

COMMERCE COMMISSION

Asset Recalibration Document

28 September 2001

**RECALIBRATION OF ASSET VALUES
OF LARGE ELECTRICITY LINE OWNERS
BY COMPREHENSIVE AUDIT**

Subpart 4 of Part 4A of the Commerce Act 1986, inserted by the Commerce Amendment Act (No 2) 2001, requires the Commerce Commission to undertake a recalibration of the asset values of large electricity line owners.

This Recalibration Asset Document:

- outlines the processes the Commerce Commission will apply to fulfil the recalibration of asset values of large electricity line owners;
- outlines the form of the comprehensive audit, and
- outlines the circumstances under which valuation reports will be approved.

The Recalibration Asset Document is prepared in accordance with 57ZA(2) of the Commerce Amendment Act (No.2) 2001. It is not intended to be a substitute for any party's own legal advice.

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1. INTRODUCTION

1.1 BACKGROUND

The Commerce Amendment Act (No 2) 2001 which commenced on 8 August 2001, inserted Part 4A into the Commerce Act 1986 (the Act). Subpart 4 (Asset valuations) of Part 4A requires the Commerce Commission (the Commission) to carry out a comprehensive audit of the valuations of the line businesses system fixed assets of large electricity line owners¹ using the optimised deprival valuation (ODV) method as set out in the current ODV Handbook² (asset recalibrations). The purpose of the asset recalibrations is to ensure that the valuations of all large electricity line owners reflect a rigorous and accurate application of the ODV method as set out in the current ODV Handbook.

The relevant asset valuations, which the Commission must recalibrate, must have been undertaken in accordance with the current ODV Handbook and must have a valuation date on, or before, 31 March 2001 (except in the case of Transpower where the valuation date must be on, or before, 30 June 2001).

As soon as practicable after completing an audit, the Commission is required to notify the relevant large electricity line owner whether or not the Commission will approve the large electricity line owner's valuation report. If the Commission does not approve the valuation report, the large electricity line owner will be given the opportunity to provide a revised valuation report by a specified date. If the large electricity line owner does not submit a revised valuation report that meets the Commission's requirements by that date, the Commission may itself revise the valuation report.

In any event, the Act requires every large electricity line owner to publicly disclose a valuation report that has been approved by the Commission by 31 March 2002.

The detailed statutory requirements of asset recalibration are described in Section 1.3 of this document.

The Commission has engaged Parsons Brinckerhoff Associates Ltd (PB Associates) to assist it in conducting asset recalibrations. PB Associates will conduct the asset recalibrations in conjunction with Commission staff.

¹ Large electricity line owners are Transpower and those who are connected to the national grid and, as well, either own more than 25 kilometres of electrical circuits whose voltage is 3.3 kilovolts or greater; **or** convey more than 20 gigawatt-hours of electricity per annum; **or** convey electricity to more than 500 consumers.

² The current ODV Handbook is the 4th edition of the Handbook for Optimised Deprival Valuation of System Fixed Assets of Electricity Line Businesses published by the Ministry of Economic Development in October 2000. It is available on the Internet web site www.med.govt.nz by following links to "energy resources and safety" followed by "information disclosure".

1.2 PURPOSE OF THE ASSET RECALIBRATION DOCUMENT

The purpose of this document is to:

- identify the processes that will be involved in the recalibration of the asset values;
- identify the form that the comprehensive audits will take and the information that the Commission’s auditors will require; and
- outline the circumstances under which the Commission will approve valuation reports.

While this Recalibration Asset Document does not attempt to cover every potential issue which may arise during asset recalibration, it is intended to provide guidance as to what large electricity line owners may expect and how they can assist with the process.

1.3 THE RELEVANT STATUTORY SCHEME

Section 57X sets out the purpose of subpart 4:

“The purpose of sections 57Z to 57ZC is to ensure that valuations of the line business system fixed assets of every large line owner reflect a rigorous and accurate application of the ODV method as set out in the current ODV Handbook.”

“System fixed assets” has the same meaning as in the Electricity (Information Disclosure) Regulations 1999 (the information disclosure regulations):

‘System fixed assets’ means all fixed assets of a line owner that are used or intended to be used for the conveyance or supply of electricity; but does not include-

- (a) Stores and spares over and above any levels prescribed in the [current] ODV Handbook; or
- (b) Works that are under construction”.

Subpart 4 provides that the following must happen:

1. Every large electricity line owner must supply a copy of a valuation report relating to its line business system fixed assets together with a copy of the certificate in form 7 of the information disclosure regulations (duly signed by two directors or principals of the large electricity line owner) to the Commission no later than 31 August 2001, except for Transpower. A copy of a valuation report from Transpower must be supplied to the Commission no later than 30 November 2001. The valuation report must be the most recent report, with a valuation date on or before 31 March 2001 (or, in the case of Transpower, on or before 30 June 2001), carried out for the purpose of regulation 20 of the information disclosure regulations. (Section 57Z.)³
2. The Commission must, as soon as practicable after receiving a valuation report from a large electricity line owner, carry out a “comprehensive audit” of the valuation of the line business system fixed assets of the large electricity

³ All 29 local electricity distribution companies have supplied to the Commission copies of the valuation reports and certificates in form 7 required under section 57Z.

line owner, using the ODV method as set out in the current ODV Handbook. (Section 57ZA(1).)

