Minutes

Reliability and Safety Working Group (RSWG) meeting 3 May 2012

From	johnsT	8 May 2012
Date and time of Meeting	3 May 2012, 10:00	
Location	Ofgem, Millbank, London	

1. Present

Phil Mann (PMa)	Western Power Distribution (WPD)
Ruth Crascall	Western Power Distribution (WPD)
Ian Povey (IP)	Electricity North West (ENWL)
Steve Cox (SC)	Electricity North West (ENWL)
Mark Nicholson (MN)	Northern Powergrid (NPG)
Iain Miller (IM)	Northern Powergrid (NPG)
Rob Friel (RF)	UK Power Networks (UKPN)
Steven Mockford (SM)	UK Power Networks (UKPN)
Jane Wilkie (JW)	Scottish Power (SP)
Graeme Vincent (GV)	Scottish Power (SP)
Paul Mitchell (PMi)	Scottish & Southern Electricity Distribution (SSE)
John Smart (JS)	Scottish & Southern Electricity Distribution (SSE)
James Hope (JH)	Ofgem
Thomas Johns (TJ)	Ofgem
Martin Hughes (MH)	Ofgem

2. Introductions and Working Arrangements

2.1. TJ introduced the meeting and the group did introductions around the room. TJ then ran through the arrangements for minute taking and Ofgem's preference for attributing points made to specific individuals within the published minute on Ofgem's website.

3. Overview/ background of DPCR5 regime

3.1. TJ explained that as the Load Index (LI) requirement set for DPCR5 features many of the RIIO principals, Ofgem's starting point for RIIO-ED1 work is to build on what is already in place. He confirmed that it was Ofgem's hope that, where possible, any new challenges facing the industry in ED1 could be built into an amended version of the arrangements already in place.

3.2. IM emphasised the importance of remembering how the DPCR5 LIs interact with the relevant allowance for network reinforcement, which was derived from the Ofgem model which looked at both load growth and the efficiency of DNO delivery on reinforcement solutions. He underlined the importance of not using the LIs to set allowance.

4. Feasibility of extension of LI secondary deliverables into lower voltages

4.1. MH summarised the DNO responses to the action on all DNOs from the previous meeting on the feasibility of extending the LIs to incorporate lower voltages to address any potential sizeable uplift in DG connected at LV.

4.2. SC explained that in his view during RIIO-ED1 DNOs would need to manage DG and Demand on a net basis as they do now. He explained that he felt the group's priority should be to set some general rules around how the changes in generation loadings should be treated within the LIs rather than redesigning the entire regime. He noted that he felt the key issue was enabling the LIs to account for the commercial suppression of peak demand.

4.3. IM suggested that whilst this was definitely the case for the majority of substations which are demand-centric, there will need to be further thinking on how these will be accounted for, as they are already beginning to occur within NPG's networks. JH suggested that IM and SC should do some further thinking about how generation-centric sub-stations should be dealt with within the LIs.

Action point: Further thinking/ work on how generation-centric substations can/ should be accounted for in the LIs	**Person – SC and IM by 14.06.12**

5. Interactions with Flexibility and Capacity Working group (FCWG)

5.1. JS provided an update on SSE's views on the work undertaken and recent developments of the FCWG. The group briefly discussed the high-level principal of a "time to connect" incentive being developed in the FCWG. IM and JH both agreed that there were some issues that need clarification if a symmetrical incentive is developed (ie: do all customers fund DNO incentive payments, or just connection customers and likewise, who is compensated for poor DNO performance).

5.2. RF explained that it was important to distinguish between the capacity needed to connect and the time it takes to connect, but supported a "time to connect" incentive as a potential means of assessing the trade-off between these elements.

5.3. JS explained that in SSE's experience, using two fairly typical large-scale connection types, the type of connection being carried out often dictated how the time taken to deliver compared to customer expectations:

- Newly built development: DNO often ready ahead of the Customer's timeline and waiting for customer
- Data centre located in an old building: Customer usually ready ahead of DNO and awaiting required reinforcement

5.4. SC built on this point to raise the question of whether this high-level incentive was to be designed to cover new connections, or all new load added to the network. He used the example of heat pumps to explain how the Cost apportionment (CAF) rules might impact on RIIO-ED1. He explained that customers were able to connect heat pumps and as long as the customer remained within their contracted load, under the CAF rules, DNOs were unable to charge for any work to accommodate the extra load.

