

## Minutes

<b>Meeting name</b>	Grid Code Review Panel
<b>Meeting number</b>	59
<b>Date of meeting</b>	16 <sup>th</sup> January 2013
<b>Time</b>	10:00am - 4:00pm
<b>Location</b>	National Grid House, Warwick, CV34 6DA

## 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
Nick Sargent	Presenter	NS	National Grid
Robert Paterson	Presenter	RP	National Grid
Mike Edgar	Presenter	ME	National Grid
Alan Barlow	Member	AB	Magnox
Jim Barrett	Alternate	JB	Centrica
Sigrid Bolik	Alternate	SBO	REpower
Steve Brown	Member	SB	Ofgem
Tom Davies	Member	TDA	Magnox
Alastair Frew	Member	AF	ScottishPower
Gordon Kelly	Member	GK	ScottishPower
John Lucas	Member	JL	Elxon
Campbell McDonald	Alternate	CM	SSE Generation
John Morris	Member	JM	EDF Energy
Guy Nicholson	Member	GN	Senergy Econnect
John Norbury	Member	JN	RWE
Barbara Vest	Member	BV	Energy UK

## Apologies

<b>Name</b>	<b>Role</b>	<b>Initials</b>	<b>Company</b>
Alan Creighton	Member	AC	Northern Powergrid
Joseph Dunn	Member	JD	SPT
Alan Kelly	Alternate	AK	SPT
Roger Harris	Alternate	RH	Elxon
Mike Kay	Member	MK	ENW
Richard Lowe	Alternate	RL	SHET
Guy Phillips	Alternate	GP	E.ON UK
Xavier Pinchaux	Alternate	XP	RTE
Brian Punton	Member	BP	SHET
Neil Sandison	Alternate	NS	SSE
Lisa Waters	Alternate	LW	Waters Wye
Julian Wayne	Alternate	JW	Ofgem
Brendan Woods	Member	BW	SONI

## 1 Introductions & Apologies

2933. The Chair welcomed the group and the apologies were noted.

## 2 Approval of Minutes

### a) November 2012 GCRP Minutes

2934. The Panel approved the minutes for publication.

2935. **ACTION: RJ** Upload minutes on to the National Grid website.

## 3 Review of Actions

### a) Summary of Actions

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

2936. Minute 2722 – AR informed the Panel that RoCoF is on the agenda and will be covered later in the meeting.

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

2937. Minute 2225 – TD noted that this item will be covered on the agenda but is now complete and can be closed.

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

2938. 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*

2939. Minute 2622 –RJ informed the Panel that the document will be moved once the website is refreshed. This action is ongoing.

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

2940. 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*

2941. Minute 2678 – This action is covered on the agenda but is now complete and can be closed.

#### *G5/4 Harmonics*

2942. Minute 2655 – GS noted that the Workgroup is still ongoing and will report back once complete. The Panel agreed to close this action as workgroup updates are provided on the workgroup spreadsheet, or as an agenda item.

2943. Minute 2895 – GN noted that the ETYS was published at the end of November 2012 and did not contain any information on harmonics and he would at least like to have seen a paragraph on the topic rather than it being completely ignored . GS agreed to take the Panel's comments away and investigate what power quality information can be provided prior to publication of the next ETYS

#### *Revision of Engineering Recommendation P28*

2944. Minute 2866 – RJ noted that National Grid is awaiting direction from the DCRP. This action remains ongoing.

#### *Consequential changes from CA049*

2945. Minute 2872 – AR noted that the industry consultation and legal text are being drafted and will be submitted to the March 2013 Panel meeting. This action remains ongoing.

