Annual Report
2006/07

Electricity Commission
Te Komihana Hiko

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 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.

Report of the

Electricity Commission

for the year ended 30 June 2007

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

Electricity Te Komihana Hiko Commission

Abbreviations used in this Annual Report

Act	Electricity Act 1992
BA	benchmark (transmission) agreement
CDS	centralised dataset
CFL	compact fluorescent lamp
Commission	Electricity Commission
CO_2	carbon dioxide
DSM	demand-side management
EECA	Energy Efficiency and Conservation Authority
EGR Committee	Electricity Governance Rules Committee
GEM	generation expansion model
GIT	grid investment test
GPS	Government Policy Statement on Electricity Governance (October 2006 update unless otherwise stated)
GUP	grid upgrade plan
GWh	gigawatt hour
HVDC	high-voltage direct-current
IGE	interim grid expenditure
kV	kilovolt
M-co	Marketplace Company Limited
Minister	Minister of Energy
MED	Ministry of Economic Development
MOU	memorandum of understanding
MW	megawatt
MWh	megawatt hour
NZEECS	New Zealand Energy Efficiency and Conservation Strategy
NZES	New Zealand Energy Strategy
OIA	Official Information Act 1982
PCE	Parliamentary Commissioner for the Environment
Regulations	Electricity Governance Regulations 2003
RMA	Resource Management Act 1991
Rules	Electricity Governance Rules 2003
SMI	system minutes interrupted
SOI	statement of intent
SOO	statement of opportunities
SOSPA	System Operator service provider agreement
Transpower	Transpower New Zealand Limited
TPM	transmission pricing methodology
UTS	undesirable trading situation

Contents

Outline

This Annual Report is the Electricity Commission's (Commission's) formal report to Parliament against its Statement of Intent 2006–09 (SOI). The Annual Report provides information on what the Commission has done to:

- advance the principal objectives and specific outcomes as set out in the Electricity Act 1992 (the Act);
- address the requirements of the Government Policy Statement on Electricity Governance (GPS); and
- deliver the outputs set out in the SOI.

Foreword

Provides a summary of significant issues and Commission achievements.

Part one—review of operations

Provides an overview of key highlights of the Commission's operations for the year.

Part two—the Electricity Commission

Provides an outline of the governance and management of the Commission, the Board membership and the Commission's roles and responsibilities.

Part three—Commission results sought

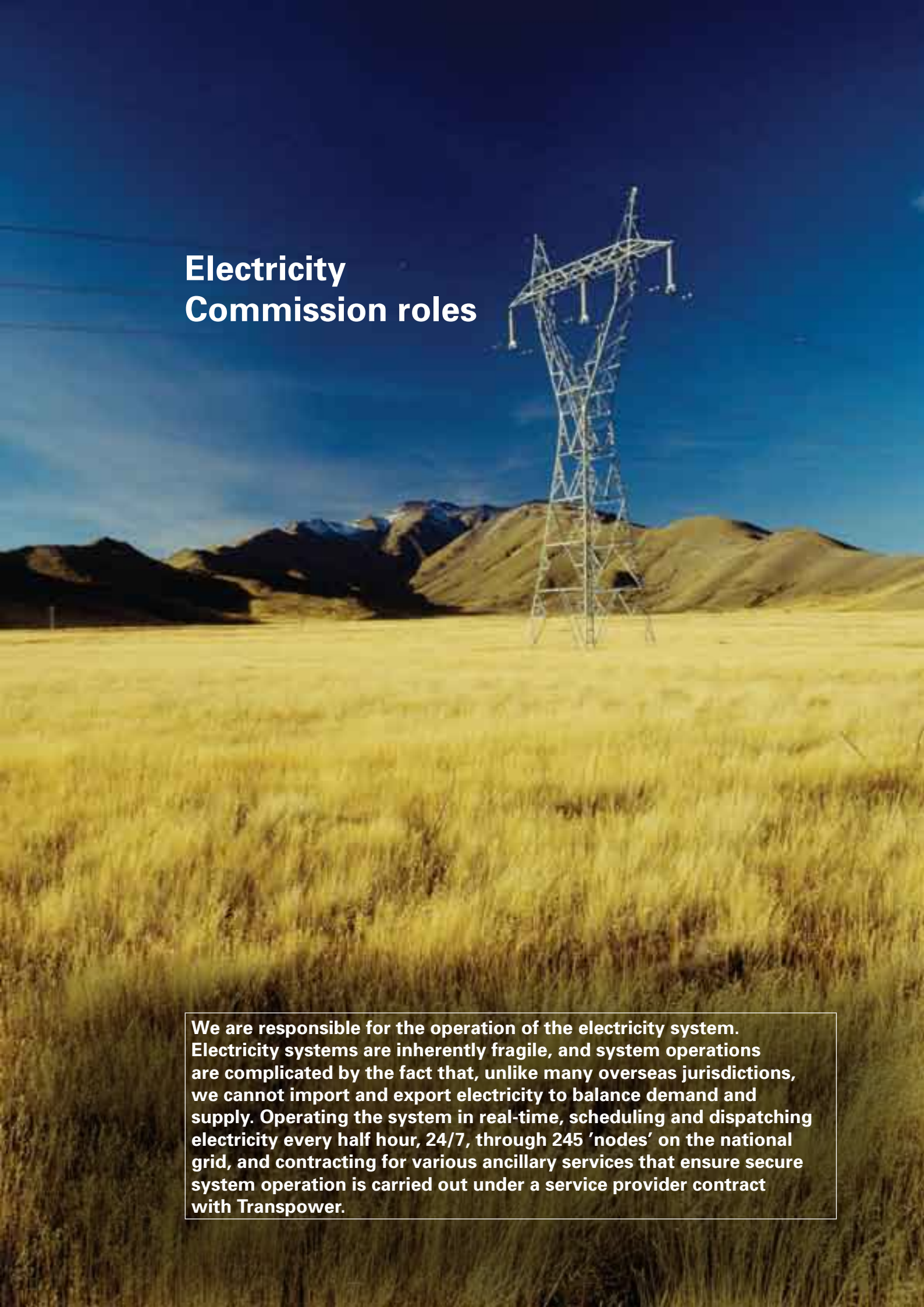
Provides an explanation of the results sought by the Commission and identifies a range of electricity indicators.

Part four—performance information

Specifies the financial and non-financial performance that the Commission has achieved across its statutory functions. The statements in this part have been audited by Audit New Zealand.

Part five—organisation information

Addresses statutory reporting requirements for the governance and management of the organisation and provides information about the Commission's structure, its advisory groups, and a glossary of commonly used technical terms.



Electricity Commission roles

We are responsible for the operation of the electricity system. Electricity systems are inherently fragile, and system operations are complicated by the fact that, unlike many overseas jurisdictions, we cannot import and export electricity to balance demand and supply. Operating the system in real-time, scheduling and dispatching electricity every half hour, 24/7, through 245 'nodes' on the national grid, and contracting for various ancillary services that ensure secure system operation is carried out under a service provider contract with Transpower.

Electricity Commission roles

We are responsible for administering the wholesale and retail markets.

Every day bids to buy and offers to sell electricity are made in about 12,000 distinct wholesale 'markets'. Around $2.6 billion of electricity was traded on the wholesale market in the 2006/07 financial year. For that to happen, we need a capacity to set final prices, a system to reconcile accounts, and a process for settling accounts.

In the retail market, the Commission maintains a register of points-of-connection for consumers. This register enables consumers to switch retailers and retailers to access the information they need to facilitate the switching process.

These complex wholesale and retail market operations are carried out through a variety of service provider contracts that we oversee.

[The service provider contracts for system and market operations absorbed two-fifths of our budget this year.]

Electricity Commission roles

The Commission has a general obligation to ensure that the supply of electricity is reliable, without undue interference with the operation of the market. Although historically this has focussed on the adequacy of the supply of energy in a system dominated by hydroelectricity generation ('dry-year risk'), increasingly the focus of attention is on the capacity of the system to meet peak demand. Specifically, we assess and monitor the adequacy of the generation system in relation to forecast demand, and if necessary can contract for the supply of reserve energy. The main cost of maintaining a security reserve is the payment for the Whirinaki generation facility, which is a very significant 32 percent of our operating costs.

Electricity Commission roles

We invest in energy efficiency initiatives. We have the view that energy efficiency investments funded out of the levy need to be justified by establishing that the returns are greater than the cost of investing in new generation. This ensures that in the longer-term there is a net financial gain to levy payers. (The efficient lightbulbs project is an example.) Under existing policies, investments to capture other gains (social or environmental) are quite legitimate, but need to be funded from other sources. Because we have applied this standard, efficiency investments will build slowly as proof of concept is established, but we expect that establishing the credentials of the programme will allow it to plateau at a higher level than would otherwise have been likely. We spent 6.5 percent of our budget on efficiency programmes, but expect this to rise over time.

Electricity Commission roles

The Commission is an information provider, facilitator, advisor and regulator. These activities cover a wide range of facets of industry activity: approving transmission investments; developing standards for operation of and connecting to the transmission network; establishing a method for recovering the costs of transmission services; developing model contracts for consumers; establishing guidelines and protocols around the way retailers deal with customers; administering the rules that regulate market operations; reviewing the operation of the market and so on. These functions take up a fifth of our total budget.

Peter Harris Deputy Chair

Foreword

This was a satisfactory and productive year for the Commission. There were no significant disruptions to the operation of either the system or the market. We did not need to mount any emergency conservation campaigns. We also made substantial progress on many of the legacy issues that had proved to be intractable during the period of industry self-regulation, and that absorbed an enormous amount of time and resource during the Commission's establishment phase. There has been a major 'clearing of the decks' of issues that have created continued uncertainty for industry participants.

- The transmission pricing methodology has been finalised and will apply from 1 April 2008.
- The benchmark (transmission) agreement (a default contract) for the terms on which Transpower and its direct customers contract, and the interconnection rules (which govern the operation of the interconnected assets in the grid) have been concluded.
- The reconciliation rules have been completed. These rules cover how much electricity is sold by each retailer in each area of the country, and are fundamental to effective competition. Reconciliation has been problematic for a number of years.

The Commission has established and refined processes for dealing with development issues that the industry faces. This should give confidence that the Commission is an authoritative regulator with the capability to improve the structure and operation of an efficient, fair, reliable and environmentally sustainable electricity sector.

Without covering all examples of constructive progress, I would highlight:

- The approval of a major upgrade of the transmission line from the central North Island into Auckland (Whakamaru to Pakuranga).
- The approval of a proposal to increase diversity and reliability in the Otahuhu substation, on which Auckland is and is likely to remain critically dependent.
- Substantial progress on understanding the issues that will need to be managed as wind generation becomes more important in the generation mix, and in facilitating the connection of wind generation to the transmission system.
- Improved pricing rules that should deal with the episodic problem of extreme high prices generated by what is know in the industry as the 'high spring washer effect'.
- Significant effort on metering and how it can capture the potential of more effective management of load, which should facilitate a much greater contribution from the demand side to an efficient and environmentally sustainable system.
- Distributing 2.4 million efficient lightbulbs, and another 0.8 million by September 2007. Together, this 3.2 million CFL will save about 272 GWh of electricity a year, reduce peak electricity demand by 79 MW and save 1.23 million tonnes of CO_2 over the life of the lamps.
- Moving towards a single consumer complaints scheme.
- Letting contracts for five of the service provider roles through a competitive tender process, the outcome of which is highly beneficial to the consumers who ultimately pay for them.

- Completion of significant work to improve information availability and modelling resources. Ultimately, this is likely to be one of the most enduring contributions that the Commission makes to an effective electricity industry: an authoritative and reliable set of information and analytical supports will facilitate timely and efficient decisions on investment in generation, transmission, demand management and energy efficiency.

A fuller list of activities and achievements is in the body of this report.

There were two substantial reflective activities initiated during the year. The first was a review of the security of supply policy and the second was a review of market design. These are two areas that are central to an effective and reliable system. While the Commission does not authorise investments or set prices, both activities are critical to the reliability and price outcomes of the system. The reviews will identify if changes to the operation of the market can reduce barriers to its effectiveness.

There were three controversial events that impacted on us during the year.

We decided not to produce the Statement of Opportunities (an important industry planning document) as scheduled, because it could have been made obsolete once the New Zealand Energy Strategy was released. The Statement of Opportunities will be updated and published once all of the energy strategy documents have been finalised.

The North Island grid upgrade plan aroused strong sentiment within the impacted communities. The Commission carried out a number of briefings, hearings and public conferences to create opportunities for those sentiments to be expressed, and for the proposal to be subject to full scrutiny. We recognise and respect those genuine concerns, and many of them were factored into and influenced our final decision. However, many of the concerns related to Resource Management Act issues, and will be dealt with in the appropriate jurisdictions.

Late in the financial year there was a major controversy surrounding disconnection practices in the retail electricity sector. This brought the existence and operation of our guideline on arrangements to assist low income consumers into the public spotlight. We were able to work quickly with participants, consumer representatives, and government and social agencies to improve the guidelines and to establish monitoring arrangements to assess whether or not they will require regulatory back-up to be effective. The end target is that disconnection should genuinely be a last resort, and that those who are critically dependent on electricity should never be disconnected. The industry, health authorities, social agencies, the Commission and consumers themselves all have responsibilities to contribute to the achievement of that end target.

This year the Commission constructed a solid platform for the future. In large measure we have dealt with the legacy issues we inherited and moved through the establishment phase of the new regulatory regime.

I would like to acknowledge the enormous commitment of intellect, time, passion and energy of my colleagues, and thank them for their personal support for me. We are proud of the contribution of our staff and external advisers, and salute the continued engagement of various stakeholders to the participatory processes that we are determined to sustain.

There are still many issues to be faced. Transmission augmentations into North Auckland and the north, and into the upper South Island, and the future configuration of the high-voltage direct-current link between the North and South Islands are under active consideration. We need to facilitate the development of renewable forms of generation and to encourage more active demand-side participation in the market. There is much that can be done through additional investment in energy efficiency. In addressing these, and other issues, I am confident that the Commission will continue to make the vital contribution it has made to date to an industry that is central to the social, economic and environmental wellbeing of New Zealand.

