



Submission by

Hawke's Bay Network Limited

on the

Review of

Asset Valuation Methodologies:

Electricity Lines Businesses'

System Fixed Assets

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Submission by Hawke's Bay Network Limited to the Commerce Commission on the Review of Asset Valuation Methodologies: Electricity Lines Businesses' System Fixed Assets

1. Executive Summary

- 1.1 Hawke's Bay Network Limited (HBN) makes the following submission in response to the Discussion Paper 'Review of Asset Valuation Methodologies: Electricity Lines Businesses' System Fixed Assets' dated 1 October 2002 ("Discussion Paper") published by the Commerce Commission.
- 1.2 The Commission has published two earlier papers: an Issues Paper entitled 'The Review of Asset Valuation Methodologies' dated 14 March 2002 ("Issues Paper"); and a Discussion Paper entitled 'Regulation of Electricity Lines Businesses' dated 21 March 2002 ("Regulation Discussion Paper").
- 1.3 HBN prepared submissions in response to both those papers. In response to the Issues Paper on asset valuation methodologies, HBN noted that whether or not a valuation methodology was appropriate depended on the use or uses to which the valuation would be put. In response to the Regulation Discussion Paper, HBN set out a preferred option for thresholds assessments which included a valuation method for existing assets and a transparent Asset Management Plan to enable consumers and other stakeholders to scrutinise its new investment proposals.
- 1.4 In the Discussion Paper, the Commission has indicated that it intends to use the valuation of electricity lines businesses' system fixed assets primarily for determining appropriate thresholds for control of electricity lines businesses. In responding to the Discussion Paper, HBN would like to make the point that many of the issues raised in the Discussion Paper cannot be resolved without also resolving related issues that were raised in the Issues Paper and the Regulation Discussion Paper. HBN would also like to make the point that electricity lines businesses' assets include more than just their system fixed assets.
- 1.5 In this submission, as in its earlier submissions, HBN has considered the alternatives put forward by the Commission in terms of the Purpose Statement that is set out in s57E of Part 4A of the Commerce Act 1986 ("Purpose Statement"). HBN considers that Purpose Statement to be the over-riding consideration when assessing the various components that might make up the regulatory regime, including the asset valuation methodology.
- 1.6 HBN has distinguished between electricity lines businesses' system fixed assets that existed before, and those built after, the date on which a process is implemented to enable customers and other stakeholders to scrutinise new investment proposals put forward by electricity lines businesses. This process will, in HBN's view, be key to striking the right balance between under- and over-investment in system fixed assets by electricity lines businesses. In this submission, electricity lines businesses' system fixed assets built before that

process is implemented are referred to as “existing assets”, and those built after as “future assets”.

- 1.7 In the Discussion Paper, the Commission has considered, as one of a number of possible options, a historic cost-based approach to value existing assets. Electricity lines businesses have used “historic cost” values in the past, but not for purposes such as those now being contemplated by the Commission. The historic cost records of electricity lines businesses are incomplete and would not provide an accurate representation of actual costs. Although it might be possible to create a proxy historic cost valuation, such a proxy would also bear little relationship to the actual costs of the assets (or their current value). Therefore HBN concludes that the historic cost-based approaches considered in the Discussion Paper, using historic costs taken from electricity lines businesses’ past records or a proxy for historic cost, would not be an appropriate asset valuation methodology for valuing existing assets.
- 1.8 The valuation of the existing assets should fairly reflect the cost of providing those assets. Two of the most important considerations in recovering the costs of existing assets are, in HBN’s view, to:
 - ◆ ensure the sustainability of the business; and
 - ◆ keep implementation costs low.
- 1.9 Electricity lines businesses currently calculate a value of their existing assets using an Optimised Deprival Value methodology that is prescribed in the ODV Handbook published by the Ministry of Economic Development (the “prescribed ODV” methodology). The prescribed ODV methodology underestimates the actual costs of providing electricity lines businesses’ system fixed assets in that it does not include all costs and the current standard asset values contained in the Handbook are out of date. Therefore HBN concludes that the prescribed ODV methodology would also not be an appropriate asset valuation methodology for valuing existing assets for any purpose other than its current use for information disclosure.
- 1.10 HBN believes that an appropriate valuation methodology for valuing existing assets could be developed that is similar to the prescribed ODV methodology, but with appropriate modification to more closely reflect actual costs. HBN notes that the EV assessments and optimisation in the ODV methodology have had little effect on the valuations of most electricity lines businesses and so believes that the EV assessments and optimisation are not required. HBN considers a Depreciated Replacement Cost (DRC) methodology would be a more cost effective valuation methodology than a full ODV methodology for valuing existing assets.

- 1.11 HBN believes that future assets could also be valued using a DRC valuation methodology. Future assets should not be subject to EV assessments or optimisation because they will be subject to ex ante capital efficiency reviews. EV assessments and optimisation are both forms of ex post capital efficiency reviews that are:
- ◆ potentially dynamically inefficient, because they create a disincentive to invest in system fixed assets; and
 - ◆ unnecessary, where assets have already been subject to ex ante capital efficiency reviews.
- 1.12 While HBN has endeavoured to provide responses to all of the questions put by the Commission in the Discussion Paper, it would like to emphasise that some questions simply cannot be answered fully at this stage. Although focussing on only some of the components of the regulatory regime at a time keeps each block of work to a manageable size, it does mean that some matters cannot be resolved until other, related matters are also resolved. In the case of this review of asset valuation methodologies, some of the issues related to valuation methodology cannot be resolved until the relationship between the valuation of an electricity lines businesses' system fixed assets and its potential use to determine a revenue threshold has been established.

2. Introduction

This submission is made by Hawke's Bay Network Limited ("HBN") in response to the Commerce Commission's Discussion Paper 'Review of Asset Valuation Methodologies: Electricity Lines Businesses' System Fixed Assets' dated 1 October 2002 ("Discussion Paper"). The Discussion Paper is the third in a series of consultation papers relating to the regulation of electricity lines businesses published by the Commission. The other two papers are:

- ◆ an Issues Paper, 'The Review of Asset Valuation Methodologies', 14 March 2002 ("Issues Paper"); and
- ◆ a Discussion Paper, 'Regulation of Electricity Lines Businesses', 21 March 2002 ("Regulation Discussion Paper").

The Issues Paper sought respondents' views on possible asset valuation methodologies, without specifying the use to which the resulting valuations might be put. The Regulation Discussion Paper canvassed a number of options for setting thresholds for assessing electricity lines businesses to determine whether or not the Commission should make a declaration of control on an electricity business's prices and/or revenues.

HBN responded to both of those earlier papers. In its response to the Regulation Discussion Paper, HBN supported a thresholds regime option that would, in HBN's view, best meet the objectives set out in the Purpose Statement and impose relatively low incremental cost. That option consisted of:

- ◆ a valuation methodology for existing assets;
- ◆ setting an industry WACC + margin;
- ◆ use of consumer preferences as key inputs;
- ◆ a transparent Asset Management Plan; and
- ◆ efficient cost adequacy demonstrated by disclosure of prices and service outputs.

In responding to the Issues Paper, HBN commented that it was not possible for it to state a clear preference for any single asset valuation methodology without knowing the use or uses to which the valuation derived from it would be put. The present Discussion Paper now clarifies the intended use of the valuation, which is primarily as an input to setting the thresholds in the proposed regulatory regime.

Although the use of the valuation has been clarified, many of the issues covered in the Discussion Paper, and many of the questions put by the Commission, cannot be resolved without knowing how other, related matters will be resolved. In particular, there are issues and questions in the Discussion Paper that are more closely related to revenue setting than to asset valuation methodology. Those issues and questions cannot be fully resolved until the linkage between asset valuation and revenue has been established.

HBN also notes that the total revenue will be related to total assets employed, and that the asset valuation methodology in the Discussion Paper is intended to apply only to system fixed assets.

3. Purposes and Objective

The Discussion Paper has been published by the Commission to meet the requirements set out in s 57ZD of Part 4A of the Commerce Act 1986 ("Act") under which it must *'carry out a review of valuation methodologies for line business system fixed assets as soon as practicable ("review")'*. The Commission notes in the Discussion Paper (in paragraph 1.12¹) that *'there is no explicit purpose statement in the Act for the review'*. However (in paragraph 2.13) *'the Commission considers it important to take into account:*

- ♦ *the regulatory context in which the review is being undertaken, specifically, the requirements under Part 4A that the Commission develop a thresholds and control regime for large electricity lines businesses; ...'*

The relevant Purpose Statement is therefore that of subpart 1 of Part 4A, and contained in s 57E, which sets out the purpose as being:

'... to promote the efficient operation of markets directly related to electricity distribution and transmission services through targeted control for the long term benefit of consumers ...'

This Purpose Statement should, in HBN's view, be the over-riding if not the only criterion against which all components of the regulatory regime, including the asset valuation methodology should be assessed.

