

# Report of the

# **Electricity Commission**

for the year ended 30 June 2008

Presented to the House of Representatives in accordance with section 150 of the Crown Entities Act 2004



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## Foreword

This has been my first year as Commission Chair, having been appointed in October 2007. I wish to thank Commissioner Harris for ably carrying out the Chair's responsibilities in the period between the departure of the previous Chair in November 2006 and my appointment. In addition, Commissioners Richard Bentley, David Bull and Linda Constable were appointed in November 2007 to replace Commissioners David Close, Doug Dell and Graham Pinnell. I welcome the new Commissioners. I would also like to thank the previous Commissioners for their considerable efforts during the formative period of the Commission, and for establishing an organisation in good heart and performing well.

The 2007/08 year proved challenging, but was nevertheless a year of significant progress.

The lack of rain in the first half of 2008 reminded everyone of New Zealand's limited hydro storage. All parties responded positively to this challenge. The Commission worked closely with Transpower to ensure everyone was well informed and acted appropriately as the year unfolded.

At the end of 2007 the Commission made a formal assessment of the likely level of security over the next two years. We took into account Transpower's decision in September 2007 to withdraw Pole 1 of the HVDC inter-island link from service. We subsequently considered the impact of the generation at New Plymouth also being unavailable. Even taking both events into account the reserve margin appeared adequate.

However, from April to June 2008 the South Island in particular experienced exceptionally low hydro inflows—the lowest since 1947. Accordingly, in June 2008, the industry undertook a public campaign urging consumers to 'be prudent'. Useful savings were achieved as a result. It was also pleasing to see the Commission's own energy efficiency programmes starting to make an impact. At the end of the winter the Commission appointed an independent panel to review the policy settings with a view to discerning possible lessons for the future.

The Commission is also monitoring sector intentions with respect to future generation capacity. A total of 4,000MW is either under construction,

approved but not yet being built, approved but under appeal, or awaiting Resource Management Act decisions. All this generation, if built, would amount to a 40 per cent expansion in the country's generating capacity.

In the course of the year the Commission undertook its own investigation into the implications for the electricity system of the likely increasing reliance on renewable sources of generation. This work is ongoing. In particular, the Commission is examining the actions that will be needed to accommodate an increased proportion of intermittent generation from wind.

It was particularly pleasing that on 1 April 2008, part F of the Commission's rules, dealing with transmission, finally came into full effect. To achieve this the Commission had to finalise an Outage Protocol and a Connection Code as well as several other earlier elements. The Commission is well aware that the Transmission Pricing Methodology remains controversial, especially the cost allocation with respect to the HVDC link. The Commission has indicated that it will be prepared to revisit the pricing methodology in the light of experience.

In the meantime the Commission has made good progress in the important area of transmission investment. In the course of the 2007/08 year the Commission approved over \$1 billion in new transmission investment, as outlined in the review of operations. However, the Commission found itself in the High Court defending the decisions in relation to the proposed 220kV line through Waikato (North Island grid upgrade) and the new switchyard at the Otahuhu substation. The latter judicial review was defended successfully, but has since been appealed to the Court of Appeal. We await the Court's decision in relation to the Waikato upgrade.

In addition, this year Transpower sought approval for a new 110kV line on the West Coast of the South Island, the upgrade of the HVDC link, and a new 220kV line to serve Auckland and Northland. The Commission approved the West Coast and HVDC proposals early in the 2008/09 year. The Commission is still considering the Auckland and Northland proposal.

Including these 2008/09 decisions, in the last two years the Commission has approved almost \$2 billion of transmission investment.

The year also saw the successful completion of a major revision to the rules relating to reconciliation, which came into force on 1 May 2008. This will provide a stronger foundation for the introduction of advanced meters by retailers. In turn the Commission is also considering the important issues of load management and the possible associated developments of retail tariffs.

Above all, however, this year saw the further advance of the Commission's major review of the design of the electricity market, with the publication in July 2008 of a paper setting out the major options in terms of the direction of possible reform. This review will form a key part of our work over the coming year.

In short, I am confident that the Commission plays a necessary role, using a minimum of resources and operating in a problem-solving manner. While its core tasks are regulatory in nature, the Commission is much more than an aloof drafter and enforcer of rules. Rather it seeks to play a proper, active role in the resolution of the challenges that face the electricity sector, whilst maintaining its ultimate responsibilities on behalf of consumers.

David Caygill Chair

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# Part one review of operations

This section outlines the Commission's major achievements for the 2007/08 year. Detailed information on output classes, performance measures and financial statements is provided in part two of this report and the Commission's progress against the *Government Policy Statement on Electricity Governance* (GPS) is provided in part three.

## Maintenance and development of market operations

The Commission's principal objectives, as set out in the Electricity Act 1992, are:

- a to ensure that electricity is produced and delivered to all classes of consumers in an efficient, fair, reliable and environmentally sustainable manner; and
- b to promote and facilitate the efficient use of electricity.

The Commission seeks to achieve these objectives by developing solutions to ensure that the electricity markets—both wholesale and retail—operate effectively and efficiently, and to foster innovation in the industry. The Commission develops guidelines and voluntary arrangements and advises the Minister of Energy on statutory regulations and rules.

Key achievements by the Commission in this area for the 2007/08 year are outlined below.

#### **Reconciliation rule changes**

The reconciliation rule change process required a strong collective effort across the sector, both in the development and in the implementation phases, as it involved changes to the IT systems of the Commission and of industry participants. The solution-focused, round-the-table approach by all participants is what made the project successful. The new system went live on 1 May 2008 and the first reconciliation run under the new rules was successfully completed in June.

The new rules are vital to the sector's ability to respond to market developments and consumer trends. A key objective of the project was to accommodate the advanced or 'smart' meters being introduced by retailers around the country. These can give consumers more control over their power bills through aligning consumer tariffs more closely with wholesale market prices and distributor pricing. They also allow residential meters to be read remotely so that electricity bills are based on actual rather than estimated usage.

The new rules will support the expected growth in small-scale generation by making the settlement process for distributed generation simpler and more efficient. They will also provide improved transparency of information, making it easier to locate errors and omissions as they occur.

#### Service provider re-tender

The Commission announced the results of the tender for Clearing Manager, Pricing Manager, Wholesale Information and Trading System (formerly Information System) Manager, Reconciliation Manager and Registry services on 2 July 2007.

The Commission took the opportunity provided by the tender to take software licences over all of the systems with the exception of the Pricing Manager's role. As a result, the Commission now has the ability, should circumstances warrant, to switch more easily from one provider to another thereby ensuring a more competitive market for service provision in the future. There are also benefits to levy payers from the new contracts because the prices the Commission is paying for services, although similar in nominal terms, are lower in real terms than before. In addition the Commission is now receiving substantially more and better information from the service providers.

The Marketplace Company (M-co) was awarded the contract for four of the five market services, and Jade performs the Registry role.

## Market design improvement

The electricity market has been in place for about 10 years during which time the energy environment has been subject to continuous change. Further, a government review of the sector in 2006, although it endorsed the market's basic structure, concluded that there were areas for improvement.

The Commission released an issues paper in May 2007 aimed at identifying potential improvements in the design of the electricity market to ensure that it continues to work for everybody; both buyers and sellers.

Concerns that emerged in the submissions process included: a perceived lack of competition, especially for residential customers; whether energy-only prices help timely investment in capacity; the effect upon decision-making of uneven availability of market information; and whether present arrangements make it difficult for consumers to mange their own power use. A number of submitters also expressed concern about energy poverty, especially those on low incomes. This issue is being looked at separately by other government agencies.

#### **Future focus**

The Commission released the *Market Design Review Options* paper in early July 2008, seeking feedback on a range of measures that might improve the electricity market. Five focus areas were identified following submissions from consumers and other stakeholders:

- · Competition and prices
- Effectiveness of energy-only prices
- · Availability of market information
- Demand-side participation
- · Energy poverty

#### **Advanced metering**

After consulting with the electricity sector, the Commission published the *Advanced Metering Policy* and the *Guidelines for Advanced Metering Infrastructure* in May 2008.

Traditional household meters use 100-year-old technology that can only count how much power is used, not when. The new meters can tell when power is used and allow retailers to signal to consumers when electricity is expensive so that they can take steps to control their use. This will assist households to reduce their power bills and will also improve efficiency and reduce peak loads.

Retailers can send messages to, and get information from, advanced meters automatically, removing the need for estimated accounts. They will also be able to offer more choice and options such as savings (if customers move power use to low-cost times) through tariffs that are more closely linked to the spot market price for electricity.

The guidelines provide common standards for advanced meters. The Commission believes it is important that the consumer has choice and the advantage of competition rather than being locked into a single supplier, so the guidelines are intended to ensure that installation of an advanced meter does not prevent a consumer from switching retailer.

As at 30 June 2008, 79,277 advanced meters had been installed. Published data about planned installations suggest this number will continue to rise (see figure 1).

1,800,000 1,600,000 1,400,000 1,200,000 1,000,000 800,000 600,000 400,000 200,000 200,000 Year

Figure 1: Forecast advanced meter installations

Source: Parliamentary Commissioner for the Environment: Electricity Commission Annual Review 2006/07

#### **Hedge market developments**

Consultation on the hedge disclosure rules was completed in September 2007. Update reports were published in February and May 2008 to address outstanding issues. The Board approved recommended rule changes at its 1–2 July 2008 meeting, with an anticipated go-live date of 1 October 2008. The new rules are expected to promote the development of electricity hedges and to increase liquidity and transparency in the hedge market.

A consultation paper on transmission hedges (*Issues for Managing Location Price Risk*) was released at the beginning of the 2008/09 year.

## System operation

The Commission is responsible for ensuring that there are appropriate parties in place to carry out the handson operation of the electricity system. The real-time operation of the electricity system is contracted to the System Operator (Transpower) under a service provider agreement.

The Commission also has the task of ensuring there are appropriate rules in place to enable the many parties in the interconnected system to be able to be coordinated. Factors such as the changing generation mix are impacting on the real-time operation of the system.

#### Strategic wind project

The Wind Generation Investigation Project was completed in March 2008 and the resulting action programme has been adopted by the Board. The plan, which is now in the implementation phase, includes measures to improve the accuracy of wind forecasting and a review of the technical performance obligations for voltage support, including clarifying cost allocation.

The Commission worked with the sector to identify the changes needed to enable the integration of a significant amount of wind generation, including management of supply when the wind is not blowing.

Some countries have had to halt wind farm development due to the complexities of integrating intermittent generation into an electricity system. By proactively identifying and addressing potential issues in New Zealand's unique environment, the Commission is optimistic that such problems can be avoided here.

## **Common quality development**

The Commission has initiated a range of projects in the Common Quality Development Plan with the objective of improving system management, reducing operating costs and facilitating the integration into the electricity system of renewable generation.

The work programme to date is summarised in figure 2.

The Commission expects to make significant progress once the System Operator has completed implementation of the Market Systems Project (MSP), due in April 2009. These initiatives have the potential to substantially improve system reliability and reduce operating costs.

Figure 2: Common quality development initiatives

Project	Progress to 30 June 2008
Expanding the normal frequency band	Scope developed and investigation work underway with the System Operator.
Multiple frequency keepers	The technical feasibility of options to allow multiple providers of frequency-keeping services has been investigated.
Optimising emergency management	Stage 1—a review of extended load control— is progressing well.
HVDC instantaneous reserves transfer capability	The Commission is awaiting input from Transpower as grid owner on the HVDC capacity.

Source: Electricity Commission

#### **System Operator service provider agreement**

Transpower is seeking a fee increase as part of the renegotiation of the System Operator service provider agreement (SOSPA). The requested increase is being driven in large part by costs related to Transpower's new Market Systems Project (MSP), due for completion in April 2009.

Progress is being made on an agreement in principle. The Commission will consult with industry on the SOSPA as part of its appropriations consultation for 2009/10. This is scheduled for late in the 2008 calendar year.

## **Transmission**

## **Benchmark Agreement and the Transmission Pricing Methodology**

After years of development, discussion and consultation with the sector, two major transmission initiatives—the Benchmark Agreement (BA) and the Transmission Pricing Methodology (TPM)—were brought into effect on 1 April 2008.

The Benchmark Agreement provides a basis for Transpower and its customers to negotiate transmission agreements for connection to the national grid. The BA is a milestone in electricity governance and the culmination of a work programme which the industry has been involved in since at least 1996 and which the Commission has been engaged in since March 2004.

The TPM, which has also been in gestation for a number of years, allows Transpower to recover costs from transmission customers in accordance with the pricing principles in the Rules and sets out how Transpower will assign and allocate charges to recover its required revenue. A number of components make up the TPM, including the connection charge, interconnection charge, and HVDC charge.

#### Key elements of the transmission regulatory framework completed:

Transmission Pricing Methodology (TPM)

Grid Reliability Standards (GRS)

Grid Investment Test (GIT)

Benchmark (Transmission) Agreements (BA)

Grid Upgrade Investment Review Policy (GUIRP)

#### **Grid Upgrade and Investment Review Policy**

Transpower and the Commission have built up experience in developing and processing grid investment proposals and both parties thought there was value in capturing this knowledge and embedding it in a clear policy. The Grid Upgrade and Investment Review Policy (GUIRP) was developed by a joint Transpower/Commission working group to establish clarity around the approval procedures and to expedite decision-making. The GUIRP confirms Transpower as the grid planner and the Commission as the auditor and reviewer.

The GUIRP introduces more flexibility into the system and provides an opportunity to keep transaction costs down by enabling a number of smaller investment projects to be bundled together. It also provides more transparency. This is important because the interconnected nature of the electricity system means that the actions of one party can have significant implications for other parties. Existing generators, for example, or those considering new generation, want to be informed of the existence, progress and status of grid proposals.

#### Transmission investment decision-making

The GUIRP framework is enabling investments to proceed and is enabling appropriate decisions to be taken. The Commission approved major transmission projects this year with a total value of over \$1 billion (see figure 3).

Grid investments have long life-spans, can be large and expensive, and the costs are eventually passed on to the public through their power bills. Part of the Commission's role is to protect the consumer from unnecessary expense. The Commission does this by approving investment proposals only when it is satisfied that they are appropriate investments for reliable supply at a reasonable cost.

These decisions can involve assumptions about such things as demand growth and where power stations are likely to be built. Such judgements can be contentious.

Two of the Commission's project approvals—the Otahuhu substation and the North Island grid upgrade—are now being challenged through judicial review in the courts.

\$1,200 - \$1,000 - \$1,000 - \$800 - \$800 - \$400 - \$200 - \$200 - \$1 July 2005 to 30 June 2006 1 July 2006 to 30 June 2007 1 July 2007 to 30 June 2008 Year

Figure 3: Annual value of grid investment approved

Source: Electricity Commission

#### Major transmission investment approvals for 2007/08

- North Island grid upgrade (NIGU)—new 220kV transmission line between Whakamaru and Pakuranga: \$824 million
- Otahuhu substation upgrade—construction of a second switchyard at Transpower's Otahuhu site and improvements to the existing switchyard: \$99 million
- Central North Island grid upgrades: \$18 million
- **Upper South Island Interim Grid Expenditure**—additional reactive support at Kikiwa and Islington, together with an upgrade of the Reactive Power Controller (RPC) at Islington: \$70 million

Transpower has several more major projects under various stages of development which, if given the green light, will add another \$1 billion to the \$1.2 billion the Commission has already approved in transmission upgrades over the last three years. The Commission is also giving attention to how to ensure appropriate transmission investment in areas of high wind power concentration.

#### Major transmission investment proposals for 2008/09

- West Coast proposal—\$19 million (approved 21 July 2008)
- HVDC link upgrade—\$672 million (approved 25 September 2008)
- North Auckland and Northland (NAaN) grid upgrade—includes the installation of a 220kV cross harbour cable connection between Penrose and Albany substations, and the reinforcement of Penrose substation from Pakuranga substation: \$590 million sought
- Wairakei ring investments—proposal expected December 2008
- Lower South Island—proposal expected April 2009
- Smaller reliability investments package—proposal expected December 2008

## Security of supply

The Commission monitors security of supply and has powers to act in emergencies. Whirinaki power station has been contracted to provide reserve energy when needed. The Commission can also run conservation campaigns and buy back demand from consumers, as was contemplated during the 2008 winter.

#### Review of security of supply policy

The Commission consulted the industry extensively when it developed its original security of supply policy and ran another extensive consultation in advance of this year's policy update. The outcomes of the review were reported to the Minister of Energy in November 2007 and are reflected in the new *Government Policy Statement on Electricity Governance* (GPS) issued in May 2008.

The new policy focuses on dry year and peak security margins. The Commission will complete implementation of the necessary changes in 2008/09.

#### Winter 2008 review

2008 recorded the driest March to June period since 1947. For the first time since the Commission was established, storage fell below the Minzone, a threshold indicating a roughly 1.5 per cent chance of involuntary power cuts. This happened in April. By June, storage approached the Emergency Zone, indicating a roughly 10 per cent chance of cuts.

An encouraging feature of the response to this low hydro inflow was a cohesive effort by the industry.

Actions undertaken by the Commission were:

- monitoring the situation, and developing plans to escalate the response, if necessary;
- in May the Commission revised its Reserve Energy Trigger Price for the Whirinaki Power Station so that the plant could be dispatched more regularly thus conserving hydro storage;
- in June the Commission sought expressions of interest for buy-back arrangements to provide more power savings from major commercial users, if needed; and
- on 26 June the Commission recommended Rolling Cuts Regulations to the Minister of Energy as a contingency in case of an emergency.

Storage climbed above both the South Island and New Zealand Minzones by mid-September 2008, and it was not necessary to take further action and use any additional funding. The Commission's attention is moving to next winter. Part of that preparation is a review of the electricity market's performance over the 2008 winter.

## Information provision

Quality information is vital in the electricity sector especially when, as now, it is going through a developmental and investment phase. The industry is complex, inter-linked and has a wide range of participants, some of whom command investments worth many hundreds of millions of dollars and others that can be quite small. In such circumstances, access to reliable data can be more important and effective than direct regulatory intervention.

The Commission produces a wide range of regular publications and also provides analytical support to the Energy Efficiency and Conservation Authority, and to the Ministry of Economic Development for its electricity sector and climate change analysis.

#### **Statement of Opportunities**

The Commission published its second *Statement of Opportunities* (SOO) shortly after the end of the financial year, in August 2008. The SOO would have been produced earlier except that the Commission decided to await the release of the *New Zealand Energy Strategy* (NZES) given its direct relevance to the electricity system.

The purpose of the SOO is to assist in identifying potential opportunities for efficient management of the grid, including investment in upgrades and transmission alternatives. It is not a plan for future development, nor does it set out what the Commission thinks will or should happen. Instead it provides insights into what might happen.

The SOO examines a range of 20-year scenarios for electricity demand and generation to provide a basis on which to assess transmission projects. Scenarios in the 2008 SOO include a new large gas discovery scenario and a sustainable path scenario of 90 per cent renewable generation by 2025.

#### **Centralised Dataset**

The Commission is required to establish, maintain, and publish a *Centralised Dataset* (CDS) under part F of the Electricity Governance Rules. The purpose of the CDS is to collect and collate historical information required to make decisions on a range of investment alternatives. The Commission published a CDS on DVD on 9 November 2007 and an update on 30 May 2008.

The CDS provides a comprehensive database including: half-hourly data on electricity generation and flows, bids, offers and prices, hydrology, weekly hydro inflows (by catchment), and transmission network data. The Commission surveys users of the data as part of its ongoing improvement process for CDS updates.

#### Other information

In addition to the SOO and the CDS, the Commission also publishes:

- wholesale and retail market reports (published on the Commission's website);
- · hedge market surveys (published every two years, the latest in April 2008);
- retail market statistical reports (published on the website on a quarterly and monthly basis);
- security of supply reports (weekly reports on energy security and energy demand, Riskmeter and Minzone published on the Commission's website); and
- COMIT website (comprehensive historic and live market information, including demand, prices and hydrology—provided by M-co under contract).

