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Notes

Reliability and Safety Outputs Working Group – 10 September 2010

Reliability and Safety Outputs Working Group	From	Ofgem	10 September 2010
	Date and time of Meeting	10 September 2010 10 am – 3 pm	
	Location	Ofgem Conference Room 1 – Millbank, Ofgem Glasgow (via videoconference)	

1. Present

1.1. A full list of attendees is shown below.

John Mackay	Ofgem
Brett Everett	Ofgem
Daniel Newby	Ofgem
Nicola Cross	Ofgem
Paul Branston (items 2-4)	Ofgem
Nicholas Russ	Ofgem
Chris Watts	Ofgem
Grant McEachran	Ofgem
Hedd Roberts	NGET/NGG
Michelle Clark (items 2-5)	NGET
Alan Michie	SPTL
Angus Campbell	SPTL
Aileen McLeod	SHETL
Landel Johnston	SHETL
Julian Delic (items 2-5)	HSE
John Steed (items 2-5)	HSE

2. Apologies

2.1. Alex Murley (Renewable UK)

3. Safety – Gas and Electricity

3.1. The working group provided comments on the safety straw man proposed by the TOs at the 25 August 2010 meeting. It was noted that the TOs and HSE are involved in the 'Powering Improvement' programme which is designed to improve staff safety within the energy industry (generation and networks). It was suggested that some of the data captured under this programme could be used as primary outputs and/or secondary deliverables.

3.2. The 'Powering Improvement' programme builds on work undertaken as part of SAFELEC 2010. This programme reports against a series of numeric and non-numeric targets and is available from the ENA website. However, it was also noted that it could be difficult to create a primary output from this data as historical figures are typically very low and irregular.

3.3. The group discussed the option of using competence as a leading indicator. The HSE document on developing process safety indicators was circulated at the meeting. This illustrated how the HSE works with other stakeholders to monitor safety performance.

3.4. Another option suggested was for safety to be assessed upon a basket of determinants as proposed by TOs. Determinants could be assessed by looking at the perceived value to the TO (e.g. Monetary cost of safety incident compared against the cost of implementing safety measures.)

Action	Person - By
• *Working group to review the data reported as part of the 'Powering Improvement' and 'SAFELEC 2010' programmes. TOs to provide comment on the suitability of these measures as safety outputs and a revised safety straw man.*	*All – 24 September 2010*
• *Ofgem/TOs to review HSE document 'Developing Process Safety Indicators' http://www.hse.gov.uk/pubns/priced/hsg254.pdf to assess possible secondary deliverables for public safety.*	*All – 24 September 2010*

4. Reliability – Electricity Secondary Deliverables

4.1. The TOs provided comments on secondary deliverables following their action from the 27 August 2010 meeting.

4.2. The working group discussed the network output measures (NOM) mechanism implemented in DPCR5. One participant argued that the mechanism could be too focused on the volumes of assets replaced. However, it was noted that this is not the intention of the mechanism. TOs have the opportunity to change their work plan volumes providing they can demonstrate that the changes represent better value to consumers.

4.3. The working group discussed the definitions of criticality used in the current TPCR4 NOM. It was noted that criticality is defined qualitatively and attempts were made to align the definitions across plant types. It was noted that the aligning criticality can be difficult unless there is a common "currency" of consequence across plant types.

4.4. The working group discussed how best to use the NOM for assessing overall network health. It was noted that it is still difficult to assess quantitatively how increases or decreases in expenditure impact on the overall network health. In particular, it would be useful for the TOs to be able to demonstrate how they traded off between the different baskets of plant types when developing their plans and justifying changes from these plans.

4.5. It was suggested that the number of incidents per activity type could be used as a secondary deliverable for safety. However, it was also noted that it would be difficult to gauge what would happen to safety levels if more money was spent.

Action	Person - By
• *TOs to provide comment on the alignment of criticality measures, how these are used to make risk trade-offs between plant types and how they can be captured in an overall measure of network risk. This should include information on how risk trade-offs are made when preparing forecasts, during the price control and as part of the ex post assessment of expenditure. TOs should also consider how they would communicate any changes from their original work plan to Ofgem and customers.*	*TOs – 24 September 2010*

• *TOs to provide material to the HSE on the definitions of criticality used in the TPCR4 network output measures.*	*TOs – 22 September 2010*

5. Reliability – Electricity Primary Outputs

5.1. The working group discussed the joint TO methodology for estimating energy not supplied (ENS).

5.2. The working group discussed the TO proposal to define a "relevant loss of supply event" as one that causes electricity not to be supplied to a customer for 3 minutes or longer (subject to several exclusions). It was noted that this definition:

- is consistent with that applied to the GB distribution networks; and
- is intended to ensure that the successful operation of Delayed Auto-Reclose (DAR) equipment does not form part of the methodology, since this would effectively pick up a design response to manage weather events (e.g. lightning).

It was agreed in general that there should be consistency between the distribution scheme (for example exclusions, definitions) and the transmission scheme.

It was noted that there is an argument for including events of less than three minutes as customers are exposed to supply interruptions and place a value on reducing these. It was also noted that in some cases the magnitude of ENS can be significant if the event affects particular demand centres.

