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Dear colleague

**Electricity distribution use of system charging: Bath University benefit analysis work**

*Introduction*

In July 2005, Ofgem commissioned a study to evaluate the benefits of potential amendments to the electricity distribution network operator (DNO) charging regime. This study was carried out by Bath University<sup>1</sup> and can be found on our website<sup>2</sup> as an attachment to this letter. This open letter invites comments on its findings.

*Background*

We published a consultation paper on the structure of electricity distribution charges in May 2005<sup>3</sup> which discussed the longer term charging framework. The commissioning of the Bath study followed several responses to this consultation which requested an assessment of the costs and benefits of revising electricity distribution charging arrangements.

Bath's work did not seek to establish what the 'best' model for use of system charges might be going forward. It aimed to see whether there might be quantifiable benefits afforded by moving from the current charging arrangements to a new economic charging regime and comparing and contrasting different possible models. As such, the analysis assessed the benefits of economic charging methodologies by looking at how different methodologies impact on customer behaviour and how this in turn would change the amount of capital investment needed on the system at higher distribution voltages (EHV) against the current charging arrangements.

*Ofgem comments*

The study indicates that there would be significant benefits – potentially in the order of £200m, depending on certain assumptions as set out in the report - from moving to an alternative charging approach, applying this approach at EHV level. The costs of implementation at EHV level across DNOs are likely to be in the low £m<sup>4</sup>.

<sup>1</sup> Bath University, working with DLT Consulting.

<sup>2</sup> [www.ofgem.gov.uk](http://www.ofgem.gov.uk)

<sup>3</sup> 'Structure of electricity distribution charges - Consultation on the longer term charging framework', May 2005, 135/05.

<sup>4</sup> Where DNOs specified potential costs following our request in July 2005, these indicated that implementation costs at EHV level would be relatively small. DNOs have suggested that much larger costs would be incurred should lower voltages be covered by economic charging models due to the potential need to change billing systems.

The potential for significant benefits to be achieved through the use of enhanced charging models, as demonstrated by this study, reinforces the message conveyed by Ofgem to the DNOs in the February 2005 decision documents<sup>5</sup> on the DNO charging methodologies. At this time, we set out our view that the demand and generation regimes should be aligned, with use of system charges established via charging models based on forward looking long run incremental costs. This approach requires an assessment of the cost of increments or decrements (for example 1 MW) to users' network capacity requirements against a baseline, not an arbitrary allocation of forecast costs across users.

Progress on development of more robust, longer term charging arrangements remains a priority in advance of the next price control review. The study indicates that capital efficiencies may be gained from charging in a more economic manner. In the absence of alternative evidence this will inform future Ofgem assessments of whether DNO reinforcement capital expenditure is efficient.

The study did not consider economic charging models at lower distribution voltage levels, where the costs of implementation may be significant, and this will need to be considered further. We accept that in deriving a charging solution the DNOs need to consider implementation costs. At the December 2005 structure of charges implementation steering group (ISG) meeting, the DNOs agreed to provide a further breakdown of potential implementation costs.

In late 2005 the DNOs set out plans to develop long term charging models through the course of 2006 via their Commercial Operations Group (COG)<sup>6</sup>. The COG is holding its first public workshop on the issue on 25 January. We accordingly expect the DNOs to consider fully the outcome of the Bath study in their development work.

We note that the charging models used in the study were not the only models that could have been used. In addition, the models developed during the course of this study did not consider every issue that has been raised in the course of the structure of charges project. The DNOs will therefore need to consider some additional issues not covered by this study, for example:

- impacts at different voltage levels, including simplifying assumptions that may be required to model lower voltages; and
- impact of tariff structures, for example time of use or reactive power charging.

#### *Views invited*

If you have any comments or views on the issues set out in this letter or the attached Bath report, please address them to Distribution Policy, 9 Millbank, London, SW1P 3GE or [distributionpolicy@ofgem.gov.uk](mailto:distributionpolicy@ofgem.gov.uk). Responses should be received by Friday 24 February. If you have any queries about the topics in this letter please contact Mark Cox on 020 7901 7458 or Colette Schrier on 0207 901 7239.

Yours sincerely



**Martin Crouch**  
**Director, Distribution**

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<sup>5</sup> 'Authority Approval of DNO Charging Methodologies', February 2005, documents 36/05 to 43/05.

<sup>6</sup> A sub-group of the Electricity Networks Association.