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Submissions on the Review of Asset Valuation Methodologies
Commerce Commission
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By email to electricity@comcom.govt.nz

Submission on valuation methodologies

This submission relates to the Commerce Commission discussion paper "Review of Asset Valuation Methodologies: Electricity Lines Businesses' System Fixed Assets" of 1 October 2002. Our main comments are:

- 1) The valuation methodology is only important to individual consumers in so far as asset values affect the specific line price and quality at their point of connection to the line business or grid.
- 2) The criteria proposed of efficiency, exposing excessive profits and low compliance costs are essential but not sufficient. The valuation methodology options and the linkages to pricing and line service quality should also be tested against two other criteria. First, whether they assist in revealing consumer preferences and enable them to make trade-offs in regard to line assets used to provide line services. Second, where asset related costs result in wealth transfers only (no efficiency effects) that the effects are not excessively destabilising.
- 3) We agree that opportunity cost should be used as an over-riding valuation principle. The valuation methodology and the threshold regime in general should mimic competitive markets as much as possible.
- 4) For assets with an opportunity cost the forward valuation methodology could be implemented using either DHC or ODV with, from a theoretical perspective, exactly the same NPV return to a line owner (and cost to line users). The difference between theory and practice is that DHC will probably be lower cost to implement than ODV, but ODV based decisions will create better incentives on the line owner to make efficient investments. On balance therefore ODV is preferred as the ongoing valuation methodology.
- 5) If lines businesses have specialised assets then those will have no opportunity cost and therefore DHC as proposed for specialised airport fixed assets should be considered, with the balance of fixed assets valued in the future at ODV as suggested in 4) above.
- 6) A lack of information on the historic costs of all assets or the potential high cost to construct history is likely to make DHC not feasible for determining opening valuations of each business as a whole. There may be merit in using the 31 March 2001 recalibrated

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ODV on the understanding that the ODV Handbook will be revised promptly and rules about how generic changes in valuation are to be treated made explicit and linked to setting WACC, pricing and threshold regimes.

- 7) The above comments on the ongoing valuation and opening valuation methodology apply to both distribution businesses and Transpower.
- 8) The discussion document canvasses the issue of lines businesses in the past having not forgone revenue when treating increases in valuation as income. This has been, in our view, one of the most visible signs of line businesses' extraction of monopoly rents from consumers. The risk to consumers is that lines businesses having benefited from revaluations will also pass the risk of those assets being stranded (bypass or technological obsolescence) and therefore written down faster in the future. Deciding what should be a forward valuation methodology and an opening valuation methodology do not themselves address this problem. A possible solution lies in defining how the allocation of risk should be allocated for future de-valuations taking into account that consumers have taken the risk of upward revaluations since 1994 and the switch to ODV. This will require estimating which companies have and those that have not forgone revenue when adding revaluations as income in the context of a reasonable return for the entity since vesting date and the introduction of ODV.
- 9) Part of the problem to date in determining the treatment of revaluations is that the ROI formula in the disclosure regulations in effect allows all changes in valuation from year to year to be passed through as a cost to end users, ie all inflation changes, changes in replacement cost in the ODV Handbook (driven by changes in the costs listed or maximum allowable asset lives, etc) and changes due to optimisation in the ODV process. If we are correct and the ROI formula passes all of these risks in asset changes to consumers, then a fair level of WACC to date should have been very low.

We look forward to participating in the ongoing development of the threshold, assessment and control regime.

Yours sincerely

Ralph Matthes
Executive Director

Appendix

Chapter 2 - Purpose of the review

1. *Should the same valuation methodology necessarily be used for thresholds assessments and for control?*

The same because both must meet the criteria in s57E and there should be alignment between the thresholds and control regimes.

2. *What factors should be considered in deciding whether a consistent or different approach is desirable?*

The statutory objective and relative costs of alternative options of achieving those outcomes.

3. *What level of detail regarding asset values should be publicly disclosed? How should asset valuation requirements be prescribed in practice (eg a handbook)?*

Sufficient detail to ensure that classes of consumers (eg mass market consumers) or specific consumers (eg those at higher voltages) can validate that the asset (ie ODV) portion of their line charges are the lowest sustainable and that they are not cross-subsidising other consumers within the network now or in the future.

Continued use of a Handbook as at present would be appropriate. Consumer groups or large users should be able to require a line business to provide an "ODV account."