## Electricity efficiency

## **Electricity Efficiency Potentials Study**

This year the Commission released a major study showing the potential to produce savings in New Zealand of thousands of gigawatt hours (GWh) of electricity a year. The study looked at the period from 2007 to 2016 and focused on efficiency measures that are achievable with current technologies. The Commission communicated the study's results via a roadshow in April 2008.

#### **Efficiency campaigns**

The Commission has rolled out 19 new electricity efficiency programmes to deliver savings across the lighting, industrial and commercial sectors. These are targeted to deliver between them 450GWh of annual savings by 2010. Significant results are already flowing through (see box and figure 4).

#### Electricity efficiency programme results to 30 June 2008 (actual and committed)

- · Around 390GWh per annum saved
- Around 75 kilotons per annum CO<sub>2</sub> saved
- · Around 81MW peak savings
- Programme costs range from 0.7-4.7 cents per kWh

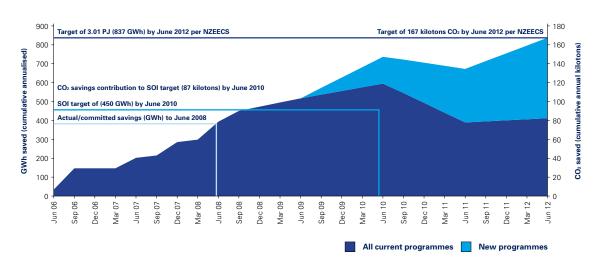
The Commission has undertaken several initiatives:

- A best practice programme for the use and maintenance of compressed air systems as these absorb significant amounts of electricity. Thirty-seven compressed air audits have been either completed or scheduled for completion by 30 June 2008. A training and accreditation scheme for auditors was developed and parties were appointed to administer the scheme.
- An electric motors bounty scheme, to roll out in September 2008. The scheme pays a bounty for the replacement of older motors with modern ones that meet the New Zealand minimum energy performance standard. The pilot phase resulted in the collection and disposal of 5.5MW of low-efficiency motors.
- Electricity efficiency projects in the commercial sector. Over 200 projects are expected to be implemented within the next two years. The projects will have to meet pre-agreed economic criteria and will target energy-intensive uses such as HVAC systems, refrigeration, commercial lighting, and building management systems in commercial office buildings, hospitals, tertiary institutions and food stores. Twelve projects were approved during 2007/08 that, at completion, will commit partners to annual savings of 13GWh.
- In the 2006/07 year the Commission worked with the Lighting Council of New Zealand, the lighting industry, and EECA to develop an efficient lighting strategy. The Commission opted for a joint approach because it was important to get a common basis for moving forward. This consensus has driven a range of initiatives in the lighting area, of which energy-efficient bulbs are just one. Details of the strategy are available on the Commission's website.

The Commission assesses the costs of its energy efficiency programmes against the potential savings that will accrue in terms of avoided new generation investment. The analysis of the compact flourescent lamp (CFL) programme shows that programme delivered electricity savings at a fraction of what it costs to build new generation. There are also significant environmental benefits to New Zealand in terms of reduced greenhouse gas emissions from improved electricity efficiency. Installation of 3 million energy-saving bulbs can save emissions of some 200,000 tonnes of CO<sub>2</sub>, equivalent to the emissions of 5,500 vehicles.

The Commission's aim is to continue these campaigns only until market transformation is achieved. Once sufficient market capacity has been developed for the programmes to become self-sustaining, the Commission will bow out.

Figure 4: Electricity efficiency programme actual and forecast results



**NB** Actual/committed is a combination of actual assessed results to date and savings committed to by programme providers as part of their contracts, up to 30 June 2008. Projected savings are based on current contracts. New programmes refers to programmes that the Commission intends to develop for future years based on results of potentials modelling, but which are not yet developed or under contract.

Source: Electricity Commission

# Part two performance

# Statement of responsibility

Pursuant to the Crown Entities Act 2004, we acknowledge responsibility for the preparation of the statement of service performance and financial statements included in this part of the *Annual Report*, and for the judgments used in them.

We acknowledge the responsibility for establishing and maintaining a system of internal control designed to provide reasonable assurance as to the integrity and reliability of the Commission's financial and non-financial reporting.

Pursuant to the Electricity Act 1992, we acknowledge the responsibility for the preparation of the report against the GPS performance standards, included in part three of this *Annual Report*.

In our opinion the statement of service performance and financial statements reflect fairly the operations and financial position of the Commission for the period 1 July 2007 to 30 June 2008. In our opinion the GPS report fairly reflects progress to 30 June 2008.

David Caygill *Chair* 

31 October 2008

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Stan Rodger Commissioner

31 October 2008

# **AUDIT NEW ZEALAND**

Mana Arotake Aotearoa

# Audit report to the readers of the Electricity Commission's financial statements and performance information for the year ended 30 June 2008

The Auditor-General is the auditor of the Electricity Commission (the Commission). The Auditor-General has appointed me, John O'Connell, using the staff and resources of Audit New Zealand, to carry out the audit on his behalf. The audit covers the financial statements and statement of service performance included in the annual report of the Commission for the year ended 30 June 2008, which also contains information on the performance of the Commission against the Government Policy Statement on Electricity Governance (GPS) objectives and outcomes and the performance standards in the Statement of Intent.

#### **Unqualified Opinion**

#### Financial statements and statement of service performance

In our opinion:

The financial statements of the Commission on pages 40 to 61:

- · comply with generally accepted accounting practice in New Zealand; and
- · fairly reflect:
  - the Commission's financial position as at 30 June 2008; and
  - the results of its operations and cash flows for the year ended on that date.

The statement of service performance of the Commission on pages 26 to 39:

- · complies with generally accepted accounting practice in New Zealand; and
- · fairly reflects for each class of outputs:
  - its standards of delivery performance achieved, as compared with the forecast standards outlined in the statement of forecast service performance adopted at the start of the financial year; and
  - its actual revenue earned and output expenses incurred, as compared with the forecast revenues and output expenses outlined in the statement of forecast service performance adopted at the start of the financial year.

# Information on performance against the GPS objectives and outcomes and the performance standards in the Statement of Intent.

In our opinion, the information on the performance of the Commission against the GPS objectives and outcomes and the performance standards in the Statement of Intent that is included within the statement of service performance and the report against the GPS on pages 64 to 76:

• is appropriate, adequate and accurate, and enables an informed assessment to be made of those matters.

The audit was completed on 31 October 2008, and is the date at which our opinion is expressed.

#### **Basis of Opinion**

We carried out the audit in accordance with the Auditor-General's Auditing Standards, which incorporate the New Zealand Auditing Standards.

We planned and performed the audit to obtain all the information and explanations we considered necessary in order to obtain reasonable assurance that the financial statements and statement of service performance, which contains information on the performance of the Commission against the GPS objectives and outcomes and the performance standards in the Statement of Intent, did not have material misstatements, whether caused by fraud or error.

Material misstatements are differences or omissions of amounts and disclosures that would affect a reader's overall understanding of the financial statements and the statement of service performance, including the information on the performance of the Commission against the GPS objectives and outcomes and the performance standards in the Statement of Intent. If we had found material misstatements that were not corrected, we would have referred to them in our opinion.

The audit involved performing procedures to test the information presented in the financial statements and statement of service performance, including procedures to test the information on the performance of the Commission against the GPS objectives and outcomes and the performance standards in the Statement of Intent. We assessed the results of those procedures in forming our opinion.

Audit procedures generally include:

- determining whether significant financial and management controls are working and can be relied on to produce complete and accurate data;
- · verifying samples of transactions and account balances;
- · performing analyses to identify anomalies in the reported data;
- · reviewing significant estimates and judgements made by the Board;
- · confirming year-end balances;
- · determining whether accounting policies are appropriate and consistently applied; and
- · determining whether all financial statement and statement of service performance disclosures are adequate.

We did not examine every transaction, nor do we guarantee complete accuracy of the financial statements or statement of service performance, including information on the performance of the Commission against the GPS objectives and outcomes and the performance standards in the Statement of Intent.

We evaluated the overall adequacy of the presentation of information in the financial statements and statement of service performance, including the presentation of information on the performance of the Commission against the GPS objectives and outcomes and the performance standards in the Statement of Intent. We obtained all the information and explanations we required to support our opinion above.

#### Responsibilities of the Board and the Auditor

The Board is responsible for preparing the financial statements and statement of service performance in accordance with generally accepted accounting practice in New Zealand. The financial statements must fairly reflect the financial position of the Commission as at 30 June 2008 and the results of its operations and cash flows for the year ended on that date. The statement of service performance must fairly reflect, for each class of outputs, the Commission's standards of delivery performance achieved and revenue earned and expenses incurred, as compared with the forecast standards, revenue and expenses adopted at the start of the financial year. The Board's responsibilities arise from the Crown Entities Act 2004 and the Electricity Act 1992.

The Board is also responsible for including in its Annual Report information to enable an informed assessment to be made of the performance of the Commission for the year ended 30 June 2008 against the GPS objectives and outcomes and the performance standards in the Statement of Intent. This responsibility arises from section 172ZM of the Electricity Act 1992.

We are responsible for expressing an independent opinion on the financial statements and statement of service performance and reporting that opinion to you. This responsibility arises from section 15 of the Public Audit Act 2001 and the Crown Entities Act 2004.

We are also responsible for providing assurance on the appropriateness, adequacy and accuracy of information and whether it enables an informed assessment to be made of the performance of the Commission against the GPS objectives and outcomes and the performance standards in the Statement of Intent. This responsibility arises from section 172ZO of the Electricity Act 1992.

#### Independence

When carrying out the audit we followed the independence requirements of the Auditor-General, which incorporate the independence requirements of the Institute of Chartered Accountants of New Zealand.

Other than the audit which includes assurance on the performance of the Commission against the GPS objectives and outcomes and this assignment, we have no relationship with or interests in the Commission.

John O'Connell Audit New Zealand

On behalf of the Auditor-General Wellington, New Zealand

John Olomell

# Matters Relating to the Electronic Presentation of the Audited Financial Statements and Statement of Service Performance

This audit report relates to the financial statements and statement of service performance of the Electricity Commission for the year ended 30 June 2008 included on the Electricity Commission's website. The Electricity Commission's Board is responsible for the maintenance and integrity of the Electricity Commission's website. We have not been engaged to report on the integrity of the Electricity Commission's website. We accept no responsibility for any changes that may have occurred to the financial statements and statement of service performance since they were initially presented on the website.

The audit report refers only to the financial statements and statement of performance named above. It does not provide an opinion on any other information which may have been hyperlinked to or from the financial statements and statement of service performance. If readers of this report are concerned with the inherent risks arising from electronic data communication they should refer to the published hard copy of the audited financial statements and statement of service performance as well as the related audit report dated 31 October 2008 to confirm the information included in the audited financial statements and statement of service performance presented on this website.

Legislation in New Zealand governing the preparation and dissemination of financial information may differ from legislation in other jurisdictions.

## Appropriations summary

The Electricity Commission manages the following Vote Energy appropriations on behalf of the Ministry of Economic Development (MED) for which costs are summarised in figure 5.

The **governance** and market operations appropriation provides for governance and monitoring of New Zealand's electricity market under the Rules and Regulations. The governance and market operations appropriation funds the general operations of the Electricity Commission, including the Board and the advisory groups. The appropriation also covers core electricity system and market operation functions, carried out under service provider contracts (approximately \$30 million). This appropriation funds the governance and market operations output class.

The **electricity efficiency** appropriation provides funding for electricity efficiency research, and the development and delivery of electricity efficiency programmes. This appropriation funds the electricity efficiency output class.

The **reserve energy and emergency measures**—availability appropriation is to ensure that reserve energy can be made available to meet an emergency situation. This is achieved by tendering for emergency options, and by covering the availability cost of the Whirinaki power station in line with the contract with the Crown. This appropriation excludes reserve energy generation (primarily fuel for the Whirinaki plant).

The **reserve energy and emergency measures—variable** appropriation covers the cost of fuel for the Whirinaki power station (offset by revenue from the sale of electricity if the fuel is used). The appropriation can also be used to fund the implementation of emergency measures.

The **Electricity Commission litigation fund** appropriation provides funding to ensure that the Electricity Commission is able to participate in litigation effectively and without delay. This is a Crown expense appropriation.

**Figure 5: Appropriations summary table** 

	(\$m, excl.	GST)
Appropriation	2007/08 budget	2007/08 actual
Governance and market operations—appropriation	\$49.043	\$46.340
Governance and market operations—expenditure	\$49.043	\$46.340
Electricity efficiency—appropriation	\$13.074 <sup>1</sup>	\$5.957
Electricity efficiency—expenditure	\$13.074	\$5.957
Reserve energy and emergency measures—availability—appropriation	\$29.981	\$26.219
Reserve energy and emergency measures—availability— expenditure	\$29.981	\$26.219
Reserve energy and emergency measures—variable—appropriation	\$6.000 (over 5 years 2007/08 to 2011/12) <sup>2</sup>	\$0
Reserve energy and emergency measures—variable—expenditure	<b>\$6.000</b> (over 5 years 2007/08 to 2011/12)	(\$3.573) (net surplus)
Electricity Commission litigation fund—appropriation	\$0.444	\$0.301
Electricity Commission litigation fund—expenditure	\$0.444	\$0.301

<sup>1</sup> Budget made up of \$0.667 million transferred from 2006/07, plus \$12.407 million new initiative funding for 2007/08.

<sup>2</sup> This appropriation was changed from \$5 million in the October 2008 Baseline Update.

## Statement of service performance

The statement of service performance reports on actual achievement against performance targets and measures in the Commission's *Statement of Intent 2007–2010* (SOI) in accordance with section 153 of the Crown Entities Act 2004.

An overview of the significant contributions workstreams make to the principal objectives and specific outcomes is shown in figure 6.

#### Generic quality performance measure

The project deliverables listed in the SOI are required to meet the Commission's generic quality performance measure (on page 31 of the SOI). The measure has been met for all applicable papers during the year.

## **Output class one**

# governance and market operations

### **Electricity system and market operations**

The Commission is responsible for ensuring the effective day-to-day operation of the electricity system and the wholesale and retail markets in accordance with the Rules. The Commission contracts third parties to deliver these outputs on its behalf, which are collectively referred to as service providers<sup>3</sup>.

Description	2006 GPS	Performance measures	Result
Services provided by the:  • Clearing Manager	75	1 Electricity system and market operations are delivered in accordance with the Electricity Governance Rules 2003	Achieved
Wholesale     Information and     Trading System		Reconciliation Manager, Registry, Clearing Manager, Pricing Manager and Information Systems service provider performance standards are agreed before the start of the 2008/09 financial year (1 July 2008)	Achieved
<ul><li>Pricing Manager</li><li>Reconciliation Manager</li></ul>		3 Annual performance review of the System Operator completed within three months of receipt of the System Operator's report	Achieved
<ul><li>Registry</li><li>System Operator</li></ul>		4 Annual update of the System Operator policy statement completed in accordance with the Rules and the Electricity Act 1992, by 1 September 2007	Achieved
		5 Annual update of the System Operator procurement plan completed in accordance with the Rules and the Electricity Act 1992, by 1 December 2007	Achieved

**Figure 6: Outcome contributions** 

riy	ure 6: Outcome contributions									
SEC	CTION 172N OF THE ELECTRICITY ACT 1992	ELECTRICITY SYSTEM AND MARKET OPERATIONS	MARKET GOVERNANCE	TRANSMISSION	COMMON QUALITY AND SYSTEM OPERATION	RETAIL	WHOLESALE	MODELLING	SECURITY OF SUPPLY	ELECTRICITY EFFICIENCY
Pr	incipal objectives									
1	The principal objectives of the Commission in relation	to ele	ctrici	ty are:						
a	to ensure that electricity is produced and delivered to all classes of consumers in an efficient, fair, reliable and environmentally sustainable manner; and	✓	J	✓	1	✓	J	V	✓	<b>√</b>
b	to promote and facilitate the efficient use of electricity.					1			1	1
Sp	ecific outcomes									
2	Consistent with those principal objectives, the Commis electricity, the following specific outcomes:	ssion 1	nust s	seek to	achie	eve, in	relati	ion to		
a	energy and other resources are used efficiently;	1	1	1	1	1	1	1		1
b	risks (including price risks) relating to security of supply are properly and efficiently managed;	1			1		1		1	1
с	barriers to competition in electricity are minimised for the long-term benefit of end-users;			1	✓	✓	1	✓		1
d	incentives for investment in generation, transmission, lines, energy efficiency and demand-side management are maintained or enhanced and do not discriminate between public and private investment;			s	1	1	1	1	1	1
e	the full costs of producing and transporting each additional unit of electricity are signalled;	1		✓		1	✓	1		
f	delivered electricity costs and prices are subject to sustained downward pressure; and		1	✓	1	1	✓	✓		1
g	the electricity sector contributes to achieving the Government's climate change objectives by minimising hydro spill, efficiently managing transmission and distribution losses and constraints, promoting demand-side management and energy efficiency, and removing barriers to investment in new generation technologies, renewables and distributed generation.	1		s	J	√	s	s		s

## **Market governance**

The Commission monitors and enforces compliance with the Electricity Governance Regulations 2003, Electricity Governance Rules 2003, and Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004. Monitoring for the Electricity Governance (Connection of Distributed Generation) Regulations 2007 is currently being established (see expected progress statement 37).

Description	2006 GPS	Performance measures	Result	Comment			
Delivery of compliance services	11, 17	6 Investigation processes followed	Achieved				
		7 Quality standards for investigations met	Achieved				
					8 50% of investigations of alleged breaches completed within three months of notification	Achieved	74% of breach notifications were closed within three months of notification.
		9 85% of investigations of alleged breaches completed within six months of notification	Achieved	91% of breach notifications were closed within six months of notification.			
Description	2006 GPS	Expected progress 2007/08	Result	Comment			
Project— compliance education	11, 17	10 Complete action on recommendations in the compliance education plan	Achieved	This project is now part of the wider electricity market compliance framework review.			

#### **Transmission**

The Commission roles in relation to transmission of electricity include:

- establishment of the contracting framework for transmission services, this includes transmission pricing and establishment of transmission service measures;
- provision of information on opportunities for investment in transmission and transmission alternatives through the regular publication of the *Statement of Opportunities* (SOO); and
- review and decision-making on new investment in the transmission system as part of Transpower's grid upgrade plans (GUPs).

Transpower is responsible for planning the development of the grid and must apply to the Commission for approval of its GUPs. The Commission is responsible for decision-making on grid investment proposals from Transpower. Once a grid investment has been approved, Transpower is responsible for all aspects of the upgrade, including land acquisition and resource consents.

Description	2006 GPS	Expected progress 2007/08	Result	Comment
Statement of Opportunities (SOO)	10, 86	11 SOO finalised and published	Timeframe not achieved	The SOO was put on hold pending the release of the NZES. The NZES was released in October 2007. A draft SOO was published for consultation in early July 2008. The final SOO was published in August 2008.
Programme—trans	mission i	nvestment decision-making		
HVDC upgrade (inter-island link)	34A, 87– 90	12 Transpower expected to submit proposal by 31 December 2007	Not applicable	Transpower submitted its original proposal on 2 May 2008.
		13 Complete review and issue decision	Timeframe not achieved	This review was delayed due to the timing of the submission of the proposal by Transpower as outlined above. The final decision to approve the proposal was made on 25 September 2008.
Central North Island grid upgrades	34A, 87– 90	14 Transpower expected to submit proposal by 31 December 2007	Not applicable	Transpower submitted the revised Central North Island (CNI) thermal upgrades proposal on 18 April 2008.  The Bunnythorpe–Haywards (BPE–HAY) upgrade
				was split off and will be considered separately. The proposal was not received by 30 June 2008.
		15 Complete review and issue decision	Achieved for CNI	The Commission decision became final on 8 May 2008.

