

Mark Cox
Ofgem
9 Millbank
London SW1P 3GE

Inveralmond House
200 Dunkeld Road
Perth PH1 3AQ

Tel: 01738 456571

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Dear Mark,

Re: Roll-out of smart meters at all secondary transformers

Following Ofgem's DPCR5 update letter dated 6 November, we would like to respond to the proposals regarding the measurement of distribution losses.

We recognise that the returns being made under the losses incentive in DPCR4 will be of concern to Ofgem, particularly given the apparent focus across all 14 DNOs on non-technical rather than technical losses. In view of this, we believe it is essential that Ofgem retains the 5-year element of the DPCR4 incentive to ensure that any adjustment to settlements data by the DNOs is given time to fully play out and incentive revenues are a genuine reflection of overall losses performance.

However, whilst we understand the background to Ofgem's (and WPD's) suggestion to install smart meters on the LV side of all secondary transformers, in our view such action will have more detrimental than beneficial effects:

- The costs and timescales to install such metering would be excessive. We have over 50,000 ground and pole mounted transformers in each of our licensed areas and estimate the costs for installing appropriate meters, i.e. with higher tolerances, to be c.£65 m in the SHEPD area and £115 m in the SEPD area. We believe it would take 3 to 4 years to complete a project of this size;
- The exercise would raise both safety issues, if live working, and customer interruption issues if there were planned outages;
- There would be no reduction in losses, simply improved measurement down to the transformer. Significant losses downstream of the transformer will still not be measured (LV faults, theft, unmetered supplies, settlement errors) and will need to await domestic smart meters; and
- Effort would be better focused directly on loss-reduction measures.

Further to this, given the incremental level of primary and secondary transformer replacement planned for DPCR5 (where new, low loss transformers could be fitted), the general level of

metering and algorithm accuracy will be outwith the range of loss savings, i.e. these meters would not be sufficiently sensitive to pick up the predicted savings from low loss transformers (hundredths of a percent reduction in losses) during the DPCR5 period. As a result, the meters would be unable to validate the input mechanism. There would also be additional ongoing costs of collecting, collating and assessing the metered data to be offset against the predicted loss reduction.

We would also express some concern over the type of 'smart' meter to be fitted. All smart meters need some form of communications infrastructure and it would seem inappropriate (and potentially counter productive) for DNOs to develop a separate, geographic based solution ahead of any national roll out of smart meters to the end customer.

Furthermore, it is important to understand that increased network utilisation (e.g. through 'sweating' the assets) or errors in settlements could have a more significant and adverse effect on losses, offsetting the benefit of the incremental installation of low loss transformers.

Finally, it is worth noting that our stakeholders have raised concerns regarding whether the proposed money to be spent reducing the environmental impact of our DNO activities is the best focus for customer spend. Arguably, customers' money could be used to much greater environmental effect in other areas of the supply chain.

In summary, we believe the capital and operational costs, together with the timescales to fit smart meters at all secondary transformers would significantly outweigh any potential benefits of increased measurement accuracy. In our view, the planned universal roll out of smart meters to all domestic customers will provide the necessary infrastructure to better assess losses (including low voltage) on our networks. Effort would be better focused directly on loss-reduction measures such as the deployment of low-loss transformers or over-sized cables.

If you have any questions on the above, please do not hesitate to call me.

Yours sincerely,

Malcolm J Burns
Regulation Manager