Minutes

Meeting name	GC0048: Joint GCRP/DCRP Workgroup on National Application of RfG
Meeting number	3
Date of meeting	24 September 2014
Time	10.00 – 15.00
Location	National Grid House, Warwick, CV34 6DA

Attendees

Name	Initials	Company
Rob Wilson	RW	National Grid (Chair)
Sara-Lee Kenney	SLK	National Grid (Technical Secretary)
Antony Johnson	AJ	National Grid
Catherine Hiorns	CH	National Grid
Andy Vaudin	AV	EDF Energy
John Norbury	JN	RWE
Peter Bolitho	PB	Waters Wye Associates
Mick Barlow	MB	S&C Electric Europe
Steven Mockford	SM	UK Power Networks
Peter Thomas	PT	Nordex
Joe Duddy	JD	RES
Alastair Frew	AF	Scottish Power
Campbell McDonald	CMD	SSE
Julian Wayne	JW	Ofgem
Rupika Madhura	RM	Ofgem
Sarah Carter	SC	PPA Energy
Mike Kay	MKA	Electricity North West

Apologies

Mustafa Kayikci	MKY	TNEI
Philip Jenner	PJ	RWE
Mick Chowns	MC	RWE
Alan Creighton	AC	Northern Powergrid
Chris Allanson	CA	Northern Powergrid
Alan Mason	AM	Senvion
Guy Phillips	GP	EON
Chris Marsland	CM	(on behalf of) CHPA & AMPS
Gareth Parker	GP	DONG
John Morris	JM	EDF
David Spillett	DS	ENA

1 Introductions/Apologies for Absence RW

1. The Chair welcomed the Workgroup and apologies were noted.

2 Review of actions & approval of minutes SLK

2. SLK ran through the Action Log and progress made to date. MK added that the Meeting 2 workgroup actions had not been published. RW confirmed that this would be rectified going forwards.

3. Action 1 Future use of BELLAs/BEGAs: RW explained that RfG did not change any contractual arrangements in GB. These would be subject to separate consideration. He did however mention that an issued remained over the retention of Small, Medium and Large Power Stations as against Type, A, B, C and D Generators which are used in the RfG Code. The workgroup agreed closure of this action.

4. Action 5 Compliance against the code: RM advised there is an obligation on ENTSO-E and ACER as per the Third Energy Package to monitor implementation of each code/guideline, which would involve working with the regulators. Regulators by implication would therefore need to ensure compliance with the requirements of the code. As per their obligations, ENTSO-E would be preparing a report for ACER and ACER would be preparing a report for the Commission (taking in to account ENTSO-E report). RM advised that the concern was there could be entities which are not regulated but would need to comply with the codes and how this would be managed because if they don't comply then currently there is no route for enforcement. DECC and Ofgem are considering these issues and urge the workgroup to flag to Ofgem and DECC any such part. JN mentioned that the Grid Code generally covers only a subset of what will be Band D generators. MK added that the domestic obligations for Band A are a little vague and it's not clear if there are enforceable requirements for Low Voltage connected generators (the requirements for which are set out in Engineering Recommendations G59 and G83). G83 and G59. MK added that this requires legal input to determine who can discharge compliance issues. AF noted the difference between Statute law and Common law and the need for this to be clear in terms of enforcement. AF added the view that it appears that NGET would be enforcing Statute law through Common law contracts. MK advised that either route allows provision to disconnect users for non-compliance. PB advised that this needs to be explicit or clearer to which.

5. Action 6 Comparison table: AJ provided an update on the status of this action, which has been on hold pending the production of a further draft of RfG by the Commission. It was felt unproductive to update the tables only to have to repeat this work for the next draft. RM advised that RfG is unlikely to change in terms of technical content and therefore the comparisons table draft could now be completed, based on the 'non-yellow' articles within the existing (January) RfG draft. AJ agreed to update the comparison table. RM provided an update on the Comitology timing for RfG which is expected to be the end of this year.

