

## Minutes

<b>Meeting name</b>	Grid Code Review Panel
<b>Meeting number</b>	83
<b>Date of meeting</b>	18 January 2017
<b>Time</b>	10:00am – 3:00pm
<b>Location</b>	National Grid House, Warwick.

## Attendees

Name	Role	Initials	Company
John Martin	Chair	JM	Code Administrator
Ellen Bishop	Technical Secretary	EB	Code Administrator
Shilen Shah	Ofgem Representative Alternate	SS	Ofgem
Rob Wilson	NGET Member	RW	National Grid
Xiaoyao Zhou	NGET Member	XZ	National Grid
Tim Truscott	NGET Member	TKT	National Grid
Le Fu	NGET Member	LF	National Grid
Richard Lowe	Transmission Licensee (SHE Transmission) Alternate	RL	SHE Transmission
Graeme Vincent	Transmission Licensee (SP Transmission) Member	GV	Scottish Power
Gordon Kelly	Network Operator (Scotland) Alternate	GK	Scottish Power
Alan Creighton	Network Operator (E&W) Member	AC	Northern Powergrid
Campbell McDonald	Large Generator (>3GW) Member	CMD	SSE Generation
Andy Vaudin	Large Generator (>3GW) Member	AV	EDF Energy
Sigrid Bolik	Generators with Novel Units Alternate	SB	SENVION
Kate Dooley	Small and Medium Generators	KD	Energy UK
Laura Nell	Ofgem Presenter	LN	Ofgem
Gemma Baker	Ofgem Presenter	GB	Ofgem
Ryan Place	Code Administrator Representative	RP	National Grid Code Administrator
Antonio Del Castillo	NGET Presenter	ADC	National Grid
Richard Woodward	NGET Presenter	RJW	National Grid
Damian Jackman	Observer	DJ	SSE Generation
Jennifer Groome	Observer	JG	National Grid
Neil Duncan	Observer	ND	SENVION
Alastair Frew	Large Generator (>3GW) Alternate	AF	Scottish Power Generation

## Apologies

Name	Role	Initials	Company
Gurpal Singh	Authority Representative Member	GSH	Ofgem
Guy Nicholson	Generators with Novel Units Member	GN	Element Power
Guy Phillips	Large Generator (>3GW) Member	GP	Uniper
Steve Cox	Network Operator (E&W) Member	SC	ENWL

## 1. Introductions & Apologies

### a) November 2016 GCRP Minutes

4781. Comments were received from AC. Tracked changes don't clearly follow from the track changed minutes to the clean version; therefore a further review has been requested.

4782. AF raised a concern that the minute and action numbers are not currently captured correctly from the November Panel; therefore it was agreed that the November minutes are to be recirculated to the Panel.

**ACTION – EB to recirculate within a 2 week timeframe to prior to the update the website with approved November minutes to ensure that the track changes follow through correctly.**

**a) Summary of Actions – by exception (only looking at open issues)**

4783. A new action log was presented to the Panel in Excel format. Feedback was received that the minute numbers should be included to ensure that clarity of reference is more accessible to the Panel.
4784. LF provided an update on the RES actions; the standards still remaining to be updated;(Two were circulated and commented upon in 2016, and one was circulated in Feb) Will be circulated to the Panel by the end of February. RW noted that with regards to the RES document updating we are coming to the end of a lengthy process which is a positive step forward and have also progressed the way in which the standards will apply across the different GB TO areas.
4785. Action to complete implementation of GC0068 is to remains open as it relates to updates that can only be made once EBS has gone live.
4786. Frequency Response ancillary services; RJW noted that there were no specific comments on the structure or format of the document. Feedback had been received from AF regarding adding in further details which will be taken into account. The Panel agreed that six monthly updates are expected and that the next update will be given to the March Panel.
4787. The EDT\* and EDL\* action will be maintained on the log to ensure that this is tracked until the implementation of EBS.
4788. The action on standardised templates is to be closed as RP has developed a new template form following on from CMD's previous comments re the difficulties of using the current templates for all forms of issue to be raised. JM noted that the Code Governance process would always prefer that new issues are raised via GCDF; however this new template will help with issues that do not fit into the 'normal' routes.

