nationalgrid

Minutes

Meeting name	Demand Control OC6 Workgroup
Meeting number	5
Date of meeting	21st November 2013
Time	10:00am – 14:00pm
Location	National Grid House, Warwick Technology Park, Gallows Hill, CV34 6DA

Attendees

Name	Initials	Company
Audrey Ramsay	AR	National Grid
Damien McCluskey	DMc	National Grid
Jason Bareham	JB	National Grid
Paul Roebuck	PR	National Grid
Nigel Buckland	NB	Western Power
Bill D'Albertanson	BA	UK Power Networks
Andy Dixon	AD	Scottish Power
David Mobsby	DM	Scottish and Southern Power Distribution
Alan Creighton	AC	Northern Powergrid
Paul Brennan	PB	Waters Wye Associates

Apologies

Name	Initials	Company
Steve Cox	SC	Electricity North West
Graeme Dawson	GD	RWE Npower

1 Introductions/Apologies for Absence

1. AR kicked off the meeting by going through the agenda

2 Main points of meeting

2. PR presented slides showing National Grids findings as a result of Exercise Juniper.

3. The slides detailed information about the Voltage Reduction tests that took place in October 2013 where NGET control room issued Demand Control instructions to individual DNOs. The 12 England and Wales DNOs as well as Scottish Power carried out a 3% Voltage Reduction test. This was to assess the actual demand reduction achieved and the time taken to see the affect on the system. PR noted that all of the demand tests went well, and the communication between both parties proved to be successful.

4. PR slides showed the following results;

   - All Distribution Network Operators were able to enact the Demand Control Instruction in a timely manner;
   - With only a few localised exceptions, all Control Systems performed reliably;
   - Demand reductions varied considerably, but none came close to 5%; and
   - Time to implement was generally good.

5. National Grid used some robust data analysis to determine the percentage of demand reduction within the 5 minute time window, however only a limited amount of data was received back from the DNOs. In cases where DNO data was received, significant discrepancies in the data compared with National Grid values were identified.

6. On average demand reduction achieved through Voltage Reduction was about 1.5%. PR stated that this does not give 'Stage One' of Demand Control its own.

7. The main advantage of choosing Voltage Reduction as a means of Demand Control is that customers are not disconnected. All parties were unanimous on the desirability of retaining Voltage Control as a method of Demand Reduction for as long as it provides significant results.

8. All DNOs confirmed that they did not receive any customer complaints in relation to the Voltage Reduction testing that took place in October. No customers were impacted as a result of the tests.

9. PR slides concluded;

- 3% Voltage Reduction does not give 'Stage One' Demand Control on its own;
- About 70% of ultimate Demand Reduction was seen at T+5; and
- Demand reduction can be difficult to assess at the time of testing, even with a flat load profile.

10. The DNOs stated that they can deliver a 5% Demand Control at any time through disconnecting customers. However, all the DNO's and National Grid only want to resort to implementing Demand Disconnection if absolutely necessary to meet NG's obligations.

11. The general view within the Workgroup was that DNOs can achieve 70% Voltage Reduction within 5 minutes, with the remaining 30% taking in the region of 10 minutes is acceptable.

12. Demand reduction, either by Voltage Reduction (first choice), or by Demand Interruption (second choice) needs to be able to give quantifiable results in a defined time to avoid either issuing too much or too little. Two options were discussed by the Workgroup;

a) 20% Demand Reduction in 4 blocks of between 4 and 6%; or

b) 3% Demand Reduction in 2 Stages of Voltage Reduction, with the remaining 17% through Demand Disconnection. In this scenario the obligation on DNOs would be to deliver two 3% Voltage Reduction Stages. The demand reduction achieved by each stage is expected to deliver 1.5% reduction per stage but the actual reduction will vary. Ongoing Voltage Reduction tests will help National Grid develop a view of the demand reduction likely to be achieved on an ongoing basis.

13. The Workgroup discussed the timescales for issuing Demand Control instructions, and the DNOs stated that for this to work most effectively they would require warning of at least 30 minutes before they needed to be instructed. The reality is National Grid can not guarantee to give 30 minutes notice, but would try to give as much notice via System Warnings as possible depending on the speed of operational events. Discussions around the information process and how this should be carried out was also mentioned, and National Grid stated that this would be one of the recommendations of the Workgroup report that a procedure document should be developed that clearly shows the process for following Demand Control instructions.

14. All DNOs agreed that this Voltage Reduction test was very useful and recommended that these tests should be more regular going forward.

15. Learning points as a result of the Voltage Reduction tests;

- Fax machines - DNO names and numbers need to be kept up to date;
- At the time of the tests it was hard, at these levels, to discern the impact of the Voltage Reduction. At a time of rapidly changing demand, e.g. morning pick up, it would be impossible;
- Speed of implementation is key at times of System stress – the ability of some DNOs to implement Demand Control Instructions across several franchise areas needs to be used;
- Customer Demand is variable across, and presumably within, areas. At different times of day or year, it will be different again still; and
- Time taken to organise the issuing of instructions was significant – we will need to look at multiple Fax machines if, as seems likely, we need to instruct most / all DNOs at once.

3 List of Actions

16. PR to provide AC with further analysis of the Voltage Reduction tests for Northern Powergrid.

17. AR to finalise the Workgroup Report and circulate to all Workgroup members for review and comment. The Workgroup Report will be presented at January's GCRP.

4 Suggested ways forward

18. NGET to potentially set up a tele-con to agree the Grid Code legal text with the Workgroup (if required to do us).

19. The Workgroup needs to draw this back to the scope of the 'Terms of Reference' and deliver Workgroup report back to the GCRP.

5 Date of Next Meeting

20. There are no further plans to hold another Workgroup meeting.