#### *Constant Terminal Voltage*

2946. Minute 2886 – RLa noted that given the holiday period, both parties wished for more time to provide a full response. A full response or possibly a presentation will be made to the March 2013 GCRP. RLa added that both wish to remain anonymous at this point but have provided statements as follows;
2947. Generator 1. *“On the generic point we are grateful that the matter has been raised with the Grid Code Review Panel to consider whether the area could be clarified. We think it is beneficial to Generators to have the choice to achieve reactive power capability by changing tap, generator voltage, or a combination of both. We do not see what significant problems this would cause for National Grid? In our view National Grid should specify what range they require rather than how to achieve it, unless there is a good reason, but it is not clear to us what this is. Nevertheless we think clarity is required, as several organisations have not followed National Grid’s interpretation, particularly as European practice is to make use of generator terminal voltage variation. We think National Grid should review European practice with other TSOs to determine the reasons for the difference and what stops European practice being applied in GB. I note from the draft minutes of the November 2012 Panel meeting that other Panel Members have expressed similar opinions.”*
2948. Generator 2 *“It is our view we are compliant with the grid code as it is written with regards to constant terminal voltage. We would like the opportunity to gather supporting references for this as provided previously during discussions from as far back as 2009, with the OEM, and our Engineering Consultants. We would therefore be grateful if you would allow us until the next sitting of the GCRP to collect this information in order for us to make a suitable representation to the panel in support of our position.”*
2949. JN noted that the parties he represents believe these sections of the Grid Code require reviewing, and such review may conclude that it may be better for the requirements to be met by other means and that National Grid’s current interpretation is inconsistent with the practice adopted in some continental European systems. He noted that a number of companies he represents have issue with the fault ride through and constant voltage control draft paper from 2010 (ref. GCRP pp10/24) adding that he would support a review of the requirements.
2950. GS noted that there are two issues, one with derogations and the second is a review of the parameters. IP suggested that there would be benefit in robust case being presented in March 2013 to determine whether there is a lack of clarity or a requirement for derogation, allowing the Panel to discuss and agree a way forward at the next meeting.
2951. BV commented that this Panel meeting has a history of issues rolling on and suggested that ensuring there is dialogue beforehand would be useful. SBo added that no one in the room seems to make a decision over what to do and how to implement it.
2952. GN stated that, at the next meeting, there will likely be different views on whether the parties’ interpretation is correct, in itself this seems to suggest something needs to be done to the code to make it clearer. AF commented that the Panel need to know what is the problem is as it seems they are refusing to accept the derogation. JN noted that it doesn’t seem right that parties are being required to apply for derogation, which is effectively a public statement that they have installed non-compliant plant, because of one party’s, in this instance National Grid’s, interpretation. JM added that there is a risk that there could be requirements attached to the derogation. RLa clarified the derogation process, NG as Transmission Licence holder have to apply for a derogation against their own licence and the generator does the same against theirs.
2953. Minute 2887 – RJ noted that National Grid are investigating this and will update in the summer. CM noted that this has been asked for many times and so can we minute a date as the summer seems quite a long time away. BT noted that we are looking at what channels already exists and seeing if we can use one. BV noted that it should be something like the Introducing Elexon seminar, but run by National Grid. BV offered to help develop this, with National Grid, on the Panel’s behalf. BT agreed to update the action and aim to run the seminar sooner.

#### *Space Weather*

2954. Minute 2923 – IP provided a statement from the chair of the E3C stating that, “at present we are still missing a key data set to finalise the modelling. We will look at a way of representing the data to maintain individual generator confidentiality and will share the results on an individual portfolio basis as soon as possible.” JN expressed

disappointment with the continued lack of availability of this data, which had been promised to generators throughout 2012.

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

### **a) Reactive and Frequency Report Fax Form Information and b) New and Revised Balancing Code Parameters and Instructions**

2955. RP gave a presentation on both pp13/03 and pp13/04.

2956. RP noted that these modifications have been proposed separately as the fax form proposal was more advanced and one market participant asked for to be moved through the modification process quicker, whereas the parameters are more complicated and discussions are not at the same point. For both issue papers, the panel was requested to recommend that EBSG progress these issues to Industry Consultation.

2957. JM asked whether this requires users to have a new bit of hardware with the EBS software. RP replied that new hardware is not required for EBS go-live, but over a number of years parties would need to move to the new industry interfaces, recognising that there may be a few years where generators are using either system. RP noted that in the second EBS industry consultation there were questions on the industry's interest in and timescales for migration to the new industry interfaces. JM asked whether we are likely get a lot of new proposals from EBSG and if so will they be piecemeal or bundled together? RP added that at the moment this is as much as anticipated, other than the separate work on multi-shaft modelling. IP asked whether the EBSG have a plan laid out for this work and wondered if the Panel were aware of such a plan. CM noted that there is a work plan and RP's team have done a good job.

2958. JN asked whether National Grid can ensure that the consultation for this work is done as efficiently as possible and avoid one consultation from EBSG and another from GCRP as happened with TSL.