4. *To what extent should there be any different approach to asset valuations (than for thresholds and control) used for disclosure purposes?*

It would seem likely that the same methodology would apply to each of these to ensure consistency and because of the regulatory scope efficiencies. An important part of the ODV methodology is publication of Asset Management Plans that link line owner expectations of demand quality with actual fixed assets and operating plans for the future.

Chapter 3 - Evaluation Criteria

5. *Are the proposed evaluation criteria of efficiency, excessive profits and cost effectiveness for assessing the valuation methodologies appropriate given the regulatory context in which asset valuations may be used?*

The three criteria listed in paragraph 3.6 are necessary but not comprehensive – refer to question 6 below.

6. *What other evaluation criteria, if any, should the Commission consider?*

- The extent to which the methodology facilitates discovery of consumer preferences for service and quality levels. For example a valuation methodology may be theoretically robust but if implemented in a closed loop between the line business and regulator, will lead to a less efficient outcome than if end consumers are directly involved. To facilitate individual consumers or classes of consumer in this process requires them to understand exactly what the asset related portion of their individual line charges is.
- In the absence of any definitive efficiency reason for allocating costs between line owners and consumers or between different classes of consumers, that the methodology allows a reasonable and equitable approach, eg guidelines on how transitional prices might be agreed not left to the unilateral decision of the line business.

This issue of wealth transfers was considered by Ehrhardt in a response to a question by NZIER to which he replied¹:

“Any one-off, large, unexpected and essentially arbitrary transfer of wealth between groups in society will be destabilising, and should generally be avoided for that reason.”

Both of the above could apply equally to the overall thresholds regime, not just the valuation methodology portion.

7. In assessing asset valuation methodologies for system fixed assets, how important is allocative efficiency?

Essential that allocative efficiency is considered but not as important as dynamic efficiency.

8. How are the level, structure and profile of prices over time affected by the choice of valuation methodology?

They should be linked.

9. How does the choice of valuation methodology affect service quality and the ability for electricity lines businesses to provide services of a quality that reflects consumer demands?

Assuming prices are linked to the valuation approach then these factors will all be influenced.

10. In assessing asset valuation methodologies for system fixed assets, how important is productive efficiency? What factors should be considered?

Essential that productive efficiency is considered but not as important as dynamic efficiency.

11. In assessing asset valuation methodologies for system fixed assets, how important is dynamic efficiency? What factors should be considered?

For capital-intensive infrastructure industries such as electricity lines businesses, this is the most important of the three “efficiency” measures. The discussion paper focuses on line business investment, but just as important is the dynamic efficiency of end users in response to line charges that in turn are (or should be) largely dependent on line valuations and WACC.

This dynamic efficiency effect on line users reinforces the need for individual consumers or classes of consumer to understand exactly what the asset related portion of their individual line charges are now and what the impact might be for alternative network investment options in the future.

12. How important is the identification of excess returns as a criterion for the assessment of valuation methodologies? What factors should be considered?

It is essential to meet the legislative purpose required under s57E.

13. How important is cost effectiveness as a criterion for the choice of valuation methodology? What factors should be considered?

It is essential but by necessity will be relatively subjective. It is not just the cost effectiveness of the line businesses complying and the Commission oversight that needs to

¹ NZIER, Report to Treasury, *Ehrhardt – Practical experience with price regulation, some questions*, February 2001, page 1

be considered, but also the costs of consumers engaging in the process, particularly to ensure their expectations and trade-offs for demand levels and quality are met.

Chapter 4 - Valuation and Regulatory Control

14. *How great is the scope for bilateral or multilateral contracting regarding asset investment?*

There will always be a mix of specific contract and common network investment as there has been in the past. What needs to change is identification of contracts for specific services. Contracted assets need to be separated from the non-contracted and regulated asset base.

15. *How should contractual management of asset-related risks be dealt with in the context of regulatory asset valuation?*

Explicitly separated from the common network asset base.

16. *Who is best placed to manage the various forms of investment risk faced by electricity lines businesses?*

Line owners. Where market risk is shifted to consumers then an explicit adjustment to WACC is required to reflect the allocation of risk.

17. *In a regulated environment, how should investment risks be compensated? Is it preferable that some risks be compensated through WACC and others through the valuation methodology (eg through the choice of depreciation regime or treating valuation gains/losses as income)?*

Best to mimic a competitive market where the owner of the asset bears investment risk and is compensated for that, or if they contract out of that risk, receive a lower return accordingly. In the extreme a line company might have no risk other than the credit risk of the counter-party in which case it becomes essentially a financing arrangement and the return to the line owner is simply an interest rate including a margin. The treatment of revaluations and depreciation policies are best reflected in cash-flow expectations.