**b) Ofgem Update: Consultation on CMA Recommendations**

4789. Ofgem representatives Laura Nell and Gemma Baker dialled into the meeting to provide an update and overview of the Consultation on the CMA recommendations and to provide an overview of the purpose and outcomes of the workshop hosted in early January on the open Consultation.
4790. LN provided an overview of the purpose of the Consultation, the drivers for change and the conclusions reached. The Consultation documents are all available online; the deadline for responses is 1 February 2017.
4791. The conclusions cover three main areas of focus a Consultative Board, Strategic Direction and expanding role for Code Administrators supported by licencing to Code Managers. Ofgem recognises the role it plays as being one to set the strategic direction and help frame the focus for the industry around its strategic parameters.
4792. AV noted that Grid Code is the area of focus of the Panel and asked how that will be impacted with the proposed changes.
4793. LN noted that the Consultative Board would be heavily reliant on stakeholders input and expertise to facilitate cross-Code changes. Ofgem will need to play a more strategic role in the future and as consequence there is more responsibility for the Code Administrators to take on board which is beyond administration and secretariat duties that are currently performed.
4794. LN noted that Code Management and associated systems would expect to be covered by a licensing regime which aligns with the CMA recommendations. LN continued that whilst there is a need to introduce licencing as part of this change process the delivery of these outcomes is unlikely to be carried out with the support of legislation initially as it cannot be confirmed that legislation will be put in place in 2017 consequently Ofgem may need to consider an alternative option.
4795. LN also commented that code consolidation could be considered over time, particularly if the same body become responsible for more codes over time; however is not seen as an essential piece of the move to implementing the CMA recommendations.
4796. CMD referred back to the comments regarding licensing, questioning the timing of the licensing change. LN noted that this is a relevant question regarding the recent announcement regarding the proposed changes to the Electricity System Operator with regards legal separation and license changes. LN continued that regardless of the outcome of the Consultation the System

Operator will need to retain a strong presence and expertise within the codes due to the unique position it holds within the infrastructure of the industry.

4797. LN noted that with regards to timing the earliest that new licenses could be issued would be towards the end of 2019. LN pointed out however that this will need to be developed and considered in line with the System Operator changes and look to the synergies between the two to ensure cohesion therefore these timescales are subject to change.
4798. GB joined the conversation to highlight some of the reflections on the discussions held on the Consultation workshop hosted by Ofgem earlier in January. Presentations were given by various industry and regulatory representatives; GB did note that there was feedback on considering more radical views concerning new ways of working. Another presentation covered the idea of looking at the need to look more innovatively at the proposed changes. There were positive responses from the Citizens Advice Bureau that the focus was on consumer and consumer groups which supported the proposed changes.
4799. GB noted that three workshops were held during the day that looked at the key areas covered in the Consultation and there was a great deal of engagement and discussion throughout the day. A main point of discussion throughout the day was on the introduction of the Consultative Board. GB pointed out that a diverse range of views were put forward including that there should be some form of project management office function put in place to help in coordinating the changes across codes and governance bodies. Utilising Code Managers or devolving responsibilities was also mooted. The range of views provided an interesting debate, which is likely to be reflected in the Consultation responses.
4800. LN highlighted that the Consultative Board was a main area of discussion and also noted that another key point of discussion was whether the Code Manager and delivery entity was a single body or would be held by separate groups. LN and GB both asserted that the Consultation responses would inform outcomes and final decisions. In the interim Ofgem are reflecting on the outcomes from the workshop session to consider these discussion points and comments.
4801. LN highlighted that the responses for the Consultation need to be received by 1 February 2017. LN highlighted that any queries or comments would be welcomed and should any industry member have further questions they would be helped and supported ahead of the closing date.
4802. AV asked whether there was any idea at the session in January what bodies / companies would be involved in competitive tendering. LN noted that the focus was on higher level strategic direction rather than the specific details. Primary legislation changes to the Code Manager role are not yet defined therefore it is too early to ascertain which companies / bodies would be in a position to or would opt to tender for the responsibilities. GB noted that it is too early to tell what the interest is in this area as there is some way to go to define the roles and responsibilities for the Code Manager role. As things develop though both LN and GB supported the concept that there are companies that would be interested in tendering who are looking closely at the progress made in this area.
4803. CMD was keen to understand what the interface will look like between Ofgem and the Grid Code Panel. CMD was keen that there should be a document that sets Terms of Reference for the Panel and the Panel Chair to ensure that clarity of new roles and responsibilities are made explicit. GB noted the starting point for the strategic direction is cross-code change; this will be heavily impacted. Code panels themselves will have a light touch role in setting the strategic direction as this will be predominately set by Ofgem. LN noted that there is further work to be done to define how the role of Panel moving forward will fit within the strategic direction. CMD asserted that it is important that the strategic direction is clear and that the Panel is fully informed to enable delivery of the responsibilities.