3. The Commission must publish a document outlining the processes that will be involved in a comprehensive audit, the form that the audit will take, and the circumstances under which the valuation report received from a large electricity line owner will be approved. When preparing that document the Commission must have regard to the purpose of subpart 4. (Section 57ZA(2) and (3).)⁴
4. As soon as practicable after completing an audit, the Commission must notify the large electricity line owner whether or not the Commission will approve the valuation report. (Section 57ZB(1).)
5. If the Commission does not approve the valuation report, that notification must give the reasons why the report was not approved, and specify the date by which a revised valuation report must be given to the Commission. (Section 57ZB(2).) As soon as practicable after receiving a revised valuation report, the Commission must consider the valuation report and notify the large electricity line owner of its decision (Section 57ZB(3)). If the large electricity line owner does not comply with a requirement to give a revised valuation report that meets the Commission's requirements to the Commission by the specified date, the Commission may revise the valuation report itself. (Section 57ZB(4).)
6. When carrying out a comprehensive audit, the Commission must have regard to any submissions made to it by the line owner or any user of the line business fixed assets, or any other person. (Section 57ZB(5).)
7. Every large line owner must publicly disclose, by 31 March 2002, a valuation report that has been approved by the Commission. In addition, every line owner must, within five working days of publicly disclosing that valuation report, publish on the Internet a notice stating that the valuation has been publicly disclosed, the valuation date of the valuation report, the valuation of the line business system fixed assets as stated in the valuation report, and whether the valuation of the line business system fixed assets has changed as a result of the comprehensive audit under the Act and, if so, by how much. (Section 57ZC(1) and (2).)
8. The Commission may require large electricity line owners to modify previous disclosures made under the information disclosure regulations so that they are consistent with the new valuation report. (Section 57ZC(4).)

⁴ The Commission considers that this Recalibration Asset Document satisfies the requirement under section 57ZA(2). In preparing this Recalibration Asset Document, the Commission has had regard to the purpose of subpart 4.

1.4 GUIDING PRINCIPLES

The following guiding principles have been identified by the Commission to achieve the purpose of subpart 4:

- Transparency

The audits will be carried out with an ‘open door policy’. The views of each large electricity line owner, any user of the line business system fixed assets, or any other person, will be taken into account when undertaking asset recalibrations. The Commission will ensure that public submissions are made available, and will have regard to any submissions made to it. However, the process will be subject to the usual rules of confidentiality as outlined in section 2.3.4 of this document.

- Consistency

The statutory time frame for the public disclosure of valuation reports, of 30 large electricity line owners, approved by the Commission by 31 March 2002 means that it will be necessary to have a number of teams carrying out the comprehensive audits. The process for carrying out the audits will include procedures⁵ designed to ensure that a consistent interpretation of the ODV Handbook is applied by all of the teams carrying out the comprehensive audits.

- Flexibility

The Commission recognises that valuation issues may arise that are not adequately covered by the ODV Handbook and, in such cases, the interpretation of the ODV Handbook could have a material impact on the relevant valuation. The Commission also recognises that it may identify minor misapplications of the ODV Handbook, which the Commission may consider immaterial. The Commission will ensure that such situations are dealt with in a transparent, logical and flexible manner according to the principles of the ODV Handbook.

⁵ Which are described in Appendix 1, the Generic Audit Plan.

1.5 CONTACT DETAILS

The Commission's representative and contact details in respect of asset recalibration is:

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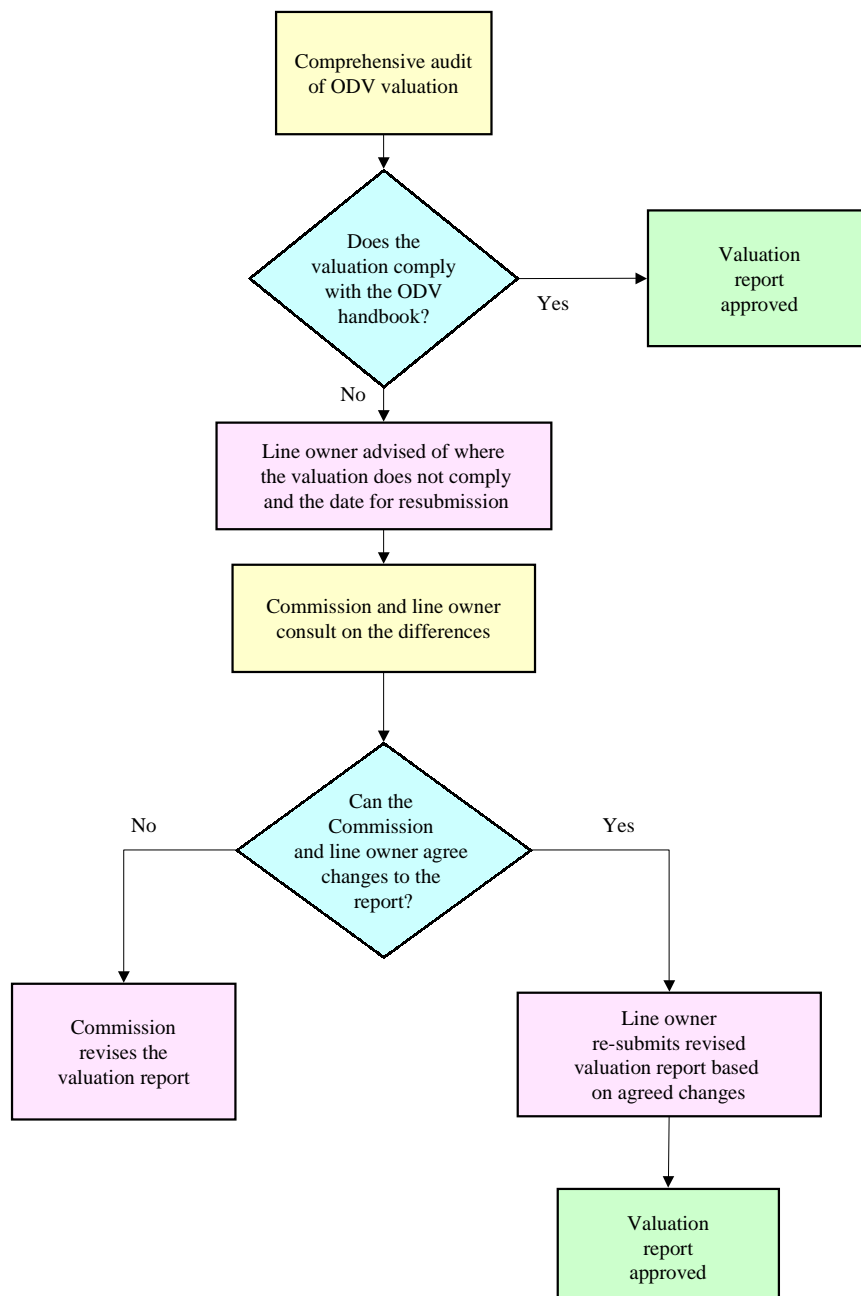
2. PROCESS FOR ASSET RECALIBRATION