6. Action 8 Future code changes: RM advised that any future changes to ENCs that have 'entered into force' would be subject to a 5 year process by the Commission of recording issues and then making the necessary modifications. RM added that changes to GB codes which are not in conflict with ENC requirements would be subject to the current Grid Code Governance process and would not be subject to the 5 year Commission process. JW added that in the interim the potential use of derogations, subject to the normal processes for such requests, would give another route to resolve issues temporarily. AJ highlighted the potential introduction of new technologies that may result in non-compliance with RfG and that this could result in increased project lengths based on either a 5 year lead time for ENC changes or however long the derogation approval could take. RM added that derogations should be on an exception basis and regulators would need to publish derogations and the rationale behind them. MB added that it is important for manufacturers that there is no ambiguity. AJ cited the example of where new technology may struggle to meet certain technical requirements, which in some cases may require the need for a blanket derogation.

7. The action log was approved, noting the addition of the comments mentioned above, and will be updated and circulated with the minutes of the meeting.

8. SLK noted the previous meeting minutes have been updated with the changes received from Joe Duddy, Julian Wayne and Mike Kay and recirculated to the workgroup.

9. Section 3 DECC to Commission, item 6: MK asked to clarify the outcome and if there was any opportunity to lobby for changes on the FRT requirements for Type B generators. DNO concerns centre on how they would ensure compliance. JW advised they had lobbied ACER but it is still in RfG. While derogations, potentially on a class basis, would be possible, JW added that the default derogation process applies in that a substantive case has to be made for Ofgem to issue a derogation. If FRT is still in the next RfG draft this may need to be considered in a separate workgroup (or as part of the existing FRT workgroup under the GCRP). For Type B generators this might sit more appropriately under the DCRP. It was agreed that while this is potentially an issue it would be sensible to wait and see what's in the final draft. JW added that if this work fits under the Distribution Code it could begin now. AJ and RW added that National Grid's concerns on FRT are in making sure that significant volumes of Embedded Generation remain connected for a Transmission System fault. AJ advised that as more Embedded Generation connect to the System, there should be no more than an 1800MW Generation loss. He advised that a more reasonable requirement would be for Embedded Generators to remain connected and stable for Transmission System faults (i.e. at 400kV and 275kV) rather than for faults at the connection point of the Embedded Generation.

10. AF asked what the implications of the codes are in European Law. RM and JW advised that the codes will be implemented as European Regulations and will therefore be directly applicable and European law then supersedes UK law where the law is in the same area. Implementing RfG means calculating figures as required but we agreed with the industry that they need to be transposed into the GB codes for practical ease of use reasons for the Users.

11. Section 6 Banding Thresholds: MK asked for an update on this, JW advised it is likely that the starting point for banding thresholds will have aligned the GB thresholds to those of Continental Europe. DECC have fed back GB stakeholder opinion on this point to the Commission, and while the outcome is not certain it is likely that they will take note of this. JW and RW added that this is a starting point for the thresholds; TSOs must make a case for what the Type thresholds should be, the values in the code are simply the maximum values which those thresholds can be.

12. AJ advised that the Continental thresholds are: Type A 800W-1MW and connected below 110kV; Type B: 1MW-50MW and connected below 110kV; Type C: 50MW-75MW and connected below 110kV and Type D: 75MW or above (and also with the unchanged distinction that any party connected at or above110kV is also classed as type D).

13. JN and CD noted that whatever the thresholds are set to, it will be likely to drive future design behaviour (as under the existing GB framework there are a number of 49.9 and 99.9MW generators).

14. The minutes of the previous meeting were approved noting the above mentioned comments.

3 Progress Update CH

15. CH ran through the progress updates for RfG which in summary is still with the Commission in the pre-Comitology stage.

16. RM added that the Commission is liaising with ACER and ENTSO-E on the text and finalising comments received. The Commission would like to send an updated version to their lawyers shortly and this process, which should take a few weeks, is likely to commence in October. RM added that there is currently no multiple TSO clause in RfG. RM explained that in 2013 Ofgem and the industry lobbied ENTSO-E to develop a standard clause that could be included in each of the ENCs which would set out that member states were able to define the roles and responsibilities of individual TSOs within their jurisdiction. A clause was developed and put in CACM, which is not present in the new versions of DCC or RfG. RM has completed analysis to identify TSOs responsibilities and applicability. RM advised that the Commission were unsure as to why the multiple TSO provision was not present in the existing Connection Code drafts.

