

The National Grid Company plc

**Minutes of the
Grid Code Review Panel
National Grid House, Coventry
13th September 2001**

Members/Alternates

Mike Metcalfe	National Grid (Chair)
David Payne	National Grid (Secretary)
Geoff Charter	National Grid
Alan Robb	National Grid
David Gray	National Grid
Ian Gray)	
Mike Kay)	PES
John Palmer)	
Bridget Morgan	OFGEM
John Norbury)	
Graham Trott)	Generators with Large Power Stations with total Reg. Cap. > 5GW
John France)	
David Ward	Generators with Large Power Stations with total Reg. Cap.< 5GW
Malcolm Taylor	Generators without Large Power Stations
David Nicol	EISO
Chris Rowell	BSC Panel

Advisors

Robert Lane, CMS Cameron McKenna

1 APOLOGIES FOR ABSENCE AND INTRODUCTION

- 949 Apologies for absence were received from Alan Robinson, François Boulet and Nick George.
- 950 The chairman welcomed David Nicol of Scottish Power to the Panel. David will now attend the GCRP meetings as an alternate member representing EISO's, replacing Peter Clubb who has now retired.

2 APPROVAL OF MINUTES OF PREVIOUS MEETING

- 951 The Chairman pointed out that minute 896 stated that CUSC implementation was expected to be 18th July 2001, but since the May meeting implementation had been delayed until 18th September.
- 952 The minutes of the last meeting were agreed as a true record.

3 MATTERS ARISING FROM PREVIOUS MEETING (not covered below)**3.1 Summary of actions (GCRP 01/14)**

- 953 David Payne stated that as the actions listed on the paper were either complete, covered by later Agenda items or to be covered at future meetings, it was not proposed to cover each action at this point unless the Panel wished to raise any associated issues. No issues were raised.

3.2 Data Management during EDT outages (GCRP 01/15)

- 954 Alan Robb went through the paper which had been prepared in response to an action (918) from the May GCRP meeting.
- 955 Alan explained that during the initial design stages of the National Grid NETA systems the concept of Data Buffering had been considered to reduce the impact of National Grid computing outages on BM Participants. However as the detailed design progressed it became apparent that Data Buffering would give rise to a number of problems.
- 956 The paper concludes that Data Buffering does not provide a robust solution and that the alternative of the introduction of Dual Systems would be much more beneficial as there would effectively be no interruption of trading in the event of an outage. This option is being considered as part of an National Grid review of NETA systems (which is already underway) and would not be implemented for at least 18 months. However Alan suggested that National Grid could report back to the GCRP on the outcome of the review in 3 to six months time.
- 957 Alan also explained that currently computing system outages are necessary as the NETA systems were built on existing platforms and there is the ongoing need to update these systems from time to time. All planned outages have so far been carried out successfully and none of them have lasted more than one hour. Long notice has been given for all of these planned outages.
- 958 John France asked National Grid to make every effort to ensure that planned IT outage durations were minimised, and preferably kept to less than the one hour.
- 959 Alan responded that normal outages for functionality changes would be expected to be less than one hour duration and could possibly occur on a 2 monthly cycle during the next year. However for information, Alan explained that the need for a substantial system change had been identified, requiring an outage of two hours, and this had now been programmed to take place on 16th October. This outage had been the subject of substantial planning to ensure that the outage duration does not exceed two hours.
- 960 John Norbury asked on what economic basis National Grid had decided to take this outage on that day as 16th October is a Tuesday which tends to be a high load day during the week and with consequential risk of high imbalance costs to be borne by BM Participants.
- 961 Alan explained that the actual time required to do the necessary work would be a period from 12 hours ahead to 12 hours after but the impact on BM Participants would be a two hour system outage. In order to make best use of resources the best time to take the outage would be during that day but avoiding midday and evening peak periods. This outage would also be announced at the forthcoming Operational Forum and would be published on the BMRS with a minimum 12 hours notice.
- 962 John Norbury commented that Data Buffering had originally been proposed by National Grid in response to concerns raised by BM Participants that they would be prevented from submitting Physical Notifications to NGC during the periods of National Grid computer shutdowns. John was unclear why in the event of an outage data could not be submitted by fax or telephone, given that National Grid was prepared to accept telephone redeclarations of dynamic parameters and MEL

data and he did not envisage the need to transmit large amounts of PN data during an outage. There was a risk that a BM Participant could be out of balance if it became necessary to amend data during an outage and was unable to do so.

