

The background of the slide is a blurred, blue-tinted image of electrical components, including what appears to be a circuit board with various components and a component being held by a pair of tweezers.

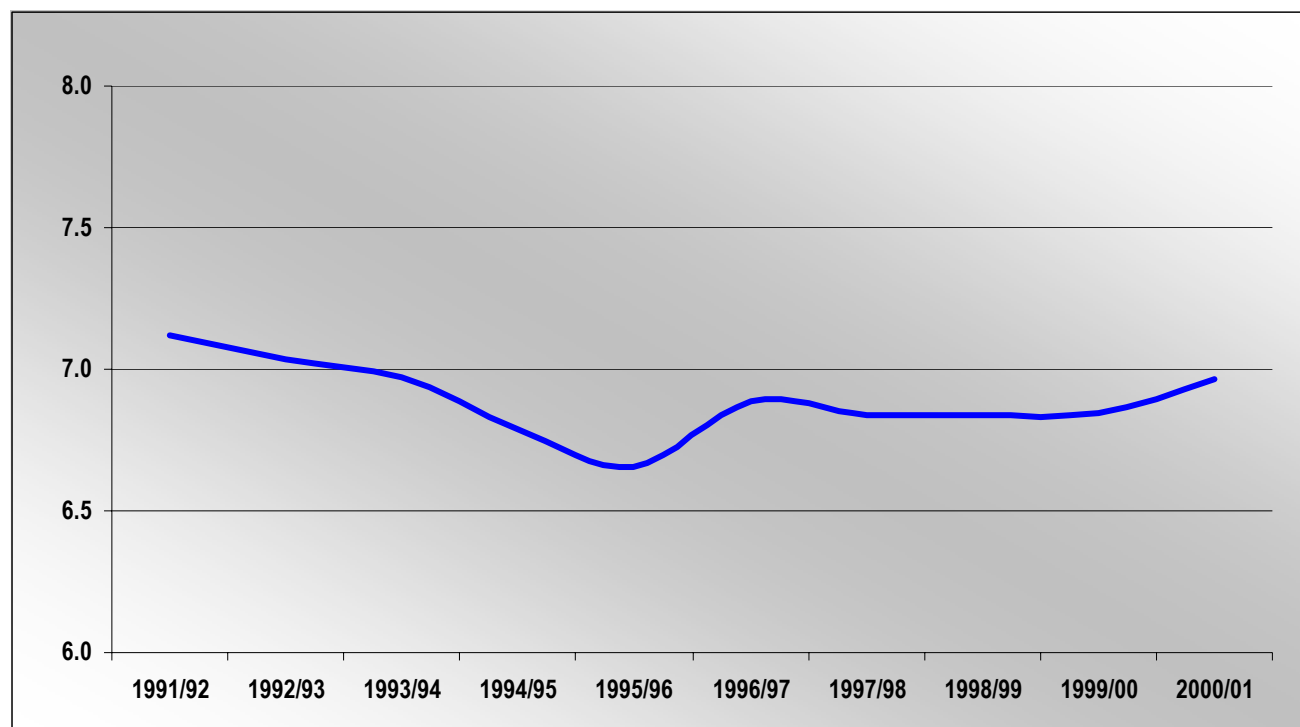
Review of Electricity Distribution Losses Latest Thinking

Lars Rognlien

Facts about electricity losses

- Consumed during transportation
- Can be affected by DNOs
- Distortions to measured losses

Average losses 1991 - 2000



Aims of losses review

The aims of the review of distribution losses

- assess whether the current incentive regime encourages efficient decisions
 - investment
 - operation
 - design
- if necessary, put in place an incentive regime that does encourage efficient decisions

Initial consultation – January 2003

- Discussed the current level of losses on distribution networks \Rightarrow most likely scope for efficient reduction
- Set out possible ways DNOs can affect losses on their networks
- Set out a number of factors that should be considered in designing an incentive scheme
- Suggested three alternative incentive schemes
- Invited responses

