nationalgrid

Minutes

Meeting name	Grid Code Review Panel
Meeting number	75
Date of meeting	16 September 2015
Time	10:00am – 3:00pm
Location	National Grid House, Warwick.

Attendees

Name	Role	Initials	Company
Andy Wainwright	Chair	AW	National Grid
Alex Thomason	Code Administrator	AT	National Grid
Andy Vaudin	Large Generator (>3GW) Member	AV	EDF Energy
Alastair Frew	Large Generator (>3GW) Member	AF	Scottish Power
John Norbury	Large Generator (>3GW) Member	JN	RWE
Tom McCartan	Externally Interconnected System Operators Member	TM	SONI
Guy Nicholson	Generators with Novel Units Member	GN	Element Power
Marta Krajewska	Generator (Small and/or Medium) Alternate	MK	EnergyUK
Steve Cox	Network Operator (E&W) Member	SC	ENW
Alan Creighton	Network Operator (E&W) Member	AC	Northern Powergrid
Richard Lowe	Transmission Licensee (SHE Transmission) Member	RL	SHE Transmission
Alan Barlow	Non Embedded Customers Alternate	AB	Magnox
Robert Longden	Suppliers	RLo	Cornwall Energy
John Lucas	BSC Panel Alternate	JL	ELEXON
Graham Stein	NGET Member	GS	National Grid
Ivan Kileff	NGET Member	IK	National Grid
Rob Wilson	NGET Member	RW	National Grid
Richard Woodward	NGET Member	RJW	National Grid
Alternates			
Guy Phillips	Large Generator (>3GW) Alternate	GP	E.ON
Richard Lavender	NGET Advisor	RLa	National Grid
Sigrid Bolik	Generators with Novel Units Alternate	SB	Repower

Apologies

Name	Role	Initials	Company
Tom Davies	Non Embedded Customers Member	TD	Magnox
Gordon Kelly	Network Operator (Scot.) Member	GK	Scottish Power
Jim Barrett	Large Generator (>3GW) Alternate	JB	Centrica
Nick Rubin	BSC Panel Member	NR	ELEXON
Philip Jenner	Large Generator (<3GW) Member	PJ	Horizon Nuclear Power
Alan Kelly	Transmission Licensee (SP Transmission) Member	AK	Scottish Power
Campbell McDonald	Large Generator (>3GW) Alternate	CMD	SSE Generation

1 Introductions & Apologies

4131. Apologies were received from TD, GK, NR and AK. AT noted that she had circulated an email to GCRP members, informing them of Jim Barrett's resignation as Panel Alternate. AT reminded Panel members to confirm their attendance ahead of the meetings to ensure that car parking and other administrative arrangements can be made.

2 Approval of Minutes

a) July 2015 GCRP Minutes

4132. Comments were received from JW, RL and AF. The minutes were approved by the Panel, subject to reattributing the comments in minute 4122 from RL to RLo.

ACTION: AT to update minutes and upload onto the National Grid website

3 Review of Actions

a) Summary of Actions

4133. **Minute 4086: Workgroup Report template.** AT noted that NGET had taken into account the suggestions for additions to the Workgroup Report template and that these would be incorporated into future reports.

4134. **Minute 4087: Grid Code Process Review.** On the agenda for this meeting.

4135. **Minute 4089: DCC Workgroup.** RW confirmed that FR had gained approval from the DCRP to set up the DCC workgroup and that its first meeting would be held on 12th October 2015.

4136. **Minute 4099: System to System Intertrip.** AT explained that the initial action was to ensure that the scope of the CUSC Workgroup for CMP245/246 was extended to cover Grid Code issues, but that during the course of the Workgroup, the Proposer (GN) had amended the defect. GN added that CMP245/246 had held 2 workgroup meetings, but the workgroup was now on hold while considering how to move it forward. The consequential Grid Code issue will remain on hold until the CUSC process proceeds or concludes.

4137. **Minute 4094: Grid Code requirements relating to 220KV equipment.** GS noted that the associated NETS SQSS consultation on 220kV assets is about to go live and that a link will be sent to the Grid Code email distribution list.

4138. **Minute 4105: SPT Electrical Standards.** AT commented that she had received no further updates from SPT following their presentation to the July 2015 GCRP meeting, but noted that SHET had circulated an update paper and expected to report back further to the November 2015 GCRP.

