

Gents

Below is Alan Creighton's DAR from the Grid Code Review Panel meeting. Key points to note include:

- The lack of transparency of the requirements in the Grid Code that Energy Storage systems need to comply with is becoming an increasing issue. A GCRP WG has been set up to address the technical issues, with the commercial / charging issues being debated in parallel in other forums. Matt White is the DNO Rep.
- EU Code RfG. The consultation on Banding has been deferred; the Fault Ride Through consultation closes on 31 Jan 2017, Reactive power and voltage are expected soon.
- EU Codes TSOG. EIF expected to be deferred until May / June 2017. The focus is on documenting the ERIF compliance. A NGET / DNO meeting is to be arranged soon to discuss the data exchange requirements associated with the second wave of EIF requirements.
- EU Codes Emergency & Restoration EU code. NGET have arranged a mapping session on 31 Jan 2017, which may be of interest to DNO Emergency Planners.
- The JESG debate on the European Implementation Document (EID) concluded that there was no industry desire to do anything other than proceed with the status quo.
- At the November GCRP, there were a few slides presented by a couple of the NGET Week 24 team expressing concern about the timeliness and accuracy of the Week 24 submission, although they had no view of whether the problem was getting better or worse. They are also concerned about the difficulty and time consuming nature of validating the data received and that this was unsustainable in an environment where even more data was required e.g. to comply with the EU Codes (TSOG)– CIM approach would be better. The follow on actions have been carried over to the march GCRP
- GC0086 Open Governance is likely to be approved in the next few weeks, so the new panel structure will probably be implemented by the May meeting. ITCG will need to review GCRP representatives.

Other interesting snippets highlighted in yellow

Regards Alan

Attendees:		Apologies:	
John Martin	NGET new Chair	Steve Cox	ENW
Alan Creighton	Northern Powergrid	Nick Ruben	Elexon
Campbell McDonald	SSE Generation	Rob Wilson	NG
Richard Woodward	NG	Tom McCartney	SONI
Alastair Frew	SP	Guy Phillips	Uniper
Tim Truscott	NG Operation	Graham Stein	NG
Xiaoyao Zhou	NG	Franklin Roderick	NG
Richard Lowe	SHETL	Graham Stein	NG

Helen Bishop	New Tech Sec	Mark Krajniewski	NG
Kate	EUK	Jim Barbour	SHETL
Gordon Kelly	SP Energy Networks	Roddy Wilson	SSE
Graeme Vincent	SPT	Rob Longdon	Cornwall Energy
Andy Voden	EdF	John Lucas	Elexon
Sigrid Bolik	Senergy Econnect	Tim Ellington	RWE
Laura Nell	Ofgem	Gurpat Singh	Ofgem
Gemma	Ofgem	Guy Nicholson	Element Power
Sigrid Bolik	Senergy Econnect	Phil Jenner	Horizon
Le Fu	NG		
Ryan Place	NG		
Plus others			

Issue	Paper No:	Summary
1 Welcomes		<ul style="list-style-type: none"> John Martin chaired pending the finalisation of open governance which will see the appointment of an independent chair.
R 2 Minutes	Pp1770 & 1771	<ul style="list-style-type: none"> Not all the tracked changes in the tracked change version are reflected in the final version. EB to review / revise the minutes and recirculate an updated set for comment.
3 Actions	Pp1772	<ul style="list-style-type: none"> Action Log has been refreshed and will be recirculated in the excel format rather than pdf format that was included with the panel papers. Some of the actions from the November 2016 meeting hadn't quite made it to the action log and these were discussed separately. <p>PDF action Log</p> <ul style="list-style-type: none"> Remaining RES documents, alignment of SPT and SHET, Update on General Conditions etc. Le Fu. Update: Voltage Divider and Voltage Transformer RES have been finalised, circulated to the panel and are ready for publication. The General Requirements are being finalised and will be issued to GCRP for comments in the next few days. SS interlocks to be discussed with those who responded to the original RES proposals (prob just John Norbury and AMC). SHE Transmission RES versions should be finalised soon. SPT documents have been sent to NGET in the last few days. GC0096 ToR for Storage to be circulated in December – On agenda