Initial consultation – January 2003

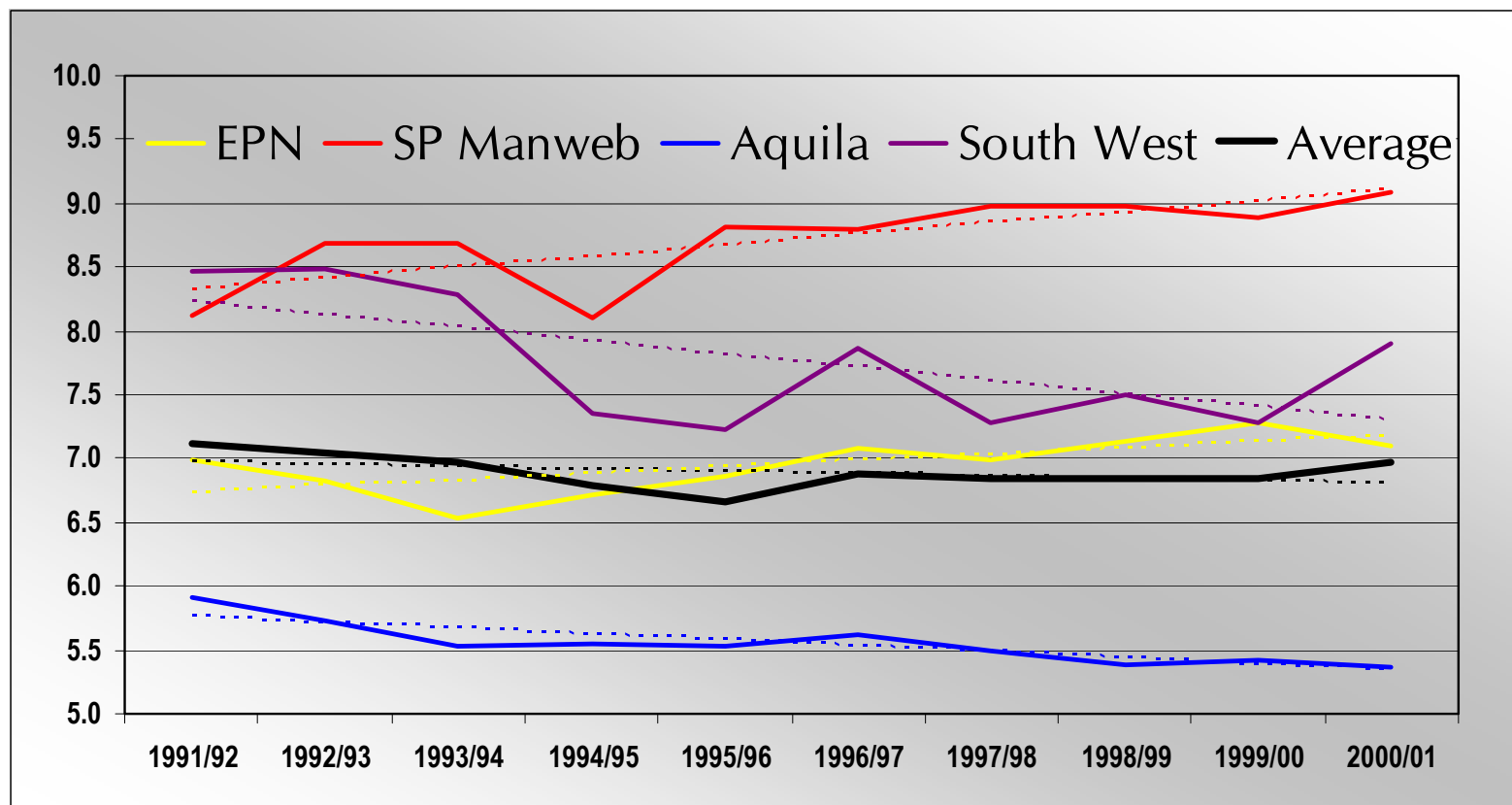
23 responses:

- current mechanism fails to encourage DNOs to fully consider losses
- there is scope for reductions in the long term, but at what cost?
- many causes of losses are not controllable by DNOs
- split views on incentive scheme
 - input based
 - adjusting the current mechanism

Current incentive mechanism

- 2.9 p/kWh adjustment to allowed revenue for deviations from a benchmark, calculated yearly
- Benchmark based on 10-year rolling average of losses
- Within-range adjustment

Is the current mechanism working?



Is the current mechanism working?

- Differing trends in losses across DNOs
- Several DNOs have stated that losses do not enter their investment appraisals
- Some DNOs compare potential revenue stream from incentive with full additional capital costs from efforts
- International comparisons – higher than comparable countries
- Utilisation rate

Why is it not working?

- What DNOs consider to be optimal is not optimal overall
 - DNOs do not expect that additional expenditure on reducing losses will be allowed in the price control
 - therefore, the reward does not match the perceived costs of an efficient effort
- Distortions to measured losses

Why an incentive?

- DNOs in principle neutral
- Capex and opex efficiency incentives
- Incentive on losses to avoid only lowest cost

How should an incentive be designed?

- Input or output based
 - areas of control
 - measurement
- Timing - half hourly or every 5 years
 - accuracy of incentives
 - volatility
- Sharing factor
 - currently – 30% retained by DNOs
 - consistency capex/ opex efficiency incentives
- Benchmark
 - history
 - efficient level/ yardstick competition
- DNOs purchasing losses?

A possible incentive structure

- A p/kWh incentive
- Sharing factor equal to capex/opex
- Efficient expenditure on loss reduction allowed
- Should result in
 - efficient outcome – company optimum coincides with society
 - fair outcome – sharing factor same as for capex/ opex

A possible incentive structure

- Up to DNOs to judge which efforts are overall effective
- Combination of input and output incentive
- Leaves open the choice of
 - timing
 - benchmark

Other issues

- Distortions to measured losses
 - systematic errors
 - mainly overstating losses
 - strong incentive to reduce
 - unsystematic errors
 - “randomly” distorting measured losses
 - weak incentives to reduce errors
 - possible to introduce a penalty on deviations from forecast

Other issues

- Cost of losses
- HV/LV adjustment
- Minimum standards
- Distributed generation

A large, central version of the ofgem logo is positioned in the middle of the slide. It features the word "ofgem" in white lowercase letters on a red rounded rectangular background. The background of the slide is a blue-tinted image of electrical components, including a three-pin plug and a fuse box, which are slightly out of focus.

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