

## Minutes

<b>Meeting name</b>	GC0048: Joint GCRP/DCRP Workgroup on National Application of RfG
<b>Meeting number</b>	5
<b>Date of meeting</b>	20 November 2014
<b>Time</b>	10.00 – 15.30
<b>Location</b>	National Grid House, Warwick, CV34 6DA (Room E2)

## Attendees

Name	Initials	Company
Rob Wilson	RW	National Grid (Chair)
Sara-Lee Kenney	SLK	National Grid (Technical Secretary)
Alan Creighton	AC	Northern Powergrid
Amir Dahresobh	AD	Nordex
Andy Vaudin	AV	EDF Energy
Antony Johnson	AJ	National Grid
Colin Hamilton	CHa	National Grid
Jawad Al-Tayie	JAT	Cummins Generator Technologies
John Norbury	JN	RWE
Julian Rudd	JR	DECC
Julian Wayne	JW	Ofgem
Matthew Ball	MBa	Ofgem
Mick Barlow	MB	S&C Electric Europe
Mick Chowns	MC	RWE
Rupika Madhura	RM	Ofgem
Sarah Carter	SC	PPA Energy
Steven Mockford	SM	UK Power Networks
Campbell McDonald	CMD	SSE
Mike Kay	MK	Electricity North West
Chris Whitworth	CW	AMPS

## Apologies

Alastair Frew	AF	Scottish Power
Celine Green	CG	National Grid
Chris Allanson	CA	Northern Powergrid
Chris Marsland	CM	(on behalf of) CHPA & AMPS
David Spillett	DS	ENA
Gareth Parker	GP	DONG
Guy Phillips	GP	EON
Joe Duddy	JD	RES
Mustafa Kayikci	MKy	TNEI
Peter Bolitho	PB	Waters Wye Associates
Peter Thomas	PT	Nordex
Philip Jenner	PJ	RWE
Richard Lowe	RL	SSE
Garth Graham	GG	SSE
Richard Woodward	RJW	National Grid

## 1 Introductions/Apologies for Absence

RW

The Chair welcomed the Workgroup and apologies were noted.

## 2 Stakeholder Representation

RW

2. The Chair mentioned following discussion at the last RfG workgroup meeting, Stakeholder Representation had been added as a standing agenda item. The Chair advised this was to ensure we have the right representation at the workgroup meetings and noted the workgroup is open to all but may need to be limited to one representative from each organisation should the attendance numbers become too large to facilitate and manage room capacity.
3. The Chair also mentioned the November JESG where an update on the RfG Workgroup progress was given and noted there were no further comments received from stakeholders at this session beyond topics already being considered.

## 3 Review of actions & approval of minutes

SLK

4. SLK ran through the Action Log and progress made to date.
5. Action 5a and 5b: 'Compliance', SLK and RM asked the workgroup for their expectation on this action. MK suggested that it would be helpful to have an update on the compliance regime going forwards, for example for domestic customers. SM added this should also include decommissioning. RM advised this is something Ofgem are currently working with DECC on. MK asked for indicative timescales for this work. RM and JR advised they would look to provide an update on their findings in early 2015.
6. Action 9: Enforcement of G59 and G83. Following discussions by the workgroup on the above Action 5a and 5b, and the request for an update from DECC and Ofgem on compliance, the workgroup agreed to close this action.
7. Please note: following discussions by the workgroup, Actions 5a, 5b and 9 have been combined as one new action, Action 25, for updates from DECC/Ofgem on the future compliance regime.
8. Action 12 and 19 'definition conflicts between ENCs'. RM is liaising with ACER and a meeting is due to take place to discuss this further. As both Action 12 and 19 both cover definition conflicts and the work under Action 12 has been done, Action 12 will be closed and Action 19 left open for RM to feedback to the workgroup.
9. Action 18 'Ofgem/DECC Steering Group clarification'. RM provided an update under AOB on the requirement for the RfG workgroup to report progress to this body which is in the process of being set-up. It was agreed to add this to the agenda of future meetings as a standing item therefore this will be closed as an action and covered as an agenda item.
10. The following actions were closed as complete: Action 6 'Comparison Table', Action 8 'Process for future Changes to the ENCs', Action 10 'FRT Requirements', Action 11 'Treatment of Users under the GB Code Framework', Action 12 'Examples of ENC definition conflicts' this is now covered under action 19, Action 15 'National Parameters Table', Action 21 'website documentation' this has been fed into the National Grid website review. Action 22 'new standing agenda item for Stakeholder Representation', Action 23 'Corrections to Meeting 4 presentations', Action 24 'appointments to send for future meetings of RfG workgroup'.
11. Actions (14, 16, 17, 19, 20) are covered under the presentation material for this meeting.
12. The Action Log was approved by the workgroup, noting the additions and comments above, and will be updated and circulated with the minutes of the meeting.
13. SLK highlighted the previous meeting minutes have been updated with the changes received from JW and RM.