Description	2006 GPS	Expected progress 2007/08	Result	Comment										
South Island grid upgrade	34A 87– 90	16 Transpower expected to submit proposal by 31 July 2007	Not applicable	In April 2008 Transpower indicated that a new transmission line will not be needed.										
		17 Complete review, and issue draft and final decisions	Not applicable	In April 2008 Transpower indicated that a new transmission line will not be needed.										
North Auckland and Northland (NAaN) grid upgrade	34A 87– 90	18 Transpower expected to submit proposal by 31 July 2007	Not applicable	Transpower submitted the proposal on 21 September 2007. On 12 October 2007, Transpower was asked to revise the proposal adding a scenario for 90% renewables by 2025. On 9 May 2008 Transpower submitted a revised proposal. The Commission is seeking additional information.										
												19 Complete review, and issue draft and final decisions	Timeframe not achieved	This review was delayed due to the timing of the submission of the proposal by Transpower as outlined above.
Programme—trans	mission <sub>J</sub>	pricing and contracting arran	gements											
Connection code, outage protocol and interconnection services	85	20 Transpower input on connection code, outage protocol and interconnection services received	Achieved	Draft received in September 2007. Further information received in November 2007.										
		21 Draft connection code, outage protocol and interconnection services released for consultation and final versions added to rules	Achieved	The connection code, outage protocol, and service levels for interconnection services were added to the Electricity Governance Rules 2003 on 17 January 2008.										
Transmission Pricing Methodology (TPM)	85	22 TPM implementation completed	Achieved	The Commission is monitoring TPM compliance.										

## **Common quality**

The Commission is accountable for developing polices and standards that define appropriate levels of quality for power system services that are common to all grid-connected parties. Common quality standards and policies are published in the form of rules. The ongoing development of common quality rules to ensure that appropriate standards are in place is a significant undertaking.

Description	2006 GPS	Expected progress 2007/08	Result	Comment
Strategic wind project	34A, 75	23 Complete options identification and initiate rule changes <sup>4</sup>	Achieved	The Commission agreed an action plan in March 2008. Implementation actions and rule change work has been initiated and will take several years to fully complete.
Programme—comn	non quali	ity development		
Expanding the normal frequency band	1, 2 and 75	24 Complete investigation work	Timeframe not achieved	The project scope has been developed and the System Operator has commenced investigation work. A progress report was received in April 2008. Further work is planned for 2008/09 dependent on System Operator resource availability.
Multiple frequency keepers	1, 2 and 75	25 Complete expert technical investigation and start market integration investigation	Achieved	The <i>Alternatives Report</i> was completed in March 2008.  Market integration work has commenced.
Optimising emergency management	1, 2 and 75	26 Establish modelling framework and review under-frequency regime, under-voltage regime and extended load control	Timeframe not achieved	A survey carried out in October 2007 provided an assessment of potential level of extended load control available. Modelling work is required to assess potential benefits. Further work is planned for 2008/09 dependent on System Operator resource availability.
HVDC instantaneous reserve transfer capability	1, 2 and 75	27 Complete investigation and recommend course of action	Timeframe not achieved	The Commission is awaiting input from Transpower, as grid owner, on the HVDC capacity.

<sup>4</sup> NB the SOI expected progress statement read "complete options identification and rule changes". It was intended that rule change work commence, but it was not expected that this work would be completed in 2007/08.

Retail

The Commission makes recommendations about the development of the retail market, and oversees the operations of the retail market for electricity.

Description	2006 GPS	Performance measure	Result	Comment
Business-as-usual:  Ongoing consumer protection  Retail market operations	10, 12- 24, 31, 98- 100, 109- 119	28 Business-as-usual activities are delivered in accordance with the Electricity Governance Rules 2003	Achieved	In February 2008 the Commission reported that retailers are complying with the revised <i>Guidelines</i> on Arrangements to Assist Low Income and Vulnerable Consumers.  The next annual monitoring review is due for completion in December 2008.
Description	2006 GPS	Expected progress 2007/08	Result	Comment
Market design review	10, 34A, 28, 75– 78 and 114	NB this project is covered ur	der the Wholesa	le section
Programme—load r	nanagem	ent and metering		
Load management	30– 31	29 Phases 2 and 3 completed, results published and any required rule changes completed	Phase 2— Achieved  Phase 3— Timeframe not achieved	Phase 2: Load management value and pricing—completed in February 2008.  Phase 3: Load management technology—several initiatives have been identified and allocated within the Commission.  Major initiatives include the advanced metering project and load control policy.  Due to the complexity of some of the issues involved, some of this work will be addressed through the review of part D of the Rules starting in 2008/09.

Description	2006 GPS	Expected progress 2007/08	Result	Comment
Advanced metering technology	73 and 118	30 Publish advanced metering guidelines	Achieved	The Advanced Metering Policy and Guidelines for Advanced Metering Infrastructure were approved in May 2008.
		31 Complete model agreements for access to electricity meters by retailers	Timeframe not achieved	A discussion paper was published on 13 September 2007. The Commission needs to complete the load control policy before model agreements can be updated.
Programme—consu	mer issu	es		
Consumer complaints scheme	21-24	32 Complete consumer complaints schemes approval and implementation	Timeframe not achieved	The Commission is working with the Gas Industry Company to finalise the criteria for the joint consumer complaints scheme. A call for applications took place by September 2008. Approval of the scheme is expected by June 2009. The scheme could come into operation in September 2009 (subject to there being an application that meets the requirements).
Transparency of energy and line charges	114.	33 Publish consultation report	Achieved	Consultation on this issue was included in the consultation paper on model contracts, which closed on 6 June 2008.
Programme—distri	bution			
Distribution pricing	25, 30, 31, 98– 100, 109– 113 and 117	34 Complete consultation and publish distribution pricing method	Timeframe not achieved	The need to ensure alignment with the load management and metering project affected the timetable.
Loss factor method	117	35 Complete consultation and publish model approach	Timeframe not achieved	Publication of the draft took place in July 2008. The final was published in September 2008.

Description	2006 GPS	Expected progress 2007/08	Result	Comment			
Other retail projects							
Implementation of reconciliation rules	117	36 Participants meet the required effective date of the new rules	Achieved	The Registry system went live on 2 April 2008. The first reconciliation run has been completed, demonstrating that participants met the requirements of the rules.			
Distributed generation	100 and 109– 113	37 Complete setup of monitoring for the Distributed Generation Connection Regulations	Timeframe not achieved	The Electricity Governance (Connection of Distributed Generation) Regulations 2007 came into force on 30 August 2007. Work is continuing on the monitoring arrangements.			

## Wholesale

The Commission makes recommendations about the development of the wholesale market through voluntary arrangements and rules.

Description	2006 GPS	Performance measure	Result
Business-as-usual:  • Addressing undesirable trading situations	10, 25, 29, 34A, 75–78, 86, 114, 120, and appendix 1	38 Business-as-usual activities are delivered in accordance with the Electricity Governance Rules 2003	Achieved
• Exemption applications			
Wholesale market reports			

Description	2006 GPS	Expected progress 2007/08	Result	Comment
Market design review	10, 34A, 28, 75–78 and 114	39 Publish options paper and commence implementation, if required	Timeframe not achieved	The options paper was published on 8 July 2008.

Description	2006 GPS	Expected progress 2007/08	Result	Comment
Electricity hedge market development	76–77 and 120	1		Consultation on hedge disclosure rules was completed in September 2007.
		41 Complete survey of participants	Achieved	The survey results were published on 4 April 2008.
Transmission hedge market development	78 and appendix 1	42 Publish consultation paper on transmission hedge rules	Timeframe not achieved	The consultation paper (Issues for Managing Location Price Risk) was released on 8 July 2008.
Demand-side initiatives	25, 29 and 86	43 Publish consultation paper on proposal, complete	Consultation achieved	Consultation was completed in September 2007.
		rule changes, and complete implementation	Timetable for implementation not achieved	Implementation relies on the System Operator implementing changes. This can not commence until the System Operator has completed the MSP project (expected in April 2009).
Pricing process improvements	75	44 Publish consultation paper on proposal, complete rule changes, and complete implementation	Timeframe not achieved	Priority has been given to the Market Design Review. Publication of a consultation paper, and progression of initial initiatives is planned for 2008/09.
Offer and dispatch rule development	75	45 Publish consultation paper on other initiatives (other than industrial cogeneration)	Timeframe not achieved	Consultation is now in two parts:  a Minor offer and dispatch rule changes—consultation closed 27 May 2008  b Dispatch of HVDC—now planned for 2008/09.

#### **Modelling**

The Commission has an analysis and modelling capability to meet the GPS information requirements and to provide input to project work across the organisation. A major component of the work carried out by the modelling team is in supporting the analytical requirements of all of the other workstreams.

Description	2006 GPS	Expected progress 2007/08	Result	Comment
Centralised Dataset (CDS)	10, 38–39, 87E and 89	46 Publish CDS in DVD format by 31 December 2007	Achieved	CDS published on 9 November 2007.
		47 Publish CDS in DVD format by 30 June 2008	Achieved	CDS update published on 30 May 2008.
Market simulation modelling, dispatch model	10 and 75	48 Publish an initial dispatch model	Achieved	The published <i>Generation Expansion Model</i> (GEM) includes dispatch modelling.

#### **Security of supply—governance**

A core Commission responsibility is to use reasonable endeavours to ensure security of supply without assuming any demand reduction from emergency conservation campaigns, while minimising distortions to the ordinary operation of the electricity market.

Description	2006 GPS	Expected progress 2007/08	Result	Comment
Review of reserve energy policy	65– 67	49 Complete implementation of recommendations as agreed with the	Recommendations achieved	Recommendations were made to the Minister of Energy on 21 November 2007.
		Implementation timeframe not achieved	The Commission published a new security of supply policy in October 2008 in line with the new GPS released in May 2008.	
Correlation of intermittent generation	65– 67	50 Complete input into reserve energy needs analysis	Timeframe not achieved	The Commission is working with potential providers to determine whether meaningful time-series data can be generated.

# **Output class two**

# reserve energy and emergency measures

This output class covers the Commission's reserve energy and emergency options functions. This includes the work required to ensure that capacity and capability are available, whether or not they are used, and comprises:

- tendering for reserve energy and emergency options; and
- covering the costs associated with ensuring availability of reserve energy capacity (currently the Whirinaki power station).

Description	2006 GPS	Expected progress 2007/08	Result	Comment
Develop contingency plans for emergency situations	68– 74	of reserve energy generation and emergency options for demand reduction as required	Achieved	On 20 June 2008 the Commission requested proposals for the provision of short-term reserve energy options in the form of a reduction in
Tendering for generation and emergency options	47– 67	52 Conduct tendering for generation and emergency options as required		electricity consumption, or additional generation supply (Reserve Energy).  Rolling-cut regulations were developed and recommended to the Minister on 26 June 2008 (as required under paragraph 75 of the 2008 GPS).
Whirinaki availability	47– 67	53 Whirinaki power station availability is delivered in accordance with the contract	Achieved	Whirinaki was dispatched on a regular basis during the April to June 2008 period, on all occasions in accordance with the contract and the Commission's offer strategy.

# **Output class three**

# electricity efficiency

The Commission's electricity efficiency work includes conducting research into electricity efficiency, and promoting and facilitating the efficient use and conservation of electricity (including funding programmes that provide incentives for cost-effective electricity efficiency and conservation).

Description	2006 GPS	Expected progress 2007/08	Result	Comment
Research	25– 27 and 31– 34	54 Complete the electricity efficiency potentials model, and use it to inform ongoing programme design	Achieved	The Electricity Efficiency Potentials Study report was released on 15 October 2007.
Efficient lighting	25– 27 and 31– 34	55 Sell a further 3.4 million CFLs in 2007/08	Quantity not achieved	This target was abandoned early in 2007/08 following advice from EECA on the timing of a new Minimum Energy Performance Standard (MEPS) on incandescent bulbs. The effect of the MEPS timing means that cost effectiveness of the Commission's CFL programme will reduce leading up to the MEPS introduction.  The GWh savings will be achieved via other efficient lighting programs now underway (see expected progress statement 57 below).
		56 Consider the merits of a CFL information campaign, as part of an exit strategy	Achieved	<ul> <li>The CFL information campaign has been completed and included:</li> <li>funding a booklet published by Consumer NZ</li> <li>information provided to architects and builders (CMS programme).</li> </ul>

Description	2006 GPS	Expected progress 2007/08	Result	Comment
Efficient lighting (continued)		57 Develop and implement lighting efficiency programmes beyond the scope of the residential CFL programme	Achieved	The lighting strategy was launched in June 2008.  The Commission has signed contracts with nine parties providing for the delivery of up to an additional 150GWh/annum of savings.  2.2 million bulbs were subsidised during the 2007/08 year.  The efficient lighting programme is now delivering 370GWh of annual electricity savings (including pilots and programmes from previous years).
Compressed air	25– 27 and 31– 34	58 Develop and deliver best practice package for compressed air operation and maintenance	Achieved	The Commission has approved 15 auditors to carry out audits of industrial compressed air systems. The audit methodology has been completed and established as a standard for the auditors.
		59 Complete best practice assessments for 40 large industrial consumers	Not achieved	24 audits were completed and reported.  13 audits were approved and scheduled or were underway as at 30 June 2008.
Electric motors	25– 27 and 31– 34	60 Develop and implement awareness programme and policies for motor replacement	Achieved	The electric motors bounty scheme was developed as the flagship of the awareness programme. The Commission awarded the contract for delivery of the scheme in December 2007 and the pilot phase was implemented in April 2008.
		61 Consider motor replacement incentive programme	Achieved	The pilot phase of the electric motors bounty scheme, which is currently underway, will run through to 31 August 2008, after which the scheme will be launched nationally.
Commercial buildings	25– 27 and 31– 34	62 Develop and implement commercial building electricity efficiency programme	Achieved	The Commission signed contracts in the January to March 2008 period providing for the delivery of commercial building programmes within pre-agreed economic criteria.

## Financial statements

# Statement of financial performance for the year ended 30 June 2008

Actual			Actual	Budget
2007			2008	2008
\$000		Note	\$000	\$000
76,416	Crown revenue	1	78,816	89,206
193	Whirinaki spot revenue⁵		33,842	-
1,844	Interest income		1,550	646
10	Other revenue		24	13
78,463	Total revenue		114,232	89,865
			\ \ \ <u>\</u>	
5,763	Employee benefits	2	6,488	6,599
333	Depreciation and amortisation		1,383	1,600
53	Whirinaki fuel		30,269	-
70,320	Other expenses	3	70,945	81,007
76,469	Total expenses		109,085	89,206
	Distribution of net Whirinaki			
(140)	spot revenue to levy payers	4	(3,573)	-
1,854	Net surplus/(deficit) for the period	5	1,574	659

<sup>5</sup> The Whirinaki power station is owned by the Crown and operated by Contact Energy. The Commission funds the cost of maintaining Whirinaki on standby under a contract with the Crown for the availability of reserve energy. Under this contract the Commission earns spot revenue if Whirinaki is required to generate electricity under specific conditions.

# Statement of movements in equity for the year ended 30 June 2008

Actual 2007 \$000		Note	Actual 2008 \$000	Budget 2008 \$000
2,982	Opening balance at 1 July		4,836	4,951
	Amounts recognised directly in equity  Property, plant and equipment			
-	- Revaluation gains / (losses) taken to equity  Financial assets at fair value through equity		-	-
-	- Revaluation gains / (losses) taken to equity		-	-
1,854	Surplus/(deficit) for the year	5	1,574	659
4,836	Closing balance at 30 June		6,410	5,610

# Statement of financial position as at 30 June 2008

Actual 2007 \$000		Note	Actual 2008 \$000	Budget 2008 \$000
4,836	Taxpayers' funds		6,410	5,610
	Assets			
	Current assets			
18,486	Cash and cash equivalents	6	15,346	3,953
106	Receivables and prepayments	7	28,222	95
18,592			43,568	4,048
	Non-current assets			
692	Property, plant and equipment	8	1,339	1,369
89	Intangible assets	9	9,659	9,751
781			10,998	11,120
19,373	Total assets		54,566	15,168
	Liabilities			
	Current liabilities			
10,077	Payables and accruals	10	36,369	9,153
(354)	GST payable / (receivable)		(389)	-
292	Employee entitlements	11	436	405
140	Provision for distribution of net spot revenue	4	3,573	-
4,382	Provision for refund of appropriation to the Crown	12	8,167	-
14,537			48,156	9,558
14,537	Total liabilities		48,156	9,558
4,836	Net assets employed		6,410	5,610

# Statement of cash flows<sup>6</sup>

for the year ended 30 June 2008

Actual 2007 \$000		Actual 2008 \$000	Budget 2008 \$000
	Cash flows from operating activities		
80,798	Receipts from the Crown	86,983	82,772
190	Receipts from Whirinaki spot revenue	5,981	-
1,844	Interest from investments	1,550	646
10	Receipts from third parties	24	13
(3,921)	Repayment of appropriation surplus to the Crown	(4,381)	-
(2,919)	Distribution of net spot revenue to levy payers	(140)	-
(70,927)	Payments to suppliers	(75,215)	(81,007)
(5,737)	Payments to employees	(6,307)	(6,599)
222	Goods and services tax (net)	(35)	-
(440)	Net cash flows from operating activities	8,460	(4,175)
(440)	Net cash flows from operating activities  Cash flows from investing activities	8,460	(4,175)
( <b>440</b> ) 20		8,460	( <b>4,175</b> ) _
	Cash flows from investing activities	<b>8,460</b> - (896)	( <b>4,175)</b> - (1,108)
20	Cash flows from investing activities Leased assets	-	-
20 (249)	Cash flows from investing activities Leased assets Purchase of property, plant and equipment	– (896)	– (1,108)
20 (249) (23)	Cash flows from investing activities Leased assets Purchase of property, plant and equipment Purchase of intangibles	- (896) (10,704)	- (1,108) (10,831)
20 (249) (23) <b>(252)</b>	Cash flows from investing activities Leased assets Purchase of property, plant and equipment Purchase of intangibles Net cash flows from investing activities	(896) (10,704) (11,600)	- (1,108) (10,831) <b>(11,939)</b>
20 (249) (23) (252)	Cash flows from investing activities Leased assets Purchase of property, plant and equipment Purchase of intangibles Net cash flows from investing activities  Net increase/(decrease) in cash and cash equivalents	(896) (10,704) (11,600)	- (1,108) (10,831) <b>(11,939)</b> (16,114)

<sup>6</sup> Some classifications in the Statement of cash flows have changed from the previous year and comparatives have also been changed to make comparisons between financial years more meaningful.

# Statement of commitments as at 30 June 2008

The Commission has leases for two full floors and one partial floor in ASB Bank Tower until September 2013.

New service provider agreements commenced in 2007/08 for the Clearing Manager, Pricing Manager, Reconciliation Manager, Registry, and Wholesale and Information Trading System. These contracts all end on 30 April 2013. The outstanding capital commitment is a retainer relating to software licences purchased by the Commission under the Reconciliation Manager contract.

The System Operator agreement has no fixed end date. The commitment included below represents the two year notice period in the contract.

The Reserve Generation Capacity Agreement for the generation of reserve energy by the Whirinaki power station commenced on 1 April 2005 and ends on 14 June 2015.

In-service motor bounty commitments arise from the electric motor bounty scheme, which aims to permanently remove low-efficiency motors from industry. A motor bounty is paid for the removal of each motor that meets the scheme criteria. There is a further commitment to make an in-service bounty payment for every qualifying high-efficiency replacement motor installed within one year of the removed motor being accepted into the scheme.

