

Minutes

Meeting name	Frequency Changes during Large System Disturbances Workgroup (GC0035)
Meeting number	19
Date	25 June 2014
Time	10.00 – 12.00
Location	Teleconference

1) Introduction & apologies

2) Previous minutes

MK welcomed those on the call and everyone agreed that the minutes from the previous meeting were comprehensive and accurate, thus are now considered to be approved. Attendees and apologies can be found at the end of the document.

3) Phase 1 update

In JW's absence, MK & GS provided an update on phase 1 work. MK informed the group that there is likely to be a delay of a month or so before we receive Ofgem's final decision on phase 1. We hope to hear around mid-July. GS added that Ofgem have not indicated that they have reason not to approve the proposals but we are aware, as expected, that they are considering the financing aspect. We hope, therefore, that this means there are no outstanding concerns and following post HSE-Ofgem dialogue, we should have a decision by mid-July.

MK action: Ask JW for update to confirm timescales for decision.

4) Phase 2 work – protection setting risk assessment

4.1) Update on research proposals

GS provided an update on the research proposals. All submissions went through a scoring process run by a subgroup of the Workgroup which resulted in 2 parties being selected for further discussion (Ecofys & University of Strathclyde- UoS). There were particularly appealing aspects to each submission; Ecofys bring international experience from their involvement in similar work with distributed solar PV in Germany and; UoS have access to physical testing facilities. The subgroup therefore proposed that this research be undertaken on a joint basis and both parties are currently in discussion to firstly confirm this will be feasible and secondly prepare a joint proposal. We expect to have an update on the joint proposal by 5th July. The subgroup feels that these parties can satisfy

the requirements of the working group, Ofgem and the HSE. Once we have received the joint proposal, it will also give a better idea of the timescales for the research work.

4.2) Requirement to contact affected parties

GS outlined our requirement to gather information and subsequently contact any affected parties, just as we did in phase 1. The Ofgem view is that the workshops and stakeholder events we held as part of phase 1 were essential and we therefore anticipate that this will be a requirement for phase 2. MK noted that affected parties in phase 2 will differ significantly from those in phase 1 and that we anticipated more retrospective action under phase 1; however we have not got that clarity yet for phase 2. MK questioned the practicalities of contacting everyone with sub 5MW generators in that contacting everyone at a domestic level could be unfeasible. He also stated the importance of giving ourselves time to generate accurate and appropriate contact lists.

MK went on to suggest that, if retrospective action is not required, it will mainly be the manufacturers of new equipment that will need to be aware. Therefore, we should focus our attention on the 1-5MW generators. MK still believes the main focus should be on the manufacturers, developers and trade bodies though. We should also think about what we want to do if it is decided that retrospective application is required.

GS highlighted that the difference between a 6kW and 6MW station is easy to see but that a 3MW vs. 6MW station is more difficult and so we may expect to see retrospective action required for the larger end of the spectrum only. Also important to gather the data so we know if it's possible for us to write out to affected parties. We don't want to realise late in the process that we need to have contacted everyone and for us to not to be prepared. We can think about drafting a standard letter that could be sent out on behalf of the group, using the ENA perhaps, but will obviously require a contact list. We should aim for the best coverage at least effort.

MK added that the number of generators affected above a domestic level should not be overwhelming, although JR suggested there is more than we think. JK suggested that we could contact based on voltage connection rather than generator size. MK was confident that all this data should be held by the DNOs in their respective databases as a code requirement and that we can share this information once collected, confidentiality has been secured and any compatibility issues resolved. No need for names at this point, just an idea of volumes and capacity will suffice. AD added that this data would be useful to have ahead of the research work as the research should be tailored to what is out there.

MK Action: to gather the DG data that ENW hold about their sub 5MW generation and provide a summary to the group as an example. (100kW-5MW)

Group Action: all DNOs to then gather the same data about their customers (100kW-5MW)

4.3) Feeding information into research work

GS stated that most of this had just been covered in the previous section and that the data to be provided as part of the above would cover most of the data requirements for the research work. We

do also require data on typical network configurations. Different network configurations at LV could be challenging to assess. Furthermore, islanded networks with multiple generation technologies need to be considered. GS asked how we could narrow down the potential network configurations across GB for the purposes of the research work. AD suggested that there would be a few categories which all fit into. Or we could at least identify each configuration as similar enough for a given category for research purposes. Too many categories would be difficult, 3-5 categories suggested.

MK suggested that we hold fire until the joint research consortium is formally created and that; it would be worthwhile arranging a workshop with the consortium and a few DNOs to discuss some typical cases. AD welcomed this and added that this information will be important during any risk assessment stage which comes after the characterisation of generation. GS suggested we check if there is any similar ongoing work. E.g. Smartgrid work, workstream 7. MK added that WS7 would probably be a happy recipient of the research we are doing. MK will talk to the Smart Grid forum and GS will talk with NGET colleagues to ensure no duplication of work and to gather more information on their work.

MK action: speak to Smart Grid forum

GS action: speak with NGET colleagues who attend these groups (Alice E, Craig D, Vandad H)

AD advised of the need to source generators for physical testing at TNDC. He asked if anyone had any contacts who might consider lending us some of their equipment. They may wish to charge so MK suggested we make some informal enquiries now. JD has a couple of inverter manufacturer contacts who AD can get in touch with.