In its submission on the Regulation Discussion Paper, HBN emphasised the importance given in the Purpose Statement to the long-term benefits to consumers. In order to achieve that purpose, HBN believes that the choice of valuation methodology for electricity lines businesses' system fixed assets needs to recognise that:

- ♦ the primary objective in the provision of system fixed assets is to ensure dynamic efficiency, in terms of the nature and timing of investing in new system fixed assets and maintaining existing ones. The valuation methodology should therefore provide incentives for electricity lines businesses to make investment and operating decisions that are dynamically efficient.
- ♦ the primary driver for those investment and operating decisions is the delivery of services of a quality that reflects consumer demands. Therefore, the methodology for valuing electricity lines businesses' system fixed assets should include a process for taking into account not only the level but also the quality of services demanded by consumers.

¹ Unless indicated otherwise, references to numbered paragraphs refer to those in the Discussion Paper.

A key consideration in achieving dynamic efficiency is, clearly, a process by which an electricity lines business can make investments in system fixed assets that meet consumers' demands for services without under- or over-investing. An electricity lines business should not under-invest, because it would then be failing to meet consumers' demands for services and lead to long-term detriment to consumers; nor should it over-invest, which would also lead to long-term detriment to consumers if they were to bear the cost of that over-investment.

Methodologies are required for valuing both existing and future assets. The costs of existing assets are sunk so are different from new investment costs. Therefore, from a dynamic efficiency perspective, the factors that need to be taken into account in valuing existing assets are different from those for valuing future assets.

In the remainder of this submission, HBN sets out its views on a preferred valuation methodology that covers:

- ◆ The establishment of an opening valuation of existing assets.
- ◆ The introduction of a process for ensuring dynamically efficient new investment.
- ◆ A methodology for valuing future assets that have been subject to that process for ensuring dynamically efficient investment.

Then, HBN's responses to the specific questions in the Discussion Paper are given in the final section of this submission.

4. Opening Valuation

In HBN's view, two of the most important considerations for establishing an opening valuation that enables an electricity lines business to recover the sunk costs of its existing assets are:

- ◆ The sustainability of the business. In order to continue to provide services to its consumers, an electricity lines business must be able to operate as a sustainable business. A business that has an inadequate revenue stream to cover its costs will not be able to maintain its services, let alone provide additional services to meet growth in demand.
- ◆ Low implementation cost. The valuation of existing assets for which the costs are sunk should not impose excessive costs on electricity lines businesses. The valuation methodology should draw as much as possible on existing information sources and processes that are carried out as part of electricity lines businesses' normal operation, including those that are carried out to comply with existing regulatory requirements.

The Discussion Paper suggests (in paragraphs 5.21 to 5.30) that the Commission is considering using a historic cost-based approach to value electricity lines businesses' system fixed assets. Such an approach might, the Commission suggests, be used to establish an opening valuation of existing assets using a business's book value at a specified point in time.

HBN does not believe that a historic cost-based approach would be an appropriate way of establishing an opening valuation for existing system fixed assets. The data required to apply such a historic cost-based approach is not, in the case of New Zealand electricity lines businesses, available. Given the questionable accuracy of the historic data that is available, the resulting valuations would not ensure the sustainability of an electricity lines business.

Attempting to reconstruct a database of historic cost information, or to devise a reasonable proxy to historic cost, would be difficult, costly and, possibly, quite arbitrary. In HBN's view, a historic cost-based approach would fail to achieve what it set out to do, which is to establish the a valuation that is a reasonable representation of the actual costs of providing electricity lines business's existing system fixed assets.

Both of the above considerations of sustainability and low implementation cost could be satisfied by establishing an opening valuation using a methodology, such as the Optimised Deprival Value (ODV) methodology. The ODV methodology that is prescribed in the current ODV Handbook (the "prescribed ODV"), however, has been designed primarily for the purpose of information disclosure. It would not necessarily be appropriate to apply the prescribed ODV to any other regulatory purpose, such as for setting thresholds (though whether or not the prescribed ODV could be used to set, say, a revenue or price threshold would depend on the how that revenue or price threshold cap is related to the asset valuation. This relationship between valuation and revenue (or price), as we have pointed out earlier, has yet to be established).

The main concern that HBN has with the possible application of the prescribed ODV to calculating a revenue cap is that the valuation it produces significantly under-estimates the value of an electricity lines business's existing system fixed assets and, if used in conjunction with a Weighted Average Cost of Capital (WACC) plus a small margin, could result in inadequate revenues for electricity lines businesses. Some specific concerns with the prescribed ODV are that it:

- ◆ does not value resource consents, land and easements;
- ◆ uses standard replacement costs that are out-of-date and too low;
- ◆ prescribes asset lives that are insensitive to the state and use of individual assets;
- ◆ excludes the costs caused by disruption, demolition and decommissioning during refurbishment and replacement work, including the costs of temporary structures required to maintain continuity of services;
- ◆ prescribes standard costs, both labour and capital, which appear to be derived from large projects, which are well below the actual costs of smaller scale augmentations that make up the bulk of electricity lines business's projects; and
- ◆ understates the fixed establishment costs for capital projects of any size.

There are other, lesser, concerns such as the cost of carrying out Economic Value (EV) assessments, which for most electricity lines businesses, have little or no relevance but are quite time-consuming (and therefore costly) to carry out. Similarly, optimisation has had minimal impact on the valuations of most lines businesses.

In the case of HBN, the total impact has been less than \$5 million on an asset base of over \$120 million. Thus, except where a lines business has a significant proportion of supply to remote (generally rural) consumers, EV assessments and optimisation are an unnecessary imposition and Depreciated Replacement Cost (DRC) is a more cost effective valuation methodology than the full ODV methodology.

5. Dynamic Efficiency

In its submission to the Commission on the Regulation Discussion Paper, HBN proposed that electricity lines business's investments in new system fixed assets be subject to an Asset Management Plan ("Plan") process linking consumers' demands for the level and quality of services to the new investment proposals put forward by electricity lines businesses. A key function of the Plan is to establish a process of consultation between the electricity lines business and its consumers and other stakeholders.

In terms of the valuation methodology objectives put forward by the Commission in the Discussion Paper, such a process would serve as an ex ante capital efficiency review or prudence test. HBN believes that an ex ante capital efficiency review is the most appropriate means of achieving dynamic efficiency in deciding the nature and timing of investment in system fixed assets by electricity lines businesses.

HBN does not believe that ex post capital efficiency reviews, such as optimisation of assets already built, result in more efficient outcomes. On the contrary, if with the benefit of hindsight the values of system fixed assets may be written down, there is a strong incentive for electricity lines businesses not to invest in system fixed assets unless there is a high degree of certainty that there will not be changes in demand or technological change that will make the assets redundant or obsolete. In creating a disincentive to invest, ex post capital efficiency reviews are likely to result in the under-supply of the level or quality of services, which will ultimately be to the long-term detriment of consumers.

6. Future Assets

In the option proposed by HBN in its submission on the Regulation Discussion Paper, the date at which the ex ante capital efficiency process is implemented marks the crossover from existing to future assets. For the reasons set out above, once such a process has been implemented, ex post reviews of investment decisions would become inappropriate. Future assets would not be subject to optimisation, so would not be valued using a methodology such as ODV. Instead, the values of those assets, once built, would be safe-harboured and could be valued using either a historic cost-based approach or one based on replacement cost.

The Commission (in paragraph 4.11) describes investment risk, which would be allocated differently by the different asset valuation methodologies, to include:

- ◆ general price inflation;
- ◆ asset failure;

- ◆ economic stranding; and
- ◆ obsolescence (which is a particular form of economic stranding).

Under asset valuation methodologies that have only ex ante capital efficiency reviews, economic stranding risk, including obsolescence, would be borne by consumers and asset failure risk by electricity lines businesses.

The Commission (in paragraph 4.43) suggests a number of ways of dealing with inflation when determining whether normal returns have been earned:

- ◆ historic cost and nominal WACC;
- ◆ replacement cost and real WACC;
- ◆ replacement cost, nominal WACC and revaluations as income; and
- ◆ inflation-adjusted historic cost, real WACC and revaluations not income.

HBN does not support the calculation and use of an industry-specific inflation index, partly because of the additional effort required to define and re-calculate such an index, but also because an industry-wide index would have little relevance to valuing the different mixes of system fixed assets of different electricity lines businesses.

To the extent that industry costs do change over time, such changes would be better dealt with through using a replacement cost-based approach. Replacement costs of system fixed assets will be regularly recalculated in order to update the standard values to be applied to existing assets and the same updated costs would be appropriate for valuing future assets also.

General inflation should be dealt with by using a nominal WACC. Hence, of the four options set out in the Discussion Paper and listed above, HBN prefers the third option.

HBN notes the asymmetric treatment of revaluation gains, which are treated as income, and revaluation losses, which are not treated as costs. However, such issues are not strictly related to the choice of asset valuation methodology, but to the way in which allowable revenue is derived from or related to the valuation.

