

Minutes

Meeting name	Information on Small Embedded Power Stations and Impact on Demand
Meeting number	4
Date of meeting	19th June 2013
Time	10:00am – 14:00pm
Location	Holiday Inn, Olympus Avenue, Leamington Spa CV34 6RJ

Attendees

Name	Initials	Company
Graham Stein	GS	National Grid
Vandad Hamidi	VH	National Grid
Brian Roberts	BR	National Grid
Djaved Rostom	DR	National Grid
Ammad Zulfikar	AZ	SSE
Paul Brennan	PB	Waters Wye Associates
Ian Fletcher	IF	Northern Powergrid

Apologies

Name	Initials	Company
Joe Dunn	JD	SP Power Systems
Mike Kay	MK	Electricity North West
Andrew Akani	AA	Western Power
Damien McCluskey	DM	National Grid
Paul Graham	PG	UK Power Reserve
Campbell McDonald	CM	SSE Generation
Saeed Ahmed	SA	GTC

1 Introductions/Apologies for Absence

1. GS welcomed all the attendees to the fourth Workgroup meeting and invited all the participants to introduce themselves to the Workgroup.

2 Main points of meeting

1. GS kicked off the meeting by going through the agenda and the actions that were raised from the previous meeting. The minutes of the preceding meeting were agreed by all the attendees.
2. AZ questioned some of the requirements of the Workgroup, stating that most of the information requested by National Grid is already provided as part of the Week 24 data submissions. Speaking on behalf of SSE, AZ mentioned that even generators up to 50kW were included in the submission. BR explained that the information required needed to be formally requested as part of the Grid Code.
3. PB enquired whether there will be any major impact on the generators. IF explained that all the information requested by National Grid, with the exception of the loss of main protection types and settings, was already available to the DNOS. IF stated that generators could be asked questions relating to the loss of main protection in the future and added that this requirement would have to be added to the Distribution Code.
4. PB questioned the requirement for (the rate of change of frequency) RoCoF settings and asked whether the information was static. BR explained the concept of RoCoF protection and how it is used to prevent islanding on DNO networks. GS added that there could be other types of protection such as vector shift. Following these discussions, the Workgroup suggested the loss of mains protection should not be limited to RoCoF but include all other types of protection.
5. VH queried whether compliance tests are carried out for small embedded generators connected to the DNO network. IF and AZ stated that the smaller generators e.g. domestic installations, only have to confirm that they comply with the relevant codes upon connection. The connection of higher capacity small embedded generators comes under closer scrutiny and witness testing as appropriate.
6. It was agreed within the Workgroup that the request for information relating to Embedded Small Power Stations (ESPS) with registered capacities below 1MW, would not be progressed further due to the lack of information available. The approach to use the Feed in Tariffs (FITs) register proved to be too complicated.

IF mentioned that Northern Powergrid is aware of about two-thirds of the connections of ESPS of less than 4kW contained in the FIT register that National Grid circulated after the meeting on the 16th of April 2013. However these are not separately metered and therefore would not be part of the Week 24 submissions.

7. GS addressed the alignment of the definitions of terms in both the list of requirements and the Transparency Regulations (TR) and explained that TSOs are obliged to publish information relating to generators under the TR. GS agreed to send the final version of the TR to the Workgroup and to clarify the implementation date stated therein.
8. AZ queried whether National Grid had addressed issues around active network management whereby the output of generators could be restricted depending on the capacity of connections. The Workgroup confirmed that DNOs would inform National Grid of any network management plans via the statement of works process.
9. IF expressed his concern about the different definitions of fuel types contained in the Long Term Development Statement (LTDS) and the Regulatory Instructions and Guidance (RIGs) and

explained that creating another set of fuel types would complicate things for DNOs. It was agreed that the DNOs should provide the fuel types in accordance with the definitions of the LTDS and as best practice, adopt the definitions of fuel types of the Energy Network Association (ENA).