Operating commitments  Building lease commitments	Actual 2008 \$000	Actual 2007 \$000
Not later than one year	485	430
Later than one year but not later than five years	1,939	1,720
Later than five years but not later than ten years	121	749
	2,545	2,899
Service provider contract commitments		
Not later than one year	27,022	28,321
Later than one year but not later than five years	43,271	43,860
Later than five years but not later than ten years	0	4,689
	70,293	76,870
Whirinaki contract commitments		
Not later than one year	26,456	25,143
Later than one year but not later than five years	110,759	105,553
Later than five years but not later than ten years	65,891	92,082
	203,106	222,778
In-service motor bounty commitments		
Not later than one year	86	0
	86	0
Total operating commitments	276,030	302,547
Capital commitments		
Service provider contract commitments		
Not later than one year	240	11,428
Later than one year but not later than five years	0	240
Total capital commitments	240	11,668

# Statement of contingencies

as at 30 June 2008

The Electricity Commission has a contingent liability in relation to the following two judicial reviews.

New Era Energy challenged the Commission's decision to approve the North Island grid upgrade (NIGU). The case was heard in August 2008 but a decision has not yet been issued.

The Major Electricity Users Group (MEUG) challenged the Commission's decision on the Otahuhu substation grid upgrade. In March 2008 the High Court rejected the judicial review but a notice of appeal was filed by MEUG. A Court of Appeal hearing is set down for October 2008.

The outcome of these cases is unknown and the effects are unquantifiable.

The Commission has no other contingent liabilities or assets and no known guarantees under the Crown Entities Act 2004 (2006/07: nil).

# Notes to the financial statements

#### 1 Crown revenue

The Commission manages appropriations from the Crown under Vote: Energy (see page 24 for explanation of appropriations). Appropriations are recognised as revenue to the extent that they are spent.

	2008 \$000	2007 \$000
Electricity governance and market operations	46,339	46,990
Reserve energy and emergency measures (availability) <sup>7</sup>	26,219	24,468
Reserve energy and emergency measures (variable)8	-	-
Electricity efficiency	5,957	4,958
Electricity Commission litigation fund	301	-
	78,816	76,416
2 Employee benefits		
	2008	2007
	\$000	\$000
Salaries and wages	6,203	5,529
Contributions to defined contribution plans	176	173
Increase/(decrease) in annual leave provision	109	61
	6,488	5,763

<sup>7</sup> Reserve energy and emergency measures—availability is an annual appropriation to fund the availability of reserve energy and emergency options, if required. Costs under this appropriation are primarily for the availability and operation of the Whirinaki power station, which is maintained on standby for the generation of reserve energy.

<sup>8</sup> Reserve energy and emergency measures—variable is a multi-year appropriation to cover the cost of fuel for the Whirinaki power station. Spot revenue is earned from the sale of electricity generated by Whirinaki and will usually be higher than the cost of fuel, therefore this appropriation is not usually drawn down.

#### 3 Other operating expenses

	2008 \$000	2007 \$000
Service provider contracts	29,207	31,082
Whirinaki contract	26,094	24,422
External advice	7,084	7,515
Litigation fund	301	-
Efficiency programmes	4,659	3,314
Audit fees	43	51
Audit fees for IFRS transition	9	-
Auditor fees for other services	8	6
Advisory and working group fees	91	134
Commissioners' fees	784	719
Rulings Panel fees	148	69
Operating lease expenses	486	476
Travel expenses	250	281
Other expenses	1,781	2,251
	70,945	70,320

#### 4 Refund to levy payers

#### **Refund from the Electricity Commission**

If the Whirinaki power station is required to operate, the GPS states that the cost to levy payers should be offset by spot revenue received from the sale of reserve energy less the cost of diesel used in generation. In 2007/08 the Commission earned \$3.573 million of net spot revenue and this will be included in the refund to levy payers.

Distribution of net spot revenue to levy payers	3,573	140
Less Whirinaki fuel	(30,269)	(53)
Whirinaki spot revenue	33,842	193
	\$000	\$000

#### **Refund from the Crown**

Levies collected during the financial year are deposited into a Crown bank account administered by the Ministry of Economic Development. After the end of the financial year a reconciliation between levies collected and actual Commission expenditure is carried out. Based on this reconciliation, the Crown either provides refunds or requests additional payments from levy payers.

In 2007/08 Commission expenditure was less than levies collected. The total refund to levy payers is expected to be in the region of \$5.128 million (in addition to net spot revenue from Whirinaki of \$3.573 million). The final refund to levy payers may vary from this amount, and some levy payers may be required to pay additional levies depending on whether they are generators, retailers or distributors, and based on variations from estimated dispatches and sales and customer connections.

	2008 \$000	2007 \$000
Total Commission expenditure	109,085	76,469
Exclude Whirinaki fuel	(30,269)	(53)
Add MACQS <sup>9</sup>	2,897	2,897
Total costs to be recovered by levy	81,713	79,313
Actual levies collected	86,841	83,533
Refund of over-collected levies to levy payers	5,128	4,220

#### 5 Net operating surplus

The Commission may elect to retain interest income and other revenue (excluding spot revenue from Whirinaki) in order to maintain an appropriate level of working capital. The Commission has exercised this option in 2007/08 and the operating surplus of \$1.574 million will be used to increase equity. Net operating surplus is made up as follows:

Some   Some		2008	2007
Other revenue         24         10           Net operating surplus         1,574         1,854           6 Cash and cash equivalents         2008 \$2007 \$000 \$000           Cash in current account         346 486         486           Cash on call in interest-bearing money market account         15,000 18,000         18,000           Total cash and cash equivalents         15,346 18,486         18,486           7 Receivables and prepayments         2008 \$2007 \$000         \$000           Spot revenue receivable from the Crown         27,527 4         4           Reimbursement of litigation costs from the Crown         338 -         -           Prepaid insurances         295 94         94           Other receivables         62 8		\$000	\$000
Net operating surplus         1,574         1,854           6 Cash and cash equivalents         2008 \$2007 \$000         \$000         \$000           Cash in current account         346 486         486         Cash on call in interest-bearing money market account         15,000 18,000         18,000           Total cash and cash equivalents         15,346 18,486         18,486           7 Receivables and prepayments         2008 \$2007 \$000         \$000           Spot revenue receivable from the Crown         27,527 4         4           Reimbursement of litigation costs from the Crown         338 -         -           Prepaid insurances         295 94           Other receivables         62 8	Interest income	1,550	1,844
6 Cash and cash equivalents       2008 2007 \$000 \$000         Cash in current account       346 486         Cash on call in interest-bearing money market account       15,000 18,000         Total cash and cash equivalents       15,346 18,486         7 Receivables and prepayments       2008 2007 \$000         Spot revenue receivable from the Crown       27,527 4         Reimbursement of litigation costs from the Crown       338 -         Prepaid insurances       295 94         Other receivables       62 8	Other revenue	24	10
Cash in current account       346       486         Cash on call in interest-bearing money market account       15,000       18,000         Total cash and cash equivalents       15,346       18,486         7 Receivables and prepayments       2008 2007 \$000       2007 \$000         Spot revenue receivable from the Crown       27,527 4       4         Reimbursement of litigation costs from the Crown       338 -       -         Prepaid insurances       295 94       94         Other receivables       62 8	Net operating surplus	1,574	1,854
Cash in current account       346       486         Cash on call in interest-bearing money market account       15,000       18,000         Total cash and cash equivalents       15,346       18,486         7 Receivables and prepayments       2008 2007 \$000       2007 \$000         Spot revenue receivable from the Crown       27,527 4       4         Reimbursement of litigation costs from the Crown       338 -       -         Prepaid insurances       295 94       94         Other receivables       62 8	6 Cook and each equivalents		
Cash in current account       346       486         Cash on call in interest-bearing money market account       15,000       18,000         Total cash and cash equivalents       15,346       18,486         7 Receivables and prepayments       2008 2007 \$000       2007 \$000         Spot revenue receivable from the Crown       27,527 4       4         Reimbursement of litigation costs from the Crown       338 -       -         Prepaid insurances       295 94         Other receivables       62 8	6 Cash and Cash equivalents		
Cash in current account       346       486         Cash on call in interest-bearing money market account       15,000       18,000         Total cash and cash equivalents       15,346       18,486         7 Receivables and prepayments       2008		2008	2007
Cash on call in interest-bearing money market account         15,000         18,000           Total cash and cash equivalents         15,346         18,486           7 Receivables and prepayments         2008		\$000	\$000
Total cash and cash equivalents         15,346         18,486           7 Receivables and prepayments         2008 \$2007 \$000         2007 \$000         \$000           Spot revenue receivable from the Crown         27,527 4         4           Reimbursement of litigation costs from the Crown         338 -         -           Prepaid insurances         295 94           Other receivables         62 8	Cash in current account	346	486
7 Receivables and prepayments  2008 2007 \$000 \$000  Spot revenue receivable from the Crown 27,527 4  Reimbursement of litigation costs from the Crown 338 -  Prepaid insurances 295 94  Other receivables 62 8	Cash on call in interest-bearing money market account	15,000	18,000
Spot revenue receivable from the Crown27,5274Reimbursement of litigation costs from the Crown338-Prepaid insurances29594Other receivables628	Total cash and cash equivalents	15,346	18,486
Spot revenue receivable from the Crown27,5274Reimbursement of litigation costs from the Crown338-Prepaid insurances29594Other receivables628			
Spot revenue receivable from the Crown27,5274Reimbursement of litigation costs from the Crown338-Prepaid insurances29594Other receivables628	7 Receivables and prepayments		
Spot revenue receivable from the Crown 27,527 4 Reimbursement of litigation costs from the Crown 338 - Prepaid insurances 295 94 Other receivables 62 8		2008	2007
Reimbursement of litigation costs from the Crown 338 – Prepaid insurances 295 94 Other receivables 62 8		\$000	\$000
Prepaid insurances 295 94 Other receivables 62 8	Spot revenue receivable from the Crown	27,527	4
Other receivables 62 8	Reimbursement of litigation costs from the Crown	338	_
	Prepaid insurances	295	94
Total receivables and prepayments 28,222 106	Other receivables	62	8
	Total receivables and prepayments	28,222	106

There were no impairment provisions for receivables.

<sup>9</sup> MACOS refers to costs incurred by Transpower in relation to the MACOS (Multilateral Agreement on Common Quality Standards) reform process. Under the Electricity (Levy of Industry Participants) Regulations 2005, regulation 7(2)(b), MACOS costs are to be recovered in equal instalments of \$2,897,216 per annum over 5 years beginning on 1 July 2005 and ending on 30 June 2010.

## 8 Property, plant and equipment

	Computer	Office	Furniture	Leasehold	*/
	hardware \$000	equipment \$000	and fittings \$000	improvement \$000	Total \$000
	φ000	\$000	\$000	φ000	\$000
Cost or valuation					
Balance at 1 July 2006	411	91	182	458	1,142
Additions	61	24	31	111	227
Revaluation increase	-	-	-	-	-
Disposals	(63)	-	_	-	(63)
Balance at 30 June 2007	409	115	213	569	1,306
Balance at 1 July 2007	409	115	213	569	1,306
Additions	876	4	6	10	896
Revaluation increase	-	-	_	-	_
Disposals	-	-	-	_	_
Balance at 30 June 2008	1,285	119	219	579	2,202
		\			
Accumulated depreciation					
and impairment losses					
Balance at 1 July 2006	180	28	63	144	415
Depreciation expense	128	20	39	46	233
Eliminate on revaluation	-	-	-	-	-
Eliminate on disposal	(34)	-	-	-	(34)
Impairment losses	-	-	-	-	_
Balance at 30 June 2007	274	48	102	190	614
Balance at 1 July 2007	274	48	102	190	614
Depreciation expense	130	23	43	53	249
Eliminate on revaluation	-	_	_	_	_
Eliminate on disposal	-	_	_	_	_
Impairment losses	-	-	-	-	_
Balance at 30 June 2008	404	71	145	243	863
Carrying amounts					\
At 1 July 2006	231	63	119	314	727
At 30 June and 1 July 2007	135	67	111	379	692
At 30 June 2008	881	48	74	336	1,339

## 9 Intangible assets

Cost or valuation	Acquired software \$000	Internally generated software \$000	Total \$000
Balance at 1 July 2006	288	_	288
Additions	23	_	23
Disposals	-	-	-
Balance at 30 June 2007	311	-	311
Balance at 1 July 2007	311	-	311
Additions	10,704	-	10,704
Disposals	-	-	-
Balance at 30 June 2008	11,015	-	11,015
Accumulated depreciation and impairment losses			
Balance at 1 July 2006	122	-	122
Amortisation expense	100	-	100
Disposals	_	-	-
Impairment losses	-	-	-
Balance at 30 June 2007	222	-	222
Balance at 1 July 2007	222	-	222
Amortisation expense	1,134	-	1,134
Disposals	_	-	-
Impairment losses	_	-	-
Balance at 30 June 2008	1,356	-	1,356
Carrying amounts			
At 1 July 2006	166	-	166
At 30 June and 1 July 2007	89	-	89
At 30 June 2008	9,659	-	9,659

#### 10 Payables and accruals

	2008 \$000	2007 \$000
Whirinaki diesel	29,713	-
Whirinaki contract payments	1,045	4,178
Service providers	3,087	2,681
Electricity efficiency	235	942
Other creditors and accruals	2,289	2,276
	36,369	10,077

Payables and accruals are non-interest bearing and are normally settled on 30 day terms, therefore the carrying value of payables and accruals approximates their fair value.

#### 11 Employee entitlements

	2008 \$000	2007 \$000
Annual leave	365	256
Salary accrual	71	36
Total employee entitlements	436	292

#### 12 Provision for refund of appropriation to the Crown

The Electricity Commission receives funding by way of appropriations from the Crown. The Crown is reimbursed for this funding by levies collected from industry participants.

The Commission receives appropriations monthly according to a funding profile agreed at the start of the year. The provision for refund of appropriation to the Crown is the difference between funding received during the year and total Commission expenditure for the year. This amount will be repaid to the Crown after the annual audit.

	2008 \$000	2007 \$000
Total Crown appropriations received	86,983	80,798
Total Commission expenditure (excluding Whirinaki diesel)	(78,816)	(76,416)
Provision for refund of appropriation to the Crown	8,167	4,382

#### 13 Reconciliation of net operating surplus to net cash flows<sup>10</sup>

	2008 \$000	2007 \$000
Net operating surplus	1,574	1,854
Add non-cash items		
Depreciation and amortisation	1,383	333
Disposal of leased assets	-	(35)
Total non-cash items	1,383	298
Add movements in working capital items		
(Increase) decrease in debtors and prepayments	(28,116)	20
Increase (decrease) in payables and accruals	26,291	(543)
Increase (decrease) in GST on operations	(35)	222
Increase (decrease) in employee entitlements	144	26
Increase (decrease) in provision for refund of appropriation	3,786	461
Increase (decrease) in provision for distribution of net spot revenue	3,433	(2,778)
Net working capital movements	5,503	(2,592)
Net cash flow from operating activities	8,460	(440)

## 14 Employee remuneration

The General Manager's annual remuneration and benefits are in the \$240,000–249,999 band. In 2006/07 the General Manager's annual remuneration and benefits were also in the \$240,000–249,999 band.

	Number of	employees
Salary band	2008	2007
\$100,000-\$109,999	3	7
\$110,000-\$119,999	4	1
\$120,000-\$129,999	7	6
\$130,000-\$139,999	2	1
\$140,000-\$149,999	2	3
\$150,000-\$159,999	4	2
\$160,000-\$169,999	2	2
\$170,000-\$179,999	2	1
\$240,000–\$249,999	1	1
\$250,000-\$259,999	1	1
\$250,000-\$259,999	'	'
	28	25

<sup>10</sup> Some classifications have changed from the previous year and comparatives have also been changed to make comparisons between financial years more meaningful.

#### 15 Severance payments

Severance payments include the total value of any compensation or other benefits paid to persons who ceased to be employees during the financial year in relation that cessation.

	2008	2007
Severance payments (\$000)	24	39
Number of employees	1	2
16 Key management remuneration		
	2008 \$000	2007 \$000
Salaries and other short-term employee benefits	2,588	2,440
Post-employment benefits	-	-
Other long-term benefits	-	-
Termination benefits	-	-
Total key management remuneration	2,588	2,440

Key management personnel include Commissioners, the General Manager, and direct reports to the General Manager.

#### 17 Commissioners' remuneration

Commission Chair Caygill was appointed in October 2007. The previous Chair Hemmingway left in November 2006 and Commissioner Harris carried out Chair responsibilities in the intervening period. Commissioners Bentley, Bull and Constable were appointed in November 2007 to replace Commissioners Close, Dell and Pinnell.

In January 2008 Commissioner Caygill took over from Commissioner Harris as an associate member of the Commerce Commission, a role established to facilitate information sharing between the two Commissions. The Electricity Commission paid Commissioners Harris and Caygill for time spent in this role and invoiced the Commerce Commission to offset the cost. The remuneration shown below is not offset by the amount recovered from the Commerce Commission.

The following fees were paid to Commission members:

		2008 \$000	2007 \$000
L H Hemmingway		-	125
D Caygill		243	-
R Bentley		74	-
D Bull		78	-
D C Close		34	106
L Constable		64	-
D Dell		36	95
P S Harris		135	174
G C Pinnell		37	145
S J Rodger		83	74
		784	719

#### 18 Rulings Panel remuneration

	2008 \$000	2007 \$000
Neville Young	32	16
Gael Webster	27	14
John Isles	26	13
John O'Sullivan	26	13
Craig Taylor	29	13
Peter Dengate-Thrush	8	-
	148	69

Peter Dengate-Thrush was appointed to the Rulings Panel on 4 March 2008 to replace Neville Young who left at the end of June 2008. Gael Webster took over from Neville Young as Chair upon his departure.

From January 2007 the fees structure was amended to incorporate a minimum monthly retainer in recognition of the need for members to remain unconflicted and available for Rulings Panel business.

#### 19 Advisory group and working group fees

		2008 \$000	2007 \$000
Retail Market Advisory Group	Anne Herrington	5	6
	Bill Heaps	-	2
	David Russell (Chair)	3	4
	John Pask	-	1
	John Scott	6	1
	John van Brink	_	3
	Neil Barton	4	2
	Peter Rutledge	4	5
	Raewyn Fox	4	3
Wholesale Market Advisory Group	Anne Herrington	5	6
	Bill Heaps (Chair)	7	10
	Graham Stairmand	6	5
	John Scott	5	6
Hedge Market Development Steering Group	Ralph Matthes	-	2
	Russell Longuet	1	6
	Tony Baldwin (Chair)	2	15
Common Quality Advisory Group	Bryan Leyland	2	13
	Terrence Currie	6	8
	Toby Stevenson (Chair)	8	8
Wind Generation Investigation Project	Bill Heaps (Chair)	1	4
	Mark Pearce	1	-
Security Advisory Group	Barbara Elliston	3	3
	John Noble	_	2

Transmission Advisory Group	Bill Heaps (Chair)	13	14
	George Riddell	-	1
	Ralph Matthes	2	2
	Russell Longuet	3	1
Transmission Pricing Advisory Group	Carl Hansen (Chair)	-	2
		91	134

Advisory groups and working groups comprise members paid by the Commission and members working in the industry paid by their own organisation. The members listed above are those paid by the Commission and do not represent the complete membership of each group.

#### 20 Related party transactions

The Electricity Commission is a wholly-owned entity of the Crown. The Government sets the policy requirements to guide the Commission's roles as well as being its major source of revenue.

The Commission enters into transactions with government departments, Crown agencies, and state-owned enterprises. These transactions are not considered to be related party transactions.

#### 21 Financial instrument risks

The Commission is party to financial instrument arrangements as part of its everyday operations. These financial instruments include bank accounts, accounts receivable, and accounts payable.

#### Interest rate risk

Interest rate risk is the risk that the return on funds invested and the cost of borrowed funds will fluctuate due to changes in market interest rates.

The Commission's exposure to interest rate risk on funds invested is limited to on-call bank deposits which are subject to variable interest rates.

Under the Crown Entities Act 2004, the Commission requires ministerial approval to enter into a borrowing arrangement. The Commission has no borrowings and accordingly there is no interest rate exposure on borrowed funds.