2.1 OVERVIEW OF COMMISSION'S PROCESS

The Commission emphasises that its task under subpart 4 is not to form an independent view of the asset valuations of large electricity line owners but to measure a large electricity line owner's own valuation against a rigorous and accurate application of the ODV Handbook and then to approve the valuation, or to approve a revised valuation or to revise the valuation.

The steps in the process for undertaking the recalibration of asset values are shown in the following figure.

Diagrammatic Representation of Asset Recalibration



2.2 STEPS IN THE ASSET RECALIBRATION PROCESS

2.2.1 Notice of Audit

The comprehensive audits of the large electricity line owners valuations will be undertaken over the months of October, November and December 2001 (except for Transpower which will occur in December 2001, January and February 2002), commencing about 3 October 2001, and will include a visit to each large electricity line owner's office by an audit team.

Individual large electricity line owners (except Transpower) will be notified in writing of the dates of the visit of the audit teams to their offices on 28 September 2001. If the exigencies of the comprehensive audit require the proposed dates to be altered, large electricity line owners will be notified of the new date at least five working days before the visit takes place.

2.2.2 Preliminary Audits

The Commission is undertaking a preliminary audit of each valuation. These preliminary audits have indicated areas requiring specific investigation during each individual comprehensive audit. On this basis the Commission has prepared an audit plan for each large electricity line owner which is based on the generic audit plan, included in Appendix 1 with account taken of specific issues identified in the preliminary audit.

2.2.3 Submissions to the Commission

The Act requires the Commission to have regard to any submissions made to it by the large electricity line owner, or any user of the line business system fixed assets or any other person when carrying out the audit. Regulation 20 of the Electricity (Information Disclosure) Regulations 1999 requires that valuation reports of large electricity line owners be published. The valuation reports will, therefore, be available to persons wishing to make submissions to the Commission. The Commission sought submissions by public notice in metropolitan newspapers and by press release. Submissions are required by 12 October 2001 (except submissions relating to Transpower's ODV valuation report that are required by 21 December 2001).

The Commission will provide a copy of any submission received, subject to any confidentiality, to the large electricity line owner whose valuation is subject of a submission.

2.2.4 Undertake a Comprehensive Audit

The Commission will undertake a comprehensive audit of each large electricity line owner's fixed assets in accordance with the processes and form of the audit published in this Asset Recalibration Document.

2.2.5 Notification of approval of valuation reports

It is expected that the Commission will notify each large electricity line owner (except Transpower) before and no later than 31 January 2002 whether or not its valuation report has been approved.

If a valuation report is not approved, the Commission will give reasons why the report was not approved as required by section 57ZB(2). The Commission will provide comments on the parts that need further consideration, additional work, or alteration.

Large electricity line owners (except for Transpower) whose valuation reports are not approved will be required to submit revised valuation reports by no later than 20 February 2002 for further consideration. If required, Transpower will be required to submit a revised valuation as soon as possible but no later than 15 March 2002.

2.2.6 Assessment of resubmitted valuation reports

The resubmitted valuation reports will be assessed on the basis of:

- a review of the reasons for the rejection of the earlier valuation;
- a review of how these reasons have been addressed by the large electricity line owner;
- a review of any disputed issues remaining; and
- the materiality of the disputed issues.

In undertaking this assessment it may be necessary for the Commission to undertake a further on-site audit.

2.2.7 Revision of valuations

Section 57ZB(4) of the Act requires the Commission to revise the valuation report if the line owner does not comply with the Commission's requirement to resubmit a valuation report that meets the Commission's requirement by the specified date.

Should the Commission find it necessary to itself revise a valuation report it will seek submissions from the line owner on the matter and take these submissions into account before finalising its revisions.

2.3 SPECIAL REQUIREMENTS

2.3.1 Cooperation

The Commission anticipates that large electricity line owners will cooperate with the Commission in respect of asset recalibrations. While the Act provides for persons authorised by the Commission, in relation to the comprehensive audit, to enter premises owned by large electricity line owners (upon the giving of reasonable notice of at least 5 working days), to carry out inspections, conduct tests, make inquiries, take photographs and measurements, require the production of documents or information for the purpose of examination or copying and require the making of statements, the Commission hopes that it will not be necessary to authorise its staff or PB Associates to exercise these powers.

