

Grid Code Review Panel Meeting

Minutes and Actions Arising from Meeting No. 26 Held on 15th February 2007 at National Grid House, Warwick

Present:

Duncan Burt	DB	Panel Chairman
Lilian Macleod	LM	Panel Secretary

National Grid

Andy Balkwill	AB	Member
Mark Duffield	MD	Member
Brian Taylor	BT	Member

Generators with Large Power Stations with total Reg. Cap.> 3GW

John Morris	JM	Member
Claire Maxim	CM	Member
Campbell McDonald	CMcD	Member
Richard Cook	RC	Alternate Member
John Norbury	JN	Alternate Member

Generators with Small and Medium Power Stations Only

Malcolm Taylor	MT	Member
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Network Operators in England and Wales

Mike Kay	MK	Member
Graeme Vincent	GV	Member

Network Operators in Scotland

Dave Carson	DC	Member
Neil Sandison	NS	Alternate Member

Relevant Transmission Licensees

Alan Michie	AM	Member
Chandra Trikha	CT	Member

Generators with Novel Units

Guy Nicholson	GN	Member
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Ofgem Representative

Bridget Morgan	BM	Member
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BSC Panel Representative

Kathryn Coffin	KC	Member
Chris Stewart	CS	Alternate Member

In Attendance

Paul Capp	PC	National Grid
Emma Carr	EC	National Grid
Jonny Hosford	JH	National Grid
Robert Smith	RS	National Grid

1. Introductions/Apologies for Absence

634. Apologies for absence were received from Nasser Tleis (National Grid), David Ward (Gens <3GW), Stuart Graudus (NEC) and Jean Pompee (EISO).

2. Grid Code Review Panel Membership

635. The Panel were informed that in accordance with clause 5.5 of the Grid Code Constitution and Rules, the members of the previous Panel resigned and a new panel reappointment.

636. The Panel NOTED the following changes to the Grid Code Review Panel Membership:

National Grid Representation

- Andy Hiorns and Andy Balkwill replace Rob Smith as National Grid Representative. Andy Hiorns and Andy Balkwill will alternate their attendance in line with panel business.

Generators with Large Power Station with total Reg. Cap.> 3GW

- Claire Maxim has been appointed as Panel Member with John Norbury appointed as her Alternate.

Network Operators in Scotland

- Dave Carson has been appointed as Panel Member with Neil Sandison appointed as his Alternate.

BSC Panel Representation

- Chris Stewart has been appointed as the alternate member

637. The Panel NOTED that the position for a Suppliers Representative remains vacant. The vacancy will be publicised at the appropriate BSC forum with the view of increasing awareness of the position and obtaining a representative for the seat.

638. The 2007 Grid Code Review Panel Membership will be available on the Grid Code website.

Action: Panel Secretary

3. Minutes of Last Meeting

639. The draft minutes of the 25th Grid Code Review Panel (GCRP) meeting held on 23rd November 2006 were APPROVED, subject to minor amendments and will be accessible from the Grid Code Website.

4. Review of Actions

640. All the outstanding actions from the previous meetings have been completed or were the subject of agenda items, except for:

- Minute 550 - 552 (Control & System Telephony)

The Panel were informed that National Grid was in the process of developing the specification for System Telephony which would be reflective of the National Infrastructure Security Co-ordination Centre (NISCC) guidelines for telephone lines.

The Panel NOTED that NISCC had changed their name to Centre for the Protection of National Infrastructure (CPNI).

- Minute 555 (Scottish Control Telephony Standard)

The Panel NOTED that the issue of a Control Telephony Standard for Scotland

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was being considered by the STC Committee.

The Panel NOTED that STC Committee would formally reply to the GCRP regarding the establishment of a Control Telephony Standard for Scotland. The reply would be circulated to the GCRP prior to May 2007 GCRP meeting.

Action: Panel Secretary

- Minute 587 (Access Procedure for Power Station Staff into National Grid's Substations)

The Panel NOTED that the access procedures for power station staff entering National Grid substations were required for compliance with the Health and Safety at Work Act obligations and provisions. PC informed the Panel that National Grid had a duty of care towards all individuals on their premises which required all individual to follow the health and safety procedures relevant to a particular site.