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		<ul style="list-style-type: none"> GC0086 Open Governance – On agenda Linkage between Type B and C generators on BSC participants. Defer to March meeting Review GC0068 Defer until EBS go live is complete. <p>Excel action Log</p> <ul style="list-style-type: none"> 10 Frequency response instructions. List circulated and feedback was sought. SSE had provided a response re FFR instructions. NGET propose an update for March and update every 6 months. Any final comments to be sent to Richard W. 11 EBL / EDT. Not an issue for DNO 12 Interconnector PNs. Not an issue for DNOs 14 TERRE On agenda <p>Nov 2016 Minutes actions</p> <ul style="list-style-type: none"> GC0079 RoCoF – On agenda Significant Incident report On agenda RfG actions - On agenda GC0087 actions - On agenda GCDF paper re multiple fault ride through events to be circulated Week 24 actions – on going. Response to be provided at the March GCRP
4 Ofgem Update – Consultation on CMA recommendation	Laura Nell	<ul style="list-style-type: none"> JM recognised that the GC is a technical code Ofgem setting a strategic direction <ul style="list-style-type: none"> Looking to provide signals to industry of a direction of travel Consultative board <ul style="list-style-type: none"> Reliant on stakeholders to help formulate and direct cross code changes Initially operational moving to providing strategic direction later Expanded role for Code Administrators (CA) <ul style="list-style-type: none"> Licencing for CAs Greater role for Cas

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		<ul style="list-style-type: none"> ○ Alternative models being considered ○ One Licence covering E2E delivery for each code – although some may be harmonised later • Other items <ul style="list-style-type: none"> ○ Code consolidation – not within initial scope but could happen over time ○ SO/TO consultation alignment with the Code governance consultation. SO needs to maintain a strong expert role re the Codes. ○ Licencing of Code Administration may come in force poss 2019. Ofgem will consider interaction with SO/TO changing roll. • 12 Jan Workshop feedback: <ul style="list-style-type: none"> ○ The changes could be an opportunity to be more radical ○ Should learn from SCR – be more innovative ○ More innovative engagement with consumer groups would be good ○ Session 1 Strategic Direction ○ Session 2 E2E modification process ○ Session 3 Consultative Board role <ul style="list-style-type: none"> ▪ Stimulated lots of discussion – more than the others ▪ Wide range of views ○ Impact on existing Code Governance needs to be considered ○ GCode Panel role would evolve – facilitate cross code change, implement the strategic direction (light touch role in influencing the strategic direction) and 'other BAU' changes. • Next Steps <ul style="list-style-type: none"> ○ Ofgem review of the consultation responses (closes 1 Feb 2017) ○ Ofgem open to hold informal discussions before the closing date to provide clarification etc.
5 New GC Developments – ENC Implementation Update	RW	<ul style="list-style-type: none"> • Some debate as to whether the EU Code Mods will be affected by a move to Open Governance – although most of the changes are probably material and require approval by the NRA (Ofgem)
6 Existing GC Development Issues		<ul style="list-style-type: none"> • None
7 WG Progress		<ul style="list-style-type: none"> •