4139. **Minute 4121: Week 24 data.** RW noted that NGET had received a full set of week 24 data submissions and would now look at the timeliness and quality of submissions in conjunction with the DNOs. JN raised a concern that the annual Week 24 letter he receives from NGET usually contains several oversights, for example previous references to Power Stations that RWE have sold or have been disconnected , which indicates a disjoint of data flows within NGET. JN asked whether other GCRP members had experienced a similar issue; AB confirmed that he had and that letters were sent to email addresses for people who are no longer there, causing problems. IK asked for AB to send the emails to him so that NGET can review and resolve the process issues.

ACTION: IK to review NGET Week 24 generator data process and report back to November 2015 GCRP

4140. **Minute 4122: SOF presentation**. AT noted that the action assigned was for NGET to arrange a presentation on the SOF for September's GCRP meeting, but that November's GCRP meeting or possible later would be a more appropriate time in the SOF process to provide a meaningful update.

4 Grid Code Process Overview

a) Issues Paper and Workgroup Terms of Reference Templates

4141. RJW gave an update on the two templates for the Issues Paper and the Workgroup Terms of Reference, noting that both templates had been presented to the GCRP and the GCDF and comments had been received and incorporated. JN suggested that where an issue has been taken to the GCDF, the outcome should be recorded on the Issues Paper form. GN noted that the form asks for the proposed solution, but that sometimes there is not yet a solution to be proposed; RJW agreed with this comment. RJW asked JN whether he wished to add anything about the Critical Friend role, following verbal comments he had made. JN noted that the template should probably include details and role of the Code Administrator that the form should be sent to and agreed to provide further comments if required.

4142. SB asked where the revised templates would be published on NGET's website, AT responded that the templates are currently published under the Grid Code Modifications tab, but that she would circulate a link to the page to GCRP members. In respect of the Workgroup Terms of Reference template, AC suggested that existing guidance on how a Workgroup should run should be incorporated. The NGET representatives took an action to find the existing guidance and look to incorporate it.

ACTION: RJW to update Issues Paper and Workgroup Terms of Reference templates and publish both on the NGET website

ACTION: AT to circulate link to new templates on NGET website, once published

5 New Grid Code Development Issues

4143. There were no new issues this month.

6 Existing Grid Code Development Issues

a) GC0077: Suppression of Sub-Synchronous Resonance from Series Capacitive Compensation

4144. GS gave an update on progress with the NETS SQSS Workgroup, which is also looking at potential Grid Code changes. The SQSS workgroup wants to do a report which would include its proposed changes to the Grid Code. If approved, this report would then be consulted upon for both SQSS and Grid Code and the draft Grid Code consultation would be presented to the January 2016 GCRP meeting for view. The GCRP agreed to this approach.

7 Workgroups in Progress

a) GC0048: European Network Codes – RfG Implementation

4145. RJW presented an overview of the GC0048 timeline that had been circulated, noting that the Workgroup had split its work into seven potential modifications for implementing RfG in the GB codes. RJW commented that the timescale was quite ambitious, with all of the modifications required to be implemented by the end of 2017, with the majority of them earlier. RJW highlighted the dependencies between ongoing Grid Code workgroups shown on the timeline slide, as discussed at previous GCRP meetings

4146. RJW explained the proposed approach would be that GC0048 would retain an oversight of the workload and would manage the Banding and Compliance work, with other existing Grid Code workgroups taking on some of the work identified, for example, the Frequency work could be undertaken by the existing GC0087 and GC0079 workgroups. RJW gave an example of Fault Ride Through, which is covered by the existing GC0062 Workgroup, which would not take on the work identified by GC0048. However, the existing GC0079 and GC0087 workgroups would like to take on the GC0048-related work. RJW offered to circulate the detailed slides after the GCRP meeting.