- 963 Alan stated that notification of data changes by telephone or fax had been considered but this would place further pressure on control engineers during what would be an already particularly busy period and so National Grid would prefer to pursue the alternative of introducing Dual Systems. Alan also pointed out that there was a compensation clause in the BSC to assist BM Participants that find themselves disadvantaged so it was in National Grid's interest to resolve this issue.
- 964 John France noted that Data Buffering may well be a difficult issue as evidenced by continuing GCRP debate. However, National Grid must in the meantime continue to minimise IT outage durations. John suggested that the wider National Grid review of NETA systems (which is already underway) should take due account of GCRP views.
- 965 Chris Rowell asked if the ability to introduce a robust system would have any effect on plans to reduce gate closure period to one hour. Alan stated that if National Grid's review of that issue supports the reduction of gate closure to one hour then National Grid intended to be ready for that in April 2002.
- 966 Panel members agreed that National Grid should report on progress of the NETA systems review at the next GCRP meeting in November.
- 967 **Action:** *National Grid to report on the review of NETA software systems at November GCRP meeting.*

4. REPORT ON PROGRESS OF CONSULTATION PAPERS (GCRP 01/16)

A/00 – Safety Co-ordination.

- 968 Procedures were being drafted which will lead to further changes to OC8 being proposed. Progress was slow due to resource pressures.

C/00 - Harmonics

- 969 The proposed changes have now been approved by Ofgem. It was originally planned to implement the Grid Code changes on 1st August along with the Housekeeping changes which at that time would have been shortly after the implementation of the CUSC changes. However as CUSC was delayed, rather than introduce an interim change to the Grid Code it was decided to delay implementation of the Harmonics changes until after CUSC implementation on 18th September. Ofgem have extended National Grid's existing derogation till 31st October to cover the intervening period.

D/00 - Housekeeping Changes

- 970 The proposed changes have now been approved by Ofgem but as with the Harmonics change implementation has been delayed until shortly after the CUSC changes have been implemented in September.

E/00 - Changes due to CUSC Implementation.

- 971 The update to the Grid Code had been distributed ready for implementation on CUSC Implementation Date, which had been expected to be early in June 2001 but was now delayed to 18th September.

A/01 – OC5 – Testing and Monitoring

- 972 The consultation on the first stage of this review, proposing clarification of the structure of OC5, is now complete and the Report to Ofgem was sent on 17th August. Awaiting Ofgem approval.

B/01 – Definition of NGC Demand and National Demand

- 973 The consultation is now complete and the Report to Ofgem was sent on 10th August. Awaiting Ofgem approval.

C/01 – Membership of the Grid Code Review Panel

- 974 The consultation is now complete and the Report to Ofgem was sent on 28th August. Awaiting Ofgem approval.

D/01 – Provisions Related to Embedded Large Power Stations

- 975 14 responses have been received and National Grid is in the process of deciding on how best to prepare the report to Ofgem.

5 PROGRESS ON CURRENT GRID CODE MODIFICATION PROPOSALS (GCRP 01/17)Reactive Power Review

- 976 The working group report had been presented to TUG on 23rd March and further progress had been dependent on TUG recommendations. Since then TUG has been disbanded. However some of the TUG responsibilities will probably be covered under the CUSC forum.

5.1 OC5 Review – The next stage (GCRP 01/18)

- 977 David Gray explained that the first stage of the review was now complete and a consultation on associated Grid Code changes was underway as noted under paper GCRP 01/16.

- 978 At the May GCRP meeting the Panel agreed that the OC5 working Group should now go on to consider the inclusion of additional requirements in OC5 to cover full references to generator connection conditions for compliance and ongoing lifetime testing. In addition the inclusion of provisions for testing of connection conditions on User Networks will be considered.

- 979 Paper GCRP 01/18 listed the terms of reference for the review and also proposed in the attachment the areas of the Grid Code which may need to be amended. David confirmed that the existing working group would be enhanced by an additional member representing Distribution Network Operators. The next meeting

of the working group was targeted for October and is expected to report back to the Panel in February 2002.

980 Panel members agreed the terms of reference in the paper.

5.2 CC.6.3.3 Review Working Group Update (GCRP 01/19)

981 Geoff went through the paper which provided an update on progress of the working group and a description of the analysis work carried out so far.

982 It is now unlikely that the new generator in South Wales (who had been the catalyst for this review) would apply for a generation licence until 2002 so a request from Ofgem for a review was not expected until then. The working group had considered wide ranging aspects in anticipation of the request from Ofgem for a review while at the same time keeping an open mind on what the scope of the request might be. Investigations had also been carried out into whether there were similar frequency requirements in the codes of other countries although this had been inconclusive so far. The next group meeting was arranged for 8th November 2001.