10. The Workgroup reviewed the presentation slides from Jack Barber, which showed the impact of embedded generation on demand forecast error. The main conclusion that could be drawn from the presentation was that there was a tendency to over forecast demand due to the demand suppression caused by embedded generation. There was a further action on Jack Barber to provide additional explanations on the graphs.
11. The Workgroup then discussed the workgroup report. GS explained that the next stage would involve presenting the report to Grid Code Review Panel (GCRP), who will decide whether the proposals are reasonable. It was agreed that the report would be presented at the GCRP meeting in July, however if this date cannot be met, the next meeting would be in September.
12. IF recommended that the Workgroup report lines up with the terms of reference defined for the Workgroup. This is to ensure that the scope of the group was met.
13. The implementation date for the DNOs to submit the requested information was discussed within the Workgroup. National Grid suggested the 2014 Week 24 submission as the target date but the DNO representatives felt that this target was too optimistic. The latter proposed that the changes could come into effect in the 2015 data submission, which would give DNOs enough time to gather and process any additional information. Following these discussions, there was an action on National Grid to assess whether there would be any considerable benefit if the implementation date was 2014 instead of 2015.
[Post meeting note: Since the Distribution Code will have to be amended to reflect the new requirement for the loss of mains protection types and settings, National Grid agreed that 2015 would be the most appropriate date]
14. The changes to the Data Registration Code (DRC) were discussed within the Workgroup, principally addressing the format of the table in schedule 11. BR stated that schedule 11 would only illustrate a typical example of what the table could look like. The actual format of the spread sheet which DNOs would have to populate will be developed by National Grid and will be subject to consultation. IF asked National Grid to consider the format of the LTDS when designing the spread sheet in order to facilitate the information exchange.
15. VH enquired whether the data submitted in schedule 11 could be extended to 10 years instead of 8 years in line with the Electricity Ten Year Statement (ETYS) and queried whether the LTDS contained information about future generation connection. IF and AZ explained that the LTDS contained information about already connected generators and accepted offers. IF did not welcome the idea of extending the schedule 11 to ten years stating that this would be outside the scope of the Workgroup.
16. The location of the primary substation to which each ESPS connects to was discussed within the Workgroup. AZ suggested that the post code could be given as the location but BR maintained that that geographical coordinates be used instead as the postcode would not necessarily reflect an accurate location. It was agreed within the Workgroup that the location of the primary substation would be specified using geographical coordinates consisting of latitudes and longitudes.
[Post meeting note from IF: Some embedded generators connect higher up the network so the location of the primary substation would not be applicable in those instances. The location of the higher voltage substation would then need to be specified]

3 Changes to the Workgroup Report

The following section describes the suggested modifications to the Workgroup report

17. Section 1 should also capture the changes to the DRC schedule
18. To use the term loss of mains protection instead of RoCoF protection throughout the report
19. To include the quantified benefits of providing the additional information with respect to network planning and demand forecasting
20. Sections 3.5 - 3.8 to be moved to Section 6 "Workgroup Recommendations".
21. To change the title of section 4.29 to "Voltage or power factor control of each ESPS"
22. To change the title of section 4.48 to "Alignment to European codes"
23. To add the requirements of the Transparency Regulations to section 4.48
24. To specify the date of the first submission
25. To expand section 5.1 to include the changes to the DRC
26. To add generators to section 5.4
27. To verify whether the proposals are consistent with the Transparency Regulations
28. To add the Distribution Code to "Impact on other industry documents"
29. To add unique name instead of site name in section 6.2

3 List of Actions

30. **National Grid** to quantify the benefits of obtaining additional information about ESPS for both network planning and demand forecasting
31. **National Grid** to provide further explanation about the demand forecasting errors
32. **National Grid** to provide an example of the new Schedule 11 spread sheet to the Workgroup
33. **National Grid** to confirm the implementation date stated by the Transparency Regulation
34. **National Grid** to send the slides presented at the last meeting to Ammad Zulfikar.

4 Suggested ways forward

35. Actions will be dealt with by relevant parties.
36. An updated Grid Code Workgroup will be circulated for comments and the final version will be presented at the Grid Code Review Panel (GCRP) consultation in September 2013.

5 Date of Next Meeting

37. Not Applicable