2.3.2 Facilities to be provided by large electricity line owner

The Commission will need each large electricity line owner to provide:

- a contact person within the large electricity line owner's organisation. This contact person is to be responsible for facilitating the audit, providing access to records, arranging field inspections and providing access to relevant staff and external consultants and/or advisors as and when required by the Commission;
- a suitable private meeting room or office area at the offices of the large electricity line owner to allow staff of the Commission and PB Associates to inspect records and interview personnel or advisors of the large electricity line owner during the period of the audit team's visit;
- access to and ready availability of all information requested by the Commission;
- entry to relevant premises and/or sites; and
- access to administrative support facilities such as photocopying and fax machines.

The Commission will ask each large electricity line owner to ensure that relevant staff, external consultants and/or advisors are available for interview, particularly during the audit team's visit to the large electricity line owner, but also at other times during the asset recalibration. The Commission will give reasonable notice of its requirement to interview such persons.

2.3.3 Access to information

The Commission's audit teams will require access to the line assets, facilities, staff, consultants, advisors and information held by large electricity line owners for the purpose of the following activities:

- examination of asset registers and records generated in the course of preparing the valuation or in undertaking the large electricity line owners normal business activities;
- site and asset inspections;
- interviewing staff, consultants and other advisors; and

- any other activities the Commission deems necessary to undertake its responsibilities under subpart 4 of Part 4A of the Act.

2.3.4 Status of information supplied to the Commission

The Commission may require large electricity line owners to provide information which is confidential. Under the Commerce Act 1986, information provided to the Commission will be privileged as if it were information given in court proceedings (s106(9)); that is, the information cannot be used in other proceedings or for other purposes. No member or officer of the Commission can be required by a court or other person to provide information furnished to the Commission (s106(7)); except where the Commission is a party to proceedings or where s106(3) and (6) apply.

With confidential information, parties can request the Commission to make confidentiality orders in respect of that information (s100). Any request for a confidentiality order must be made before the information is supplied to the Commission. Any application for a confidentiality order must identify the reasons why the information is confidential and the reasons why the order is required.

The Commission discourages requests for confidentiality and will decline to make a section 100 order if doing so will unduly hamper its capacity to undertake any investigation or inquiry.

The Commerce Act does not specify criteria for making section 100 orders. In general, the principles the Commission applies when considering applications for section 100 orders are set out in the Commission's Visionhire and Fisher & Paykel decisions:⁶

- there must be a substantial degree of secrecy regarding the information. Information must not be public property, and not able to be obtained by others by their own efforts;
- the information must have value - its use by others will/could result in detriment or loss to the owner, or a competitive advantage to a competitor;
- the onus is on the provider to establish that the information should not be disclosed; and
- if the information impacts on the recalibration issues with which the Commission is concerned there will be a greater need to test the information. "Blanket" confidentiality is unlikely; a compromise with "limited disclosure" is more appropriate.

Visionhire and Fisher & Paykel are both business acquisition decisions and are, therefore, focused on the issues that arise in those types of cases, for example, competition and public benefit. However, the Commission will consider each application for a s100 order on its merits. It will consider other reasons for a confidentiality order. The onus is on the party seeking the order to put forward good reasons for having their information subject to the order. For example,

⁶ In Decision No 81, Visionhire/Sanyo (1984) 4 NZAR 2 the Commission set out general principles to be applied in making s100 confidentiality orders. Those principles were followed and expanded in Decision No 200, Fisher & Paykel (1987) 1 NZBLC (Com) 104,177.

parties seeking a s100 order have often put forward grounds that are relevant under the Official Information Act.

The Commission regularly makes “limited disclosure” orders under s100, which enable inspection of confidential information by specific persons such as independent legal advisers and independent experts. In these circumstances the Commission will require a written undertaking that the parties receiving the information will not disclose it to anyone else.

Parties will note that any confidentiality order made under s100 expires 20 days after the conclusion of the recalibration investigation and the Official Information Act 1982 will apply to the information or evidence that was the subject of the confidentiality order (s100(3)). If the Commission receives a request for the disclosure of confidential information after the expiry of the confidential order, the Commission will consult with the owner of the information as to whether the information should remain confidential; and, if so why.

The Commission can decline requests for information in appropriate circumstances on the grounds set out in the Official Information Act 1982. Parties will recognise that the Commission’s decision to withhold information can be reviewed by the Ombudsman.

PB Associates’ contract with the Commission contains provisions forbidding it to use or disclose any confidential information gained during or after the carrying out of asset recalibration.

2.3.5 Transpower

The audit process described in Section 3.1 will generally apply to Transpower and the other 29 large electricity line owners⁷.

However the Commission recognises that there are significant differences between the Transpower system fixed assets and those used by the other 29 large electricity line owners. An obvious example of these differences is the HVDC link. While the value of this link comprises a significant proportion of the value of Transpower’s system fixed assets, no other large electricity line owner owns a similar asset.

Such differences in the nature of the relevant assets require some modifications, for Transpower’s comprehensive audit, to the generic audit plan attached as Appendix 1. These modifications will be included in a special audit plan for Transpower, which will be prepared before the Transpower audit commences in December 2001 and provided to interested persons.

⁷ Who distribute electricity over local, rather than national, networks.

2.4 TIMETABLE

The timetable for the asset recalibration is set by section 57ZC of the Act which states:

“Every large line owner must publicly disclose, by 31 March 2002, a valuation report that has been approved by the Commission.”