Peter Harris,
Deputy Chair

Part one
review of operations

Mervyn English General Manager

Review of operations

The last year has seen the Electricity Commission complete several major projects, some of which have been in development and consultation for more than a year. The Commission is now giving greater priority to forward-looking projects and setting a sound basis for the electricity sector's future.

Against this background several major projects commenced in 2006/07 that could influence the electricity sector for many years to come. These projects include the market design review, the load management project with its metering and distribution losses components, and the wind generation implementation project (WGIP). All of these projects have required a high level of engagement with the industry and wider stakeholders.

The Commission's work needs the constructive input of stakeholders. The input of many parties—from advisory groups, to companies and to individuals —is very much appreciated.

Good, open dialogue with industry, consumers and other stakeholders helps broaden and deepen our understanding of issues. Improved understanding of issues means that our analysis and decision making produce robust solutions. These solutions could not be developed without the commitment of the many parties who contribute.

The Commission's perception is that, as we have all moved beyond the initial growing pains of a new governance model for the sector, relationships have matured and this is further contributing to improved dialogue about various issues.

The interconnected nature of the electricity sector means that ongoing care is required to manage project scope. More dialogue with interested parties means that the potential for projects to get bigger and bigger is magnified by requests to address associated issues. The Commission has had to take considerable care to draw boundaries on work to enable both completion of projects and sensible solutions.

A good example of this is the benchmark agreements—a complex project with major financial implications for many participants. It was inevitable that this project would take time and it needed careful management of project scope, which is expected to be an ongoing task.

The Commission continues to manage a large work programme. The major work areas of the Commission's work plan are outlined below along with the more significant projects. While areas such as transmission continue to be important, greater attention is being given to issues such as system operations, retail and consumer issues. The detail of work completed is outlined in part four of this report.

Transmission

Two major proposals for new transmission investment were addressed during the year: the Whakamaru to Pakuranga line into Auckland; and the upgrade of the Otahuhu Substation. These projects have estimated costs of $824 million and $99 million respectively. The Commission also approved several smaller projects. Since 2004 grid investment projects worth approximately $1.2 billion have been approved.

Following its initial proposal earlier in the year, Transpower put in a new proposal for the Whakamaru to Pakuranga line at the end of October. The Commission released a notice of intent to approve at the end of January 2007. The Commission's final decision in June to approve the project followed careful analysis and consultation, public meetings, and a final public conference.

To date the Whakamaru to Pakuranga project is the single biggest investment the Commission has had to consider and, coming very early in the new regulatory regime, presented a significant challenge. Following the completion of this project the Commission has worked with Transpower to develop a policy covering the processes for assessing grid investment proposals. While the policy was not finalised during the year being reported on, many aspects of it have been implemented and are assisting the expeditious assessment of grid investments.

The benchmark agreements and transmission pricing methodology—both multi-year projects—were two other key projects that were completed during the year.

Common quality and system operations

The strategic wind project, which is addressing longer-term implications for the integration of intermittent generation into the power system, made significant progress during the year.

As confirmed by the New Zealand Energy Strategy, wind will be an important generation source in the future. Wind power can behave differently from other forms of electricity generation and so some aspects of the electricity system will require strengthened management techniques. Experience from overseas has shown that development of wind generation projects has been halted if these issues are not proactively managed.

The Commission commenced the strategic wind project some time ago to ensure there is flexibility in the system to accommodate new wind generation. The release of the Government's energy strategy, with a goal of increasing the proportions of renewable generation, means that this project will continue to have a high priority.

A series of investigations has shown that issues such as forecasting and frequency management need additional management as wind generation capacity grows. The investigation reports were published for comment in July 2007. Options to address the issues identified are already in development and will be consulted on in 2007/08.

A tactical wind project, addressing shorter term implications (one to two years) for the integration of intermittent generation into the power system, was completed. The associated rule amendments came into force on 1 March 2007.

The Commission and Transpower began working together on reviewing the System Operator service provider agreement (SOSPA), with a view to consulting on a proposal on any changes to the current arrangements, including the fee basis, during the 2007/08 year.

This is the first time that the SOSPA has been reviewed in such a way. The current SOSPA contract is valued at over $21 million, a significant portion of the Commission's budget. The Commission is currently examining Transpower's proposal and business case for fee changes. Once this task is complete, the Commission will consult with levy payers if a fee increase is thought to be necessary.

Security of supply

The Commission contracted an independent third party (Castalia) to review the efficiency and effectiveness of the reserve energy policy in meeting security of supply objectives while minimising distortions to investment incentives in the ordinary market. A consultation document was published in March, and submissions received and a public conference held in April. The final report was released in May 2007.

The National Winter Group was convened by the System Operator to review and monitor energy balance issues for winter 2007, for which the Commission played an active support role. A discussion paper on issues arising out of the 19 June 2006 grid emergency was published by the Commission in August 2006 and was used as an input to the group's work. The group provided a report to the Commission's Board in October 2006.

Retail

Load management is a substantial project, due to the complex relationships within the industry and the interest of a significant number of consumers, particularly as advanced metering is part of the project.

The first stage of the project has been completed —a stock take of current assets available for load control, mainly ripple control of hot water cylinders. Stage two—seeking to establish a price value for interruptable load—is well underway with a consultation paper released. This stage will assist understanding of the appropriate load management options in various situations.

Stage three has commenced with an advanced metering consultation paper published in June 2007. The Commission believes that good progress on a metering strategy is a priority so that there is a clear basis for investment in new technology. This project is therefore looking at whether guidelines for a minimum meter standard are necessary.

New reconciliation arrangements were finalised in November 2006. These arrangements enable the amount of electricity sold by different retailers to be reconciled to the amount generated with greater confidence that costs are being fairly apportioned amongst generators and retailers. This work has required a substantial joint effort by members of the industry and the Commission.

In June 2007 the Commission reviewed its guideline to assist low income consumers, following significant public attention on retailers' disconnection processes. A range of stakeholders assisted with this review, showing a high level of co-operation and commitment. A new version of the guideline was developed with retailers, social agencies, and consumer representatives, and was implemented in July 2007.

Wholesale

The major project initiated in 2007 was the market design review. As a first step the Commission released an issues paper that contains what is possibly the most comprehensive collation of information about the electricity industry in a single document. The responses to the paper are being assessed in deciding the scope of work that will be taken forward.

The next stage will be publishing an options paper for discussion. This paper will look at the main issues identified in responses to the issues paper. Again, due to the potential interest in this project, the Commission will be looking to engage as widely as possible. This work is not expected to be completed until 2008.

Significant progress has been made on developing hedge markets. Consultation papers were released in July 2006. A key issue emerging from consultation was that consumers were cautious about entering hedge arrangements as they felt they lacked information about what was a reasonable price.

The Commission has drafted rules that propose that participants publish key details of their electricity risk management contracts to allow comparison of offer prices and other key risk management terms. Improved information should also allow parties to assess the overall competitiveness of the electricity risk management market.

Modelling

The modelling team has been very busy throughout the year. A major focus has been the economic analysis of grid investment proposals, often in relatively tight timeframes.

The modelling team contributed to the Ministry of Economic Development's analysis in the development of the New Zealand Energy Strategy (NZES). The team also contributed to the development of the New Zealand Energy Efficiency and Conservation Strategy (NZEECS) by the Energy Efficiency and Conservation Authority (EECA).

The modelling team plays a significant part in the development of the Statement of Opportunities. The team had done considerable work in this area until it was decided that any release of a new Statement of Opportunities needed to be delayed until the New Zealand Energy Strategy was finalised.

The centralised dataset is a comprehensive series of electricity statistics including information such as electricity flows in the grid and lake inflows. Anyone can use the information to analyse various

aspects of the New Zealand electricity system. It is apparent that potential investors are making more and more use of this data, which has continued to be developed and updated.

Another tool that has been developed to stimulate innovation in the sector is the generation expansion model (GEM). The Commission developed this model and released it for public use so that interested parties could more easily model the interaction of transmission and potential generation investments.

Electricity efficiency

The Commission is developing programmes that deliver efficiency gains for less than the cost of additional generation. The Commission has a particular focus on using existing commercial networks and suppliers to deliver programmes so that over time the capacity, skills, and knowledge to enable electricity efficiency activities across New Zealand are continuously developed.

An example is the continued progress of our compact fluorescent lamp (CFL) programme. This programme is being implemented through a variety of existing distribution channels and bulb suppliers, with high profile campaigns through major supermarket, service station and hardware chains delivering high volumes of sales and subsequent energy efficiency gains. Incentive programmes to install CFLs saw approximately 2.4 million lamps sold by 30 June 2007.

The electricity efficiency team was reorganised to enable the development of new programmes beyond CFLs. Analytical and design work is well advanced for compressed air, electric motors and commercial buildings programmes. These programmes will be rolled out during the 2007/08 year.

A particularly important piece of work that was advanced during this year was a national lighting strategy. This work is nearly complete and involved high-quality input from parties such as the New Zealand Lighting Council and other members of the lighting industry.

The Commission also received the draft of a major report on the potential electricity efficiency savings for New Zealand by global energy consultancy KEMA. The report findings support the Commission's current work on electricity efficiency and provide useful analysis to assist with future programme development in other efficiency areas for the Commission, other government agencies and consumers. The final report was published in October 2007.

Service providers

A central task for the Commission is the management of service providers who operate the mechanical aspects of the market. This vital, and largely invisible, role accounts for a large portion of the Commission's annual budget, and effective management of these contracts is an important administrative responsibility.

As part of fulfilling that responsibility, the Commission completed a competitive tender for service providers in June and the results were announced on 2 July 2007. The agreements covered the roles of Clearing Manager, Pricing Manager, Wholesale Information and Trading System (formerly the Information System), Reconciliation Manager and Registry service providers. The tender process was a substantial task, as these services have never been specified and competitively tendered before.

The total value of the contracts is approximately $10 million a year. As well as ensuring value for money, the Commission's key focus areas were maintaining market confidence, continuity of service and increased flexibility in the contracts. These focus areas have been delivered and at lower cost in real terms for levy payers.

Relationships with others

Advisory groups play an important role in the Commission's work, making a particular contribution in enabling the testing and refinement of ideas, options and solutions. Organisations and individuals make a significant commitment when they get involved in advisory groups and the Commission appreciates that ongoing support.

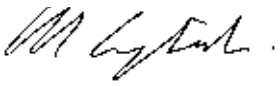
Throughout the last year the Commission has focused on providing more and higher-quality briefings to various interested parties. Electricity is invisible and the physical complexities and

interconnectedness of the system do not make for easy understanding. A particular focus has been briefings to policy makers who have a strong interest in the outcomes of the electricity market, whether for social, environmental or economic reasons. It is pleasing that there has been strong feedback that this approach is assisting policy-making processes.

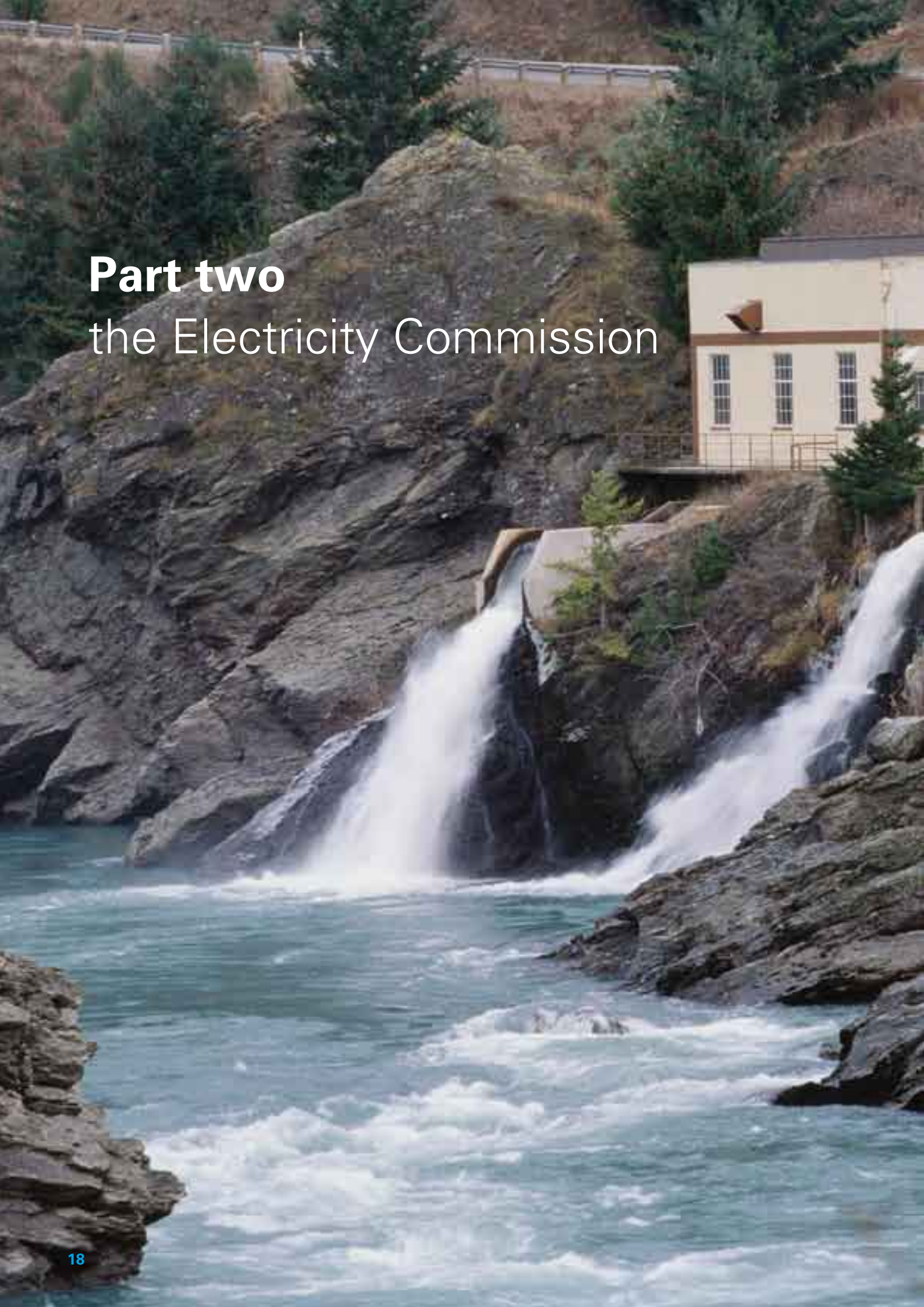
The Electricity Commission and Commerce Commission developed an updated memorandum of understanding (MOU) and an associated protocol. Both commissions consulted stakeholders. Submissions were considered and the MOU and protocol were finalised, signed and published in August 2007.