983 The proposed Grid Code text mentioned in the paper refers to a power/frequency ratio of 5:1 and Mike Metcalfe asked if this ratio could be explained. Geoff explained that this was a ratio of percentages not physical quantities. Geoff also stated that the work done so far was mainly on an empirical basis and further more detailed studies would be ongoing. It was also requested that the paper presented to the working group (discussing the analysis) be circulated to Panel members.
(Post meeting note: The working group paper was circulated following the meeting)

6. NEW GRID CODE MODIFICATION PROPOSALS.

6.1 Use of E-Mail for the communication of data, information and notices (GCRP 01/20)

984 David Payne went through the paper which proposes that that the Grid Code be amended to enable the use of electronic communication and e-mail as a means of communicating data in addition to the means already detailed in the General Conditions and the Glossary and Definitions – Construction of references.

985 Graham Trott asked if it was intended that e-mails would be sent to previously supplied addresses. Mike Kay suggested that it would be helpful for National Grid to publish on the website, a list of e-mail addresses that it would use for communication. Robert Lane pointed out that for a particular company there may need to be several different addresses dependent on the type of data or information being sent and the proposal should be amended to make it clear that the address previously supplied should be that address for the purpose of the data supplied.

986 John Norbury asked whether the protocols for the acknowledgement of the receipt of e-mails should be included in the proposed Grid Code amendment. It was pointed out that arrangements to ensure receipt by the appropriate person should be addressed at the receiving end.

- 987 Graham Trott raised the issue of legislation that makes e-mail communication legally binding. Robert Lane indicated that the recent law on e-mail issues related to 'electronic signatures' but this Grid Code change proposal is concerned with e-mail as a method of communication rather than its content.
- 988 The Panel agreed that National Grid should prepare a consultation paper, taking account of the amendments discussed.
- 989 **Action:** *National Grid to Prepare and circulate a consultation paper on the Use of E-Mail for the communication of information, data and notices.*

6.2 National Grid Software Documentation Change Control (GCRP 01/21)

- 990 Geoff went through the paper which was concerned with the best approach to manage changes to software specification documents and making users aware of changes.
- 991 Section 8 of the paper suggests methods of handling proposed document changes dependent on the perceived effect of the proposed changes on the user. In addition section 9 of the paper proposes some additional text to be included in Grid Code Connection Conditions (CC.6.5.8) requiring National Grid to consult on any changes to documents which in National Grid's reasonable opinion have an effect on Users systems.
- 992 John Norbury was concerned about the apparent absence of the objectives and governance of these software specifications since under NETA compliance with them was now mandatory. He felt that the specifications should describe the minimum requirements at the system interface. In reply Geoff stated that all of the specifications are National Grid documents and that they can be provided to participants on request. John suggested that the specifications should fall under the governance of the Grid Code in a similar manner to the Data Validation, Consistency and Defaulting Rules.
- 993 Bridget Morgan asked if National Grid could explain the criteria to be used when deciding whether to post notification of changes to the documents. Alan Robb stated that National Grid would take the view that if there is any doubt about the impact of a change, then it would be assumed to have an impact on users and in that case users' views on proposed changes would be sought.
- 994 Graham Trott asked what the position would be if National Grid assumed that a change would not have a significant impact on users but in reality it turned out that it did. Alan replied that in that case National Grid could step back to the position prior to the change and then initiate the consultation process.
- 995 John France noted that even a minor change to such as EDL may impact adversely on some Users, especially when roll out time and User testing time for software changes are considered. However, John took some comfort from the assurance by Geoff Charter that if any User raised concerns over the proposed 3 week notice period then either longer notice would need to be agreed with that User or National Grid would revert to a Consultation such that implementation would be co-ordinated with all Users. John noted that this provision was not clear from the paper GCRP 01/21, and requested that the forthcoming Consultation paper on GCRP 01/21 should make it clear that any change(s) would be elevated to the level requiring a Consultation to be initiated if a User expressed difficulty or undue concern with the proposed notice period of say 3 weeks.