JN indicated that there still remained a lack of clarity regarding National Grid's procedure for non-National Grid staff to gain access to substations to access their assets, the level of National Grid supervision required, the procedure for booking a properly authorised National Grid member of staff and also confidence that the relevant National Grid staff were available when required.

National Grid to confirm and circulate the access procedures for power station staff entering National Grid substations.

Action: National Grid (PC & MD)

The Panel AGREED that it would be useful for the relevant procedure(s) to be made publicly available on the Grid Code website.

Action: National Grid (PC & MD)

CMcD queried whether the Senior Authorised Person (SAP) had to be a National Grid employee. National Grid confirmed that it was acceptable for a third party to provide their own qualified SAP as long as the SAP complied with the relevant health and safety procedures for that site and was only undertaking work on their own equipment.

The Panel NOTED that PC was available to answer any detailed questions which members may have regarding the access procedure for power staff entering National Grid's substations.

Post Meeting Note

The Panel were informed of PC's e-mail address (Paul.Capp@uk.ngrid.com) and telephone number (01268 642002).

- Minute 614 (Appendix F5)

The Panel NOTED the paper circulated by JN which identified technical requirement which are currently included in Appendix F5 and are in addition to the requirements specified in the Grid Code.

The Panel NOTED that National Grid was currently in the process of reviewing the paper which has been included on the Grid Code outstanding issues list to maintain visibility of the issue.

- Minute 625 (Wind Farm Technology Patents)

The Panel NOTED that there was no further update regarding the issues of wind farm technology patents and the associated implications for other manufacturers from using technical solutions to ensure compliance with the Grid Code.

The Panel NOTED that legal proceedings were ongoing regarding this matter. The Panel will be kept informed of future developments.

Action: National Grid

- Minute 629 (PPM Technical Obligations)

The Panel NOTED that National Grid had replied to Simon Cowdroy's suggestion of a formal review of the Reactive Capability provisions for Embedded Generators and its usage to support the GB Transmission System.

In the reply National Grid indicated that the issue had been discussed by the Power Park Modules and Synchronous Generating Units Working Group and invited Simon Cowdroy to provide a formal response regarding this matter via the G/06 consultation process.

The Panel NOTED that the DTI had asked the industry to provide an indication of the costs for non synchronous generation of complying with Grid Code obligations. The Panel NOTED that the exercise was on-going and that the associated information relating to the consultation was not available in the public domain.

- Minute 630 (Delegation of Authority for Busbar Switching Contracts)

The Panel enquired as to the progress of National Grid's review of the Delegation of Authority for Busbar Switching contracts. The Panel queried whether such provisions should be included in the Site Responsibility Schedules or other document.

PC informed the Panel that an ENA task group had been established to review the existing processes. The Panel would be kept informed of future developments and the issue will be included on the Grid Code outstanding issues list.

Action: National Grid

5. System to Generator Operational Intertripping Schemes

641. The Panel discussed the proposed alternative wording for the guidance note circulated by MT and JN which provides a level of detail and clarity on intertrips which they believe would be beneficial to the industry.

642. The Panel NOTED National Grid's initial thoughts on the proposed wording. National Grid expressed concerns regarding the extension of the description of System to Generator Intertripping Scheme to include deloading (i.e. post fault drops) of generation in the time between receiving the trip signal and the generator being disconnected from the transmission systems. This was because post fault actions are required too quickly to allow for drops i.e. within the timescales of automatic tripping rather than the time required for post fault drops.

643. Revised wording will be produced by MT, reflecting National Grid comments, and submitted to May 2007 GCRP meeting.

Action: MT & BT

644. The publication of the statement will be agreed once the wording of the guidance note has been finalised i.e. whether it is to be incorporated within the Grid Code or whether it is to be made accessible as a standalone document on National Grid's Industry Information website.

