ENA Electricity Networks and Futures Group

DER TECHNICAL FORUM

MINUTES

Wednesday 28 February 2024

MS Teams Meeting

ATTENDEES

Name	Initials	Company
Mike Kay	MK	ENA
Sarisha Ojageer	SO	Ricardo
Peter Twomey	PT	Electricity North West
Ian Nicoll	IN	Qmulus Ltd
Lukasz Bochinski	LB	UKPN
Andy Hood	AH	NGED
Tim Ellingham	TE	RWE
Dick Allen	DA	BHA
Richard Harrison	RH	Clarke Energy
Rose Wabuti	RW	Northern Powergrid
Milana Plecas	MP	SPEN
Chris Marsland	CMA	EuroSite Power
Ian Wassman	IW	Exergy Power Systems
Matthew Porter	MPO	PSE2 Consulting
Edita Butkute	EB	Associated British Ports
Nataliia Myrhorodska	NM	ENA
Ross Falconer	RF	Aurora Power Consulting
Mark Dunk	MD	ENA

Nick Patterson	**NP**	**ENESCO**
Tony Robinson	**TR**	**TVRI Instruments**

APOLOGIES

Name	Initials	Company
Olivia Carpenter-Lomax	**OCL**	**Ricardo**
Stephen Sommerville	**SS**	**Aurora Power Consulting**
Christopher McCann	**CMC**	**ENA**

MEETING NOTES AND ACTIONS

1	Welcome, Introductions and Acceptance of Agenda	MK
Accompanying meeting slides should be referred to for detail.		
Actions	None.	

2	Actions from previous meeting	MK
All outstanding issues are covered on the agenda.		
Actions	None for this meeting.	

3	Significant modifications to generation plant	MK

MK introduced the proposed changes to the criteria that determine whether a modification is significant and hence needs to comply with EREC G99, and the generally applicable rules for replacement. The examples in A.6 have also been modified to reflect the new drafting, and reordered to deal with issues pertaining to G59 first, both G59 and G99, lastly G99 only. The proposed changes aim to detect instances where components are being replaced progressively and in these circumstances what criteria would trigger the need for compliance with the latest edition of G99.

The proposals generated discussions on the following points:

- The uncertain scope of 20.3.6.(c)
- The undefined term “component”

- Applicability to the whole facility or to individual units
- The existing and common practice of replacing alternators in CHP units etc

In discussion on these it was confirmed that there was no intent to change the existing principles, only to extend them to cover the programmed replacement of generating equipment, and to take advantage of the more specific definition of "significant" that was emerging in EU law.

In response to the points raised, as the proposed text is draft, views and comments from stakeholders would be most welcome at this stage to help refine and improve the text. And it will be subject to formal consultation in due course.

MK agreed that the wording of 20.3.6.(c) can be reviewed in the light of comments received. He said that he did not think it was necessary to define a component (other than it being part of a power generating module) as the criteria only bind on things that directly affect the module capacity (criteria a and b) or have a significant effect on stability etc (criterion (c), noting the concern about the wording above). The text also retains the clarification that maintenance activities are not a trigger for retrospective compliance.

MK confirmed that the requirements apply to power generating modules, not to the facility – so each module within a facility is treated separately. In relation to what are considered maintenance practices, such as replacement of synchronous machines alternators etc, MK stressed that no change of approach was intended and that there are specific examples in G99 for this. *[Post meeting – these are examples 12 and 13 in the current A.6 and 15 and 16 in the proposed revised examples.]*

Actions	Proposed changes in Word to be circulated for comments. **06/03/2024** Provide comments on the proposed draft. **22/03/304**	MK/MD ALL

4	ABP Queries and Discussion Points	EB

EB from Associated British Ports (ABP) provided context to the queries and discussion points raised. ABP have 21 seaports across the UK and have been submitting applications to several DNOs however her perception is that the SoW threshold seems to be applied differently between DNOs. EB expressed concern that there seems to be discrimination against sites with existing generation capacity that apply to increase generation capacity without increasing the Maximum Export Capacity.

AH noted that this is a really a CUSC issue and DNOs need to follow the rules in CUSC. AH explained that if a customer installs generation which displaces demand, it will have an impact on the grid. EB argued that sites without existing generation capacity would have the same impact; hence the discrimination if the rules only consider registered capacity.

ABP is also requesting advice from the DNOs on the methodology of the technical studies. ABP is essentially a large landlord and operates its sites as microgrids. When ABP submits G99 applications for more on-site generation, DNO technical studies seem to assume the worst case of no demand and 100% generation which is not a practical situation. EB questioned whether ABP's assumption is correct and whether DNOs publish their methodology for technical studies of complex microgrids. AH noted that generally studies are conducted considering maximum generation and minimum demand. It was noted that

