nationalgrid

Minutes

Meeting name	Grid Code Review Panel
Meeting number	77
Date of meeting	20 January 2016
Time	10:00am – 3:00pm
Location	National Grid House, Warwick.

Attendees

Name	Role	Initials	Company
Ian Pashley	Chair	IP	National Grid
Ryan Place	Code Administrator	RP	National Grid
Andy Vaudin	Large Generator (>3GW) Member	AV	EDF Energy
Gareth Evans	Authority Representative	GE	Ofgem
Campbell McDonald	Large Generator (>3GW) Member	MCD	SSE
Guy Phillips	Large Generator (>3GW) Member	GP	Uniper
Tom McCartan	Externally Interconnected System Operators Member	TM	SONI
Philip Jenner	Large Generator (<3GW) Member	PJ	Horizon Nuclear Power
Guy Nicholson	Generators with Novel Units Member	GN	Element Power
Steve Cox	Network Operator (E&W) Member	SC	ENW
Alan Creighton	Network Operator (E&W) Member	AC	Northern Powergrid
Jim Barber	Network Operator (Scotland) Member	JB	SSE
Graeme Vincent	Transmission Licensee (SP Transmission) Member	GV	Scottish Power
Robert Longden	Suppliers	RLo	Cornwall Energy
Nick Rubin	BSC Panel Member	NR	ELEXON
Graham Stein	NGET Member	GS	National Grid
Tim Truscott	NGET Member	TT	National Grid
Le Fu	NGET Member	LF	National Grid
Richard Woodward	NGET Member	RJW	National Grid
Richard Lavender	NGET Advisor	RLa	National Grid
Bieshoy Awad	NGET Presenter	BA	National Grid
Anthony Johnson	NGET Presenter	AJ	National Grid
Alex Thomason	NGET Presenter	AT	National Grid
Alternates			
Alastair Frew	Large Generator (>3GW) Alternate	AF	Scottish Power
John Norbury	Large Generator (>3GW) Alternate	JN	RWE Generation UK
Gordon Kelly	Network Operator (Scotland) Alternate	GK	Scottish Power
Lisa Water	Generator (Small and/or Medium) Alternate	LW	Waters Wye
Richard Lowe	Transmission Licensee (SHE Transmission) Alternate	RL	SHE Transmission
Observer			
John Martin	Code Administrator	JM	National Grid

Apologies

Name	Role	Initials	Company
Roddy Wilson	Transmission Licensee (SHE Transmission) Member	RoW	SHE Transmission
Sigrid Bolik	Generators with Novel Units Alternate	SB	Repower
Craig McTaggart	Transmission Licensee (SP Transmission) Alternate	CMt	Scottish Power
Rob Wilson	NGET Member	RW	National Grid

1 Introductions & Apologies

4234. Apologies were received from: RoW, SB, CmT and RW

4235. It was noted by the Chairman that he will no longer be carrying out duties as the GCRP Panel Chairman. The group wished to thank him for all his work and all the best going forward.

2 Approval of Minutes

a) November 2015 GCRP Minutes

4236. Comments were received from JN, GE and TT. The minutes were approved by the Panel.

ACTION – RP to update the website with approved minutes.

3 Review of Actions

a) Summary of Actions

4237. **Minute 4181: Grid Code Process Review**. RP noted that the current Grid Code process review is ongoing and that any further updates will be presented to the panel in due course.

4238. **Minute 4182: Grid Code Process Review.** RP as previously noted unfortunately due to some of the embedded links in the issue papers and Workgroup Terms of Reference we have been unable to upload the new templates to the website. This is currently being investigated and an update will be provided to the panel once this has been resolved.

4239. **Minute 4196: SPT/SHET Electrical Standards Review.** RP flagged that the SHET RES document had completed it consultation period. Only 1 comment was received from JN on the grammatical inconsistencies with the current E&W document which would be addressed directly with SHET. It was also noted that the SPT suite of documents had also entered the consultation period. It was shared with the group that a few comments have already been received from CMD and JN. The comments reflected the difference between the SHET RES document and the SPT RES document; it was clearly presented that the 3 RES documents (NG, SHET and SPT) should all be consolidated.

