at the meeting.*

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

#### 5.1 Generic Provisions Working Group GPWG (GCRP 03/11)

- 1460 DP introduced the paper which was the final report of the GPWG including proposed Grid Code changes. NT described in more detail the main points in the paper and indicated that further detail was included in the appendices to the paper. It was noted that although proposed Grid Code changes had been debated fully at the GPWG meetings there were some working group members who did not feel they could fully endorse the proposed Grid Code changes.
- 1461 NT stated that since the GPWG had been initiated in November 2002, the need for consideration of Grid Code provisions had increased due to the high interest in applications for connection of windfarms, with timescales from 2006 covering commissioning periods over 3 – 4 years. NT felt that the work of the GPWG provided a good and timely foundation of technical requirements for the round 2 off-shore windfarms (according to the dti consent process) and attempted to take market penetration into account.
- 1462 NT explained that it was now intended to initiate a wider consultation on the proposed Grid Code changes and given the complexity and the importance of the issues, it was proposed that the consultation period should be extended to 6 weeks rather than the more normal 4 weeks. NT invited Panel members views on the proposals and the suggested consultation period.
- 1463 MT thanked NT and the GPWG for the substantial amount of work that had gone into the report and the proposals. MT recognised that there had been contrary views expressed by some GPWG members and felt that the paper should incorporate those views. MT also stated that the paper only dealt with the Grid Code technical conditions and suggested that the subsequent consultation document should also raise the issues in terms of the commercial and structural impacts of the changes or indeed, of not making the changes. MT also recognised that an honest attempt had been made to introduce certain provisions

in relation to Reactive requirements and Frequency Response in stages to allow technology to develop. However MT felt that this could leave developers at risk if the technology did not mature as expected.

- 1464 MT also felt that 6 weeks for consultation was probably not long enough, but it was important to ensure that the consultation was well publicised beyond the normal audience and that all interested parties were given the opportunity and resources to respond to the consultation.
- 1465 JN stated that he had not received reassurance from manufacturers that they can guarantee the required plant capability on frequency range and fault ride through and it would be helpful if this was recognised in the paper. NT agreed that some technologies were still being developed by some manufacturers and the proposals recognised this, but the Grid Code requirements should provide appropriate medium and long term signals for manufacturers to aim at. Indeed one large Generator applying for connection from 2006 had indicated no difficulty in meeting requirements although there was a more immediate problem for some smaller wind farms but this was dealt with in another forum by the dti/OFGEM. JF recognised that doing nothing was not an option in relation to the need for Grid Code changes.
- 1466 DN stated that in Scotland the expectation was that Fault Ride Through and Frequency Response would be critical for maintaining system security. DN reported that Scottish proposals had now been brought forward and agreement had been reached with the Scottish GCRP. DN offered to circulate associated technical presentations to GCRP members. With respect to HVDC Interconnectors DN pointed out that the HVDC working group had identified some concerns and it was important to ensure that the panel did not lose sight of those concerns. With respect to consultation DN felt that 6 weeks may not be adequate but supported the need to reach as wide an audience as possible. It was also suggested that a proactive approach via seminars would be helpful.
- 1467 **Action:** *DN to circulate technical presentation material related to Scottish Grid Code windfarm proposals.*
- 1468 CZ suggested that the proposed staged introduction of requirements should be extended to 2007 rather than 2006 on the grounds that it would be most unlikely that the second round of offshore windfarms would be completed before 1<sup>st</sup> January 2007 and therefore the extension would allow for any delays in completing first round projects but would not materially affect any intended penetration level. NT noted the proposal but believed the 2006 date was consistent with the dti view on market penetration.
- 1469 CZ also felt that as the consultation paper package would be substantial, the proposed Grid Code text changes should not be included to enable recipients to focus on the issues of principle and not get bogged down with detail. This suggestion was noted but it was pointed out that the consultation was basically concerned with proposed Grid Code changes and so the proposed text would need to be included. However the proposed text would be included in a separate appendix.
- 1470 DN also asked that consideration should be given to two separate consultations on HVDC proposals and generic provisions to avoid swamping one with the other.

1471 It was agreed that a wider consultation should be initiated with a consultation period of at least 6 weeks.

1472 **Action:** *National Grid to initiate wider consultation on Generic Provisions*

## 5.2 CC.6.3.3 Working Group (GCRP 03/12)

1473 NT went through the paper which detailed a proposed change to the text of CC.6.3.3 to require CCGT's to comply with the existing provisions but where the frequency dropped below 48.8Hz the requirement would be to meet the existing provisions for a period of 5 minutes only.

1474 NT stated that National Grid now intended to initiate a wider consultation on the proposed changes.

1475 JF requested that section 5.8 (b) of the main report was amended to indicate that '...scenarios that might lead to frequencies stabilising below 48.8Hz are very unlikely but...' NT was happy to make this change.

1476 CZ questioned where the figure of 48.8Hz had been specified/documented and how firm it was. NT replied that 48.8Hz was the setting for first stage of Low Frequency Disconnection relays. It was the figure specified by National Grid to all DNO's when week 24 data was exchanged and had been used in the industry since 1985. CZ felt that for clarity and proper application of the proposed CC.6.3.3 this figure should be specified in the Grid Code.