the approach may vary across different DNOs therefore it was suggested to discuss this offline, but it was valid to ask to what extent the various approaches are documented and whether this is publicly available. LB noted that ABP's concerns are very site-specific. From the DNO point of view, there would be compliance issues that the DNO would need to consider, such as the capacity considerations pertaining to demand reduction and potentially thermal constraints of the network. ABP is also concerned about the communication and control equipment installed at incoming DNO substations for inter-tripping. EB noted that this equipment would communicate with ABP's generation equipment and require compliance with instructions issued within an unrealistic timeframe, failing which the whole site's export would be shutdown due to Active Network Management (ANM). EB questioned how this reconciled with what ABP believe is a firm supply. LB noted that UKPN either actively control the generator with a DERMS solution or via inter-trip inhibit panels. This would only trip the customer's generator but not the whole site. AH also noted that NGED have an inter-trip scheme which back-trips the DNOs CB if the customer's CB does not trip. However, if he generator does not trip quickly there may be an overload. MP noted that SPEN also have ANM flexible inter-tripping. LB clarified that the connection is discussed with the customer who then accepts these terms and forms part of the customer's connection agreement. PT noted that inter-tripping is only implemented on pure generation sites and this is also agreed with the customer at the time of the connection offer. There should not be an instance where a site with a combination of demand and generation is tripped. EB questioned whether DNOs can estimate what the curtailment would be when the connection agreement is made. AH responded that DNOs need to provide curtailment predictions and reports. For new schemes it could form part of the DCUSA requirements. DNOs agreed that some parts of ABP's concerns related to transparency of their process and requirements and DNOs agreed to try to address these points in ABP's slides.		
Actions	Share advice via email to ABP regarding forums which could address their concerns about the discriminatory of the CUSC rules. **22/03/2024** DNO colleagues to provide feedback on the other questions in the ABP slides to ENA for collation. **28/03/2024**	All DNOs All DNOs

5 IONs for Type C (and B)	**MK**
IONs are used for Type D but not for Type C and B at the moment. Following discussions at previous DER TF meetings, the DNOs are proposing drafting options in sections 12 and 13 in G99 to accommodate IONs for Type C and B.	
Actions	Comment on the proposed wording from slide 23. **22/03/2024** — ALL

6	Islanding	MK
The proposed changed aim to clarify and support the provisions for customers' self generation in G99. The proposals have been briefed to previous DER TFs, but the WG has recently addressed two new issues: Synchronising. Resynchronising when operating in island mode. The Working Group proposed that a set of maximum limits of voltage, frequency and slip be included, noting that synchronizing should always aim that all these values are minimized and that the proposed values are very much a backstop. This proposal will be called out in the future consultation. MP noted that there is a need for synchronous generators manufacturers to be consulted on propositions for the synchronous criteria. CM responded that the AMPS were consulted and engaged with their members and the original proposals were changed, influenced by their feedback. Fault ride through: although the FRT requirements are clear, where there is also a need for customers (especially large industrial customers) to protect their production, the practice of such customers tripping to island mode could be considered to be frustrating the FRT requirements. The Working Group is proposing that this should be allowed, but only if the net change in active power flow at their boundary is less than 10% of the max capacity of the site (and also no more than 5MW).		
Actions	Provide any comments on the proposal (slides 27 & 28) **22/03/2024**	ALL

7	Previous issues	MK
The item on the meaning of "transient rating" can be closed. The use of IONs for Type B and C was already discussed. Refer to Appendix 1 of the slide pack for more detail.		
Actions	None for this meeting.	

8	Clarification of G99 where BEGAs apply	MK
In response to some uncertainty over who is responsible for the Grid Code requirements of embedded generations who have a bilateral embedded generation agreement (BEGA) with NGESO, some clarifying text is proposed for G99. Where there is a BEGA, the DNO is responsible for the requirements in G99, and the NETSO is responsible for and additional Grid Code requirements. Ideally the FON would demonstrate this, but the PGMD can be used to document the compliance achieved to date in the absence of a FON. These changes will be included in next iteration of G99. AH questioned whether "DNO" also refers to IDNOs. MK confirmed that this is the case although there is no direct relation between the IDNO and the NETSO therefore the DNO will have to perform some sort of co-ordinating rôle. MK thought that GC0139 might be addressing issues which may help in these cases.		

Actions	None for this meeting.	

9	**Minor technical modifications**	**MK**
The details of the minor technical modifications are attached to the slide pack as appendix 2. In addition to the content of the slides there are minor modifications also needed for the following topics - Storage – ie the requirements on frequency recovery. - Islanding – as reported from the Islanding WG. - IONs – as discussed above. - BEGAs – as discussed above. - Significant modernization – as discussed above. - Sharing of centrally owned generation – such as in blocks of flats etc The ENA would hope to be able to consult on all these proposals in late Spring 2024.		
Actions	Consolidated version for formal consultation in Spring **Spring 2024**	SO/MK

10	**SAF**	**MK**
MK noted that DNOs are still discussing some minor changes to the SAF.		
Actions	None for this meeting.	

11	**GC0117**	**MK**
GC0117 is currently out for its Code Administrator's consultation with a response date of 26 March 2024. DA questioned whether this will have implications on G99. MK responded that if the definition of "large" changes to 10MW, then a significant part of G99 pertaining to Type C and D could become redundant. However, this is for future consideration.		
Actions	None for this meeting.	

12	**EU Developments**	**MK**
Refer to slides.		

Actions	None for this meeting.	

13	**AOB and next meeting**	**MK**
TE noted that distribution milestones should appear in DCUSA or CUSC – Ofgem to decide which code this should form part of. TE will keep the Forum updated on relevant developments. Next meeting: End of May 2024		
Actions	Arrange next meeting. **End of May 2024**	MK