4240. **Minute 4196: RES compliance at interface points.** RP circulated the Ofgem response prior to the meeting. CMD flagged that the issue of interface points was not just aimed at Offshore. It is not currently clear which RES would apply to the generator connecting, and with SPT having a clear difference in charging to SHET it would often result in 3 different BCA's and offers being provided to the end user. This also created further issues with ITPR coming into force and the potential for third party transmission network owners; what standards would they adopt? GS rhetorically asked why the equipment standards can be different for the different regions. RL comments that there may be a reasonable reason for the difference; if so a detailed discussion would be required. GE opened the floor to the attendees asking what other generators thought. JN stated that he was generally happy with the SHET document but work on the harmonisation of the RES documents produced by the different Licensees should prevail. This was reiterated by AF. It was suggested by the National Grid Representatives that this is an issue that should be raised at the next GCDF in order to develop a direction of travel for the conversion of the RES documents. An action was taken for National Grid to put a feeler out to industry and raised it as an agenda item at the next suitable GCDF.

4241. **Minute 4202: Code Mapping for ENC.** On the agenda for this meeting.

4242. **Minute 4225: SO Guideline and Cross-Code Collaboration.** On the agenda for this meeting.

4243. **Minute 4218: Progress Tracker Updates.** RP informed the Panel that we will wait until the decision on GC086 before making any amendments to the Progress Tracker.

4244. **Minute 4231: System Disturbance Report.** On the agenda for this meeting.

4245. **Minute 4231. ROCOF Withstand.** On the agenda for this meeting.

4 New Grid Code Development Issues

4246. **SHE Transmission/ SP Transmission Electrical Standard Update.**

4247. Following on from the discussion noted under the 4238 and 4239, AF raised his concerns that there are 2 different frequency ranges in the SPT RES document and that neither of these are Grid Code compliant. The document also had different withstand timeframes to the SHET and E&W documents. He felt the clearest solution would be for the documents to just refer to the Grid Code E&W Electrical Standards.

4248. JN comments that he was confused regarding the status of the current RES consultation process. If the GCRP needs to unanimously approve the RES documents, then it also needs to see a draft of the legal text changes to the General Conditions. Also, for the SPT RES document it would be useful to have an issue number and issue date for each standard with clear grammatical consistencies between the documents in the presentational nature of the E&W RES documents. In the light of issues arising from reviewing the non-NGET RES documents for the first time, JN felt that it would be beneficial to detail the terms of the RES documents in the General Conditions.

4249. CMD then asked if there is currently a process to the consult with the user on the Electrical Standards in that region. It was noted that this is not currently best practice. GS flagged that the process needs to be looked at.

4250. RL flagged that when SHET were in the process of putting their Electrical Standards document together they actively considered consulting with Users while drafting their document, however, ultimately this was not required due to adoption of the E & W RES with only specific differences where necessary.

ACTION – legal text required for the RES changes.

6 Existing Grid Code Development Issues

4251. No existing Grid Code Development Issues.

7 Workgroups in Progress

a) GC0079: Frequency Changes during large disturbances and their effect on the total system (RoCoF).

4252. GS updated the Panel on GC0079 (RoCoF Withstand) providing background on the reasoning why RoCoF Withstand should be moved to the GC0087 Workgroup. The reasoning provided was that GC0087 has the correct technical experts to provide the input required whilst also feeding into RfG allowing for more informed discussions. GS confirmed that the formal process to carry out the change would be amended ToR's for both Workgroups which would be presented back to the March Panel.

4253. CMD stated that it is important for withstand parameters to be set so that new connections coming onto the Grid can be compliant with RfG implementation. Furthermore he questioned why the current ToR for RoCoF Withstand is to look at existing generators. He suggested that if this is still deemed appropriate then it may be a good idea to create a new Workgroup at the

appropriate time to make the development of parameters for RoCoF Withstand faster and more efficient. AF replied by stating that he felt it had to be the same number for both new and existing generators.

