



**POWERCO**

**Draft Optimised  
Deprivation Valuation  
Handbook:**

**Revised Draft for Consultation  
9 July 2004**

**30 July 2004**



### ***Introduction***

1. This submission is in response to the invitation from the Commerce Commission to comment on its Revised Draft ODV Handbook, dated 9 July 2004.
2. Powerco has noted in previous submissions on this subject that it has significant concerns with the direction that the Handbook appears to be taking, and its specific purpose in the context of the wider regulatory framework. Powerco welcomes the Commission's advice that these broader issues will be addressed in a companion document. Until these matters are clarified, however, it is difficult to appreciate the rationale for the increasing levels of ODV Handbook prescription and expanding audit requirements.
3. Powerco has found it difficult to prepare a comprehensive submission to the Commission within the space of three weeks – and would like to reserve the right to make further submissions at a later date. For example, it has been difficult to assess the detailed implications of the new traffic allowances in the time available.
4. Powerco welcomes the Commission's view that the replacement costs in the ODV handbook should be applied as "standard" rather than "maximum" replacement costs. We also appreciate the flexibility allowed to lines businesses to treat assets as "non standard" if those assets do not fit into the category of the standard asset descriptions. In addition to these changes, Powerco also supports changes in the optimisation process such as:
  - The provision to allow optimisation procedures that seek to consider the total of transmission and distribution network investments; and
  - The consideration of energy losses in the optimisation process.
5. Notwithstanding these advancements, Powerco remains concerned at the prospect of optimising distribution transformers, which is likely to unfairly penalise rural distribution networks. This issue is discussed in more detail below.

### ***Level of Prescription***

6. In Parsons Brinckerhoff Associates' Review of Optimised Deprival Valuation Handbook Replacement Costs of System Fixed Assets (July 2004) (PBA Review) it is noted that the costs set out in the early Handbooks may have reflected the average replacement costs rather than those of an "efficient new entrant". PBA list seven reasons why it is difficult to develop a set of accurate replacement costs to be used in a regulated environment, and then



outline the refined basis for the costs adopted and describe the methodology used. We suggest that such limitations on development of an accurate set of replacement costs indicate that the purposes for which a prescribed set of cost “standards” can be used appropriately is significantly restricted.

7. The first of the listed reasons notes that costs vary over time depending on the level of competition in the market for the supply and installation of the relevant assets. Whilst this is reasonable, we suggest that the dynamics within the skilled labour market may be understated. Recent events in the construction industry indicate that shortages of skilled labour (such as electricians and fitters) can lead to very substantial increases in the costs of a building project.
8. It is not yet clear exactly what the future purposes of the ODV process will be. Nonetheless, we are concerned that the ODV Handbook is tending to become increasingly prescriptive. ODV Disclosures until now have been used as a basis for broad inter-company comparisons, and we believe that the increasing amount of detail in the Handbook suggests the possibility that ODV principles may be applied inappropriately. .
9. Powerco believes that there is a very real danger that the inappropriate application of a highly detailed ODV Handbook and its so-called “standards” could affect the specifications of equipment to be installed. Such an outcome would be unlikely to foster efficient asset management outcomes, and it would therefore be highly undesirable.
10. If the Commission is contemplating using the ODV for regulating line charges, it should be aware of the practical limitations involved. In particular, it is not possible to cater for the wide variety of individual circumstances actually encountered, accommodating price fluctuations, into one model network with a set of “standard” costs for a “significant scale of construction” that will adequately reflect the market reality. It is not clear to us that there is any such thing as “standard project conditions” (as suggested on page 6 of PBA’s review report). The Commission’s consultants indicate at several points in their review paper that there is a lack of appropriate construction projects from which to extract actual costs. In response, we note that there comes a point at which more detailed “standardization” is not increasing transparency – rather, it is camouflaging reality. If ODV is used in the regulation of lines charges, then to the extent that the ODV does not fully reflect the costs of efficient development of the existing networks (given their inherent and inherited characteristics) then there is a real risk of ELBs being constrained from fully recovering efficient costs. Such an outcome would diminish incentives for efficient investment, and would be counter to the long term interests of consumers.



11. Powerco continues to support the intent of the statement made in response to the initial Issues Paper (September '03) noting that departures from "standard" replacement costs would be appropriate with the approval of a qualified independent valuer.

### ***Consultation Process***

12. In describing the consultation process PBA note that "...PwC's comprehensive cost tables were given significant weight in the development of the final draft handbook costs." Data from other (including the largest) ELB's was "taken into account".
13. Powerco's view remains that the costs and multipliers given in Powerco's submission dated 13 November 2003 – as endorsed by independent valuers – reflect those of an "efficient new entrant". They also reflect a "significant scale of construction". We are disappointed that the Commission's consultant has not enquired further into the grounds on which our costings were based. The Commission's lack of attention to Powerco's repeated submissions on this issue is a serious concern.

### ***Assets to be Included in the ODV Valuation***

#### ***Easements***

14. The Commission's argument in favour of valuing easements registered against a title at historic cost is that easements have no other use except for electricity lines and that there is no market for them. We do not follow this logic. In line with the ODV principle, easements registered against a title should be valued at the cost that the incumbent or any other entrant would obtain them, given the present market situation. This means that easements should be valued at their present replacement cost like any other system fixed asset.