7. Prerequisites of an Appropriate Valuation Methodology

An asset valuation methodology that meets the stated purpose and objective should, in HBN's view, be one that:

- ◆ enables an electricity lines business to operate as a sustainable business;
- ◆ be relatively low cost to implement so should, where possible, build on existing asset valuation data and processes. This, and the above requirement, could be met by an ODV-type methodology similar to the prescribed ODV methodology, modified so as to more accurately reflect actual system fixed asset costs and to explicitly take into account both the level and quality of services demanded by consumers.

- ♦ operates within a regulatory regime that requires electricity lines businesses to carry out ex ante capital efficiency reviews in conjunction with consumers and other stakeholders through an asset management planning process that enables consumers and other stakeholders to scrutinise the new investment proposals put forward by electricity lines businesses.

An asset valuation that satisfies these prerequisites is likely to be one that is based on a DRC approach for both existing and future assets.

8. Responses to Questions

The Commission has asked for responses at a more detailed level to some specific questions. HBN's responses are set in the following table. The question numbers are as set in the discussion paper, and the paragraphs or sections referred in the table are, unless explicitly referenced to another paper, also those in the Discussion Paper.

1.	<i>Should the same valuation methodology necessarily be used for thresholds assessments and for control?</i>	It is not necessary to use the same valuation methodology for thresholds assessments and for control, but (for reasons set out in response to question 2 below) it is desirable that they are the same.
2.	<i>What factors should be considered in deciding whether a consistent or different approach is desirable?</i>	<p>A consistent approach is preferred because, if the valuation methodology for thresholds assessments sets a lower threshold than that which would trigger a declaration of control, companies would be subject to a number of unnecessary investigations that would not ultimately lead to a declaration of control.</p> <p>This would create an environment of uncertainty for the companies and increase compliance costs.</p> <p>Furthermore, the cost of administering more than one methodology is higher than when a single methodology is used.</p>

<p>3.</p>	<p><i>What level of detail regarding asset values should be publicly disclosed? How should asset valuation requirements be prescribed in practice (e.g. a handbook)?</i></p>	<p>Information disclosure is intended to provide comprehensible data about the nature and performance of line businesses for industry and individual participants. As such, it has different purposes from the Commission's use of a valuation methodology.</p> <p>Given that the Commission has powers that allow it to access any information it requires to administer the regulatory regime, the level of detail regarding asset values that is publicly disclosed becomes less important.</p> <p>In particular, subpart 5 of Part 4A of the Act, "Provisions applicable to the electricity industry", allows the Commission to obtain information about electricity lines business's system fixed assets for the purposes of asset recalibration and asset valuation methodology review, which is in addition to the information regime in subpart 3.</p> <p>The level of prescription of asset valuation requirements should be sufficient to enable the Commission to carry out its functions of thresholds assessments and, where necessary, declaration of control.</p> <p>A handbook is appropriate for the purpose of thresholds assessments in that it will assist the Commission by ensuring that a minimum level of information is provided to it on a consistent basis by all electricity lines businesses, and will also assist the lines businesses by clarifying what their compliance obligations are.</p> <p>Declaration of control may require greater detail than can be prescribed in a handbook. However, as noted above, the Commission has the powers to obtain as much detailed information as it requires to carry out its regulatory functions.</p>
<p>4.</p>	<p><i>To what extent should there be any different approach to asset valuations (than for thresholds and control) used for disclosure purposes?</i></p>	<p>There should be no difference in approach to asset valuations between those for thresholds and control purposes and those for disclosure purposes. However, as noted above in response to question 3, although the underlying approach should be the same, the level of detail may differ.</p>

5.	<p><i>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?</i></p>	<p>The criterion of dynamic efficiency is by far the most important one to consider when assessing asset valuation methodologies.</p> <p>In HBN's submission to the Commission in response to the Regulation Discussion Paper, HBN noted that the overriding objective of the Purpose Statement is <i>"to promote the efficient operation of markets directly related to electricity distribution and transmission services through targeted control for the long-term benefit of consumers"</i>. This requires a regime that is, above all, dynamically efficient.</p> <p>Also, HBN agreed with the Commission's view (in paragraph 8.20 of the Regulation Discussion Paper) that allocative efficiency was less important and that the Commission should not examine allocative efficiency for the purpose of the thresholds regime.</p> <p>While HBN acknowledges the need for the regulatory regime to be cost effective and that the Commission should ensure that suppliers' are <i>"limited in their ability to extract excessive profits"</i>, HBN believes that these are subordinate to ensuring dynamically efficient outcomes and are intended only as means by which dynamically efficient outcomes will be promoted.</p>
6.	<p><i>What other evaluation criteria, if any, should the Commission consider?</i></p>	<p>Service quality – The asset valuation methodology should be capable of explicitly incorporating the service quality demanded by consumers as one of its key inputs. In HBN's submission on the Regulation Discussion Paper, HBN noted that pricing and quality are inter-dependent and supported the use of consumer preference surveys to enable consumers to make price/quality trade-offs.</p> <p>Sustainability – Electricity lines businesses are long-term businesses that are related to national economic welfare. This is recognised in the Purpose Statement, which stipulates the purposes of the regulatory regime as being <i>"for the long-term benefit of consumers"</i>. Unless the asset valuation methodology supports the provision of sustainable services by lines businesses, it will not achieve this purpose.</p>
7.	<p><i>In assessing asset valuation methodologies for system fixed assets, how important is allocative efficiency?</i></p>	<p>The primary consideration should be dynamic efficiency. A network where investment has been dynamically efficient will provide services at a quality demanded by consumers, at a cost, which is minimised over the long-term. In so doing, it should also be allocatively efficient over the long term.</p> <p>The converse is not necessarily true: prices (and, by implication, asset valuation) that are allocatively efficient in the short-term may not be dynamically efficient.</p> <p>If network revenues have been driven primarily by allocative efficiency concerns, there is (as the Commission acknowledges in paragraphs 3.8 and 3.11), a risk of damage to investment incentives, resulting in under-investment and, ultimately, diminished quality.</p>

8.	<i>How are the level, structure and profile of prices over time affected by the choice of valuation methodology?</i>	<p>Asset valuation is only one of a number of components that will be used to determine prices. At present there is no direct link between asset valuation and prices.</p> <p>Given the over-riding importance of dynamic efficiency, the valuation methodology should support a price profile that is smoothed over time and acknowledges the need for future new investments in current prices.</p> <p>HBN believes that any form of valuation methodology based on marginal cost would lead to volatile pricing.</p>
9.	<i>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?</i>	<p>The choice of valuation methodology and its use for revenue determination has a direct bearing on the service quality and the ability of electricity line businesses to provide services of a quality that reflects consumer demands.</p> <p>If the valuation methodology were to under-estimate the actual costs of providing services of a quality that reflects consumer demands (and was used to limit the electricity lines business's revenue so that it could not recover actual costs), the supplied services would be of a lower quality than consumers demand.</p> <p>Conversely, if a valuation methodology were to over-estimate the actual costs of providing services of a quality that reflect consumer demands (or did not take into account the quality of services that consumers demand), then it is possible that assets might be built that are not actually required.</p>
10.	<i>In assessing asset valuation methodologies for system fixed assets, how important is productive efficiency? What factors should be considered?</i>	<p>Productive efficiency is important inasmuch as it supports dynamic efficiency. Dynamically efficient asset management ensures that the lifetime cost of an asset is minimised and so ensures productive efficiency.</p>
11.	<i>In assessing asset valuation methodologies for system fixed assets, how important is dynamic efficiency? What factors should be considered?</i>	<p>Dynamic efficiency is very important. As the Commission notes in paragraph 3.14, "<i>dynamic efficiency means maintaining allocative and productive efficiency over time</i>", which is consistent with the Purpose Statement "<i>to promote the efficient operation of markets directly related to electricity distribution and transmission services through targeted control for the long term benefit of consumers.</i>"</p> <p>The main factors are the services (including quality of services) demanded by consumers and the efficient costs of providing them. In assessing asset valuation methodologies, the degree to which the valuation methodology might distort the nature or timing of investments in assets to deliver those services is the key factor to be considered.</p>