6. Reactive Capability Notification Process

645. National Grid presented a process chart which indicated the process for notifying National Grid of revisions to Reactive Capability during operational timescales.

646. The Panel NOTED that the fax proforma in BC2 was used to notify National Grid's operational staff at the Electricity National Control Centre of a change in Reactive Capability. Panel members are to provide comments on the process chart.

Action: All

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647. National Grid outlined minor changes to BC2.6.1(f) and (g) for the Panel to consider which would oblige the Generator to inform National Grid of changes to reactive output by usage of the fax process described in BC2 Appendix 3.
648. National Grid to provide clarification regarding the information submitted in the Performance Chart, BC2 Fax and Week 24 submission. National Grid to include in the note on the flowchart the difference between the reactive data provided by the BC2 fax and the data provided by the Performance Chart. JN indicated that it would be preferable not to have to send a Performance Chart and the BC2 fax when there is a permanent change to the reactive capability of a Generating Unit.
- Action: National Grid (BT)**

Post Meeting Note

649. National Grid will provide information on the lifetime compliance process outside of the GCRP. A presentation at the Operational Forum is being considered.
- Action: National Grid (AB)**

7. Grid Code Consultation

650. Grid Code Consultation Update

The Panel NOTED that Grid Code proposal E/06 (Low Frequency Demand Disconnection Relay Settings) was submitted to the Authority for determination on 25th January 2007. National Grid is to provide additional clarification regarding certain aspects of the proposals prior to any formal decision by the Authority.

The Panel NOTED that the consultation period for F/06 (Control and System Telephony) closed on 17th January 2007; seven consultation responses had been received.

The Panel NOTED that the consultation period for G/06 (Power Park Modules and Synchronous Generating Units) closed on 18th January 2007; sixteen consultation responses had been received. The Panel NOTED that responses had been received from wind turbine manufacturers. The Panel was informed that the manufacturers' responses and corresponding National Grid replies would be included in a separate section of the Report to the Authority.

651. Grid Code Proposal – Management of No System Connection

A revised version of the proposal has been agreed with the Scottish TOs. The Panel AGREED to the proposals proceeding to industry consultation subject to:

- providing additional clarification to paragraph 8.2.1 of the consultation document
- clarification of the appropriateness of the word 'situated' in OC8A.1.6.2 (2) and OC8B.1.7.2 (2)

The Panel discussed whether it would be beneficial to define 'readily connectable'. The Panel were informed that there was no industry standard definition for 'readily connectable'. The Panel AGREED that since the term was not used in the associated legal text there was no requirement to provide a formal definition for 'readily connectable'.

8. New Grid Code Proposals

▪ **Rated MW**

652. BT provided a presentation to the Panel on the issue of Generating Units exceeding their Rated MW and associated potential impact on the Reactive Capability of that Unit and other Grid Code requirements.
653. The Panel NOTED that currently this issue was being dealt with via the Bilateral Agreements on an individual basis by placing restrictions on the operational output of Generating Units. National Grid acknowledged that it would be beneficial to discuss the various options available with a view of codifying an enduring

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mechanism.

654. The Panel NOTED that Generating Units exceeding their Rated MW was predominantly an issue for Synchronous Generating Units.
655. The Panel AGREED to the establishment of a Working Group to review the implications on the GB Transmission System of Generating Units operating above their Rated MW levels.
656. The Terms of Reference were APPROVED subject to the inclusion of the following issues:
- identification of implications on other energy technology/sectors of the industry
 - identification of implications on other industry codes
657. Working Group nominations are to be sent to GCRP Secretary (Lilian.Macleod@uk.ngrid.com) by 5th March 2007.

Action: All

658. The Panel NOTED that the issue highlighted the linkage between the Grid Code and CUSC capacity terms. National Grid will present an initial paper at May 2007 GCRP meeting on the capacity terms used in the Grid Code.

