

## Grid Code Review Panel Meeting

### Minutes and Actions Arising from Meeting No.22 Held on 23<sup>rd</sup> February 2006 at National Grid Office, Lakeside House, Northampton

#### Present:

Ben Graff	BG	Panel Chairman
Lilian Macleod	LM	Panel Secretary

#### National Grid

Mark Duffield	MD	Member
Guy Phillips	GP	Member
Brian Taylor	BT	Member
Nasser Tleis	NT	Member

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

John Morris	JM	Member
Charlie Zhang	CZ	Alternate Member
John Norbury	JN	Member
Claire Maxim	CM	Alternate Member
Campbell McDonald	CMc	Member
Richard Cook	RC	Alternate Member

#### Generators with Large Power Stations with total Reg. Cap.< 3GW

David Ward	DW	Member
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#### 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

Neil Sandison	NS	Member
Dave Carson	DC	Alternate Member

#### Relevant Transmission Licences

David Nicol	DN	Member
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#### Generators with Novel Units

Simon Cowdroy	SC	Alternate Member
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#### Ofgem Representative

Bridget Morgan	BM
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#### BSC Panel Representative

Kathryn Coffin	KC
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#### Attendees:

Beverley Viney	National Grid
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## 1. Introductions/Apologies for Absence

408. Apologies for absence were received from Stuart Graudus (Non-Embedded Customers), Jean Pompee (Externally Interconnected System Operators), Guy Nicholson (Generators with Novel Units), and Chandra Trikha (Relevant Transmission Licencees).

## 2. Minutes of Last Meeting

409. The draft minutes of the 21<sup>st</sup> Grid Code Review Panel (GCRP) meeting held on 24<sup>th</sup> November 2005 were APPROVED and will be accessible from the Grid Code Website.

## 3. Review of Actions

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

- Minute 285 (Significant Event Reporting)  
Meeting held between relevant parties. Discussion paper to be submitted to the May GCRP Meeting regarding the ongoing issues related to the capture of specific system events and the impact of the process on wind farms.  
**Action: National Grid (BT)**

- Minute 326 (Refurbishment Plant)  
The Panel discussed under what circumstances National Grid would expect a Modification Application to be submitted and in particular the application fee associated with plant refurbishment. Some Panel Members expressed concern with the delay introduced by having to go down the modification application route, and also that the application fees were, in their view, at times excessive given the low cost of replacing certain plant equipment e.g. exciters. It was also noted that the materiality test given in the CUSC (£10k) was relatively low compared to the cost of submitting a modification application.

All Panel Members agreed that good communication between National Grid and Generators was important and needed to be maintained going forward.

Currently the Grid Code does not provide any guidance as to when a Modification Application is required as this information is included within the CUSC. JN suggested that it would be helpful to both National Grid and Generators if the Grid Code provided greater clarity regarding what generation works would not require a modification application. He also suggested that if the purpose of such an application was to ensure technical requirements are complied with, this could be more efficiently achieved by including these requirements in the Grid Code / RES document.

National Grid to review the matter in further detail with suggestions from the generators as to the scenarios where an application modification would not, in the view of the generators, is appropriate.

**Action: National Grid (MD & NT) & JN**

- Minute 331 (Capacity Terms in Grid Code)  
National Grid acknowledged that there is a number of redundant terms within the Grid Code that are no longer relevant e.g. Generation Capacity.

National Grid agreed to add the issue to the Development Issue list.

National Grid to undertake a review of Grid Code terminology and propose associated changes to the Grid Code, later in the year. National Grid to investigate the possibility of introducing the CUSC term 'CEC' into the Grid Code. The Panel AGREED that these changes were not priority issues.

### Action: National Grid (MD) - ongoing

- Minute 339 (Governance of Electrical Standards)  
National Grid provided guidance as to which standards would be quoted in the Bilateral Agreements under various scenarios. The scenarios with National Grid guidance notes will be included in the RES document and circulated to the Panel for reference purposes.