4254. AV recapped that he thought the initial action was to formalise a requirement for RoCoF operating limit as well as a withstand limit. If so only part of the item had been moved from GC0079 to GC0087. He stated that the RoCoF operating limit would also affect existing generators. PJ noted that any work done under RfG to new connections to the network can also apply to existing generators if a cost benefit analysis has been carried out so this work could be done under the banner of GC0087.

4255. TT then commented that RoCoF is about the way that the system is run. Because of low inertia from the increasing amount of renewables RoCoF is becoming a bigger issue. CMD added that interconnectors are also causing an issue, which TT agreed with because we are seeing a higher rate of change of frequency on the system as larger generators disconnect and smaller users are connecting.

4256. RJW felt that we should let GC0087 make a recommendation on a RoCoF operating limit after the RfG withstand limit has been set because RfG has to be implemented by a prescribed date so it is important to focus on that implementation. AV flagged that it is also important in GC0087 to capture that the operating limit will be included under the SO Guideline code.

b) GC0087: Frequency Aspects of RfG.

4257. GS informed the group that the GC0087 workgroup is making good progress on the national parameters; the big question at the moment is how LFSU works. The Workgroup is currently trying to agree its interpretation of the wording in the code. It was noted that the Workgroup are trying to get another meeting scheduled for Feb.

4258. GN flagged that the website needs to be updated with the amended ToR's for both Workgroup's.

c) GC0077: Subsynchronous Resonance

4259. National Grid gave a presentation on the progress of GC0077. The SQSS Workgroup GSR018 has concluded and a workgroup report was submitted to the SQSS Review Panel in December. The SQSS Review Panel approved the report and a consultation is being drafted with the hope of it being available in February.

4260. PH asked what the definition is for an existing plant in the report. BA confirmed his view that the point of a DRC submission of parameters and the conclusion of the appropriate assessment for SSO requirements, but if the data is changed subsequently then this will be classed as modified plant.

4261. CMD told BA that the word 'sufficient' in relation to damping in the consultation is not suitable as their needs to be some way of measuring the performance of damping. If the word 'sufficient' is used then how do you measure if it changes and you are meeting the new requirement? GS informed CMD that if anything changes there is a contractual process to follow, so there is an established process to manage this. If damping changes on the system it would have to go through the modification process again.

4262. AF as a member of the workgroup added that it is hard to set a figure for the damping target. Damping should only change if something is modified, which would be captured under the modification process. GS added that by adding this obligation in the code it makes sure that transmission owners and user talk; effectively it contractualises current best practice.

4263. AV then queried whether the SQSS and Grid Code modifications would be retrospective, in particular referring to the "2020 works" SCC installations in the SPT area. This was confirmed

by BA. AV then asked if the SO and the TO have an operating agreement in place for these installations, such that the SCC would be by-passed if the TO monitoring system detects SSO. It was confirmed by BA that provisions currently exist in the STC to oblige the TO of the requirement to provide the data. Monitoring equipment is being installed in the plant itself. BA confirmed that if the TO monitoring system detects SSO, then the SO would switch out the SCC and take any appropriate balancing system actions. . Access rights will not be impacted, so if you currently have a firm connection then the generator will not be exposed to any additional constraints. BA confirmed that there would be no obligation for generators to install SSO protection.

4264. NR asked BA if there are any requirements in relation to communications. From the perspective of BSC parties would they be interested in what Grid Code changes are happening. LW stated that any SSO actions needs to be flagged in the balance mechanism which IP confirmed it will be flagged as an SO action.

4265. GP felt that the use of the term 'sufficient' is probably the right outcome, but asked what will happen if damages are caused. What if "sufficient" does not turn out to be sufficient? AF informed the group that it was difficult to define a term 'better than no damage' but if damage did occur then this would fall under the CUSC area. IP sought confirmation that this will be raised as a consultation question.

