



**SP ENERGY
NETWORKS**

Losses Incentive for RIIO-ED1

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Purpose of the DPCR5 Losses Incentive

- To achieve an efficient level of losses on distribution networks
 - by making appropriate investments;
- Optimising networks operation;
- Working with third parties to improve data accuracy; and
- Reduce theft.

Incentive value £60/MWh (pre-tax, 2010-11 prices)

Wholesale price of electricity

Less EU Emissions Trading Scheme (ETS) cost of carbon

Plus the shadow price of carbon, as set by Defra

Common reporting methodology

- Using settlement data as at RF

Cap and Collar

- 97 bps RORE (pre-tax)
- Annual threshold c75GWh

- Reducing technical losses directly reduces carbon emissions
- Data movements likely to swamp underlying technical improvements
- Roll-out of smart metering raises new issues
- At cap or collar there is no effective incentive

System Modelling

Using system data and known network parameters models could be created to evaluate the variance in technical losses over time. These models could then be used to incentive DNOs against set improvement targets.

Pros

- Analysing the impact of technical losses
- Eliminates volatile settlements data from the mechanism

Cons

- At lower voltage levels the capture frequency, quality of system data reduces whilst system complexity increases
- Consistency of DNO modelling and resource implications to implement

Losses Delta

DNOs already have clear investment plans during a Price Review with an implicit movement in technical losses. By quantifying this as part of our investment plans we can be measured against the installation of low loss equipment.

Pros

- Drives DNOs to ensure that they install low loss equipment
- Can be implemented to incentivise continuous system loss reductions
- Relatively simple to measure and model movements

Cons

- System conditions will create a variance between theoretical vs actual loss reductions

Measure by Type

By measuring losses improvements by the type of loss they can be proportionately treated based on the level of control DNOs have over the root causes.

- Technical
- Data Accuracy
- Theft

Pros

- Proportionate treatment
- Continues to address technical losses whilst continuing improvements in other problem areas

Cons

- Still requires a mechanism to measure technical losses
- Further complications to the losses mechanism
- Limited powers to influence settlement data