Looking ahead

In summary, it has been an eventful year, but one that has seen the Commission clear several major hurdles in the development of the regulatory framework. Having cleared them, we are now well placed to make progress in a range of other areas that have the potential to positively impact the way we manage and use electricity in the years to come.



Mervyn English
General Manager



Part two
the Electricity Commission

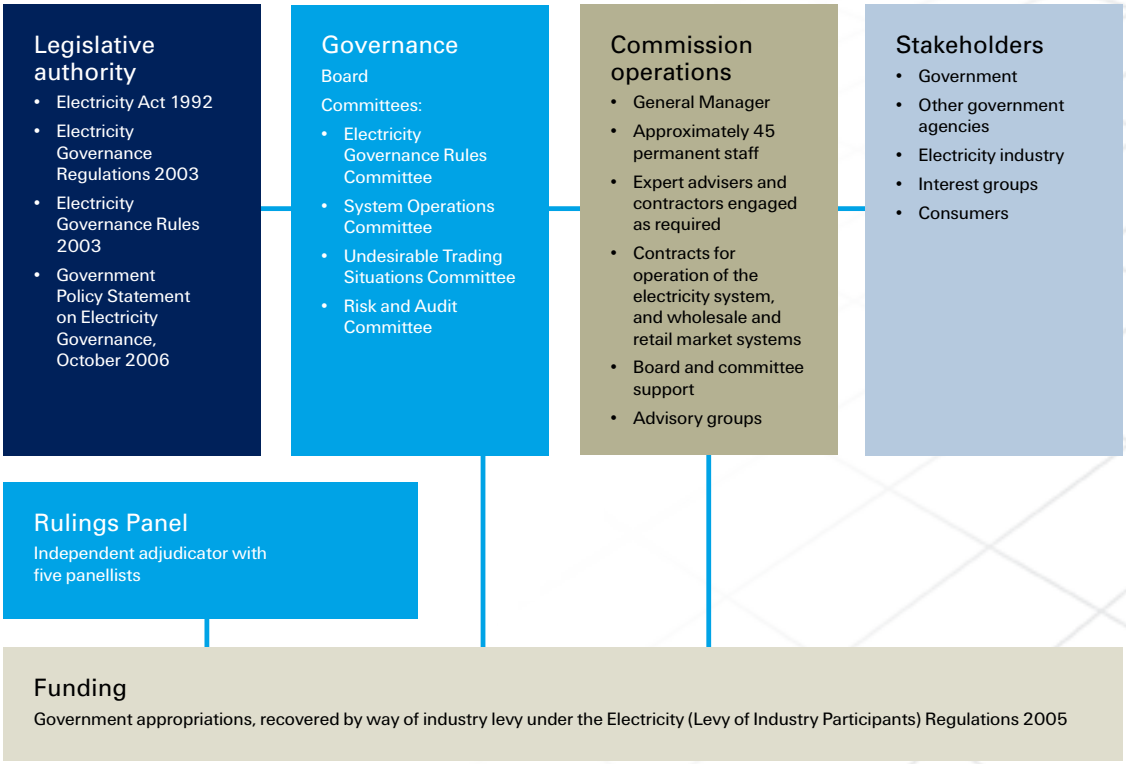
The Electricity Commission is a Crown Agent, established in September 2003. The Electricity Act 1992 (the Act) sets out the principal objectives and specific outcomes of the Commission. It also sets out the Commission's functions and the processes for establishment and amendment of the Electricity Governance Regulations 2003 (Regulations) and Electricity Governance Rules 2003 (Rules).

The Regulations and Rules set out in detail some of the obligations and responsibilities of the Commission and of the electricity industry.

The Government Policy Statement on Electricity Governance (GPS) sets out the objectives and outcomes that the Government wants the Commission to give effect to in relation to governance of the electricity industry.

The Regulations, Rules and GPS are available on the Commission's website: **www.electricitycommission.govt.nz**

Figure 1: governance, management and funding of the Electricity Commission



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 also meets 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, as at 30 June 2007, are listed below. Information on committees of the Board is provided in part five of this report.

Peter Harris, Deputy Chair

Peter Harris is the Deputy Chair of the Commission. He has been mandated by the Commission to carry out the roles and exercise the authorities and delegations normally performed by the Chair until an appointment is made. Peter Harris is an economist and has an extensive background in research, analysis and advocacy. He is a former academic and trade-union economist and has been a member of several government advisory boards. He has also been involved in national and international industry and economic development projects. He was a director of PSIS Ltd, chair of the Savings Product Working Group and a former economic adviser to the Finance Minister, the Hon. Dr Michael Cullen. Mr Harris lives in Wellington.

David Close

David Close is a former Christchurch city councillor and, former director of the national grid company, Transpower. He has a sound knowledge of the electricity industry and extensive experience as a local body politician and board member of commercial, voluntary, Māori and charitable organisations. He is deputy chairman of the Canterbury Community Trust. Mr Close lives in Christchurch.

Doug Dell

Douglas Dell trained as an engineer and has worked in the electricity industry throughout his career. His experience includes pricing, infrastructural development, marketing and operational management in the public and private sectors. He was previously assistant general manager of the former electricity division of the Ministry of Energy, and since 1990 has been an energy consultant. He was formerly a director of the electricity lines company Vector. Mr Dell lives in Auckland.

Graham Pinnell

Graham Pinnell is a sheep and cattle farmer and former professional engineer. He has a strong understanding of electricity industry governance, having been a consumer nominee on several electricity industry bodies. He has been a national board member of Federated Farmers of New Zealand, and has had close involvement in several agribusiness and public policy issues. Mr Pinnell lives in Cambridge, Waikato.

Hon. Stan Rodger

Hon. Stan Rodger is a former public servant, member of parliament, cabinet minister, and university administrator. He has been involved in public and private sector governance roles and participated in several administrative reviews. He is a former director and deputy chairman of the national grid company, Transpower. He is a director of New Zealand Post Limited. Mr Rodger lives in Dunedin.

Mr Roy Hemmingway was a Commissioner and Chair of the Board until November 2006, when his appointment expired.

On 27 September 2007 the Government announced the appointment of David Caygill as the new Commission Chair and Richard Bentley, David Bull, and Linda Constable as new commissioners. Mr Caygill took up his position on 15 October 2007. The new commissioners took up their appointments on 10 November 2007. The three new members replace David Close and Graham Pinnell, who have come to the end of their second terms, and Doug Dell who has resigned.

Electricity Commission functions

Figure 2 illustrates the Commission's functions as well as the related roles of other parties in the energy sector.

The Commission is responsible for the overall operation of the electricity system, and the various systems and services needed to operate the markets. The Commission does not carry out this work inhouse, but contracts it out to service providers (see page 81).

The Commission advises the Minister of Energy on statutory Regulations and Rules to ensure that the wholesale and retail electricity markets operate efficiently and fairly. The Commission also monitors and enforces compliance with the Regulations and Rules.

The Commission is responsible for working with the electricity industry to ensure security of supply, including contracting for reserve energy and managing security of supply emergencies, if required. To do so it collects a considerable amount of data and publishes information on the security of supply status and future need for reserve energy.

The Commission has a statutory responsibility for decision-making on Transpower's grid investment proposals. The Commission also collects and publishes information to guide investment in transmission and transmission alternatives in the form of the Statement of Opportunities (SOO). Transpower owns the national electricity grid and is responsible for planning grid maintenance and upgrades, for meeting Resource Management Act 1991 (RMA) requirements, and for the development and maintenance of the grid.

The Commission has a significant and growing role in carrying out research and delivering programmes for electricity efficiency. The Government has approved funding of $44.5 million (excl. GST) over the 2007/08 to 2009/10 years, with the goal of significantly reducing electricity demand and carbon dioxide (CO_2) emissions through more efficient use of electricity.

Commission operations

The Board determines the output priorities and these are listed as projects and deliverables in the statement of intent.

The Commission is managed by a general manager. A small professional team is employed to deliver core services.

Additional expert advice is contracted on a project-by-project basis as required.

Advisory groups assist the Commission staff on policy and operational issues.

Ongoing electricity system and market operations functions are delivered by contracted service providers.

Further information is provided in part five.

Figure 2: Electricity Commission functions

What the Commission does	What the Commission does not do	Others involved
Electricity system and market operations • Contracts and manages providers of core services for operation of the electricity system and wholesale and retail markets. **Regulation** • Administers and proposes Regulations and Rules. • Approves consumer protection mechanisms, e.g. guidelines for domestic consumer contracts and a consumer complaints scheme. • Determines the grid pricing method and contracting arrangements for Transpower and grid-connected participants. • Grants exemptions from Rules. **Regulatory approvals** • Assesses and approves (or declines) Transpower's grid upgrade plans. **Security of supply** • Uses reasonable endeavours to ensure security of supply including contracting for reserve energy. • Collects and provides information on security of supply. • Assesses the need for reserve energy and arranges for reserve energy if required. • Manages emergency conservation campaigns, if needed, to avoid material risk of supply shortages. **Oversight, monitoring and compliance** • Investigates, determines, declares and seeks remedies to undesirable trading situations. • Appoints investigators to examine alleged Rule breaches. • Appoints a Rulings Panel to decide disputes between market participants in respect to rule breaches. • Monitors the implementation of model agreements and guidelines it has issued, e.g. for domestic consumer contracts. **Information** • Collects and provides information to industry to assist with informing investment decisions on generation and transmission. • Promotes hedge markets. • Promotes wholesale and retail competition, including providing information. **Electricity efficiency** • Promotes electricity efficiency, including funding efficiency programmes. • Encourages new investment in demand-side initiatives and generation, including generation from renewables (and seeking to remove barriers where identified).	Set strategic policy for the electricity sector. Set policy or become involved in the operation of the Resource Management Act 1991 (RMA). Control prices set by Transpower and lines companies. Carry out national planning for the electricity sector or for any part of the sector (generation, transmission, distribution, retail). Approve new generation projects. Provide baseload generation. Decide whether gas, coal, wind or energy efficiency will meet new demand. Set retail or wholesale prices. Adjudicate on retail disputes. Regulate the gas industry. Set policy or national strategy for energy efficiency or conservation.	Strategic policy for the electricity sector is set by the Government with policy advice and support provided by the Ministry of Economic Development (MED). The RMA is administered by the Ministry for the Environment. The Commerce Commission has a pricing regulation function for Transpower and lines companies. Planning of the transmission network is carried out by Transpower, a state-owned company. Planning for generation investment is carried out by both state-owned and private sector companies. Baseload generation is provided by generation companies. Whether gas, coal, wind or energy efficiency will meet new demand is determined by decisions made by investors in existing and new generation. Retail and wholesale prices are determined by the market. The industry is required to establish a consumer complaints scheme. The gas industry has a co-regulatory arrangement under the Gas Industry Co Ltd. EECA is the agency responsible for leading strategy for energy efficiency and conservation.

Commission workstreams

The Commission delivers its outputs through its operational workstreams. These workstreams are explained below. The generic quality performance measure (page 42) provides a feedback loop, including ensuring that advice to the Board has regard to the principal objectives and specific outcomes as stated in the Act.

Market governance workstream

Management of compliance with the Rules and Regulations, including facilitating greater understanding of and, thereby, improved compliance with the Rules, and to identify areas of the Rules that may need change.

Transmission workstream

Development of the regulatory framework for transmission; provision of information on opportunities for investment in transmission and transmission alternatives; and decision-making on Transpower's grid upgrade plans (GUPs).

Common quality and system operations workstream

Development of the regulatory framework, polices and standards that define appropriate levels of quality for power system services that are common to all grid-connected parties; and overseeing the activities of the System Operator, which manages the real-time operation of the power system.

Retail workstream

Development of the regulatory framework for retail operations, overseeing the operation of the retail market for electricity and monitoring the performance of the service providers that operate the retail market.

Wholesale workstream

Development of the regulatory framework for the wholesale market, overseeing the operation of the wholesale market, and monitoring the performance of the service providers that operate the wholesale market.

Modelling workstream

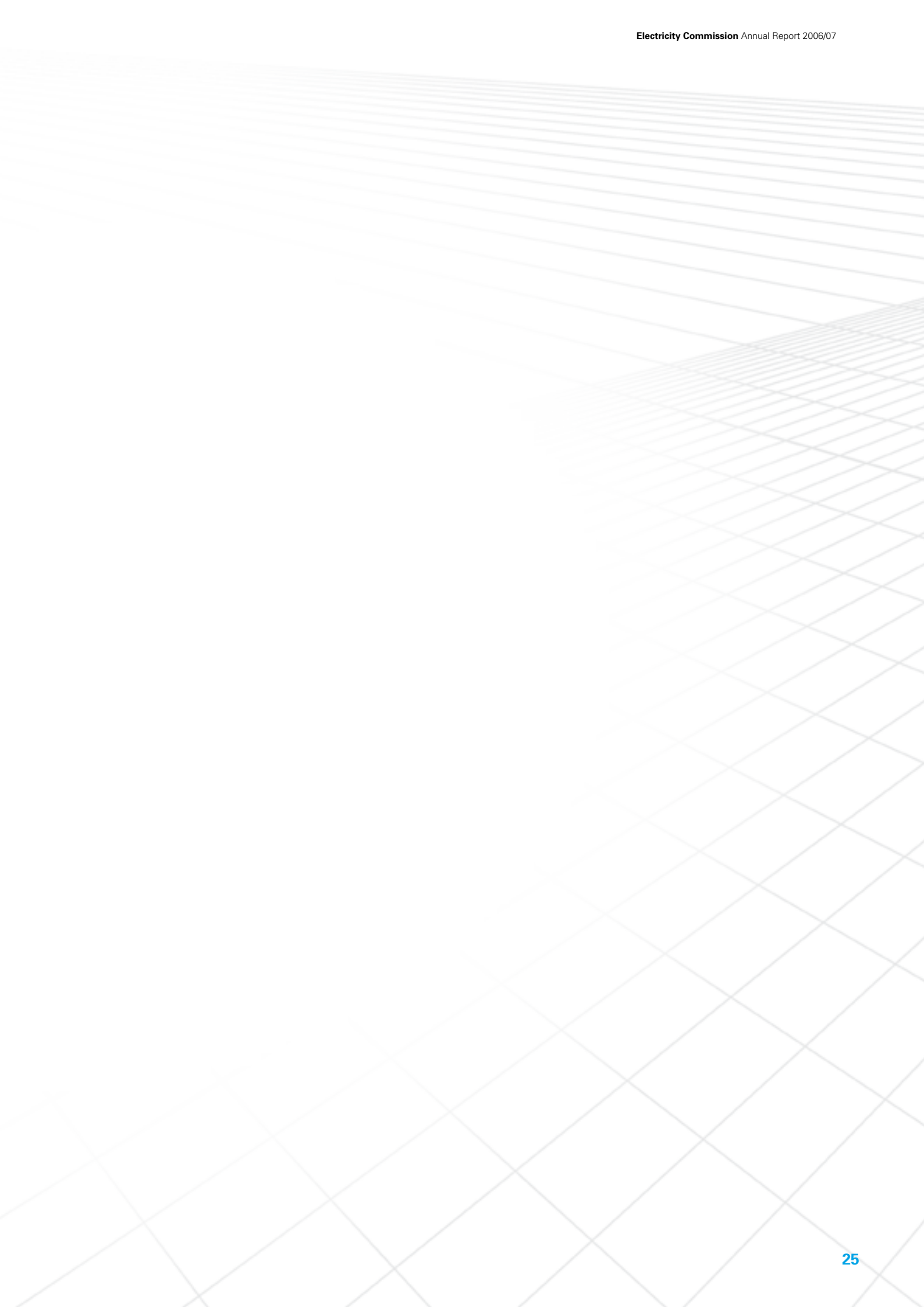
Providing analysis and modelling capability to meet the GPS information requirements (in particular, paragraph 10 of the GPS). This workstream also provides input into project work across the organisation.

