

## Minutes

<b>Meeting name</b>	Grid Code Review Panel
<b>Meeting number</b>	58
<b>Date of meeting</b>	20 <sup>th</sup> November 2012
<b>Time</b>	10:00am - 4:00pm
<b>Location</b>	Crowne Plaza Hotel, Birmingham Airport

## Attendees

<b>Name</b>	<b>Role</b>	<b>Initials</b>	<b>Company</b>
Ian Pashley	Chair	IP	National Grid
Robyn Jenkins	Secretary	RJ	National Grid
Thomas Derry	Member	TD	National Grid
Bec Thornton	Member	BT	National Grid
Graham Stein	Member	GS	National Grid
Audrey Ramsay	Member	AR	National Grid
Richard Lavender	Advisor	RLa	National Grid
Shafqat Ali	Presenter	SA	National Grid
Andrew Richards	Presenter	ARi	National Grid
Alan Barlow	Member	AB	Magnox
Alan Creighton	Member	AC	Northern Powergrid
Tom Davies	Member	TDA	Magnox
Alastair Frew	Member	AF	ScottishPower
Campbell McDonald	Member	CM	SSE Generation
John Morris	Member	JM	EDF Energy
Guy Nicholson	Member	GN	Senergy Econnect
Neil Sandison	Member	NS	SSE
Barbara Vest	Member	BV	Energy UK
Jim Barrett	Alternate	JB	Centrica
Richard Lowe	Alternate	RL	SHETL
Alan Michie	Alternate	AM	SPT
John Norbury	Alternate	JN	RWE
Shijun Yi	Alternate	SY	Ofgem
Reuben Aitken	Advisor	RB	Ofgem

## Apologies

<b>Name</b>	<b>Role</b>	<b>Initials</b>	<b>Company</b>
Steve Brown	Member	SB	Ofgem
Mike Kay	Member	MK	Electricity North West
Dick Lewis	Member	DL	SONI
John Lucas	Member	JL	Elexon
Sigrid Bolik	Alternate	SBO	REpower
Alan Kelly	Member	AK	SPT
Gordon Kelly	Alternate	GK	ScottishPower
Guy Phillips	Member	GP	E.ON UK
Xavier Pinchaux	Alternate	XP	RTE
Brian Punton	Member	BP	SHETL
Lisa Waters	Alternate	LW	Waters Wye
Kathryn Coffin	Alternate	KC	Elexon

## 1 Introductions & Apologies

2846. The Chair welcomed the group and the apologies were noted.

## 2 Approval of Minutes

### a) September 2012 GCRP Minutes

2847. The Panel approved the minutes for publication.

2848. **ACTION: RJ** Upload minutes on to the National Grid website.

## 3 Review of Actions

### a) Summary of Actions

2849. RJ informed the Panel that as the format of the Action log has changed, only ongoing actions will be discussed and minuted.

#### *Significant System Events Report (previously RoCoF Report)*

2850. Minute 2722 – AR informed the Panel that the RoCoF report has been issued in its current format, and as part of Frequency Changes due to Large Disturbances Workgroup the format will be reviewed. GS noted that NGET are trying to develop a methodology to disaggregate inertia, improving the information provided in the report. If the methodology is finalised in time, a paper will be brought to the January 2013 panel meeting, otherwise an update will be provided. GN noted that this issue is important and changing inertia is a major concern for frequency response.

#### *Offshore Wind Farms Not Connected to an Offshore Transmission System*

2851. Minute 2483 – TD noted that this modification proposes changing the definition of Onshore Power Park Module to Onshore Connected Power Park Module. The next step is to identify whether this has any further implications in the Grid Code. NGET intend to circulate the industry consultation to the GCRP in December. This action remains ongoing.

#### *Space Weather*

2852. Minute 2732 – This action is covered on the agenda but is now complete and can be closed.

#### *A/12: Information Required To Evaluate Sub-Synchronous Resonance*

2853. Minute 2678 – GS informed the Panel that briefings are still planned and the date is likely to be early 2013, with invitations going out soon. The Report to the Authority is being drafted. This action remains ongoing.

#### *Grid Code Modification Process*

2854. Minute 2622 –RJ informed the Panel that the document will be moved once the website is refreshed in quarter 1 2013. This action is ongoing.

#### *Protection Fault Clearance Times and Back-up Protection*

2855. Minute 2678 – RJ informed the Panel that the legal text is being examined and will be circulated once finalised. This action remains ongoing.