Action: National Grid (MD)

- **Operational Metering**

659. MD outlined proposed amendments to CC.6.4.4 (Operational Metering). The Panel NOTED that the changes would align the CUSC process timescales (introduced by CAP097) with the relevant timescales for National Grid to notify a requirement for Operational Metering in the case of a Licence Exempt Embedded Medium Power Station (LEEMPS).
660. The Panel queried the associated costs relating to operational metering i.e. who pays for what. The Panel were informed that National Grid is responsible for the installation of the SCADA equipment with the User providing appropriate metering signals from the Generating Unit to the SCADA equipment. National Grid to provide clarification regarding the associated expenditure which will be included in the consultation document.

Action: National Grid (MD)

661. JN queried whether the proposed changes to CC.6.4.4 would be reflective of the existing CC.6.5.6 provision. National Grid to investigate and provide additional clarification to the Panel.

Action: National Grid (MD)

662. NS queried whether the DNO could obtain real time operational metering from a T-connected power station which in the opinion of the DNO has a material effect on their system. This would reciprocate the right of National Grid to have access to operational metering from medium embedded generation. National Grid to provide additional clarification to NS regarding this matter.

Action: NS and BT

663. National Grid will provide clarification on points raised by the Panel. National Grid will circulate the consultation document to GCRP membership, prior to the proposal proceeding to industry consultation.

Action: National Grid (MD)

9. Working Group Reports

▪ P2/5 Working Group

664. MD presented the recommendations of the P2/5 Working Group to the Panel.
665. The Panel NOTED the Working Group recommends Grid Code changes are progressed in the following areas:
- Access Groups
 - Maintenance Period
 - Interconnected Networks
 - Forecast Demands/Single Line Diagrams
 - Additional information provisions by National Grid to DNOs
 - Treatment of submitted data
 - Planning Liaison
666. The Panel NOTED that the proposals would amend existing Grid Code provisions and insert new obligations and terminology such that an assessment of the maintainable of Transmission Interface Circuits could be accurately made.
667. The Panel NOTED that the proposal would better enable the assessment of compliance with the GB SQSS standards. The Panel were informed that the DNOs would continue to undertake a separate compliance assessment against P2/6 due to the divergence between the standards.
668. The Panel NOTED that the following issues may evolve slightly from the legal drafting contained within the Working Group Report prior to a consultation being issued:
- Maintenance Period definition – current proposal states that this is an 8-week maintenance period where compliance can be established. Concerns have been raised by the Working Group that in the event of a non-compliant site, no Maintenance Period can exist under the existing drafting and therefore one cannot be declared by the DNO, it is plausible that the DNO would be in breach of the Grid Code.
 - Whether the 8-week period for the Maintenance Period was overly prescriptive. It was noted that the 8-week period was a concept that has been put forward by National Grid through the P2-5 Working Group and doesn't formally exist anywhere else. The Working Group queried whether the concept of the 8-week period needed further thought, perhaps in an SQSS arena.
 - Some Working Group members would prefer the drafting to reflect a process that sees collaborative discussions between National Grid and DNOs when seeking to determine the appropriate Maintenance Period rather than the existing drafting that sees a DNO propose an initial Maintenance Period proposed in week 6. This collaborative process would culminate in the National Grid Week 17 confirmation of Maintenance Periods to the DNOs. This issue is of particular relevance for Shared Sites where DNOs do not believe that they could specify an informed Week 6 declaration.
 - Asymmetry of Data – It was highlighted by a Panel Member that they believed that DNOs would require further data relating to the GB Transmission System than the additional data streams already contained within the recommendations of the Working Group Report.
669. GV noted that the Working Group recommendations only really address GB SQSS compliance, whereas the objective of the Working Group was make recommendations that were aimed at assisting both SQSS and P2/5 compliance.

670. The Panel NOTED that the proposed changes would be a step change to the existing process and have consequential implications on the level of resources required to facilitate the provisions.

671. The Panel AGREED that the proposals should proceed directly to Industry Consultation subject to resolution of the outstanding issues.

Action: National Grid (MD)

672. BM encouraged potential respondents to any future consultation on the Working Group's recommendations to clearly state their expectations of the additional resource requirements that would be triggered by any adoption of the Working Group's recommendations.