2959. JN added that the Simultaneous Tap Change Form is not in the Grid Code, and questioned whether this is an opportunity to put that in. RP noted that this hadn't been considered but it could be worthwhile doing at the same time. RP agreed to discuss this at the EBSG.

2960. JN asked whether there will be a need to redefine the EDL & EDT interface specifications. RP agreed that there would be. CM added that additional changes will follow later in a package, the workgroup are trying to work this through in a manageable way. RP added that the key additional change, multi-shaft modelling, is complex, would take significant time to work up robust proposals and would have to go through both the GCRP and BSC Panel governance. Therefore it was sensible to treat this separately from the more straightforward proposals put forward today.

2961. The Panel agreed that the papers can be discussed at the next EBSG and progressed to consultation after that.

2962. In terms of an update on the work of EBSG, RP stated that the main business of the most recent meeting was the two issue papers submitted to this panel.

### **c) P276 – Partial Shutdown**

2963. NS presented paper pp13/05 to the Panel. He noted that Ofgem accepted BSC modification P276 last year and this issue paper intends to capture the obligations which are required in the Grid Code. The legal text for pp13/05 is still being finalised with the relevant people and may change again before it goes to consultation; the aim is to bring the consultation in March 2013

2964. AF mentioned that the definitions refer to affected users as those users who have been notified, and asked whether this means that if National Grid forgets to notify someone then according to this definition then they are not affected. NS stated that this forms part of the conversation we are having at the moment regarding the legal text, and ensuring that all points in P276 are captured accurately. IP asked is the intention that National Grid would notify everyone in the area of partial shutdown?

2965. CM questioned how wide a shutdown it needs to be to be a partial shutdown. NS replied that size is not geographic, but to do with loss of demand, the threshold is a loss of 5% against forecast demand. CM asked whether there is a crossover between and interruption and a partial shutdown. IP noted that as BSC provisions apply there is no crossover. NS noted that in a partial shutdown, Blackstart can be called.
2966. JB noted that the paper also highlights that reconnection could be done by reenergisation from the live transmission system and suggested caution is given to ensure there are no unintended consequences.
2967. JN observed that references in the legal text to “spot time initial National Demand Out Turn” may be difficult for many readers to understand, NS agreed to look at this as part of the development of the legal text.
2968. The Panel agreed that this issue could proceed to Industry Consultation.

## **5 Existing Grid Code Development Issues**

### **a) Issues Summary**

2969. RJ informed the Panel that the issues for discussion at this meeting have been listed on the agenda.

### **b) Hybrid Static Compensators**

2970. GS stated that National Grid has done all its analysis, and will be bringing something back to the Panel in the future. One of the key points from the analysis is that there will be occasions where continuous control is required, but at present there is difficulty defining this and so National Grid need some time to finalise this. GS proposed bringing the issue back to the May 2013 Panel meeting.
2971. JN asked if there is a general invite to industry to participate in the development. GS noted that he would like to talk to original parties and then bring a proposal before engaging the wider industry. GN added that he has contacts at manufacturers who are interested.

### **c) RoCoF**

2972. GS gave a presentation to the Panel highlighting the ongoing work regarding RoCoF and any of the issues the needs to know about.
2973. GS noted that the RoCoF report which goes to the panel has many deficiencies which National Grid accepts. There is also a workgroup underway who are looking at some of the major issues.
2974. GS added that there is little information on the protection settings of many Generator covered by G59 or G83. The Panel are requested to tell National Grid if they know the protection settings of any such Generators.
2975. SBo asked if islanding is being considered as part of this work. GN noted that the requirement is that the settings will shutdown the network safely. GS noted that islanding is being considered by the workgroup.
2976. CM stated that the 2012 RoCoF report was not right and has not been presented to the Panel and this work affects small generators but they are going to bear the cost of changes to cater for an 1800MW loss. CM noted concerns on doing this without evidence to say it is necessary.
2977. The Panel were sent a late paper on behalf of the Frequency Changes during Large System Disturbance Workgroup. GS noted purpose of open letter is to say there will be changes and that there is a significant problem. CM asked, if the current design does not work for the new requirements, then who has to pay for any changes. GS added that these are discussions which are ongoing in the workgroup.
2978. GN asked whether an inertia estimate can be included against those events recorded in the RoCoF report, any estimates, even if they are heavily caveated, would be useful. He added that in the Electricity Networks Strategy Group (ENSG) subgroup, Andy Hiorns said National Grid have inertia estimates. JB noted that in the RoCoF report it is not clear if the reduced number of events is because there were no trips, or because there were lots of trips but they didn't cause a RoCoF event. GS remarked that small events don't necessarily cause a problem but they are being studied.