#### **Credit risk**

Credit risk is the risk that a third party will default on its obligations to the Commission causing the Commission to incur a loss. In the normal course of business the Commission incurs credit risk from financial institutions.

The Commission does not require collateral or other security to support financial instruments with credit risk as the Commission deals with financial institutions that have high credit ratings. The Commission does not have significant concentrations of credit risk.

#### Liquidity risk

Liquidity risk is the risk that the Commission will encounter difficulties raising liquid funds to meet commitments as they fall due. The Commission has a low exposure to liquidity risk as it does not enter into credit arrangements, except those available from suppliers as part of normal operating agreements, and aims to maintain sufficient funds available on-call to meet its liquidity requirements.

#### **Currency risk**

Currency risk is the risk that debtors and creditors due in foreign currency will fluctuate because of changes in foreign exchange rates. The Commission has no significant exposure to currency risk on its financial instruments.

#### 22 Capital management

The Commission's capital is its equity, which comprises accumulated funds and is represented by net assets.

The Commission is subject to the financial management and accountability provisions of the Crown Entities Act 2004, which impose restrictions in relation to borrowings, acquisition of securities, issuing guarantees and indemnities, and the use of derivatives.

The Commission manages its equity by prudently managing revenues, expenses, assets, liabilities and general financial dealings to ensure the Commission effectively achieves its objectives and purpose, whilst remaining a going concern.

#### 23 Post balance date events

No significant events, which would materially affect the financial statements, have occurred between 30 June 2008 and the date of signing the financial statements.

#### 24 Explanation of major variances against budget

#### Statement of financial performance

#### Crown revenue

Crown revenue was \$10.4 million below budget due to underspends in the governance and market operations appropriation (\$2.8 million) and electricity efficiency appropriation (\$7.1 million) (see other expenses below).

Whirinaki spot revenue and Whirinaki fuel

Due to the unpredictable operation of the Whirinaki power station and the fact that spot revenue is offset by fuel costs, no budget is provided for either spot revenue or fuel.

Towards the end of the 2007/08 year there was an extended period of dry weather during which Whirinaki operated at length and generated a significant amount of spot revenue. This was offset to a large extent by fuel costs, resulting in a net surplus of \$3.6 million which will be distributed to levy payers.

#### Interest income

Cash balances were higher than anticipated (see Cash and cash equivalents below) and consequently interest income on these balances was significantly higher than budgeted.

#### Other expenses

Expenditure against the governance and market operations appropriation was \$2.8 million lower than budget. An underspend of \$1.4 million in external advice was largely due to a number of projects in the transmission area that have been delayed or put on hold pending information from Transpower. This also caused an underspend in the modelling area. An underspend of \$0.8 million against service providers was the result of System Operator resource constraints, which limited the amount of work the System Operator was able to undertake for the Commission.

The Commission spent \$7.1 million less than budget in the electricity efficiency appropriation. The cost of setting up the Commission's programmes is less than the cost of delivery and the budget assumed greater delivery of programmes during 2007/08. The development work has been completed in 2007/08 and the Commission now has an extensive electricity efficiency programme in place for the next two to three years.

#### Statement of financial position

#### Cash and cash equivalents

Cash balances were higher than anticipated due to spot revenue receipts and the timing of large Whirinaki contract payments.

#### Receivables and prepayments

The Commission was owed \$27.5 million in spot revenue at year end which is unbudgeted. This is offset by the amount owed for diesel (see payables and accruals below).

#### Payables and accruals

The Commission owed \$30.8 million under the Whirinaki contract at year end, including \$29.7 million for diesel that is unbudgeted.

Provision for refund of appropriation to the Crown

The budget is based on the assumption that the Commission will spend the full appropriation received from the Crown. In practice a funding profile is estimated at the start of the year, therefore an underspend will give rise to a provision for a refund of appropriations received but not spent (refer to the policy on the accounting treatment of Crown appropriations below).

#### 25 Explanation of transition to NZ IFRS

The Commission's transition date is 1 July 2006. The Commission prepared an opening NZ IFRS balance sheet as at that date to allow 2007 comparatives in the *Statement of Financial Position* to be restated in NZ IFRS format.

The Commission's NZ IFRS adoption date is 1 July 2007, therefore these are the Commission's first financial statements to be prepared in accordance with NZ IFRS.

#### **Exemptions from full retrospective application**

The Commission has not applied any optional exemptions to full retrospective application of NZ IFRS.

The only mandatory exemption from retrospective application that applies to the Commission is the requirement for estimates under NZ IFRS at 1 July 2006 and 30 June 2007 to be consistent with estimates made for the same date under previous NZ GAAP.

#### **Reconciliation of equity**

The transition from previous NZ GAAP to NZ IFRS as at 1 July 2006 and 30 June 2007 did not result in any changes to the Commission's equity and therefore no reconciliation is required.

# Statement of accounting policies

for the year ended 30 June 2008

#### Reporting entity

The reporting entity is the Electricity Commission, which is a Crown agent in terms of the Crown Entities Act 2004 and the Public Finance Act 1989. The Commission was established under the Electricity Act 1992.

The Commission has designated itself a public benefit entity, as defined in NZ IAS 1, since its primary objective is to provide goods and services for community or social benefit, rather than a financial return to equity holders.

The Commission is a reporting entity for the purposes of the Financial Reporting Act 1993, the Public Finance Act 1989, and the Crown Entities Act 2004.

#### **Basis of preparation**

#### Statement of compliance

The financial statements of the Electricity Commission have been prepared in accordance with the requirements of the Crown Entities Act 2004, which includes the requirement to comply with New Zealand generally accepted accounting practice (NZ GAAP).

The financial statements comply with the New Zealand equivalents to International Financial Reporting Standards (NZ IFRS) and its interpretations approved by the Accounting Standards Review Board, as appropriate for public benefit entities.

#### First year of preparation under NZ IFRS

This is the first set of financial statements prepared using NZ IFRS, and comparatives for the year ended 30 June 2007 have been restated to NZ IFRS accordingly.

The accounting policies set out below have been applied consistently to all periods presented in these financial statements, and in preparing an opening NZ IFRS statement of financial position as at 1 July 2006 for the purposes of transition to NZ IFRS

#### **Measurement base**

The financial statements have been prepared on an historical cost basis, except where modified by the revaluation of certain items of property, plant and equipment.

#### **Functional and presentation currency**

The financial statements are presented in New Zealand dollars rounded to the nearest thousand dollars (\$000). The functional currency of the Electricity Commission is New Zealand dollars.

#### Significant accounting policies

The following particular accounting policies, which materially affect the measurement of financial performance and financial position, have been applied consistently.

#### Revenue

#### Crown revenue

The Commission receives appropriations from the Crown. These are restricted in their use to the purpose of meeting the Commission's objectives, as outlined in the *Statement of Intent* (SOI). Appropriations received but not spent are refunded to the Crown after year end.

Appropriations from the Crown are recognised as revenue to the extent that they are spent in any particular month. Appropriations received but not spent are treated as a Crown creditor and shown in the Statement of Financial Performance as a provision for refund of appropriation to the Crown.

#### Levies

The Commission administers a levy on industry participants under the Electricity (Levy of Industry Participants)
Regulations 2005. Levies are paid directly to the Crown for reimbursement of funding provided to the Commission.
Levies are not recognised as revenue in the Commission's accounts.

#### Spot revenue

Spot revenue is earned when the Whirinaki power station generates electricity under pre-defined conditions. Spot revenue is recognised when earned and is reported in the financial period to which it relates. Spot revenue less the cost of diesel is refunded to levy payers, and is shown in the Statement of Financial Position as a provision for distribution of net spot revenue.

#### Interest

Interest is earned on bank deposits and is recognised in the period to which it relates.

#### Leases

#### Operating leases

Leases are classified as operating leases where the lessor retains all the risks and rewards incident to ownership. Lease payments under an operating lease are recognised as an operating expense on a straight line basis over the period of the lease.

#### Cash and cash equivalents

Cash and cash equivalents include cash on hand and bank deposits held on call with original maturities of three months or less.

#### **Receivables and prepayments**

Receivables and prepayments are initially measured at fair value, and subsequently measured at amortised cost using the effective interest method, less any provision for impairment.

#### Property, plant and equipment

Property, plant and equipment classes consist of computer hardware, furniture and fittings, office equipment and leasehold improvements.

Property, plant and equipment are shown at cost or valuation, less any accumulated depreciation and impairment losses.

All fixed assets costing \$1,000 (excluding GST) or more are capitalised and recorded at historical cost. Capital work in progress is recognised as costs are incurred.

#### Depreciation

Depreciation of fixed assets is on a straight-line basis at rates that will write off the depreciable amount of an asset over its useful life. The depreciable amount of an asset is the historical cost or revalued amount less the residual value. All assets are assumed to have no residual value. The estimated useful life of each asset class is listed below.

Computer hardware 3–5 years
Furniture and fittings 5 years
Office equipment 5 years

Leasehold improvements Unexpired period of the lease

Depreciation on capital work in progress commences when the asset is fully operational.

#### **Intangible assets**

Software licences are capitalised on the basis of the costs incurred to acquire and bring to use the specific software.

#### Amortisation

Amortisation of intangible assets is on a straight-line basis over their useful life. The estimated useful life of each asset class is listed below.

Computer software 3–8 years

#### Impairment of non-financial assets

Property, plant and equipment and intangible assets that have a finite useful life are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss would be recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of the asset's fair value less costs to sell and value in use.

#### Payables and accruals

Payables and accruals are initially measured at fair value and subsequently measured at amortised cost using the effective interest method.

#### **Employee entitlements**

Employee entitlements include salaries, wages and superannuation contributions accrued up to balance date, annual leave, sick leave and long-service leave entitlements.

#### Annual leave

Annual leave earned but not yet taken is recognised as it accrues to employees at current rates of pay.

#### Sick leave

Sick leave is recognised to the extent that compensated absences in the coming year are expected to be greater than the sick leave entitlements earned in the coming year. The amount is calculated based on the unused sick leave entitlement that can be carried forward at balance date, to the extent that the Commission anticipates it will be used by staff to cover those future absences.

#### Long service leave

Long-service leave is calculated on an actuarial basis as the likely future entitlements accruing to staff taking into consideration years of service, years to entitlement, and the likelihood that staff will reach the point of entitlement.

#### Superannuation

Obligations for contributions to KiwiSaver and the State Sector Retirement Savings Scheme are accounted for as a defined contribution superannuation scheme and are recognised as an expense in the statement of financial performance as incurred.

#### **Income tax**

The Commission is a public authority in terms of the Income Tax Act 2004 and is therefore exempt from income tax.

#### Goods and services tax (GST)

All items in the financial statements are presented exclusive of GST, except for payables and receivables, which are presented on a GST inclusive basis. Where GST is not recoverable as input tax then it is recognised as part of the related asset or expense.

The amount of GST owing to or from the Inland Revenue Department at balance date, being the difference between output GST and input GST, is included in payables or receivables in the Statement of Financial Position.

#### **Budget figures**

The budget figures are derived from the SOI as approved by the Board at the beginning of the financial year. The budget figures have been prepared in accordance with NZ IFRS using accounting policies that are consistent with those adopted by the Commission for the preparation of the financial statements.

#### **Accounting estimates and assumptions**

In preparing these financial statements the Commission has made estimates and assumptions concerning the future. These estimates and assumptions may differ from actual results. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events.

# Part three report against the GPS

Section 172ZK of the Electricity Act 1992 provides that the Minister must set objectives and outcomes to which the Government wants the Commission to give effect, and against which the Commission must report. Section 172ZM of the Electricity Act 1992 requires the Commission to report on its performance against and the outcomes and objectives contained in this *Government Policy Statement on Electricity Governance* (GPS).

The 2007–2011 Statement of Intent (SOI) was prepared based on the GPS published in October 2004, and updated in October 2006. The Minister provided the Commission with a replacement GPS in May 2008.

The table below provides a summary of the GPS requirements and reports on the Commission's progress against those requirements to 30 June 2008. Where relevant, the table provides paragraph references for both the 2006 and 2008 versions of the GPS. Where work is ongoing page references have been provided for the 2008–2011 Statement of Intent.

A more detailed report, including links to major reports, is available on the Commission's website at: http://www.electricitycommission.govt.nz/infopapers/publications

2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
1. C	ommissio	on powers and approa	och	
1–3		General expectations on process, approach and consultation	Ongoing requirements	42
4–5	6–7	Consultation	Development completed, ongoing requirements	42
			The Commission issued an updated consultation protocol on 14 September 2007, superseding the previous <i>Transmission Consultation Process</i> 2004.	
			In addition, in 2008 the Commission started a new quarterly publication called 'On the Lines', designed to improve understanding of the work the Commission is undertaking, and provide a detailed overview of major projects.	
6	NA	Consultation with the Ministry of Consumer Affairs	New requirement included in the 2008 GPS.	42
7	8	Advisory groups	Ongoing requirements	42
		Advisory group support and input	A list of advisory groups is available on the Commission's website.	
8	9	Innovation Encouraging innovation in Commission work	Ongoing requirements	43

2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
9	10	Information Publish high-quality information to support decision-making by market participants and to inform public debate	A significant number of key deliverables completed and ongoing refinement taking place, including:  Centralised Datasets (CDS) have been published in July 2005, July 2006, April 2007, November 2007 and May 2008.  The Initial Statement of Opportunities (SOO) was published in July 2005. The publication of the 2008 SOO was deferred pending publication of the NZES. In July 2008, the Commission published a draft SOO for consultation and it was finalised in August 2008.  In 2006, the Commission developed a Generation Expansion Model (GEM), which has been extensively peer reviewed and been made available for use by industry participants. The Commission continues to develop and enhance GEM and updates were released in February and April 2008.  Regular statistical reports are published for the wholesale and retail markets.	43
10	11 ew Zeala	Administration of Regulations and Rules	Establishment completed, ongoing requirements The Electricity Governance Rules Committee (EGR Committee) has been established. The Rulings Panel has been established. The Market Compliance team has been established. Work has been completed on 891 notified breaches up to 30 June 2008.  IZES) and New Zealand Energy Efficiency and Conserva	43
		NZEECS)		
11–16	NA	NZES and NZEECS general expectations	There are ongoing requirements for delivery, reporting and monitoring introduced in the 2008 GPS.	43
3. Co	onsumer	protection		
17–20	12 14 116	Domestic consumer contracts  Develop model domestic consumer contracts, monitor uptake of the model contracts and recommend regulation if necessary	Development completed, monitoring underway The alignment process with the Benchmark (Transmission) Agreement (BA) is underway. The Commission is working on changes to model retail contracts. This covers, among other things, proposed changes to include transparency of energy and lines charges requirements.	44
21–22	15–17	Low fixed charges Monitor compliance with and enforce the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004	Development completed, monitoring underway  The Regulations came into force on 1 October 2004.  The Commission monitors and enforces ongoing compliance with the Regulations.	44

2008	2006			0000 0044
GPS para.	GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
23–24	18–19	Arrangements for the benefit of low-income and vulnerable domestic consumers  Develop appropriate arrangements to ensure options are available to protect the interests of low-income and vulnerable domestic consumers	Development completed, monitoring underway  The Guideline on Arrangements to Assist Low Income Consumers was published in November 2005.  In 2007 the Commission issued an updated Guideline on Arrangements to Assist Low Income and Vulnerable Consumers. In February 2008 clause 23 of the guideline was amended to comply with the Human Rights Act 1993.  The 2008 GPS requires the Commission to monitor compliance with the guideline. The Commission will keep compliance with the guideline under review and recommend regulation, if necessary.  Statistics have been published in relation to disconnections for the period January 2006 to September 2007.	44
25	20	Arrangements in the event of retailer insolvency Implement arrangements to ensure an orderly transition for consumers where a retailer becomes insolvent	Development continuing  An initial analysis was completed in July 2006. The project has now been restarted with a new project scope being developed, based on feedback and discussions with MED.	44
26-32	21–24	Consumer complaints resolution system Ensure a quality complaints system is in place	Development continuing In March 2008, the Electricity Commission and Gas Industry Company invited submissions on the consultation document Approval of a Joint Electricity and Gas Complaints Resolution Scheme. A forum was held in April 2008 to assist stakeholders to understand the proposals in the consultation paper. Submissions closed on 8 May 2008.  A number of issues were raised in the consultation process, and are being further investigated. This has resulted in a change to the previously published process and timetable and the scheme is now expected to come into operation in September 2009 (subject to there being an application that meets the requirements).	44
4. EI	ectricity	efficiency		
33–39	25 27 32–34	General requirements, inter-agency coordination	Ongoing requirements	45
35	26	Electricity efficiency potential Undertake a review, jointly with EECA, of the potential and cost-effectiveness of efficiency measures	Completed, ongoing updates  The Electricity Efficiency Potential Study was published in October 2007.  In April 2008 briefings on the results and implications of the electricity efficiency potentials study were held in Auckland, Wellington and Christchurch.  Updates to the model will be developed and published on an ongoing basis.	45

2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
44	28	Generation Hydro spill information disclosure	Ongoing industry reporting of hydro spill data is taking place under a voluntary arrangement. This information is published on the Commission's website.	45
46	29	Electricity efficiency— wholesale market including DSM	Development continuing  A consultation paper on demand-side bidding and forecasting was released on 5 July 2007 and submissions closed on 3 September 2007. An update report is being prepared, with rule changes to follow in preparation for implementation.  Implementation relies on the System Operator implementing changes. This cannot commence until the System Operator has completed the Market Systems Project (MSP) (expected in April 2009).	46
45	30	Electricity efficiency—load management (includes NZEECS action—page 62)	Development continuing  The first stage of the load management and metering technology project has provided an understanding of the current status.  Phase 2—Load management value and pricing: a discussion paper was published on 13 September 2007. The Commission hosted a conference on 22 November 2007 that presented the findings of work to date and addressed key deliverables including the guidelines for advanced meters, associated model agreements, and links to distribution pricing. Phase 2 was completed in February 2008 and implementation actions allocated within the Commission.  Phase 3—Load management technology: work split into advanced metering and load control.  The Advanced Metering Policy and the Guidelines for Advanced Metering Infrastructure were published in May 2008.  Due to the complexity of some of the issues involved, some of this work will be addressed through the review of part D of the Rules, to be initiated in 2008/09.  Work is progressing on a load control policy.	45
46	31	Electricity efficiency—end use (includes NZEECS actions—pages 18, 32, 33)	Ongoing electricity efficiency programmes  The Commission's efficient lighting programme— across the lighting, commercial and industrial sectors— has, to 30 June 2008, resulted in the sale of 4.5 million efficient lamps, resulting in annual electricity savings of 370GWh.  The Commission's commercial sector programme (commenced during 2007/08) has been developed around contracting 11 programme partners to undertake efficiency projects within pre-agreed economic criteria. Over 200 projects are expected to be generated by this programme over the next two years. In the industrial sector the Commission is focusing on programmes targeting electric motors (through a nationwide bounty scheme for inefficient motors) and compressed air (through a best practice operation and audit programme).  Total savings from programmes to 30 June 2008 was approximately 390 GWh per annum.	45–46