5.3. The working group discussed the proposed exclusion of events that cause electricity not to be supplied to 3 or less directly connected parties. It was noted that:

- this exclusion is used in the current NGET Transmission Network Reliability Incentive (TNRI) as a proxy of events involving customers that have chosen to pay for a lower standard of connection;
- TOs are able to identify whether a fault has occurred on a part of the network where the customer has chosen a lower standard of supply; and
- although some customers may have chosen a lower standard of connection, acceptable levels of reliability should still required on the main part of the network.

5.4. The working group discussed the TO proposal to exclude events resulting from planned outages defined in the Grid Code. The following matters were discussed:

- Several participants noted that they would not want to include planned outages in an incentivised output measure. It was argued that an incentive scheme that includes planned outages would create an incentive for the TOs not to reinforce the network. It was also noted that it is difficult to accurately forecast ENS associated with a planned outage program.
- However, it was questioned as to why TOs should be incentivised differently to Distribution Network Operators (DNOs) where customers value availability of supply affected by planned and unplanned events. It is important that TOs are exposed to the economic impact of such losses of supply.

5.5. The working group discussed loss of supply events triggered on adjacent systems (including a recent event at Windy Hills). It was noted that responsibilities for these

events should be clearly defined to avoid complicated investigations after the event. One participant suggested that one way of addressing the issue would be to allow the TOs to agree between themselves how much of the total ENS should be apportioned to each TO.

5.6. The working group discussed the TO proposal to exclude events resulting from third party damage and emergency damage to comply with ESQCR. It was noted that these types of events tend to occur 2-3 times a year and relate to public safety issues (for example a fire adjacent to a site). One participant noted that it would be desirable only to exclude those events where the TO had taken all reasonable steps to prevent the event.

5.7. One participant suggested that the definition of third party damage needs to be clarified. The current definition used in Distribution could be applied to Transmission.

5.8. The working group discussed several areas that affect the appropriate target levels of performance for ENS.

- It was noted that historical data on performance prior to the introduction of BETTA is available but there may be differences in relevant definition of ENS.

- It was noted that predicting the impact of increased network activity on the MWh of ENS is difficult.

5.9. The working group discussed several areas of the ENS incentive framework.

- The group discussed the option of drawing on information from DPCR5 on customer willingness to pay in deriving a value of lost load (VOLL). It was noted that there can be large differences in estimates of VOLL.

- The group discussed the revenue neutral dead-band in the current ENS scheme. One participant questioned the incentive properties of the dead-band. Another noted that they failed to see the justification for a dead-band when setting targets for the longer-term. .

Action	**Person - By**
• *TOs to provide a response to Ofgem's correspondence on the joint methodology for estimating ENS.*	*TOs- 23 September 2010*
• *Ofgem will provide information on the distribution licence conditions for DNOs in relation to CI and CML for events resulting from third party damage and emergency de-energisation to ensure compliance with ESQCR.*	*Ofgem – 23 September 2010*
• *TOs to provide Ofgem with comments on the ENS incentive framework including the value of lost load (VOLL), revenue neutral dead-bands and the use of caps and collars.*	*TOs – 24 September*

6. Constraints

6.1. The working group discussed the issue of network constraints and the possibility of developing associated incentivised outputs.

6.2. The working group discussed the three potential mechanisms for incentivising the optimisation of constraint costs These are:

- Greater engagement between the TOs and Ofgem (as per the Electricity Networks Strategy Group (ENSG)) and regular review by the regulator of TO constraint decisions and behaviours.

- An incentive based on a variable rate of return. Here, the TOs carry the risk for delivering capacity based on user commitment and on anticipatory connection volumes. Stated crudely, this mechanism translates into greater rates of return for TOs for higher utilisation of network infrastructure, and lower rates of return for lower utilisation.

- Placing the risk with the SO in such a way that they will need to put in place contractual arrangement/incentives with the TOs in order to maintain required levels of network security. In this case, the TO would receive its incentive (and financial reward) and deliverables directly from the SO.

6.3. The working group discussed difficulties in developing constraint-based outputs.

- It was noted that, looking ahead under Connect and Manage, the challenges lay in the realm of anticipatory investment.

- Anticipatory investment is challenging when many network parameters are known; however, when future constraints and generator connection volumes (as well as timing of those connections) are difficult to predict, this type of investment becomes difficult.

6.4. The working group discussed issues concerning associated with longer-term anticipatory investment. It was noted that::

- the cost of constraints are extremely volatile;

- it is difficult to plan investment over the next 8 – 20 years based on current or recent constraint costs; and

- most reinforcement of the existing transmission infrastructure is due to the requirements prescribed by the Connect and Manage policy, not increasing levels of network demand.

6.5. The working group discussed issues associated with Connect & Manage .

- It was noted that, under Connect and Manage, the TOs can self derogate from the SQSS but over time the network must be restored to compliance.

- It was noted that this can only result in increased constraint costs as TOs will still be required to operate in accordance with SQSS standards.

6.6. There was some discussion around the revenue drivers and incentives for the enabling (local) and wider (Main Interconnected Transmission System (MITS)) networks. It was noted that the number of generator connections could be a suitable output to incentivise investment in local infrastructure, but that this would no longer be an effective output for the wider / deeper network due to Connect and Manage. There is a need to consider what alternative outputs can be applied.

Action	**Person - By**
• *TOs to provide Ofgem with a proposal for possible outputs and incentive mechanisms associated with constraint costs and anticipatory investment.*	*TOs – 24 September*

7. Date of next meetings

The working group agreed to hold subsequent meetings on:

- 30 September 2010 – 9.30 AM; and
- 1 November 2010 - AM.