#### *Frequency Response*

2856. Minute 2678 – This action is covered on the agenda.

#### *G5/4 Harmonics*

2857. Minute 2655 – This action is covered on the agenda.

#### *GB Determination of the Detail in the European Network Codes*

2858. Minute 2691 – IP informed the panel that debate on article 4(3) is still ongoing and the NGET position remains the same, (that it expects, when the processes by which application of EU

codes to GB frameworks are finalised, that any relevant changes from ENC's make use of existing procedures where possible).

#### *Workgroups*

2859. Minute 2691 – RJ informed the Panel that the Workgroup spreadsheet has been expanded and the agenda adjusted accordingly. Workgroup numbering is covered on the agenda under AOB

#### *RISSP*

2860. TD circulated a briefing note to the Panel from comment on the 7 November 2012. The deadline for comment of the note has been extended to the 14 December 2012 to coincide with a DNO meeting. The briefing note, implementation date and decision later will be published after this

## **4 New Grid Code Development Issues**

### **a) Consequential Changes from P276**

2861. SA informed the Panel that, following comments received on the draft legal text from Elexon, NGET have withdrawn paper pp12/51 and will resubmit an updated paper to the January 2013 Panel Meeting.
2862. JN noted he had comments on the legal text and would pass these on to SA following the meeting.

### **b) Revision of Engineering Recommendation P28**

2863. AC presented paper pp12/52. He explained that Engineering Recommendation P28 was written in 1989 and a lot has moved on in the industry since so the DCRP are proposing a review. A joint GCRP/DCRP has been approved to commence early 2013.
2864. CM asked whether any thought had been given to the Workgroups membership. GS suggested that this should be a focused group to start the work and then expand to more people later in the process. The Workgroup will need to look at the volume of work, scope the work and come up with an appropriate project plan. RL queried what the driver for the work is. AC noted that P28 does not take account of technology on the system today. JB asked who the document owner is. GS noted that it is owned by ENA and AC added it is governed by the DCRP. JB asked whether there is an automatic process for reviewing Engineering Recommendations when they reach a set age. Panel members noted that this process does not exist, they are reviewed on a case by case basis.
2865. IP noted that it sounds as though there is the case for an initial scoping meeting. JN requested that a single invite is sent to both the DCRP and GCRP panel to avoid duplication and maintain a single point of contact. RJ agreed to look into this and discuss with the proposer and DCRP secretary.
2866. **ACTION: RJ** Look into sending a single invite to the GCRP/DCRP Panel.

### **c) Consequential Changes from CA049**

2867. AR presented paper pp12/53. The STC modification proposal CA049 is to ensure OFTOs response to reactive instructions within 2 minutes. When proposing the changes to STC, NGET realised that this did not capture wind farms which are not party to the STC, so GC changes are needed to ensure this is consistent across the codes. The sections which need to change include the Planning Code and Connection Conditions. A draft consultation with legal text will be produced and circulated around the Panel.
2868. GN questioned whether imposing STC provisions on generators through the Grid Code is the best process for achieving this, and whether there was an alternative process for ensuring Generator Build parties comply with the STC. BV queried whether a section can be added to the STC for generators under construction. TD explained that the process for ensuring Generator Build parties comply with the STC has been looked at under STC Modification CA046, but that there is no mechanism for Generator Build parties to become signatories of the STC, meaning they are not bound by the requirements. The most efficient way to achieve this is to replicate the necessary requirements in the Grid Code and CUSC where applicable.
2869. GS noted that this could go in the bilateral agreements but it is more appropriate to have in the Grid Code. AR added current OFTOs are in agreement with this approach. TD added that CA046 is due to go to consultation at the end of November 2012.