12.	<p><i>How important is the identification of excess returns as a criterion for the assessment of valuation methodologies? What factors should be considered?</i></p>	<p>Although a valuation methodology for system fixed assets is clearly an important component in a regulatory regime for the determination of profits, the valuation methodology does not in itself determine whether or not those profits are excessive. This is determined by the regulatory formula for the calculation of allowed revenue and profits, and any shortcomings of the valuation methodology for that purpose can be accommodated within the regulatory formula.</p> <p>The regulatory formula should, as the Commission notes in paragraph 19, recognise the trade-off between the short-term benefits of income transfers that would favour consumers, and the long-term efficiency gains that would also benefit consumers. Given the importance of dynamic efficiency, the net benefit of the latter will almost invariably outweigh the former.</p> <p>The regulatory formula should also recognise that the system fixed assets do not represent the total assets employed by an electricity lines business.</p>
13.	<p><i>How important is cost effectiveness as a criterion for the choice of valuation methodology? What factors should be considered?</i></p>	<p>Cost effectiveness is not a very important criterion. With almost any reasonable valuation methodology, the economic benefits of getting the asset valuation methodology right are likely to be substantial compared to the valuation costs.</p>
14.	<p><i>How great is the scope for bilateral or multilateral contracting regarding asset investment?</i></p>	<p>HBN already contracts bilaterally with some large consumers to recover the costs of assets that have been built specifically to serve them.</p> <p>It is considerably more difficult to obtain multilateral contracts and HBN has no multilateral contracts with consumers.</p> <p>HBN notes that such contracts are difficult to achieve in the case of transmission, where some assets may be shared by relatively few customers, and practically impossible to achieve in the case of distribution, where the number of consumers sharing most assets is considerably greater.</p>
15.	<p><i>How should contractual management of asset-related risks be dealt with in the context of regulatory asset valuation?</i></p>	<p>Regulatory asset valuation should take into account the contractual management of asset-related risk by using the contracted level of service to determine the need for certain assets, regardless of the actual level of utilisation of those assets.</p> <p>Specifically, the “<i>service of a quality that reflects consumer demands</i>” will be that specified in the contract, and the values of the assets used to provide that service will be reflected in the contractual revenue stream.</p>
16.	<p><i>Who is best placed to manage the various forms of investment risk faced by electricity lines businesses?</i></p>	<p>The electricity lines business itself (and indirectly the investors in the business) is best placed to manage the various forms of investment risk it faces.</p> <p>This is because the way in which it manages investment risk is not only through the investment decisions themselves but also through operational management decisions, including levels of insurance cover, staff competency, maintenance strategies, R&D, etc.</p>

17.	<i>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 (e.g. through the choice of depreciation regime or treating revaluation gains/losses as income)?</i>	<p>Allocation of risk between investors and consumers may be made through the valuation methodology (e.g. through treatment of depreciation, revaluation gains and losses etc.) and through WACC.</p> <p>Where investments have been subject to an ex ante capital efficiency review by consumers, investment risks should be borne by consumers through the valuation methodology.</p> <p>Otherwise, the risk should remain with investors and be compensated through WACC.</p>
18.	<i>What are the relative merits of dealing with inflation through WACC or the valuation methodology?</i>	<p>General inflation should be dealt with using a nominal WACC.</p> <p>Industry-specific inflation should be captured by using a replacement cost-based approach.</p> <p>Where using replacement cost leads to revaluation gains, these should be treated as income to avoid double counting.</p>
19.	<i>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?</i>	<p>In principle, investors should bear the risk of asset failure to ensure that electricity lines businesses manage the assets prudently and have appropriate (and not excessive) insurance cover.</p> <p>However, this applies only if an electricity lines business has incentives to optimise the way in which it manages the risk of asset failure. In a regulatory regime where revenue is a direct function of a cost of a capital-regulated valuation and an assessment of "efficient" operating costs, there is no incentive for an electricity lines business to optimise the way in which it manages asset failure.</p>
20.	<i>How can accounting depreciation best be kept in line with economic depreciation?</i>	<p>Accounting standards are governed independently of the regulatory framework in New Zealand so accounting depreciation need not bear any relationship to economic depreciation.</p> <p>However, economic and accounting depreciation are converging, for example through the treatment of depreciation in FRS-3 in the New Zealand Accounting Standards, January 2002. In different circumstances, the two standards might well diverge.</p> <p>Given that accounting standards are controlled outside the Commission's jurisdiction, the only way in which the two could be kept in line would be for the regulatory standards to shadow changes in accounting standards. However, the two standards may diverge for good reasons, so it would not be desirable that any one should be locked into the other.</p>
21.	<i>How should assets be treated when they remain useful beyond their expected life?</i>	<p>Assets that remain useful beyond their expected life should be valued according to their remaining useful life. This would avoid an apparent mismatch of revenue with asset values when the asset is replaced.</p>

22.	<i>How should uncertainty as to the useful economic life of an asset be accounted for in terms of regulated depreciation?</i>	Uncertainty as to the useful economic life of an asset should be accounted for by regularly adjusting the remaining useful life of each individual asset, and reflecting this in the regulatory depreciation. This approach is consistent with FRS-3.
23.	<i>What effect would economic depreciation have on price profiles over time?</i>	<p>If prices are derived as a direct function of regulated valuations, then economic depreciation could cause considerable year-by-year price volatility.</p> <p>At present, lines business prices are sensitive to the need to smooth price changes over time and avoid large price movements. If this practice continues, then the immediate effect of economic depreciation would be on the thresholds for price and profitability derived from regulatory valuation, rather than on the prices themselves.</p> <p>In its submission on the Regulation Discussion Paper, HBN suggested that large price movements could be avoided by taking a rolling average of at least five years for smoothing out valuation effects on prices (and using a similar period over which the Commission should assess whether or not thresholds had been breached).</p>
24.	<i>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 best considered ex ante? How are capital efficiency assessments best conducted?</i>	<p>Capital efficiency is best determined ex ante. Ex post determination of capital efficiency creates a disincentive to invest, because investments could be excluded from the regulated asset base with the benefit of hindsight. In HBN's view, ex post capital efficiency reviews do not promote dynamic efficiency and so are contrary to the Purpose Statement.</p> <p>If processes are put in place to promote capital efficiency ex ante – specifically, to avoid over-build - there are no factors pertaining to capital efficiency that are best considered ex post.</p> <p>Ex ante capital efficiency assessments are best conducted through the publication of an asset management plan, which is subject to scrutiny by consumers and other stakeholders. HBN does not believe that a regulator is better able to assess capital efficiency than consumers and stakeholders, so does not support the ex ante approval process suggested in paragraph 4.24.</p>

25.	<i>What investment incentives do the various types of capital efficiency reviews create?</i>	<p>Ex ante capital efficiency rules will, if appropriate consultation processes are in place, create efficient incentives to invest. Electricity lines businesses will invest in order to provide services of a quality that reflects consumers' demands.</p> <p>On the other hand, ex post capital efficiency reviews such as optimisation create a disincentive to invest. Where an ex post capital efficiency review may optimise down the value of an asset, and the optimised valuation is used to set a revenue cap, an electricity lines business will not be able to recover its costs unless the asset is allowed to recover more than its annual cost of capital in the early years before optimisation.</p> <p>Of the various valuation options A-F, illustrated in Figure 1: Degrees of Optimisation in the Discussion Paper, the higher the degree of potential optimisation, greater the disincentive to invest.</p>
26.	<i>How frequently should capital efficiency reviews be conducted? What factors should be considered in deciding how frequently to conduct such reviews?</i>	<p>Ex ante capital efficiency reviews occur naturally in the course of asset management planning and would follow an electricity lines business's (usually, annual) planning cycle.</p> <p>HBN does not see any useful purpose being served by carrying out ex post capital efficiency reviews at regular intervals once a process for carrying out ex ante capital efficiency reviews has been established. As noted in response to question 24, ex post capital efficiency reviews do not promote dynamic efficiency and so, in HBN's view, are contrary to the Purpose Statement.</p>
27.	<i>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?</i>	<p>HBN does not believe that inflation/deflation levels specific to the electricity industry should be used, so does not believe that the level of inflation/deflation in the industry would suggest that one valuation methodology is better than another.</p> <p>Industry inflation/deflation should be dealt through a replacement cost approach to valuation.</p> <p>To preserve the purchasing power of investors, general inflation should be taken into account using CPI by applying a nominal WACC for the business.</p>
28.	<i>What relevance does FRS-3, or any other standards and policies, have for the Commission's criteria for evaluating valuation methodologies?</i>	<p>In response to questions 20 and 22, HBN noted that FRS-3 may be applicable but that the regulatory regime should not lock itself into accounting standards that may change and result in divergence from needs of a regulatory methodology.</p>
29.	<i>What other accounting policies or practices, if any, are relevant to the review?</i>	<p>From time to time, some accounting standards such as FRS-3 may become relevant. However, the regulatory regime should only make use of accounting policies or practices that meet its needs and help meet the objectives contained in the Purpose Statement.</p> <p>The regulatory regime should not adopt accounting policies or practices simply because those policies and practices are being applied for other purposes.</p>