2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
40	34	Memorandum of understanding (MOU) with EECA	Initial development completed, update underway The Commission signed a MOU with EECA in August 2005 and it has been published on the Commission website. The MOU is currently being updated to reflect the 2008 GPS.	45
41–42	NA	Discount rate Cost-effectiveness assessment of programmes	Ongoing This is a business-as-usual assessment requirement introduced in the 2008 GPS. It has been included in relevant processes.	45
5. R	enewabl	e energy (new heading	g in 2008 GPS)	
47–50	34A	Renewable energy Encouraging the development of renewable energy (includes NZES action—pages 72 and 81)	Ongoing Transmission decision-making processes recognise factors of significance for renewables, including timing of transmission availability. The tactical and strategic wind projects enable the integration of intermittent (renewable) generation into the electricity system (see below). The market design review (see 2006 GPS paragraph 75, 2008 GPS paragraph 79) includes consideration of renewables issues, including hydro spill. In October 2007 the Commission started a project to look at how renewables can be integrated into the national grid. The first step consisted of constructing a resource map of possible wind, hydroelectric, and geothermal generation in New Zealand.	47
50 79	34A 75	Integration issues (includes NZES action—page 62)	Tactical wind project—completed: changes to parts C and G of the Rules came into force on 1 March 2007.  Strategic wind project—completed: this project was carried out to facilitate optimal integration of wind generation in the long term. The Commission published several investigation reports on 13 July 2007. A discussion paper on high level mitigation options was published for consultation on 18 October 2007 and closed on 30 November 2007.  In March 2008 the Board agreed an action plan. Implementation and rule change work has been initiated. These implementation tasks are now integrated into various Commission workstreams and the Strategic Wind Project has been wound up.	47
6. S	ecurity o	f supply		
51–57	35–37	Security of supply background, key requirements and objective for the Commission	Ongoing  Work is being carried out on the correlation of intermittent generation. This could result in modification of security assessment to factor in correlation between periods of low hydraulic inflows and wind.	47
61–64	38–40 43–45 46 68–70	Information, forecasting and monitoring Publish information, including a minimum-hydro zone, and monitor security of supply	Ongoing  The Commission publishes security of supply information on its website, including a minimum hydro zone (Minzone) and assessments of risk to security of supply, both of which are regularly updated.	48

2000	2000			
2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
58-60	41–42	Initial security of supply policy Have and publish a security of supply policy	Development completed  The Commission published an <i>Initial Security of Supply Policy</i> in June 2005. This policy covered further definition of the 1-in-60 dry year security standard, the broad approach to monitoring security of supply, providing information, establishing an emergency zone, assessing the need for reserve energy, triggering the use of contracted reserve energy and managing conflicts of interest.  The initial policy has been superseded by the review of reserve energy policy (see below).	48
67–73	47–61	Reserve energy Carry out an analysis of reserve energy needs, and enter appropriate contracts	Development completed  From 1 April 2005, reserve-generation capacity has been provided by the Whirinaki 155MW power station. Periodic reviews have confirmed this level of reserve capacity and no additional reserve energy has been contracted to date.	48
76–77	62–63	Levy Cost and recovery from reserve energy requirements	Ongoing arrangements	49
78	65–67 71	Review reserve energy policy Carry out a review of reserve energy policy (includes NZES action—page 60 and 68)	On 18 September 2007 the Commission released the <i>Review of Reserve Energy Policy Consultation Paper</i> , which set out the Commission's conclusions on Castalia's recommendations and outlined the proposed recommendations to the Minister of Energy. The Commission provided its recommendations to the Minister on 21 November 2007. The results have been incorporated into the 2008 GPS.  The Commission is reviewing its security of supply policy in line with the GPS released in May 2008. Implementation has commenced.  The 2008 GPS requires that the next review is completed by 2012.	48
74–75	68–74	Emergency management Response planning and contingency arrangements	Ongoing Interim response plan completed. Commission emergency response not required during 2006/07 and 2007/08 up to 30 April 2008. The Commission monitored the winter 2008 supply situation and acted to ensure hydro storage was conserved. Rolling-cut regulations were completed and recommended to the Minister on 26 June 2008.	48
7. S	/stem op	peration and wholesal	e and related markets	
79	75	System operation Contracting for the operation of the electricity system and markets	Ongoing Initial System Operator contract in place. Contract renewal negotiations are underway.	49

2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
50 79	75	Common quality and system operation Improve rules relating to system operation, common quality and the wholesale market (includes NZES action—pages 60 and 68)	Common quality development plan—development roadmap approved in December 2006. Projects being progressively initiated include:  Expanding the normal frequency band—scope developed and investigation work commenced with the System Operator.  Multiple frequency keepers—the Commission is investigating the technical feasibility of a number of options to allow multiple frequency keepers to provide the frequency keeping service in each island.  Optimising emergency management—stage 1 (review extended load control) project outline developed, work initiated and is progressing well. A survey in October 2007 provided an assessment of potential level of extended load control available.  HVDC instantaneous reserves transfer capability—the Commission is awaiting input from Transpower as grid owner on the HVDC capacity.	50
79	75	Market design review (includes NZES action—pages 60 and 68, NZEECS— page 62)	Development continuing The Market Design Issues Paper was published May 2007. The Market Design Options Paper was published 8 July 2008. Implementation is scheduled for 2008/09. The market information project has been initiated. As part of the review, the Commission carried out a qualitative and quantitative study on drivers and barriers to switching, awareness of competition, satisfaction with service and retail brand reception.	49
79	75	Offer and dispatch rule development	Development continuing Industrial co-generation rules have been completed. Consultation papers are being developed covering: a dispatch of HVDC—this is now planned for 2008/09 b minor offer and dispatch rule changes—a consultation paper was published on 22 April 2008 and submissions closed on 27 May 2008.	49
79	75	Pricing process improvements	Development continuing  Development work is continuing.	50
79 125	76–77 120	Hedge market Improve access to robust forward prices	Development continuing  Market research and review of hedge-market issues was completed in 2006/07. Consultation on disclosure rules was completed in September 2007.  The industry has developed a model master agreement, which has been publicised by the Commission.  An update report, containing proposed rule changes, amended as a result of consultation, was published on 28 February 2008. Three submissions raised implementation issues. Two update reports were published for comment in February and May 2008 to address outstanding issues. At its 1–2 July 2008 meeting the Board approved recommended rule changes to go to the Minister, with an anticipated go-live date of 1 October 2008.  The Commission has undertaken two surveys of the New Zealand electricity hedge market. The first was completed in 2005. The results of the latest survey were published in April 2008.	51

2008 GPS	2006 GPS	Requirement		2008–2011
para.	para.	or Expectation	Status and Commission's activities to 30 June 2008	SOI page
80–81	78 Ann 1	Transmission risk	Development continuing	51
	App.1	management Transmission hedge market	A consultation paper on transmission hedges (Issues for Managing Location Price Risk) was released on 7 July 2008.	
		development	Finalisation of proposals and recommendations to the Minister of Energy is planned for 2008/09.	
8. Tr	ansmiss	ion		
82–83		Transmission background and objectives		51
84–88	81–85	Connection to and	Grid Reliability Standards (GRS) completed	51
		use of the national grid  Develop Grid  Reliability  Standards (GRS)	Rule changes introducing new GRS came into force on 13 May 2005. The core-grid determination, which completes the GRS framework, came into force on 16 February 2006.	
	Standards (GRS) and Benchmark	Benchmark (Transmission) Agreements (BA) completed	51	
	•	(Transmission) Agreements (BA)	The BA and the Interconnection Rules rule changes were gazetted on 31 May 2007.	
			A proposed outage protocol and connection code (components of the BA) were developed by Transpower and provided to the Commission in September 2007. The Commission consulted on Transpower's draft in October–November 2007 and the BA came into effect on 1 April 2008.	
89	86	Statement of	Ongoing	51
		Opportunities (SOO)	The Commission published an <i>Initial Statement of Opportunities</i> (Initial SOO) on 8 July 2005.	
		Prepare a SOO at least once every two years	The Grid Planning Assumptions (GPA) for the next SOO were agreed in December 2006.	
		tire youre	Finalisation of the next SOO was delayed pending the release of the <i>New Zealand Energy Strategy</i> (NZES).	
			Consultation was completed in March 2008 on the GPA to be included in the 2008 SOO.	
			In September 2007, the Commission initiated a project to identify and describe renewable generation geographic resource areas, likely magnitude of generation capability, capital costs, and possible timing of development. The outcomes of this project were incorporated into the SOO.	
			The draft SOO for consultation was released in July 2008 and the SOO was published in August 2008.	
90-	87	Grid decision	Development completed	NA
106	87A- G 88A- G	processes Government expectations regarding grid investment decisions were updated	The Commission developed a <i>Grid Upgrade Investment Review Policy</i> (GUIRP) in conjunction with Transpower. The purpose of GUIRP is to promote an effective process for the preparation of investment proposals by Transpower, and consideration of proposals by the Commission.  The Commission published a draft for consultation	
		(includes NZES action—pages 72 and 81)	on 11 April 2008. The GUIRP was finalised on 20 June 2008.	

2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
90– 106	87–89	Grid investment decision-making Make a decision	Ongoing North Island grid upgrade—a final decision to approve the proposal was made on 26 June 2007 and released	52
		on approval of Transpower's grid upgrade plans including consideration of transmission alternatives	on 5 July 2007.  On 19 December 2007 New Era Energy Incorporated filed a request for a judicial review of the decision to approve Transpower's North Island grid upgrade (NIGU). The hearing was held in Wellington in August 2008.	
			Otahuhu substation upgrade—the Commission published its intent to approve Transpower's proposal on 25 May 2007. A final decision to approve the proposal was announced on 31 August 2007.	
			On 12 November 2007 MEUG commenced proceedings for a judicial review in respect to the Otahuhu substation grid upgrade decision. The hearing took place on 18–19 February 2008.	
			On 14 March 2008, the High Court rejected the judicial review. On 15 April 2008 MEUG filed a notice of appeal. The Court of Appeal hearing regarding the Otahuhu decision has been set down for 15–16 October 2008.	
			HVDC upgrade	
			In January 2007 the Commission and Transpower developed a combined project plan and timetable, including Transpower submitting its revised proposal to the Commission in December 2007. In August 2007, Transpower indicated a revised submission date of February 2008.	
			Transpower submitted its proposal on 2 May 2008—for a new 700MW pole to be commissioned by 2012 and the capacity to be increased to 1,200MW in 2014 at a cost of \$728m.	
			On 31 July 2008, the Commission gave notice that it intended to approve the proposal. The final decision was made on 25 September 2008, approving the investment up to a maximum cost of \$672 million.	
			North Auckland and Northland	
			Transpower submitted its 2007 GUP proposal on 21 September 2007, which included the North Auckland and Northland (NAaN) reliability investment proposals. In September 2007, the Commission agreed a timeline with Transpower and initiated consultation.	
			In light of the recently finalised NZES and other developments in the Government's climate change policies, on 12 October 2007 the Commission wrote to Transpower to ask it to provide revised NPV results for the NAaN proposals adding a scenario of 90% renewables by 2025. Transpower provided this analysis on 26 October 2007. Consultation closed on 9 November 2007.	
			On 9 May 2008, Transpower submitted revised proposals seeking approval for \$577 million for proposal 1 and \$12.9 million for proposal 2.	
			The Commission sought comments on Transpower's proposal by 5 June 2008, receiving eight submissions.	

2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
		Grid investment	Central North Island thermal upgrade	
		decision-making (continued)	In March 2008 Transpower initiated consultation on the economic investments contained in part 4 of the 2005 GUP IV.	
			On 18 April 2008, Transpower submitted the revised Central North Island (CNI) thermal upgrades proposal.	
			The Bunnythorpe–Haywards (BPE–HAY) upgrade was split off and is to be considered separately (see below).	
			On 24 April 2008, the Commission issued a notice of intention to approve the CNI proposal.	
			No request for a public conference was received, and the Commission's decision became final on 8 May 2008.	
			Bunnythorpe-Haywards thermal upgrade	
			The Bunnythorpe–Haywards (BPE–HAY) proposal was originally part 4 of the 2005 GUP IV. The Commission is awaiting a proposal from Transpower and the timetable has lapsed. A new timetable will be set.	
			South Island grid upgrade	
			Transpower was expected to submit a proposal by 31 July 2007. In April 2008 Transpower advised that a new transmission line will now not be needed.	
			West Coast upgrade project	
			On 19 October 2007 the Commission received an application from Transpower for the construction of a new 110kV line between the Reefton and Dobson substations. Commission consultation closed on 15 November 2007.	
			On 12 June 2008, Transpower submitted a revised version of the West Coast proposal. On 20 June 2008 the Commission released an updated timetable. On 7 July 2008, the Commission gave notice that it intended to approve the proposal. No request for a public conference was received and on 21 July 2008 the Commission made its final decision to approve the investment up to a maximum cost of \$19 million.	
105-	89	Transmission	Ongoing	52
106		alternatives Ensuring transmission alternatives are considered to the extent practical, conditional	On 31 May 2005, the Commission published a consultation document on policy options to enable the consideration and provision of transmission alternatives. The Commission published a summary of the submissions in December 2005 and sought cross-submissions. Further policy work is currently on hold.	<i>32</i>
		on probability	Transmission alternatives are considered as part of transmission investment decision-making.	
		of success, maintaining reliability, and economic viability	Transpower has completed its trial of grid support contracts for demand-side participation in the upper South Island and held workshops in October 2007 to present the results and preview the process for the winter 2008 trial.	

2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
107– 109	90–95	Transmission pricing Consult on and approve Transmission Pricing Methodology, and mechanisms for encouraging transmission alternatives	Completed  The final Transmission Pricing Methodology (TPM) was gazetted on 12 July 2007. Transpower has carried out an internal audit to ensure consistency of prices with the TPM and the audit has confirmed that the prices are accurate.	52
9. Di	istributio	n		
110- 112	98–99	Distribution pricing methodologies  Complete development of principles or model approaches to distribution pricing (includes NZEECS action—page 62)	Development continuing  The development of a distribution pricing methodology has been rescheduled to ensure alignment with the NZEECS.  The project is expected to be completed in the 2008/09 year.	52
113	100	Distribution use-of- system agreements Develop model distribution use of system agreement	Development completed  The Commission published updated model distribution use-of-system agreements in December 2005.  Consultation was included in the overall consultation on model contracts, which closed on 6 June 2008.	53
10. C	ommerce	e Commission		
114– 117	101– 108	Relationship with the Commerce Commission Develop a memorandum of understanding (MOU)	Completed The initial MOU was signed on 15 May 2006.	53
118	107– 107A	The GPS, as amended in October 2006, requiring a revision of the MOU by April 2007	Completed The Commissions have developed an updated MOU and an associated protocol. Both commissions consulted stakeholders in May 2007. The updated MOU was signed on 16 August 2007.	53
119	NA	Further update to the MOU requested by 30 November 2008—paragraph 119 of the 2008 GPS	Development continuing The MOU is currently being updated to reflect the 2008 GPS.	53

2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
10	109– 110	Connection of distributed generation Administer regulations for connection of distributed generation (includes NZES action—page 60)	Ongoing monitoring The Electricity Governance (Connection of Distributed Generation) Regulations 2007, prepared by MED, came into force on 30 August 2007. The Commission has responsibility for monitoring the regulations. Some setup work has been completed.	53
121	111– 113	Access to lines Guidelines or standards for domestic-scale distributed generation	Development commencing The Commission's 2008/09 work programme includes investigating the provision of guidelines or standards for domestic-scale distributed generation.	53
122- 123	111– 113	Purchase of surplus generation by retailers Establish model arrangements to enable sale of surplus generation to retailers	Development completed, ongoing monitoring  Model arrangements are included in the Model  Domestic Consumer Contracts (see above, 2006 GPS  paragraphs 12–14). Uptake is being monitored.	44
122– 123		Distributed generation: itemised billing and technical standards (includes NZEECS actions—pages 62 and 63)	Development commencing The Commission's 2008/09 work programme includes development of guidelines and standards. Itemised billing (transparency of invoices) was included in consultation on terms and conditions between retailers and customers, carried out in 2007/08.	53
12. R	etail			
124	114– 115	Market design improvements in the retail area	See Market Design Project description under 2006 GPS paragraph 75 / 2008 GPS paragraph 79.	53
124– 125	114 115 118– 120	Retail competition  Determine arrangements to promote and facilitate greater competition, e.g. metering and switching issues	Development continuing The Commission is publishing information on retail market activity on its website on a regular basis. The load control project, reconciliation implementation and market design review (see 2008 GPS paragraph 79) also contribute to this GPS requirement.	53–54

2008 GPS para.	2006 GPS para.	Requirement or Expectation	Status and Commission's activities to 30 June 2008	2008–2011 SOI page
126	117	Reconciliation Improve reconciliation processes to improve the efficiency of managing distribution losses (Part J)	Development completed, training and implementation ongoing  Transition to the new Registry system is complete. The Registry system went live on 2 April 2008 and the first reconciliation run has been completed.  Twelve exemptions (numbers 49 to 60) were granted in February 2008 to facilitate the pre-population of new Reconciliation Manager and Registry systems with additional information.  In May 2008 the Commission approved auditors to undertake certified reconciliation participant and distributor audits.  In early July 2008 the Commission published draft Reconciliation Participant and Distributor Audit Guidelines for consultation. Consultation was completed in July 2008.  Balancing Area Guidelines and Electricity Supplied Guidelines have also been completed to support the reconciliation rules.	54
126	117	Loss factors methodology— including loss factors and loss optimisation (includes NZEECS action—page 62)	Developing continuing  Consultation was completed in August 2007 on calculation and monitoring of distribution loss factors.  The final paper on the proposed methodology was considered by the Board at its 1–2 July 2008 meeting. Publication of <i>Guidelines for Loss Factors</i> took place in July 2008.  Distribution loss optimisation is being addressed in two parts:  a non-technical (reconciliation-related) losses are being addressed by the Commission's Retail team  b technical (capital investment-related) losses are being addressed by the Security, Generation and Distribution team.	54
13. A	ccountak	pility requirements		
128		Reporting	Ongoing The Commission provides quarterly reports to the Minister of Energy against the GPS. GPS reports are also published on the Commission's website.	
Appen	dix 1—F	TRs (not included in 20	008 GPS)	
NA	78 App. 1	Transmission hedges	Under development See previous entry under 2006 GPS paragraph 78, 2008 GPS paragraphs 80–81.	51

# Part four other information

# The Electricity Commission

The Electricity Commission is a Crown Agent set up under the Electricity Act 1992, to oversee New Zealand's electricity industry and markets. It began operating in September 2003.

The Crown Entities Act 2004 governs the Commission's accountability arrangements.

The Electricity Act 1992 sets out the principal objectives and specific outcomes with which the Commission is charged. The Act also sets out the Commission's functions and lists the processes under which the Electricity Governance Regulations 2003 (Regulations) and Electricity Governance Rules 2003 (Rules) are established and amended. The Regulations and Rules set out in detail some of the obligations and responsibilities of the Commission and the electricity industry.

The *Government Policy Statement on Electricity Governance* (GPS) sets out the Government's expectations of the Commission, including the objectives and outcomes that the Government wants the Commission to give effect to.

#### Statutory objectives and outcomes

The outcomes to which the Commission contributes are set out in section 172N of the Electricity Act 1992:

- 1 The principal objectives of the Commission in relation to electricity are:
  - a to ensure that electricity is produced and delivered to all classes of consumers in an efficient, fair, reliable, and environmentally sustainable manner; and
  - b to promote and facilitate the efficient use of electricity.
- 2 Consistent with those principal objectives, the Commission must seek to achieve, in relation to electricity, the following specific outcomes:
  - a energy and other resources are used efficiently;
  - b risks (including price risks) relating to security of supply are properly and efficiently managed;
  - c barriers to competition in electricity are minimised for the long-term benefit of end-users;
  - d incentives for investment in generation, transmission, lines, energy efficiency and demand-side management are maintained or enhanced and do not discriminate between public and private investment:
  - e the full costs of producing and transporting each additional unit of electricity are signalled;
  - f delivered electricity costs and prices are subject to sustained downward pressure; and
  - g the electricity sector contributes to achieving the Government's climate change objectives by minimising hydro spill, efficiently managing transmission and distribution losses and constraints, promoting demand-side management and energy efficiency and removing barriers to investment in new generation technologies, renewables and distributed generation.