- 996 Malcolm Taylor suggested that as the documents in question had been in existence for some time then the frequency of future changes should be expected to be low. Alan agreed that National Grid did not see the need for a lot of significant changes. However there was the possibility that other participants may request changes.
- 997 Graham Trott suggested that the term 'minor' should be removed from the table in section 8 of the paper. Also the proposed new text given in section 9 should be amended to clarify that where necessary a proposed change could be elevated to one that would be required to undergo the consultation process.
- 998 The Panel agreed that National Grid should prepare a consultation paper, taking account of the amendments discussed.
- 999 **Action:** *National Grid to Prepare and circulate a consultation paper on National Grid Software Documentation Change Management.*

6.3 Review of OC4 (GCRP 01/22)

- 1000 Alan Robb explained that National Grid had considered the requirements of OC4 in the light of operating experience gained under NETA and had concluded that these requirements could be relocated to other sections of the Grid Code, making OC4 redundant and simplifying the Grid Code.
- 1001 Alan stated that the most significant of the proposed changes related to the 'Weekly Operational Policy' (WOP). The paper suggests that the WOP provides for the supply of information on a weekly basis but is actually needed on an 'as required' basis. It was proposed that this requirement is located in OC2.
- 1002 John Norbury pointed out that before any changes to OC4 are made an assessment of the impact on other documents should be made which might make reference to the WOP and/or OC4. e.g. Bilateral Contracts. This may involve a substantial amount of work to resolve. It was agreed that this would be fully considered by National Grid.
- 1003 The paper also proposes the clarification of the use of the term 'Minimum Generation' as there are conflicting requirements between the Connection Conditions and the current OC4 requirement.
- 1004 The Panel agreed that National Grid should prepare a consultation paper subject to a full assessment of the impact on other documents.
- 1005 **Action:** *National Grid to carry out an impact assessment of proposed OC4 changes on other documents and prepare and circulate a consultation paper on proposed Grid Code changes.*

6.4 Energy Data (GCRP 01/23)

- 1006 David Gray introduced the paper which recognises the difficulty of obtaining energy data in the form required under PC.A.4 of the Grid Code following the Licence separation of PES's into supply and distribution businesses. The paper proposes simplification of the current requirements and collection of the data on the basis of information already supplied by the PES's to Ofgem i.e. categorising energy data into a range of 'tariff baskets'.

- 1007 Mike Kay stated that he believed the proposals only affected Distribution Network Operators (DNO's) and that they presented no problems for the DNO's.
- 1008 Malcolm Taylor asked whether Ofgem had any plans to discontinue the collection of such data. Bridget Morgan replied that there were no such plans.
- 1009 The Panel agreed that National Grid should prepare a consultation paper.
- 1010 **Action:** *National Grid to prepare and circulate a consultation paper on proposed Grid Code changes with respect to Energy Data collection.*

7 OTHER GRID CODE RELATED ISSUES

7.1 Report on Operation of ROCOF relays (GCRP 01/24)

- 1011 The report was the latest in a series of annual summaries of ROCOF information which reviews generation trips of 1000 MW or more and associated ROCOF tripping incidents.
- 1012 Alan Robb explained that there had only been six large generation losses meeting the required criteria for reporting in the period from 1st August 2000 to 31st July 2001 and only one of those incidents resulted in a report of a ROCOF trip of 2MW. This is similar to reports for previous periods and so it would seem there was no valid reason to continue to collect the data and report on a regular basis; rather incidents could be reported on an ad hoc basis.
- 1013 David Ward asked whether, if incident reporting was suspended, would the mechanisms remain in place to approach companies for information in the event of a large system loss. It was explained that the information gathering mechanisms could easily be reinstated if such an event occurred.
- 1014 Alan explained the main reason for the information gathering exercise had been to target those generators whose ROCOF relay settings needed adjustment. However it now seemed that better quality settings were being achieved and also there was currently sufficient system response to reduce the number of reported incidents.
- 1015 Mike Kay suggested that as the cost of producing the report was low, it would be prudent to continue with the reporting mechanism, especially with the expected increase in embedded generation. Mike agreed to obtain the views of ILEX on this matter.
- 1016 There were no strong objections to continuing with the annual reports from National Grid, as long as the associated costs remained marginal.
- 1017 On that basis the Panel agreed that ROCOF reporting should continue for the time being.
- 1018 **Action:** *National Grid to prepare a further ROCOF report for September 2002 GCRP meeting.*