To ensure that large electricity line owners are able to publish approved valuation reports by the 31 March 2002, the Commission proposes to undertake asset recalibration to the following timetable:

Activity	Date
All large electricity line owners (except Transpower) submit their most recent valuation reports	31 August 2001
Preliminary audit of valuation reports commences	3 September 2001
Recalibration Asset Document issued to large electricity lines owners	28 September 2001
Audit of large electricity line owner's valuation reports (except Transpower) commences (with visits planned over 2 ¹ / ₂ months)	3 October 2001
Closing date for public submissions on the large electricity lines owner's valuation reports (except Transpower)	12 October 2001
Audit Plan for Transpower issued	2 November 2001
Transpower submits its valuation report	30 November 2001
Audit of Transpower's valuation report commences	3 December 2001
Closing date for public submissions on Transpower's valuation report	21 December 2001
	2002
Each large electricity line owner (except Transpower) notified whether its valuation report has been approved or not.	31 January 2002, if not prior
Large electricity lines owners revised revaluation reports (if any) to be submitted	20 February 2002
Transpower notified whether its valuation has been approved or not	20 February 2002
Transpower's revised valuation report to be submitted (if so required)	15 March 2002
All large electricity line owners to be advised that their revised valuations have been approved, and if not, the revised valuation determined by the Commission	22 March 2002
Disclosure by large electricity line owners of valuation report approved by the Commission	31 March 2002

3. FORM OF THE COMPREHENSIVE AUDIT

3.1 GENERAL

The time to be allocated for each comprehensive audit has been determined by the size of the assets of each large electricity line owner along with the number of issues identified during the preliminary audit.

Each audit team will include Commission staff and financial and technical auditors from PB Associates staff. In undertaking the comprehensive audit the audit team will use the following audit processes:

- audit of the valuation report for compliance with the report requirements as set out in Clauses 6-8 of the Preface to the ODV Handbook;
- audit of the assumptions, exclusions and methodology adopted for the valuation for conformance to the requirements of the ODV Handbook and assessment of the likely impact of any deviations on the total value of the asset base;
- audit of supporting documents prepared by the valuer in the process of developing the valuation;
- audit of other records prepared by the business in the normal course of its operation; and
- discussion with relevant technical and non-technical staff; and
- a physical inspection of selected system assets.

3.2 COMPONENTS OF THE AUDIT

The following components will make up the comprehensive audit:

Valuation Reports

The Commission will audit the valuation report against the disclosure requirements set out in Sections 6-8 of the Preface to the ODV Handbook. The reason for this is that information disclosure underpins the regulatory regime as it currently applies to large electricity lines owners and the Commission will therefore not approve valuation reports that do not fully meet the disclosure requirements of the ODV Handbook, even if the associated valuation meets all the other specified criteria.

Depreciated Replacement Cost

The Commission will audit the data contained in the detailed asset register, as described in Section 2.7 of the ODV Handbook, to determine whether it is a complete and accurate record of the physically installed system fixed assets. This audit will include:

- an audit of the systems and processes used to populate the detailed asset register including the methodology used to establish the age of individual assets;

- an audit of any processes used by the large electricity line owner and its valuers or advisors to verify the completeness and accuracy of the asset register. In undertaking this audit the Commission may carry out its own independent checks by comparing the information held in the detailed asset register against engineering or operational records; and
- the Commission may undertake physical asset inspections to satisfy itself as to the accuracy and completeness of the detailed asset register. The extent to which such inspections may be necessary will be determined by the rigour of the process used to populate and internally audit the register and the extent of any discrepancies between the detailed asset register and the large electricity line owner's engineering and operational records. Inspections undertaken to confirm the accuracy of asset replacement costs (see below) will also be used to verify the detailed asset register.

In addition to this verification of the accuracy of the detailed asset register, the Commission will audit the replacement costs assigned to individual assets. The audit will check whether the standard costs given in Appendix B of the ODV Handbook have been applied where required. Where the standard costs are adjusted by the use of multipliers or other factors, the comprehensive audit will assess that the use of such factors is in accordance with the rules set out in the ODV Handbook and whether appropriate records are available to support the application of these rules.

This audit will also investigate the methodology used by the large electricity line owner to determine the replacement costs for assets where standard costs are not provided in the ODV Handbook. The comprehensive audit will consider whether these costs are based on the costs of modern equivalent assets and are consistent with the Commission's own estimate of the replacement costs of similar assets. The audit will include a physical inspection of a representative sample of such assets to assess whether the modern equivalent assets used as a basis for determining replacement costs have a similar functionality to the physical assets.

An audit of the asset lives assigned to individual assets will be carried out. The audit will assess whether the standard asset lives given in Appendix B of the ODV Handbook have been applied where required. Where the standard lives are adjusted in accordance with the rules set out in the ODV Handbook the audit will assess whether these adjustments are reasonable and whether appropriate records are available to support the application of these rules.

Optimisation

The Commission will audit the process used to optimise the network to ensure that the optimisation process has been applied rigorously and accurately across all parts of the network and in accordance with the requirements of the ODV Handbook. This audit will include:

- an audit of the load forecast used to determine the allowed capacity to assess whether it is reasonable taking into account historic load growth and other relevant factors;

- an audit of the disclosed quality of supply criteria⁸. The audit will consider whether the disclosed degree of security is consistent with the requirements of clause 3.41 and 3.42 of the ODV Handbook. Unless individual large electricity line owners have special contractual arrangements with their customers which contain specific quality of supply standards, the audit will also consider whether disclosed quality of supply criteria are consistent with standard industry practice in New Zealand⁹ having regard to the size of the load, customer density, environmental requirements, relevant legislation and other relevant factors and with the quality of supply built into recently completed capital projects or projects currently under design and/or construction; and
- an audit of the process by which the network was optimised. This audit will assess whether the optimisation process has been applied rigorously and accurately across the whole network and whether all opportunities for optimising out excess assets have been identified. It will also assess whether the optimisation process has included system configuration, elements in the system and network equipment spares, and whether all tests identified in Appendix B of the ODV Handbook have been applied in an appropriate manner.