673. The Panel NOTED that the Working Group had identified issues which may benefit from further development e.g. statistical basis of Forecasts Demand. The Panel discussed which forum would be best suited to undertake a review in the areas identified.

▪ **Low Voltage Demand Disconnection Working Group**

674. EC gave the Panel an update on the Low Voltage Demand Disconnection Working Group. The Panel NOTED that the Working Group will be reconvened in March 2007 to discuss a National Grid paper on the feasibility of the scheme.

675. The Panel NOTED that an informal paper on the proposed scheme would be submitted to Ofgem to obtain an initial view regarding the feasibility and associated funding requirements for implementing a Low Voltage Demand Disconnection Scheme. Ofgem's reply to the paper would form the basis on whether the proposals would be further developed by the Working Group.

10. Authority Decisions

676. There were no recent Authority Decisions to discuss.

11. Multi Unit BMUs

677. RS provided a presentation on the suitability of the current process used by Generators to declare additional accessible capacity on CCGTs beyond that declared in the Balancing Mechanism (BC1.4.2(f)).

678. RS informed the Panel that initial analysis had revealed that the limited use of this facility by Generator community did not justify, at this stage, the development and introduction of an electronic system. The Panel NOTED that the volume of fax declarations was between 2/3 per day.

679. RS has requested feedback from the industry to indicate whether they had additional capacity that they wished to indicate was available to the System Operator but didn't currently do so. RS further requested feedback as to the reasons providers felt disinclined to utilise this method, the lack of visibility of the communication method or the fact that it was currently carried out by means of fax. Comments are to be submitted to RS via balancingservices@uk.ngrid.com.

Action: All

680. RS informed the Panel, that in the future CCGT Operators had indicated they intended to notify the System Operator under BC1.4.2(f)(v) of their willingness and ability to desynchronise a CCGT unit within a CCGT module. National Grid welcomed this as it would provide greater options to manage downward regulation issues.

681. To facilitate the administration of this process, National Grid recommends that notification is provided to GB System Transmission via fax on a relevant proforma

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which would be different to that proforma used for declaring additional capacity.

682. The Panel NOTED that although National Grid's presentation had focused primarily on CCGTs, there were other generation types that may have the ability to provide this service e.g. Cascade Hydro. The Panel AGREED that this issue affected all types of Multi Unit BMUs and that the extension of the existing service to these other generation types should be explored.

Action: National Grid (RS)

12. Control Telephony Electrical Standard

683. The Panel discussed the proposed introduction of a new Control Telephony Electricity Standard. The Panel NOTED the two issues of principles concern to Users i.e. Retrospectivity and the duration of Secured Supplies no longer formed part of the Electricity Standard.

684. The Panel NOTED that the Secured Supplies provisions would be reviewed by the appropriate sub-group of the Electricity Task Group and inclusion of such provisions within the Electrical Standard would be discussed by the GRCP at an appropriate juncture.

685. JN indicated that there was a possible misalignment between the Bilateral Agreement provisions and section 5 of the proposed Control Telephony Electricity Standard regarding the installation process i.e. the location of the Green Phone installation.

686. GN queried how hot sites would be dealt with in the Control Telephony Electrical Standard. GN indicated that other industry standards had provisions for hot sites which mitigated the effect on the associated equipment.

687. National Grid will provide clarification on the above points prior to seeking the approval of the Electrical Standard by the Panel Membership.

Action: National Grid (MD)

688. Panel Members were asked to submit any other issues which may require additional clarification in good time to allow National Grid to respond prior to the next GCRP meeting, to allow the Electrical Standard to be agreed at May 2007 GCRP meeting.

Action: All

13. E3C Black Start Review Report (Phoenix Report)

689. The Panel AGREED to the establishment of a Working Group to pursue recommendation 1.1 from the E3C Black Start Review, namely identifying improvements to the existing Grid Code Black Start Governance provisions.

690. The Terms of Reference were APPROVED subject to the inclusion of the following issues:

- Assessment of financial/resource implications of proposals
- Identification of implications on other industry codes
- Outcome of meeting (16th February 2007) between DB and Alan Feakins (E3C Electricity Task Group (ETG) Chairman) to ensure appropriate co-ordination of work between the GCRP and ETG.