Security of supply workstream

Using reasonable endeavours to ensure security of supply in a 1-in-60 dry year, without assuming any demand reduction from emergency conservation campaigns, while minimising distortions to the ordinary operation of the electricity market. Ensuring the availability of reserve energy requirements including tendering for reserve energy generation and emergency options; and delivery of power from the Whirinaki reserve energy plant, if needed.

Electricity efficiency workstream

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 measures).



Part three
Commission results sought

The outcomes (or results) being sought by the Commission are set out, as principal objectives and specific outcomes, in section 172N of the Electricity Act 1992 (see inside front cover).

The Commission has developed a planning and reporting framework that translates these high-level results into the day-to-day work of the Commission (see the 2007–10 Statement of Intent for a description of this framework). The planning and reporting framework includes:

- explanatory statements for the principal objectives in section 172N(1). These statements are set out in appendix one of this report; and
- the identification of electricity indicators, as set out below.

Electricity indicators

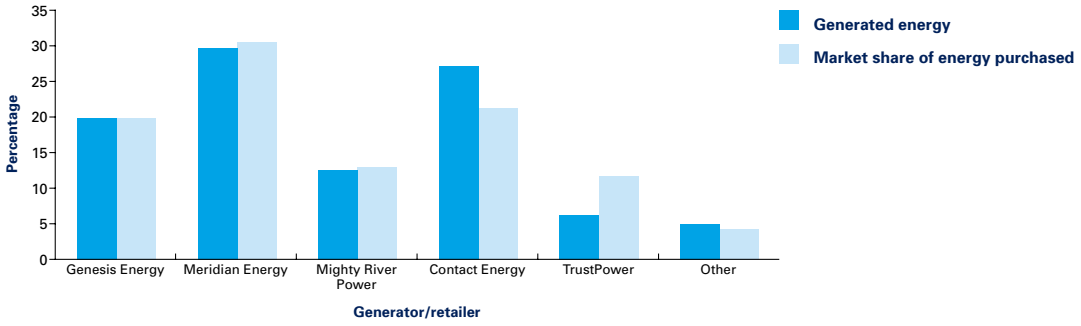
The electricity sector contributes to the overall economy of New Zealand as part of the wider energy sector. Electricity indicators provide a high-level picture of the state of the overall electricity sector and can be used to assist with decision-making on priorities for the Commission's work. The initial set of electricity indicators, below, are expected to be further refined over time.

Consistent with the Government's emphasis on managing for outcomes, the Commission is seeking to identify electricity indicators that relate to its principal objectives, specific outcomes and strategic priorities. These are intended to provide a high-level understanding of the current state of the sector. Where warranted, the Commission will undertake more detailed analysis in order to investigate potential issues and consider what action, if any, it should take.

Generation and retailer diversity

Diversity in generation entities and in retail providers are considered to be indicators of competition in the wholesale and retail electricity markets respectively.

Percentage of energy generated and energy purchased (for end use)



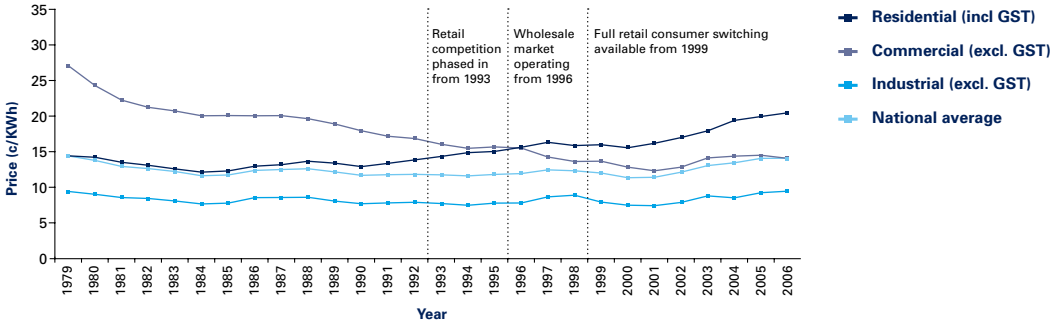
Source: Clearing Manager, data for the 12 months to March 2007

Real electricity prices

Real prices indicate the amount of price change over and above inflation.[1] From the mid 1980's to 1990's there was a significant rebalancing in prices between the residential and commercial sectors, at a time when commercial use was also growing considerably faster than residential use. There has been a real price increase for residential customers of 32 per cent between 2000 and 2006. This is significantly higher than the increases for industrial and commercial users.

1 The current Energy Data File method of adjustment for inflation uses the Consumer Price Index (CPI) for residential prices, and uses the Producers Price Index (PPI) for commercial and industrial prices. In presenting this data the Commission has followed the Energy Data File convention, which presents residential prices including GST and commercial and industrial prices excluding GST.

Electricity consumer prices (real 2006 prices)



Source: Ministry of Economic Development, Energy Data File, 2007

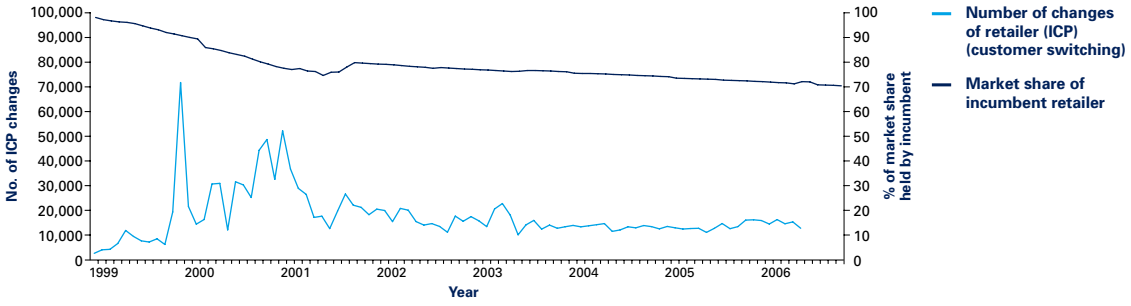
Consumer switching

At the time of deregulation all retail customers within a given region were supplied by a single retailer (the incumbent retailer). Since deregulation other retailers have been able to compete for that custom, and for new custom within those regions. The following graph shows two statistics which provide insight into customer switching behaviour.

a **Incumbent market share**—the percentage of the market that is retained by the retailer that was in place prior to deregulation. The steady decline indicates the penetration of competition into each region. It should be noted that the size of the total market continues to grow. There appears to be an ongoing trend of a slow reduction of incumbent market share.

b **ICP changes**—this graph provides an indication of the trend in customer switching. The statistic is not the same as customer switches as a change is recorded each time a consumer changes supplier, including if a consumer moves house and changes to a different retailer to the one already supplying that house (even though that may be their current retailer). However, the trend is considered to reflect the trend in customer switching activity over time. Since 2002, switching has been reasonably stable.

Customer switching and percentage of the customers (ICPs) retained by the incumbent retailer



Source: Electricity Commission, ICP statistics

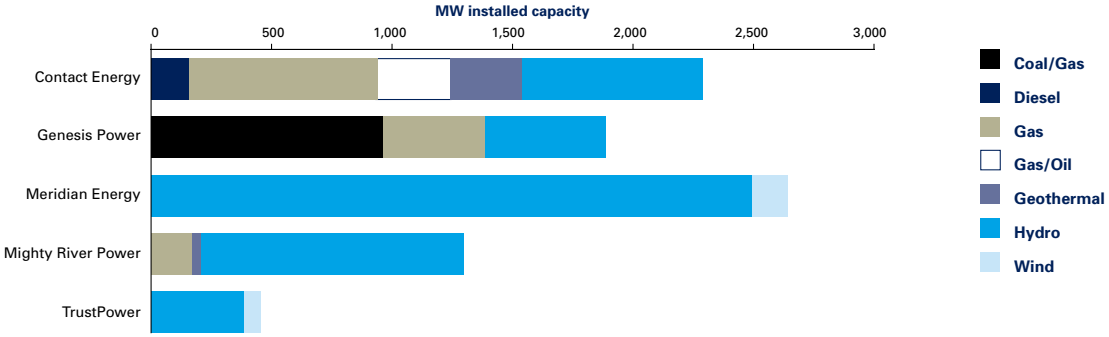
Generation capacity mix

The diversity of generation types is considered an indicator of system security, since diversity indicates reduced risk from reliance on individual energy sources.

The graph below is based on 2006 capacity data for generation plant 10MW or greater.

The graph illustrates that New Zealand has several large generators and relatively diverse generation types. The large generators are all the product of the split-up of the previous New Zealand Electricity Corporation. Smaller generators include industrial co-generation plant, micro-hydro and single wind turbines etc., which takes a proportion of load off the overall system and provides some additional flexibility in management of load.

Top 5 generators—capacity and type



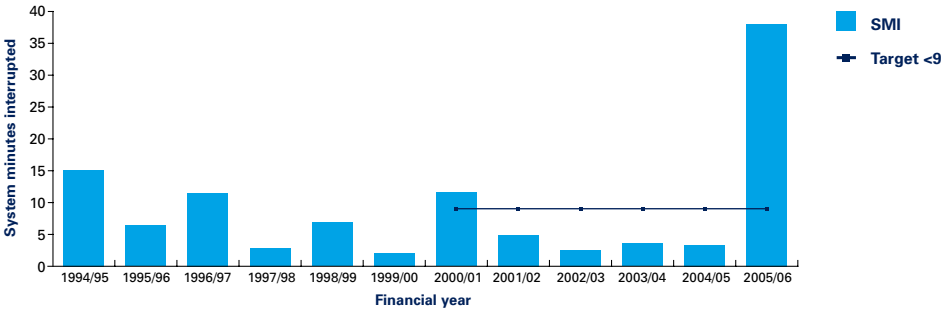
Source: Ministry of Economic Development, Energy Data File, 2007

National grid reliability

The electricity delivery system consists of the transmission grid and the distribution network. The extent of interruption of supply is a commonly used indicator of the reliability of these systems.

System minutes interrupted (SMI) is an internationally used indicator of transmission system reliability. This information is reported by Transpower NZ limited in its annual reports. Transpower has an SMI target of less than nine minutes. SMI is calculated by dividing the MW minutes actually interrupted by the total instantaneous demand in MW. The breach of the target for 2005/06 is attributed to a single outage at Otahuhu, which disrupted power to parts of Auckland for several hours on 12 June 2006.

Transmission system minutes interrupted (SMI) (underlying + significant)



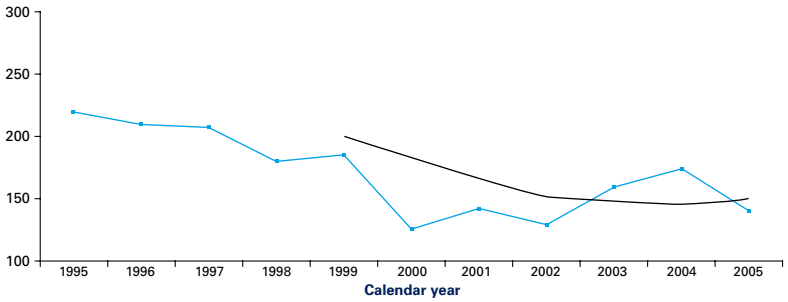
Source: Transpower Ltd annual reports

Distribution network reliability

Distribution network outages are those most likely to directly impact consumers. Reliability in this area is therefore significant to consumers.

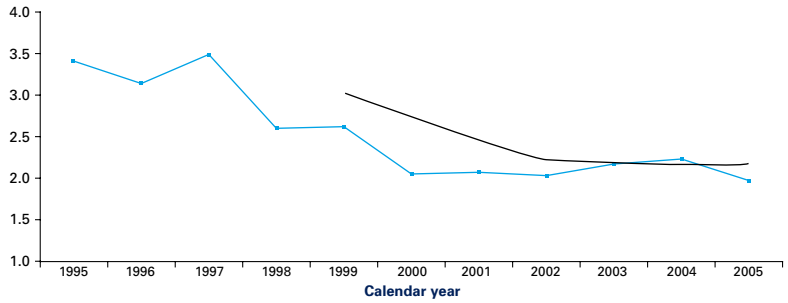
There are three commonly used indicators of distribution network reliability, referred to as SAIDI, SAIFI and CAIFI. Distributors are required to provide this information to the Commerce Commission and the data is subsequently published and included in the Ministry of Economic Development's Energy Indicators publication.

