

## APPENDIX

Advice to FLD on the *Transmission Price Control Review: Updated Proposals* (Ref 170/06) and Efttec Report *The Overview of Valuation of Visual Impacts of Transmission Price Control Review* (Revised version 1 June 2006)

### Positive values for landscape improvements

The basic issue here is that the unit visual impacts of the transmission network are much greater than those for the distribution network, but the unit cost of undergrounding is also very much greater. This creates a different kind of cost-benefit ratio to the one that emerged in the DPCR. What is questionable is whether this different ratio constitutes a case for maintaining the *status quo* rather than thinking carefully about the level of undergrounding that ought to be achievable, per price control, and where that should be targeted for maximum public benefit. As with DPCR it is important to understand that although the public's willingness to pay wasn't enough to justify undergrounding all distribution lines, there was a case for a targeted programme. The same issue arises with TPCR, just in a slightly more extreme form.

The Efttec study is difficult to apply to this purpose, because it is essentially a review of existing literature, and gives a great deal of attention to property values, and immediate local 'encounters' with transmission networks (para 2.4.4). Efttec themselves, rightly, question this spatial framing of amenity values. Moreover, their review of the literature – which includes studies used in FLD's own report – does confirm the reality of a significant positive willingness to pay for visual impact improvements that take place more than 5km away from domestic properties (page 22). They acknowledge the importance of non-use values, especially for types of land such as national parks. Figures from the Lake District National Park Authority show that about 12 million people visit the Lake District every year. When asked in a 1994 survey what aspects of the Park were very important to them 85% responded that scenery and landscape were very important and 65% thought peace and quiet very important.

Similar support can be extrapolated from the Accent research for the DPCR where there was little evidence that people were primarily concerned with undergrounding in their own backyard. Indeed, much of the research found higher levels of support for undergrounding in valued landscapes, or in 'the environment' in general (Accent Customer Survey Report, September 2003 document, p.30-31).

There are undoubtedly important considerations in calculating any 'average' willingness to pay. But different ways of thinking about the average do not reduce willingness to pay to zero; nor to a level so low that, when aggregated, the status quo is justified. This applies to the dilemma over whether to consider willingness to accept (WTA) or willingness to pay (WTP). One reasonable interpretation of Efttec's discussion of 'willingness to pay' compared to 'willingness to accept' measures is that the instigation of strongly protective policy presumptions for National Parks and AONBs implies that the public is entitled to expect their protection, and that WTA is a more appropriate methodological approach to assessing public values in these circumstances than WTP. People should be compensated for the diminished quality

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of protected landscapes caused by transmission networks in the same way that landowners receive wayleave payments. Of course, we recognise that no such studies have been conducted for transmission networks, but this defensible interpretation of entitlements might be taken as a caution against adopting the lowest possible average willingness to pay.

However, the sphere of economic valuation is not one that realistically allows the identification of 'accurate' data. To manage uncertainty, the more sensible question is the one posed by Eftec in their 'threshold test': given a certain level of costs for undergrounding, would it be reasonable to infer that the public were willing to pay, in total, at least that amount?

Applying this approach, one can relate this 'threshold' to the level of investment proposed for the transmission networks over the next five years. In total, this amounts to £4.5 billion over five years, which only represents 3% of a domestic customer's bill (TPCR initial proposals p.2). On this basis, allowing the same level of undergrounding investment in the transmission system as in the distribution system - £60 million - would only add 1.3% to the overall investment budget for transmission, and therefore only 0.04% to average domestic bills over five years. This is not out of kilter with the kinds of sums people claim to be willing to pay in loosely comparable studies of the distribution network.

Ultimately, it seems that Ofgem are equivocating on taking action for two non-economic questions - i.e. issues which have little to do with the Eftec study (or the Accent work on the DPCR) and on which economists have no particular insights: political community and payment vehicle.