### Action: National Grid (MD)

- Minute 362 ('Management of System Connections' & No System Connections')  
January meeting of relevant parties – agreement reached on outstanding issues regarding the Management of 'No System Connections'. Issues remain unsolved regarding 'Management of System Connections'. Amended papers to be presented to next GCRP Meeting for review/discussion.

### Action: National Grid

411. Post Meeting Note – Minute 319 (Intertrips)  
National Grid has considered whether an Intertrip Standard could be provided – formal decision still outstanding. National Grid to report back at May's GCRP Meeting 2006.

### Action: National Grid (GP)

#### 4. Membership of Grid Review Panel

412. The Panel were informed that in accordance with clause 5.5 of Grid Code's Constitution and Rules, the members of the previous Panel resigned and a new Panel appointment.
413. The Panel NOTED the following changes to the Grid Code Review Panel Membership:

##### **National Grid Representation**

- Guy Phillips replaces John Greasley as National Grid Representative
- Brian Taylor replaces Rachel Morfill as National Grid Representative

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

- John Norbury has been appointed as Panel Member with Claire Maxim appointed as his Alternate
- Campbell McDonald has been appointed Panel Member with Richard Cook appointed as his Alternate

##### **Network Operators in England and Wales**

- Graeme Vincent replaces Ian Gray as Panel Member

##### **Network Operators in Scotland**

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

414. The Panel NOTED that the position representing Suppliers remains vacant.

#### 5. Proposed Grid Code Changes

- **Proposed Amendment of Appendix 5 of the Connection Conditions Technical Requirements for Low Frequency Relays**

415. NT presented National Grid's paper on the proposed amendment to Appendix 5 of the Grid Code Connection Conditions that includes an indication of the technical requirements of Low Frequency Relays used as part of the automatic low frequency demand disconnection scheme specified under Operating Code OC6.6. The change proposes to ensure that the Grid Code requirements are consistent with those contained in Energy Networks Association Technical Specification 48-6-5 Issue 1, 2005. In response to a request from JN it was confirmed by National Grid

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that these proposed amendments would not apply to Low Frequency Relays located on power station sites.

416. The Panel NOTED that the frequency blocks were not defined in the Grid Code and that only the total percentage figures were specified within the Grid Code – OC6.6.
417. The Panel suggested that the frequency blocks and the associated percentage figure are included in the Grid Code. National Grid commented that although the frequency block figures seldom changed, they were, in principle, subject to amendments.
418. National Grid agreed to investigate the possibility of introducing the low frequency relay settings into the Grid Code.

**Action: National Grid (NT)**

419. The Panel discussed and AGREED that the associated legal text should refer to the relevant document issue number. The Panel ACKNOWLEDGED that this may result in consequential changes to the Grid Code when the ENA document was revised.
420. DN expressed concerns that the proposed legal text in CC.A.5.4.1 was unclear and required additional clarity. National Grid invited Panel Members to provide alternative text and agreed to consider possible improvements.

**Action: GCRP Members**

421. National Grid will initiate a wider consultation on the proposed change following receipt and consideration of comments from the Panel regarding the associated legal text.

**Action: National Grid**

### ▪ Grid Code Modifications for Power Park Modules

422. NT presented National Grid's paper on Grid Code Modification for Power Park Modules. The paper recommends consideration of a number of improvements, in light of experience, to the Grid Code in respect of Power Park Module requirements.
423. RC stated that his main concern is the point where voltage control is implemented and supported the formation of a sub-group to address the issues.
424. JN and SC raised concerns regarding National Grid's requirement for reactive capability that could not be utilised due to the restrictions placed on some Embedded Generators by host DNOs for Reactive Capability. JN and SC believed this, in these circumstances, this requirement would lead to stranded assets because the full Reactive Capability required cannot be practically utilised. In the case of wind farms, the reactive capability could be installed at a later date should system conditions change. NT stated that there are differences between transient and steady state reactive output and that evidence of genuine rather than apparent restrictions would be required. NT stated that DNOs active participation in such discussions is essential.
425. The Panel AGREED to National Grid's recommendation that a Working Group was established to discuss the issues which have been identified for possible areas of improvement within the Grid Code, including dynamic voltage performance and reactive capability requirement on Embedded Generators.
426. The Panel NOTED the importance of DNO representation on the Working Group and MK agreed to provide nominations.
427. Panel Members to provide Working Group nominations by 6<sup>th</sup> March 2006.