5.5. JH explained that the intention was for the September update paper to give a range of options as to how such an issue may be addressed within the Price Control and explained that understanding the likely impact of this sort of issue was the driver for Ofgem's intention to get an early view of areas of cost for the RIIO-ED1 period and understand the level of volatility through the use of the energy scenarios developed by DECC. MN felt that

Ofgem have thus far been unclear on how they expect the DECC scenarios to be used within business plans which has not been helpful to DNOs in giving any kind of early view.

5.6. SC suggested that DECC's core scenario, as being developed through Work Stream 3 was a suitable starting point, but that some direction from Ofgem on the suitable bandwidths DNOs have for movement away from the central scenario would be important. SC explained further that the scenario work in Work Stream 3 is looking at the likely growth/ uptake in new technology as well as the relative costs of a "smart-grid solution" vs. "conventional" solution. He explained that whilst the first of these elements is wildly volatile, the other is not and will tend to gather around a definable range. MN added that locational clustering was one of the biggest issues leading to uncertainty and that debates around future unit costs are more relevant to asset replacement (not covered by the LIs).

5.7. JH emphasised that Ofgem have a range of well defined and developed options and techniques for dealing with volume uncertainty. SC raised the issue of over which timeframe we are looking to apply cost decisions within business plans. JH agreed that this was an important point and suggested that it may be appropriate to look at setting LIs and HIs (Health Indices) over a longer period of time.

5.8. IM raised the issue of taking into consideration the likely drop in conventional technologies if the majority of DNOs have at a particular point, moved on to the "smarter" technologies. Additionally he raised the issue of the likely costs and life expectancy of the electronics required to support any smarter solutions. JH reiterated that Ofgem does not intend to favour one approach over another but that part of a "well-justified business plan" should be that it stands up to challenge from Ofgem.

5.9. PMa added to the discussions on the progress of the FCWG by suggesting that since a lot of the discussion had centred around headroom and spare capacity there was perhaps a need to understand the differences between circuit "utilisation" and the LI data on substation "Loading". He argued that whilst the LIs could operate as a proxy for system utilisation they are not a true measure of network utilisation. He believed that a lot of further work might be required from the group should requirements arise from the FCWG for a true utilisation measure. In view of this, he questioned whether it was appropriate for the group to wait for the FCWG to define their requirements for a suitable measure, or whether the group should attempt to anticipate the likely requirements from the FCWG and move forward with developing a suitable measure based around assumed requirements.

5.10. PMa added that in order to consider network utilisation, LIs might need to be extended to reflect the utilisation of circuits in the higher voltage networks supporting the substations, particularly issues arising around measuring utilisation in meshed networks, and also consider more than first circuit outage scenarios, where networks are required to provide security of supply support under second circuit outage scenarios.

6. Accounting for uncertain load growth in RIIO-ED1

6.1. The group discussion moved on to discuss the impact of clustering of new loads on network loading. SC explained that specific gas distribution outages, where they lead to a large increase in demand on the DNO network in a very short period of time, can give a good indicator of what fails first once a localised spike in demand occurs.

6.2. SC went on to identify the following issues as being the key issues in terms of the level of uncertainty around load growth and DG/ low-carbon technology uptakes;

- Non-socialising of reinforcement to cater for Photo Voltaics (PV) will drive the practise underground with DNOs not being informed of installations. If this approach is extended to heat pumps they may well become uneconomically viable.

- Additionally, in the case of Electric Vehicles (EVs)where there is a lack of clarity on whether/ which costs are socialised, there is a serious question over who pays for community charging points (ie: in supermarkets etc)

6.3. JH questioned whether these issues had been raised by ENWL in the connections working group (CONWG) and reflected on the interplay between the FCWG, RSWG, CONWG and Cost Assessment Working group (CAWG) on issues such as this.