1477 CZ asked whether it was proposed that the revised CC.6.3.3 text would be applied retrospectively to those CCGT's already operating and not compliant with the existing provisions of CC.6.3.3 but may comply with the new provisions. CZ also asked whether an existing compliant CCGT would be allowed to adjust its control systems such that it was only compliant with the new relaxed provisions. NT replied that all existing plant could comply with the provisions and the benefits of the change could only be fully realised if it was applied retrospectively.

1478 DN pointed out that this review had been initiated by a certain generator who had indicated that they would be unable to comply with the CC.6.3.3 provisions. DN asked whether this generator would now be compliant. BM stated that the generator had now indicated that they were compliant with the original CC.6.3.3 provisions and had withdrawn their request for a derogation. NT advised that this generator had welcomed the proposal at the WG as it presented a lower risk to their plant.

1479 With respect to 48.8Hz JN suggested that the proposed Grid Code text should be amended to remove the word 'currently'. JN also suggested that the associated diagram should be amended to remove the text... 'For CCGT Module: profile to be met continuously'. National Grid would consider these suggestions when preparing the consultation paper.

1480 GCRP members agreed that a wider consultation on the proposed changes should be initiated with a consultation period of 4 weeks.

1481 **Action:** *National Grid to initiate wider consultation on CC.6.3.3 change proposals*

## 6 OTHER GRID CODE RELATED ISSUES

### 6.1 Governance of Electrical Standards (03/14)

- 1482 BG gave a verbal update on the current position.
- 1483 A joint working group consisting of representatives of the E&W Grid Code, Scottish Grid Code and Distribution Code had met on several occasions to explore Ofgem's original recommendations. A final meeting of the joint group was planned for early June 2003 with a report being expected by end of June 2003. Following this, a special summer GCRP meeting would be held to discuss the Joint Working Group report (possibly in conjunction with the DCRP and Scottish GCRP). A GCRP specific sub group would then be set up to explore how the recommendations of the Joint Group could be taken forward. Following this an industry consultation would be initiated.
- 1484 BG explained that a major issue was related to which body should take the final decision on approval of changes to the relevant standards (the relevant standards being the 18 NGTS's that had been identified as imposing material obligations on users). Ofgem had informally indicated that they did not think it would be appropriate for them to sign off more technical standards than was currently the case. Equally, the indemnity and liability issues associated with the Grid Code Review Panel taking the final decision as to whether or not to approve a change to a standard, meant that it did not appear possible for the GCRP to take the final decision in this area. Ofgem had not given a firm view in relation to this question, but their initial view as conveyed to the Licenced Network Operator's was that the bodies that currently took the final decision as to whether to approve or reject a standard should continue to do so. In the context of the 18 NGTS's within the revised Governance remit, this would mean National Grid..
- 1485 BG stressed that the revised Governance process would nevertheless significantly enhance the clarity and transparency of the existing Governance processes in this area. Further thought was being given to the mechanics of these processes in the Joint Working Group, and this was also a topic which the Grid Code specific Working Group would need to explore further, to ensure the right balance between expediency and transparency was struck. BG asked for nominations for the GCRP sub group to be forwarded to the GCRP Secretary by end of May 2003.
- 1486 **Action:** *Nominations to GCRP sub group required from GCRP members.*

### 6.2 OC2 Review (GCRP 03/15)

- 1487 DP described the paper which identified some proposed OC2 changes which could be implemented in the short term to update OC2 to more accurately reflect current practice and provide clarification. These short term changes would enable OC2 to be placed in a better position for transposing to the GB Grid Code.
- 1488 The paper also pointed out that National Grid had identified some more substantial issue that could result in changes in practice but these required further analysis and it was proposed that these issues could be taken forward following GB Grid Code implementation.
- 1489 DP stated that following discussion at this GCRP meeting, and subsequently if necessary, National Grid intended to initiate a wider consultation on the proposed Grid Code changes.

- 1490 With respect to the proposed text of OC2.4.1.3.3 (e) JN suggested that the text should indicate that NGC would notify relevant Users of aspects of NGC outage programme that may affect those Users and not just those that 'operationally' affect the User. National Grid would consider this issue when preparing the consultation paper.
- 1491 It was agreed that National Grid should initiate a wider consultation on the proposed changes.
- 1492 **Action:** *National Grid to initiate a wider consultation on proposed OC2 changes*