#### ***Street Lighting Control***

15. As matters stand, the Commission has not presented an argument as to why streetlight control is to be omitted from the list of "system fixed assets".

#### ***Mobile Substations and Generators***

16. We note that mobile substations and generators are omitted as network fixed assets. However, these assets are often used to provide fixed network asset functionality. For this reason, there is no basis for their exclusion from the asset base.

### ***Optimisation and Future Load Growth***

17. The Revised Draft Handbook introduces a new Clause 2.29 that includes the words "Distribution ELB's shall disclose in their



valuation reports any new separately identifiable load or load increment exceeding 5% of the ELB's existing maximum demand or 10 MW (whichever is the lower) that is included in the load forecast". The purpose of this provision in the context of transition from a regulatory to a contestable administration regime is not immediately clear. In our view, ELBs should be free to make investment decisions on the basis of their own perception of likely future demand for their service - and the commercial risks attached to such. We question the need for this new clause.

18. In previous submissions, Powerco has noted that optimisation of distribution transformers with less than 30% capacity utilisation penalises rural distributors. This is because of the lower diversity in rural distribution. In a rural setting, the number of consumers served by an individual distribution transformer is significantly lower than is the case in an urban setting. This means, in effect, that whilst the transformers in a rural setting are generally of much smaller capacity, their capacity per ICP needs to be much higher because the probability that the transformer will need to provide for co-incident peak demands from each of the consumers served by it is much higher. Lower capacity utilisation therefore necessarily occurs in rural networks. Powerco put suggestions regarding alternative approaches to the optimisation of distribution transformers before the Commission at the Conference in April 2004. Powerco proposed that optimisation criteria based on numbers of ICPs connected to small distribution transformers or demand readings on large transformers would be more appropriate than the current provisions. Powerco is disappointed that the Commission has not yet adopted its suggested approach.
19. We are pleased to see that the planning horizon for zone substations has increased to reflect the actual horizons used by Powerco. However, as stated in our previous submissions, for ELBs to make optimal investment decisions, asset management planning procedures should not be constrained by external prescription of the planning horizon. For the commercial environment to function properly, ELBs should be free to make investment decisions on the basis of likely future market requirements, as understood at the time, and reasonable assessments of the useful engineering life of an asset (including the potential to economically extend asset lives).
20. Powerco views the approach being taken to optimising underground networks to overhead as pragmatic. It is suggested, however, that Clause 4 of B7 could be further improved to recognise that third parties (road authorities, developers, local bodies), not just the 'customers' directly affected, can be proponents of undergrounding projects.
21. The Revised Draft Handbook (at Clause 2.30 (d)) continues to state that no provision for future load growth is permitted when optimising for distribution transformers. Whilst we acknowledge



that, in terms of current practice, most distribution transformers are replaced reactively, we are concerned that the provisions of the Draft ODV Handbook do not promote an improvement in asset management practices – which might come about through foreseeing the need for distribution capacity upgrades. Distribution transformers placed into a high growth service area will initially use a low proportion of their total capacity. It is suggested that the ODV Handbook should provide for a planning period of 2 to 5 years in respect to distribution transformers. This would ensure that ODV principles properly reflect approaches to network planning and development which are aimed at minimising the total long run cost of providing network services, taking into account scale economies and reasonable forecasts of load growth.

### ***Economic Value Testing***

22. The previous Handbook provided a methodology for segmentation that identified when EV testing should be carried out. We note that the Revised Draft contains no threshold except for the figure of 1% of ODRC of the complete valuation asset base. We assume that this is based on the same segmentation rules as in the 2001 ODV but this is not clear.

### ***Valuation Report***

23. Section 2.64 of the proposed Handbook appears to indicate that the Commission's intent is that the valuation report will be disclosed to the public, but this is not clear. If this is the case, then the report will be a very comprehensive document that will take significant resources to prepare. Powerco is concerned with the increase in regulatory compliance costs that such reporting would impose, especially given that the company is on a downward price path. We are also concerned that there is a limited timeframe of four months to complete the ODV process. This process includes auditing and Board approval, which effectively leaves the Company with approximately two months to prepare the report.

### ***Replacement Costs & Multipliers***

24. Despite the round of consultation in April, we remain concerned that some Replacement Costs listed in Appendix A of the Revised Draft Handbook are still unrealistic. These are dealt with in turn below.

### ***Replacement Costs Detail***

25. We are concerned that the Commission's consultants continue to suggest that the "standard" replacement cost for (medium and heavy) 11Kv lines should be significantly lower than those submitted by Powerco. One suggestion is that because some portions of Powerco's more exposed rural network has been designed and constructed to sustain wind and snow loadings in



excess of those likely to be encountered in milder environs, high wind and snow loadings should be able to be captured in a multiplier.