System average interruption duration index (SAIDI) (national weighted average)



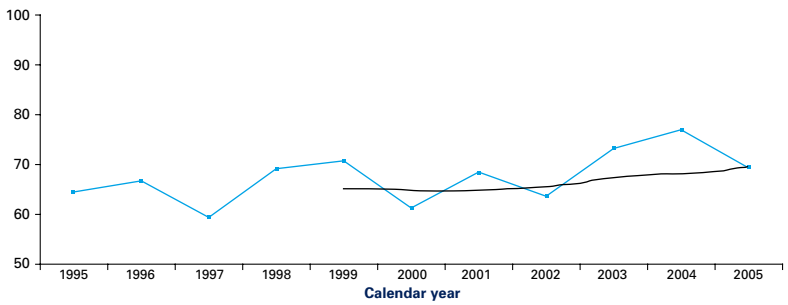
SAIDI indicates the total amount of time (in minutes) the average customer is without supply over the course of a year.

System average interruption frequency index (SAIFI) (national weighted average)



SAIFI indicates how often a customer, on average, experiences an outage during the course of a year.

Customer average interruption duration index (CAIDI) (national weighted average)



CAIDI indicates the average duration of a single outage (in minutes).

Source: Ministry of Economic Development, New Zealand Energy Indicators, 2006

Estimated dry year energy supply margins

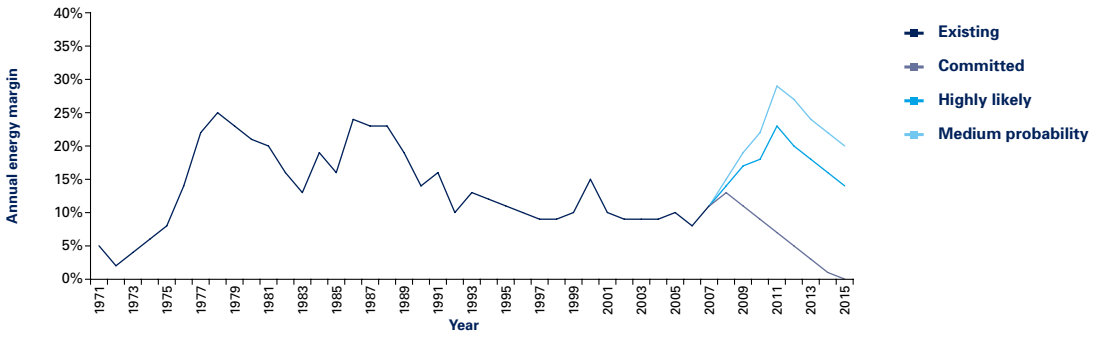
The proportion of available generation in excess of demand (energy supply margin) is a key reliability indicator. Due to about two thirds of New Zealand generation coming from hydro stations with relatively small storage capacity this supply margin is assessed in relation to a 1-in-60 dry year.

The lead time involved in planning, consenting, procuring and constructing new power generation plant requires that consideration must be given to dry year supply margin several years in advance.

The graph below has two sets of related information:

- the historic information reflects actual supply margins over past years, and
- data on new generation projects several years out, categorised as either committed (including those being constructed) highly likely, or medium probability. This information, combined with projected demand, is used to project supply margins into the future.

Estimated dry year energy margin



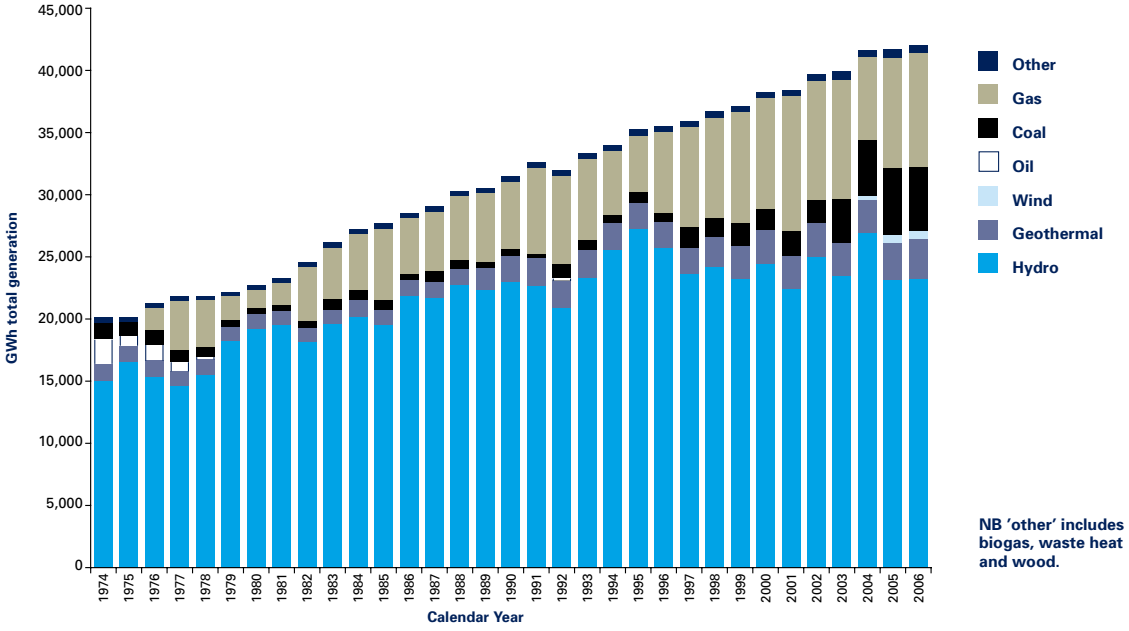
Source: Electricity Commission, Market Design Review Issues Paper, May 2007

Generation from renewable sources

The GPS puts significant emphasis on environmental sustainability and increasing electricity generation from renewable sources.

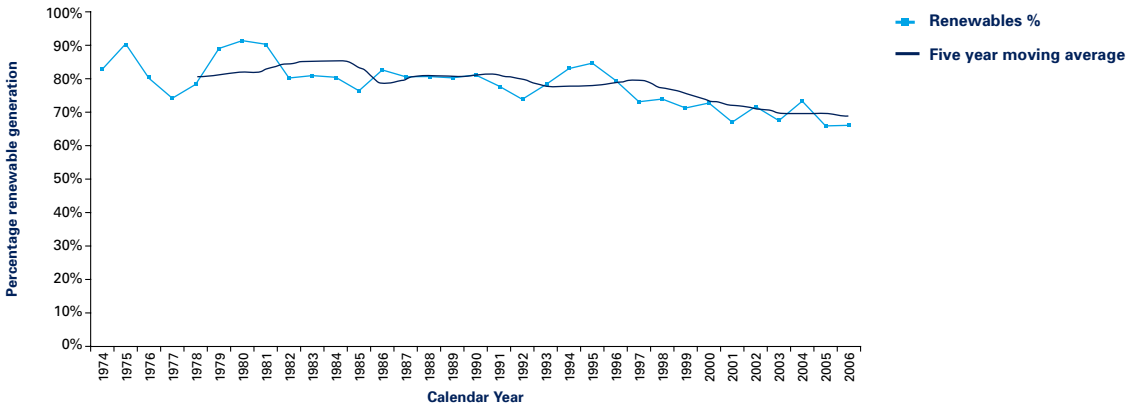
Some variation is expected in renewable generation due to factors such as rainfall, particularly with a high proportion of renewables coming from hydro sources. The commissioning of the Huntly e3p plant is expected to displace coal with gas generation.

Net electricity generation by fuel type



Source: Ministry of Economic Development, Energy Data File, 2007

Percent of net electricity generation from renewable resources



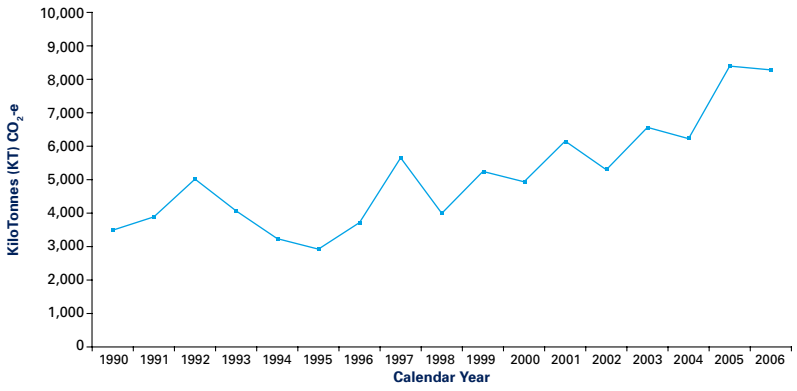
Source: Ministry of Economic Development, Energy Data File, 2007

Greenhouse gas emissions from electricity generation

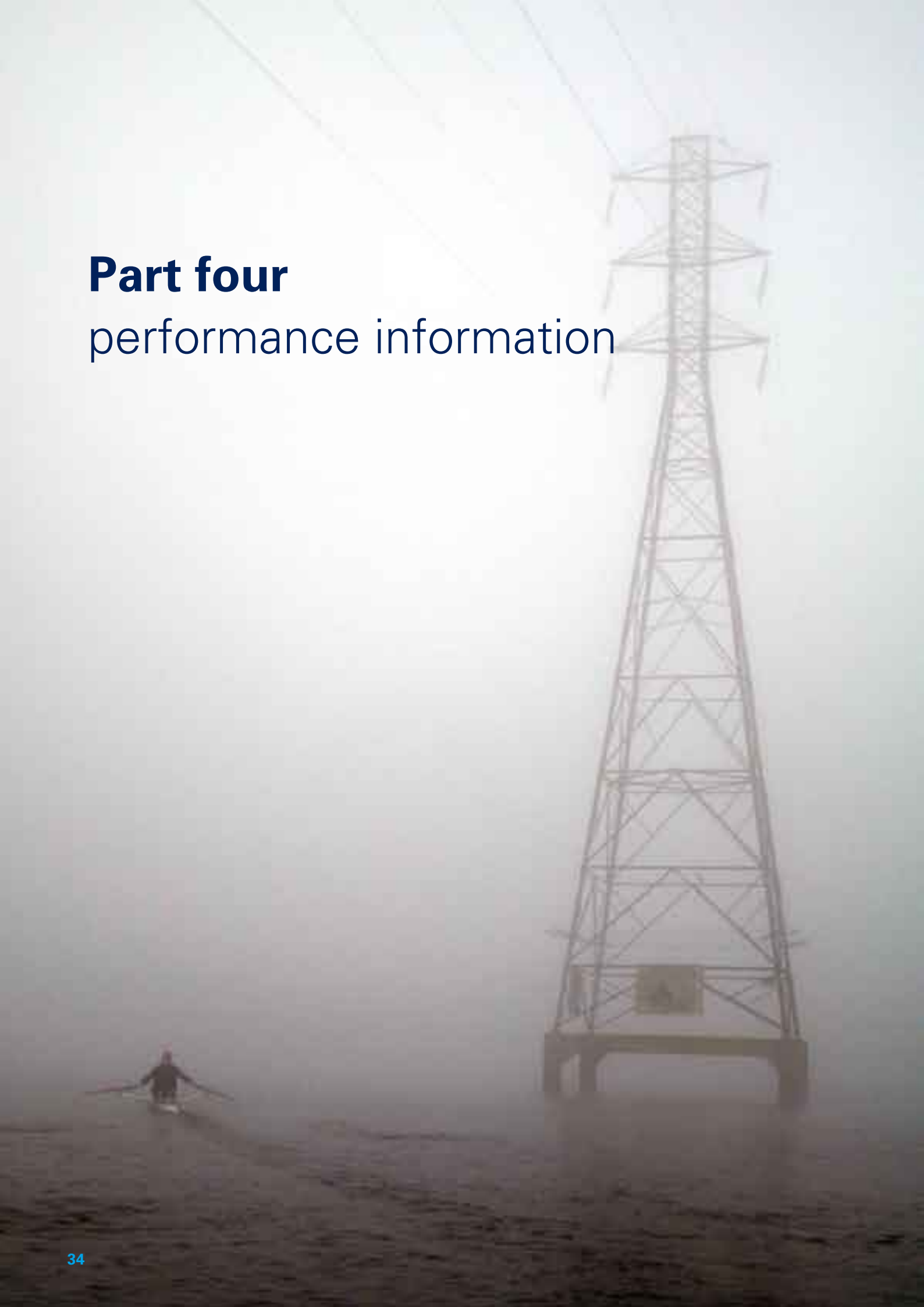
About two thirds of New Zealand's electricity production comes from hydro power stations, but there has been an increasing proportion of fossil fuelled electricity generation, initially from Maui gas and increasingly from coal. This means that electricity sector emissions have been growing. The CO_2 equivalent output from electricity generation in New Zealand has approximately doubled from 1990. Thermal generation reliance has moved from being primarily a 'backup' to renewables for peak demand and dry periods, to being essential to meet general demand.

The commissioning of the Huntly e3p plant is expected to displace coal with gas generation and result in a net reduction of CO_2 equivalent output over the medium term.

Thermal electricity generation gross CO_2 equivalent emissions



Source: Ministry of Economic Development, New Zealand Energy Greenhouse Gas Emissions 1990–2006



Part four
performance information

Statement of responsibility

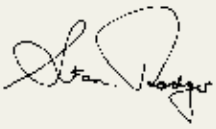
Pursuant to the Crown Entities Act 2004, we acknowledge responsibility for the preparation of the statement of service performance and financial statements included in this part of the Annual Report, and for the judgments used in them.

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 reporting.

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 2006 to 30 June 2007.

Peter Harris
Deputy Chair

31 October 2007



Stan Rodger
Commissioner

31 October 2007

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 2007

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 2007, 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 59 to 73:

- comply with generally accepted accounting practice in New Zealand; and
- fairly reflect:
  - the Commission's financial position as at 30 June 2007; 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 40 to 58:

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

The audit was completed on 31 October 2007, and is the date at which our opinion is expressed.

The basis of our opinion, which refers to the desirability of enhancements to the information on performance against the GPS objectives and outcomes, is explained below. In addition, we outline the responsibilities of the Board and the Auditor, and explain our independence.

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.

Desirability of enhancements to information on performance against the GPS objectives and outcomes

In forming our opinion on the information on performance of the Commission against the GPS objectives and outcomes, we draw attention to the fact that:

- under section 172ZL of the Electricity Act 1992 the Minister of Energy is required to consult with us about the proposed performance standards included in the Commission's statement of intent; and
- the information contained in the statement of intent forms the basis of the reporting on the performance of the Commission against the GPS objectives and outcomes.