RM stated that the Commission has indicated that they see no reason why multiple TSO provision will not be included in the Grid Connection Codes. ACER has proposed slightly broader wording than the provision in CACM. RW added this is an important addition to the code as it gives scope for clarification which is particularly important for GB and added that his understanding was that RfG hadn't changed significantly. RM advised the essence will stay the same. PB asked if the definitions may change. RM advised that everything highlighted yellow in January text is subject to change. Definitions are yellow. The Commission has indicated that they intend to follow the same sets of definition for each code (some relevant to RFG already published with Transparency Regulations for example that of control area) and these shouldn't change unless a code warrants a specific definition. RM advised to consider the Transparency Regulations definitions. RM added for the group to provide any comments they have to her as she is feeding this into the Commission. CM asked if RfG would remain as a network code or become a guideline like CACM. RM advised RfG will stay as a network code, since the Commission are satisfied that it is already sufficiently detailed. CACM is being taken forward as a guideline due to the methodologies/decisions that also need to be taken in the future, although in fact the end result (code/guideline) makes little difference to once entry into force has been achieved and the result is European law. RM believes Comitology for RfG will be at the end of this year. SC clarified the current RfG version used for ECCAF mapping and the work of the workgroup to date is the 14 January 2014 - Informal Service Level Draft version from the Commission.

4 Structures - proposed solution covering the Grid and Distribution Codes and supporting documents RW

17. RW ran through existing RfG banding thresholds and the current proposals. RW advised from the work done to date that in the GB codes, and particularly given the difficulties in reconciling existing and new users, there is not an obviously way to proceed than to still include the definition of the Small, Medium and Large Power Stations which are also subject to Scottish specificities. JN noted that this could result in a large number of categories and sub-categories and that his view was that it would be better to try and keep the categories as simple as possible. In an ideal world it would be better to solely rely on Type A – D Generators. RW agreed entirely with the sentiment but added that the Grid Code is full of references to Small, Medium and Large and changing this would be a large task. AJ advised that the Grid Code is predicated upon Small, Medium and Large categories covering technical and contractual requirements whereas RfG Types A, B, C and D only cover the technical side. AJ added that it would be useful and helpful to merge the contractual and technical elements if this could be achieved. JN advised he was not convinced at this stage, as it is an opportunity for a clean start with new connection conditions. RJ advised the different Scottish specificities are complex to manage. AJ advised that this is not finalised and is still up for discussion but it may be well worth reviewing the Licensing arrangements. He advised that the current Licensing arrangements fit around the definitions of Small, Medium and Large. Under RfG it is possible (although it would need to be checked) that such a review would enable a consistent approach to be adopted to Type A – D Generators which would cover both contractual and technical requirements.

18. RW ran through the current and proposed structure slides. CM made a recommendation on P28. JN feels it may be too early to say that Type D would sit directly in the GC as some type D would also be distribution connected and so could sit in the Distribution Code. CM asked would there not be a contractual relationship between type C and NG? AJ advised this needs further thought and discussion. MK advised he didn't think the existing Industry Code model slide was the preferred way forward. SC advised that for Distribution they would like to split out further at the lower end (Type A). JN suggested we should as an exercise set out the principles of what should be DC and GC. JN also suggested the potential for one set of conditions that both codes use – in effect a GB RfG and also asked what interest does NG require in generators categorised as types A or B. AJ advised that a fundamental difference between RfG and the current codes was that RfG defined a number of principles where the TSO need to have some involvement even for Type A Generators. In view of the increasing volume of Distributed Generation and the significant changes in Banding (i.e. Type A – D against Small, Medium and Large) AJ advised there would in future need to be greater co-ordination between TSO's and DNO's.