18. *What are the relative merits of dealing with inflation through WACC or the valuation methodology?*

So long as the treatment of inflation is consistent with the overall allocation of risk, then we would be indifferent between the choices.

19. *Is it appropriate that investors bear the risk of asset failure? In what circumstances would it not be appropriate for investors to bear the risk of asset failure?*

Line owners should bear the risk of asset failure.

An example of how the regulatory regime has failed to address this problem is the Vector cable failures in February 1998. Prior to the cables failing they were included in the ODV. After they failed Vector expensed the write down of the cables therefore reducing ROI. Consumers therefore bore the full cost of the asset failing, even though consumers had no way of managing that risk – it was Vector and their owners who should have been accountable and borne the cost. To the extent that prior to the cables failing consumers had been paying Vector a ROI on the ODV of those cables, then there may have also been a case for Vector to reimburse those consumers for those overpayments for assets that were not fit for service. The ODV prior to the failure was overvalued in the first place.

20. *How can accounting depreciation best be kept in line with economic depreciation?*

No comment.

21. How should assets be treated when they remain useful beyond their expected life?

In a competitive market the assets would be kept in service by the owners rather than be replaced. That is the best outcome from the national point of view and should also be the objective for the threshold regime for line businesses.

From a regulatory practice point of view these assets should be left on the regulatory asset base at a nominal value of \$1 – this would apply to both DHC and ODV options. Any attempts to prematurely replace these assets that still have useful life should be picked up in the Asset Management Plans of the line business and line users and or the regulator could then raise the issue directly with the company.

22. How should uncertainty as to the useful economic life of an asset be accounted for in terms of regulated depreciation?

See question 20.

23. What effect would economic depreciation have on price profiles over time?

If an asset were stranded earlier than its standard economic life and the owner were able to accelerate depreciation (ie economic depreciation) for the shorter life, then prices for those assets would rise. In a competitive market a supplier whose assets were unexpectedly to become stranded could not in the revised limited lifespan of the asset unilaterally raise prices to recover economic depreciation.

If line businesses are allowed to use accelerated or economic depreciation when assets unexpectedly become stranded then if consumers are to bear that risk then the line owner should be compensated by a lower WACC reflecting this risk allocation.

24. Is capital efficiency best determined ex ante or ex post, or by a mixture of both? Are some factors pertaining to capital efficiency best considered ex post and others considered ex ante? How are capital efficiency assessments best conducted?

No comment.

25. What investments incentives do the various types of capital efficiency reviews create?

An ex post review mimics markets by creating pressure on the supplier and results in an incentive to make the best investment decisions. There is a risk that the ELB will tend to under-invest to avoid any stranding, but that can be managed by incentives to meet other aspects of the threshold regime or quarantining ODV values for 5 years as provided in Part F of the EGEN Combined Industry Rule Book².

An ex ante review creates an incentive on the ELB to get as many assets as possible approved by the regulator and the regulator in turn will not wish to be accused of having any lights go out because of line service problems. This will lead to overbuild.

26. How frequently should capital efficiency reviews be conducted? What factors should be considered in deciding how frequently to conduct such reviews?

If ODV is used, then annually or randomly at the discretion of the Commission.

² MEUG expect a Part F type process to commence irrespective of whether the EGBL rulebook commences or not

- 27. Does the level of inflation/deflation in the electricity industry suggest one valuation methodology would be better than others? Would compensation for inflation through indexation preserve the purchasing power of investors' committed funds? What are the pros and cons of indexation?**

No comment.

- 28. What relevance does FRS-3, or any other standards and policies, have for the Commission's criteria for evaluating valuation methodologies?**

FRS-3 and other standards can be useful in lowering the implementation costs of one valuation method compared to another. However the objectives of FRS-3 and other standards will not entirely align with s.57E and therefore are unlikely to be entirely appropriate without some adjustments. For example FRS-3 is primarily concerned with providing the owners of a business some surety as to the value of an enterprise as a whole at a certain point in time, where for regulatory purposes the primary objective is to meet consumer demands over time in a manner that largely replicates that of a competitive market. Therefore for the latter exactly how specific assets are valued and priced over time is important but isn't for FRS-3.

- 29. What other accounting policies or practices, if any, are relevant to the review?**

No comment.