**ACTION EB to include minute reference number column in the Action Log spreadsheet for the March Panel. Owner EB.**

**ACTION: EB to circulate the RES documents sent from LF within a week. Owner EB**

**ACTION: Circulate documents from SPT (Graeme Vincent). Owner EB/LF.**

**ACTION: March Panel will receive an update the RJW Frequency Response spreadsheet. Owner RJW**

**ACTION RJW to update the March Panel on RFG Banding**

## **5 New Grid Code Development Issues**

### **a) European Network Code (ENC) Implementation**

- 4791 RW updated the Panel that following the expected implementation of Open Governance, and as the implementation plan for the European Network Codes becomes more detailed, National Grid will be re-raising certain modifications in forthcoming Panels during 2017. This is to ensure that modifications are taken forwards as efficiently as possible striking the right balance between larger modification packages that are harder to manage and smaller modifications that are easier to manage but require more coordination.
- 4792 RW noted that any modifications that need to be re-raised will be brought back to subsequent Panel meetings but will also be discussed in the appropriate workgroups. Should GC0086 and open governance be in place this will support the re-raising the modifications under the new governance model. RW also stated that specific details will follow in Workgroups in Progress. AV commented that he was keen to understand more about the outcomes of the JESG meetings that were held in November and December 2016 following the presentation given in the November 2016 Panel meeting and at JESG [NB This regards the alternative European Implementation Document (EID) approach in which all code changes would be put into one document]. JM noted that this was a specific agenda item which would be covered later in the meeting. There were no further comments regarding the EID implementation.

## 6 Existing Grid Code Development Issues

None

## 7 Workgroups in Progress

### a) Progress Tracker

- 4793 EB presented a new version of the Progress Tracker; feedback from the Panel was that the tracker was uploaded to the website in Excel format rather than PDF. There was feedback from the Panel that adding an action or minute number would be helpful, so that the actions can be more easily tracked.

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

- 4794 XZ updated the Panel that the latest plan is due to submit a report to the September 2017 Panel. The next steps underway on the new plan are to complete further research on the Vector Shift protection settings. This research is being carried out in conjunction with the University of Strathclyde.

### c) GC0048: Requirements for Generators

- 4795 RJW provided the Panel with an update on the progress of RfG. Much of the Workgroup's time has focused on the proposal for the Banding thresholds. As it stands there are two viable options available; one being the highest levels permitted by the Code; the second is somewhat lower.
- 4796 The Workgroup held a discussion in Dec 2016 on the difficulties of proceeding with submitting a report to Ofgem for a banding decision. It was noted that the group have a clear steer that any position needs to be suitably evidenced. The workgroup also agreed that they need to understand the consequences and impacts of Banding levels in other codes better, before a report is submitted.
- 4797 RJW continued that a forward work plan was still required and the conclusions for Banding were unlikely to be delivered before the Fast Fault Current Injection and Fault Ride Through requirements were defined, expected in March 2017. A decision on the banding will then be taken, with the report to authority shared with the workgroup before submission to the Authority for a decision. AV asked whether there will be a further Consultation on Banding? RJW stated that a further Consultation would only be carried out if fundamentally new evidence/justification was arrived which needed assessment by the industry as it had

changed the conclusions already arrived at. If the conclusions remained the same then no further Consultation would be submitted.