2870. JN commented that Generators have a different risk profile under OTSDUW (Offshore Transmission System Development User Works), and questioned if this is the start of making Generators comply with the STC in its entirety in addition to compliance with the Grid Code. He suggested that if NGET is experiencing difficulties instructing a generator to provide reactive power then BC2 seems the appropriate place to put it. GS noted that OTSDUW parties are bound to build something that an OFTO can operate and comply with the STC so the requirements must be captured somewhere outside of the STC. CM asked whether meeting the requirement is a joint responsibility between the Generator and the OFTO within 2 minutes.
2871. IP asked when the Grid Code consultation is expected to be published. AR noted that it was intended to be same time as the STC but the STC modification has been developed further and there is more work needed on the Grid Code text changes first.
2872. **ACTION: AR** Develop report further taking into consideration issued raised with the timing of notifications.
- d) Code Governance Review Phase 2**
2873. SY gave a presentation to the Panel highlighting the Code Governance Review Phase 2 headline proposals for the Grid Code. These include the introduction of Open Governance, Significant Code Review process, the requirement to adhere to the principles of the Code Administrator Code of Practice (CACOP), requirement to provide clear reasons for recommendations to the Authority (including appropriate analysis and panel recommendation) and enable a send back process for Final Modification Reports where a deficiency is identified.
2874. SY explained the principles of extending Self Governance to the Grid Code, it will enable users to formally raise modifications, give more weight to the Panel recommendation and require the governance procedures (similar to those in the CUSC) to be brought into the Grid Code.
2875. SY explained that Ofgem's formal consultation closes on Friday 23 November 2012.

## 5 Existing Grid Code Development Issues

### a) Issues Summary

2876. RJ informed the Panel that the issues for discussion at this meeting have been listed on the agenda.

### b) Constant Terminal Voltage

2877. GS gave a presentation to the Panel highlighting NGETs requirement for reactive power and voltage control capability from users in line with the SQSS.
2878. GS requested the Panel provide a view on the clarity of the wording in CC6.3.8. NGET think that it is clear but clarification could be added if the Panel see a need, noting that any change needs to be considered as part of broader work on reactive power and voltage control.
2879. RLa noted that there are currently two derogations pending decisions which NGET have applied for on behalf of two generators. JB queried whether everyone else is compliant if there are only 2 derogations requested. JM noted that the way the Grid Code is written at the moment forces you to have a tap changer. RLa added that if you are a Generator on the network you need to have continuous control and be acting in the range of the performance chart. If a Generator is not operating under constant terminal voltage then they are not acting predictably.
2880. RLa noted that, for the Generators who are waiting for derogations, the manufacturers believe they are compliant but NGET do not believe they are. JN noted that he was aware of two other power stations that operated with an increased terminal voltage as a result of NGET's interpretation of this requirement, which was at odds with the manufacturer's view, which had not applied for a derogation. He suggested that a review of the Grid Code requirements may be appropriate to establish whether the current interpretation represents an efficient solution given technical developments, and the outcome may avoid the need for derogations and enable other generators to also benefit. He also noted that a relaxation of the requirements may improve the available reactive range and not diminish it.
2881. BV suggested this is a problem with manufacturers and their interpretation of the Grid Code, questioning the routes for discussion with manufacturers to make sure they are doing things

correctly. RLa noted that compliance discussions start as early as possible, usually once the manufacturer comes online, but until the performance chart is made available NGET cannot determine whether the Generator is Grid Code compliant.

2882. GN and BV noted that they were uncomfortable providing a view on clarity without the two affected parties represented to present their case. Panel members requested that the parties affected provide a presentation or letter to the GCRP presenting their views and explaining their position.
2883. CM asked whether this applies offshore, GS responded that it only applies to synchronous generators. CM indicated that synchronous generators are in development for offshore wind farms and could be installed in round 3 projects. A prototype will connect to the system in September 13
2884. IP suggested an update be provided at next meeting after gaining a view from the manufacturer and two parties involved.
2885. BV suggested NGET should look into a CUSC/Grid Code education session similar to "Introducing Elexon Seminar", aiming to provide new market entrants with an overview of CUSC and Grid Code. BT noted this was a good idea and NGET will report back at next panel.
2886. **ACTION: RLa** Gain statement from parties involved as to their interpretation of the Grid Code.
2887. **ACTION: RJ** Look into CUSC/Grid Code Education Session.

## 6 Workgroups in Progress

### a) Workgroup Spreadsheet

2888. RJ noted that the Workgroup Spreadsheet now includes updates of the latest position of each Workgroup and an indicative timetable.

### b) Frequency Response

2889. TD presented an update of the conclusions from the Frequency Response Workgroup.
2890. Nine responses were received to the Workgroup Consultation. At the November Workgroup meeting the 8 commercial options were discussed, the Workgroup suggested that elements of the day-ahead auction are taken forward as part of a review of the current commercial options. Of the technical options, the workgroup recommended taking forward the 5 second requirement and clearer primary response requirements.
2891. The commercial arrangements will be progressed under the Balancing Services Standing Group (BSSG) and Commercial Balancing Services Group (CBSG). TD noted that a full Workgroup Report will be brought to the January 2013 Panel.