- 30. What scope is there for substitution of capital and operating expenses for electricity lines businesses system fixed assets?**

With the introduction of new technologies (eg dynamic line rating) and methodologies (eg shift from deterministic to probabilistic approaches to managing system security) to allow more active management of networks and loads connected to the network, then there is some scope.

- 31. Should the regulatory asset valuation methodology include prescribed accounting policies, such as in relation to capitalisation and depreciation?**

Yes.

Chapter 5 – Asset valuation methodologies

- 32. Are there some system fixed assets that could be put to alternative uses outside of the electricity industry and, therefore, appropriately valued at opportunity cost? What assets have high specificity (ie only have value in their current use)?**

Best answered by line businesses.

- 33. What could explain the evidence of transactions of electricity lines businesses' system fixed assets greater than their ODV? How important are current and intangible assets in explaining the evidence?**

Apart from possibly some tax drivers and minor operational synergies, we think the main reason is an expectation that excess profit taking will continue to be bankable. The response of the market since passage of the Commerce Amendment Act last year is that the regime will continue to be permissive and multiples of ODV bankable (eg sale and purchase of Otago Power and United Networks continued to be at multiples of ODV of between 1.8 and 2.1).

34. ***What are the pros and cons of combining capital efficiency reviews with a historic cost approach? How great is the scope for capital efficiency reviews under a historic cost method?***

No comment.

35. ***What events could be used as a base for valuing system fixed assets at historic cost? What are the relative merits of using the book values at each of these particular events as a base for historic cost value? What would be the most appropriate date to use for assessing the historic costs of electricity lines businesses?***

No comment.

36. ***What are the pros and cons of indexing historic cost values for inflation?***

Issues fairly covered in discussion paper paragraph 5.30.

37. ***How important is it that an asset valuation methodology replicates or mimics competitive market outcomes, given the regulatory objectives of Part 4A and the Commission's evaluation criteria?***

Very important.

38. ***Does the ODRC approach have economic merit in terms of mimicking competition? Do any other asset valuation approaches have more merit in the regards?***

The ex post ODRC/ODV approaches create an incentive on the line owner to get it right, much like an investor in a competitive market. Ex ante historic cost based approaches probably do not create the same incentives.

Refer also to question 25.

39. ***If electricity lines businesses have revalued their assets in the past but have not matched those revaluations with income forgone, should their current return on capital be calculated using a real WACC?***

Do not believe this link is essential. Future price and valuation methodologies should meet the key criteria of dynamic efficiency and minimising excessive profits in the future. The fact that a company may have revalued assets in the past but not reduced charges and therefore made an excess return does need to be addressed, but not necessarily by using a real WACC in the future. An alternative is to ensure any future de-valuations are a limited cost to consumers to match the past excess returns inclusive of past revaluations upwards.

40. ***If revaluation gains have not been treated as income, should consumers now be compensated in some way? If so, how?***

Refer to question 39.

41. ***Are there likely to be significant differences between the inflation or asset prices and the inflation implicit in a nominal WACC calculation?***

The answer is an empirical issue and could be answered by comparing CPI changes relative to asset prices in the ODV Handbook to date.

42. ***If businesses bear the cost of downward revaluations is this risk asymmetric (ie to the disadvantage of investors) and how could it be reflected in the WACC without compromising incentives for efficient investment?***

It doesn't matter who bears the risk as long as it is fairly priced. If investors bear the cost of downward revaluations then contracting for services before investing in any dedicated/specialised assets is a means for managing/allocation of risk and returns involved.

43. This question repeated question 42 above.

44. How important is an EV assessment to the theoretical underpinning of ODV?

EV is consistent with an opportunity cost approach. The problem with EV is how it is implemented, achieving consistency between line company valuations and the cost of performing an EV. In practice EV is a small percentage effect on ODV, though if either distributed generation technologies become much cheaper or smarter ways of managing networks occur (refer question 30), then the percentage of EV to ODV is likely to rise.

45. Why does the EV component have limited impact on ODV values (as per the Handbook)? Are the factors identified by the Commission significant?

No comment.

46. What are the additional costs of an EV assessment (over and above an ODRC assessment)? Do the costs outweigh the benefits?

Insufficient information on incremental costs of undertaking EV to comment, but would be surprised if incremental costs exceeded aggregate industry EV reductions.

47. Are there significant numbers of "uneconomic" customers for electricity lines businesses? How should the costs of any uneconomic customers be allocated?

No comment.

Chapter 6 – Current use of the ODV methodology

48. If the prescribed ODV method were to be used as an input into the regulatory functions under Part 4A, what, if any, changes would be required to the fourth edition of the ODV Handbook? What effect would any necessary changes have on the values of system fixed assets?