4798 CMD noted that he would be surprised if there was progress without another Consultation given the likelihood of new findings. RJW agreed that the reason for the pause on Banding is based on the assumption that there is a distinct possibility that more information will come out, if it does then absolutely NGET would need to consult; if however, there is no change NGET will not. RJW stated that there will be an update in March Panel.

4799 AC asked whether when Grid Code is working under Self Governance there would be a necessity to send modifications of a material nature to Ofgem. RW stated that the Panel would need to take a view on whether the issue was a material change. If the Panel believed that the Modification was a material change then the decision would need to go on to Ofgem and that based on this rationale this would apply to Banding.

#### **d) GC0095: TSOG**

4800 RW provided an update to the Panel. Although there is no official confirmation from the Commission it is understood that there are significant translation issues with the documents relating to GC0095 TSOG and that the expectation is that Entry into Force will not now occur until May / June 2017; it was originally expected in January 2017.

4801 RW understands that there is no plan to change the order of codes are to be approved; they will remain in consequential order, therefore Emergency and Restoration and Balancing will follow into comitology.

4802 CMD queried whether this will need to come back to Panel? RW stated that the problem with the translations is that the meaning of certain phrases have inadvertently been changed during the translation and once these have been rectified they will need to be taken back to the EU court and published in EU journal to be ratified. RW continued that past precedent suggests that it is possible that the May / June may well be delayed further.

4803 RW continued with the update on the progress of the workgroup's focus; the priority for the workgroup is to focus on what happens on the date of Entry into Force (EIF). National Grid and workgroup colleagues have been compiling a list of what needs to happen on EIF and ensuring that the evidentiary support is available to prove compliance.

4804 RW noted that as yet no 'show-stoppers' have been found, however the workgroup is keen to have Ofgem's sign off prior to the EIF date. A draft document will be circulated to the GC0095 workgroup as early as possible for discussion in February 2017.

#### **e) GC0096: Storage**

4805 RJW provided an update to the Panel. He stated that the Workgroup has taken longer to set up due to aligning with the BEIS/Ofgem Call for Evidence on Flexibility. NGET pushed back the dates to ensure that we can utilise the experience of workgroup members providing responses to this, which closes a fortnight before the first meeting. RJW noted that the Workgroup will start on 30<sup>th</sup> January 2017 and will run on a fortnightly basis. The workgroups will be held in Warwick; however there will be a 'catch all' final meeting which *could* be held in London. The key objective of this meeting is to share the workgroup progress with the many stakeholders engaged in GC0096 to date, and to avoid surprises during the Consultation phase.

4806 There are currently four meetings planned with a clear scope defined. RJW noted that it is important to ensure the scope of this Workgroup remains clear and scope creep is avoided. JM asked will there be an impact on other codes? RJW mentioned links to NG Commercial Services (being looked at by Power Responsive) and Charging (CUSC), but that he was liaising with the associated colleagues to manage this. From his perspective, it was clear what GC0096 could/could not do, and joint-working was probably not a fit given the very clear technical scope of GC0096.

- 4807 KD queried whether there is an option for London based meetings? RJW commented that the meetings would be at National Grid house, but there was potential for the final fifth meeting to be run in Warwick or London. RJW noted that he is keen to collaborate with the ENA on whether D-Code changes can be managed through this group as well. Unfortunately it was unclear whether the ENA wanted a joint workgroup. RJW took an action to confirm that a joint Grid Code-D-Code workgroup was not needed by sharing the ToRs.
- 4808 RJW noted that the volume of Storage connections will increase rather than decrease so the more cross-code clarity we can set is in the long run best for the industry and market.
- 4809 CMD queried whether the scope of the Workgroup will be technology-focused, and how this impacts pump storage which is already defined as a generator. RJW stated that the Workgroup's focus is level playing field to existing users, and is simply seek to provide clarity. There will be no special treatment for specific Storage technologies. RW supported this view stating that the aim is to ensure the Grid Code changes provide consistency and transparency for all connections, not least Storage where currently the SO does workarounds in connection agreements.
- 4810 AC queried the need to reflect technical requirements from the European Network Codes, particularly RFG which may impact Grid Code technical requirements. RJW confirmed that this will be considered, though it's important to note that Storage is exempt from the scope of the EU Connection Codes.