### c) Harmonics (G5/4)

2892. GS presented paper pp12/56. This workgroup is now reviewing two documents (G5/5 and EA technology report) will meet again in January.
2893. GS noted that NGET will consult with Offshore stakeholders in January to work out a way forward and expect to bring proposals forward next Spring.
2894. GN asked whether the Workgroup has looked into any opportunity to filter out harmonics closer to source. GS noted that the Workgroup has covered this. GN also noted that the last issue of the SYS didn't contain information on this and questioned whether this would be addressed in the Electricity Ten Year Statement (ETYS). GS agreed to check.
2895. **ACTION: GS** Look into whether Harmonics is included in ETYS.

### d) Frequency Changes during Large System Disturbances.

2896. GS noted that the group is looking at RoCoF and loss of mains protection. The Workgroup is still in its early stages and trying to quantify what the issue is. GS added that the Workgroup will flag up issues to the Panel for a decision over whether it is appropriate to progress.

### e) Fault Ride Through.

2897. GS noted that two workshops have now been held and a third is scheduled for early January 2013. The output of workshops will potentially be Terms of Reference for a Workgroup with issues around synchronous plant likely to need progressing.

#### **f) Power Available and High Wind Speed Shutdown**

2898. GS noted that three Workgroup meetings have taken place. Progress is being made and with High Wind Speed Shutdown the Workgroup is starting to eliminate some options, particularly those with real time signals

2899. The next Workgroup meeting will be on 10 December 2012 and an update will be provided in at the January 2013 GCRP.

2900. CM noted that Elexon are not represented on the workgroup and they should have an in feed into the work.

2901. **ACTION: GS** Invite Elexon to next Workgroup meeting.

#### **g) Electricity Balancing System Group**

2902. SA informed the Panel that the last meeting was cancelled. Moving forward the group will go back to some work from the start of the year including, improving the fax forms and electronic communications for reactive power and frequency response, and further developing the proposals for Run up/Run down rates and time varying SEL. The next meeting is planned for 13<sup>th</sup> December 2012.

## **7 Workgroup Report**

#### **a) BM Unit Data from Intermittent Generation**

2903. TD noted that the draft Workgroup Report and Industry Consultation were sent to the Panel for comment on the 16 November 2012. The deadline for comment is 30 November 2012.

## **8 Industry Consultations**

#### **a) A/12: Information Required To Evaluate Sub-Synchronous Resonance**

2904. GS noted that the report is being drafted.

#### **b) D/12: CC.7.7 (Maintenance Standards)**

2905. BT informed the Panel that the legal text was referred back to the workgroup following a review of the consultation responses. NGET are now drafting the Report to the Authority with input from workgroup members.

2906. After the GCRP meeting BT and RJ discussed the issue with some Workgroup members who were happy with the proposed way forward.

#### **c) F/12: Formalising Two Shifting Limits**

2907. SA noted that the Industry Consultation closed on Friday 16 November 2012 with 8 responses received. NGET are now reviewing the consultation responses. 2 are in favour of supporting TSL, 5 are in favour of removing TSL and EDF preferred to maintain the status quo. The recommendation in the Report to the Authority is likely to be inline with the majority although this would depend on the strength of the arguments for the two proposed options.

2908. BV provided the Panel with a statement from LW which stated that formalising TSL does not change how parties can operate, but simply makes it easier for smaller parties; if you can achieve the same result with Minimum Non Zero Time (MNZT), as with TSL, then why not make it easier by formalising TSL.

2909. IP noted that the report needs to consider the status quo and any change against the applicable GC objectives. BV suggested including an explanation of the operation up to the day and how Eggborough operations caused a problem. JB noted that from the communication in the Panel meetings, Ofgem seemed to be in a comfortable position to have a balanced view presented to ensure no one is disadvantaged, recognising that NGET are still entitled to make their recommendation. SY added that Ofgem have already had a conversation with SA discussing what they expect the report to demonstrate, Ofgem want to see all the options available and why they are preferred or not. Following this, Ofgem may consider another consultation, but this depends on the evidence received from the report. CMD asked whether TSL can be implemented but be optional noting that this wasn't clear in



the consultation. SY asked when Ofgem should expect the report. SA suggested Ofgem will receive a draft report in approximately 3 weeks, he also asked Ofgem when they would prefer to receive the report. SY agreed to discuss with Abid Sheik and if they would like to delay, he would provide update which can be shared with panel members.