**Action: GCRP Members**

428. Working Group to report back to the May GCRP Meeting on progress to date and/or

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proposed Grid Code modifications, where appropriate.

- **Network Defence Against Widespread Voltage Collapse Low Voltage Demand Disconnection**

429. NT presented National Grid's paper on Network Defence against Widespread Voltage Collapse Low Voltage Demand Disconnection.

430. The Panel AGREED to National Grid's recommendation that a Working Group be established to address the issue of network defence against widespread network voltage collapse and the technical and commercial and regulatory issues surrounding the introduction of LVDD schemes as defence measures.

431. National Grid will present to the Working Group any details required on the issues surrounding widespread network voltage collapse including results of simulations that have been carried out to date in order to share knowledge and facilitate discussion on the matter.

**Action: National Grid**

432. National Grid indicated that in general there are several options for implementing LVDD schemes with the technically feasible and most cost-effective being the installation of LV relays in distribution networks at similar locations to the existing LF relays. The use of communication channels between different substations would add significant costs to such schemes.

433. The Panel ACKNOWLEDGED that given the low probability of a major widespread network voltage collapse occurring but the severe and significant consequences to many stakeholders, the final decision for implementing the scheme would rest with either HMG or Ofgem (under their remit of protecting customers). Given the extreme nature of the events envisaged MT suggested that it would be useful if NG shared the justifications used in other countries for the costs of implementation of such schemes.

434. JN expressed disappointment that this appeared to be another limited approach to dealing with system security without possible market solutions being considered. He commented that the Grid Code is deficient in providing a clear process of how the industry would move from normal market operation to emergency circumstances, in addition to the lack of compensation to Generators and Suppliers.

435. Panel Members to provide Working Group nominations by 6<sup>th</sup> March 2006.

**Action: GCRP Members**

### 6. Working Group Reports

- **Regional Differences Working Group**

436. MD presented an overview of Working Group discussions and recommendation regarding Regional Differences.

437. It is proposed that there will be Grid Code changes in the following areas:

- Small, Medium and Large Power Station definitions
- Threshold for the submission of Demand PNs
- Frequency Response Capability of Power Park Modules in Scotland
- Classification of Embedded Small, Medium and Large Power Stations at the boundary between TO areas

438. The principle change regarding Small, Medium and Large Power Station definitions in SHETL's area is the movement of existing Small-Large threshold from 5MW to 10MW.

439. The main modifications within SPT's area are twofold: a) Elimination of Medium

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Band (consistent with SHETL); b) Increase in Small threshold to 30MW (from 5MW). There is no proposed change to the Large Power Stations threshold.

440. The Working Group also recommends that the thresholds for the submission of Demand PNs are aligned with revised Large Power Station definitions in Scotland i.e. SHETL  $\geq$  10MW and SPT  $\geq$  30MW.
441. In addition, it is also proposed that the Frequency Response Capability of Power Park Modules in Scotland is aligned with Power Park Modules in England & Wales i.e. 50MW.
442. The Panel NOTED the outstanding issues surrounding Embedded Power Stations near TO area boundaries i.e. Embedded Power Stations can be geographically located in one TO area, but be connected to a Distribution System whose only/normal connection is to the neighbouring TO's Transmission System.
443. The Panel were INFORMED that the Working Group proposes to clarify this area within the definitions of Small, Medium and Large Power Station through any subsequent consultation on the recommendations.
444. The Panel AGREED that National Grid will initiate a wider consultation on the proposed changes.