14. The minutes of the previous meeting were approved by the workgroup noting the above comments and will be published in the 'workgroup' section of the Grid Code website<sup>1</sup>.

#### 4 Progress Update

RM

15. New draft RfG text has been circulated internally by the Commission as an inter-service consultation to get legal comment. This was also shared for comment with ACER and ENTSO-E. RM advised that the Commission estimate that a revised version of the text incorporating comments will be made publicly available by the end of this year/early 2015. AV asked when Comitology begins for RfG? RM advised that the Commission has announced publicly that RfG will be adopted by the end of March 2015 so Comitology will take place prior to that. RW advised that his understanding is that the Commission is focusing on CACM hence these timescales are their goal based on CACM progression.
16. AV asked if will there be any more opportunities for GB stakeholders to comment on RfG or a further consultation? RM advised that comments are accepted by member states and put forward to the Commission at the formal voting meetings. DECC/Ofgem will also arrange a GB stakeholder meeting to discuss the ENC when a new version is released publicly. RW reminded the group of advice from DECC that it is better to concentrate on a few major issues during Comitology as they are then able to lobby much more effectively. JW advised the timescales to comment on the new draft will be very tight with the DECC/Ofgem Stakeholder Meeting to be scheduled very soon following the new draft release.
17. CMD asked about the progress on other ENCs. RM advised that it is still expected that CACM will be voted on in early December. RM added that the DCC ENC team is the same team as RfG so they are considering comments on RfG when working on DCC for a 'lessons learnt' approach – and also as various clauses will be carried across. DCC will still follow RfG. MK added that in the last Commission draft of DCC in particular, it was not clear what the ENC was trying to achieve.

#### 5 Key Priority Tasks

RW

18. As discussed in the previous meeting, 3 priority areas were highlighted as needing clarification before any of the more technical issues could be further progressed. These were:
- (i) Retrospectivity
  - (ii) New/existing designations
  - (iii) Banding thresholds

##### **Retrospectivity process (Article 3.a.3)**

19. RW explained that RfG by default will only be applied to 'new' generators. Retrospective application to existing generators is possible, but only where a case for specific provisions is made by the relevant TSO. CMD asked if the TSO was the only party that could do this and whether licence changes would be required. RW stated that the TSO could do this following representation from any other party and could not see licence changes being required. JN asked if the DNOs should share this responsibility. RW clarified that it does not say this in the ENC although AJ added that there must be a closer relationship between TSO and DNOs going forwards, particularly as at the moment NGET has no contractual relationship with most sub 50MW parties.

