

## Microsoft Teams meeting

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# DER Technical Forum

14 April 2021

10:00 start



# Welcome, Housekeeping and Introductions

# Agenda

Time	Focus	Leader
10:00	Welcome, Introductions and Acceptance of Agenda.	CM
10:02	Acceptance of minutes of previous meeting (02 February 2021)	CM
10:05	Matters arising <ul style="list-style-type: none"> <li>• Simulation modelling</li> </ul>	
10:10	Update on Storage Modification	CM/MK/SRC
10:20	Update on Housekeeping etc Modification	CM/MK/SRC/
10:30	Domestic scale storage installations – issues from Powervault	MA
11:00	New issues raised <ul style="list-style-type: none"> <li>• Retrospective Application</li> </ul>	IN
11:10	Remaining Open Issues: <ul style="list-style-type: none"> <li>• 101 – load rejection simulations for Type C and D</li> </ul>	MK
11:20	G100 – update	AH/MK
11:25	TTR etc update (if any)	CM/MD
11:30	EU standards etc	CM/MK
11:35	AOB	
11:40	Finish and next meeting	CM

## Matters Arising

Simulation modelling etc

# Update on storage and on minor technical modifications

## Storage

**The DCRP wishes to review the Report to the Authority before it goes.**

**Target date to send to Ofgem is 05 May.**

**Ofgem have a KPI of 25 working days to turn it round.**

## Minor Technical Update:

### **9 Responses received by the deadline (19/03)**

- Bundesverband der Deutschen Heizungsindustrie (BDH)
- Caterpillar
- SenerTec
- Northern Powergrid
- COGEN Europe/Pathway to a competitive European Fuel Cell micro-CHP market (PACE)
- AMPS
- Centrica
- SMA
- Baxi

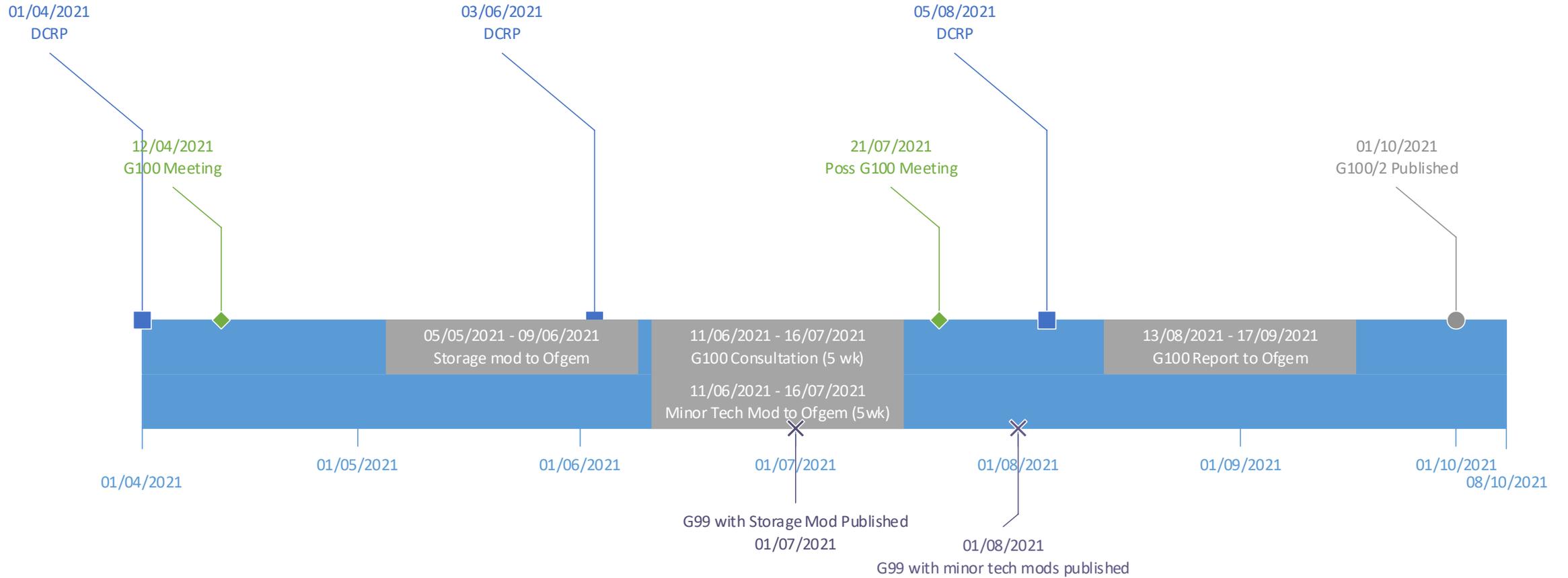
**The responses from BDH, SenerTec, Baxi and COGEN Europe/PACE are essentially all the same.**