19. RW ran through existing and new user definitions and likely issues. RW advised that existing users will still be bound by the existing GC and new users will be subject to the revised GC

requirements as aligned with RfG. RW feels it is advisable to go for a minimum change solution – referencing the Venn diagram view of the applicability of the ENCs to GB. So, where GB code requirements are outside areas addressed in the ENCs, or are already aligned with the ENC requirements (including where the GB codes include a value which is within an ENC allowable range) the GB code should not be changed. It was therefore suggested that it was only the intention to put genuinely new or amended requirements into the GB Code to ensure consistency with RfG whilst minimising the number of changes. CM advised that the definitions in the ENCs, and how these may be similar or misaligned with those in the GB codes, are likely to be a complex area that may cause considerable difficulty. AF noted that some ENCs can and can't be applied retrospectively and therefore there needs to be consideration of the definitions and how these are applied to GB codes. AF clarified he sees the conflict in particular to be where the definitions once aligned will have to apply to existing plants.

20. Grid Code Connection Conditions (GCCC) options: RW asked the workgroup for thoughts on the overall proposal within the Grid Code for the amendment of the existing GC connection conditions and either i) the addition of multiple either/or clauses or ii) two versions of the Connection Conditions, one being for existing Users and the other for new Users. The workgroup generally agreed that ii) is the best option. PB advised that the labelling of new and existing requirements needs to be considered to take into account future changes, so as to avoid the use of 'new' and 'existing' since this will ultimately be confusing. AV didn't agree that two GCCCs would be better and sees one GCCC as being more manageable. JN advised having two allows for cleaner management and structures. JW asked if it is worth mocking up two versions of the GC to show both options. SC advised she had tried to do this advising that option i) was messy and complex. AF advised he thinks option ii) works a considerably better. JW stated that having two parallel GCCCs would make it easier to assess which of the two options was easier to use.

21. RW asked for support from the WG on the proposal and suggested a transposition exercise of how the RfG clauses would apply to the Grid Code. RM added this is useful in terms of thinking about the detail as it helps lobby in Europe. RM considered this could be almost like a task list for each article of what needs to be done and by whom, picking out the high level actions from each article and then looking at how many modifications we need to raise, what each will cover and when they need to happen. The first item will be to agree the banding thresholds which must take place before any other requirements can be finalised and before compliance is required. The workgroup asked how Ofgem will expect to see these mods and in what format, whether these will be grouped and what the priorities will be.

22. AV asked when do the two actions [being 1) The workgroup to agree to support the proposed implementation method for the GB Codes; and 2) The workgroup to select a preferred option for specifying the requirements in the Grid Code Connection Conditions see RW slide)] need to be agreed and by who. RW stated that getting a view from the workgroup would be useful but that this does not need to be set in stone at the current time as we don't have enough detail. RM added that the timetable should touch at high level on the actions that need to be carried out including applying ENC to the existing code framework. We need to agree logical high level steps then look at the detail. RM wants reassurance of what's coming where and when and with what structure. Also the order – so for example the banding needs to be resolved before any of the requirements under these articles. CM advised we would need to be mindful of what the other codes say about banding as they may refer to requirements for a banding type. RM advised there is a provision in RfG to revise the banding again if future events dictate this but RM feels we need to start this now and avoid being rushed at the end.

5 National Implementation AJ

23. AJ and SC presented. AJ ran through the high level implementation issues associated with RfG, both pre- and post-entry into force. AJ highlighted the volume of work required vs the time allocated to complete this. RM added that the requirement to sort out the processes for RfG is important as we will need to do the same for DCC and HVDC. It may be that the RfG workgroup will over time also work on the DCC, although this is likely to require a slightly different membership.

24. Pre-entry into force considerations: time constraints will be foremost as there will be a (likely) 2-3 year period to demonstrate compliance so any work we can do on structures and issues will

be useful. RM added that DECC and Ofgem would need to be engaged on issues and who would lead what.

25. Post-entry into force considerations – AJ advised that once the RfG had been approved through the Comitology phase the timeframe would be extremely tight and a project plan would be required to support this.