As a result of the consultation on the statement of intent for the year ended 30 June 2007, we:

- noted that the proposed performance standards for that year were heavily focused on the key areas of transmission and the security of supply and outlined our expectation that the Commission would move towards a similar degree of focus on the other key areas of the GPS objectives in future years; and
- noted that there was a need to enhance the provision of meaningful measures relating to outcomes to assist in assessing the performance of the Commission.

Although the information on performance of the Commission against the GPS objectives and outcomes is appropriate, adequate and accurate, and enables an informed assessment to be made of those matters, it remains desirable that information on performance is enhanced.

Responsibilities of the Board and the Auditor

The Board is responsible for preparing financial statements and a 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 2007 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 2007 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.

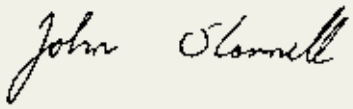
We are responsible for expressing an independent opinion on the financial statements and statement of service performance and reporting that opinion to you. This responsibility arises from section 15 of the Public Audit Act 2001 and the Crown Entities Act 2004.

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.

In addition to the audit, which includes assurance on the performance of the Commission against the GPS objectives and outcomes, we have carried out assurance over a tender project, which is compatible with those independence requirements. Other than the audit 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

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 the statement of service performance of the Electricity Commission for the year ended 30 June 2007 included on the Electricity Commission's web-site. The Commission is responsible for the maintenance and integrity of the Electricity Commission's web site. We have not been engaged to report on the integrity of the Electricity Commission's web site. We accept no responsibility for any changes that may have occurred to the financial statements and the statement of service performance since they were initially presented on the web site.

The audit report refers only to the financial statements and the statement of service 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 the 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 and related audit report dated 31 October 2007 to confirm the information included in the audited financial statements and statement of service performance presented on this web site.

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).

The **performance of electricity governance functions** appropriation provides for governance and monitoring of New Zealand's electricity market under the Rules and Regulations. The appropriation funds the operations of the Electricity Commission, including the Board, advisory groups, electricity system, and market operation functions.

The **performance of security of supply functions** appropriation is to ensure that reserve energy can be made available to meet emergency situations. 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.

The **performance of electricity efficiency functions** appropriation provides funding for electricity efficiency research, and the development and delivery of electricity efficiency programmes.

The **security of supply—procurement costs** 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 Commission is able to participate in litigation effectively and without delay.

	($m, excl. GST)	
Appropriation	**2006/07 budget**	**2006/07 actual**
Performance of electricity governance functions—income	49.043	48.844
Performance of electricity governance functions—*expenditure*	*49.043*	*46.990*
Performance of security of supply functions—income	29.981	24.468
Performance of security of supply functions—*expenditure*	*29.981*	*24.468*
Performance of electricity efficiency functions—income	9.111[2]	4.958
Performance of electricity efficiency functions—*expenditure*	*9.111*	*4.958*
Five-year appropriation: security of supply—procurement costs —income (multi-year appropriation ending in 2006/07)	14.222	–[3]
Five-year appropriation: security of supply—procurement costs *—expenditure*	*14.222*	*(0.140)*
Crown expense appropriation—Electricity Commission litigation fund—income	0.444	–[3]
Crown expense appropriation—*Electricity Commission litigation fund—expenditure*	*0.444*	–[3]

2 Original appropriation was $9.778 million. Transfer of $0.667 to 2007/08 million took place in the October Baseline Update.

3 These appropriations were not drawn on during the 2006/07 financial year

Statement of service performance

The statement of service performance reports on actual achievement against performance targets and measures in the Electricity Commission's Statement of Intent 2006–09 (SOI) in accordance with section 153 of the Crown Entities Act 2004, and the outcomes and objectives contained in the Government Policy Statement on Electricity Governance (GPS) in accordance with section 172ZM of the Electricity Act 1992.

The Commission has included information on the contribution of outputs and projects to outcomes. Information is also provided on several new projects undertaken during the 2006/07 year that were not included in the SOI and therefore did not have performance measures specified. The Commission has reported on these projects to provide a more complete overview of activities.

A more detailed report on progress against the GPS is available on the Commission's website at: **http://www.electricitycommission.govt.nz/infopapers/publications**

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

Figure 3: Outcome contributions

	Transmission	Market governance	Common quality and system operation	Retail	Wholesale	Modelling	Security of supply	Electricity efficiency
Principal objectives for the Electricity Commission:								
• to ensure that electricity is produced and delivered to all classes of consumers in an efficient, fair, reliable and environmentally sustainable manner; and	✓	✓	✓	✓	✓	✓	✓	✓
• to promote and facilitate the efficient use of electricity.							✓	✓
Specific outcomes for the Electricity Commission:								
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.	✓		✓	✓	✓	✓		✓

Key to performance measure status statements

The following status statements are used for performance measures throughout this statement of service performance. Their meanings are as set out below.

Achieved:	Work completed by the date specified in the SOI.
Completed:	Work completed within the financial year but not by the date specified in the SOI.
Rescheduled:	Decision to move the completion date for stated reasons.
Not applicable:	Not applicable in the period, usually as a result of rescheduling.
Not required:	Outputs for which the Commission must maintain a contingent capability, but for which there was no action required during the reporting period.

Generic quality performance measure

The project outputs are required to meet the Commission's quality criteria listed on page 26 of the 2006–09 SOI. Papers for which the quality performance measure applies, and the results, are listed in the sections that follow.

Output class one

electricity governance and market operations

This output class includes the provision of electricity system and market operations outputs, and outputs delivered through the operational workstreams with the exception of the security of supply—procurement and electricity efficiency outputs.

1.1 Ministerial servicing

The Commission provides a range of advice, briefings and reports to the Minister of Energy (Minister) as requested. This includes general briefings, draft responses to parliamentary questions, draft responses to Official Information Act 1982 (OIA) requests, and Ministerial correspondence.

Performance measures	2006/07 result
Timeliness: 100% of ministerial briefing reports, oral advice, ministerials and parliamentary questions delivered within agreed timeframes.	**Achieved.**
Quality: All ministerial advice meets the Commission's generic quality performance measure.	**Achieved.**

1.2 Transmission

The Commission's transmission work addresses the requirements of paragraphs 10, 34A and 79–95 of the GPS. The requirements of paragraphs 81–84 regarding grid reliability standards were completed in 2005/06.

1.2.1 Transmission pricing methodology (TPM)

A project to determine the TPM through consultation with the industry and recommend this to the Minister as required by paragraphs 90–95 of the GPS. Implementation work for the TPM is included in the 2007–10 SOI, page 37.

Performance measures	2006/07 result
Timeliness: Final TPM recommended to the Minister by 30 June 2007.	**Achieved.** NB this performance measure was changed in August 2006, by agreement with the Minister of Energy. The initial target date was 28 February 2007.
Quality: The TPM will meet the Commission's generic quality performance measure.	**Achieved.**

1.2.2 Benchmark (transmission) agreement (BA)

A project to complete the BA and related interconnection services rules as required by paragraph 85 of the GPS. Further work has been identified as being required to determine rules for interconnection services, an outage protocol and a connection code as listed in the 2007–10 SOI, page 37.

Performance measures	2006/07 result
Timeliness: Recommendations made to the Minister on benchmark (transmission) agreements by 31 May 2007.	**Achieved.** NB this performance measure was changed in August 2006 and again in March 2007, by agreement with the Minister of Energy. The initial target date was 31 December 2006, the first revised date was 30 April 2007, the second revised date was 31 May 2007.
Timeliness: Recommendations made to the Minister on interconnection rules by 31 May 2007.	**Achieved.** NB this performance measure was changed in August 2006 and again in March 2007, by agreement with the Minister of Energy. The initial target date was 31 December 2006, the first revised date was 30 April 2007, the second revised date was 31 May 2007.
Quality: The papers to the Minister on benchmark (transmission) agreements and interconnection rules meet the Commission's generic quality performance measure.	**Achieved.**

1.2.3 Grid upgrade plan (GUP) proposals

A core role of the Commission is the review of and decision-making on Transpower's GUP proposals as set out in paragraphs 87–89 of the GPS. This work is ongoing and is outlined on pages 35–36 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Final decision on 400kV Whakamaru to Otahuhu proposed investment released by 31 July 2006.	**Completed on 26 June 2007.** On schedule until Transpower requested the suspension of the application on 31 May 2006. Transpower submitted a revised application (Whakamaru to Pakuranga) on 20 October 2006. The decision to approve the proposal was made on 26 June 2007, and the decision and reasons were released on 5 July 2007.
Timeliness: Project plan to consider inter-island HVDC link agreed by 31 December 2006.	**Completed in February 2007.** In February 2007, the Commission and Transpower developed a combined project plan and timetable for the consideration of this investment proposal.
Timeliness: Project plan to consider GUP part IV economic investments agreed by 31 December 2006.	**Rescheduled.** This project relies on common analysis to be carried out for the HVDC proposal above. The project plan for GUP part IV investments will be developed with Transpower once the HVDC analysis is complete.
Quality: The consultation documents, draft decisions and final decisions on the GUP applications meet the Commission's generic quality performance measure.	**Achieved.**

1.2.4 Updating the Statement of Opportunities (SOO)

The Commission publishes a SOO for transmission and transmission alternatives every two years, as required by paragraph 86 of the GPS. This work is ongoing and is included on page 35 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Draft SOO released by 31 March 2007 (final planned for 31 July 2007).	**Rescheduled.** Completion and publication of the SOO has been deferred until after the New Zealand Energy Strategy (NZES) is finalised.
Quality: The draft SOO meets the Commission's generic quality performance measure.	**Not applicable.**

New project

1.2.5 Otahuhu substation diversity GUP

This application was addressed in accordance with paragraphs 87–89 of the GPS. The application was not anticipated when the SOI was developed. On 11 August 2006, Transpower applied to upgrade the Otahuhu substation. A revised proposal, costing approximately $100 million, was submitted on 11 December 2006. The Commission published its intent to approve Transpower's proposal on 25 May 2007. On 31 August 2007 the Commission announced its decision to approve the upgrade worth $89 million in 2006 dollars.

1.3 Market governance

The Commission's market governance work addresses the requirements of paragraphs 10, 11 and 15–17 of the GPS.

1.3.1 Delivery of compliance services

Ongoing management of compliance with the Rules and the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004, and investigation of potential breaches. This work is required by paragraphs 11 and 17 of the GPS and is ongoing, as set out on page 34 of the 2007–10 SOI.

Performance measures	2006/07 result
Quantity: 180–220 breach notifications closed.	For the period from 1 July 2006 to 30 June 2007, 177 breach notifications were closed. (160 breach notifications were received in the same period.)
Quality: Investigation processes are followed.	**Achieved.**
Quality: Quality standards for investigations are met.	**Achieved.**
Timeliness: 50% of investigations of alleged breaches completed within three months of notification.	**Achieved.** 58% of investigations were completed within three months of notification.
Timeliness: 85% of investigations of alleged breaches completed within six months of notification.	**Achieved.** 89% of investigations were completed within six months of notification.

1.3.2 Improving industry education

A project to identify and develop improved means for providing information back to industry participants derived from analysis of breach investigation work. The 2007/08 programme is covered on page 34 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: An industry education programme proposal provided to the Board by 31 December 2006.	**Achieved.**
Timeliness: Implementation of 2006/07 programme completed by 30 June 2007.	**Achieved.**
Quality: The industry education programme proposal meets the Commission's generic quality performance measure.	**Achieved.**

1.3.3 Developing a monitoring programme

A project to develop a framework for a more proactive and targeted monitoring of potential breaches to the Rules. This work addresses how the Commission can best meet the requirements of paragraphs 10, 11 and 17 of the GPS. The monitoring work is now carried out as part of business-as-usual within the market governance workstream, page 34 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: A monitoring programme proposal provided to the Board by 30 September 2006.	**Achieved.**
Timeliness: Implementation of proactive monitoring programme completed by 30 June 2007.	**Achieved.**
Quality: The monitoring programme proposal meets the Commission's generic quality performance measure.	**Achieved.** Monitoring programme, Board paper, September 2006.

New project

1.3.4 Review of the compliance regime

The Electricity Governance Rules compliance regime has been in place for three and a half years and the Commission has decided that it is an appropriate time to undertake a review. A consultation paper is being prepared and is expected to be released for public comment early in the 2007/08 financial year. This work addresses how the Commission can best meet the requirements of paragraphs 10, 11 and 17 of the GPS.

1.4 Common quality and system operation

The Commission's common quality and system operation work makes a significant contribution to addressing the requirements of paragraphs 34A and 75 of the GPS.

1.4.1 Monitoring of system operation contract

Day-to-day operation of the electricity system is delivered by the System Operator under contract to the Commission to address paragraph 75 of the GPS. This ongoing work is outlined on page 33 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness and quality: System operations services monitored in relation to compliance with the Rules.	**Achieved.**
Timeliness: Annual performance review of the System Operator completed within three months of receipt of the System Operator's report.	**Not applicable.** A rule change was made, changing the timing of the annual review. As a result no review was required or completed in the 2006/07 financial year (rule change 36—policy statement—procurement plan self review, gazetted 4 May 2006).
Timeliness and quality: Annual update of the policy statement and procurement plan completed in accordance with the Rules and the Electricity Act 1992.	**Achieved.**

1.4.2 Wind project

The Commission has a two-part project to address rule requirements to facilitate appropriate wind generation connection to the grid. The tactical project dealt with short-term rule changes. The strategic wind project addresses long-term rule changes to ensure optimal integration of intermittent generation to the grid. The project addresses paragraphs 34A and 75 of the GPS. The options identification and rule changes stages are expected to be completed in 2007/08 as set out on page 38 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Tactical wind project—rule changes recommended to the Minister by 30 November 2006.	**Completed.** Rule changes were gazetted on 21 December 2006.
Timeliness: Strategic wind project—consultation paper published by 30 March 2007.	**Rescheduled.** Rescheduled due to work taking longer to progress than anticipated. Work was substantially completed on several impact reports, which were published on 13 July 2007. Work commenced on an options paper for consultation.
Quality: Rule change consultation paper(s) and recommendation(s) to the Minister meet the Commission's generic quality performance measure.	**Achieved.**

1.4.3 Development programme

A planned and prioritised approach to common quality development, resulting in a multi-year programme. The development work addresses paragraph 75 of the GPS. Common quality development work is ongoing as listed on pages 38–39 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Common quality development plan approved by the Board by 31 October 2006.	**Completed.** The Board approved the common quality development plan on 15 November 2006.
Quality: The common quality development plan meets the Commission's generic quality performance measure.	**Achieved.**
Quality: Rule change consultation paper(s) and recommendation(s) to the Minister meet the Commission's generic quality performance measure.	**Achieved.**

1.5 Retail

The Commission's retail work addresses GPS paragraphs 10, 12–24, 31, 98–100, and 109–119. Domestic consumer contracts have been completed (paragraphs 12, 14 and 116 of the GPS), as have distribution use of system agreements (paragraph 100) and model arrangements for the sale of surplus generation to retailers (paragraphs 109–113). Where appropriate these are now being monitored.

