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## ELECTRICITY DISTRIBUTION PRICE CONTROL – EQUALISATION OF OPEX AND CAPEX INCENTIVES

Ofgem's Policy Paper on the Electricity Distribution Price Control Review (March 2004) set out for consultation some ideas on how to improve the current framework of incentives. In particular, the paper discussed two particular issues with the current framework:

- differences in categorisation of costs between operating and capital expenditure, and the incentive to capitalise costs or incur capital rather than operating costs
- the strength of incentives not to invest (to defer or otherwise reduce investment)

The purpose of this letter is to set out an example of how these issues could be addressed. Attached is also a spreadsheet presenting worked examples under different scenarios.

Ofgem would like to stress that the proposal in the March paper to equalise capex and opex incentives does not of itself necessarily affect companies' cash flows for DPCR4. Under this proposal, costs which used to be categorised as opex and for which an opex allowance used to be set, could still lead to revenue in the year they arise (whether termed opex or depreciation). Therefore this approach makes no difference to the companies in cash flow terms. However, it does reduce the opportunity for the companies to game by reducing opex through capitalising.

Also, as set out in the March paper, Ofgem is consulting on a proposal to reduce the incentive to defer investment by weakening the level of capex efficiency savings retention. Given the divergence in companies' capex forecasts, Ofgem is considering a range of options, including a sliding scale mechanism with different levels of capex efficiency savings retention for different companies.

## **Basic model**

The "traditional" price control model can be characterised, at its simplest, as follows<sup>1</sup>:

Revenue = Opex + Depreciation + Cost of capital x Average RAV

and

Closing RAV = Opening RAV + Capex – Depreciation

For simplicity, this note assumes that the proposal is to equalise the incentives on operating costs and capital expenditure and to reduce the incentive to cut capex to retention of just the return element.

One way of thinking of this is to treat opex in the same way as capex but to depreciate the costs formerly treated as operating costs in full in the year they are assumed to occur.

Another way of thinking of the same treatment is that the price control model used at the review for setting allowed revenues in the 2005-10 period remains the same as that used at previous reviews, but just as at present underspend on capex against the assumed "allowance" reduces the RAV 5 years later, so a similar impact on the RAV from operating cost underspend could be incorporated, again with a 5 year delay so no affecting revenues until 2010/11.

The above two paragraphs set out two ways of thinking about the same proposal. Some people may find one or other easier or more appealing, but they do describe the same model.

The difference between this model and the approach Ofgem has adopted to date is the treatment of over and under spend against the allowance.

## Spreadsheet model and worked examples

Alternative methods for treating divergences between actual and allowed expenditure are shown in the attached spreadsheet which includes three price control methodologies:

- Method 1: traditional approach, splitting capex and opex and updating the RAV at the start of each price control period for actual capex in the previous period
- Method 2: splitting capex and opex but only updating the RAV for actual capex with a 5 year delay
- Method 3: as above, but combining opex and capex and using the aggregate of both to update the RAV for actual expenditure with a 5 year delay (the option put forward for consultation).

<sup>&</sup>lt;sup>1</sup> For simplicity, ignoring non-operational capex, disallowed expenditure, disposals, tax etc and condensing to a single year.

The important point to note in method 3 is that none of the calculations depend on the actual opex and capex figures separately, only on assumptions made in setting the price control and on the aggregate of actual opex and capex.

The spreadsheet then considers 5 scenarios (one per worksheet), where "opex" and "capex" here refer to the "traditional" definitions:

Scenario 1:	actual expenditure equals allowance for both opex and capex
Scenario 2:	underspend capex by 10 in each of years 1-5
Scenario 3:	underspend opex by 5 in each of years 1-5
Scenario 4:	underspend capex by 10 and opex by 5 in each of years 1-5
Scenario 5:	underspend opex by 15 in each of years 1-5 by performing as per scenario 4 but capitalising 10 of opex in each year, assuming this is "corrected" in year 6 when opex and capex actuals and expenditure reset as scenario 4

Differences between the scenarios are explained in the notes sheet.

Revenues are set using the formula set out above for each year, ignoring the 5 year smoothing effect of the present value calculations in the price control model as this complicates the workings significantly.

## **Model conclusions**

The conclusions of the model can be drawn from the revenue and RAV figures on the summary page. Key points include:

- For no underspend, all models are equal
- For capex underspend, the five year roller has a substantial effect in the following period (i.e. has significantly increased average incentives to underspend). The potential move to limit the incentive to the return element has a much slower effect but broadly, and on average, moves the overall reward back to the original (method 1) position without the 5 year rolling retention arrangement.
- For opex underspend, methods 1 and 2 are identical but method 3 reduces revenues by about 2 per year in the medium term (for a total underspend of 25, spread over 5 years).
- Comparing scenarios 4 and 5, transfer of costs from opex to capex, even if only for a 5 year period, has substantial benefits under method 1 (throughout) and method 2 (increasingly throughout the period), but makes no difference under method 3 under the assumptions used.

The model therefore demonstrates the key features of the rationale for method 3 – namely that the incentive not to invest has been strengthened (and is arguably too strong) and that distinctions between opex and capex (and hence incentives to capitalise) are a problem.

It also shows that method 3 as proposed does not of itself affect revenues in the price control period when adopted (e.g. in 2005-10) and only affects revenues after 2010 and the RAV to the extent it treats under and over spend differently from the current model.

This note and the accompanying spreadsheet do not attempt to address the issue of whether the treatment of opex in the same manner as capex is extended to all or only some categories of opex. This will partly depend on the extent to which a robust boundary can be defined. Ofgem understands that the DNOs have differing views on this issue.

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