

NOTES

Storage Working Group DCRP 30/09/20 @ 14:00 (2 Hour)

Attendees:

| Name | Initial | Company |
|-----------------------|---------|--------------------|
| Matthew White - Chair | RW | UK Power Networks |
| Chris McCann | СМ | ENA |
| Mike Kay | MK | ENA |
| Eduard Sanz | ES | Connected Energy |
| Richard Harrison | RH | Clarke Energy |
| lan Wassman | IVV | Comap-Controls |
| Charles Wood | CW | Energy-UK |
| Gillian Williamson | GW | ENWL |
| Krishna Anaparthi | KA | Fluence |
| Alastair Shearer | AS | GTC/BUUK |
| William Cass | WC | Last Mile |
| David Hill | DH | NI Networks |
| Alan Creighton - Part | AC | NPg |
| Chris Artist | CA | NPg |
| Sarah Carter | SC | Ricardo |
| Paul Graham | PG | Semcorp |
| Jason Kirrage | JK | Solar Edge |
| Hui Heng | HH | SSE |
| Tony Robinson | TR | TVRI |
| Faithful Chanda | FC | Western Power Grid |
| Mark Horrocks | MH | WSP |

Apologies:

| Name | Initial | Company |
|------|---------|---------|
| | | |



ACTIONS LIST

| No. | Detail | Leader | Date | Complete |
|-----------|---|--------|-------|----------|
| Action 1 | Write to NGESO | MW | 02/10 | ✓ |
| Action 2 | Update DCRP on the working group's progress | MW | 08/10 | ✓ |
| Action 3 | Provide feedback on draft sketches relating to V2G connection points | ALL | 16/10 | ~ |
| Action 4 | Check possibilities of V2G being connected to V1G installation and generating. | SRC | 1610 | ~ |
| Action 5 | Arrange meeting with MW and ENA experts on regulatory implications | CM/MW | 16/10 | ~ |
| Action 6 | Research progress in the EU on these areas | MK | 27/10 | ~ |
| Action 7 | Draft appropriate compliance assurance text for frequency response | MK/SRC | 16/10 | ~ |
| Action 8 | Raise the possibility of frequency droop for V1G with OLEV/BEIS if possible/appropriate | MW/CM | 27/10 | |
| Action 9 | Confirm that the DCRP working group on data exchange is considering storage types | MK | 02/10 | ~ |
| Action 10 | Review Marked up copies of G99/G99 and provide feedback | ALL | 16/10 | ~ |
| Action 11 | Modify consultation questions 5 and 6 as discussed in the meeting | MK | 16/10 | ~ |
| Action 12 | Add a consultation question about the likelihood of <16A V2G | MK | 16/10 | ~ |
| Action 13 | Consider if there are any specific frequency response questions that should be included | ALL | 16/10 | ~ |
| Action 14 | Propose any further consultation questions | ALL | 16/10 | ✓ |



NOTES

| ltem | Focus | Leader | Date |
|------|--|-------------|----------------------|
| 1. | Welcome, Introductions and Acceptance of Agenda | | |
| | After reviewing the agenda, it was accepted by the working group. | | |
| 2 | Review of Open Actions from Last Meeting | | |
| | The open actions were reviewed, and updates given on any open actions. These will remain in the actions list until complete. | | |
| | Noted that a letter to NGESO is still outstanding – MK and MW to follow up. | | 00/10/00 |
| | MW to update DCRP on progress. | MK/MW MW | 02/10/20 08/10/20 |
| 3. | Review Proposed Modifications to Documents | | |
| 3.1 | V2G | | |
| | The group discussed draft connection point sketches for expected single and three phase V2G installations. Feedback from the group to be provided on any implications from these assumptions. | ALL | 16/10/20 |
| | The challenge of ownership and compliance specifically around AC connected devices was discussed. The scenario of V2G (export) compatible vehicles connecting to V1G (import only) charging points was raised and SC agreed to research the technical feasibility and/or risk of this. | SC | 16/10/20 |
| | The likelihood of V2G applying to <16A phase devices/connexions was discussed. Although it was thought unlikely that technology developments would favour such small V2G applications, this could usefully be explored in a consultation question. | МК | 16/10/20 |
| | The working group agreed that there was merit in considering insisting on formal equipment certificates (as defined in EU law) from EV and/or changing point manufacturers for V2G applications. This consideration could be in the wider context of vehicle manufacturers' compliance with a range of transport specific UK legislation. | | |
| | It was agreed that MW and CM would discuss these issues with ENA LCT colleagues and others with a possible view to discussing the strategic and regulatory implications with OLEV and/or BEIS. It was noted that organizations like MIRA Horiba undertake testing and possibly certification in this area. | CM/MW MK | 16/10/20 27/10/20 |



| | MK was asked to reach out to EU contacts and gauge the current direction of travel from an EU, ie to sense the receptivity of EU vehicle manufacturers. | | |
|-----|---|-------|----------|
| 3.2 | Frequency Response | | |
| | The working group noted the current developments of GC0148 and its likely approach to frequency response in emergencies. The draft requirement on slide 10 was presented by NGESO as an alternative in GC0127 but was not progressed, and is also in the EU ESC Expert Group on Storage's formal report to the EC and ACER on updating the RfG (and DCC) for storage. The group agreed that this requirement should be included in the proposed modifications to G99. | | |
| | It was noted that G99 would require some compliance assurance/demonstration text for the proposed characteristic. MK and SRC would develop this in parallel and circulate to the working group by 16/10. | | |
| | In following up an action from last meeting MK explained the discussions that had occurred as part of the EU ESC Expert Group in relation to controllable demand on falling frequency. This had not been taken forward at this time in formally in the EU legal process. However it was noted | MK/SC | 16/10/20 |
| | that the proposed characteristics would be extremely useful to include in V1G EVs. It was suggested that any discussion in 3.1 above with OLEV or BEIS could make this point. | MW/CM | 27/10/20 |
| 3.3 | Drafting | | |
| | The marked-up copies of G98 and G99 have been circulated to the group prior to this meeting, as a detailed run-through of these changes were reviewed via slides at the last meeting the members were asked to consider the marked up copies and provide feedback via email within ten working days. | ALL | 16/10/20 |
| 4. | Proposed Approach to Storage types/Data etc | | |
| | It was proposed to that the work being done in the DCRP data exchange group would decide on the final storage types to be used for the Dcode document update. | | |
| | MK to write a note seeking definitive agreement of this approach to Ian Povey, who is leading the data exchange group. | MK | 02/10/20 |
| 5. | DCRP/MP/20/06 Consultation Paper | | |
| 5.1 | Content and Detail | | |
| | The content of the consultation paper was briefly outlined. The work group will review and provide feedback. | ALL | 16/10/20 |
| | Any feedback received will be reviewed at the next meeting prior to the modification going to consultation phase. | | |



| 5.2 | Consultation Questions | | |
|-----|---|-------|----------|
| | The draft questions from the slide pack were reviewed with a request going out to members to consider if there were any additional related consultation questions that should be asked and to provide feedback on the proposed questions before they are finalised in the consultation paper. | ALL | 16/10/20 |
| | As noted in 3.1 a question will be added in respect of V2G applicability to G98. | MK/CM | 16/10/20 |
| | Consultation Question 5 will be modified to include "vehicle" in front of manufacturer for clarity. | | 10/10/20 |
| | Consultation Question 6 will be expanded to cover the change from demand to generation as well as the minimum requirement to cease charging on falling frequency. | | |
| 6. | АОВ | | |
| | Date of Next Meeting – Poll to be sent out for 10 working days period from 26 October. | | |