ACTION: RJW to circulate detailed GC0048 presentation slides to GCRP members

4147. AC commented that it appeared sensible that if the existing workgroups were happy to take on the GC0048 work, that should happen, but if they were not, a separate subgroup should be set up. Other GCRP members agreed with this view. SC asked about the proposed timescale of implementation at the end of 2017 and whether it should really take that long. RW responded that GB has to be compliant as a member state by Q1 2019, but the clarification of requirements for new or existing users needed to be understood by Q1 2018. We should aim to give generators as long a lead time as possible, noting that implementation should not take that long and estimated a 12 – 18 month workgroup period. JN asked about RJW's expectations of the Workgroup and whether the drafting would be done by committee (workgroup) or by legal resources. RJW gave his view that NGET would provide legal resource for the drafting, but that the workgroup members should be able to carry out the interpretation of the code. JN agreed with that approach.

b) GC0062: Fault Ride Through

4148. GS noted that when the GC0062 workgroup was established, to address an issue raised by a former GCRP member, the RfG code was in its infancy. The Workgroup subsequently concluded that RfG was not related to the original issue raised for GC0062. The GC0062 Workgroup is now at the stage of agreeing its Workgroup Report; it believes it has addressed the original issue raised and there is reasonable consensus on the proposed solution, however it will not deal with any RfG issues. The Workgroup Report is due to the November 2015 GCRP meeting.

c) GC0079: Frequency changes during large disturbances

4149. GS presented a paper and a revised Terms of Reference, as submitted by the Workgroup Chair. GC0079 is a joint GCRP/DCRP workgroup. GS asked the GCRP for its approval to the revised TOR. AV agreed with the TOR in terms of protection settings, but raised a concern that the Grid Code currently has no ROCOF withstand capability provisions, but that the RfG Code does include a withstand capability value to be defined by the TSO, which is proposed to be covered by Phase 2 of the GC0079 work. AV noted that by default a ROCOF withstand capability value would also apply to existing plants not covered by the RfG code. AV also considered that this work should be done first as it would be more logical to establish withstand limits before setting ROCOF protection settings. GN expressed his support for this approach and asked GS whether the two issues apply to a different set of stakeholders. RL asked what the difference was between protection settings and generator withstand. The GCRP agreed that the protection is there to protect the local network from islanding. GS agreed that there is logic in seeking to look at generator withstand first, except protection settings are so low currently and NGET is conscious that the industry is incurring costs to manage the system within the protection settings. The withstand issue requires some reasonably substantial work to examine it fully and the GC0079 Workgroup would like to address the protection settings issue first. AV asked whether the work could be done in parallel. GS noted that it was being done in parallel already, but from a practical meeting perspective, it was hard to progress both concurrently.

4150. AW asked GS whether the two issues required a different group of stakeholders, GS agreed that it did and that additional workgroup members would be needed in order to address the withstand issue. GN asked whether there is an automatic assumption that the system would operate to a wider ROCOF range, and would this cause issues for existing plant. AV noted that he was not aware of any studies done for impact on large generators when the settings were done for embedded generators. AV noted a parallel with Ireland, but suggested that large generators had been involved late in the day with proposed changes in Ireland; TM responded that generators in Ireland have been charged with doing their own studies, but that they have 2 – 3 years to do this, to be compliant by November 2017. The requirement in Ireland is 1Hz per second, measured over 500ms.

4151. GS agreed to take the GCRP's thoughts back to the GC0079 Workgroup, which has its next meeting on 22nd September, but noted that practicalities may prevent anything very different happening from what is proposed in the revised Terms of Reference.

ACTION: GS to discuss with GC0079 Workgroup how withstand issues will be addressed and report back to November GCRP

d) GC0087: Development of Grid Code Frequency Response Provisions

4152. GS noted that G0087 has held two meetings; the Workgroup were asked to look at ramp rates and delay parameters, but GC0087 workgroup members also wanted to look at RfG implementation. The revised TOR presented to GCRP includes the additional RfG work and extends the timescale of the workgroup accordingly. RJW asked whether membership should be extended to include GC0048 members and whether GC0087 should become a subgroup of GC0048. GS agreed to send an updated invitation to join the GC0087 Workgroup. RW felt that the coordination of GC0048 and GC0087 Workgroups could be done informally, without making one a sub-group of the other.

4153. JN asked whether the fourth bullet point under paragraph 3, “maintenance of Constant Active Power regardless of changes in System” should have the word “Frequency” at the end. GS agreed that it should. AC commented that the revised TOR do not make explicit reference to GC0048. GS agreed to include a new paragraph on coordinating the timelines of GC0048 and GC0087. GN commented that the last GC0048 meeting included information on compliance specifications and testing and this opened up a potential Pandora’s Box and wanted to bring it to the GCRP’s attention. AF felt that this was a discussion for the workgroup. RJW responded that GC0048 split the compliance work into two sections.