##### **Process for consideration of plant as new/existing (Article 3.a.4)**

20. RW ran through the presentation '5 – New/Existing Plant Consideration' which was based on the January 2014 RfG text. JN asked can a clear understanding be established as to what a relevant TSO is for GB? How does Type A, B and C fit in with NGET? Could a DNO be treated as a TSO? MK added that this doesn't work for frequency management and isn't the definition of a TSO by law. AJ mentioned that NGET as System Operator is the sole GB party having responsibility for control of system frequency. RfG applies by default only to new generators. The term 'existing'

<sup>1</sup> <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/GC0048/#>

applies to generators connected prior to when RfG enters into force and also generation projects in construction which are able to provide proof of contracts for main plant items 2 years after RfG entry into force [in the Jan 2014 draft]. JN asked if an existing party could opt in to RfG? JW stated that no-one had previously asked this but could see no reason why it would not be possible on a voluntary basis. This would more likely be achieved by that generator voluntarily meeting the requirements of the RfG rather than formally being subject to the RfG. That generator would still have to comply with the Grid Code/Distribution Code like other existing generators. MC asked how the offshore build regime is going to be viewed under RfG. Lead times are 5 years plus and currently how reactive capabilities should be designed to be compliant is not known. RW stated that DC-connected offshore generation is covered under the HVDC ENC.

#### **Review of banding thresholds (Article 3.b.2-4).**

21. RW ran through the presentation '5 – Review of banding thresholds' as prepared by Richard Woodward who will attend the next workgroup meeting. RW advised that this set out the work in progress and welcomed the workgroups feedback. RM advised to refer to the banding thresholds written into the ENC as maximums to avoid confusion; post-EIF the TSO is required to go through a process including consultation to agree these thresholds during which they may be reduced (but not increased) from their starting point. This review can be repeated after 3 years if there have been factual changes.
22. CMD mentioned the need to be aware that bandings within RfG are also used within other ENCs and these may be 'less passive'. RW supported this advising we need to be aware of this and take account of the positioning of the bandings in any considerations on the drafting of the later ENCs.
23. CMD also advised his SSE colleague Garth Graham had raised a query to him. In summary he noted that once an ENC enters into force GG believed that any subsequent changes made under national implementation (e.g. to banding thresholds) would not be able to adversely affect cross-border trade and that therefore the figures defined in the ENC would be unable to be changed to make any provisions more onerous. MK stated that this point would need to be addressed explicitly in the case that was made for changes. RW stated that the process as drafted was very clear that the thresholds given represented the top of an envelope and would need to be further defined by the TSO post-EIF. The 5 synchronous areas defined in the ENC were of very different sizes and it was appropriate to expect different levels of services from generators in each to achieve a harmonised level of system security. RW summarised to say that if thresholds could not be agreed this would in itself affect cross-border trade, and that being able to agree these would have a positive impact in then allowing manufacturers to trade freely on the basis of known requirements. RM advised that the impact would need to be made clear in the banding work. JN asked what would happen to the existing Small, Medium, and Large GB code thresholds. RW answered that in line with Ofgem's wishes to affect a solution requiring the minimum amount of change to the existing GB codes structure, and given the complexities of seeking to modify requirements applying to existing generators, these would not change. CMD mentioned that there is a need by manufacturers for harmonisation but it is acknowledged that there are different scales of requirement across the 5 synchronous areas.
24. RW ran through a 'compromise' position for the GB banding thresholds sitting between the January 2014 GB thresholds and the Continental Europe thresholds which it is widely assumed will be given to GB as a starting position in the updated ENC. CMD suggested to not class this as a 'compromise' position as there is a requirement for us to set these thresholds and to demonstrate that we have got these right for which there needs to be a justified case and therefore suggested that this should be a recommendation/proposal and not a compromise. JW clarified that, whilst the proposal to increase the GB maximum banding thresholds to be in line with Europe was strongly supported by Ofgem, this was not because that Ofgem thought these were right numbers for the final banding values. Instead, Ofgem had supported this because GB will not know what the right banding values are until the justification work has been completed, and so there seemed to be no advantage to needlessly limiting the possible envelope at this stage. MB requested could the bands be changed so e.g. 1MW-10MW, 10MW-30MW become 1MW-9.9MW, 10MW-29.9MW [or use <>] to help clarify what generator would sit in what band.
25. CMD mentioned that in Scotland 10MW or 30MW defines a 'large' Power Station so would be covered in the Grid Code. Unless there is an absolute need we should take out regional

specificities to improve harmonisation. CMD also thought that as major works to reinforce the Scottish transmission network are completed, there should be less need for regional variation of technical requirements.