JD Action: provide contacts to AD

MK suggested we consider whether trade body members could provide small scale generators / invertors for testing. AD added that we will need them at some point and so we will need to determine how to source them. MK suggested we wait until more work has been done so we will know exactly what we require.

4.4) Stakeholder workshops

GS suggested that we initially plan to follow the same approach for phase 2 as we did for phase 1. This could involve organisation of a stakeholder workshop in London and Glasgow for any interested parties to attend, listen to our plans and see how it may affect them. The different audience may require a different approach however. GS asked if it would be worthwhile trying to secure a slot to speak at the DG technical forum (via ENA) so we can inform the industry what we are proposing and to get some immediate feedback from a knowledgeable audience. Dave Spillett usually runs these. GS asked who we might have access to via the working group that would be appropriate to speak. Next dates for this are the 22nd July and 15th October.

GS Action: look at securing a slot at the next DG technical forum on 22/7.

GM added that we need more information and have a better idea of the audience appetite before we can begin stakeholder work. MK feels that a targeted event would be worthwhile and

manufacturers / generators would be the focus as opposed to owners / operators. KB advised that the ENA DG technical forum is mostly DNOs and members of the DG community, no manufacturers. MK added that it might be useful to flag it up there though and that we should have more in depth discussions with the manufacturers as those who have made the equipment are probably best placed to advise us. They should be the target audience although how we access them all is going to be difficult. GS asked if there were any other relevant platforms that we could use to inform of our proposals as organising our own workshop would likely be time consuming and expensive. KB added that local level DNO meetings might be a good place to start.

Group Action: DNOs to report back to the group on their current individual stakeholder activities.

MK suggested that GS / MK begin thinking about possible material for the DG technical forum in July.

GS/MK Action: start making arrangements for DG technical forum in July including preparation of materials

GS noted that if we get to the point where retrospective changes are required, the owners of plant would then be key. However, on the flip side to this, MK added that engaging with current owners would be pointless if we won't then require them to do anything. We don't want to alarm them unnecessarily.

5) Withstand capability

GS explained how the group terms of reference ask for consideration of withstand capability requirements for user equipment and also network equipment. I.e. Generator ability to ride through a specified RoCoF event. There has been a lot of discussion in Ireland on this around how large existing plant can be assessed in their ability to withstand RoCoF levels. Any work that was completed in Ireland would be useful but it is down to them so we shall proceed at the required pace. GS suggested that NGET put together some high level questions to ask its generator manufacturer contacts about their new plant to gather data on what the withstand capability would be and how we/they could assess existing plant. MK cautioned that distributed generation in the 5MW and above category was not being considered in the Phase2 research work, so the questionnaire may need to include this plant category.

GS / SB Action: to develop questionnaire and circulate for group feedback.

6) Review of actions

It was agreed that a new action log is required for phase 2.

SB Action: create new action log

7) Date of next meeting

Meeting 20 scheduled for 24th July. A physical meeting would be ideal but depending on how things develop in the coming weeks, a teleconference may be more appropriate. Decision will be made and communicated to the group by the 11th July to allow for travel to be arranged.

Action SB: communicate decision to group by 11/7.

8) AOB

None

Summary of actions

Name	Action	No.	By
MK	Ask JW for update to confirm timescales for Ofgem decision on phase 1	1	24/7
MK	Gather DG data that ENW hold about their sub 5MW generation and provide a summary to the group as an example. (100kW-5MW)	2	24/7
All	All DNOs to gather the same data about their customers (100kW-5MW) as per outcome of action no.2	3	22/8
MK	Speak to Smart Grid forum re network configuration work	4	24/7
GS	Speak with NGET colleagues who attend industry groups that cover network configuration work (Alice E, Craig D, Vandad H)	5	24/7
JD	Provide inverter manufacturer contacts to AD	6	24/7
GS	Look at securing a slot at the next DG technical forum on 22/7	7	ASAP
All	All DNOs to report back to the group on their current individual stakeholder activities	8	24/7
GS/MK	Start making arrangements for DG forum in July including preparation of materials	9	24/7
GS / SB	Develop questionnaire on withstand capability to send to manufacturers and circulate for group feedback	10	24/7
SB	Create new action log	11	24/7
SB	Inform group of whether meeting 20 will be a teleconference or physical meeting in Manchester	12	11/7

Future meeting dates

Meeting Number	Date
20	24 th July
21	22 nd August
22	22 nd September
23	27 th October
24	24 th November
25	19 th December

Attendees & apologies

Attendees		
Name	Initials	Company
Mike Kay	MK	ENW (Chair)
Graham Stein	GS	National Grid
Scott Bannister	SB	National Grid (Technical Secretary)
Martin Lee	ML	SSEPD
Kevin Burt	KB	UKPN
John Knott	JK	SP Energy Networks
Joe Duddy	JD	RES
John Ruddock	JR	Deep Sea Electronics
Greg Middleton	GM	Deep Sea Electronics
Jane McArdle	JM	SSE Renewables
Adam Dyško	AD	Uni. Strathclyde

Apologies		
Name	Initials	Company
Julian Wayne	JW	Ofgem
Mick Walbank	MW	Northern Powergrid
Alastair Martin	AM	Flexitricity
Campbell McDonald	CM	SSE Generation
Gareth Evans	GE	Ofgem
Paul Newton	PN	EON
John Turnbull	JT	EDF Energy
Mick Chowns	MC	RWE
Andy Hood	AH	WPD