**f) GC0097: TERRE**

- 4811 RJW provided an update to the Panel on how GC0097 would be facilitated, noting a very similar approach to GC0096 regarding focused scope and outcomes and aiming for efficient delivery of solutions.
- 4812 RJW noted that the close working needed with BSC workgroup P344 which is already progressing settlement solutions for TERRE. The plan is to have four / five Workgroup meetings which begin on 20<sup>th</sup> January with a target completion of May (attempting to line up with P344's Consultation timeline).
- 4813 RJW noted Panel comments from the November 2016 meeting regarding the Grid Code changes being a dependency for P344. RJW confirmed that it is a priority to address the key aspects of the work which crossover between the two mods, and to expedite Grid Code recommendations ASAP. RJW highlighted a joint working opportunity for the 8<sup>th</sup> February, and that he would work with the Code Administrator to put in further meetings to the scheduled session if that would help. This would be discussed at the first workgroup meeting and P344.
- 4814 AV commented that we need to ensure lessons are learned from these challenges and that if a joint workgroup had originally been formed between Elexon, BSC and National Grid, Grid Code would have solved the issues raised during November 2016. RJW agreed that this was a valid challenge and a lesson to be learned for future Workgroups and modifications. RJW highlighted that Elexon is looking to set up a joint review session which is a positive step forward and that although belated does provide comfort to the industry that Codes are trying to work through this situation positively.
- 4815 RJW also commented that John Lucas from BSC P344 Workgroup would be a part of the Grid Code Workgroup. AV agreed that this was positive however he also noted that his not all companies would be unable to have representatives on both Workgroups due to diary and time commitments, consequently it is not possible to be completely consistent between the two Workgroups.
- 4816 CMD queried whether the representation of the Workgroup was broad and reflective of the industry. RJW responded that the Workgroup was well represented, although there had not been the level of interest that was expected. He is also pushing for better representation from smaller parties. CMD asked whether there was still an opportunity to nominate

individuals to the Workgroup if more representatives were found. RJW agreed that absolutely more individuals would be welcome to join the Workgroup.

**ACTION: Recirculate the draft TOR of GC0096 to the Panel. Owner RJW.**

**ACTION: Recirculate the draft TOR of GC0097 to the Panel. Owner RJW.**

## **8 Workgroup Reports**

4817 None

## **9 Industry Consultations**

### **a) GC0048: RfG Implementation - Voltage and Reactive**

4818 RJW provided an update to the Panel that the Consultation was released in late 2016 and closes in February 2017. AF queried that the Definitions of Voltage & Current which had been discussed within the workgroup he and believed were going to be consulted on within the Voltage & Reactive consultant, however this does not seem to be captured within the process. RJW noted that this would be referred back internally to National Grid representatives.

**ACTION: GC0048 definitions work has not been included in the Consultation. Owner RJW to refer back to AJ.**

### **b) GC0087: RfG Implementation Frequency Provisions**

4819 RJW provided an update to the Panel. RJW informed the Panel that this modification has been withdrawn. RJW noted that this work will be updated and re-raised later in 2017. AF noted that there were two legal text versions in the Consultation which was confusing for the industry. RJW acknowledged that yes National Grid is aware of the errors and can only apologise whilst working to rectify them moving forward.

## **10 Reports to the Authority**

### **a) GC0077 Subsynchronous Resonance:**

4820 RW provided an update to the Panel. RW noted that the report has been rewritten and more evidence has been included. This report will be re-submitted to the Authority without a further Consultation because none of the conclusions have changed. RW asked the Panel whether they wanted to see the report again before submission to the Authority. AF responded that having seen the report he was confident that only the covering text has altered and did not feel that the Panel needed to see the report again. The Panel agreed.

4821 RW confirmed that the Report will be submitted to the Authority at the start of February following circulation to the SQSS Panel for comment.