Economic Valuation

The Commission will audit the process used to value network assets that cannot earn a commercially appropriate rate of return on their ODV value. It will assess whether all such assets have been identified and whether the economic value of such assets has been correctly assessed in accordance with the rules and requirements set out in the ODV Handbook. This audit will include:

- an audit of the process used to segment the network and identify segments to which the economic value (EV) test is to be applied. The audit will consider whether the segmentation process has been correctly applied in accordance with the requirements of the ODV Handbook and whether all segments that should have an EV test applied have been identified;
- the audit will consider the large electricity line owner's calculation of profit maximising tariffs. This audit will consider whether an appropriate range of alternative sources of energy have been considered and whether the comparison of using the network with the costs of alternatives has been carried out correctly and on a delivered energy cost basis. It will also consider whether the profit maximising line tariff used is within the limits set in Clause 3.76 of the ODV Handbook; and
- the audit will assess whether the calculation of the economic value of each segment has been undertaken correctly. In particular, the audit will also consider whether the values used for the various components of the present

⁸ Transpower is required to have regard to prudent standards and practices followed in overseas countries, such as those adopted in Australia and the United Kingdom, relevant decisions of the Grid Security Committee and its contractual relationships.

⁹ For example the 'Guidelines for Security of Supply in New Zealand Electricity Networks' published by the Electricity Engineer's Association of NZ.

value equation including revenue, operating expenditure, depreciation, tax capital expenditure and disposals are appropriate.

ODV calculation

The audit of the final calculation of the relevant ODV will check the aggregation of ODRC and EV values of the network assets and the value of the network system fixed assets ODV produced.

Comparison with Previous Valuation

The Commission will compare the current valuation with the large electricity line owner's previous ODV valuations in determining whether the line owner's previous disclosures need to be modified to ensure consistency with the valuation report.

3.3 CONSISTENCY CHECK

After completion of the comprehensive audits of the valuations of large electricity lines owners (excluding Transpower), and before advising the lines businesses of the results, the Commission will undertake a consistency check of all reports written by the audit teams. The consistency check will examine the approach taken by each audit team to determine whether the valuations reflect a rigorous and accurate application of the ODV Handbook. The consistency check will also consider whether there are any variations of approach to the relevant ODV valuation taken by different large electricity line owners.

The consistency check will particularly examine the range of assumptions made by the different large electricity line owners and the impact that those varying assumptions may have had on the ODVs. An example of such an assumption to be reviewed is the range of replacement costs assumed for similar assets, in cases where these replacement costs are not specified in the ODV Handbook.

In carrying out the consistency check the Commission will measure the compliance of large electricity line owners' asset valuations with the ODV Handbook. While the 4th edition of the ODV Handbook is more prescriptive than previous editions, the Commission acknowledges that there could still be areas where a range of different interpretations is possible, either because of ambiguity of the wording or because of the impossibility of producing an ODV Handbook which is able to completely encompass all potential issues likely to arise during ODV valuations.

A final decision as to whether or not to approve any valuation report will be made by the Commission after this consistency check has been completed.

4. CIRCUMSTANCES UNDER WHICH VALUATION REPORTS WILL BE APPROVED

4.1 GENERAL

The Commission requires that all valuation reports must comply with the disclosure requirements set out in Clauses 6 - 8 of the Preface to the ODV Handbook.

The ODV Handbook allows large electricity line owners to determine their quality of supply standards as long as those standards are consistent with customers' expectations. The audit will test whether such standards are reasonable. The Commission will also place emphasis, when determining whether to approve valuation reports, on whether the quality of supply standards used as the basis for optimisation are reflected in the capital investment projects recently undertaken by the large electricity line owner concerned.

4.2 APPROVAL CRITERIA

On this basis the Commission will approve a large electricity line owner's valuation report if:

- the report meets the disclosure requirements set out in Clauses 6-8 of the Preface of the ODV Handbook;
- the Commission is satisfied that the fixed asset register accurately represents the physical assets installed;
- the load forecast used to determine the allowed capacity of any part of the system is considered realistic, having regard to historic load growth, and other relevant factors;
- the quality of supply standards used as the basis for optimisation are consistent with those disclosed by the large electricity line owner and are reflected in capital expenditure projects recently completed or currently being undertaken by the large electricity line owner;
- asset replacement costs used in the valuation are consistent with the mandated costs specified in Appendix B of the ODV Handbook or, where costs are not mandated, are considered reasonable by the Commission for modern equivalent assets to provide a similar level of service;
- the Commission is satisfied that a robust and systematic process has been used to optimise the network and no material optimisations required by the ODV Handbook have been overlooked;
- the Commission is satisfied that a robust and systematic process has been used to identify those parts of the network where the asset value should be determined by application of the economic value test and that the economic value test has been applied in a manner consistent with the rules set out in the ODV Handbook; and
- the aggregation process of the ODRC and EV values has been carried out correctly.