#### Governance and management

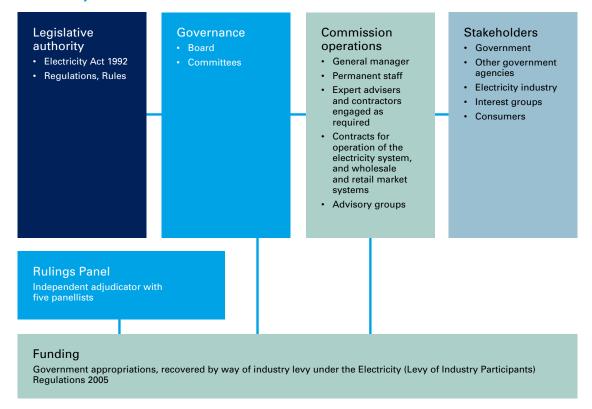
The Commission is governed by a Board appointed by the Minister of Energy. The Board is to have no fewer than five members, and no more than nine. Members hold office for a term of up to three years and may be reappointed. The Board generally meets on a three-weekly basis, and on other occasions when necessary. Board fees are funded from the levy on the electricity industry, which also funds the Commission's operations.

The Commission is managed by a General Manager. The General Manager employs a small professional team to deliver core services. External expert advice is contracted on a project-by-project basis where appropriate and necessary. Service provision contracts are used for the delivery of six major operational services central to the effective functioning of the electricity system and markets. The Commission also draws on the experience of advisory groups.

An independent Rulings Panel has been established to deal with breach notifications referred to it by the Board.

Figure 7 summarises the Commission's governance, management and funding arrangements.

Figure 7: Governance, management and funding of the Electricity Commission



Source: Electricity Commission 2008

#### **Roles and functions**

# Operation of the electricity system and markets

The Commission is responsible for the performance of the electricity system, and wholesale and retail markets. The Commission carries out this work by contracting and managing external service providers. The Commission contracts the System Operator for the day-to-day operation of the electricity system.

The wholesale market involves bids to buy and offers to sell electricity. For that to happen, the Commission contracts the Pricing Manager to set final prices, the Reconciliation Manager to reconcile electricity volumes, and the Clearing Manager to carry out the process for settling accounts. The Commission contracts the Wholesale Information and Trading System to carry out information transfers, especially the uploading of bids and offers.

In the retail market, the Commission contracts the Registry to hold information on points-of-connection for consumers. The Registry enables consumers to switch retailers and retailers to access the information they need to facilitate the switching process. The Commission appointed itself as Market Administrator in 2004.

#### Ensuring compliance with Regulations and Rules

The Commission is responsible for monitoring and enforcing compliance with the Electricity Governance Regulations 2003 and Electricity Governance Rules 2003, including:

- operation of the wholesale markets (spot and hedge);
- · operation of the retail market;
- · consumer protection activities;
- monitoring of the Electricity Governance (Connection of Distributed Generation)
   Regulations 2007; and
- monitoring of the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004.

The Commission aims to facilitate greater understanding of the Rules, thereby, improving

compliance, and to identify areas of the Rules that may need to be changed.

The Commission advises the Minister of Energy on statutory Regulations and Rules to ensure that the wholesale and retail markets operate efficiently and fairly.

#### Information provision

The Commission collects and publishes information to facilitate the efficient operation of the electricity system and markets. The Commission collects and publishes information to guide investment in transmission and transmission alternatives in the form of the *Statement of Opportunities* (SOO). Other information provision includes the *Centralised Dataset* (CDS) and wholesale and retail market reports<sup>11</sup>.

The Commission has also developed voluntary information publication arrangements with the industry including hydro spill data and up-to-date information on retail tariffs. The Commission is working on improving accessibility to wholesale and retail market information including implementing disclosure of hedge market contract information.

# Transmission investment decision-making

Transpower is responsible for planning the development of the grid and must apply to the Commission for approval of its grid upgrade plans (GUPs). The Commission has statutory responsibility for decision-making on grid investment proposals from Transpower. Once a grid investment has been approved, Transpower is responsible for all aspects of the upgrade, including land acquisition and resource consents.

#### **Security of supply**

The Commission is required to use reasonable endeavours to ensure security of supply, in particular for peak and winter supply, without assuming any demand reduction from emergency conservation campaigns. At the same time it must minimise distortions to the ordinary operation of the electricity market.

The Commission works with the electricity industry to ensure security of supply. To do so, it collects and monitors a considerable amount of data and publishes information on the security of supply status. The future need for reserve energy is reviewed on at least an annual basis.

The Commission may contract for reserve energy and will manage security of supply emergencies if required. The expected result is that, if needed, implementation of reserve energy and emergency measures by the Commission provides an effective contribution to mitigating risks.

#### **Electricity efficiency**

The Commission has a significant and growing role in delivering programmes for electricity efficiency. In the 2007 Budget, the Government approved funding of \$44.5 million (excluding GST) over the 2007/08 to 2009/10 years. The goal is to significantly reduce general and peak electricity demand and CO<sub>2</sub> emissions through more efficient use of electricity.

This investment is expected to realise sustained electricity efficiency and conservation gains. Ongoing annual benefits by the end of the 2009/10 financial year, from the combined programmes, are expected to be: electricity savings of 450GWh per annum; and  $CO_2$  savings of 87,000 tonnes per annum.

A principle of the NZES is that investment should occur in energy efficiency measures where this is cheaper than the long term costs of building extra generation capacity, including environmental costs. The Commission's investment in electricity efficiency programmes supports this principle. Savings are expected to be delivered at an average cost over the life of the investment of significantly less than the cost of investing in equivalent new generating capacity.

#### **Performance information**

The Commission's output classes, performance measures, and financial statements relating to these roles and functions are included in part two of this *Annual Report*.

Figure 8 summarises the Commission's roles and functions.

#### Figure 8: Electricity Commission roles and functions

#### What the Commission does

#### Maintenance and development of market operations

- The Commission is responsible for maintaining the regulatory framework governing the management and operation of the electricity markets. This includes developing voluntary arrangements or guidelines when appropriate and Rules when required. The Commission can also grant exemptions to the Rules under certain circumstances.
- Future focus is on ensuring the system allows innovation and ensuring the Rules are up to date with developments, e.g. new technologies.

#### Operation of the wholesale and retail markets

- The Commission is responsible for ensuring the effective day-to-day operation of the electricity wholesale and retail markets in accordance with the Rules.
- The Commission contracts third parties or 'service providers' to deliver these outputs on its behalf.

#### System operation

- The Commission is responsible for ensuring the effective day-to-day operation of the electricity system in accordance with the
- The Commission contracts Transpower as System Operator to provide these services.
- The Commission seeks to remove unnecessary barriers to new investment in distributed generation and generation from renewable energy sources.
- A key focus is ensuring the successful integration of new types of generation (e.g. wind) and implementing improvements that enhance common quality and reduce costs.

#### Monitoring and compliance

- The Commission monitors and enforces compliance with the Electricity Governance Regulations, Rules and other legislation. The Commission has resolved 891 breach notifications to 30 June 2008.
- The Commission investigates, and resolves alleged undesirable trading situations.
- · The Commission monitors the implementation of voluntary arrangements, model agreements and guidelines it has issued.

#### Information

- A fundamental role for the Commission is to collect and distribute information to inform the industry, interested organisations and electricity consumers
- The information and models published by the Commission can assist industry with investment decisions on generation and
- The Commission also publishes a range of statistical information relating to the operation of the wholesale and electricity markets
  and has been involved in providing information to consumers to assist with purchase and use decisions (including efficiency and
  power savings).

#### Transmission investment decisions

• The Commission assesses and approves (or declines) Transpower's grid upgrade proposals.

#### Security of supply

- The Commission monitors security of supply and has powers to act to address emergencies. Up-to-date security status information is available on the Commission's website.
- To date the Commission has contracted the Whirinaki power station to provide reserve energy when needed. The Commission can
  take other actions such as running conservation campaigns and buying back demand from consumers, as was contemplated during
  winter 2008.
- In future, the Commission will have responsibility for considering exemptions to the moratorium on new thermal generation plant, where there is a need to support security of supply.

#### Electricity efficiency

- $\bullet \quad \text{The Commission promotes electricity efficiency, including funding efficiency programmes.} \\$
- The Commission seeks to remove unnecessary barriers to new investment in demand-side initiatives.

#### What the Commission does not do

#### Set strategic policy for the electricity sector.

Carry out planning for the electricity sector.

Set retail or wholesale prices.

Control prices set by Transpower or lines companies.

Set policy or become involved in the operation of the Resource Management Act 1991 (RMA).

Regulate the gas industry.

Adjudicate on retail disputes. This is to be carried out by an independent complaints body.

Decide the mix of generation types and energy efficiency initiatives to meet new demand.

Carry out planning for transmission.

Provide baseload generation.

Approve new generation projects.

Set policy or national strategy for energy efficiency or conservation.

#### Others involved

Strategic policy for the electricity sector is set by the Government with policy advice from the Ministry of Economic Development (MED).

Planning for generation investment is carried out by both state-owned and private sector companies. Transpower is responsible for planning the national grid and distributions companies are responsible for planning local networks.

Retail and wholesale prices are determined by the market.

The Commerce Commission has a pricing regulation function for Transpower and lines companies.

The RMA is administered by the Ministry for the Environment.

The gas industry has a co-regulatory arrangement under the Gas Industry Company Ltd.

Electricity retailers are required to belong to the consumer complaints scheme, once approved.

Whether gas, coal, wind or energy efficiency will meet new demand is determined by decisions made by investors in existing and new generation.

Planning of the transmission network is carried out by Transpower, a state-owned company.

Generation is provided by generation companies.

EECA is the lead government agency for energy efficiency and conservation advice and programmes.

#### Management and capability

The Commission values the people who choose to work in the organisation and is committed to providing a work environment that supports employees to achieve their full potential.

Work at the Commission is necessarily of a high standard in keeping with the magnitude of the issues. In completing work and fulfilling obligations the Commission recognises the need to operate with consistently high standards of behaviour and integrity.

The Commission's multicultural workforce is based in Wellington, and comprises fifty permanent staff, three of whom work part-time. Thirty-two staff are male and ninteen are female.

The review of policies and procedures that support the Commission goal to comply with Good Employer obligations is an ongoing process, as is reporting against these goals.

#### Leadership, accountability and culture

Clear strategic direction given by the Board and General Manager is directly linked to the *Statement of Intent*, leading through to project planning and to individual performance objectives, providing a clear sense of purpose and defined expectation.

Identification and implementation of leadership training and development for all levels of management is ongoing.

#### Recruitment, selection and induction

Turnover for the previous 12 months was 6.5 per cent.

Vacancies within the Commission are advertised internally and externally, providing development opportunities for existing staff.

A fair and transparent recruitment process is undertaken which results in the best person for the role being appointed and EEO principles and policy are applied at all stages of the process.

A comprehensive induction process is provided for all new staff and Commissioners.

#### Employee development, promotion and exit

Internal promotions have been made in the last 12 months and some internal appointments to new

roles as they have been developed and all staff have a development plan which is reviewed quarterly.

Exit interviews are conducted for all departing staff and acted upon as appropriate.

The performance management process has been reviewed in the past year and updated as a result of feedback from staff and management.

#### Flexibility and work design

The Commission is very conscious of a desire to provide a realistic work/life balance for staff.

Non-standard work arrangements are considered for staff dealing with exceptional circumstances, and those returning from maternity leave or serious illness are supported in their integration back into the workforce.

#### Remuneration, recognition and conditions

All staff have an annual review of salary. There is moderation in the process to ensure it is as fair, consistent and objective as possible.

There is ongoing recognition of milestones as appropriate and success is celebrated.

#### Safe and healthy environment

Staff drawn from all levels make up a proactive Health and Safety Committee.

An active, healthy lifestyle is encouraged: an Employee Assistance Programme scheme is available to staff; and stress management reference material is available on the Commission intranet.

A harassment and bullying policy is identified to staff at induction.

The Code of Conduct alerts staff to acceptable standards of behaviour and processes and consequences of breaches.

#### Consultation

The Electricity Commission puts considerable emphasis on effective consultation in carrying out its functions, including consultation related to:

- issues on which the Commission may consider recommending rule changes;
- grid investment decision-making (as required under part F of the Rules); and
- the Commission's planning process.

Specific processes are followed for rule changes. The Commission reports to the Minister, with recommendations, and the Minister makes the final decision. Both the Commission's recommendations and the Minister's decisions on rule changes are published in the *New Zealand Gazette*.

#### **Risk management**

The Commission has a proactive risk management framework in place. The Board Risk and Audit Committee reviews the risk register as part of its regular quarterly meetings.

During the fourth quarter of 2007/08 the Commission was active in managing security of supply risks and regular briefings were provided to the Minister of Energy.

No other material risks were identified for the year.

#### **Cost-effectiveness of the Commission's work**

The cost-effectiveness of the Commission's work is assured through:

- Appropriation consultation—the Commission's planned work priorities and appropriations are scrutinised through public consultation in accordance with section 172ZCA of the Electricity Act 1992. The Commission provides information on its proposed work priorities and high-level information on intended expenditure. Where relevant and possible, information is provided on the potential benefits being sought in terms of net present value. While very detailed costing information is not available at this stage of the planning cycle, the information provided allows levy payers and other interested parties to provide feedback on the value being provided by the Commission.
- Assessment of proposed regulations—the benefits and costs of proposed regulation or rule changes are scrutinised through public consultation process in accordance with sections 172F and 172H of the Electricity Act 1992.
- Assessment of electricity efficiency
   programmes—under paragraphs 41–42 of the
   GPS, the Commission's programmes must meet
   a 5 percent discount rate. The Commission also
   assesses potential costs and benefits of electricity
   efficiency programmes compared with the longrun marginal cost of new generation.

#### Planning and reporting

In addition to the requirements of the Crown Entities Act 2004, specific consultation, planning and reporting requirements for the Commission are contained in the Electricity Act 1992 and the GPS.

In developing the SOI, the Commission consulted with levy payers as required by section 172ZCA of the Act. The Commission also consulted with the industry on the projects to be included in the work programme. The Commission used this input to develop its three-year objectives, statement of service performance, and work programme, for the SOI. The draft SOI was provided to the Minister of Energy for comment, before being finalised and tabled in Parliament after Budget day.

The Commission prepares an *Annual Report* in accordance with section 150 of the Crown Entities Act 2004. The report also provides the information on GPS performance standards required under section 172ZM of the Electricity Act 1992. The financial performance, non-financial performance, and GPS performance are audited by Audit New Zealand. The report is tabled in Parliament. The report is then published and distributed by the Commission.

The Commission also publishes a report against the GPS on its website on a quarterly basis.

## Management and capability performance measures

Capability	SOI expected progress measure to June 2008	Result
Organisational health and capability	Electricity efficiency team fully established	Achieved  The electricity efficiency team is in place.
Organisational health and capability	Human Resource systems and processes fully operational	Achieved  All core Human Resource systems and processes are fully operational. Refinement and development is ongoing.
Business and information systems	Remote access system fully operational	Achieved  The remote access system became fully operational in December 2007.
Risk management	Business continuity plan completed and fully operational	Achieved  The Commission has a business continuity plan. As a part of the plan, information is provided to staff on a pandemic.
Communication and stakeholder management	Complete Commission-wide consultation protocol	Achieved  On 14 September 2007 the Commission announced its new <i>Consultation Protocol</i> which sets out how the Commission intends to determine the level of consultation it may undertake when it carries out a consultation. The Protocol supersedes the Commission's June 2004 document <i>Transmission Consultation Process</i> , which is withdrawn.
		In addition, the Commission has developed a new quarterly publication called <i>On the Lines. On the Lines</i> is designed to improve understanding of the work the Commission is undertaking, and provide a detailed overview of major projects.

# Relationships with other government agencies

#### **Ministry of Economic Development**

The Ministry of Economic Development (MED) is the Government's policy adviser for the energy sector, including the electricity sector. The MED also acts as the purchase adviser to the Minister of Energy on the requirements of the Crown Entities Act 2004.

#### **Ministry of Consumer Affairs**

The Ministry of Consumer Affairs is part of the MED. Paragraph 6 of the 2008 GPS includes an expectation that the Commission will consult with the Ministry of Consumer Affairs when pursuing outcomes that directly impact on small consumers.

#### **Ministry for the Environment**

The Ministry for the Environment is responsible for administering the Resource Management Act 1991 (RMA). The RMA is the legislation under which generators apply for resource consents for the construction and operation of generating plant and any associated development work. RMA requirements also apply to the development of transmission and distribution infrastructure, and some maintenance work. The Ministry is responsible for managing the call-in process for resource consents and for developing national policy statements, including the national policy statement on transmission.

#### **Commerce Commission**

The relationship between the Electricity Commission and Commerce Commission is addressed in paragraphs 114–119 of the GPS. The two commissions have developed a memorandum of understanding (MOU), which was updated in 2007 and is available on the Electricity Commission's website.

David Caygill was appointed as an Associate Commissioner of the Commerce Commission in January 2008 and was previously Deputy Chair.

#### **Energy Efficiency and Conservation Authority**

The Electricity Commission's role and relationship with the Energy Efficiency and Conservation Authority (EECA) is outlined in paragraphs 33–40 of the GPS. The Commission works closely with EECA to co-ordinate electricity efficiency initiatives and design and implement programmes to promote and encourage the uptake of electricity efficiency measures among consumers.

The Electricity Commission and EECA have a MOU, which is available on the Commission's website.

#### Parliamentary Commissioner for the Environment

The Parliamentary Commissioner for the Environment (PCE) was set up under the Environment Act 1986. The PCE carries out an annual examination of the Electricity Commission's achievement against GPS objectives and outcomes concerning the environment under section 172ZP of the Electricity Act 1992.

# The Board, committees and advisory groups

#### **Board**

The Commission is governed by a Board appointed by the Minister of Energy. The Board is to have no fewer than five members and no more than nine. Members hold office for a term of up to three years and may be reappointed. The Board generally meets on a three-weekly basis and on other occasions when necessary. Board fees are funded from the levy on the electricity industry, which also funds the Commission's operations.

The Board members are:

- · David Caygill, Chair;
- · Richard Bentley;
- · David Bull;
- · Linda Constable;
- · Peter Harris; and
- · Stan Rodger

The Board has formed a number of committees to address specific items of business. These are:

- · Electricity Governance Rules Committee;
- · Remuneration Committee;
- · Risk and Audit Committee;
- · System Operations Committee; and
- · Undesirable Trading Situations Committee;

Further information about the Board and its committees is provided on the Commission's website at: http://www.electricitycommission.govt.nz/aboutcommission/board/

#### **Rulings Panel**

The Commission appoints the members of the Rulings Panel (a body corporate established under the Electricity Governance Regulations 2003) and is responsible for its funding. The Rulings Panel is the industry dispute resolution and disciplinary body that determines complaints and certain disputes brought to it under the Regulations and Rules.

Further information about the Rulings Panel is available on the Commission's website at: http://www.electricitycommission.govt.nz/rulingsp/

# Advisory and project groups

Paragraph 7 of the GPS states that the Commission should make extensive use of advisory groups wherever possible to develop industry arrangements and make recommendations concerning Regulations and Rules.

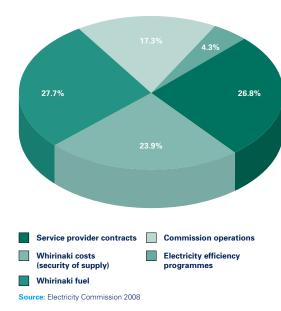
The Commission has established advisory groups with industry, consumer, and independent members as appropriate to the role of the group. Advisory groups provide a wide range of advice and input on the operation of the Regulations and Rules as well as on other policy and work programme matters. The Commission considers that these groups provide a wide range of useful expertise and make a valuable contribution.

Information about the advisory groups and project teams is available on the Commission's website at: http://www.electricitycommission.govt.nz/advisorygroups

# The Commission's funding and levy

The Commission is funded by appropriations from Parliament under Vote: Energy. The appropriations cover all the services and activities of the Commission. Figure 9 shows the broad areas of the Commission's expenditure for 2007/08.