## **11 Pending Authority Decisions**

### **a) GC0086 Open Governance**

4822 RP updated the Panel that GC0086 has been submitted to the Authority at the end of December. RP then progressed to present the next steps should the Modification be approved by the Authority. It was also confirmed that following discussion with the Authority the appointment of an Independent Chair for the Grid Code Review Panel has been put on hold until the summer of 2017 once the position of the current Connection Use of System Code Panel Chairperson is known. This will allow, if suitable for a joint-



Panel Chairperson to be recruited. JM asked the Panel whether they had any objections to his continuation as Chairperson. The Panel did not object.

4823 RP then asked whether the Panel would sit under current constitution for another Panel meeting in March as it would allow the Code Administrator time to implement the changes if the modification is approved by the Authority on or before the 8 February 2017. This would mean that the first Panel meeting under the new constitution and rules would be May 2017. The Panel agreed.

4824 KD queried whether the proposers of the modification have been informed about the delay and throughout the modification process. RP confirmed he had discussed progress with 1 of the Proposers but that other than this, proposers should have been following any updates through working group updates.

4825 RP noted that a further update will be given during the March Panel.

## 12 Progress Tracker

4826 No comments from the Panel on the revised format.

## 13 Standing Items

### a) European Network Codes

### b) Joint European Stakeholder Group

4827 RP provided an update to the Panel. Following the EID presentation to the Panel in November 2016 Panel the Code Administrator felt that it was important to provide an update on the progress. 2 JESG meetings were held on the 23 November 2016 and 13 December 2016 where the collated responses were discussed in order to develop next steps.

4828 RP thanked the Panel for their response to the JESG Response for Information and noted that the majority of responses received advocated retaining the status quo (implementing the European Network Codes (ENC) through current Code Panels).

4829 AV commented that he remained confused about the JESG governance. He wished to understand whether the JESG had any Authority to make any decisions on the way that the ENC are implemented in Great Britain. JM responded that the JESG is an advisory group and cannot mandate anything, however it can advise the Authority on behalf of Industry and an Authority representative is present at the JESG meetings. Decisions on approach and strategy can only be mandated by Ofgem.

### c) Code Summary; SQSS

4830 AF flagged that there was an error on the SQSS log in the November 2016 submission to the panel which the Code Administrator had taken an action to update, the submission to the January panel contains still contains the same text. RP apologised that this had been missed and promised to ensure an updated Code Summary at the Grid Code Review Panel in March.

**ACTION SQSS question from CMD – the GSR012 paper has not been submitted to the December Panel, and the next Panel is scheduled for early February. CMD asked for an update to the March GCRP and when GSR012 is presented to the SQSS panel it is circulated with the papers for following GCRP. Owner RP and XZ.**



**ACTION - Updates for all Panels and Modifications to be consistent across codes. Owner JM / Code Governance.**

**d) Grid Code Development Forum (GCDF)**

- 4831 RW provided an update to the Panel. RW noted that an emergency GCDF was called for the 17<sup>th</sup> January 2017 to discuss the issue paper raised by CMD in late December 2017 which brought to the attention of the panel the existence of protection settings on wind turbines that may cause these to trip following multiple voltage disturbances. This was evidenced by an incident in South Australia which resulted in an extensive blackout, although this was also exacerbated by the trip of an interconnector and failure of black start stations.
- 4832 RW noted that the question raised at GCDF was whether the UK has the same protection settings? And if so what can we do to mitigate the risk of the same situation occurring here.
- 4833 RW noted that the outcome of the meeting was to organise a survey of manufacturers and transmission connected generators to quantify if there is an issue that needs to be resolved.
- 4834 CMD commented that this was a really well attended forum with full participation from all. RW and CMD agreed that the session was positive and productive and a good use of the GCDF meeting, the correct forum to raise an issue like this rather than directly at the Panel given the greater attendance and engagement possible.
- 4835 AV queried what the conclusion to GCDF was. CMD responded that there is a need to define whether this is a credible risk and whether there is a problem to solve. RW supported that we need to do further research to quantify the situation.
- 4836 RW noted that currently the Grid Code does not mention any criteria against the ability to ride through repeated faults or disturbances. RW acknowledged that the SQSS references credible faults, however noted that this is not of the required detail to cover this issue. RW suggested that we need to know what protection settings are currently. In South Australia the settings were arbitrary rather than specific, so it was unclear whether they represented the technical limitation of the equipment.
- 4837 CMD believes that it is likely that there is a technical reason, which is connected to overheating. CMD also noted that it is not clear what is recognised by the protection as an 'event' And further work needs to be carried out to establish all the parameters. CMD continued that in Australia a number of wind farms tripped after six events. TT queried whether this is not a standard trade-off between protecting the system and the assets; CMD continued that is something for the Panel and Authority to review and agree. TT stated that we surely need to proceed with further work regardless of the survey to ensure we protect the system in the future. Therefore we should be more concerned over the future of the system as opposed to the current system. CMD noted that this is why we wanted to bring the issue to the attention of the Panel / industry so we can discuss and decide on a recommendation to the Authority.
- 4838 RW noted that there are no references at all to multiple faults in the Grid Code. TT asserted that his understanding is that wind farms tend to see something as a fault at a much more distant level than other forms of technology.
- 4839 SB stated that it is important that there is a definition in the Grid Code of what a credible fault is and what number of faults constitutes a credible scenario. SB agreed that the survey is important to establish what our credible scenarios are. RW noted that we also need to obtain the final part of the report on the incident in Australia; this is due for release in March 2017.
- 4840 AF notes that there is a difference in systems since in the UK losing 100MW is not a big loss; therefore we need to look at the size / scale of the issues potentially occurring.