There are two overall changes to the handbook we suggest:

- The disclosure of assets should be disaggregated by as small a region as possible (eg grouped according to closest GXP). This will ensure asset related prices reflect local assets used and the situation does not occur where the line users in one region subsidise end users in another region owned by the same line company.

This requirement would add compliance costs to line businesses but would lower the cost of participation in the process by line users'. Asset investment and pricing in the future will benefit (ie lead to more efficient outcomes) if line users' are given more information to validate charges and in some cases make informed decisions about future line services, and therefore there will be a beneficial effect to the economy.

- The presentation and disclosure of ODV reports should assist line users' in understanding the capital charges they pay and what alternatives might occur in the future. Improving accessibility by end users' could be assisted by:
 - Requiring ODV reports to be published in a standardised format (eg like the ROI calculations tables must now be disclosed);

- Requiring ODV reports to have a reconciliation between prior year ODV reports;
- Requiring ODV reports to have a reconciliation with Asset Management Plans; and
- Requiring invoices to consumers to specify details of line charges including asset related components (eg transmission and distribution capital charges and any capital contribution offsets).

As with the proposal for standardised reporting templates above, these proposals will add compliance costs to line businesses' but lower the cost of involvement and ability to understand charges and future options for line users' and the regulator

The changes to the Handbook suggested by PB Associates³ are supported apart from:

- We do not support the proposal that a residual life beyond the maximum Handbook lives be permitted if that increases the total NPV to the owner above ODRC. Lives should be extended if the asset remains economic, but the owner should have no claim for a return on or of the asset beyond the Handbook maximum life. Refer also question 21.
- We do not believe it necessary to review if EV calculations should continue to be required as part of the ODV methodology. Refer also question. Refer also question 44 and 46.

Chapter 7 – Industry specific issues

49. *Are the standard costs currently listed in the ODV Handbook appropriate?*

No comment.

50. *How significant is the rate of technological progress on the potential for shifts in demand for the valuation of electricity lines businesses system fixed assets?*

Large scale stranding unlikely in next 10 years and probably for several decades as no significant step change in technology is being investigated that we are aware of, but lots of incremental improvements occurring.

51. *Is there evidence that the replacement costs of system fixed assets will rise or fall (and how fast) relative to the rate of CPI inflation?*

No comment.

52. *Is there evidence that rates of technological change are sufficiently high to warrant full depreciation over a period significantly shorter than the relevant asset's technical life?*

No comment.

53. *What industry specific issues can affect the prudence of investment decisions? What relevance do these issues have for choice of valuation methodology?*

No comment.

³ PB Associates Ltd, Recalibration of asset values of large electricity line owners – closing report, prepared for Commerce Commission, 1 August 2002, p2

54. Under what circumstances should capital contributions be excluded from the regulatory base? Where this is desirable, how should they be excluded?

Capital contributions should be specifically accounted for against either specific classes of line users or individual end users line charges. If capital contributions continue to be generally expensed then the situation may occur where an end user who has already paid a large capital contribution against a particular dedicated asset (eg a rural consumer paying for several km of a spur line), will pay again under a potential change in the pricing methodology.

55. Should assets associated with contestable services be ring-fenced from other system fixed assets? What evidence can be provided to demonstrate that specific agreements with one or more customers were negotiated on fair and reasonable terms and/or subject to competitive pressure?

There is a broad spectrum of cases possible from an entirely green-field project where line companies compete to build lines to an end user or subdivision through to examples where an existing line company will have a significant competitive advantage (if not a monopoly) as holder of existing easements to outbid any potential competitor to enhance supply to an existing end user.

There should be no barrier to parties agreeing by contract for dedicated line services and therefore use of assets; provided the parties agree those assets will be excluded from the regulated asset base. It would therefore be worthwhile developing a set of rules to cater for various cases so that end users and line owners know clearly when assets that are dedicated/contracted fall within or outside a regulatory asset base.

56. Should the value of some assets be determined by the associated contractual revenue streams (rather than by reference to historic cost or replacement cost)?

Yes and a set of rules should be developed and willing parties should be able to contract dedicated contract assets out of the regulatory asset base.

57. What assets should be included as "system fixed assets"?

The minimum set of assets consistent with the monopoly regulation. If technology "erodes" "the minimum monopoly business", then so too should the set of assets to be regulated be reduced.

58. How should an asset be valued for regulatory purposes where it also provides line services that are not subject to regulatory oversight by the Commission?

