

## NOTES

### ENA Electricity Networks and Futures Group DER TECHNICAL FORUM

16 APRIL 2019, 1030 START

#### Attendees in Person:

Name	Initial	Company
Peter Twomey	PT	Electricity North West
Adam Tinkham	AT	Bosch
Andy Hood	AH	WPD
Anuj Chhetri	AC	Northern Powergrid
Rostand Siewe	RS	Nordex
Sarah Carter	SC	Ricardo
Mike Kay	MK	ENA
Sue Pilcher	SP	SPEN
John Ruddock	JR	Deepsea
Vincent Hay	VH	ENA
David Hill	DH	NIE
Sean Whittaker	SW	Moixa
Tony Mason	TM	Siemens
Hui Heng	HH	SSEN
Alan Guiver	AG	Independent
Tripti Singh	TS	Moixa

#### Attendees by teleconference:

Name	Initial	Company
Joseph Nolan	JN	GTC
Nick Gudgen	NG	HV Technical Services

#### Apologies:

Name	Initial	Company
Nigel Smith	NS	Sustainable Control Systems
Jason Kirage	JK	Solar Edge
Luis Mayor	LM	PSE2 Consulting
Simon Hamlyn	SH	BHA
Steve Mockford	SM	GTC
Tim Moore	TM	UKPN
Peter Rees	PR	Siemens

Name	Initial	Company
Ian Wassman	IW	IPU
Dick Allen	DA	BHA
Chris Thomas	CT	Energy Contour
Freddy Alcazar	FA	Jenbacher
Chris Marsland	CM	

**ACTIONS LIST**

No.	Detail	Leader	Date	Complete
1	Publish previous minutes etc	VH	16/4/19	
2.1	Amend G99 to reflect the RfG requirement for all simulation models to be validated.	MK/SC	Next amendment	
2.2 & 2.11	Summarise the voltage control requirements for the different PGM types on one page	MK	21/5/19	✓
2.3	Circulate explanation wrt question about 50.9Hz	MK	21/5/19	✓
2.4	Follow up FRT question with NG	MK	21/5/19	✓
2.8	All to review and propose any suggestions for improvement in clarity in respect of PGMD evidence columns	ALL	21/5/19	
2.9	Amend G99 to include the submission of a simulation study for reactive power capability and remove the other options.	MK/SC	Next amendment	
2.10	Amend G99 to make the control requirements clearer in C5 when the Grid Code is applicable to the installation.	MK/SC	Next amendment	
2.12	All to consider any further comments on any of the new questions, ie 52 onwards.	ALL	21/5/9	
2.13	Amend G99 to remove the clause about the installation of a transformer from Form A2-1 and A2-3	MK/SC	Next amendment	
3	Document gas engine challenges for discussion at next meeting or a separate meeting with specific stakeholders as appropriate.	AG	21/5/19	✓
4.1	Closedown Qs 32,38,39,41,42,43,44,45,46,49,50 & 51	MK	21/5/19	✓

4.2	Continue to resolve FRT data requirements.	MK/FA	21/5/19	
6.1	Progress new hydro LFSM question with NG.	MK	21/5/19	✓
6.2	Consider RWE query about modification to an existing PGM – discuss at 21/5 Forum..	ALL	21/5/19	
6.3	Differences between G98 and G99 for Type A generators to be considered.	TS/SC	21/5/19	