- 4841 CMD acknowledged that this was intended to be a discussion at GCDF that posed the question for us to ascertain if there is or is not an issue for Grid Code to discuss and solve. He noted that there may be no issue or problem to solve. CMD continued that the next step is to ascertain strong data on which to make an informed decision.
- 4842 CMD queried who sends the survey and who governs the Survey. JM agreed that it was a valid challenge and that National Grid as the Code Administrator would issue the Survey on behalf of SSE (as the party who raised the issue) from the Grid Code .box address.
- 4843 RL noted that if we don't have enough information currently then more information should be gathered and brought back to the March 2017 Panel meeting; agreement from the Panel.
- 4844 TT noted that we need to future proof the system, AC noted that the system needs to be fit for purpose. RW commented that as a Panel we need to work on the assumption that the manufacturers will put in place a protection setting that reflects the technical capability of their system.
- 4845 CMD noted that the whole purpose of the GCDF was to highlight that there may be an issue, not that there is. This is about being prudent in gaining more detail. RW agreed that taking on board comments from TT and CMD particularly that we need to look both forward and back.
- 4846 SB commented that multiple faults could happen so we need to look into whether there is a code defect. CMD noted that there is a governance issue in terms of clarity. JM stated that an action will be recorded via GCDF and will move to raising an issue if necessary.
- 4847 AF queried who decides the questions for the survey? RW stated that that was the point of the GCDF, the questions have been drafted though not confirmed but will be sent on behalf of the Grid Code and to the whole Grid Code distribution list. AF asked whether the questions for the survey can be circulated in draft form to the Panel prior to being sent out. RW responded that yes we can ensure we do this.

**ACTION: GCDF a survey will be sent out by National Grid**

**ACTION: Include the GCDF papers in the March GCRP Panel papers.**

#### **e) EBS Update**

- 4848 ADC provided an update to the Panel on progress for the EBS programme. ADC noted that in December 2016 National Grid achieved a live operating system; approx. 25% of the Control Room operators have been fully upskilled.
- 4849 ADC noted that currently the Control Room operators are running the two systems in parallel comparing the outputs from both systems. This system will be run until March / April 2017 for an extended period to confirm that the results are accurate etc. since we commissioned the system in December 2016 the system is serviced by the National Grid internal IT department. For the reference of the Panel there have been three incidents during that time and we are therefore able to confirm that operating procedures are in place; Enduring process of updating the IT code as expected.
- 4850 ADC continued however that the Despatch algorithm is now under enquiry. This is because there was concern that the results from the trial carried out in 2016 were not acceptable due to the number of BOA's received. Five times the amount of BOA's were received in comparison to the previous system. This has confirmed that EBS is BOA 'happy' and the National Grid programme team have now confirmed that there is a need to re-code part of the solution as we are not able to lower the number of BOA's with the current EBS system. This investigation began in December 2016 and will continue until February 2017. By March Panel the programme will therefore have a further update.