The decision as to whether or not to approve a valuation report will be made after assessing the materiality of each of these factors.

As a general rule, the Commission considers a value variance of more than 3% to be material. The Commission will not approve a valuation report if it considers that the ODV of the large electricity line owners' system fixed assets will vary by more than 3% after the factors identified in the assessment have been addressed to the satisfaction of the Commission.

APPENDIX 1
GENERIC AUDIT PLAN

GENERIC AUDIT PLAN

1. PURPOSE

This document sets out the primary procedures of the audit to:

- ensure consistency of approach between various audit teams;
- highlight specific issues that the audit teams may encounter;
- provide assistance with interpretation of the ODV Handbook; and
- provide fairness in the valuation audit process.

Extraordinary issues uncovered by the auditors and not detailed in this plan or the ODV Handbook will be forwarded to the Commission for its consideration.

This generic audit plan does not apply to Transpower.

2. AUDIT PROCESS

2.1 Audit Process

The audit teams will consist of a Commission representative and financial and technical experts from PB Associates. The audit process will be as follows:

- Audit of the large electricity line owner's valuation report.
- Consideration of key issues highlighted in the preliminary audit reports.
- Visit to the large electricity lines owner's office and audit in accordance with the audit checklist outlined in section 3 of this Generic Audit Plan.
- Auditor's report which will include recommendations on the acceptability of the valuation report.
- Peer review and consistency check of auditor's reports.
- Submission of the Audit reports to the Commerce Commission.

2.2 Audit Team support

The audit teams in the field will be supported by specialist advisors in ODV Methodology. Any clarifications required as to the application of the ODV Handbook will be referred to these advisors. The specialist advisors will co-ordinate the clarification process and ensure that the other teams are kept informed of the decisions.

2.3 Audit Reports

Audit reports will contain as a minimum the following:

- General observations.
- Description of findings.
- Discussion on submissions received.
- Description of grey areas where the ODV Handbook was inadequate.
- Recommendations to the Commission on acceptability of the valuation report.

These Audit Reports are Confidential to the Commission.

3. AUDIT CHECKLIST

Issue	Objective	Methodology
Valuation Reports Comply with requirements of s6-8 of the Preface of the ODV Handbook.	Confirm that the valuation reports comply with ODV Handbook requirements.	<ul style="list-style-type: none"> • Audit the valuation report provided against the requirements of Sections 6-8 of the Preface to the ODV Handbook.
Comparison with previous valuation.	Identify reasons for significant changes from the previous asset valuation.	<ul style="list-style-type: none"> • Identify the major reasons for any change from the previous valuation.
Asset Register (ODV Handbook 3.4 – 3.10)	Confirm that the asset register is an accurate representation of the large electricity line owner’s network assets.	<ul style="list-style-type: none"> • Establish the methodology used to populate the asset register. • Establish the methodology used to determine the age of network assets. • Test samples of the asset register against operational and engineering records to check that assets are an accurate representation of what is installed (eg line lengths are accurate).
Replacement Costs. (ODV Handbook 3.11 – 3.16)	Confirm that the asset replacement costs are applied in accordance with ODV Handbook requirement	<ul style="list-style-type: none"> • Confirm, by testing sample assets where appropriate, that replacement costs are consistent with those scheduled in Table B.47 of the ODV Handbook. • Check that, where multipliers are applied to overhead lines or underground cables, this is done in accordance with B8 – B18 of the ODV Handbook. Auditor should examine evidence used to justify the application of multipliers and include, in the audit report, the percentage of each generic asset type (overhead lines, underground cable) to which multiplying factors are applied. This information is required for the consistency check after completion of audits. • Examine the methodology and process used by the large electricity line owner to determine replacement costs of assets (such as zone substations) that do not have standard costs included in Table B47. Field inspections of zone substations are required to ensure that replacement costs are based on modern equivalent assets with the same functionality as the assets installed. The audit report is to include the replacement costs used for typical assets (required for consistency checks).

<p>Asset Lives and depreciation (ODV Handbook 3.17-3.28)</p>	<p>Confirm that the total lives assumed for network assets are in accordance with the ODV Handbook requirements.</p>	<ul style="list-style-type: none"> • Check that assumed asset total lives are consistent with B47. Identify areas where lives have been varied from standard and confirm that this is consistent with B40-B44. • Audit evidence supporting extensions in assumed lives. • Comment on the extent to which the large electricity line owner has assigned asset lives different from the standard lives. Comments to include extent to which the change in asset life is justified (based on evidence provided in accordance with B35 and B36) and whether changes in life are global across the whole network or related to specific environmental conditions. • Where asset lives have been changed from the standard life, comparisons should be made of the life used in this valuation with the lives used in previous valuations (See 3.23). • Test the processes used to determine the age of assets, particularly in situations where commissioning records are not available. • Test that the remaining life of refurbished assets has been determined in accordance with B37 – 38. • Test that the value of assets in service at the end of their remaining life are assigned a value of zero except when the line owner can demonstrate a net realisable value after allowing for the cost of disposal (see 3.27). • Test that the straight-line method of depreciation has been applied in accordance with 3.18.
<p>Load Growth and Planning Period (ODV Handbook 3.35-3.37)</p>	<p>Confirm that the allowed capacity of the optimised network is determined in a manner consistent with the requirements of the ODV Handbook.</p>	<ul style="list-style-type: none"> • Check that the network loads used as the basis for optimisation are reasonable, when benchmarked against current network loading. • Check that the planning periods used to determine the allowed capacity are no greater than the periods set out in 3.37.
<p>Quality of Supply (ODV Handbook 3.38-3.44)</p>	<p>Confirm that the large electricity line owner has transparent quality of supply standards and that these are consistently used as a basis for optimisation.</p>	<ul style="list-style-type: none"> • Comment on the extent to which the quality of supply standards used as the basis for optimisation has been used as a basis for a consistent and transparent optimisation process across the whole network. • Examine recent significant capital projects undertaken by the large electricity line owner and comment on the extent to which these projects are consistent with the quality of supply standards. Differences between disclosed quality of supply criteria and current practice to be noted in the audit report.