1.5.1 Oversight of retail market operations

Providing oversight and monitoring of electricity industry retail operations, including uptake of model agreements, low fixed charges, and arrangements for the benefit of low-income consumers. This work addresses paragraphs 12–14, 18–19, 111–113, and 114–119 of the GPS. This work is ongoing and is covered on page 40 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Complete a review of uptake of model use of systems agreements by 30 June 2007.	**Rescheduled.** This project was deferred to ensure alignment with the benchmark (transmission) agreement (BA), which was completed in May 2007. Time has been allowed for uptake by retailers prior to the review being carried out.
Timeliness: Complete a review of uptake of model retail contracts, by assessing actual contracts against the Commission's guideline by 30 June 2007.	**Partly completed.** Distributed generation contracts review completed.
Quality: Review reports for uptake of model use of systems agreements and uptake of model retail contracts meet the Commission's generic quality performance measure.	**Achieved** for distributed generation contracts. **Not applicable** for other contracts as the reviews are not complete.
Timeliness and Quality: Board reports provided on retail operations, including frequency of meter reading, audit programme and low fixed charge tariffs.	**Rescheduled.** Rescheduled due to priorities of other work. Data collection has started. The reporting framework has been established and regular reporting to the Board will commence in early 2007/08.

1.5.2 Monitoring of reconciliation manager and registry contracts

These retail market service are delivered under contract to the Commission. This work addresses paragraphs 75 and 119 of the GPS. This work is ongoing and is covered on page 33 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness and Quality: Reconciliation manager and registry service providers are monitored in relation to compliance with the Rules.	**Achieved.**
Timeliness: Provider performance standards are agreed before the start of the 2007/08 financial year (1 July 2007).	**Achieved.**

1.5.3 Consumer complaints scheme

Addressing the consumer complaints scheme requirements of paragraphs 21–24 of the GPS. Completion of approval and implementation is expected in 2007/08, as set out on page 42 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Board decision on complaints resolution system(s) by 30 June 2007, or within six months of receipt of Electricity and Gas Complaints Commission final application.	**Rescheduled.** A proposal for a system of measuring performance of complaints schemes was released for consultation in December 2006. On 6 June 2007, the Commission decided to have only one consumer complaints scheme.
Quality: Published decision meets the Commission's generic quality performance measure.	**Achieved.**
Timeliness: Once approved, reports provided to the Board on industry compliance with the consumer complaints scheme on a six-monthly basis.	**Not applicable.**

1.5.4 Load management and metering

A project to optimise the use of load control and reduce the barriers to the introduction of new metering and load control technologies. This work contributes to paragraph 31, 114 and 118–119 of the GPS. This project continues into 2007/08, as set out on pages 41–42 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Complete the load management framework value pricing component by 30 June 2007.	**Rescheduled.** Stage 1 completed—load management examination. Stage 2 nearly completed—establishing price value of shedable load. Stage 3 underway—consultation paper on advanced metering completed.
Quality: Load management framework value pricing component report meets the Commission's generic quality performance measure.	**Not applicable.**

1.5.5 Reconciliation

A project to update the reconciliation regime, including addressing paragraphs 75 and 117 of the GPS. Implementation of reconciliation rules is addressed on page 44 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: New global reconciliation management system developed by 30 June 2007.	**Not Achieved.** Reconciliation regime rule-changes were completed in November 2006. Tendering for provision of the reconciliation service was completed in June 2007. System software is being developed and is expected to be fully operational for 1 May 2008 when the rule-changes come into effect.

1.5.6 Distribution pricing

A project to refine and complete a model distribution pricing methodology as required by paragraph 98 of the GPS. This project has continued into 2007/08 as listed on page 43 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Model distribution pricing methodology completed by 30 June 2007.	**Rescheduled.** The scope was approved and the project commenced in December 2006. The timetable was changed to ensure alignment with the NZEECS, once finalised.
Quality: Model distribution pricing methodology report meets the Commission's generic quality performance measure.	**Not applicable.**

1.5.7 Retail audit

Implementation of audit programmes as required by the Rules. This work has become business-as-usual in the 2007–10 SOI, see page 40.

Performance measures	2006/07 result
Timeliness: Audits of meter testing houses completed by 30 June 2007.	**Rescheduled.** Audits of meter testing houses and data-administrators commenced in October 2006. Some audit work was outstanding at 30 June 2007 as a result of a limited number of auditors being available.
Timeliness: Audit training programme completed by 30 June 2007.	**Achieved.**

1.5.8 Information

Development of process for regular collection and publication of information for consumers on the status of competitive activity in the retail market. This project contributes to paragraphs 10 and 114 of the GPS. Ongoing information work is addressed on pages 40 and 42 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Once established, indicators of retail market activity to be published quarterly.	**Rescheduled.** Rescheduled due to priorities of other work. Data collection has started. Consultation completed on the proposed retail 'dashboard'. A paper was provided to the Commission in November 2006.
Timeliness: Once established, information package for consumers about pricing to be published 10 times in a 12-month period.	**Not applicable.**

New projects

The following work was not specified in the 2006–09 SOI.

1.5.9 Loss factors methodology

A project to develop a methodology for the calculation and review of loss factors in the distribution network used in the reconciliation process. The draft methodology, in the form of guidelines for calculations of loss factors, was agreed by the Commission in June 2007 for consultation. This project addresses GPS requirement in paragraph 117 and is included on page 43 of the 2007–10 SOI.

1.5.10 Incentives to manage distribution losses

An investigation into incentives to manage distribution losses and how to improve these incentives. Addresses part of GPS paragraph 30 (excludes transmission losses). The project started in January 2007 with the development of a draft model methodology for consultation. This work contributes to paragraph 30 of the GPS and is part of the loss factors methodology project as outlined on page 43 of the 2007–10 SOI.

1.5.11 Low income and vulnerable consumer protection

In the last quarter, the Commission reviewed and updated the Guideline on Arrangements to Assist Low Income and Vulnerable Consumers. The revised guideline was released in July 2007 and replaces the November 2005 version. This work addresses the ongoing requirement on the Commission under paragraphs 18–19 of the GPS. The guideline sets out enhanced processes around disconnections for non payment, including a range of requirements, with which retailers are expected to comply before a disconnection takes place. The guideline and other documents relating to the review have been published on the Commission website at: **http://www.electricitycommission.govt.nz/opdev/retail/lowincome**

1.6 Wholesale

The Commission's wholesale market work contributes to the requirements of GPS paragraphs 10, 29, 34A, 75–78, 114, 120, and appendix 1.

1.6.1 Market design project

The market design review project addresses both wholesale and retail market design. The review addresses paragraphs 10, 34A, 75 and 114 of the GPS. This is a substantial project that continues into 2007/08, as described on page 45 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Consultation paper published by 31 March 2007.	**Completed.** The market design issues paper was released for consultation in May 2007. Consultation on the issues paper closed on 20 July 2007.
Quality: Consultation paper meets the Commission's generic quality performance measure.	**Achieved.**

1.6.2 Hedge market (energy and transmission) project

This project addresses GPS requirements under paragraphs 10, 76–78, and appendix 1. This work continues into 2007/08, as described on pages 45–46 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Consultation paper published by 30 September 2006.	**Achieved.**
Timeliness: Implementation plan provided to the Board by 31 March 2007.	**Achieved.**
Quality: Consultation paper and implementation plan meet the Commission's generic quality performance measure.	**Achieved.**

1.6.3 Offer and dispatch

Review the offer and dispatch rules with an initial emphasis on co-generation plant to overcome operational restrictions brought about with the implementation of the Rules. Offer and dispatch is covered in paragraph 75 of the GPS. This project continues into 2007/08, as set out on page 47 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Industrial co-generation work completed and Rules gazetted by 30 September 2006.	**Completed.** This work took longer than initially expected due to increased complexity. The rule change was gazetted on 20 February 2007 (rule change 48—Offer and dispatch rules for co-generation plant).
Timeliness: Consultation paper for other generation completed and proposal developed by 31 March 2007.	**Re-scoped.** On the basis of advisory group input, offer and dispatch development work has been prioritised to focus on two broad areas: links between offer and dispatch rules for all generation plant; and provisions for revision of offers.
Quality: Consultation paper meets the Commission's generic quality performance measure.	**Not applicable.**

1.6.4 Demand-side bidding and forecasting

Improving the bidding requirements on the demand-side while introducing new forecasting techniques. Demand-side bidding and forecasting is covered in paragraphs 29 and 31of the GPS. Completion of rule changes and implementation is planned in 2007/08 as outlined on page 46 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Consultation paper published by 31 December 2006.	**Completed.** In May 2005 the Commission published a high-level consultation paper. In June 2007 the Commission approved the released of the revised proposal and draft rules for consultation. The paper was published on 5 July 2007.
Quality: Consultation paper meets the Commission's generic quality performance measure.	**Achieved.**

1.6.5 Monitoring of Clearing Manager, Pricing Manager and Wholesale Information and Trading System services contracts

These wholesale market services are delivered under contract to the Commission and are integral to the operation of the market under paragraph 75 of the GPS. This work is an ongoing requirement covered on page 33 of the 2007–10 SOI.

Performance measures	2006/07 result
Quality: Clearing Manager, Pricing Manager and Information Systems service providers are monitored in relation to compliance with the Rules.	**Achieved.**
Timeliness: Provider performance standards are agreed prior to the commencement of the 2007/08 financial year (1 July 2007).	**Achieved.**

New projects

The following work was not specified in the 2006–09 SOI.

1.6.6 Improvements to the wholesale pricing process

A project was initiated in September 2006 to investigate ways to improve the process by which prices are finalised and undesirable trading situations (UTSs) are managed. The work was initiated in response to several pricing related rule breaches and UTS claims. This work supports the operation of the market under paragraph 75 of the GPS and is ongoing, as covered on page 47 of the 2007–10 SOI.

1.6.7 Market information

A series of initiatives to improve access to market information. New rules to facilitate the publication of demand data (in half-hour form for each grid exit point) on a daily basis came into force on 1 June 2007. New rules that will automatically publish reserve offers (in a similar fashion to energy offers that were already being published) came into force on 1 June 2007. New rules to automate the publication of Customer Advice Notices came into force on 1 December 2006. The importance of market information is covered by paragraphs 10 and 75 of the GPS.

1.7 Modelling

The Commission's modelling work contributes to meeting the requirements of GPS paragraphs 10, 38–39, 87E, and 89.

1.7.1 Centralised dataset

Publish six-monthly updates to the centralised dataset (CDS) using data provided by the industry. This work contributes to paragraphs 10 and 38–39 of the GPS and is ongoing as covered on page 48 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Publish the centralised dataset in DVD format by 31 December 2006 and 30 June 2007.	**Not achieved.** An update was released in April 2007. Completion of the CDS updates was impacted by the focus placed on transmission investment work.

1.7.2 Market simulation model

Development of a market simulation model covering generators, load, transmission, policy and regulation to analyse potential market outcomes based on behaviour assumptions. This project contributes to paragraph 10 of the GPS and continues into 2007/08 as set out on page 48 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Market simulation model approved by the Board by 30 June 2007.	**Rescheduled.** An initial model was developed and tested. This project was deferred while priority was given to the development of the generation expansion model, which has applications for the NZES, SOO and HVDC GUP.
Quality: Market simulation model Board paper meets the Commission's generic quality performance measure.	**Not applicable.**

Other projects

1.7.3 Demand forecasts

Forecasts have been published at the national and regional levels based on comparative data, including data provided by other agencies. The forecasts contribute to paragraph 10, 34A and 86 of the GPS. The demand forecasts support all the other Commission workstreams and are also included in generation scenarios in the Commission's Statement of Opportunities (SOO).

1.7.4 Modelling support

A major component of the work carried out by the Commission's modelling team is in supporting the analytical requirements of all of the other workstreams. This includes:

- SOO—demand forecast review and development, which underpin transmission investment timing;
- SOO—generation scenario review and development, including the generation expansion model;
- improved tools for grid investment test (GIT) analysis—reliability analysis, loss modelling, CDS access. Improved support for part F processes of the Rules through provision of appropriate tools; and
- economic evaluation of major transmission investments—as covered in the transmission section (page 42).

1.8 Security of supply—governance

The Commission's security of supply governance work addresses the GPS requirements under paragraphs 10, and 35–74.

1.8.1 Review of reserve energy policy

Completion of a review of the reserve energy policy, as required by paragraphs 65–67 and 71 of the GPS. This project continues into 2007/08, as listed on page 49 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Board to make recommendations to the Minister on improvements to the reserve energy regime the Board by 30 June 2007.	**Rescheduled.** A final report was published in May 2007. The Board decided to consult on the report before making recommendations. Recommendations to the Minister are to follow in the 2007/08 year. NB this performance measure was changed in September 2006 by agreement with the Minister of Energy. The initial measure was: 'reserve energy policy approved by the Board by 30 June 2007'. The 2004 GPS sought recommendations to the Minister of Energy by 31 March 2007. The GPS was amended in October 2006 a revised timetable consistent with the revised performance measure.
Quality: the reserve energy policy Board paper meets the Commission's generic quality performance measure.	**Not applicable.**

1.8.2 Security monitoring

Monitoring of the attainment by the electricity market of desired 1-in-60 dry year security standards, as required by paragraph 37 of the GPS. This work is an ongoing activity, included on page 49 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: The reserve energy needs analysis for 2007 and 2008–10 is completed by 31 December 2006.	**Completed.** Decision for 2007 and needs forecast for 2008 completed in April 2007. The Commission concluded there is no need for additional reserve energy contracts at present.
Quality: the reserve energy needs analysis Board paper meets the Commission's generic quality performance measure.	**Achieved.**

1.8.3 Information

Regular publication of information about the status of security of supply assets as required by paragraphs 38–40 of the GPS. This work is an ongoing activity, included on page 49 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Information on the status of hydro storage is updated at least monthly on the Commission's website.	**Achieved.**

Output class two
security of supply procurement

This output class covers the Commission's security of supply (reserve energy and emergency options) functions and addresses various GPS requirements under paragraphs 35–74. 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).