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8 Progress Tracker	pp1773	<ul style="list-style-type: none"> New progress tracker is in excel format and will be circulated as a spread sheet rather than a pdf document.
a) GC0079 Frequency Change during a large disturbance and their effect on the total system (RoCoF)	XZ	<ul style="list-style-type: none"> WG expected to report in September 2017. The focus is on addressing the commercial issues and carrying out further work on Vector Shift.
b) GC0048 RfG	RW	<ul style="list-style-type: none"> Mixed progress Voltage & Reactive consultation out at the moment – see later Banding: Two proposals on the table i.e. RfG levels and lower levels. Plan was to circulate this to Ofgem in Dec 2016 but WG agreed that it would be better to develop the technical issues further before finalising on the banding. This may not go out to consultation again, depending on whether there are any material changes. This would be a WG decision. FRT consultation is expected to be issued in March
c) GC0095 TSO & E&R		<ul style="list-style-type: none"> Expectation is that EIF won't be until May – June 2017 Current focus is on demonstrating EIF compliance and this will be reviewed at the Feb meeting. A draft will be circulated before this meeting Teleconference to replace the 2 Feb meeting to run through the paper – Eventbright invitation to be sent soon DNO – NGET meeting to discuss the data exchange poss 25 Jan. NGET to arrange soon. The data exchange requirements shouldn't be affected too much by the banding thresholds. E&R mapping code exercise arranged for 31 Jan 2017. MK to attend, other DNO Emergency Planners may be interested.
d) GC0096 Storage		<ul style="list-style-type: none"> Matt White UKPN is the DNO rep on GC0096 Background <ul style="list-style-type: none"> Parties who own energy storage devices and use the NGET's System will be expected to meet applicable sections of the Grid Code which are consistent with the existing requirements. There is a need to consider code developments which account for a range of technology solutions and different operational characteristics. For example, the technical requirements for an asynchronous battery storage device connected via DC converter may be most closely aligned to those of an HVDC converter under the current code, whereas the technical requirements for a synchronous compressed air energy storage device which is directly connected

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		<p>may be most closely aligned to the existing treatment of a synchronous generator. Presently, the application of these requirements is subject to interpretation of the existing Grid Code and codified clarity is required.</p> <ul style="list-style-type: none"> ○ All aspects of energy storage devices should be considered from the perspective of both bespoke energy storage installations as well as energy storage devices which are part of a hybrid power plant with a mix of technology types. • Ofgem and BEIS Call for Evidence re Smart Grid refer to the need to define Storage / the technical requirements for Storage connection offers. There is linkage between this Call for Evidence and GC0096, which is why the start of the WG has been delayed • WG is to meet on a 2 weekly basis starting 30 Jan 2017 • Quite a lot of interest in the topic. A final WG 'catch up' meeting / public workshop will be arranged before the final WG report is delivered. • Seemingly the DNOs didn't want a joint WG although NGET suggested it – because they were doing their own work? AMC to check. There is potential overlap between the DCode requirements and GCode requirements which DNOs will need to be aware of. • There will be parallel work on charging and commercial issues (CUSC, DCUSA?, BSC?) so that when the technical issues are resolved by GC0096 there is the output from parallel commercial workings so that there is a joined up thinking on the technical / commercial package by the summer. AMC to raise with CoG via Chris Allanson. • The aim is to clarify which of the existing GCode requirements 'should' apply to storage. At the moment the technical parameters for large grid connected generators are recorded in their individual connection agreement. • Pumped storage will remain unchanged (as generation)
e) GC0079 Project Terre		<ul style="list-style-type: none"> • Background: <ul style="list-style-type: none"> ○ Project TERRE is a key implementation initiative for the European Electricity Balancing Guideline (EB GL), which aims to establish a pan-European market for Balancing Energy. ○ The project is seeking to design and develop a central platform to facilitate the close to real-time (<1 hour) exchange of Replacement Reserves (balancing energy products with a >15min lead time) between Transmission System Operators (TSOs) in Europe. ○ GC0097 will review to what extent existing Grid Code processes, primarily in the Balancing Code section (BC1-3), need to be changed or supplemented in order to facilitate TERRE participation in GB. It will also consider the interaction with the existing GB Balancing Mechanism process given their converging timescales.