## 9 Pending Authority Decisions

### a) B/10: RISSP

2910. TD noted that the Authority approved B/10 and the implementation date is likely to be April 2013.

### b) B/12: Formalising Synchronising Interval, De-Synchronising Interval, and Last Time to Cancel Synchronisation as Dynamic Parameters

2911. SY commented that the report was received by the Authority for determination on 16 November 2012 and a decision is likely to be published on 20 December 2012.

## 10 Standing Items

### a) European Network Codes

2912. IP noted that pp12/57 the ACER update on the European Network Codes was circulated to the panel

2913. RA noted that ENTSOE are meeting the user group shortly and we should see next steps soon. ENTSOE are engaging with JESG on this as well, this is seen as a positive approach.

### b) Joint European Standing Group

2914. BV presented paper pp12/5.

2915. The JESG have sought feedback on the JESG. BV noted that the support from NGET and ENTSOE is brilliant. The JESG Terms of Reference have been revised to reflect technical workshops, ongoing review of membership and use of actions and issues log. Each of the panels are being asked to agree the new ToR. The GCRP approved the new ToR.

2916. BV provided an update from the last JESG. Items discussed included the problems with the ENTSOE response portal for comments on codes and a new system should now be in use for future codes. BV noted RfG was sent back for tweaking, but there are concerns over how rapidly commitment is approaching

2917. RA noted that ACER have acknowledged that the definition of significant user is not consistent across the codes and this is being looked at.

2918. RA provided an update on application to GB codes commenting that some initial scoping discussions have been held and potential options for implementation were discussed, straw man proposals are being developed and will be published wider in 2013. RA provided a flow diagram which demonstrates the pathway for making changes and asked RJ to circulate to the Panel. The volume of changes creates a potential issue for timely compliance. RA asked the panel for views on approach for consultation. BV suggested that dialogue is a good idea and official consultation focuses the mind so potentially a workshop followed by official consultation. JB suggested using the Grid Code as the tool to demonstrate how to comply with European Network Codes.

### c) Space Weather

2919. ARi gave the Panel a presentation demonstrating the problems which can occur from Geomagnetic Storms, the monitoring which NGET carry out and the process for issuing warnings. This included the categorisation which different events are given and the likelihood of them occurring.

2920. JN asked what NGET would be including in the Risk of System Disturbance notification, specifically would the category of risk be included. ARi noted that there is no useful index in the public domain so NGET are proposing to use our own categorisation system. If this is approved the categories will be published and they will be included with every fax.

2921. JN noted that generators believe that Generator Step up Transformers are at high risk, especially at high load, but this was not confirmed in the presentation. ARi indicated that E3C

are holding the report containing the results of the analysis and the information cannot be released until E3C issue an instruction to do so.

2922. IP stated that the information to generators is currently being packaged up such that all those who provided information and are at risk will be informed. He added that to understand generator risk we need to understand the type and build of the transformer. AB asked whether generators who did not provide information will receive any information. IP suggested that they are unlikely to as the risk has been calculated based on information provided. Panel members requested this information is provided as soon as possible, IP agreed to look into timescales and provide and update.
2923. **ACTION: IP** Provide timescales for provision of information as soon as possible.
2924. AM questioned whether the impact is proportional to the loading on the transformer. ARi noted that a PhD has been published on this and it appears that loading does not affect risk, the modelling shows it does not matter but operationally users have been reducing load on their transformers

## 11 Impact of Other Code Modification or Developments

2925. A codes summary pp12/48 was circulated to the Panel.

## 12 Any Other Business

2926. RJ provided the Panel with the 2013 meeting dates and agreed to circulate these post meeting.
2927. RJ gave a brief presentation to explain the proposed Grid Code numbering system. The Panel are requested to provide comments on the system which will be formalised in January 2013.
2928. **ACTION: All** Provide comments of proposed numbering system.
2929. RJ reminded Panel Members that Membership nominations are requested by Wednesday 18<sup>th</sup> December 2012. SY asked whether an OFTO representative will be included on the panel from next year. AM noted that as a Relevant Transmission Licensee he would be happy to involve an OFTO.
2930. **ACTION: RJ** Invite an OFTO representative to join the GCRP.
2931. CM questioned why the Significant System Events report had been circulated but not placed on the agenda or discussed. AR noted that it was circulated for information; GS added that it probably should have been on the agenda and it was agreed to review the Significant System Events report at the January 2013 GCRP.

## 13 Next Meeting

2932. The next meeting is planned for 16 January 2013 at National Grid House, Warwick.