6.4. MN suggested that these types of issues around barriers to low-carbon development in RIIO-ED1 should be identified by the FCWG and then passed onto the relevant groups to address within their remit of working.

6.5. TJ presented some analysis carried out on the materiality of LV reinforcement within the DNO's Forecast Business Plan Questionnaires for DPCR5. It reflected that LV reinforcement made up approximately four per cent of all forecast reinforcement and less than one per cent of the overall price control and reflected the huge increase in cost required for this area of expenditure to trigger the load related reopener. In response to some questioning of whether this sort of issue was something that should be addressed through the CAWG, TJ explained that, in terms of understanding what new elements will need to be addressed through the LIs in RIIO-ED1, it is first important to determine whether a particular issue is material enough to warrant a separate treatment within the overall price control, material enough to require a change to the LIs, or small enough that it is sufficient to take into consideration in ex-post review of DNO performance against the LIs.

6.6. SC accepted that the analysis was valid and raised the correct questions for the group in terms of LV reinforcement but argued that there is also a sizeable amount of LV reinforcement that is captured within connections reporting. IM added that in some areas, the uplift in LV reinforcement could potentially be very high, although he also accepted there would be some logistical constraints on what would actually be deliverable within the price control period.

6.7. JH suggested that the analysis perhaps suggested that the group did not need to roll out LIs to the LV network as a matter of course but perhaps it may be appropriate to develop some sort of interim approach until the smart metering roll out takes full effect.

6.8. IM suggested that the load growth model used at DPCR4 and DPCR5 could be a useful starting point.

Action point: Circulation of circulated/ further work developed from Ofgem's DPCR4 and DPCR5 load growth model	**Person –IM by 14.05.12**
Action point: DNOs to comment on IM circulated work/ analysis	**Person – ALL by 25.05.12**

7. Building criticality into LI measure

7.1. RF presented on UKPN's development work on a load prioritisation model which used the different levels of activity on substations to determine an anticipated amount of time before intervention is required. MN questioned whether this activity level output would deviate from a model driven purely by load. RF clarified that the activity worked mainly as a timing factor to sometimes prioritise substations that weren't quite in LI5 and requiring intervention but had a sharply increasing activity level where additional load would require a lot of work. He confirmed that growth would likely be the main driver for the prioritisation. PMa and JH both questioned whether this perhaps suggested that UKPN had calibrated their LI categorisations incorrectly.

7.2. RF explained the background issues that UKPN have encountered working in London, where specialised connections have very specific requirements which have led UKPN to consider it best to understand the specific requirements of the new connectees as they connect, rather than prejudging incorrectly.

7.3. PMa questioned how the process described by RF dealt with criticality, as his interpretation of this concept was an amalgam of probability of failure and the consequences of failure. RF replied by stating that the UKPN approach dealt with the probability of growth at a substation and incorporated the consequence of overloading the substation and not providing a timely connection.

Action point: Circulation of UKPN's further development of priority loading index	**Person – RF by 07.06.12**
Action point: DNOs to comment back on UKPN's work	**Person – All DNOs by 25.05.12**

8. Totex Efficiency

8.1. JS presented SSE's views on the needs to look at things from a totex efficiency point of view. Js questioned how frontier performance would be judged on outputs and secondary deliverables; would it be delivering on outputs and spending allowance, or delivering outputs and underspending on allowance? JH explained that there was no easy correct answer to this question as the fast-tracking process could theoretically lead to a DNO with higher unit costs, and thus a higher allowance, being fast-tracked based on their acceptance of a lower Weighted Average Cost of Capital (WACC). It may be inappropriate to directly compare this DNO's efficiency cost against another, which has lower unit costs and thus a lower allowance but a higher WACC.

Action point: Identification of key areas to be included in next agenda	**Person –DNOs by 07.06.12**

9. Date of next meeting

9.1. The next Reliability and Safety Working group will take place on 17th May 2012 and cover Quality of Service and the Interruptions Incentive Scheme.

9.2. The next Reliability and Safety Working group that will cover the Load Index work covered by this meeting will take place on 14 June 2012.