4266. NR then asked BA if the changes are likely to increase or decrease the amount of system constraint actions National Grid might take. GS confirmed that if a separate flag was created for SSO BM actions then it would not be used very often and AF clarified that if people follow this procedure then there should not be significant SSO related balancing actions.

4267. PJ asked BA if there will be any template wording to add to the BCA's? BA confirmed that currently NG are working on wording for a template at that it will be used for new plants looking to connect. PJ said that it would be helpful to have this template available for the consultation.

4268. CMD wanted to highlight that the report was a very good piece of work in order to get a solution that avoids damage. In light of ROCOF he wanted to know if there is a similar piece of work to understand the implications going forward of sub-synchronous resonance. GS responded that there is potential for discussions to occur around the topic going forward.

4269. GS asked the group the process for approving the Consultation document now that the Workgroup Report had been approved. It was agreed by the Panel that the format of the Workgroup Consultation can be agreed by email rather than waiting for the March Panel.

ACTION – The title of GC0087 need amending on the Progress Tracker.
ACTION – Update the website the title and descriptions for GC0079 and GC0087.
ACTION – GC0077 Consultation to be presented to Panel.

8 Workgroup Reports

4270. **GC0062: Fault Ride Through.**

4271. National Grid gave a presentation updating the progress of GC0062. It was confirmed that the Workgroup supported the conclusions of the report, and that there is no conflict with GC0048 as a result of the proposal. The recommendations were to agree the workgroup report, the draft consultations questions and that the issue should progress to consultation.

4272. PJ commented that the original EDF issue was to have site specific requirements. AJ said this divested to a general requirement in order to keep it transparent to allow the information to be published in the public domain. NR asked if reasoning's should be given in relation to why the issue facilitates the appropriate Grid Code objectives. AJ noted this is documented by the Workgroup in the Workgroup Report.

4273. The Panel approved the Workgroup Report and confirmed that they are happy with the Consultation questions.

4274. **GC0048: RfG Implementation.**

4275. RJW presented an update on amendments made to the GC0048 ToR. Originally there were 3 workgroups under GC0048, but now this has been expanded to 5 or 6 workgroups. In order to co-ordinate all of these groups a Co-ordination group has been set up to span RfG, DCC and HVDC in order to main consistency. National Grid requested approval that the new approach makes senses and any comments on ToR.

4276. JN asked how this new format will be presented in order to get a suitable participation at the new meetings that require technical specialists. RJW stated that National Grid will be targeting the right people for the workgroup by using the lists for the Grid Code, EU Codes, JESG and finally the Workgroup membership list for GC0062.

9 Industry Consultations

4277. **GC0075: Hybrid Static Compensators.**

4278. GS confirmed that the consultation has been published and is open for 20WD's.

10 Reports to the Authority

4279. **GC0086: Open Governance.**

4280. AT gave an update on the progression of the issue. It was confirmed that 3 versions of the legal text have been consolidated and published.

4281. NR added that ELEXON wanted to highlight under the current arrangements the BSC Panel can nominate whoever it deems fit to represent it at the GCRP. ELEXON solely seeks to make sure that under the new arrangements this would continue on an enduring basis. AT asked NR if ELEXON can check the legal text to make sure that they are happy with the drafting.

4282. AT asked the Panel if anyone has views on why some aspect of GC0086 (independent chairman and self-governance veto) should differ from aspects set out in CGR3 in order to avoid send back of the changes. It was highlighted to the Panel that if it does not have solid reasoning why GC0086 should implement different changes to those proposed in CGR3; then it risks the likelihood if the report is submitted in its current form it will be rejected. AT confirmed that it is the view of National Grid that if we do not come up with solid reasoning, these nuances should be removed from the Report to the Authority to avoid send back.

4283. RLo asked AT If the proposing party of a Modification does not feel that the GCRP made the correct decision in assigning the Modification as either self-governance or non-self-governance is there a process to question appeal? AT confirmed that there is an appeals process.