**Action: National Grid**

### ▪ P2/5 Working Group

445. MD presented an overview of Working Group discussions and recommendations regarding P2/5.
446. The Working Group discussion focused on four main areas: Maintenance Period Demand, Demand Transfer Capability, Interconnected Networks and Data Exchange and identified proposed changes in three of the four areas.
447. The Working Group noted that DNOs would find the provision by National Grid of an equivalent network model for the transmission system local to their Connection Site beneficial. National Grid agreed to examine this proposal in greater detail with a view to consulting upon this change in the future.
448. The Panel NOTED that the Working Group had agreed on number of high level principles with other issues discussed which remained outstanding requiring further debate.
449. The Panel NOTED that the associated legal text was subject to change and review by the Working Group.
450. The Panel AGREED to the Working Group recommendation that the legal text is further developed and finalised before the next GCRP. The Panel AGREED that National Grid will initiate a wider consultation on the agreed changes.

**Action: National Grid**

## 7. Authority Decisions

### ▪ E/05 - Proposed Changes to Grid Code OC8B in relation to Site Specific Safety Instructions

451. The Panel NOTED that the Authority had approved the proposed modification on 17<sup>th</sup> February 2006 for implementation on 3<sup>rd</sup> March 2006.

## 8. Impact of Other Code Modifications

### BSC

452. The Panel NOTED that P199 (Quantification of Demand Control in the BSC as

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instructed under OC.6(c), (d) and (e) of the Grid Code) has been submitted to the Assessment Phase.

453. The Panel were INFORMED that there has been a number of telephone panels in relation to BSC Parties that had been struggling. The BSC Panel strove to give the companies in distress every chance to rectify their situations, however, unfortunately despite the Panel's best efforts had not proved possible

### **STC**

454. The Panel NOTED that the STC Committee were still working hard on ensuring that CAP097 could be appropriately backed off into the STC, if the Authority choose to approve it.

## **9. Any Other Business**

455. The Panel were informed that a Headline Report would be circulated to the GCRP Members shortly after the meeting. The report would provide a summary of the key decisions which were agreed at the meeting. The Panel would be asked to provide feedback on the suitability of the report for the GCRP.

**Action: Panel Secretary & GCRP Members**

456. CM requested that statistics be provided on EDL and the number of interruptions that have been experienced, the length of interruption and the number of BMU's affected. The statistics would be used to check that the current Grid Code provisions are still appropriate. National Grid agreed to consider whether these statistics could be provided.

**Action: National Grid**

457. The Panel were INFORMED that there had been an 85% return rate for the Plant Resilience Survey. A full report on the outcome of the survey would be available for the May GCRP Meeting.

**Action: National Grid (BT)**

458. The Panel raised the issue on when the Reactive Capability Survey would be circulated to relevant parties. National Grid to investigate and provide an update to the GCRP.

**Action: National Grid (BT)**

459. JN raised the issue of Delegated Authority for Switching, whereby National Grid had requested a number of generators to enter into a nil consideration bilateral contract for this purpose. He suggested that it may be more appropriate for these provisions to be included within OC8 and the site responsibility schedule as opposed to a contract. National Grid to investigate and provide an update to the GCRP.

**Action: National Grid**

460. JN noted that there had been another request for information from National Grid's trading group regarding generator's fuel backup status. The request for information made no reference to Grid Code obligations. BT to liase with JN regarding this matter.

**Action: BT & JN**

461. MT questioned how desynchronising a gas turbine in a Multi BMU Units could be dealt with in a way consistent with other balancing services. National Grid to investigate and provide a response.

**Action: National Grid (BT)**

462. DN raised the issue of Grid Code governance process and how it would be beneficial for the final modification report to be circulated to GCRP Members, for comment, prior to submission to the Authority for determination.

463. BM noted that it would be useful to have a specific section within the Authority Report which contained the view of the Relevant Transmission Licensees (where

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appropriate for example where changes are proposed to OC8B).

464. BG responded that the current process was suitability robust however indicated that this matter would be discussed further at May GCRP Meeting with National Grid providing an overview of the current governance process.

**Action: National Grid**

### **10. Date of Next Meeting**

465. The next meeting will be held on Thursday, 18<sup>th</sup> July 2006 at National Grid's Offices in Northampton. The meeting will commence at 10:00am.