30.	<i>What scope is there for substitution of capital and operating expenses for electricity lines businesses system fixed assets?</i>	<p>Capital investment can be deferred by:</p> <ul style="list-style-type: none"> • Increased maintenance expenditure, • Increased risk profile, • Reducing customer service level, or • Tolerating higher energy losses. <p>In all of the above, there is a balance point where the economic efficiency of deferring capital is less than capital investment. Individual electricity lines businesses should make their own decisions case-by-case based on the acceptable level of risks, cost efficiency of maintenance and customer demands. In addition, one of the key drivers for electricity lines businesses is the local/regional socio-economic impact of deferring capital. For example, local government specific requirements, RMA restrictions, health and safety regulations and industrial pressure groups can all influence the decision-making processes.</p>
31.	<i>Should the regulatory asset valuation methodology include prescribed accounting policies, such as in relation to capitalisation and depreciation?</i>	<p>The regulatory asset valuation methodology should not be locked into prescribed accounting policies. However, where accounting standards are consistent with the objectives of the regulatory regime, they may be applied. Current FRS-3 treatment of capitalisation and depreciation is a good example of how an accounting treatment can be consistent with the needs of a regulatory regime.</p> <p>However, the majority of accounting standards are intended to serve quite different purposes from those of the proposed regulatory regime.</p>
32.	<i>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 (i.e. only have value in their current use)?</i>	<p>The vast majority of electricity lines businesses' system fixed assets have no alternative use outside of the electricity industry.</p> <p>There is limited recyclable value of system fixed assets once decommissioned. Attempts have been made to use overhead lines as support to run cable TV and other telecommunication cables along the line route, but such alternative business opportunities are limited.</p> <p>Major assets such as transformers, switchgear, insulators, cables and wires have no uses outside the electricity industry.</p>
33.	<i>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?</i>	<p>The ODV Handbook does not include intangible assets associated with the system fixed assets such as resource consents, easements and intellectual property.</p> <p>In this respect, the asset values given by the ODV Handbook seriously underestimate the actual cost that would be incurred by an electricity lines business if those system fixed assets had to be built today.</p> <p>Furthermore, the ODV handbook prescribes a valuation for system fixed assets only and does not attempt to place a value on other assets employed. Other assets employed by electricity lines businesses include those related to corporate functions and information technology.</p>

34.	<i>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?</i>	<p>Where the capital efficiency review is ex ante, a historic cost approach could be adopted for valuing electricity lines businesses' future assets – ie those assets built after the introduction of the ex ante capital efficiency review.</p> <p>Under a historic cost approach, there would only be ex ante capital efficiency reviews; ex post reviews would deviate from a historic cost approach.</p>
35.	<i>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 a historic cost value? What would be the most appropriate date to use for assessing the historic costs of electricity lines businesses?</i>	<p>The date on which the first ex ante capital efficiency review takes place could be used as a base for valuing system fixed assets at historic cost.</p> <p>Assets built prior to that date should be subject to an alternative method of valuation. The historic cost or book values at that (or any other) date are not appropriate alternative valuations. As the Commission notes in paragraph 5.28, the use of historic cost records or book values at any particular date would lead to valuations that are arbitrary.</p>
36.	<i>What are the pros and cons of indexing historic cost values for inflation?</i>	<p>Replacement cost rather than historic cost better reflects the current value of system fixed assets. Using replacement cost avoids the need to decide whether to index according to general inflation or to industry-specific inflation. Indexation using general inflation or industry-specific inflation can distort the values of some types of assets.</p>
37.	<i>How important is it that an asset valuation methodology replicates or mimics competitive market outcomes, given the regulatory objections of Part 4A and the Commission's evaluation criteria?</i>	<p>It is unimportant that an asset valuation methodology replicates or mimics competitive market outcomes. A valuation methodology that replicates or mimics competitive market outcomes would include all the costs that would be incurred by a new entrant, which are likely to be significantly higher than the incumbent electricity lines business's costs.</p> <p>An asset valuation methodology that replicates or mimics competitive market outcomes would be redundant as a regulatory tool because the incumbent electricity lines business would always price below the cost of bypass.</p>
38.	<i>Does the ODRC approach have economic merit in terms of mimicking competition? Do any other asset valuation approaches have more merit in this regard?</i>	<p>A true ODRC approach would have economic merits in that it reflects the economic value of the system fixed assets. It does not, in HBN's view, mimic competition.</p> <p>It subjects the assets to ex post capital efficiency reviews and so, as HBN has observed in its responses to questions 24 and 26, does not promote dynamic efficiency and is contrary to the Purpose Statement.</p> <p>A true DRC approach combined with ex ante capital efficiency reviews would have more merit in this regard.</p> <p>HBN notes that DRC as described in the current ODV Handbook is not a true DRC because it is incomplete and uses out of date standard values of system fixed assets.</p>

39.	<i>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?</i>	<p>This question is relevant only electricity lines businesses increased their prices as a consequence of the revaluation of their assets. If they did not increase prices, as was the case for most electricity lines businesses, the businesses have already foregone income from the date of their asset revaluation to the present day.</p> <p>Retrospective compensation is a matter of inter-generational equity and as such should not be a concern for the Commission in this consultation. Whether present or future revenues breach any of the thresholds should not be related to whether an electricity lines business might have over- (or under-) recovered in the past.</p> <p>The Commission would not, presumably, allow an electricity business to breach a present or future threshold because the electricity lines business had under-recovered in the past.</p>
40.	<i>If revaluation gains have not been treated as income, should consumers now be compensated in some way? If so, how?</i>	<p>As with question 39, this is a matter of inter-generational equity and as such should not be a concern for the Commission in this consultation.</p> <p>The issue of whether or not a business has over-recovered from consumers in the past by not treating revaluation gains as income has no relevance to determining whether or not its current and future revenues breach any of the thresholds.</p>
41.	<i>Are there likely to be significant differences between the inflation of asset prices and the inflation implicit in a nominal WACC calculation?</i>	<p>From a policy point of view, the issue is not so much whether there is a difference but whether it is predictable. There are additional factors that will affect the inflation of new assets costs. These include, for example, compliance costs, exchange rate, labour market for skilled people and geographical factors. For this reason, we propose that industry-specific inflation be accounted for by using replacement, rather than indexed-historic, costs.</p>
42.	<i>If businesses bear the cost of downward revaluations is this risk asymmetric (i.e. to the disadvantage of investors) and how could it be reflected in the WACC without compromising incentives for efficient investment?</i>	Refer to question 43
43.	<i>If businesses bear the cost of downward revaluations is this risk asymmetric (i.e. to the disadvantage of investors) and how could it be reflected in the WACC without compromising incentives for efficient investment?</i>	<p>The only way in which ex post optimisation could be employed without compromising incentives for efficient investment would be if investors were permitted to recover more than their cost of capital in the years before optimisation.</p> <p>This could be achieved by asset-specific price profiles that recovered downward asset revaluations from consumers.</p>

44.	<i>How important is an EV assessment to the theoretical underpinning of ODV?</i>	<p>EV assessment is relevant only where supply from existing assets is uneconomic. It provides a return of capital and return on capital adequate only to replace those assets with an equivalent service from a different technology.</p> <p>In practice, the value of New Zealand electricity lines businesses' system fixed assets affected by EV is small. .</p>
45.	<i>Why does the EV component have a limited impact on ODV values (as per the ODV Handbook)? Are the factors identified by the Commission significant?</i>	<p>Most of the assets that are subject to EV test are relatively low value assets supplying remote rural loads that make up a small proportion of electricity lines businesses' total asset base.</p> <p>In the context of establishing an opening valuation where line businesses are subject to legislation that requires them to maintain existing supply, the factors identified by the Commission are relevant but not material for most electricity lines businesses.</p>
46.	<i>What are the additional costs of an EV assessment (over and above an ODRC assessment)? Do the costs outweigh the benefits?</i>	<p>The costs of carrying out regular EV assessments do outweigh the benefits. However, in establishing an opening valuation there may be a net benefit in conducting a one-off EV assessment for electricity lines businesses, particularly those with a large proportion of remote rural consumers.</p>
47.	<i>Are there significant numbers of "uneconomic" customers for electricity lines businesses? How should the costs of any uneconomic customers be allocated?</i>	<p>The number of uneconomic customers is specific to each electricity lines business. If an electricity lines business has significant numbers of uneconomic customers, those customers should bear the full cost of an economic alternative so that efficient replacement investment will be made when the existing assets reach the end of their useful lives.</p>
48.	<i>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?</i>	<p>In order to be used as an input into the regulatory functions under Part 4A, the ODV methodology prescribed in the fourth edition of the ODV Handbook would need to be changed to include all relevant costs, such as the costs of resource consents, land and easements, and all other system fixed asset costs updated.</p> <p>These changes would move the system fixed asset values closer to their true ODRC and have the effect of increasing the ODV of the system fixed assets.</p>