ACTION: GS to update GC0087 Workgroup Terms of Reference for GCRP’s comments and circulate for approval by correspondence

e) GC0090: HVDC

4154. RW noted that the first meeting of the GC0090 Workgroup would be held on Friday, 18th September. The Terms of Reference will be presented to the first workgroup meeting. RJW commented that the HVDC code has been approved by EU member states, and so the text is unlikely to change. It will now go through formal comitology in which it is written into European law.

f) GC0091: DCC

4155. RW noted that the DCRP had approved setting up a joint DCC workgroup and that the first meeting is 12th October 2015. The DCC is to be discussed at the October Commission Cross Border Committee meeting with the objective of achieving member state voting.

8 Workgroup Reports

4156. There were no Workgroup Reports this month.

9 Industry Consultations

a) GC0023: Protection Fault Clearance Times and Back-Up Protection

4157. RW noted that GC0023 is out for consultation and closes on 22nd September 2015.

b) GC0028: Constant Terminal Voltage

4158. GS provided an update on progress with GC0028. The Industry consultation closed on 10th August and only two responses were received, with both responses supporting the proposed changes. GC0028 would provide generators with more flexibility in providing reactive power and voltage control, by allowing changes in terminal voltage. GS proposed to give GCRP members two weeks to highlight any concerns with the proposed approach before submitting the Report to the Authority in line with the standard process. JN asked whether it was just the

small number of responses that was causing caution with the approach or other objections. GS responded that in order to implement the proposals, there were actions for NGET to take, but that he was not aware of any reason not to proceed the proposals. The GCRP agreed to this approach.

c) GC0075: Hybrid Static Compensators

4159. GS gave an update on GC0075, noting that following the last GCRP meeting, NGET was tasked with updating the Workgroup Report and providing greater clarity on the legal text. GS proposed to circulate an updated Workgroup Report to the GCRP, for approval by circulation, and bring a draft Industry Consultation document to the November GCRP meeting, in order to keep GC0075 progressing.

d) GC0086: Grid Code Open Governance

4160. AT noted that she had circulated the draft GC0086 Industry Consultation document the week before the GCRP meeting, with a view to seeking comments and approval to publish the consultation at the September meeting. In particular, AT was looking for views on whether the document was sufficiently clear. RLo asked whether Ofgem had commented on the structure of the consultation document, AT responded that Ofgem had been present on the Workgroup and had provided some comments on the draft Consultation document.

4161. JN raised a concern over the loss of a useful forum (the current GCRP), to be replaced by groups which he was concerned people may not turn up to. JN felt it was not entirely clear who would turn up to the three forums proposed by the GC0086 workgroup. JN suggested a consultation question to ask respondents which, if any, of the forums they would attend. AT responded that GC0086 proposes two standing forums, both of which essentially exist currently: the GCRP and the GCDF, although noting that the GC0086 refers to the GCDF as the "Grid Code Advisory Forum" or GCAF, rather than the "Grid Code Development Forum". She added that she did not see a reason why the existing GCRP members would lose interest in continuing in those roles were GC0086 to be implemented with the new GCRP structure. JN responded that GC0086 proposes a revised role for the GCRP and that Panel Members may not want to continue with the changed focus. AT acknowledged that the role of the GCRP may change at the front end of the modification process, but that at the end of the process, GCRP members would be called upon to provide their views on whether a modification should be implemented, using their technical expertise.

4162. GN asked what consideration the GC0086 workgroup had given to the workgroup process. AT responded that discussions had mainly focused around the mandating of a Workgroup Consultation, but that in essence the GC0086 workgroup had not seen the model working that differently from now. GP added that the concept of Proposer Ownership in respect of a Workgroup is a key change under GC0086, which would allow any Proposer to maintain control over his modification, which could not be changed by the Workgroup without the Proposer's consent although alternatives could also be developed.

4163. The GCRP agreed to a six week consultation period, starting on 25th September, to give GCRP members a week to do a final review and comment. GP suggested that NGET run a workshop during that period to allow consultation respondents to understand the proposals and formulate their response, RL agreed with this proposal. RW suggested using the October GCDF to host the workshop. AW noted that NGET's Customer Seminars would also fall within the consultation period and could be used to highlight the consultation.