Figure 9: expenditure 2007/08



#### Notes:

**Service provider contracts**—costs that cover agreements between the Commission and the companies that provide services to operate the electricity system and wholesale and retail markets.

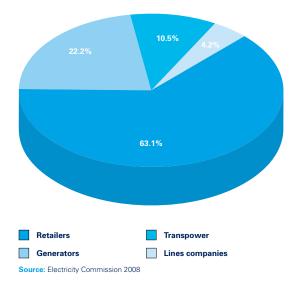
**Commission operations**—all operational costs of the Commission (except service provider costs) including rent, overheads, staff costs, Board costs, and external legal and other professional advice.

Whirinaki costs (security of supply)—costs of the Commission's contract with the Crown for the availability and operation of the Whirinaki power station. Also included is the cost of tendering for reserve energy, if needed.

**Electricity efficiency programmes**—costs of electricity efficiency programmes and electricity efficiency potentials modelling.

The Crown is reimbursed for the cost of the Commission by way of a levy on the electricity industry. The levy is collected by the Commission on behalf of the Crown. The various components of the Commission's funding are levied on different sectors of the electricity industry. The amount paid by an individual company will depend on the volume of activity for that company. Allocation of the levy to electricity industry sectors is shown in figure 10.

Figure 10: levy allocation 2007/08



# Glossary and abbreviations

# Abbreviations used in this report

BA Benchmark (Transmission) Agreement  Board Board of the Electricity Commission  CDS Centralised Dataset  CFL compact fluorescent lamp  MEPS Minimum Energy Performance Standards  MEUG Major Electricity Users' Grown Merchant Mer	oup
Electricity Commission  CDS	oup
CFL compact fluorescent lamp MSP Transpower's (as System Op Market Systems Project Commission Electricity Commission NAaN North Auckland and North	
Market Systems Project  Commission Electricity Commission NAaN North Auckland and North	nding
	perator)
gra apgrade	land
DSM demand-side management NIGU North Island (Whakamaru-Pakuranga) grid upgrade	-
EECA Energy Efficiency and NZEECS New Zealand Energy Efficiency and Conservation Authority and Conservation Strategy	ісу
EGR Electricity Governance Rules NZES New Zealand Energy Strateg Committee NZES	y
GEM generation expansion model Regulations Electricity Governance Regulations 2003	
GPA grid planning assumptions Rules Electricity Governance Rules	es 2003
GPS Government Policy Statement SOI Statement of Intent on Electricity Governance	
GRS grid reliability standards SOO Statement of Opportunities	
GUIRP grid upgrade investment SOSPA System Operator service review policy provider agreement	
GUP grid upgrade plan TPM Transmission Pricing Metho	odology
HVDC high-voltage direct-current Transpower Transpower New Zealand L	imited
Minister Minister of Energy	

#### **Glossary**

Advanced metering systems—electronic meters that measure electricity, record consumption and meter event information electronically, have two-way communications, and can be remotely read. Advanced meters may also have a range of additional attributes.

Ancillary service—the System Operator has contracts with generators, customers, retailers and distributors to provide ancillary services. Ancillary services comprise black start, over-frequency reserve, frequency-keeping reserve (also known as frequency-regulating service), instantaneous reserve or voltage support. The System Operator obtains instantaneous reserve on a half-hourly basis through the market. Ancillary services are described in the annual System Operator Procurement Plan, available on the Commission's website.

**Board**—the Board of the Commission as provided for in section 172M of the Electricity Act 1992.

**Carbon dioxide** ( $CO_2$ )—carbon dioxide, methane ( $CH_4$ ), and nitrous oxide ( $N_2O$ ) are considered to be the main 'greenhouse' gases.  $CO_2$  is the most significant of the three.

Centralised Dataset (CDS)—a collection of data published by the Commission to support planning processes underlying decisions on transmission and transmission alternatives. The Commission retains information relating to transmission and transmission services, under section III, part F of the Rules.

Committee—a committee of the Board of the Electricity Commission appointed by the Commission as provided for by the Crown Entities Act 2004.

**Common quality**—those elements of quality of electricity conveyed across the grid that cannot be technically or commercially isolated to an identifiable person or persons. Common quality is often referred to in conjunction with system operations.

**Compact fluorescent lamp (CFL)**—an energy-saving replacement for incandescent light bulbs.

**Consumer**—any person who is supplied electricity for consumption. A consumer may include a distributor, a retailer or a generator when supplied with electricity for consumption.

**Demand-side initiative**—an initiative that encourages or facilitates electricity consumers to modify their usage in a way that reduces consumption in a specific time period or shifts consumption from one time period to another.

#### Demand-side management (DSM)—

implementation of policies or measures designed to control or influence the demand for electricity.

**Distributed generation**—a distributed (or embedded) generator is a small-scale generator that commonly inputs electricity to the distribution network rather than the transmission grid. A distributed generator can include an industrial plant or domestic generation system that sells excess generation into the system.

**Distributor**—a participant that owns or operates a local electricity network. For the purposes of parts D, E and J of the Rules, 'distributor' includes an embedded network owner. For the purposes of part C of the Rules, 'distributor' includes consumers with a point of connection to the grid.

Electricity Act 1992 (the Act)—as amended by later Acts, it regulates the New Zealand electricity industry, and provides the statutory framework for the Electricity Commission's operation.

Electricity Amendment Act 2004—enacted in October 2004, this Act added to and clarified the Commission's responsibilities and authorities, including adding electricity efficiency functions. The changes were part of a package of government policy announcements made at the time the Commission was formed.

#### Electricity and Gas Complaints Commissioner—

a separate organisation from the Electricity Commission. The Commissioner provides electricity consumers with a free and independent dispute resolution service for complaints about their electricity lines or retail companies. Electricity efficiencies potentials study—also referred to as 'the potentials study'. The study, published in September 2007, was conducted by the Commission and EECA to answer the following questions:

- How much cost-effective electricity efficiency resource is available across all sectors of the New Zealand economy, in terms of capacity reductions (MW) at peak times and total consumed electricity (MWh) by region, by sector, by end-use technology?
- How could the Electricity Commission prudently act to realise the cost-effective electricity efficiency improvements?

Electricity Governance Regulations (Regulations) and Electricity Governance Rules (Rules)—the Electricity Governance Regulations 2003 and the Electricity Governance Rules 2003 under which the electricity market has operated since 1 March 2004. The Regulations include provisions related to service provider agreements, undesirable trading situations, rule breaches and exemptions, and the establishment and proceedings of the Rulings Panel. The Rules set out various authorities and responsibilities of the Commission to carry out market and system governance functions, as well as to make several decisions relating to Transpower and the transmission grid (part F of the Rules).

Electricity Governance Rules Committee—the Electricity Governance Rules Committee (EGR Committee) is a committee of the Board. The Board has delegated responsibility to the EGR Committee to make decisions on how breach notifications should be responded to. In cases where participants wish to settle investigated breaches, the Board is required to approve any formal agreements. For more serious breaches, the Board may lay complaints with the Rulings Panel, which operates independently from the Board.

#### Embedded generation—see distributed generation.

Energy Efficiency and Conservation Authority (EECA)—the Energy Efficiency and Conservation Authority (EECA) was established under section 20 of the Energy Efficiency and Conservation Act 2000. It promotes energy efficiency, energy conservation and renewable energy.

Estimates of Appropriations (Estimates)—the formal budget document as released on Budget night each year. This document outlines funding and performance for all government entities for the year ahead. The Commission receives funding under Vote: Energy.

Frequency keeping—the frequency of the New Zealand grid is normally maintained at 50 Hertz frequency and is the number of cycles per second. Frequency keeping is delivered through contracting generation that keeps the frequency of the grid within its normal band. Frequency keeping involves increasing or decreasing generation within a set band to ensure that supply equals demand on a second-by-second basis.

**Generator**—a person who owns generating units connected to the grid or to a local network, or a person who acts, under parts G and H of the Rules, on behalf of any person who owns such generating units. This includes embedded generators and intermittent generators.

Government Policy Statement on Electricity
Governance (GPS)—issued by the Minister of

Energy and specifies the objectives and outcomes the Government wants the Commission to give effect to, and against which the Commission must report. Authority for the GPS is provided by section 172ZK of the Electricity Act 1992. Under section 172ZL of the Act, the Commission is obliged to include in its SOI performance standards that relate to all of the GPS objectives and outcomes. These performance standards are subsequently reported on in the *Annual Report* in accordance with section 172ZM of the Act. The GPS was published in October 2004, updated in October 2006, and replaced in May 2008.

Grid or national grid—the high-voltage electricity transmission network that transmits electricity throughout New Zealand. This network is used to connect grid injection points and grid exit points to transmit electricity, throughout the North and South Islands of New Zealand over more than 12,000 kilometres of transmission lines, including the HVDC link. It comprises major power generation stations to local distribution networks, operated by local lines companies and large industrial users. The grid is owned by state-owned company, Transpower New Zealand Limited.

Grid investment test (GIT)—applied to transmission investment proposals from Transpower. The GIT is provided for under part F of the Rules and requires that a proposed investment maximise the expected net market benefit or minimise the expected net market cost compared with alternative projects.

**Grid upgrade plan (GUP)**—Transpower's plan for investments in grid upgrades, which must be provided to the Commission for review and approval.

**Hedge contract**—a financial risk management product that protects against price risks associated with the spot price of electricity.

High-voltage direct-current (HVDC)—at present the only high-voltage direct-current transmission is the line and cable under Cook Strait that connects the Haywards substation in the North Island with Benmore power station in the South Island.

**Intermittent generation**—generation for which the source is intermittent and not easily predicted, such as wind or wave generation.

**Megawatt hour** (**MWh**)—1 megawatt hour is equal to 1,000 kilowatt hours. Megawatt hours are the metering standard unit for the wholesale market.

Ministry for the Environment (MfE)—responsible for the Resource Management Act 1991 (RMA). The Ministry is a government department, responsible to the Minister for the Environment.

Ministry of Economic Development (MED)—the Ministry responsible for Vote Energy, under which the Commission's appropriations are included as non-departmental output classes. The Ministry provides the Government with policy advice on energy matters.

Minzone—the Minzone represents the minimum level of hydro storage required at any time of year to ensure that, given a low-flow event from that point in time, demand can still be met when all available thermal plant is run to capacity. The Minzone is an analytical tool that helps electricity system planners understand the data about hydro storage levels. It is based on the record of 74 years of hydro inflows into the storage lakes. Information about the Minzone model and the latest Minzone

graph are available on the Commission's website at: http://www.electricitycommission.govt.nz/opdev/secsupply/sos/status/minzone/index.html/view?searchterm=minzone

New Zealand Energy Strategy (NZES)—a national strategy, for which development and implementation is led by the Ministry of Economic Development (MED). The New Zealand Energy Strategy was published in October 2007.

New Zealand Energy Efficiency and Conservation Strategy (NZEECS)—a national strategy, for which development and implementation is led by the Energy Efficiency and Conservation Authority (EECA). The strategy was published in October 2007.

**1-in-60 dry year**—a year in which there is a drought in hydro catchments of the severity that can, statistically, be expected to occur every 60 years. The duration and timing of such an event will determine whether it has implications for security of supply. See also **Minzone** above.

**Outcome**—the result that the Commission is seeking to influence or achieve. An outcome is defined in the Public Finance Act 1989 as "a state or condition of society, the economy, or the environment; and includes a change in that state or condition".

Output—a product or service that the Commission is responsible for delivering to a specified quality, timeliness and quantity (if appropriate). Outputs are defined in the Public Finance Act 1989 as "goods or services that are supplied by a department, Crown entity, Office of Parliament, or other person or body; and includes goods or services that a department, Crown entity, Office of Parliament, or other person or body has agreed or contracted to supply on a contingent basis, but that have not been supplied".

#### **Parliamentary Commissioner for the Environment**

(PCE)—the Parliamentary Commissioner for the Environment was established under the Environment Act 1986. As an independent Officer of Parliament, the PCE has wide-ranging powers to investigate environmental concerns.

**Participants**—participants are the industryrelated groups or individuals who engage with the Commission as defined in the Regulations. Participants include:

- · electricity retailers;
- · electricity distributors;
- · electricity generators;
- · line owners;
- electricity consumers connected directly to the grid;
- people who purchase electricity from the Clearing Manager;
- · service providers;
- · metering equipment owners;
- · ancillary service agents;
- · data administrators; and
- · approved test houses.

**Regulations**—the Electricity Governance Regulations 2003 (Regulations) as amended from time to time in accordance with the Electricity Act 1992.

Reserve energy—energy capability bought by the Commission as a reserve against peak, winter or dry year hydro shortfalls. Reserve energy requirements cover tendering for reserve energy generation and emergency options, and the costs associated with the Whirinaki reserve energy plant being available.

Resource Management Act 1991 (RMA)—the primary legislation relating to the use of land, air and water. Land-use activities, including those associated with generation and transmission of electricity and discharges or taking of water, are required to comply with rules prepared under the RMA and consents granted under the RMA. Consent applications are generally heard and determined by local authorities and may be appealed to the Environment Court.

**Retailer**—a person or company that supplies electricity to a consumer or to another retailer.

**Ring-fenced generation**—using a generation plant or demand-side initiatives dedicated to providing reserve energy.

**Risk and Audit Committee**—a committee of the Board. The Committee has agreed a risk policy and framework and oversees internal audit processes.

**Riskmeter**—a high-level graphical representation of the outlook for electricity supply. The Riskmeter is available on the Commission's website and is updated as necessary.

**Rule breach**—occurs when a participant fails to meet its obligations under the Regulations and Rules.

Rulings Panel—established under the Electricity Governance Regulations 2003, deals with the formal complaints of breaches of the Regulations or Rules by market participants referred to it by the Commission. If the Rulings Panel upholds a complaint, it has several options available including imposing penalties against participants, awarding costs or compensation, issuing suspension or termination orders, and recommending rule changes. It also determines certain disputes between participants and can hear appeals on specific decisions made by the System Operator.

Service providers—the Electricity Commission is responsible for ensuring the effective day-to-day operation of the electricity system and markets through the operation of core system and market services in accordance with the Rules. The Commission provides the following services through service provider contracts:

- · Clearing Manager;
- · Wholesale Information and Trading System;
- · Pricing Manager;
- Reconciliation Manager;
- Registry; and
- · System Operator.

Smart meters—see advanced metering systems.

**Spot market**—the buying and selling of wholesale electricity is done through a 'pool', where electricity generators offer electricity to the market and retailers bid to buy the electricity. This market is called the spot or physical wholesale market.

**Statement of Intent (SOI)**—published in accordance with part 4 of the Crown Entities Act 2004. The SOI is the Commission's formal public accountability document, setting out its plans and financial information for one year in detail and the next two years in more general terms. The SOI provides information on what the Commission will be doing to progress the principal objectives and specific outcomes in section 172N of the Electricity Act 1992, and includes performance standards for the objectives and outcomes of the GPS as required by section 172ZL of the Act. The Commission's achievements against the SOI expectations, and its financial management, are audited by Audit New Zealand and reported to Parliament in the Annual Report.

Statement of Opportunities (SOO)—the Commission is required under section III of part F of the Rules, to publish a SOO for transmission and transmission alternatives at least every two years. The SOO is to enable the identification of potential opportunities for efficient management of the grid, including investment in upgrades and transmission alternatives.

**System operations**—the minute-by-minute (real-time) control and co-ordination of the grid including management of security, dispatch of generation and reserves, and control of voltage and frequency.

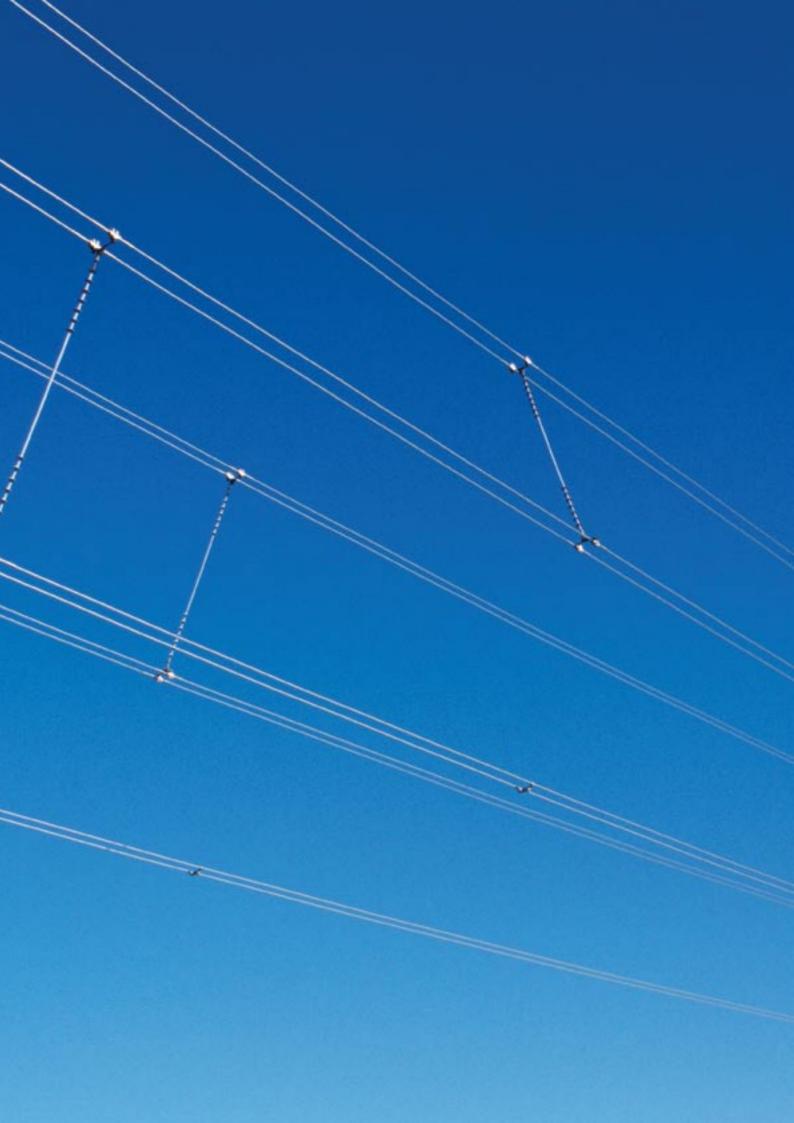
**System Operations Committee**—a committee of the Board.

System Operator—the service provider responsible for scheduling and dispatching electricity in real-time, and avoiding fluctuations in frequency or disruption of supply.

Undesirable trading situation (UTS)—arises when there is a threat to orderly trading or settlement that cannot be resolved satisfactorily under the Rules. The Commission can investigate any potential UTS and take certain actions it considers appropriate.

**Undesirable Trading Situations Committee**—a committee of the Board.

Winter energy margin—expected available generation (after allowing for planned and unplanned outages, available thermal fuel and transmission constraints) minus expected demand (as a proportion of expected demand for the winter period (April to September)). For the purpose of assessing expected available hydro, mean inflows will be used. For the purposes of assessing expected available wind generation, long-run averages will be used.



Secure and reliable electricity supply is vital to all New Zealanders. The national grid, owned and operated by Transpower New Zealand, transports electricity from the generation stations to the local networks. Transpower is going through a major period of investment in the national grid to continue to maintain reliable and efficient supply.

Because the national grid is a monopoly, one of the Electricity Commission's core functions is assessing Transpower's proposed investments. The Commission applies a cost-benefit test to proposals to ensure that the transmission infrastructure is not 'overbuilt', which would result in higher electricity prices than are needed.



# **Electricity Commission**

Te Komihana Hiko

### New Zealand Government

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#### **Directory**

Electricity Commission

Te Komihana Hiko

Level 7, ASB Bank Tower, 2 Hunter Street

PO Box 10041, Wellington 6143, New Zealand

Telephone + 64 4 460 8860

Facsimile + 64 4 460 8879

www.electricitycommission.govt.nz