- 4851 ADC noted that due to these set-backs there is now no point to test with the industry until the Despatch solution is confirmed.
- 4852 ADC continued that the final EBS go live will therefore now not happen in mid-2017 as planned and therefore other delays for impacted modifications will happen accordingly. The end to end tests with Elexon and the BMRS System and the tests with the software suppliers are all going well and are moving forward.
- 4853 ADC provided an update on the EBS Actions captured within the action log. The EBS User Group for operations and trading issues and the EBS IT groups for communications and testing are planned to run on the same day to ensure that the meetings are efficient and timely. The first of the planned meetings will now begin in April 2017 rather than February 2017 due to the Despatch planning changes referenced above.
- 4854 ADC noted that with regards to an update of the Electrical Standards for EDT\* / EDL\* they are being updated; however, the urgency has been removed due to the re-planning for Despatch. CMD commented that this keeps moving back and is concerned about the process for new projects that are looking to connect. RW commented that the Electrical Standards documents do need to be resolved and circulated as soon as possible. CMD noted that everyone is aware of the standards they need to adhere to but there will be more problems if these are not circulated as soon as possible. RW noted agreement that standards and the impact on compliance do need to be locked down; there is exposure for developers here to potentially not comply. RW yes we do have an action in the log about the EDT\* / EDL\* standards although there is no date assigned as yet. ADC this will not come into practice until summer 2018.

**ACTION: to fix a date on the action in the log to issue the EDT\*/ EDL\* standard documents: Owner ADC.**

#### **14 Impact of other Code Modifications or Developments**

- 4855 No comments from Panel

#### **15. Any other Business**

##### **a) System Incident Report**

- 4856 SB noted that she would like the report sent out in Excel.
- 4857 SB noted that she was feeding back GN comments due to his absence; feedback from GN was that it would be helpful for XY to find out more specific information regarding the report. There were queries over specific dates with regards losses and system inertia. TT confirmed system inertia is something the System Operator is aware of and managing.
- 4858 CMD queried whether it is possible to carry out some comparisons of the generation mix over two apparently similar events on 21 Oct 2002 and 15 Nov 2016 so that we can increase our analysis and knowledge. RL noted that it would be helpful to add in further information to the generation mix in the report; TT responded that again this is being managed. AF commented that there is I think a mix up in the consistencies of signs in the current report to the ones submitted previously. SB continued that either way we need a consistent definition to read fully the report. AV queried why the report has honed in on the 1000MW rather than the operating level of RoCoF? TT responded that it would not be possible as the System Operator does not exceed the RoCoF limit. AV queried the timescale the measurements have been taken and defined over. Some clarity over what the process would be to amend the limit would be useful. CMD you're pre-judging the outcome of the GC0079 workgroup, it is not the problem or concern of the Panel. However AV noted that as a Panel we want to ensure the correct processes are in place.
- 4859 CMcD queried if the performance of the IFA Bipole asset highlighted in the report tripping 9 times in the last 12 months had been investigated by the SO with the asset owner, he

recalled receiving a letter and a meeting with the head of the National Grid compliance team following a series of trips on a SSE Generation asset in 2005. XZ noted that further questions can be asked of the Control Room and the Generator Compliance team as to what investigations have been undertaken following the report.

- 4860 CMcD asked if this summary of Significant System Events was part of the Capacity Market derating methodology.

**ACTIONS: SB to send comments in writing to XZ.**

**ACTIONS: EB to circulate the SIR to the Panel in excel format. Owner and liaise with XZ.**

**ACTIONS: Ask Compliance teams whether System Incident Report investigations have taken place. Owner XZ.**

**ACTIONS: Is this information used to support the EMR process? Owner XY.**

**ACTIONS: Consistency on reports from previous years and feedback. Owner XY.**

**ACTIONS: Can we also include generation mix into the report. Owner XY.**

## **16 Next Meeting**

- 15 The next meeting is planned for 22<sup>nd</sup> March 2017 at National Grid House, Warwick. Papers day is the 8<sup>th</sup> March