<p>49.</p>	<p><i>Are the standard costs currently listed in the ODV Handbook appropriate?</i></p>	<p>The standard costs currently listed in the ODV Handbook are not appropriate.</p> <p>The Parsons Brinckerhoff report to the Commission on the ODV recalibration, "Recalibration of Asset Values of Large Electricity Line Owners" dated 1 August 2002, which drew the Commission's attention to the fact that the standard values listed in the current ODV Handbook are out of date.</p> <p>HBN's own experience supports this. HBN's actual costs are in many cases significantly different from the standard values listed in the ODV Handbook. Some examples of major items costed from recent work are:</p> <ul style="list-style-type: none"> • 11kV underground medium cabling, HBN costs have been about \$120/m to \$200/m (compared to \$90/m given in the ODV Handbook). Cables re-laid in urban streets or on locals hills (but are not entitled under the ODV rules to have a multiplier applied) have cost up to more than twice that of green-fields installations. The spacing between terminations also greatly influences the \$/m costs. Replacement is always much more difficult and costly than green-fields installations and, even where a multiplier is allowed, the effect of the multiplier is still inadequate to reflect actual costs. • 11kV underground medium cabling costs about \$90/m (compared to \$65/m in the ODV Handbook). The same comments apply as above. • 11kV overhead medium lines. HBN's costs are about \$45/m with contracted labour and good material prices. Costs in \$/m vary greatly according to line length, termination frequency, terrain and other factors. The ODV Handbook allows a standard value of only \$22/m. These costs are for areas that would not be entitled under the ODV rules to have multipliers applied. • 11kV overhead light lines have cost about \$30/m (compared to the standard value of \$20/m in the ODV Handbook). The comments above for overhead medium lines also apply to overhead light lines. • 300kVA ground-mounted transformers. HBN's installation costs are about \$22,000 including competitive contracted installation, compared to \$13,300 allowed in the ODV Handbook. • 500kVA ground-mounted transformers. HBN's installation costs are about \$28,000 including competitive contracted installation, compared to \$18,300 allowed in the ODV Handbook. <p>The ODV Handbook does not fully take into account that costs are generally higher for replacement projects than for installations due to the additional costs of decommissioning, demolition and providing temporary service alternatives.</p>
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<p>50.</p>	<p><i>How significant is the rate of technological progress and the potential for shifts in demand for the valuation of electricity lines businesses system fixed assets?</i></p>	<p>The rate of technological progress and the potential for shifts in demand have yet to impact significantly on the valuation of electricity lines businesses' system fixed assets.</p> <p>Although the wide scale adoption of new technologies for electricity distribution may take some time, there are examples of new technologies in electricity distribution that did not exist five years ago.</p> <p>Demand shifts on radial networks are generally related to large consumers connecting and disconnecting and so can be covered by bilateral contracts.</p> <p>The greatest effect of technological change is most likely to be reduction in demand. The implementation of technology to reduce demand has two key drivers.</p> <p>Technological change allowing greater use of demand side management (DSM) to directly reduce maximum demand. This has some potential at the margin, but price signals and customers' relative insensitivity to price reductions prevents this from being implemented more widely.</p> <p>The second driver for reduced demand is installation of embedded generation, from both renewable and traditional sources.</p> <p>The uptake of renewable generation has significant potential to reduce total energy supplied through the network, but reduction of peak maximum demand will be dependent on development of competitively priced storage systems, and a willingness of customers to implement DSM, resulting in reduced demand, or ultimately total grid disconnection or system islanding.</p> <p>The installation of traditional forms of generation such as cogeneration is dependent on many other factors. Larger industries continue to install the most effective form of energy production when new plant is installed. Retrofitting to existing industries is now less common. Therefore reduction of demand in this sector is also limited.</p>
<p>51.</p>	<p><i>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?</i></p>	<p>See also HBN's response to question 41.</p> <p>HBN is not aware of any evidence that demonstrates that the replacement costs of system fixed assets will rise or fall relative to the rate of CPI inflation.</p>
<p>52.</p>	<p><i>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?</i></p>	<p>There is no evidence at present to demonstrate that rates of technological change are sufficiently high to warrant full depreciation of an asset over a shorter period than the asset's technical life. .</p> <p>In HBN's response to question 50, HBN considered the most likely effect of technological change to be a reduction in demand. The potential reduction in demand due to technological change will be offset by growth in demand due to other factors – e.g. population growth – so the net change in demand is likely to remain positive.</p>

53.	<i>What industry specific issues can affect the prudence of investment decisions? What relevance do these issues have for the choice of valuation methodology?</i>	<p>Electricity lines services are an essential service to an industrialised economy, so the opportunity costs of under-supply may justify a degree of conservatism in determining the prudent level investment.</p> <p>A valuation methodology that could lead to under investment (such as one with an ex post optimisation) could lead to material economic welfare detriment in the wider economy that would far outweigh the initial savings in deferring capital expenditure.</p> <p>A valuation that includes a rigorous ex ante prudence review by consumers and other stakeholders, and safe harbouring of investments that have been subject to that ex ante prudence review, does not have such potentially detrimental effects.</p>
54.	<i>Under what circumstances should capital contributions be excluded from the regulatory asset base? Where this is desirable, how should they be excluded?</i>	<p>Capital contributions should be excluded from the regulatory base only where the associated asset is not subject to the regulatory regime. In this case, neither capital contributions nor asset values fall within the scope of the regulatory accounts.</p>
55.	<i>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?</i>	<p>Where assets are associated with providing contestable services, they should be ring-fenced as far as possible from other system fixed assets.</p> <p>Although there is no direct evidence that specific agreements with customers are fair and reasonable, the fact that customers have entered into them, when they have had the option not to, suggests that they are mutually acceptable to the customers and the electricity lines business, so are fair and reasonable.</p>
56.	<i>Should the value of some assets be determined by the associated contractual revenue streams (rather than by reference to historic cost or replacement cost)?</i>	<p>Yes. As indicated in HBN's response to question 14, contracts with consumers contain both the services (level and quality) demanded by those consumers and the prices they are willing to pay for the services (which, in turn, reflect the values of the assets used to provide the services).</p>

57.	<i>What assets should be included as "system fixed assets"?</i>	<p>All assets used for the low voltage distribution of electric power should be included as "system fixed assets". These would include all distribution lines, transformers and switchgear and their associated civil works.</p> <p>It should be noted that "system fixed assets" will not include all assets employed by an electricity lines business. Assets typically employed and/or owned by electricity lines businesses that generally fall outside "system fixed assets" are considered below.</p> <p>Assets not used specifically or exclusively to distribute electric power should be excluded. For example, assets used for communications, including the control of switchgear and other equipment such as load-shedding relays, might be excluded since these are services that, although usually associated with electric power distribution, could be provided by other parties.</p> <p>Assets that are used solely to provide contestable electricity distribution services should be excluded from the regulatory base of system fixed assets. These would include assets that could just as well have been owned by the customers themselves.</p> <p>Assets related to business activities outside electric power distribution should also be excluded.</p>
58.	<i>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?</i>	Assets that are not used solely to provide contestable service but are used to provide a mixture of contestable and non-contestable services should be valued as if they provided non-contestable services only, and that part of the asset value implied by the sale of contestable services deducted to determine a residual regulated asset value.
59.	<i>Should asset valuations be disclosed in respect of distinct network regions?</i>	Distinction by geographic regions is irrelevant to asset valuation. The only distinctions that may be relevant for asset valuation are by network type – e.g. by different voltage levels – and load type - e.g. urban, rural-urban, rural, and remote-rural.
60.	<i>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?</i>	<p>Land has alternative use and so can be valued at opportunity cost, unlike other system fixed assets.</p> <p>Resource consents, easements and rights of access have no other uses and should be capitalised at replacement cost and included in the system fixed asset base.</p> <p>It generally remains possible to obtain easements for electricity distribution purposes and access rights to those easements. However, the conditions on the use of public land are becoming more demanding - e.g. local authorities may require that distribution assets in urban areas are undergrounded or otherwise concealed as a condition for granting a right of use.</p>

<p>61.</p>	<p><i>What factors or considerations could provide a basis for different valuation approaches across different sectors?</i></p>	<p>Where the nature of the service provided in another sector is comparable to that provided by an electricity lines business, the valuation approaches should be consistent.</p> <p>HBN believes that the characteristics of local roading are most similar to its own distribution services in that both:</p> <ul style="list-style-type: none"> • are essential services; • provide services on a continuous basis; • cannot withdraw or fail to provide services for extended periods of time. <p>Infrastructure assets in other sectors, such as ports and airports, do not share all of these characteristics to the same degree and so it may not be appropriate to use a consistent valuation methodology in establishing regulatory values for them.</p>
<p>62.</p>	<p><i>What lessons can be learned from international practice?</i></p>	<p>There is no single, internationally accepted methodology for valuing electricity lines businesses' system fixed assets. The applicability of international practice to valuing New Zealand electricity lines businesses' assets is therefore rather limited.</p> <p>There are some noteworthy differences between the New Zealand situation and that in other countries. For example, as the Commission notes in paragraph 8.2, information on New Zealand lines businesses' historic costs is incomplete, whereas historic costs form the basis for regulatory asset valuation in the United States, and has been used there since 1945.</p>