2979. GN noted that his key concern, for distributed generation, is that all the G59 settings have recently been redone so we should be very wary of doing that again. CM asked is there a measure of the success rate of implementing G59/2? GN mentioned that his concern is the cost of changing the settings again and if DNO's say they can no longer rely on RoCoF protection and insist on an intertrip instead with major cost implications. IP suggested that the workgroup are still at the information gathering stage so cannot add anything more at this stage.
2980. GS noted that the next stage for workgroup is that analysis, and a safety risk assessment need to be carried out. GN asked where this work ends and at what stage does RoCoF protection become unacceptable? Adding is it acceptable to carry on losing inertia? Or is a line in the sand needed and do we need a certain minimum amount of inertia is on the system?
2981. SBo requested that the Frequency Changes workgroup not make an independent decision from the Frequency Response Workgroup? GS noted that the technical sub-group Work was the initial trigger for the Frequency Changes during large System Disturbances Workgroup.
2982. IP suggested that GS provide a further update in March 2013 and pick up on GNs inertia issue.
2983. The Panel approved the open letter for publication.

#### **d) Offshore Windfarms not Connected to and Offshore Transmission System**

2984. TD stated that the draft industry consultation was circulated to the workgroup which proposes changing one definition in the Grid Code.
2985. GN noted scenario 2, contained within the report, may cause problems.
2986. SB asked whether there is a link with Fault Ride Through. TD suggested that he believed scenario 2 is similar to a generator build scenario. JL noted that he suspects the legal text is ok, but some of the accompanying comments do not make as much sense. JN added that he took scenario 2 as more applicable to transitional schemes. TD asked the Panel whether they feel scenario 2 is misleading and questioned whether it should be removed for clarity. The Panel suggested that clarifying the scenarios would be adequate.
2987. IP asked the Panel to capture their comments through the consultation. TD agreed to clarify scenario 2 in the report before it goes out to Industry Consultation.
2988. The Panel approved the report for consultation.
2989. **ACTION: TD** - Clarify the scenarios on the draft Industry Consultation.

## **6 Workgroups in Progress**

### **a) Workgroup Spreadsheet**

2990. RJ noted that the Workgroup Spreadsheet now includes updates of the latest position of each Workgroup and an indicative timetable.

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

2991. ME informed the Panel that four Workgroup meetings have taken place with a good level of engagement and progress.
2992. Addressing Power Available ME noted that the Workgroup felt uncomfortable diving into how Power Available would work; instead they went through a process of identifying the problems and the potential options to solve those problems. The Workgroup are still defining these options to allow the workgroup to assess the benefits, and all of this will be looked at from a cost perspective.
2993. For High Wind Speed Shutdown ME noted that the workgroup are looking at the validity or otherwise of getting this signal and identifying the benefits of a forecast or a real-time signal. Through the Workgroup it has become apparent that different control methodologies have been applied by different Wind farms. ME added that the Workgroup now need to document these options in more detail then drill down into the benefits. The Workgroup would ideally like to report back to the March Panel Meeting with the draft report but it is very ambitious so realistically it may be May.

2994. BV asked whether the Workgroup has good support/representation from the industry. ME noted that representation from operation of wind farms is good, but for Power Available, he has a question over the commercial knowledge for the development of the concept. BV added that she is happy to do something to help if required. BV also noted that she would like an update on change of gate closure because there is a lot of work going on in this area and from a number of different angles. ME responded that there is still debate around this and more is needed to package it up, but it is not an output of the Workgroup.
2995. CMD suggested that available active power is not a forecast, but a real time signal. ME noted that the signal prior to gate closure, may be different to the one within gate closure, this is a change from a subjective forecast to something rule based. CMD noted that the other option is to do nothing, because of the cost.
2996. JN commented that one of the principal reasons for the proposed power available signal was to relieve the administrative burden on wind farms so a cost benefit for developers would arise from some of these processes being automated. CMD noted that he is yet to see costs for settlements.
2997. IP asked if it is still appropriate that the groups operate together. ME welcomed the Panel's views on this noting that there are benefits in seeing how they work together, however Power Available is much more technical, whereas the other is more of a commercial process decision. ME suggested continuing as the workgroups stands because it is an efficient use of time but may consider separating at another time.