26. "Laying of cables" was amongst the items which PBA and Commission staff are understood to have clarified in meetings with some interested parties. Nonetheless, we remain convinced that the replacement costs for LV cable are too low and should be increased in line with Powerco's previous submissions. In addition, Powerco is concerned that the approach being taken to development of 'benchmark' replacement costs is placing too much emphasis on the conditions encountered in suburban subdivision rather than a 'significant scale of work' in a 'brownfields' situation such as OHUG projects. The Commission's paper does not deal with this issue at all.
27. Powerco remains concerned that Low Voltage cable and line replacement costs are below the costs presented in our submission. The difference in view could be explained if PBA's cost estimates are based on an assumed pole spacing that is wider than the 40 metre spacing in our submission. This issue should be properly addressed.
28. Powerco cannot accept that PBA could install overhead service connections for the costs the Handbook indicates, even under mass scale construction and for an "efficient new entrant". The costs estimated by PBA appear to be adequate for fuses and fuse holders alone, but not for the lines company's portion of the service connection. We also disagree with the statement in Section 3.8 of the PBA Review that states that the only submission received on this was from PwC. Powerco urges the Commission and PBA to review Powerco's submission on this issue. The table below lists the items involved in the installation of a single phase overhead service connection. The estimated cost for each item represents a competitive cost that would be incurred by an efficient new entrant with a significant scale of construction.

<b><i>Item</i></b>	<b><i>Cost</i></b>
Fuse and Fuse Holder materials	\$30
Bucket hire, two men for 45 minutes	\$75
Portion of additional cross arm already installed	\$25
3 metres of Service Line connected to fuse and connections of fuse to mains	\$20
<b>Total</b>	<b>\$150</b>

29. We also point out that Notes m and n in Table A1 do not specify the length of the service connection to the property boundary. Our submission assumed a length of 3 metres. Service connection



lengths vary significantly and the notes in Table A1 should specify what length has been assumed.

30. We note that the replacement cost for kiosks is for masonry or block construction. Our submission of \$9000 was for a kiosk of fibre glass construction. Masonry or block construction would cost more than \$9000.
31. We assume that PBA means pad or ground mounted transformer when it mentions "cable entry transformer".
32. We note that PBA does not appear to have acknowledged the comments Powerco made in its February submission about the replacement costs for distribution lines, cables and multipliers in the columns headed "Submissions on Draft Handbook" in the Appendix to the PBA Review. Powerco's February submission reiterated the points made in its November 2003 submission. We are therefore unsure as to whether our submission has been properly considered.
33. Finally, having recently received tender prices for indoor 33kV switchgear, we would like to revise our previously submitted replacement costs for this equipment downwards to \$55 thousand per cubicle installed without protection.

#### *Traffic Management*

34. It has not been possible to assess the likely effect of the new traffic management multipliers in detail within the time available for completing this submission. It is pleasing to see that the constraints and realities of the environment in which ELBs operate have been more adequately acknowledged in the Revised Draft of the Handbook. Preparation of a considered view on whether the new allowances appropriately represent market place experience will take more time to formulate however.
35. It appears that PBA has misconstrued the Traffic Management multiplier for light line in our submission. The Appendix shows a traffic management multiplier of 1.03 for light line but this should be corrected to 1.19 to 1.33. The 1.03 multiplier was intended for lines of all sizes located along rural roads without significant traffic management requirements.

#### *Cable Multipliers*

36. Powerco has previously submitted that cable multipliers, in particular, do not adequately allow for the costs of soil / backfill removal and reinstating footpath and road surfaces. The PBA review notes that Commission staff and PBA met with "some of the submitters" to clarify such items. We note that in the Revised Draft Handbook, provision is now made for the multiplier to be up to 2.0. We acknowledge and endorse such increase. Nonetheless,



Powerco's submission is that cable multipliers should be of a magnitude that allowed for 2.2 times the base Handbook cost.

### ***Age Determination***

37. We note that the Revised Draft Handbook includes a clause (A.8) stating that the economic life of pole type lines should be based on the weighted average number of wooden and concrete poles on the line and the average age of the line should be the average age of the poles, adding that: "If records of pole replacements are not available then the age of the line should be based on the age used for the previous valuation." Throughout New Zealand, lines companies spend considerable capital on 'reconductoring' lines each year. Whilst this could be dealt with as refurbishment, we think that a more straight forward way would be to calculate the weighted average age of lines from the age of poles, conductors and cross-arms, when this information exists.

### ***Asset Lives***

38. The Revised Draft Handbook continues to prescribe a 'Standard Life' of 50 years for buildings – the minimum required in terms of the building code. We would continue to submit that, in practice, ELBs generally construct substation buildings with a design life of 70 years.

### ***Concluding comments***

39. Powerco welcomes some of the developments in the Revised Draft ODV Handbook. In this submission, Powerco has raised a number of detailed valuation issues which should be properly considered before the ODV Handbook is finalised. In addition, Powerco is concerned that its earlier submissions on these matters appear to have not been properly considered. We again invite the Commission and its consultants to engage in meaningful and effective dialogue with Powerco in order to resolve these matters. Powerco also notes for the record its continuing concern with the increasing costs of regulation and the lack of clarity regarding the purpose to which the ODV Handbook will be put.