## NOTES

Item	Focus	Leader	Date
<b>1.</b>	<b>Previous minutes and TOR</b> The previous minutes were approved. It was noted that the approved minutes and accompanying issue log at that date and slides for the meeting would be published on the ENA Website.	VH	21/05/19
<b>2.</b>	<b>Review of recent Tech Forum Queries</b> Reference should be made to the DER Technical Forum Record of Issues log and the slide pack used during the meeting – 20190416 ENA DER tech forum 190416v2. A corrected version, 20190416 ENA DER tech forum 190416v3 would be circulated with these notes. It was noted that G99 amendment 4 is now with Ofgem for approval – should be a decision approximately 5 weeks from 12/4/19.		
<b>2.1</b>	Q52. Propose to amend G99 to reflect the RfG requirement for all simulation models to be validated.	MK/SC	Next amendment
<b>2.2</b>	Q53 and Q56. The G99 voltage control requirements are a combination of G59 and the RfG. Mike will summarise the requirements for the different PGM types on one page for clarity.	MK	21/5/19
<b>2.3</b>	Q54. Mike to circulate explanation wrt question about 50.9Hz – via the issues log – and also to include in the final version of this meeting's slides.	MK	21/5/19
<b>2.4</b>	Q55. FRT compliance – Mike has passed the question onto National Grid. To be picked up at next meeting.	MK	21/5/19
<b>2.5</b>	Q57. Annex B modification in G99 amendment 4 has clarified this to some extent. Proposed to leave G99 as is and see if there are any practical issues.		
<b>2.6</b>	Q58. Awaiting the outcome of the GC0111 consultation (12/4/10 – 10/5/19)		

2.7	Q59, Q60, Q64, Q65, Q67, Q68. The meeting agreed with the proposed answers.		
2.8	Q61. Discussion with respect to intention of PGMD evidence columns. All to review and propose any suggestions for improvement in clarity	ALL	21/5/19
2.9	Q62 & 63. Propose to amend G99 to include the submission of a simulation study for reactive power capability and remove the other options.	MK/SC	Next amendment
2.10	Q66. Propose to amend G99 to make the control requirements clearer in C5 when the Grid Code is applicable to the installation.	MK/SC	Next amendment
2.11	Q69 & 70 It was noted that the answer in the slide pack as circulated prior to the meeting was incorrect (answer to another question). Corrected version circulated with these minutes. The answer is covered by the action associated with Q53 and Q56.	MK	21/5/19
2.12	It was noted that any further comments on any of the new questions are welcome ie issue 52 onwards.	ALL	21/5/9
2.13	Andy Hood ran through his slides on voltage fluctuations and harmonics. It was agreed to remove the clause about the installation of a transformer from Form A2-1 and A2-3 in the next G99 modification.	MK/SC	Next amendment
3	Alan Guiver outlined a number of challenges that G99 brings to gas engines in respect of compliance and compliance demonstration. Alan to document for discussion at next meeting or a separate meeting with specific stakeholders as appropriate.	AG	21/5/19
4	<b>Review of previous Tech Forum Queries</b>		
4.1	Qs 32,38,39,41,42,43,44,45,46,49,50 & 51 will be closed down after Mike has checked with question owners where he has not had final confirmation they are happy with the proposed answer.	MK	21/5/19
4.2	Q40. FRT data requirements still open - Mike currently still in correspondence with Freddie Alcazar– some overlap with new Q55 might arise.	MK	21/5/19
5	<b>Type Test database</b> – current ENA thinking re compliance review discussed.		
6	<b>AOB</b>		
6.1	A second hydro query wrt LFSM compliance has been raised with NG	MK	21/5/19
6.2	The RWE query about modification to an existing PGM that was raised at the DCRP was discussed. It was noted that the G59 requirements are pre-existing and were logged by BEIS with the EU and therefore apply in GB together with the new RfG requirements. G59 covers all Types, not just C and D.		

	<p>The G59 words were taken into and made applicable for G99. It is felt that specifying them in any more detail would take away the current flexibility that they offer wrt dialogue between Generators and the DNOs.</p> <p>All to consider the query together with the G59 Section 12.6 and G99 Section 20.6 text to discuss at the next meeting.</p>	ALL	21/5/19
6.3	<p>The process in respect of fast track connection of PV and storage where both are less than 16A/phase were discussed. Tripti to send a list of differences between G98 and G99 for ENA review.</p>	TS/SC	21/5/19
7	<p><b>Next meetings:</b></p> <p>21 May</p> <p>3 July</p> <p>Venue: 4 More London Riverside, London, SE1 2AU</p>		