ACTION: GCRP members to send comments on GC0086 Industry Consultation to AT

e) GC0088: Voltage Unbalance

4164. RW provided an update on GC0088. The consultation received 3 responses, which were supportive of relaxing the E&W limit from 1 to 1.5%, but did not support making the Scottish limit more onerous. RW sought approval from the GCRP for progressing the E&W changes on their own, while continuing to discuss the Scottish limits with Scottish TOs.

4165. AV asked whether the report would then be amended once the Scottish discussions had concluded. RW responded that it would not, that it would need to come back to the GCRP at

a later date with a separate consultation process, if required. RL confirmed his understanding that GC0088 would therefore conclude with the submission of the Report to the Authority; RW agreed that it would. RW asked GCRP members whether they wished to see the draft Report to the Authority prior to its submission; RL responded that he would.

4166. AV asked what arguments had been made against the proposed changes in Scotland. RW responded that the argument was that it could not be proven that changing the existing 2% limit in Scotland to 1.5% would not result in increased transmission network investment without carrying out detailed studies.

ACTION: RW to circulate draft Report to Authority to GCRP for comment prior to submission to Authority

10 Reports to the Authority

4167. There were no Reports to the Authority.

11 Progress Tracker

4168. AW noted that the Progress Tracker had been circulated. AV asked when things would usually be taken off the tracker, and asked for issues to stay on for a period of time after an Authority decision until they have been implemented. AB mentioned that some of the commentary is out of date and suggested that, for clarity, the year is always specified when dates are used.

4169. JN asked how follow-up actions are recorded, once an issue has concluded, citing an example of GC0076, which included a caveat in the Ofgem decision letter that NGET carry out certain actions. GS acknowledged this and suggested GC0076 be reinstated, specifying the actions to be completed.

ACTION: NGET to update the Progress Tracker to keep modifications on which have been approved until after their implementation date. Reinstate GC0076 on Tracker with outstanding actions.

12 Pending Authority Decisions

4170. There were no pending Authority decisions.

13 Standing Items

a) European Network Codes

4171. In the absence of an Ofgem representative, RW commented that the HVDC code has now been adopted. The DCC code is expected to go to the Cross Border committee meeting in October 2015, but it seems a way off in terms of the amount of comments being received.

b) Joint European Stakeholder Group

4172. AT noted that the JESG Headline Report had not been circulated to the Panel with papers as it was pending approval. The report has now been approved and AT will circulate.

ACTION: AT to circulate JESG Headline Report

c) Grid Code Development Forum

4173. RJW presented the GCDF Headline Report which was circulated to the Panel. RJW noted that the format of the GCDF is still evolving and comments had been received on tracking the output of issues raised – a tracker has now been added to the GCDF pages on the NGET

website. RJW summarised the issues discussed at the GCDF, including Zero Miss for Offshore Windfarms, raised by DONG Energy. The next meeting is 16th October 2015 – RJW asked GCRP members to encourage agenda items and attendance at GCRP. RLo suggested raising the profile of GCDF with parties such as RenewableUK. AW suggested mentioning it at NGET's forthcoming customer seminars.

4174. JN commented that the forum had held three meetings to date and that it seemed to be struggling for agenda items and that issues raised at the GCDF had not yet reached the GCRP. RJW agreed that tracking progress on issues is extremely important to keep people engaged. RW expressed his view that the GCDF has added value to discussions but NGET would like to be able to demonstrate a track record of achievement.

14 Impact of other Code Modifications or Developments

4175. AW noted that the Codes Summary document was circulated to the Panel. There were no comments from GCRP members.

15 Any Other Business

a) Significant System Incident Report

4176. GN noted that the GCRP was overdue a Significant System Incident Report and that the last one received did not include Three Phase Faults. GS responded that the Report is due to the September GCRP meeting annually, but that it had not been completed to schedule. NGET is currently considering analysis and additional work on embedded generation. NGET intends to submit the Report to the November 2015 GCRP meeting.

b) Storage Providers

4177. GN notified the GCRP that he had received an enquiry from a storage provider and had pointed them in the direction of the GCDF. GN asked the GCRP whether they were aware of any issues in this area. RW commented that he expected this to be an increasing issue in the future and that NGET has been flagging it to European Forums.

16 Next Meeting

4178. The next meeting is planned for 25th November 2015 at National Grid House, Warwick.