### **6.3 OC1 Review (GCRP 03/16)**

- 1493 DP described the paper which, as with OC2, identified some proposed OC1 changes which could be implemented in the short term to update OC1 to more accurately reflect current practice and provide clarification. These short term changes would enable OC1 to be placed in a better position for transposing to the GB Grid Code.
- 1494 DP stated that following discussion at this GCRP meeting, and subsequently if necessary, National Grid intended to initiate a wider consultation on the proposed Grid Code changes.
- 1495 JN pointed out that the proposed changes did not include the expected changes to the provision of Customer Demand Management (CDM) data. A number of Suppliers have previously been informed by NGC that, providing the submitted PN's took CDM into account, the OC1 CDM obligations could be ignored and consequently CDM data has not been provided to NGC. If the requirement was now to be retained the proposals need to clarify the relationship between PN's and CDM data e.g. whether Physical Notifications (PN) should be exclusive of CDM. PH explained that OC1 was concerned with the collection of data to enable Demand Forecasting whereas PN's were used for balancing the system over the next half-hour. CDM data enabled demand to be normalised. PH was unsure whether it was appropriate to remove the obligation to provide CDM data as it would affect National Grid's ability to forecast demand.
- 1496 FB questioned the need to take into account Interconnector flows (OC1.6.1) when forecasting NGC Demand. PH pointed out that the definition of NGC Demand included exports from the National Grid system and to change this definition would be a more fundamental and separate issue.
- 1497 National Grid agreed to address the issues raised and prepare a consultation paper on the proposed OC1 changes.
- 1498 National Grid to initiate a wider consultation on proposed OC1 changes once issues raised dealt with.

### **6.4 Grid Code Housekeeping Changes (GCRP 03/17)**

- 1499 DP described the paper which identified some minor typographical errors which could usefully be corrected prior to GB Grid Code implementation.

- 1500 GCRP members were invited to identify any other housekeeping changes that could be included by 13th June. National Grid would then initiate a wider consultation on the proposed changes.
- 1501 JN requested that '/or' be added after 'and' in the proposed new text CC.6.5.6 (b) to maintain consistency. He also suggested that 'in CC.5.2' be added after 'list' in CC.5.3.
- 1502 National Grid to initiate a wider consultation taking into account any other housekeeping changes identified.

## **6.5 Technical Requirements for Licence Exempt Embedded Medium Power Stations (GCRP 03/19)**

- 1503 MK described the paper which was concerned with the application of certain Grid Code requirements which National Grid believed applied to Licence Exempt generators but the mechanism to apply does not currently exist. MK stated that the paper would also be tabled at the DCRP in June.
- 15043 The paper recognised that the most appropriate way forward was to initiate a joint working group but this would need to be agreed with the GCRP and the DCRP. Nominations were invited from GCRP members.
- 1505 JN stated that the Distribution Code applied to the Scottish system where a substantial amount of sub 50MW plant existed. This plant was also subject to the Scottish Grid Code as a contractual requirement and not by Licence. JN asked if this plant, along with any medium power stations that sought licence exemption, would be covered by this review. The dti view was that they had not yet been approached to consider Licence exemption in Scotland but that the Licence Exemption Order applied throughout GB.
- 1506 AB stated that it would be appropriate for the working group to contain members with experience in contractual frameworks rather than detailed technical requirements. It was suggested that the group could be made up of 2 or 3 members from each of the GCRP and the DCRP. Nominations were invited by early June.
- 1507 GCRP members generally agreed with the approach outlined.

## **7 BSC/CUSC MODIFICATION PROPOSALS (GCRP 03/18)**

- 1508 Update on modification proposals which may have an impact on the Grid Code:

### BSC Modification Proposals

- 1509 P80 – Responses to Grid Code consultation were being dealt with.

### CUSC Amendment Proposals

- 1510 CAP043 - Responses to Grid Code consultation were being dealt with

## **8 REPORT FROM SCOTTISH GCRP**

- 1511 DN gave a short report:

- 1512 The Scottish GCRP had been considering combining the two Scottish DRC's and it was expected that a revised format would be sent to Ofgem shortly.
- 1513 BETTA - The Scottish GCRP had expressed concern about the way this had been brought forward and was looking to provide input to the process.

## 9 BETTA

- 1514 BM outlined the current position and explained that several consultation papers would be issued shortly dealing with the following areas:
- GB BSC
  - GB CUSC
  - GB Grid Code
  - Smaller Generators
  - SO/TO Code and SO/TO split.
- 1515 The GB Grid Code Expert Group had been set up by Ofgem/dti in summer 2002 and had invited Transmission Licencees to assist with the preparation of consultation papers. The Terms of Reference for the group indicate that other relevant parties may be invited to assist and it was intended that this would happen. The Scottish GCRP had indicated that two members had expressed an interest to be nominated to the expert group. The next meeting of this group would be on 4 June. Minutes and Terms of Reference for the group were available from the Ofgem website.
- 1516 BM indicated that the Grid Code Consultation paper would consist of two volumes – volume 1 would consist of responses/conclusions from the first consultation and volume 2 would consist of the 1<sup>st</sup> Draft of the GB Grid Code.
- 1517 CZ asked who would be drafting the consultation papers. BM responded that an Ofgem consultant was carrying out the drafting with input from other Ofgem staff.
- 1518 **Action:** *Parties interested in supporting the Grid Code experts group to contact BM*

## 10 ANY OTHER BUSINESS

- 1519 There was no other business identified.

## 11 DATE, TIME & VENUE OF NEXT MEETING

- 1520 Thursday 11<sup>th</sup> **September 2003**, starting at **10:30 am**, venue to be advised.