



Mr Gareth Wilson
Commerce Commission
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WELLINGTON

14 November 2003

Dear Mr Wilson

Submission on the Regulation of Electricity Line Businesses, Development of an ODV Handbook for System Fixed Assets

We are pleased to provide our submission on the Development of an ODV Handbook for System Fixed Assets.

In addition to this brief individual submission, Counties Power has contributed to a joint submission prepared by PricewaterhouseCoopers on behalf of a group of 18 large Electricity Line Businesses. This letter serves to emphasise and supplement the detailed points made in the more comprehensive joint submission, which we unreservedly support.

We have structured this response around the two broad areas identified within the issues paper, namely:

- standard asset classes, replacement costs and lives, and the
- ODV methodology

For more specific responses to the questions contained within the issues paper, we would refer you to the joint submission. We also note that some of the questions posed within the issues paper are difficult to answer meaningfully in the context of the Commission's purpose and progress made with other aspects of the regulatory regime.

Standard Asset Classes, Replacement Costs and Lives

We believe that the absence of tabulated values for some equipment types and line configurations in widespread use throughout the industry has led to unnecessary inconsistencies in valuations. In particular, additional asset classes and standards need to be introduced for 22 kV assets and for all discrete zone substation and distribution equipment not currently represented. Since the ODV Handbook was formulated in 1994, costs and lives associated with all asset classes require review.

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There is a substantial body of evidence to support longer economic lives for a number of asset classes, including concrete pole lines in particular.

Provision for multipliers and non-standard replacement costs should be retained in the Handbook to reflect local circumstances. More details of additional asset classes, appropriate maximum replacement costs and lives, and recommended changes to multipliers are provided in the PricewaterhouseCoopers submission. The derivation of these will require careful consideration by the Commission.

Inevitably, the introduction of equipment types, configurations and practice not foreseen or accurately represented by this revision of the Handbook will necessitate periodic update and review. A robust ODV methodology, including provision for such update, will ensure continued credibility. Since the regulatory valuation basis, information disclosure requirements and other aspects of the regime have not yet been decided, it is difficult to make more specific comment on the process for Handbook review at this stage.

Asset registers are currently maintained by all electricity lines businesses and are fundamental to both general purpose financial reporting and regulatory disclosures. In this sense then, there is no incremental cost faced in maintaining up to date registers. Some costs are, however, associated with ensuring compliance with the specific reporting formats prescribed for ODV reporting.

The more significant point relates to the integrity of these asset registers. Due to the time-intensive, incremental nature of geographic data collection, the quality of asset data supporting ODV tends to progressively improve (assuming adequate processes and technology are in place). Counties Power have made rapid progress in this area and continue to invest heavily in network data collection and associated information systems and technology. In addition to ensuring compliance, this is driven by business imperatives focussed on improved customer service and efficiency. It remains inevitable that assumptions and estimates will be required where data is missing or of insufficient quality for purpose. The requirements and standards specified in the Handbook for ensuring the integrity of data over time should therefore be informed by good audit practice and address business processes, not prescriptions on the contents of asset registers.

ODV Methodology

The Handbook needs to set out all theoretical underpinnings and principles relevant to the purpose of ODV valuation in the regulatory regime. It would be reasonable to expect a single multi-purpose Handbook for distributors to play a part in minimising compliance costs. Until the proposed regime has been fully formulated, it is difficult to expand on the scope and application of the Handbook for varying purposes, or the frequency of revaluation.

Although we have advocated for increased precision and completeness in asset classes and certain other aspects of the ODV Handbook, in general, common sense suggests that the level of prescription be unchanged from that which exists now. Description of the principles underpinning the ODV valuation, particularly as it relates to the various aspects of the regulatory regime, should be strengthened in the new Handbook.

In valuing perpetually maintained assets, of which pole lines are the most significant category, electricity lines businesses have necessarily made assumptions using the information available to them. Complete datasets on every component replacement of a composite asset are not generally available, and if they were, the compliance requirements of a prescriptive valuation methodology for every composite asset would not be warranted. Since a number of methods are available and appropriate in different circumstances, reliance on a valuer's judgement will still be necessary. For example, where sections of an old line have been substantially rebuilt and refurbished, a methodology based on initial commissioning date would not be appropriate. Where pole costs dominate overall line costs, then a weighted average age would provide a more reasonable approximation. In general, where refurbishment serves to materially extend asset life, there will be evidence available that can be provided to valuers.

The optimisation methodology included within the Handbook has been through several iterations and is generally appropriate. Planning periods associated with optimisation need to be realistic and ensure that no disincentives to efficient long-term investment exist. To us this suggests that permitted planning periods be extended from those currently specified.

The contribution of fully depreciated assets still in service should be recognised via a minimum residual value. This issue has been highlighted in previous valuation cycles as a result of unjustifiably low standard lives.

Network designs have a significant bearing on optimisation, and careful consideration of equipment configurations, customer requirements and planning criteria are required to avoid perverse outcomes. For example, in the case of Counties Power, specific features that require to be taken into account are the extent of distribution automation employed to improve network flexibility (and therefore reliability) and voltage profiles that vary from industry norms (including extensive use of 22 kV). Overall, the optimisation process will need to be informed by customer consultation on quality, a major element of the threshold-based regime. In order to support optimisation decisions, there is a case for additional network performance disclosures within the valuation report itself.

In particular as it is one of the aims of the government to promote efficiency, and as minimisation of losses obviously provides an economic benefit for both the country and the customers who are supplied by the ELB network, recognition should be made of line losses. In an ELB total losses are typically 5-8% of the total energy supplied by an ELB. Subtransmission and distribution line losses would normally account for over half of this figure. While there are many ways of reducing line losses the most effective is by increasing the voltage of transmission. For example by increasing the voltage from 11kV to 22kV the line losses are reduced by 75% and increasing the voltage from 33kV to 110kV the line losses are reduced by 91% for any given load and conductors. Because voltage conversion must be carried out in discrete steps and economically the steps large, excess capacity can result and ELBs are then classed as "inefficient" for raising energy efficiency.

However to effect the reduced losses, construction costs are increased and allowance should be able to be made for the reduced losses when considering scheme costs if the overall most efficient scheme is to be promoted.

Another difficulty arises in that because of the extensive nature of the ELBs networks, it is often only economic to carry out voltage conversion when near the end of the economic life of the plant or when a major shift in load occurs or there is a statutory driver such as voltage regulation and the actual cost of conversion, resources normally only allow a small percentage of the network to be reinsulated in any one year and consequently this can be fairly piecemeal. Thus often while plant is reinsulated at the particular time when reconstruction is undertaken, it is not converted to the higher operating voltage immediately. For instance, the replacement of zone substation switchboard could be justified by the immediate demand, but the economics of operating it at the higher voltage be 10 years away. Thus there is a requirement to realise the extend nature of conversions by longer planning horizons when voltage conversion is being undertaken.

In determining the least cost scheme on which replacement costs are to be based to determine the ODV value, all costs including losses and Transpower charges should be considered.

By taking supply from Transpower at a higher voltage, so that Transpower do not have to employ so many assets, an annual charge reduction results. However by the ELB taking supply at a higher voltage results in higher ELB costs but when off set by the reduced Transpower charges the total cost can be reduced below, or be near that of taking supply at a lower voltage. This should be explicitly recognised within the handbook. An example of this is attached [1]

We look forward to reviewing the draft Handbook to be released by the Commerce Commission in December, and hope that our submissions are of some assistance.

Yours sincerely



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[1] Review of 2001 Valuation of 110kV System . Charter Consulting February 2003