### **Political community**

The subtext to much of Eftec's and Ofgem's treatment of the valuation data is that the relationship between people and electricity infrastructure is one of individual consumers or property owners being affected (or not) by the visual impacts of nearby electricity networks. Thus, if there is uncertainty as to whether sections of the public are sufficiently 'willing to pay' to see the nearest stretch of line undergrounded, doubt is cast over the whole enterprise.

But this is a non-methodological question. It is a question of 'political community' (or property rights, as Eftec put it, though the analogy with property is not entirely satisfactory). Insofar as Ofgem are policy-takers rather than policy-makers in the environmental field, they need to recognise the judgements that our political leaders have taken already on the political community, which benefits from National Parks and AONBs. This is *the nation as a whole*, and certainly England and Wales for those Parks and AONBs that fall within England and Wales. Again, this sense of political community is borne out by the WTP data that has been collected by Ofgem for the DPCR, with respondents being more supportive of undergrounding in these areas than they are in their immediate environment.

The point is that - regardless that National Parks are distributed unevenly across the country - they ought to be treated as national assets. Thus, if we should be interested in economic valuation at all, it is the aggregate valuation of the national

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population as a whole that matters. Again, if one adopts the simple 'threshold' based approach to the valuation of undergrounding suggested by Eftec – asking whether people value visual amenity sufficiently to outweigh the costs of undergrounding - there is no need to parcel the country up into localities in the way they imply. The issue can justifiably be constructed in terms of whether total national public willingness to pay is sufficient to fund some visual amenity improvements, somewhere within the most valuable landscapes of the nation. One can argue that it is.

This takes us to what was a crucial point in the DPCR – the fact that there may not be sufficient willingness to pay for undergrounding every transmission line does not mean that Ofgem are entitled to take this as support for the *status quo*. As with the DPCR, even a modest assumption of 'willingness to pay' per person would aggregate, nationally to tens of millions over the five year duration of the price control, and this could be the equivalent of 2-3 major undergrounding schemes on the transmission network. Given, National Parks and AONBs are designed to protect and enhance landscapes for future generations, there can be no difficulty in seeing this as establishing a mechanism which realises substantive improvements of the visual amenity of the existing network over successive price controls, rather than just a 'one off'.

### **Payment vehicle**

The fact that undergrounding the existing transmission network is costly, undoubtedly means we are looking towards a programme of investment that is, to use Ofgem's own words, 'lumpy' compared to the DPCR – just a small number of schemes per five year period. Given that designated landscapes are protected for the nation, we do not think Ofgem should be concerned that these schemes will necessarily be unevenly dotted across the country. Lumpy investment in nationally protected areas still benefits the nation.

What this lumpiness does raise is questions about the 'payment vehicle'. This has two components. First, how might provision be made during price control to allow the required capital expenditure? The fact that making provision may take Ofgem into novel terrain is not a case for inaction. Ofgem has shown itself to be endlessly innovative in accommodating cost and investment considerations within the price control methodology; finding a solution requires more of the same. Innovation Funding Incentive may be a model, or a variation of the allowances made for undergrounding with the DPCR.

Second, how might the most beneficial undergrounding schemes be identified? The situation with transmission is not really all that different to the process stipulated for undergrounding of the distribution system – the only difference is the scale, thus a variation of the DPCR approach may be appropriate. Instead of each distribution network operator liaising with relevant bodies within its area to identify the most suitable schemes, we just need to scale-up the approach, and require the monopoly grid operator for England and Wales, NGET, to identify priority schemes in liaison with the collective representatives of National Park Authorities and AONBs. This might require additional provision for arbitration but, if it was understood that this was about ranking schemes in order of priority, in a process that might extend

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beyond the current price review to tackle in priority order the worst visual intrusions, then the scope for consensus may be good. An overall cost cap might be instituted per price control period, and of course NGET's assessment of line condition/refurbishment needs and economic costs would be one legitimate factor to consider in scheme selection.

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