## Responses received so far

### **The following themes emerged:**

- Random tripping above 50.4Hz as an alternative to droop to implement LFSSM-O.
- Cybersecurity
- Retrospective application on changing major components
- Family size range – application via Registered Capacity is not ideal where there is parasitic load
- Possible confusion between power factor control and reactive capability
- Type tests and manufacturers' information: do they have the same status?
- Type tests and PQ
- Should we add energy storage capacity to D Code DDRC?
- Applicability of modelling to Type A
- Rationalization of terminology used for simulation etc models

# Timeline



# Place holder for Powervault

# New Issues

## Retrospective Application of G99

**Q - Do new connexion arrangements to an existing generation site trigger retrospective compliance of the existing generation on the site with G99?**

**Posed by Ian Nicoll**

# Previous Issues

# Unresolved Previous Issue

No	Issue	Assumed Status
101	<p>The issue is the LFSM-O load rejection test, and the scenario given in Appendix C7.5. For a project I have setup a test network for a Type C solar PV site, rated at 15MW and connected at 33kV which has generated some queries. Specifically:</p> <p>It is not clear what the ultimate aim of the test is? ie is it just to show the speed at which the inverters can de-load in the case of an over-frequency condition (ie like the equivalent Type B LFSM-O simple ramp test), or is it to show the system can actually form an island - which doesn't make sense as the inverters do not have grid forming capability.</p> <p>The value 'X' seems to be arbitrary, and the standard wording implies that we just adjust this value until we get the required 52Hz deviation and add the generator rating to this value?</p> <p>Is this above assumption correct or is the value X supposed to be the Design Minimum Operating Level (DMOL)? Whilst practically a solar PV plants minimum, operating level can be very low at say 5% or less, but the inverters would not be able to handle a load rejection of 95%, and most DNO connection agreements, don't give specific values in the way Grid connection offers do.</p> <p>What is the guidance for selecting the rating of the dummy generator 'G2', I have found that setting the value to the same rating as the site, seems to provide the correct response.. but not sure if this is correct?</p> <p>I have also found that it is necessary to add a simple AVR model to the dummy 'G2' generator to help stabilise the voltage on the islanded system... I assume this is ok, as the standard only talks about excluding the governor?</p> <p>What is considered a 'pass' for this study ie what things are you looking to see?</p>	<p>Still under discussion following response from NGENSO. Additional examples are being sought from stakeholders, with a view to developing clarifying text for G99.</p>

## Unresolved previous issues - 2

No	Issue	Assumed Status
109	Battery installations in particular, not least to meet NGENSO's dynamic containment services, can inflict significant power swings on the system with high ramp rates. What are the mitigations that might be available to maximize the opportunities, ie is it possible to modulate reactive power during the ramp period to minimise voltage excursions?	<p>Ramp rates – these are normal criteria for mutual agreement between DNO and connectee.</p> <p>Use of reactive power modulation to avoid significant voltage excursions needs further research and discussion between any connectee who might want to propose such an approach and the DNO.</p>
110	There is uncertainty over the detail which needs to be submitted for type C and D compliance simulations – particularly the supporting information about the models which could be considered to be the consultants' IPR.	<p>Although simulations and their models have been discussed several times, and there are a few entries in this log, it might be worth holding a review of what is considered to be appropriate good practice in this area with appropriate stakeholder and DNO experts.</p> <p>Stakeholders will be canvassed to gauge interest in a dedicated session to develop this.</p>

# Update on G100

## **G100**

**The WG has met most recently on 22 March and 12 April.**

**The consultation draft of a revised G100 is ready, as is an accompanying consultation paper.**

**Consultation delayed as the DCRP wish to formally consider whether G100 should be a D Code document, and if so, whether Annex 1 or Annex 2.**

**The WG will present its views to DCRP at the 03 June Panel meeting, with the expectation that consultation will follow shortly.**

# Type Test Register etc Update

# Wrap up:

## Minutes of previous meeting and actions

### Outstanding matters arising not on the agenda:

- None?

## AOB and next meeting

### AOB

- None

### Next meeting

- Around early June, before the minor tech/housekeeping mod goes to Ofgem?



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