Stranded Assets (ODV Handbook 3.45)	Confirm that stranded assets have been identified and removed from the asset base for valuation purposes.	<ul style="list-style-type: none"> Identify stranded assets removed from the asset base as part of the optimisation process.
Optimisation of points of connection and subtransmission system. (ODV Handbook Appendix C)	Confirm that requirement for all points of connection have been tested in accordance with the ODV Handbook requirement.	<ul style="list-style-type: none"> Confirm that all points of connection have been checked and any that can be bypassed identified. If bypassing is possible then network configuration needs to be revised for valuation purposes.
	Confirm that requirement for all subtransmission lines and zone substations has been tested	<ul style="list-style-type: none"> Confirm that optimisation process has tested that all existing subtransmission lines and zone substations are required to give the required level of service.
Optimisation of excess subtransmission line capacity. (ODV Handbook Appendix C)	Confirm that excess subtransmission line capacity has been optimised out.	<ul style="list-style-type: none"> Confirm that the capacity of each subtransmission line on the network does not have a capacity greater than required to give the required level of service.
Optimisation of zone substation configuration (ODV Handbook Appendix C)	Confirm that zone substation configurations are such that level of service is no higher than the required level of service. Confirm that excess capacity is optimised out.	<ul style="list-style-type: none"> Confirm that the large electricity line owner has examined the single line diagram and configuration of all zone substations and optimised out all equipment not required to provide the required level of service.

<p>Optimisation of HV distribution network (ODV Handbook Appendix C)</p>	<p>Confirm that HV distribution feeders have been tested to ensure that capacity in excess of that needed to meet the required level of service has been optimised out.</p>	<ul style="list-style-type: none"> • Confirm that underground distribution is only included in the asset base in areas where there is “specific evidence that the local authority would not, in normal circumstances, grant consent for overhead reticulation, or that a non standard contract or a legal obligation requiring the installation of underground cable exists” (p70). • Confirm that conductor and cable sizes are not in excess of those required to give the required level of service. • Confirm that number of HV switches on the network is consistent with the required level of service. Any that are in excess of this requirement should be optimised out.
<p>Optimisation of distribution transformers (ODV Handbook Appendix C)</p>	<p>Confirm the excess distribution transformer capacity has been optimised out in accordance with the ODV Handbook requirements.</p>	<ul style="list-style-type: none"> • Confirm that distribution transformer capacity utilisation exceed 30%, based on current load. • Check that the depreciated replacement cost of any capacity optimised out is correctly valued.
<p>Optimisation of low voltage distribution (ODV Handbook Appendix C)</p>	<p>Confirm that low voltage distribution is optimised in accordance with the ODV Handbook requirements</p>	<ul style="list-style-type: none"> • Confirm that any part of the low voltage distribution network constructed in excess of current standards is optimised out. • Confirm that underground distribution has been optimised to overhead where necessary.
<p>Audit of the Economic Valuation (EV) methodology used</p>	<p>Confirm the EV calculation methodology is in accordance with the ODV Handbook</p>	<ul style="list-style-type: none"> • Audit the EV methodology adopted and its conformance with the ODV Handbook
<p>Identifying segments for EV testing (ODV Handbook 3.61-3.71)</p>	<p>Confirm that segmentation for EV testing has been carried out in accordance with the ODV Handbook requirements</p>	<ul style="list-style-type: none"> • Confirm that all potentially uneconomic segments have been identified in accordance with the general criteria specified in the ODV Handbook • Confirm that these segments have been tested using the specific criteria outlined in section 3.71-3.72 of the ODV Handbook • Identify and audit the sources of data used to establish ICP numbers and installed kVA capacity.

<p>Determining the profit maximising line tariff (ODV Handbook 3.72-3.75)</p>	<p>Confirm that the derived profit maximising tariff is appropriate.</p>	<ul style="list-style-type: none"> • Confirm the methodology used to establish the Profit Maximising Tariff. • Confirm that the effect of transmission costs have been taken into account appropriately in the maximum tariffs.
<p>Calculating the EV of a segment (ODV Handbook 3.77-3.102)</p>	<p>Confirm that EV calculations are in accordance with the ODV Handbook.</p>	<ul style="list-style-type: none"> • Confirm the formulae used to derive the EV are correct. • Confirm that the underlying assumptions used in the derivation of all components of the EV e.g. PV, WACC, WC, Depreciation, Revenue, Growth, Residual Value are reasonable. • Audit the EV models to confirm that all calculations are consistent with the requirements of the ODV Handbook.
	<p>Confirm that the Present Value Calculations are correct.</p>	<ul style="list-style-type: none"> • Audit all components of PV Calculation. • Confirm that Revenue and Operating cost projections are correct.
<p>Determining the Network ODV (ODV Handbook 3.103)</p>	<p>Confirm that the network ODV has been calculated in accordance with the ODV Handbook</p>	<ul style="list-style-type: none"> • Confirm that the aggregation of the ODRC or EV value is as prescribed by the ODV Handbook.