No comment.

59. Should asset valuations be disclosed in respect of distinct network regions?

Yes because this will avoid cross-subsidisation between regions and poor pricing signals to end consumers in different regions.

Refer question 11 where we note the impact on the dynamic efficiency of end users if cross subsidisation between regions occurs.

60. What is the best way to value land and easements? Should easements be valued differently to other system fixed assets? Are there any access concerns in respect of getting new easements or access to existing easements?

The current ODV Handbook treatment seems reasonable.

61. What factors or considerations could provide a basis for different valuation approaches across different sectors?

Nothing more to add to discussion paper paragraphs 7.32 to 7.39.

Chapter 8 – International Practice

62. What lessons can be learned from international practice?

Best regulatory practice is constantly evolving and hence room for the regulator to quickly manoeuvre is needed.

Chapter 9 – Implementation and Operational Issues

63. To what extent are the implementation and operational issues identified by the Commission relevant and, if so, to what extent for each valuation method? Are there any other implementation and operational issues that should be identified and, if so, how significant are they?

In question 13 we noted “It is not just the cost effectiveness of the line businesses complying and the Commission oversight that needs to be considered, but also the costs of consumers engaging in the process, particularly to ensure their expectations and trade-offs for demand levels and quality are met.”

64. If DHC (or DIHC) were the preferred method for establishing the baseline valuation of electricity line business system fixed assets for regulatory functions under Part 4A, how could this be best achieved?

No comment.

65. Up to what time were historic cost-based system fixed asset records maintained? Are possible difficulties surrounding establishing a true historic cost-based opening valuation genuine concerns? How could these difficulties be overcome, if at all?

No comment.

66. If true historic cost could not be derived for the baseline valuation, is there a reasonable proxy for historic cost that could be used instead? What implementation issues might exist with a “reasonable proxy” approach?

No comment.

67. What implementation or operational disadvantages or pitfalls might exist if the latest ODV value of system fixed assets were used for the baseline valuation, with future assets included and accounted for in the asset base at DHC (or DIHC)?

No comment.

68. Assuming it was possible to determine a baseline valuation for system fixed assets using a historic cost-based approach (or a reasonable proxy for historic cost), what implementation issues might arise in attempting to align the detailed (ODV) asset records with the baseline valuation? How could any implementation issues be satisfactorily addressed?

No comment.

69. What would be the implementation and operational implications for accounting systems and processes if regulatory asset valuation required an historic cost-based

approach (DHC or DIHC)? How could the implementation issues be satisfactorily addressed and in what timeframe?

No comment.

- 70. *To what extent should the valuation method (DHC, DIHC, DRC, ODRC, or ODV) be prescribed by the regulator?***

Prescribing cost and economic life assumptions per the current rulebook will be necessary for any valuation approach. A process to allow exceptions to be granted rather than leaving to the discretion of an auditor might be useful.

- 71. *If the ODV method were adopted for regulatory purposes, is the handbook for the prescribed ODV method adequate, or are changes required?***

Refer question 48.

- 72. *In respect of historic cost-based asset valuation approaches, could reliance on accounting standards (particularly FRS-3) and conventions be relied upon to ensure consistency or comparability of valuations?***

No comment.

- 73. *What implementation period would be necessary for implementation of the different valuation methods? What factors would influence the amount of implementation time needed?***

No comment.

- 74. *What factors are relevant to deciding the appropriate period between system fixed asset (re)valuations for regulatory purposes? How often should (re)valuations of system fixed assets be undertaken for regulatory purposes?***

(Re)valuations should be undertaken whenever line charges are changed or there is a material change in the asset base (eg 10%). For simplicity and to ensure consistency for benchmarking between companies, a fixed annual cycle would appear appropriate.

- 75. *Should independent financial and engineering experts continue to be required to approve valuation reports?***

The regulator should be able to either on a standard cycle or randomly audit ELB reports and use independent experts as necessary.

- 76. *What are the advantages and disadvantages of using a common auditor across all electricity lines businesses? Should this process be undertaken by the Commission?***

Refer to question 75.

- 77. *What work do auditors currently perform under the electricity information disclosure regime in respect of system fixed assets? How does this audit work compare with audits carried out for statutory financial statement purposes? Are the audit scope and audit work carried out sufficient?***

The audits for regulatory purposes are different from usual financial statement audits, nevertheless provided rules and well defined and a process for managing aspects not covered by the rules is in place, auditors have good systems to provide independent checks provided they are selected and engaged on an independent basis.