26. GG had also questioned the continued application of national code requirements to 'new' generators. This question was also addressed at the March 2014 ECCAF meeting in which Mark Copley of Ofgem stated that the European Network Codes and the GB Codes must co-exist. The ENCs were never envisaged to be all encompassing. His view was that where there is a conflict in requirements, the GB requirements will need to be updated, beyond this only changes by exception would be made where a case were proven that there is a cross-border trade impact. In particular, it must be ensured that GB compliance is achieved in a proportionate and timely manner.
27. AV asked if the banding decision was in any way related to the System Operability Framework (SOF). RW replied that it was not explicitly, recalling that the SOF has no governance and is in effect provided by NGET to the industry to show NGET's direction of thinking.

### **Next steps**

28. RW asked what work the workgroup needs to do to take this forward? AJ added that the current initial proposals need to be considered further and there is also a need to look at definitions for power park modules to identify what is and isn't caught by the requirements. RW asked what should our source of data be for this work? National Grid's TEC register is really only applicable for Type D (most of which are transmission connected). The data used in the banding analysis carried out so far was mainly derived from the GC0035 RoCoF work and data submitted by the DNOs to support this. JW mentioned ED1 submissions and the FiT register as a source for data. MK said that the ED1 submissions were a couple of years old but still probably the best available. JW asked if DECC hold forecast information for generation. JR advised he could look but it would not probably be fit for this purpose.
29. Referencing the GC0035 data, RW and MK agreed that this was not complete and that the banding analysis had to try to fill in some gaps. For example, it was not clear what the split of generation between Scotland and E&W was or what the voltage of each connection was. RW reiterated the need to build a defensible case and come to the right conclusions. He advised that there would have to be a balance between the costs imposed on generators and those that would be borne by the SO but the key was to make sure that the analysis was based on sound data.
30. MK volunteered himself, AC and SM to assist in obtaining better DNO data. RW took an action to provide more information on what data had been used, and what the issues with this or necessary assumptions had been.
31. JW and MK added what is the cost to generators and DNOs in terms in moving the thresholds and who bears what cost? MK suggested, could someone work out the cost to the generators Type A, B, C. CW offered to take on this action for synchronous and RW is to speak to Zoltan Zavody of Renewable UK for non-synchronous. CMD asked if this work could be done in time to be used as a lobbying position.
32. MK stated that it would be necessary to get a measure of the operational costs for NGET and the DNOs. JW replied that when any proposals came to Ofgem they would need to see all of the costs to be able to come to a decision. RW took an action for NGET to consider how to assess operational costs.
33. CW stated that for type B or C generators, most would have compliant characteristics but these would not necessarily be switched on. All plant will tend to be comprised of modules and there will be a most cost effective module size. CW asked, in relation to the B-C threshold, if type B were able to provide frequency response, would this allay any SO concerns? RW stated that if frequency response were provided from 30MW this would be beneficial while AJ added that it did not seem right to have plant with capabilities that were not used. JN asked if NGET would enter into MSA-type agreements with type B generators to allow use of this? JW pointed out that we need to consider that manufacturers would likely tend to spec equipment to comply with the most onerous area requirements, which would not necessarily be GB. RW added that a 5MW wind turbine could be part of a 30 or 300MW wind farm so for the smaller sizes there could be a

tendency / risk to over specify equipment. Action on RW to look at internally how NGET will use frequency response services for Type B and C. MK will also look at type B/C costs.

34. JW reminded the Workgroup of the need to make this analysis relatively future-proof i.e. to make sure that what we do is not just based on what the system looks like at the moment. RW added though that the DNO ED1 predictions covered the RIIO period to 2021 so would probably be sufficient. While there is provision in the code to reassess the bandings after 3 years, the legitimate expectations of all concerned are that the Workgroup will seek to arrive at the correct values and will only seek to reassess these in the event of factual changes affecting the analysis carried out.