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		<ul style="list-style-type: none"> There is a DNO volunteer for this - although I can't just remember who Elaxon very keen to get GC0079 up and running quickly.
9 WG Reports		<ul style="list-style-type: none"> None
10 Industry Consultations		<ul style="list-style-type: none">
a) GC0048 RfG Reactive & Voltage		<ul style="list-style-type: none"> A major consultation document which closes on 31 Jan 2017 Next teleconference call to discuss 19/1/17 There does seem to be uncertainties re the definitions – NGET to give this some thought. Talking to a few generator reps there doesn't seem to be any surprises in the document although there are some issues about whether the GB or EU definitions should be used.
b) GC0087 RfG Frequency Response		<ul style="list-style-type: none"> The Consultation Report has been withdrawn and has been reissued to the WG for finalisation before being reissued again as a Code Administrator consultation once the WG has agreed it.
11 Reports to the Authority		<ul style="list-style-type: none">
a) GC0077 Subsynchronous resonance		<ul style="list-style-type: none"> This was a joint SQSS / GCRP submission The report was sent back by Ofgem who requested more evidence to be provided. This has now been complete and a revised report is being finalised. There are no changes to the conclusions – just additional justification. GCRP Agreed that the panel doesn't need to see the report again
12 Pending Authority Decisions		<ul style="list-style-type: none">
a) GC0086 Open Governance		<ul style="list-style-type: none"> GC0086 with amended legal text was submitted to Ofgem at the end of December Ofgem decision expected by 5 Feb 2017 March panel meeting probably with the existing panel members New GCRP members should be appointed by the end of March 2017 First meeting under the new governance probably May 2017 Feeling is to postpone a decision on the appointment of an independent chair until the end of 2017, to align with the retirement of the CUSC chair. There may be a joint CUSC / GCode chair

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		<ul style="list-style-type: none"> • NGET plan to raise at the Feb GCDF and hold a WEBEX to explain the role / responsibilities of the new GCRP members. • ITCG will need to review the reps on the GCRP
13 Standing Items		•
a) EU Codes		• See above
b) Code Summary		•
c) JESG		<ul style="list-style-type: none"> • JESG decide d that there was no compelling desire from Industry progress with the EID approach and the status quo approach is to be progressed. • Code Administrators meeting soon to refine / validate the EU Code Implementation Plan
d) GCDF17 Jan 2017		<ul style="list-style-type: none"> • South Australian incident background: A report on the black system event in South Australia in Sept 2016 highlighted the risk of windfarms 'locking out' and powering down after experiencing a large number of Fault Ride Through (FRT) events in a short period of time. SSE generation are concerned that a similar risk may also be present in GB - for example, turbines from one manufacturer (who has over 3 GW of offshore and 1GW of onshore wind generation concentrated within relatively small geographical regions) may be configured to shut down after seeing only 7 or more FRT events in a 30 minute period. • GCDF took an action to issue a questionnaire to Transmission connected generators / manufacturers to see what type of settings are applied to GB plant – questionnaire will probably be issued by NGET • At the moment the GCode is silent on multiple FRT requirements. There is a need to better understand the credible number /depth of faults that need to be 'ridden through' so that this can be compared against the feedback from the survey. • The limit of the number of FTR that can be managed in a short space of time is governed by the capability of the electronics to dissipate heat. • There is a need to understand how an issue might evolve from the GCDF through to a GCRP WG as the GCDF isn't decision making body. The key point seems to be whether there is / a good chance that there could be a defect in the GCode.
e) ESB Update		• Not an issue for DNOs
14 Impact of other Codes		•
a) GCDF		• See above

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15) AOB Issue Proforma		<ul style="list-style-type: none">• NGET have developed a template to raise an issue at GCRP – very high level template. NGET as the Code Administrator would prefer issues to be raised at the GCDF before being raised at GCRP.
15) AOB System Incident Report	PP1775	<ul style="list-style-type: none">• IFA is the English – French Interconnector• Some uncertainty re the +/- signage of the demand loss is consistent• NGET proactively manage the RoCoF risk to make sure the 0.125 Hz/s DG protection setting is not breached either by increasing the inertia (constraining on traditional plant) or reducing the max credible system loss.• NGET won't need to manage this as closely once the RoCoF settings have been revised via GC0079• NGET to reissue in an excel format
16 Next Meeting		<ul style="list-style-type: none">• 18th January 2017• 22nd March 2017• 17th May 2017• 19th July 2017• 20th September 2017• 22nd November 2017