4284. The Panel was then asked its view on the implementation of an independent chair. Currently in the Report to the Authority there is no solid reasoning why an independent chair should not be implemented? The feeling from National Grid was that there are no clear reasons for implementing this change other than the potential challenges of finding a suitable candidate (entirely independent) and how funding would be generated to remunerate that candidate. PJ suggested rather than using a head-hunter could not a less costly process be used. LW did not feel that it is that important that the individual is totally independent of industry. He felt the most important thing is that the person who is sitting as the Panel chair holds people to account.

4285. IP then stated that it is important that the issue gets implemented on its merits and not put at risk due to the practicalities of cost recovery (noting though that this would need to be addressed by National Grid). GE thanked AT for representing Ofgems views clearly, and reiterated that it is important to work together to ensure 1 whole package is submitted rather than a suite of building blocks. GP flagged that 1.7 in the Report to the Authority is not a correct representation; the defect has been clearly been defined. The language in 1.7 should be more comparative with the comments in 8.6 where it offers clear definition. AT asked the Panel if they are happy that this will not brought back to GCRP again before submission to the authority. The Panel unanimous approved this plan.

11 Progress Tracker

4286. No comments from Panel.

12 Pending Authority Decisions

4287. **GC0023: Protection Fault Clearance Times and Back-Up.** Approval in the next 24hrs

4288. **GC0028: Constant Terminal Voltage.** Approved for implementation on the 3rd Feb

4289. **GC0088: Voltage Unbalance.** Approved for implementation on the 3rd Feb

13 Standing Items

4290. **European Network Codes.** No comments from the panel.

4291. **Joint European Stakeholder Group.** RP noted no update.

4292. **Grid Code Development Forum.** Noted no update - Next meeting 4th Feb.

14 Impact of other Code Modifications or Developments

4293. No comments from the Panel.

15 Any Other Business

4294. **System Disturbance Report**

4295. GS highlighted the additions to the report after the November Panel and asked if any other transmission licensees have thoughts on earth faults? No comments were received from any other transmission licensees.

4296. MCD asked if the column 'reported generation lost' was a result of mains protection. GS confirmed that, that reasoning is correct. CMD then had a further observation on RoCoF, asking the group why there is such a shallow rise in Withstand over the last 10+ years. TT confirmed that it is because the SO is working to make sure that RoCoF does not occur again on the system following the big system event in 2008. TT then asked the Panel the usefulness of the information to identify an increasing problem if the problem is being actively managed by the SO. AV confirmed that it is useful to know that the system is performing well.

4297. **SO Guideline and Cross-code collaboration**

4298. RJW told the Panel that the first draft of the SO Guideline code has yet to be published but it expected before the next European Cross Border Committee on 28/29th January 2016. A third stakeholder Workshop will then be arranged for early February to discuss the text. Voting will be at the end of February with the code entering into force in June/July 2016.

4299. **Further Discussions**

4300. CMD asked the Panel for any updates on Power Available. RJW confirmed that contract services are about to write out to current PA sites to start a trial in preparation for go live April because currently only London Array's PA signal is translatable. CMD asked if any work is being done for other participants to be provided with guidance on what London Array are doing differently. RJW committed to provide a further update on this in March.

4301. CMD then asked National Grid for an update on EBS and that it is important for open dialogue between National Grid and the users. RP confirmed that the go live date for EBS has now been pushed back to Sept 16.

4302. **RfG Banding**

4303. RJW gave an update on the conclusions of the RfG banding. TT asked if they are they technical or operational requirements. RJW confirmed that they are technical requirements. TT then wondered whether RfG banding caters for the smaller generators now connecting to the system. RJW clarified that the banding only goes so far, so the SO need to discuss about what to do with these new scenarios.

4304. **CACOP Report**

4305. RP asked the Workgroup to note the report. JN commented that the 2015 KPI relating to the average number of respondents to industry consultations appears too high

ACTION – Contact SPT to ask if a document can be created to show the difference between SPT and SHET RES docs.
ACTION – Provide an update on PA at the March Panel.

ACTION – Contact the EBS IS team to raise the concerns flagged by some Panel members on engagement.

16 Next Meeting

4306. The next meeting is planned for 16th March 2016 at National Grid House, Warwick.