<p>63.</p>	<p><i>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?</i></p>	<p>The operational and implementation issues raised by the Commission relate to other points that HBN has already commented on in this submission, but specifically:</p> <ul style="list-style-type: none"> • Opening valuations are most important for methodologies based on historic cost. Such opening valuations would be problematic given that, in New Zealand, electricity lines businesses' historic cost data is incomplete. Opening valuations based on replacement cost can be determined relatively easily and place less emphasis on opening asset values because the asset values are regularly updated; • Aligning opening asset values with detailed company records is relevant only to historic cost-based approaches and, generally, accurate detailed records for New Zealand electricity lines businesses are not available; • All asset valuation methodologies will need accounting systems and processes to be able to record actual costs for future investments, even if only to ensure that (ODV) handbook standard values are realistic and kept up-to-date; • Asset valuation methodologies based on replacement cost require a greater level of prescription because they use values rather than actual costs. Those based on historic cost may be less prescriptive in this respect, but still require accounting (or other) policies to be prescribed to adjust asset values over time. • Most electricity lines businesses already have processes and systems to support the prescribed ODV methodology, so valuation methodologies that draws on all or part of the prescribed ODV would make use of current processes and systems and take the least time to implement. Such valuation methodologies include the replacement cost methodology, and methodologies derived from it such as ODRC and ODV itself. No historic cost-based methodology would make use of the current processes and systems used by the prescribed ODV methodology. • The frequency of revaluations should coincide with the frequency of the regulatory re-assessment of value-based thresholds and revenue constraints; • A replacement cost-based methodology relies on technical experts to establish such values. Historic cost-based methodologies use audit/attest experts solely for independent verification of records of actual costs where such records exist; • Complete and accurate historic cost records do not exist for New Zealand electricity lines businesses, even where "historic cost" records have been maintained for tax purposes. Existing asset registers (GIS, works management etc.) generally contain replacement costs and are regarded as the sole "true" view of the value of an electricity lines business's system fixed assets.
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64.	<i>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?</i>	Historic cost records of New Zealand electricity lines businesses system fixed assets are inadequate to determine DHC or DIHC values that could be used to establish baseline valuations of electricity line businesses.
65.	<i>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?</i>	<p>The historic cost-based system fixed asset records maintained by electricity line businesses in the past were not used for any purposes such as those contemplated by the Commission. In particular, it would not be appropriate to use these historic cost-based records as a valuation for use in the determination of thresholds or the declaration of control.</p> <p>Although it would be possible to create a proxy historic cost value, that proxy value would bear no relationship to the actual cost of providing the assets or to their current value.</p>
66.	<i>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?</i>	True historic cost records are incomplete. A reasonable proxy to historic cost for the baseline evaluation might well be replacement cost.
67.	<i>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)?</i>	<p>The latest ODV value of system fixed asset underestimates the actual cost of providing those assets, so would establish a baseline valuation that was too low. This would lead to price shocks when existing assets required replacement or upgrading.</p> <p>As noted in HBN's responses to questions 33 and 48, this can be remedied by updating the standard values to better reflect actual costs and by increasing the scope of the ODV Handbook to account for intangibles such as resource consents, land, easements and costs.</p> <p>An updated and fully cost-reflective ODV of existing assets, with future assets included and accounted at DRC (or even DIHC) would provide an efficient methodology for the valuation of electricity lines businesses' system fixed assets. HBN prefers DRC to DIHC as better reflecting the economic value of assets added after the introduction of the regulatory regime.</p>
68.	<i>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?</i>	<p>True historic cost records are incomplete so, as indicated earlier in response to question 66, a reasonable proxy for historic cost for baseline valuation would be replacement cost.</p> <p>To align the existing ODV asset records with replacement costs, the standard values in the ODV Handbook need to be changed to include all costs and updated.</p>

69.	<i>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?</i>	<p>As already mentioned in responses to a number of previous questions, true historic cost records are incomplete and a reasonable proxy for historic cost for the baseline valuation would be replacement cost.</p> <p>The implementation issues relating to a historic cost-based approach (DHC or DIHC) cannot, in HBN's view, be satisfactorily addressed so the timeframe for satisfactorily addressing them is irrelevant.</p> <p>Most lines businesses already have processes and systems to support the current prescribed ODV, so any methodology that draws from or builds on this would be relatively quick to implement.</p>
70.	<i>To what extent should the valuation method (DHC, DIHC, DRC, ODR, or ODV) be prescribed by the regulator?</i>	<p>The regulator should prescribe a specific valuation methodology only to the extent that it is necessary to ensure that it is able to meet its obligations under the Purpose Statement. Any valuation methodology that supports and promotes dynamic efficiency as its over-riding objective will meet those obligations.</p> <p>In this regard, the valuation methodology for future assets – i.e., assets built after the implementation of the regulatory regime – is more important than the establishment of an opening or baseline valuation.</p>
71.	<i>If the ODV method were adopted for regulatory purposes, is the handbook for the prescribed ODV method adequate, or are changes required?</i>	<p>To adopt the ODV method for regulatory purposes, the ODV Handbook needs to be revised to cover all costs associated with system fixed assets and the standard values in the ODV Handbook updated to better reflect actual costs.</p>
72.	<i>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?</i>	<p>No.</p> <p>See response to question 31.</p>
73.	<i>What implementation period would be necessary for implementation of the different valuation methods? What factors would influence the amount of implementation time needed?</i>	<p>It would be difficult to create a full historic cost (or proxy historic cost) value for New Zealand electricity lines businesses.</p> <p>A replacement cost-based valuation would draw heavily on the current processes and systems used to determine the prescribed ODV. Modifying these processes would be reasonably straightforward, resulting in a much shorter implementation time.</p>
74.	<i>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?</i>	<p>As we noted in our response to the 6th bullet point in question 63, the frequency of asset revaluations should coincide with the frequency of the regulatory reassessment of value-based thresholds and revenue constraints</p>

75.	<i>Should independent financial and engineering experts continue to be required to approve valuation reports?</i>	<p>The only body that should be able to approve valuation reports should be the Commission itself.</p> <p>The Commission may choose to discharge this responsibility through third parties, such as financial and/or engineering experts. However, these experts would only have the authority to approve valuation reports if delegated by the Commission.</p>
76.	<i>What are the advantages and disadvantages of using a common auditor across all electricity lines businesses? Should this process be undertaken by the Commission?</i>	<p>This would depend on the role and scope of the lines business audits.</p> <p>In HBN's response to the Regulation Discussion Paper, HBN concluded that third party benchmarking surveys should be commissioned by the electricity lines businesses themselves to support routine business performance improvement, rather than by the Commission.</p> <p>A universally imposed approved external audit on the sector would be more likely to be a regulatory distraction than the Commission's use of audits that had been carried out for the electricity lines businesses in the normal course of business activities.</p>
77.	<i>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?</i>	<p>The principal activity carried out by auditors is to ensure the compliance of an electricity lines business's disclosed ODV with the prescribed ODV methodology. The auditors rely heavily on the independent valuer's report.</p> <p>The audit work carried out to ensure compliance with the disclosure regime is independent of the statutory financial audit of an electricity lines business, although both audits may draw upon the same base data.</p> <p>The sufficiency or otherwise of the audit can only be judged in the context of the use to which its results will be put. We note that the ODV auditor's responsibilities are limited to predominantly the financial disclosures and that it would be appropriate to extend these to the engineering and operational characteristics of the assets being valued.</p>
78.	<i>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?</i>	<p>While it may be tempting for a regulator to establish a "standard" value for a lines business to be used for any purpose from taxation to rating to price control to information disclosure etc., HBN believes that it may be inevitable that the values that are appropriate to the different purposes may diverge for good reason.</p> <p>HBN believes that it is essential that the regulator constrain its determination of an appropriate valuation methodology to that needed to support the regulatory functions that it is responsible for.</p>

79.	<p><i>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?</i></p>	<p>Although it might appear that different valuation methodologies would impose different costs, in practice, they tend to converge on DRC. .</p> <p>The costs of maintaining a register of assets and determining the current replacement values for those assets will be common to all methodologies (except those based on historic cost).</p> <p>Costs of optimisations and EV assessments will largely be a function of the methodology employed and, if optimisations and EV assessments are carried out regularly, t the costs are likely to outweigh any benefits since they rarely result in any material changes to the valuation of an electricity lines business's system fixed assets.</p>
80.	<p><i>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 additions to the opening asset base?</i></p>	<p>As pointed out in questions 24, 26 and 38, ex post capital efficiency reviews based on optimisation create a disincentive to invest, do not promote dynamic efficiency and thus do not meet the objectives in the Purpose Statement. Hence, capital efficiency reviews should be ex ante.</p> <p>HBN notes that, because it is not possible to carry out ex ante capital efficiency reviews on assets that already exist (and are in the opening asset base), there would be no loss of efficiency in limiting capital efficiency reviews to additions to the opening asset base.</p> <p>HBN believes that the rationale for limiting capital efficiency reviews to additions to the opening asset base is more to do with meeting dynamic efficiency objectives than with cost savings; but HBN supports any move that reduces costs without sacrificing efficiency, such as limiting capital efficiency reviews to additions to the opening asset base.</p>
81.	<p><i>What valuation methodology best promotes allocative efficiency? Please provide comment in terms of the level, structure and time profile of prices.</i></p>	<p>As noted in HBN's responses to questions 7 through to 9, where the valuation methodology is dynamically efficient, it will also be allocatively efficient in the long term. However, the converse is not necessarily true; where a valuation methodology is allocatively efficient in the short term, it may be dynamically inefficient in the long term.</p>
82.	<p><i>Could operational efficiency be improved by the choice of valuation methodology and, if so, how?</i></p>	<p>Productive efficiency is important inasmuch as it supports dynamic efficiency. Operational efficiency, inasmuch as the operational and investment costs are minimised over the lifetimes of assets, will be supportive of the dynamic efficiency objective.</p>