7.2 BSC/CUSC Modification Proposals having an impact on the Grid Code (GCRP 01/26)

- 1019 Geoff Charter introduced the paper which proposes an approach to dealing with BSC or CUSC amendment proposals which may have an impact on the Grid Code.
- 1020 Since NETA Go-Live the number of BSC modification proposals has increased significantly. National Grid monitors these proposals in order to determine whether there would be associated Grid Code changes. If a BSC modification proposal has moved through the BSC Panel process there may be several options to consider and it may not be clear which option will be taken until a late stage in the process. However if the option taken has an impact on the Grid Code then it may be necessary to expedite a Grid Code change without waiting for the next GCRP meeting to discuss the proposed change. In which case it is proposed that the Grid Change proposals are discussed with GCRP members via e-mail. Hopefully there would be no issues arising and consultation could then be carried out in the usual manner. However if necessary a special GCRP meeting could be convened.
- 1021 It was also proposed that National Grid would provide a summary of BSC/CUSC proposals that may have an impact on the Grid Code. Such a summary would also provide an 'early warning' of any impact on the Grid Code.
- 1022 Chris Rowell stated that this was a growing problem and some BSC modification proposals may have an impact on the Grid Code which could require urgent attention. Although it was expected that BSC proposals would have a relatively low impact on the Grid Code, in the event that a proposal did have a significant Grid Code impact the BSC may have to refer to the GCRP or set an implementation date for the modification that would allow the GCRP time to consider the proposal. In that case the BSC Panel may have to obtain the approval of the Authority to defer implementation of the BSC modification in order for associated Grid Code changes to be considered.
- 1023 Mike Metcalfe pointed out that one issue was at what point does the GCRP start to meet more frequently. It was agreed that as there is the option of calling special meetings when necessary then there was no point, at this stage, in having more frequent meetings.
- 1024 The Panel agreed to the approach detailed in the paper for considering the impact on the Grid Code of BSC/CUSC changes. It was also agreed that National Grid should provide a summary of such changes at future GCRP meetings.
- 1025 **Action:** *A summary of BSC/CUSC modification proposals which may have an impact on the Grid Code to be included as a GCRP Agenda item.*
- 1026 Geoff then explained that there were currently two BSC proposals which may have an impact on the Grid Code, both related to OC2 data:
- Release of data
 - How data is presented on the BMRS (Terminology issue)
- 1027 In addition the proposal to move to a 1 hour Gate Close period should not have an effect on the Grid Code on the face of things, but a more detailed analysis may reveal the need for a Grid Code change.

- 1028 Geoff also pointed out that there was an intention to raise a modification to CUSC 6.5.1 related to the provision of data by Small and Medium Embedded Power Stations to National Grid. This is likely to require a Grid Code change.

7.3 Submission of Maximum Export Capacity (MEC) data (GCRP 01/27)

- 1029 John Norbury presented the paper on behalf of GCRP members representing Generators >5GW. The paper was concerned with an apparent inconsistency between the Grid Code and the MCUSA/CUSC with respect to the provision of MEC data. John explained that the MCUSA/CUSC defines MEC as part of Registered Data whereas the Grid Code makes no reference to MEC. The paper proposed that the MCUSA/CUSC definition be replicated in the Grid Code and the Planning Code be amended to include the provision of MEC data.
- 1030 Geoff Charter agreed that the paper identified the need to resolve an inconsistency between the Grid Code and the CUSC. However before any proposed Grid Code changes were progressed National Grid would wish to consider the use of MEC in the CUSC to determine whether there would be an advantage in amending the CUSC in this area. National Grid would then report back to the November 2001 GCRP meeting.
- 1031 Malcolm Taylor asked if there was already a CUSC modification being prepared. It was explained that this paper had prompted the National Grid CUSC team to investigate the use of MEC in the CUSC but there was no actual CUSC modification proposal as yet. Any CUSC modification would probably still require a Grid Code change but this could differ from the change proposed by this paper. However if no CUSC modification is identified National Grid is willing to support a Grid Code change as proposed.
- 1032 **Action:** *National Grid to report to the November GCRP on possible CUSC modification proposals associated with MEC.*

8 ANY OTHER BUSINESS

8.1 Meeting dates for 2001 (GCRP 01/25)

- 1033 The paper proposed dates for four meetings in 2002. GCRP members were asked to note the dates and comment as necessary.

Time Tagging of Dynamic Parameters

- 1034 John Norbury pointed out that at the February 2001 GCRP meeting National Grid had stated that six months of experience of operating under NETA would be required before a resolution to the issue of Time Tagging of Dynamic Parameters could be resolved. At the same meeting, National Grid had stated that twelve months of experience would be needed before the NTO/NTB restriction could be resolved. John asked what progress had been made with these issues.
- 1035 Alan Robb stated that National Grid was aware that this issue needed to be resolved and that it was included in the work programme for consideration along with other issues. However Alan agreed to report to the November GCRP on the current situation.
- 1036 **Action:** *National Grid to report to the November GCRP meeting on the position with Time Tagging of Dynamic Parameters and other issues.*

9 DATE, TIME & VENUE OF NEXT MEETING

1037 **Thursday 15th November 2001**, starting at **10:30 am**, at National Grid House.