## 6 Gas ENC Approach Overview

CHa

35. CHa joined the meeting to present the 'Gas ENC approach overview'. This covered the approach to stakeholder engagement, a phased implementation timeline, approach to splitting up of code modifications and the overall implementation strategy for the Gas ENCs.
36. CHa advised that for the Gas ENCs they felt that one modification to the Gas UNC would be too large to manage and they looked at several modifications to make this a more manageable process with parallel working to land each at the same date which they agreed with the industry.
37. CHa stated that there was not a perfect or simple way to go through the process. The biggest issues encountered had been in ensuring timescales of individual mods remained coordinated, and in ensuring that the legal text for each mod was part of a coherent whole but could also stand alone and be individually implementable. The main advantage of splitting the work up had been that it was easier to get the right people involved.
38. JN asked with regards to IT requirements and changes required in relation to the Gas ENCs, what issues had been encountered? CHa advised that Gas IT is administered by Xoserve; they have managed to separate issues out and work with European interfaces, however Gas Day for example affects everything. CHa advised of the challenges of managing modifications so that Ofgem have all at the same time and are provided with a holistic view.

## 7 Workgroup Task List/Modification Grouping

AJ and SC

39. AJ ran through the presentation for agenda items 7-8 'Mod Grouping Project Plan and Assumptions'. AJ discussed the RfG packaging of work, which has been based on a 3 year implementation timescale and a 2 year division between new and existing as per the January 2014 RfG text. AJ added the assumptions made to date are based on these timescales and any changes made to these timescales would require re-work to the assumptions made.
- (i) AJ outline the potential modification grouping and workstreams as follows: Mod 1 – Structure and Banding
  - (ii) Mod 2 – Compliance
  - (iii) Mod 3 – General (i.e. glossary and definitions and anything not covered by the other proposed mods)
  - (iv) Mod 4 – FRT
  - (v) Mod 5 - Frequency
  - (vi) Mod 6 – Voltage /Reactive Power.
40. AJ ran through the indicative timeline for these modifications noting an error where the 'general' mod had been duplicated, this will be amended and re-published to the website. AJ asked the workgroup, should these individual modifications be progressed by the whole group or by subgroups of the same? RW advised there are workgroups at the moment e.g. GC0062 FRT which could cover some of this work but that he felt it more appropriate for the whole Workgroup to progress the structures/banding at least. JN added (for FRT) that there shouldn't be too many technical requirements as this would have already been bottomed out and it's a more focused alignment. It needs to be considered how would this work be approached and to what detail/level. On compliance, CMD stated that we should forget about the existing compliance

processes as we now need to line up with RfG types A-D. AJ added that compliance is in the main a new area for the DNOs.

41. JN pointed out that we have previously discussed just applying RfG to the Connection Code section of the Grid Code. Why not do this to the whole Grid Code maybe just taking out the Balancing Codes? The starting point should be RfG and then read across to the GB Grid Code rather than the other way round. RW expressed the hope that the best way forward would become more obvious as the work progressed but that this did not sound like a minimum solution. JW stated that this was skirting around the question of what the final format of the GB implementation would be, which still needs to be decided. SM replied that there were pros and cons as previously discussed. This would presumably be addressed in more detail as part of the structure/balancing group. MK agreed that most of RfG will only impact the Grid Code CCs, but it was noted that do the working group then need to look to implement the DCC at the same time and also the D-Code changes?
42. An additional presentation was provided by SC on the Distribution Modifications Project Plan. SC discussed the timeline she had put together for drafting of RfG related changes to the D-Code and associated documents taken more from a User perspective. The workgroup discussed from both the SC and AJ presentations how the modifications will look.
43. SC mentioned that the DCRP and GCRP dates are not aligned, however DCRP dates can be moved to allow coordinated progression through the RfG mod process. SC went on that we should come up with a suite of documents that work for all of the codes and not just RfG. SC would like to create a master document that could then be used as a source for all of the new or revised documents being created. This somewhat answers the point about trying to keep things in alignment where the same words are required in more than one location. CMD reminded the Workgroup that it may of course be necessary to pull requirements across from other codes as well.
44. RM thanked both AJ and SC for the timelines as they've helped greatly in terms of indicative tasks and timescales and this approach is exactly what Ofgem require for visibility of how and when modifications will land with them. This would also help this Workgroup move the work forward in a structured way and be prepared for when the ENC becomes law.

