

NOTES

ENA Electricity Networks and Futures Group DER TECHNICAL FORUM

12 FEBRUARY 2019, 1030 START

Attendees in Person:

Name	Initial	Company
Peter Twomey	PT	Electricity North West
Ian Wassman	IW	IPU
Andy Hood	AH	WPD
Tim Moore	TM	UKPN
Anuj Chhettri	AC	Northern Powergrid
Nigel Smith	NS	Sustainable Control Systems
Phil Davies	PD	Renewables First
Sarah Carter	SRC	Ricardo
Mike Kay	MK	ENA
Mark Dunk	MD	ENA
Nick Gall	NG	Solar Trade Association
Sue Pilcher	SP	SPEN
John Ruddock	JR	Deepsea
Vincent Hay	VH	ENA
Darwin Aseka	DA	ENA
Sean Whittaker	SW	Moxia

Attendees by teleconference:

Name	Initial	Company
Steve Mockford	SM	GCT
Alan Guiver	AG	Independent
David Hill	DH	NIE
Adam Tinkham	AT	Bosch
Freddy Alcazar	FA	Jenbacher
Simon Hamlyn	SH	BHA
Konstantinos Pierros	KP	Enercon
Luis Mayor	LM	PSE2 Consulting
David Roberts	DR	Morben Hydro
Dick Allen	DA	BHA
Lukas Vogl	LV	Jenbacher

Apologies:

Name	Initial	Company
Colin Poulter	CP	Goodwe
Caroline Bragg	CB	ADE
Brian Hoy	BAH	Electricity North West
Rostand Siewe	RS	Nordex
Greg Middleton	GM	Deepsea
Hui Heng	HH	SSEN
Trang Trun	TT	SSEN
Mark O'Connor	MOC	SSEN
Chis Marsland	CM	Green Frog
Xiaoyao Zhou	XZ	NGESO
Konstantinos Pierros	KP	Enercon

ACTIONS LIST

No.	Detail	Leader	Date	Complete
Action 2	SC to progress changes to SAF	SRC	14/03/19	✓
3.1	G99 to be reviewed to see if more clarity on comms redundancy would be beneficial	MK	12/03/19	✓
3.2	Update the issues list with all the issues from NS's slides, either as new issues or as updates to existing ones	MK	19/02/19	✓
3.4	Off-line investigation of voltage rise for trips	AH	12/03/19	✓
3.5	Arrange a call with NG, NS and other hydro parties on LFSM-O.	MK	15/02/19	✓
3.6	Close item 5 on the issues log	MK	19/02/19	✓
4.1	Articulate requirements for provision of data in respect minimum fault level information for fault ride through and details of how German DSOs manage this	FA	19/02/19	✓
4.2	Articulate a question about Type B power factor compliance	LM	19/02/19	✓

NOTES

Item	Focus	Leader	Date
1.	<p>Previous minutes and TOR</p> <p>The previous minutes were accepted.</p> <p>The TOR were accepted with the proviso that the reference to DEC is changed to BEIS (which it is in the version MD has, but not the version that was circulated).</p> <p>Ongoing chair not yet appointed. MD to continue to lead meeting in the interim with support from MK and SRC.</p> <p>A question was raised re the information given at the last forum on the EV and heat pump connexion process – it was reported that the approach is now live at:</p> <p>http://www.energynetworks.org/electricity/futures/electric-vehicles-and-heat-pumps.htm</p>		
2.	<p>SAF</p> <p>SC to progress changes to SAF in respect of clarity about modelling data and information about new and existing PGMs.</p>	SRC	14/03/19
3.	<p>Review of previous Tech Forum Queries</p> <p>Reference should be made to the DER Technical Forum Record of Issues log and the slide packs used during the meeting – 20190212 ENA DER Tech Forum and ENA presentation Feb 19 v4.</p>		
3.1	<p>Q30 With reference to section 12.1.3 can the forum clarify “The DNO will discuss and agree with the Generator for each Power Generating Facility the protocol to be used, including how any risks of maloperation etc are to be managed.”</p> <p>Example slides (Slides 7 & 8 of 20190212 ENA DER Tech Forum presentation) which demonstrate how compliance could be achieved were accepted, noting that the reliability of the solution would be discussed on a case by case basis with the DNO should use of the functionality be required.</p> <p>It was noted that some DNO applications, particularly where Active Network Management was employed might need more redundancy/fail safe operation etc, but this was over and above the minimum requirements for simple G99 compliance and would be pursued on a case by case basis. G99 to be reviewed to see if more clarity on this would be beneficial.</p>	MK	12/03/19
3.2	<p>NS ran through the “ENA presentation Feb 19 v4” slides. In respect of slide 5 - operating range, slide 10 - power factor and slide 15 - power output with falling frequency, it was agreed that a Statement of Compliance from a manufacturer together with appropriate supporting information, which could include modelling, would be sufficient to demonstrate compliance. Demonstration for one item in a range of similar products from</p>		

	<p>which inferences in respect of compliance could be made is also acceptable in principle.</p> <p>It was noted that the ENA are actively working to establish an equipment certificate regime as a long term solution to compliance demonstration.</p> <p>MK will update the issues list with all the issues from NS's slides, either as new issues or as updates to existing ones.</p>	MK	19/02/19
3.3	<p>In respect of slide 6 harmonics, it was noted that the requirement and process is unchanged from G59. It was agreed that induction generators are not generally concern as a source of harmonics to the DNOs.</p> <p>It was noted that G5/4 is currently being revised and is expected to be ready for public consultation shortly.</p>		
3.4	<p>In respect of slides 8 and 9, voltage fluctuations the concern about the voltage fluctuation experienced on tripping was discussed. There is a new version of P28 which has recently completed its public consultation and is now due for Ofgem approval.</p> <p>It was agreed to consider this further outside the meeting. MK/AH/NS to hold a further discussion. AH volunteered to lead the off-line investigation of this point.</p>	AH/MK/ NS	12/03/19
3.5	<p>In respect of slides 11-14 LFSM-O the challenge to hydro plants of responding quickly to over frequency events was discussed together with the materiality of the problem in this instance when the number of connected hydro plants is declining. It is estimated that there are about 40 small hydro plants in the connection pipeline (est 2-5 MW). It was noted that ENSTSO-e have established an Expert Group reviewing the RfG requirements for pumped storage hydro plants, covering some of the same hydraulic challenges. It was agreed to consider this further outside the meeting. MK to arrange a call with NG, NS and other hydro parties.</p> <p>Possible solutions discussed were the use of load banks, an over frequency trip or an Ofgem derogation application – but it was agreed there needs to be a review of the engineering solutions as well.</p> <p>NS will sketch out what some of these solutions (eg load banks) might look like in terms of response of the allowed responses in Appendix B of G99</p>	MK NS	15/02/19 19/02/19
3.6	<p>3.6 Slides 10-13 of 20190212 ENA DER Tech Forum presentation were reviewed.</p> <p>LM agreed #5 can be closed.</p>	MK	12/03/19
4	<p>AOB</p> <ol style="list-style-type: none"> 1. FA is to articulate requirements for provision of data in respect minimum fault level information for fault ride through and details of how German DSOs manage this. 2. LM will articulate a question about Type B power factor compliance. 	FA LM	19/02/19 19/02/19

5	Next meeting: 12 March 16 April Note the ENA will be resending invitations for these meetings in VH's name. Venue: 4 More London Riverside, London, SE1 2AU		
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