

## NOTES

### ENA Electricity Networks and Futures Group G100 Review Working Group DCRP

Monday 01 February 2021

#### Attendees:

Name	Initial	Company
Andrew Hood - Chair	AH	WPD
Richard Harrison	RH	Clarke Energy
Ian Wassman	IW	AMPS (Comap-Controls)
Chris McCann	CMC	ENA
Mike Kay	MK	ENA
Peter Twomey	PT	ENWL
Chris Marsland	CM	Euro Site Power
David Hill	DH	NI Networks
Alan Creighton	AC	NPg
Jason Kirrage	JK	Solar Edge
Jonathan Mitchell	JM	SPEN
Alastair Oldfield	AO	SPEN
Marcos Lamas Diez	LM	UKPN
Steve Mockford	SM	GTC-UK
Peter Twomey	PT	Electricity North West

#### Apologies:

Name	Initial	Company
Calum Jardine	CJ	SSEN

#### ACTIONS LIST

No.	Detail	Leader	Date	Complete
1	Separate out voltage limits for HV and LV, and add a test for undervoltage	MK	05/02	✓
2	Extend excursion criterion (i) to 8 mins	MK	05/02	✓
3	Add note to clarify the amalgamation of functional and mode 2 testing	MK	05/02	✓

4	Define MEC and MIC in terms of current rather than power	MK	05/02	✓
5	Use words from today's meeting for multiple CLSs	MK	05/02	✓
6	Update transducer section to include Rogowski coils and to allow split clamp cts	MK	05/02	✓
7	Adopt 2% or rating accuracy for CTs; 1% for voltage measurements.	MK	05/02	✓
8	Run with current drafting on cybersecurity, but make a specific consultation question around this.	MK	19/02	✓
9	Consider the timing of introduction of G100 and type testing lead time.	CMC	19/02	✓
10	Use modified form of words from G99 for retesting/maintenance etc	MK	05/02	✓
11	MK to recirculate revised draft. All to comment	MK ALL	05/02 19/02	✓
12	MK to circulate draft consultation paper	MK	19/02	✓
13	CMC to arrange next meeting	CMC	05/02	✓

**NOTES**

Item	Focus	Leader	Date
1	<b>Welcome, Introductions and Acceptance of Agenda.</b> AH welcomed WG members. The agenda were agreed. The minutes of the previous meeting were accepted as correct record.		
2	<b>Matters arising not in the agenda</b> Noted that DNOs are still collating their approaches to assessing voltage rise. To be reviewed at the next meeting. DNOs now reviewing the published information on active network management, and which will be managed via the Distributed Energy Resources Technical Forum.		

	As regards the interaction between ANM and G100, MK has proposed a short new para (4.12) as per slide 17. It was agreed to run with this drafting for the next draft.		
<b>3</b>	<b>Voltage Limits</b> It was agreed that the propositions on slide 9 were appropriate. Bullet 1 should really be considered as appropriate to all LV situations, whereas for HV connexions more individual design considerations might apply. On this point it was agreed that the effect should be specified at the connexion point for LV, recognizing that a more sophisticated assessment might be necessary for HV connexions.	MK	05/02
	It was agreed that a specific test for undervoltage functionality should be included.	MK	05/02
<b>4</b>	<b>Thermal Limits</b> Having discussed the issues on this slide it was agreed that a note should be added in the text to warn customers/manufacturers that a limit within the MEC/MIC might be required to avoid inadvertent triggering of mode 3 by inappropriately frequent mode 2 excursions	MK	05/02
<b>5</b>	<b>Excessive Excursions</b> It was agreed that criterion (i) should be extended to 8 minutes in 24 hours; this would avoid unintended discrimination against installations where 3 minutes was agreed as the thermal mode 2 limit.	MK	05/02
<b>6</b>	<b>Injection Testing</b> Having explained the unconscious amalgamation of functional and mode transition testing, it was agreed that a note making this clear should be include. The note would make it clear that it would be OK to propose that the testing of these requirements could be separated.	MK	05/02
<b>7</b>	<b>MEC and MIC</b> Following the discussion at the meeting, and an email debate shortly after the meeting, it was suggested that the next draft should define MEC and MIC in current, rather than power.	MK	05/02
<b>8</b>	<b>Multiple CLSs</b> It was agreed that the proposed wording would be included in the next draft.	MK	05/02
<b>9</b>	<b>Transducers</b> The drafting would be modified to recognize split CTs that were clamped, rather than relying on spring pressure, would be acceptable.	MK	05/02
	Noted that Rogowski coils are acceptable and should be specifically allowed.	MK	05/02

<p><b>10</b></p>	<p><b>Cybersecurity</b> It appears that the draft requirements are probably OK – but should be a specific consultation question</p>	<p>MK</p>	<p>19/02</p>
<p><b>11</b></p>	<p><b>Accuracy</b> It was agreed that accuracy needed to be specified and 1% for voltage measurements and 2% for current measurements were suggested. There was uncertainty as to whether current accuracy should be specified on rating or on measurement point.  <i>Post meeting note: if the limit is zero export, then the constraint is not a local thermal one. It will be either a remote thermal one (such as one imposed by an upstream constraint), or a voltage one. In the former any accuracy issues disappear, and in the latter, this is proposed to be managed quite separately from current It is to be assumed that the CTs are sized to match the bigger of import or export capacity. On this basis CT accuracy of 2% of full load is probably acceptable.</i></p>	<p>MK</p>	<p>05/02</p>
<p><b>12</b></p>	<p><b>Type testing</b> The WG agreed that an extension of the current ENA type testing approach was appropriate. However concerns were expressed at the timing of the introduction of it etc. CMC to review the implications and propose a timeline.</p>	<p>CMC</p>	<p>19/02</p>
<p><b>13</b></p>	<p><b>Maintenance/Retesting etc</b> It was agreed to use the form of words from G99 but include a reference to section 5 of G100 to define the scope of future work.</p>	<p>MK</p>	<p>05/02</p>
<p><b>14</b></p>	<p><b>Next Steps</b> MK to circulate revised draft. All to comment. MK to circulate draft consultation paper for comment at next meeting. CMC to arrange next meeting for first week in March ideally</p>	<p>MK ALL MK CMC</p>	<p>05/02 19/02 19/02 05/02</p>