26. AJ ran through each of the main requirements for each banding type A, B, C and D giving a Red, Amber, Green (RAG) status to summarise how complex the issues for GB implementation could be. SC added that there are items detailed in the RAG status that are not currently featured in the Distribution Code and therefore would also need to be included. AJ ran through the 'reds' to highlight concerns. AJ suggested a guide at the front of the Distribution Code and Grid Code to provide guidance on banding type. JN mentioned that it would be helpful to include in the informal covering letter of the offer documentation impending European Code work and the implications it could have on connecting parties.

27. Mick Barlow asked if Electromagnetic Transient Models (EMT) is already covered in the GC. AJ advised that there is no mandatory requirement in the current Grid Code to provide EMT models, however National Grid does have the ability to require more detailed modelling data from a User should it require it.

28. AJ highlighted the time it has taken to undertake previous Grid Code modifications where some changes have been comparatively small. He noted that there is not much time to potentially undertake a significant amount of work using fault ride through as a typical example.

29. AJ noted that Reactive Power is defined differently in Europe to what it is currently in GB.

30. RW clarified that Power Park Modules as referred to in RfG are either onshore or offshore but are AC connected. The HVDC code covers offshore PPMs that are AC collected but connected to a DC system.

31. MK asked if distribution connected offshore wind would be included in the code? AJ advised that yes, any offshore AC connected power park modules were included.

32. SC asked if the post-Comitology setting of GB parameters would be done as soon as possible. AJ advised yes, he had referred to entry into force in error. The slides will need to be updated to reflect this change.

33. PB asked about timescales and process, how will the work be managed. Would it be one modification to cover everything or separate in terms of groups or just focus on priorities. RW advised one mod would likely be too difficult. On possible option would be to manage the process through a limited set of modifications e.g. Banding, National Parameter selection etc. This links back to the absolutely paramount need to develop a project plan and critical path. CM asked if RfG could not just be one modification itself. MK advised you have to split up the things we need to do in sequence. RM reiterated previous comments on a plan to cover mods and an article by article approach she had mentioned previously.

6 Workgroup task planning RW

34. The Workgroup agreed that at this stage it is important to develop a task list of the main items that will need to be covered during the transposition of RfG into the GB codes and/or alignment. This needs to cover the critical path or order in which tasks must be carried out and their timing. Baselining of this against the completion of Comitology is going to be necessary, although some tasks can be addressed ahead of this. RW and AJ will develop prior to the next workgroup meeting.

7 Agree Actions SLK

35. AJ to consider updating the comparison table between RfG and existing codes, ahead of next meeting (update added to the existing Action 6 of the RfG Workgroup Action Log).

36. RM to confirm if the 5 year period of changes to ENC once in force has a timetable, process or breakdown of what is covered (added to Action 8 of the RfG Workgroup Action Log).

37. RM to check with DECC on enforcement of G83 and G59.

38. AJ to take to the FRT Workgroup to discuss FRT requirements for Type B and how this fits in with ongoing GB work.

39. AJ to provide an update slide on the treatment of User's under the GB Code framework including BCA's, BELLA's, BEGA's and LEEMPS.

40. AF/All to provide RM with examples of where definitions between ENC and GB codes conflict. In particular, the example given in the meeting of Power Stations and Units where the definitions will have to apply to existing plants.

41. AJ to speak to legal to consider including a note within the informal offer letter or in the offer appendices referencing RfG and the likely timescales.

42. AJ & RW to draft a timeline/project plan, tasks and prioritise and to send to the workgroup ahead of the next meeting.

43. AJ to prepare a table outlining the national parameters to be selected following receipt of the list of actions under Articles 8 to 23 of the RfG code (January 2014 draft) from RM. This will incorporate the draft implementation plan presented to the ECCAF Code Mapping Working Group in April 2014.

8 AOB / next meeting SLK

The next RfG Workgroup meeting will take place on **20 October at National Grid House**. Please also find attached below all future dates as arranged for this workgroup until June 2015:

- 20 November 2014
- 17 December
- 20 January 2015
- 17 February
- 17 March
- 21 April
- 19 May
- 16 June