- 78. What factors should be borne in mind when considering alternative valuation methods for Part 4A given that electricity lines businesses use system fixed asset valuations for other purposes?**

No comment.

- 79. What are the costs associated with conducting a valuation under the different approaches? What costs would be incurred regardless of the methodology used? What costs are likely to be additional?**

No comment.

Chapter 10 – Comparisons of asset valuation methodologies

- 80. What are the pros and cons of limiting capital efficiency reviews to additions to the opening asset base? What level of cost savings could be achieved by limiting capital efficiency reviews to the opening asset base?**

No comment.

- 81. What valuation methodology best promotes allocative efficiency? Please provide comment in terms of the level, structure and time profile of prices.**

The conclusion in paragraph 10.22 that the allocative efficiency criteria will be neutral between DHC and ODV approaches is supported because we agree that depreciation profiles need not be solely straight line.

- 82. Could operational efficiency be improved by the choice of valuation methodology and, if so, how?**

The conclusion in paragraph 10.28 that ODV is preferred over DHC for the productive efficiency criteria is supported.

- 83. How important is the ability to perform benchmarking to the choice of valuation methodology, particularly given the nature of system fixed assets?**

Low importance relative to achieving dynamic efficiency.

- 84. What would be the financial and balance sheet implications for electricity lines businesses if profits or prices were constrained on the basis of a DHC (vesting value-based) valuation? What would be the implications of constraining prices on the basis of current ODV values?**

Some companies may be under financial pressure if they expected that the NPV of future earnings could justify multiples of ODV and have geared up for that, when as we suggest, in a regulated environment that mimics a market outcome market values should be close to ODV. Any line owner that find themselves under such financial pressure only have themselves to blame; especially in face of the introduction of a thresholds regime.

- 85. Are there any circumstances or considerations that would justify the regulatory valuation of assets above ODV? Should investors in electricity lines businesses have legitimately expected to earn a return on any price paid above ODV?**

The answer to both questions is none.

- 86. How is the choice of opening asset values likely to effect investors' perceptions of regulatory risk (and therefore dynamic efficiency) going forward?**

LECG have argued that a switch mid stream between valuation methodologies is a significant risk while recognising that if such a change is advantageous to line owners then it will disadvantage users and vice versa⁴. There has always been regulatory risk and perhaps more so before the law change. Now at least the rules are becoming more defined. Refer also to question 84.

87. What inferences, if any, could electricity lines businesses reasonably have drawn as to the appropriate asset valuation methodology to be used for pricing, from the introduction or information disclosure in 1994?

An ODV type approach could reasonably have been inferred.

88. What impact might the introduction of Part 4A have had on investors expectations regarding asset valuation methodologies?

Would have thought reduced opportunities to extract monopoly rents, though sales of line businesses since passage of the legislation does not bear that out. Refer also question 33.

89. Which valuation methodology would best promote dynamic efficiency?

The discussion paper says there is no real difference between DHC and ODV. On balance ODV creates better incentives on the line owner to get it right, but it must be matched with a WACC that fairly recognises the true risks the owner bears.

90. To what extent is optimisation required in the case of the system fixed assets of electricity lines businesses?

In competitive markets the value of a business is constantly changing. Optimisation is a market proxy for a regulated business. Optimisation is a necessary step to ensure the opportunity cost of the assets is estimated.

The ROI formula in the Electricity (Information Disclosure) Regulations puts all of the risk of optimisations onto consumers by allowing those to be treated as revaluations. Optimisations is treated in the ROI formula to cover any change in ODV value from year to year, ie not just Optimisations in the ODV process, but also changes in replacement cost due to inflation of change in standard asset lives. This begs the question as to what risk are line businesses taking using the ROI formula in the disclosure regulations that does not distinguish between the different drivers for changes in asset value.

91. To what extent is this optimisation being undertaken through the application of the current ODV handbook?

The ODV Handbook optimisation process has been improving though there may need to be closer examination of the issue raised by Parsons Brinckerhoff Associates⁵:

“The existing optimisation rules are generally adequate. Their main disadvantage is that the value of the optimised distribution network is strongly influenced by the design of the pre-optimised network. This means that two networks providing a similar level of service can have significant differences in value.”

