

ENA Electricity Networks and Futures Group

DER TECHNICAL FORUM

MINUTES

Monday 07 June 2021 at 14.00 – 16.00

MS Teams Meeting

ATTENDEES

| Name | Initials | Company |
|--------------------|----------|--------------------|
| Christopher McCann | CMC | ENA |
| Mike Kay | MK | ENA |
| Hui Heng | HH | SSE Networks |
| Sarah Carter | SC | Ricardo |
| Andy Hood | AH | WPD |
| Anuj Chhettri | AC | Northern Powergrid |
| Andy Beddoes | AB | SPEN |
| Peter Twomey | PT | ENWL |
| Tim Ellingham | TE | RWE |
| Dick Allen | DA | BHA |
| Ian Wassman | IW | Comap Controls |
| Ian Nicoll | IN | Qmulus Ltd |

Registered office Energy Networks Association Limited, 4 More London Riverside, London SE1 2AU
 t. +44 (0)20 7706 5100 e. info@energynetworks.org energynetworks.org

| | | |
|---------------------|----|-----------------|
| Joe Warren | JW | Powervault |
| Alistair Shearer | AS | BU UK |
| Luis Mayor | LM | PSE2 Consulting |
| Jason Kirrage | JK | Solar Edge |
| Stephen Sommerville | SS | SP Energy |
| Zivanay Musahi | ZM | UKPN |
| Paul Carpenter | PC | Solis |

APOLOGIES

| Name | Initials | Company |
|--------------------|----------|-----------------|
| Chris Marsland | CM | Euro Site Power |
| Gillian Williamson | GW | ENWL |
| Graham Bone | GB | Infinis |

MEETING NOTES AND ACTIONS

| Welcome, Introductions and Acceptance of Agenda | | CMC |
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| <p>Previous minutes were accepted.</p> <p>Accompanying meeting slides should be referred to for detail.</p> | | |
| Actions | None. | |

| Special Interest Session on Modelling and Simulations | | MK |
|---|---|-----------------------|
| <p>Four participants at present. Meeting agenda to be developed based on points to be raised by participants or examples of challenges. Meeting will consider the implications of the GC0141 work which was prompted by on the 09/08/19 LFDD event, but includes changed requirements for simulations and modelling. There is also a parallel exercise occurring in the EU, feeding into the Network Codes, which should be considered.</p> | | |
| Actions | <p>Send items for meeting agenda to MK and CMC</p> <p>CMC will arrange meeting</p> <p>21/06/21</p> | <p>ALL</p> <p>CMC</p> |

| New issue #1 Registered Capacity and Reactive Capability | | MK/ SC / SS |
|--|---|-------------|
| <p>The meeting discussed slides 7-11. It was noted that the Grid Code has separate Registered Capacity and P_{max} definitions and that the Registered Capacity definition varies depending on the circumstances and is linked to the Small, Medium and Large definitions. It was noted that G99 uses Embedded Medium Power Station as a defined term, that Small is not needed due to the type definitions and that large is used with reference to the Grid Code in an undefined way.</p> <p>The DNOs stated they use either MVA with a power factor, or MW with a power factor range at the Connection Point in their Connection Agreements. Some DNOs at least cover the facility export (and/or import) limits quite separately from the Registered Capacities of PGM which are listed separately in the agreements</p> <p>It was noted that solar PV and storage inverters are defined in MVA.</p> <p>It was noted that the definition of Registered Capacity for both a Power Generating Facility and a Power Generating Module can lead to confusion.</p> | | |
| Actions | <p>DNOs to confirm details of Connection Agreements in respect of MVA/ MW/ pf / Connection Point / Registered Capacity / for the PGMs / PPMs / PGF</p> <p>07/07/21</p> | DNOs |

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| | MK and SC to review based on discussion, and see if a simpler/clearer formulation of the requirements can be proposed for both G99 and the SAF. 07/09/21 | MK/SC |
|--|--|-------|

| New issue #2 Interpretation of P28 for Dynamic Containment | | MK/SS |
|--|---|-----------|
| <p>The meeting agreed that the possible switch between charging and discharging interaction of several storage facilities, in electrical proximity, responding to a dynamic containment service request could lead to P28 violation. This is something the DNOs are actively considering.</p> <p>As well as the technical considerations in respect of power swings it was noted that consideration could be given to requesting additional information in the SAF, or by including agreement about participation in specific services in the Connection Agreement.</p> <p>This will be further discussed with the DNOs and a report made to the next meeting.</p> | | |
| Actions | Consider P28 and dynamic containment for several installations Next meeting | MK / DNOS |

| Previous issue #101 | | MK |
|---|--|----|
| <p>LFSM-O simulations: Following discussion with National Grid it is recognised that the studies requested in G99 are appropriate if the Generator is intending to operate the PGM in island mode, otherwise the standard ramp response simulations as for Type B are sufficient for distribution connected plant. This will be added to the list of future changes to G99.</p> | | |
| Actions | SC to add this point to the list of future proposed G99 mods. 14/06/21 | SC |
| | Close issue 101 08/06/21 | MK |

| Modifications – Storage, Minor Technical Issues and G100 | | MK |
|--|--|----|
| <p>The storage modification is due back from Ofgem on June 11.</p> <p>The minor technical issues will then be introduced into the approved legal text and submitted to Ofgem for approval.</p> | | |

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| The G100 consultation is expected to be published at the end of this week. | | |
| Actions | Continue with process re G98 and G99 amendments | MK/CMC/SC |

| DNOs' ANM Information | | MK |
|---|---|----------------|
| The updated ANM table will be circulated with these minutes, all to raise questions as necessary. | | |
| Actions | Circulate with the materials from this meeting. 11/06/21 Raise questions on table as necessary. Next meeting | CMC ALL |

| BEIS Asset Registration Initiative | | CMC |
|--|--|------------|
| Refer to slides 25 and 26 for details. CMC can provide an update in respect of progress on the digital hub at a subsequent meeting | | |
| Actions | CMC to provide update on digital hub at subsequent meeting. Next meeting as applicable | CMC |

| DNOs' early thinking on Fast Track | | MK |
|---|--|-----------|
| The proposals for possible approaches to the connection storage and PV over 16 A / phase were detailed and the examples of loop impedance reviewed with a discussion about how this will determined in practice – either by calculation or measurement from the property. | | |
| Actions | Review and respond to proposals as outlined in slides 29 - 32 21/06/21 | ALL |

| Distributed Restart Project | | MK |
|---|----------------------|----|
| MK is representing ENA on the Distributed Restart project and he introduced the project as per slides 34/35. There is likely to be a need for some minor redrafting of the Dcode, G98 and G99 in the future to accommodate distributed restart zones. | | |
| Actions | No immediate actions | |

| EU Developments | | MK |
|---|----------------------|----|
| MK updated the meeting about the EU developments as per slide 37. | | |
| Actions | No immediate actions | |

| AOB | | MK |
|----------------|------|----|
| None | | |
| Actions | None | |

| Next meeting | | MK |
|---|---|-----|
| The meeting agreed to next meet week commencing 20 September. | | |
| Actions | CMC to arrange the next meeting. 14/06/21 | CMC |