**e) Fault Ride Through.**

2998. GS noted that three workshops have now been held, there are questions around compliance and background. Time was given to thinking about RfG. GS noted that a paper will be presented in March 2013 and it will probably recommend a workgroup examining the synchronous issues, Asynchronous plant issues will run with RfG timescales.

**g) Electricity Balancing System Group**

2999. The update from the EBSG was covered under agenda item 4.

## **7 Workgroup Report**

**a) Frequency Response**

3000. TD presented paper pp13/09, highlighting the technical areas the workgroup had chosen to take forward.
3001. AF asked what thought process given to choosing the options to take forward as some of the options which received support in the consultation are not in the next steps. TD noted that the workgroup took account of the consultation responses and picked the most feasible to take forward. IP noted that consideration was given to timing, the workgroup had took a long time to get this far and they wanted to choose an option which could be developed fairly quickly.
3002. TD summarised the next steps for Frequency Response which include drafting legal text and presenting an Industry Consultation in May 2013. JN noted that an assessment of costs is missing from the report and costs of implementation should be made clearer. TD added that, for the 2 commercial options to be progressed by BSSG and CBSG, National Grid will develop some proposals then give it to those groups.

## **8 Industry Consultations**

**a) C/11: BM Unit Data from Intermittent Generation**

3003. TD noted that the consultation closed on Monday 14<sup>th</sup> January with 4 supportive responses received and 1 late response expected. The Report to the Authority will be sent shortly after.

## **9 Pending Authority Decisions**

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

3004. SB noted that B/12 was approved by Ofgem on 21st December, and implementation date is to be agreed with National Grid

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

3005. SB noted that a decision is due on D/12 imminently.

**c) F/12: Formalising TSL**

3006. SB noted that a decision is due on F/12 soon, but Ofgem will not be issuing it yet as they are still considering the issues raised. SB noted that currently Ofgem are minded to remove TSL but have concerns, so they are proposing to informally send back the report, and direct National Grid to construct some guidelines for the parameters. Ofgem are talking to National Grid about viable timescales and they would then like National Grid to bring the guidelines to there GCRP to determine whether they are clear.

## **10 Standing Items**

**a) European Network Codes**

3007. IP noted that pp13/10 the ACER update on the European Network Codes was circulated to the panel

3008. SB highlighted issues with three codes and agreed to circulate links.

3009. **ACTION: SB** – circulate links to go to the panel. .

**b) Joint European Standing Group**

3010. BV presented paper pp13/11

3011. BV provided an update from the most recent JESG. The group discussed ACER sending back codes for further work. They noted that for RfG, ENTSO-E held workshop to take some guidance, but it seemed that those who attended were not well coordinated and were focussing on the wrong areas of the code. BV will be contacting trade associations to talk about this.

3012. AF commented on a meeting where the Transparency Guidelines were agreed within 1 day, despite no draft being sent out before. JL stated that he had put himself forward for the Transparency Expert Group, noted that if anyone has views on this he would be interested to discuss before the 31<sup>st</sup> January 2013. BV asked what Elexon's interest in this is. JL suggested they are discussing the implementation options and looking at what has to be reported, hoping GB can reuse existing Grid Code and BSC processes. He added that this will be in ISG agenda next week.

## **11 Impact of Other Code Modification or Developments**

3013. A codes summary, pp13/12, was circulated to the Panel.

## **12 Any Other Business**

3014. RJ gave a brief presentation to explain the new Grid Code Numbering system. The Panel agreed with National Grids numbering proposal.

3015. RJ noted that pp13/13 had been circulated and new panel members introduced, noting that OFTO's were approached but no nominations received. RJ asked the panel whether they would be comfortable providing panel photos for the website, as the CUSC panel do. The Panel are requested to send a photo to RJ for publication.

3016. JN asked whether telephone numbers could be removed from the website and the format of the email address changed to prevent Spam mail. RJ agreed to do this.

## **13 Next Meeting**

3017. The next meeting is planned for 20 March 2013 at National Grid House, Warwick.