691. Working Group nominations are to be sent to GCRP Secretary (Lilian.Macleod@uk.ngrid.com) by 5th March 2007.

Action: All

692. The Panel AGREED that it would be beneficial for the Working Group to have representation from the Scottish Transmission Owners. GCRP Panel Secretary to inform STC Committee of request.

Action: GCRP Secretary

693. The Panel NOTED that the other sub-groups were in the process of being established to

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discuss/review other areas identified by the E3C Black Start Review which may require consequential amendments to Grid Code and other industry codes. The Panel NOTED that it will be kept informed of other industry sub-group progress.

Action: National Grid (JH)

694. JN indicated that there were current outstanding issues relating to LJRPs provisions which may benefit from Working Group discussion e.g. Standard LJRP Proforma, LJRPs Intellectual Property Rights.

695. JH indicated the primary focus on the Working Group would be the governance process e.g. what happens in the phase after the LJRPs i.e. joining up of power islands (zonal restorations). JN to speak to JH regarding the outstanding LJRP issues.

Action: JN & JH

14. OTEG Subgroups

696. The Panel NOTED that the Offshore Transmission Expert Group (OTEG) had been disbanded and that Ofgem and DTI were currently discussing the most appropriate way of taking forward the changes required to introduce Offshore Transmission arrangements.

697. The Panel NOTED that two meetings of the Offshore Grid Code sub-group of OTEG which had an industry wide membership had taken place. At these meetings, the sub-group was primarily concerned with examining whether the technical specifications contained within the Grid Code Connection Conditions are appropriate for offshore networks. The Panel NOTED that it would be kept informed of future developments.

Action: Ofgem (BM)

15. Impact of Other Code Modifications

698. The Panel NOTED that CAP144 (Emergency Instruction to Deenergise) had been sent to a Working Group for a 3 month assessment. The Working Group was being chaired by MT and the associated findings would be presented to April's CUSC Amendments Panel meeting.

699. It was noted that the Working Group may require Panel expertise and that the proposal may instigate consequential changes to the Grid Code. The Panel is to be kept informed of future developments.

16. Any Other Business

700. The Panel NOTED the publication on the Grid Code website of draft guidance notes for Synchronous Generating Units and Power Park Modules.

701. The Panel welcomed the transparency of the processes which the draft guidance notes provide. However, the Panel expressed concern that the draft guidance notes were based on Grid Code provisions that had not been formally approved by the Authority. The Panel NOTED that the draft guidance notes had been produced by National Grid on response to requests from the industry.

702. The Panel queried what governance arrangements were in place to facilitate future amendments to the guidance notes. National Grid to clarify the relevant governance arrangement process.

Action: National Grid (NT)

703. The Panel NOTED that the operational notification classification specified in the guidance notes are not officially recognised terms in any of the industry codes i.e. Interim Operational Notification (ION), Final Operational Notification (FON) and Limited Operational Notification (LON). The Panel requested additional clarification on the new terminology and processes outlined in the guidance notes e.g. User

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Data Library.

- 704. The Panel NOTED that Operational Notifications only applied to Embedded Power Stations as currently specified in the CUSC.
- 705. JN expressed concern with the scope and extent of the requirements contained in these notes and the obligations placed on Users. He suggested that consideration be given to incorporating these requirements within OC5 (Testing and Monitoring), particularly the testing requirements for new generating plant.
- 706. National Grid acknowledged the Panel's concerns regarding the guidance notes. National Grid will provide clarification on the issues raised at the May 2007 GCRP meeting.

Action: National Grid (NT)

17. UCTE Incident

- 707. National Grid will circulate information on the UCTE incident. National Grid will provide additional information on the lessons learned at May 2007 GCRP meeting.

Action: National Grid (NT)

18. Date of Next Meeting

- 708. The next meeting will be held on Thursday, 17th May 2007 at National Grid House, Warwick. The meeting will commence at 10:00am.