92. Have electricity lines businesses earned excessive profits in the past?

Some have. Refer MEUG written and verbal submissions to the Commission on the 1 March 2002 discussion paper on the threshold regime. This was only a sample of a few line

⁴ Tony van Zijl and Timothy Irwin, LECG, *Historic Cost and Replacement Cost: Efficiency implications of their use in price setting*, 14 August 2001

⁵ Parsons Brinckerhoff Associates Ltd, Prepared for Commerce Commission, *Recalibration of asset values of large electricity line owners – closing report*, 1 August 2002, page 1

companies for one year. The scale of excessive profit taking and inappropriate allocation of costs and risk to consumers (eg Vector's treatment of the failed CDB cables in question 19) is not known but given the MEUG small sample, it may well be in excess of several hundred million dollars since 1994 when the initial ODV was established and each year since.

93. *How have revaluations gains been treated by electricity lines businesses in the past?*

We do not know but look forward to seeing answers to this question by the electricity lines businesses. Transpower has been an exception where it's approach has been transparent and consistent with their target WACC via the "Accumulated Economic Gain/Loss Memorandum Account."⁶

The Commission might consider formally requesting each electricity line business (Transpower excepted) to account for all revaluation gains since 1994 in a manner similar to Transpower's approach. This will result in a comprehensive understanding of who has borne the costs and benefits of revaluation gains to date for each network.

94. *How should the issue of consistency (including the treatment of revaluation gains) influence the choice of asset valuation methodology?*

For revaluations we recommend they should be undertaken annually otherwise there will be "lumpy" revaluations and ROI in those years will be misleading.

95. *How would the Commission's choice of opening values affect the profile of expected returns under different valuation methods into the future?*

No comment.

96. *Can both ODV and DHC valuation methods deal with the issue of excess profits? What factors should be looked at in determining whether each valuation methodology has been applied consistently over time to avoid excessive profits?*

Both methods in conjunction with pricing and reporting processes can deal with excess profits.

97. *When using a nominal WACC and a replacement cost methodology, should gains due to inflation be treated as income in the year after they occur? Could they be spread over a number of years? What are the difficulties with this approach, e.g., could there be "spiralling up" of moneys that have to be redistributed to customers in later years? Would interest need to be charged on this outstanding amount?*

Smoothing revaluation gains over a number of years is one option. Alternatively if revaluations are conducted annually, the rate of such changes is likely to be small and could be passed through in prices immediately. Transpower undertake revaluations annually and its approach is, in our view, best practice.

98. *How difficult would it be to obtain a valuation based on a "pure" historic cost valuation? How difficult would it be to obtain a valuation based on book value at vesting plus additions and deletions valued at historic cost? Is the information available from separation or more recently? Does the quality of information available preclude the use of any opening valuation methodology?*

An opening valuation based on historic costs is probably unrealistic because of lack of information.

⁶ Refer Transpower Annual Report 2002, p82

99. On balance, what is the preferred methodology for opening valuations of distribution businesses system fixed assets? Please comment on the relative importance of the factors considered by the Commission and any other factors considered relevant.

Lack of information on the historic costs of all assets or the high cost and relative subjectivity to construct what the history may have been is likely to make DHC or DIHC not practicable for determining opening valuations of each business as a whole. There may be merit in using the 31 March 2001 recalibrated ODV on the understanding that the ODV Handbook will be revised promptly and rules about how generic changes in valuation are to be treated will be explicitly stated and linked to WACC and pricing. Such changes to accommodate improvements in the Handbook will be inevitable in the future also, just as they have in the past.

100. On balance, what is the preferred methodology for future valuations of distribution businesses system fixed assets? Please comment on the relative importance of the factors considered by the Commission and any other factors considered relevant.

For assets with an opportunity cost the forward valuation methodology could be implemented using either DHC or ODV with, from a theoretical perspective, exactly the same NPV return to a line owner (and cost to line users). The difference between theory and practice is that DHC will probably be lower cost than ODV to implement, but ODV will create better incentives on the line owner to make efficient investments. On balance the latter is the most important of the efficiency criteria and therefore ODV is preferred as the ongoing valuation methodology.

If lines businesses have specialised assets that have no opportunity cost then DHC as proposed for specialised airport fixed assets should be considered, with the balance of fixed assets valued in the future at ODV as suggested above.

101. On balance, what is the preferred methodology for opening valuations of Transpower's system fixed assets? Please comment on the relative importance of the factors considered by the Commission and any other factors considered relevant.

Same as for distribution businesses refer question 99.

102. On balance, what is the preferred methodology for future valuations of Transpower's system fixed assets? Please comment on the relative importance of the factors considered by the Commission and any other factors considered relevant.

Same as for distribution businesses refer question 100.