## **8 Project Plan (including Assumptions Log)**

**AJ**

45. As above.

## **9 Agree Actions**

**SLK**

46. RW/AJ to develop Risk Register draft for the RfG Workgroup for discussion at the next workgroup meeting.
47. Chair and Workgroup to ensure the project plan is progressed at the next meeting and SLK to add as an agenda item for the next meeting.
48. RW and RJW to update banding presentation wording from 'compromise' to recommendation/proposal and include the suggestion from MB of clear splits between bands.
49. Determine the cost to generators of complying with the cumulative requirements of bands A-C in particular and therefore the impact that would be felt in moving the thresholds. CW to progress this action for synchronous plant and RW to speak to Zoltan Zavody of Renewable UK for non-synchronous plant.
50. RW to consider how to assess operational costs for NGET.
51. RW to consider how NGET will use frequency response services for Type B and C generators. MK will also look at type B/C costs.
52. RW and RJW to provide more information on what data was used as part of the preliminary banding assessment including that from the GC0035 Workgroup and what the issues with this or necessary assumptions had been, and liaise with MK, AC and SM on any further information required from the DNOs.

53. AJ to update Timeline slide error – ‘general’ repeated twice and SLK to re-publish to the website.
54. SLK to add ‘DECC/Ofgem Steering Group Reporting’ as a standing agenda item.

## 10 AOB / Next Meeting

SLK

### AOB:

#### Temporary/Standby Generation

55. JAT asked whether RfG would apply to temporary or standby generation. RW replied that standby generation should be required to comply with RfG if it operates in parallel with the system but temporary generation probably shouldn't although it was noted that this isn't clear in the ENC. This has been pointed out to the Commission who are now considering the legality. RM added that it had not been mentioned to the Commission previously. MK stated that this needs to be resolved. There is an equivalent in G59 to be covered if connected to the system for 5 minutes per month.

#### DECC/Ofgem Steering Group – RM

56. RM mentioned the creation of a new group which will be a steering group across all ENCs led by both DECC and Ofgem. The steering group will meet once a month and the GC0048 workgroup will be required to submit a progress report to this group. RM advised the group met for the first time in November and will meet again in December. The membership of the group is DECC and Ofgem plus others by invitation. RM added there is a reporting pack which includes our key milestones and risks. JR stated that this group is concerned with highlighting issues in time to be able to do something about it. It is not meant to be overly onerous in terms of the reports required. MK questioned whether ECCAF has a similar role and was created because there was not a steering group at that time. RM urged the Workgroup members to attend the DECC/Ofgem stakeholder session (after JESG) at Elexon on 3rd December (invites have been sent out by Jack Robinson<sup>2</sup> of Ofgem).

#### Next Meeting

57. The next RfG Workgroup meeting will take place on **17 December at National Grid House**.
58. Agenda items for the 17 December meeting are to provisionally include the following: in addition to standing items)
- Progress update – RM
  - Data sources – RJW/RW/MK/AC/SM
  - Cost to generators – CW/RW
  - Cost to System Operator – RW/AJ
  - Update of project plan – AJ/SC/RW
  - Development of a risk register – RW/AJ
59. Please also find below all future dates arranged for this workgroup until June 2015:

**(calendar invites have been sent out for these, please contact Sara-Lee if you have not received them)**

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

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<sup>2</sup> Jack.Robinson@ofgem.gov.uk