<p>83.</p>	<p><i>How important is the ability to perform benchmarking to the choice of valuation methodology, particularly given the nature of system fixed assets?</i></p>	<p>Benchmarking enables a comparison of performance between different businesses. The ability to perform benchmarking is an important component of the regulatory regime and is supported by methodologies that produce opening valuations that are consistent across comparable businesses, such as those using a replacement cost-based approach.</p> <p>Valuation methodologies that are historic cost-based do not produce consistent opening valuations across businesses and make it difficult to apply benchmarking across businesses.</p> <p>HBN supports benchmarking and does not agree with determining opening valuations of electricity lines businesses using a historic cost-based approach.</p>
<p>84.</p>	<p><i>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?</i></p>	<p>It would not be appropriate to use a DHC (vesting value-based) valuation to constrain profits or prices since such valuations are, as the Commission notes in paragraph 5.28, essentially arbitrary. The might enable some businesses to enjoy large profits while others became unsustainable.</p> <p>If prices were constrained some the electricity lines businesses could only recover WACC on their current ODV, the costs of maintaining current levels of service would exceed revenues for most lines businesses. Services would need to be reduced or the electricity lines businesses would rapidly become unsustainable.</p>
<p>85.</p>	<p><i>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?</i></p>	<p>As previously discussed, the prescribed ODV was never intended for regulatory and only for information disclosure and under-estimates actual costs.</p> <p>Depending on the relationship between valuation and revenue, there might well be a case for a valuation that is greater than the prescribed ODV.</p> <p>The expectations of investors that have paid more than ODV for an electricity lines business should not be a factor in determining the opening valuation of an electricity lines business's system fixed assets, but the sustainability of the electricity lines business should be.</p>
<p>86.</p>	<p><i>How is the choice of opening asset values likely to effect investors' perceptions of regulatory risk (and therefore dynamic efficiency) going forward?</i></p>	<p>Substantially because the disincentive to invest is the single largest factor, which would lead to dynamic inefficiency.</p>

87.	<i>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 of information disclosure in 1994?</i>	<p>The prescribed ODV is intended only for information disclosure purposes.</p> <p>The ODV Handbook states that: <i>“Tariff setting is an independent process from preparation of ODVs. There is specifically no regulatory requirement that prices be determined on the basis of system assets being valued according to ODV.”</i></p> <p>The inference to be drawn by electricity lines businesses from this is that the appropriate asset valuation methodology to be used for pricing is probably not the ODV methodology prescribed for valuing system assets for information disclosure purposes.</p>
88.	<i>What impact might the introduction of Part 4A have had on investors expectations regarding asset valuation methodologies?</i>	<p>In the absence of an integrated regulatory framework for the whole of Part 4A, covering the relationship between assets valuation and regulatory thresholds for the declaration of control, it is not possible to deduce the impact of the introduction of Part 4A on investors' expectations regarding asset valuation methodologies.</p> <p>The regulatory uncertainty caused by the introduction of Part 4A has, however, undoubtedly increased the cost of capital for electricity lines businesses.</p>
89.	<i>Which valuation methodology would best promote dynamic efficiency?</i>	<p>It would be dynamically efficient to use a DRC valuation methodology after the date at which a regulatory regime is introduced, which allows future investments to be valued at replacement cost once they have been subject to a due process of consultation with consumers and other stakeholders.</p> <p>The valuation methodology used to establish an opening value is not critical to promoting dynamic efficiency but adopting the same DRC approach to valuing existing assets will allow existing assets to be replaced without massive price shocks.</p>
90.	<i>To what extent is optimisation required in the case of the system fixed assets of electricity lines businesses?</i>	<p>Optimisation of existing assets is not necessary for promoting dynamic efficiency but could be applied on a one-off basis to determining an opening asset valuation because past investments by electricity lines businesses have not been subject to ex ante capital efficiency reviews.</p> <p>If investments have been subject to ex ante capital efficiency reviews, ex post capital efficiency reviews based on optimisation serve no useful purpose and create a disincentive to invest. Optimisation is not required, and should not be carried out, on assets that have subject to an ex ante capital efficiency review.</p>
91.	<i>To what extent is this optimisation being undertaken through the application of the current ODV Handbook?</i>	<p>HBN believes that optimisation is not required (for the reasons given in response to question 90) and that the optimisation being undertaken through the application of the current ODV Handbook is also unnecessary. HBN notes that the optimisation being undertaken through the application of the current ODV Handbook does not have a material effect on the ODVs of New Zealand electricity lines businesses. For example, HBN's ODRC is approximately 4% lower than DRC.</p>

92.	<i>Have electricity lines businesses earned excessive profits in the past?</i>	As HBN noted in its submission on the Regulation Discussion Paper, there may be some lines businesses which are outliers: showing high Rols, high prices and high costs of service.
93.	<i>How have revaluations gains been treated by electricity lines businesses in the past?</i>	In the past HBN's revaluations are treated as reserves for financial reporting purposes.
94.	<i>How should the issue of consistency (including the treatment of revaluation gains) influence the choice of asset valuation methodology?</i>	Consistency with past practice is irrelevant to the choice of asset valuation methodology used. However, consistency between businesses and over time may have a bearing going forward.
95.	<i>How would the Commission's choice of opening values affect the profile of expected returns under different valuation methods into the future?</i>	At current prices, the expected returns will clearly change in proportion to changes in the opening values.
96.	<i>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?</i>	In HBN response to question 12, it noted that, although the valuation methodology for system fixed assets is clearly an important component in a regulatory regime for the determination of profits, the valuation methodology does not in itself determine whether or not those profits are excessive. Excess profits are determined by the regulatory formula for the calculation of allowed revenue and profits, and any shortcomings of the valuation methodology for that purpose can be accommodated within the regulatory formula.
97.	<i>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 a 'spiralling up' of moneys that have to be redistributed to customers in later years? Would interest need to be charged on this outstanding amount?</i>	<p>In its response to question 18, HBN observed that:</p> <ul style="list-style-type: none"> • General inflation should be dealt with using nominal WACC. • Industry-specific inflation should be captured by using asset replacement cost. • Where replacement cost leads to revaluations, these revaluations should be treated as income to avoid double counting. <p>Prices in any one year need not be directly related to a revenue formula, so the income could be spread over more than one year if that resulted in smoother prices.</p>

<p>98.</p>	<p><i>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?</i></p>	<p>It would be extremely difficult to obtain a valuation based on “pure” historic cost since such historic cost records are simply not available.</p> <p>A valuation based on book value at vesting would be easier to obtain but would be arbitrary.</p> <p>The quality of information available precludes the use of either of these as an opening valuation methodology.</p>
<p>99.</p>	<p><i>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.</i></p>	<p>HBN believes that opening valuations should be established using a modified ODV methodology that more accurately reflects the costs of providing electricity lines businesses' system fixed assets. Such modified ODV would include costs not currently included in the prescribed ODV, such as the costs of resource consents, land and easements, and the standard values of the distribution plant and equipment updated.</p> <p>HBN also believes that the full ODV methodology is, in most cases, unnecessary and the DRC methodology is more cost effective.</p>
<p>100.</p>	<p><i>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.</i></p>	<p>HBN believes that going forward, the valuation methodology should be a DRC methodology.</p> <p>While depreciated indexed historic cost (DIHC) may be approximately equivalent to DRC for additions in the short term, the cost of administering two different methodologies for sunk assets and network additions would impose unnecessary, and possibly considerable, costs.</p> <p>Over time, sunk assets from the opening asset base (valued at DRC) would be replaced by additions to the network. It will be necessary to revalue the sunk assets to reflect this replacement. Notwithstanding the economic merits of ODRC over DIHC, HBN believes that the cost of administering a single DRC methodology would be substantially lower than any other practical alternatives involving several methodologies.</p>
<p>101.</p>	<p><i>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.</i></p>	<p>N/A.</p> <p>HBN believes that this is an issue that would be more appropriately addressed by Transpower but notes that stability of Transpower's pricing is important for its distribution business customers.</p>

<p>102.</p>	<p><i>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.</i></p>	<p>N/A</p> <p>As for question 101, HBN believes that this is an issue that would be more appropriately addressed by Transpower. To the extent that there is technical substitutability between transmission and distribution assets at the boundary, and that the pricing for these assets in some ways related to a valuation, the methodologies used to value the two types of assets should in principle be consistent to ensure dynamic efficiency.</p>
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