2.1 Develop contingency plans for emergency situations

Development of plans in the event that market mechanisms prove insufficient to address any supply shortage that may eventuate. This work addresses paragraphs 68–74 of the GPS. The requirement for this work is ongoing and is covered on page 50 of the 2007–10 SOI.

Performance measures	2006/07 result
Conduct tendering of reserve energy generation and emergency options for demand reduction as required by the Board.	**Not required.** Tendering of additional reserve energy generation was not required during 2007/08.

2.2 Tendering for reserve energy

Tendering for generation and emergency options as required, as provided for by paragraphs 47–59 and 72 of the GPS. The requirement for this work is ongoing and is covered on page 50 of the 2007–10 SOI.

Performance measures	2006/07 result
Completion of tender design, preparation of tender documents, administration of tender process and conclude procurement contracts as needed (will only be implemented if needed for procurement of reserve energy or emergency measures).	**Not required.** Tendering for additional reserve energy was not required during 2007/08.

2.3 Whirinaki

Contracting for the availability of the Whirinaki power station for the generation of reserve energy as required, as provided for by paragraphs 47–61 of the GPS. This work is ongoing and is covered on page 51 of the 2007–10 SOI.

Performance measures	2006/07 result
Whirinaki reserve energy plant availability is delivered in accordance with the contract.	**Not required for reserve energy.** No reserve energy generation was required from the Whirinaki plant during 2006/07.

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). This output class addresses paragraphs 10, 25–27 and 31–34 of the GPS.

3.1 Electricity efficiency potentials study

Completion of the potentials study as required by paragraph 26 of the GPS. The electricity efficiency potentials study has been carried out to identify and quantify the amount of cost-effective end-use electricity efficiency available throughout the New Zealand economy. The model developed from the study will be updated and used in programme design on an ongoing basis as set out on page 52 of the 2007–10 SOI.

Performance measures	2006/07 result
Timeliness: Electricity efficiencies potentials study completed by 31 December 2006.	**Rescheduled.** The report was delayed due to the need to collect additional data. As at 30 June 2007, the draft final report was being peer reviewed prior to its publication.
Quality: The electricity efficiencies potentials study meets the Commission's generic quality performance measure.	**Not applicable.**

3.2 Long-term programme

Development of a long-term electricity efficiency programme to give full effect to paragraphs 25 and 27–33 of the GPS. The potentials study results have assisted the Commission to develop work programmes that will most efficiently and effectively capture electricity efficiency gains in these areas.

Performance measures	2006/07 result
Timeliness: Proposed long-term work programme completed by 31 December 2006.	**Achieved.** Appropriation report, including proposed programme, provided to the Minister in December 2006.
Quality: The proposed long-term work programme meets the Commission's generic quality performance measure.	**Achieved.** • Appropriation consultation, November 2006. • Appropriation report, December 2006. • Budget bid, December 2006. • 2007/08 work programme approved as part of the overall Commission work programme, June 2007.

3.3 Efficient lighting

Management of a nationwide subsidy programme for CFLs (compact fluorescent lamps—energy-efficient light bulbs). Based on the results from pilot programmes, the Commission started a national programme focusing on residential uptake of CFLs in 2006/07. This project continues into 2007/08, as outlined on page 53 of the 2007–10 SOI. A total of 2.4 million CFLs were sold in the Commission's programme to 30 June 2007. This work contributes to paragraphs 25, and 27–33 of the GPS.

Performance measures	2006/07 result
Timeliness: Carry out CFL projects with an aim to provide national coverage by 30 June 2007.	**Achieved.**

3.4 Pilot programmes

The Commission has carried out pilot studies, research and economic analysis of barriers to uptake of electricity efficiency in commercial buildings, electric motors and air compressors. Results from these activities have included the identification of potentially significant electricity efficiency benefits from operating and maintaining compressed air systems on a best practice basis as well as potential benefits from replacing rather than rewinding electric motors on failure. Pilot work has resulted in the development of programmes to be implemented in the 2007/08 year, as set out on pages 52–53 of the 2007–10 SOI. This work is covered by paragraphs 25 and 27–33 of the GPS.

Performance measures	2006/07 result
Timeliness: Commercial buildings final report completed by 30 June 2007.	**Achieved.**
Timeliness: Air compressors pilot monitoring report completed by 30 September 2006.	**Completed.** The air compressors pilot monitoring report was received in September 2006. The report was peer reviewed prior to publication in July 2007.
Timeliness: Industrial motors pilot monitoring report completed by 31 October 2006.	**Completed.** The industrial motors pilot monitoring report was received in October 2006. The report was peer reviewed prior to publication in April 2007.
Quality: The air compressors pilot monitoring report and the industrial motors pilot monitoring report meet the Commission's generic quality performance measure.	**Achieved.**

Financial statements

Statement of financial performance
for the year ended 30 June 2007

Actual 2006 $000		Notes	Actual 2007 $000	Budget 2007 $000
72,093	Crown revenue	*(13)*	76,416	89,246
6,118	Whirinaki spot revenue		193	–
1,576	Interest income		1,844	650
7	Other revenue		10	10
79,794	**Total operating revenue**		**78,463**	**89,906**
4,989	Personnel		5,763	5,428
4,087	External advice		7,162	9,368
281	Litigation costs		–	444
1,054	Electricity efficiency programmes		4,125	9,313
34,270	Service provider contracts		31,082	31,071
23,365	Whirinaki contract		24,422	24,263
3,199	Whirinaki fuel		53	–
754	Working groups		487	981
481	Rental of premises		476	493
223	Travel		281	405
659	Commissioners' fees	*(11)*	719	704
69	Rulings Panel fees		69	78
34	External audit fees[4]		51	35
–	Fees paid to auditors for other services		6	–
1,543	Other operating costs		1,440	1,181
284	Depreciation	*(1)*	333	412
75,292	**Total cost of services**		**76,469**	**84,176**
2,919	**Distribution of net spot revenue to levy payers**	*(4)*	**140**	**–**
1,583	**Net operating surplus (deficit)**	*(5),(13)*	**1,854**	**5,730**

4 External audit fees include $8,000 for an IFRS opening balance sheet audit and $8,000 for a Statement of Intent review.

Statement of movements in equity
for the year ended 30 June 2007

Actual 2006 $000		Notes	Actual 2007 $000	Budget 2007 $000
1,399	**Public equity as at 1 July 2006**		**2,982**	**1,399**
1,583	Net operating surplus for the year	*(5),(13)*	1,854	5,730
–	Repayment of surplus to the Crown	*(13)*	–	(5,400)
2,982	**Public equity as at 30 June 2007**		**4,836**	**1,729**

The statement of accounting policies and notes form an integral part of, and should be read in conjunction with, these financial statements.

Statement of financial position
as at 30 June 2007

Actual 2006 $000		Notes	Actual 2007 $000	Budget 2007 $000
2,982	**Public equity**		**4,836**	**1,729**
	Assets			
	Current assets			
19,178	Cash and investments		18,486	9,410
126	Debtors and prepayments	*(13)*	106	5,226
19,304	**Total current assets**		**18,592**	**14,636**
	Non-current assets			
871	Property, plant and equipment	*(1)*	781	983
871	**Total non-current assets**		**781**	**983**
20,175	**Total assets**		**19,373**	**15,619**
	Liabilities			
	Current liabilities			
14,577	Payables and accruals	*(2)*	14,495	13,400
(576)	GST payable (receivable)		(354)	150
230	Employee entitlements	*(3)*	256	310
2,919	Provision for distribution to levy payers	*(4)*	140	–
10	Leased asset liability		–	13
17,160	**Total current liabilities**		**14,537**	**13,873**
	Non-current liabilities			
33	Leased asset liability		–	17
33	**Total non-current liabilities**		**–**	**17**
17,193	**Total liabilities**		**14,537**	**13,890**
2,982	**Net assets**		**4,836**	**1,729**

Statement of cash flows
for the year ended 30 June 2007

Actual 2006 $000		Notes	Actual 2007 $000	Budget 2007 $000
	Cash flows from operating activities			
	Cash was provided from:			
76,689	receipts from the Crown		80,798	84,176
5,443	spot revenue		190	–
1,576	interest received		1,844	660
7	other revenue		10	–
83,715			**82,842**	**84,836**
	Cash was applied to:			
(4,884)	payments to employees		(5,737)	(5,428)
(67,625)	payments to suppliers		(70,927)	(81,811)
(1,769)	GST on operations		222	–
(74,278)			**(76,442)**	**(87,239)**
9,437	**Net cash flows from operating activities**	*(12)*	**6,400**	**(2,403)**
	Cash flows from investing activities			
	Cash was applied to:			
(10)	leased assets		20	(13)
(633)	purchase of physical assets		(272)	(476)
(643)	**Net cash flows from investing activities**		**(252)**	**(489)**
	Cash flows from financing activities			
	Cash was applied to:			
–	repayment of appropriation surplus to the Crown		(3,921)	–
–	distribution of net spot revenue to levy payers		(2,919)	–
(9,180)	net levies payable to the Crown		–	–
(9,180)	**Net cash flows from financing activities**		**(6,840)**	**–**
(386)	Net increase (decrease) in cash held		(692)	(2,892)
19,564	Plus opening cash		19,178	12,302
19,178	**Closing cash balance**		**18,486**	**9,410**

 The statement of accounting policies and notes form an integral part of, and should be read in conjunction with, these financial statements.

Statement of contingencies
as at 30 June 2007

The Commission has no known contingent liabilities or assets and no known guarantees under the Crown Entities Act 2004 (2005/06: nil).

Statement of commitments
as at 30 June 2007

The Commission has leases for two floors in ASB Bank Tower until September 2013.

New service provider agreements commenced on 1 July 2007 for the Clearing Manager, Pricing Manager, Registry, and Wholesale and Information Trading System. A new Reconciliation Manager agreement was signed at the same time but will not come into force until the new system goes live, which is scheduled for 1 May 2008.

In 2006 the only service provider commitment was for the System Operator, as other service provider agreements were operating on a six month notice period.

Service provider software for the Clearing Manager, Reconciliation Manager, Registry, and Wholesale and Information Trading System is now being licensed to the Commission. The hardware and software is shown as a capital commitment as at 30 June 2007.

	2007 $000	2006 $000
Operating commitments		
Building lease commitments		
Not later than one year	430	430
Later than one year but not later than two years	430	430
Later than two years but not later than five years	1,290	1,290
Later than five years but not later than ten years	749	968
	2,899	**3,118**
Service provider contract commitments		
Not later than one year	28,321	22,841
Later than one year but not later than two years	26,979	22,841
Later than two years but not later than five years	16,881	15,228
Later than five years but not later than ten years	4,689	–
	76,870	**60,910**
Whirinaki contract commitments		
Not later than one year	25,143	24,522
Later than one year but not later than two years	25,610	25,143
Later than two years but not later than five years	79,943	78,376
Later than five years but not later than ten years	92,082	119,259
	222,778	**247,300**
Total operating commitments	**302,547**	**311,328**
Capital commitments		
Service provider contract commitments		
Not later than one year	11,428	–
Later than one year but not later than two years	240	–
	11,668	**–**
Total capital commitments	**11,668**	**–**

Notes to the financial statements

1. Property, plant and equipment

	Cost $000	Current depreciation $000	Accumulated depreciation $000	Net book value $000
2007				
Leasehold improvements	569	46	190	379
Computer hardware	409	128	274	135
Furniture and fittings	213	39	102	111
Office equipment	115	20	48	67
Computer software	311	100	222	89
Leased assets	–	–	–	–
Total fixed assets	**1,617**	**333**	**836**	**781**
2006				
Leasehold improvements	436	38	144	292
Computer hardware	348	106	157	191
Furniture and fittings	182	31	63	119
Office equipment	91	15	28	63
Computer software	288	81	122	166
Leased assets	63	13	23	40
Total fixed assets	**1,408**	**284**	**537**	**871**

2. Payables

	2007 $000	2006 $000
Crown creditor	4,382	3,921
Service providers	2,681	2,749
Market support	–	257
Whirinaki contract payments	4,178	5,943
Electricity efficiency	942	106
Other creditors and accruals	2,312	1,601
Total payables	**14,495**	**14,577**

3. Employee entitlements

	2007 $000	2006 $000
Annual leave	256	230
Total employee entitlements	**256**	**230**

4. Refund to levy payers

Refund from the Electricity Commission

The Government Policy Statement states that the cost to levy payers of the Whirinaki power station should be offset by net revenue received from the sale of reserve energy if Whirinaki is required to operate. In 2006/07 the Commission earned $0.140 million of net spot revenue and this will be included in the refund to levy payers.

	2007 $000	2006 $000
Whirinaki spot revenue	193	6,118
Less Whirinaki fuel	(53)	(3,199)
Distribution of net spot revenue to levy payers	**140**	**2,919**

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 2006/07 Commission expenditure was less than levies collected. The total refund to levy payers is expected to be in the region of $4.220 million (in addition to the net spot revenue from Whirinaki of $0.140 million). The final refund to levy payers may vary from this amount, and some levy payers may still be required pay additional levies depending on whether they are generators, retailers or distributors, and based on variations from estimated MWh or ICP figures.

	2007 $000	2006 $000
Total Commission expenditure	76,469	75,292
Less Whirinaki fuel	(53)	(3,199)
Plus MACQS[5]	2,897	2,897
Total costs to be recovered by levy	**79,313**	**74,990**
Actual levies collected	83,533	79,305
Estimated over-collection of levies to be refunded by the Crown	**4,220**	**4,315**

5. Net operating surplus

The Commission may elect to retain interest income and other revenue (excluding Whirinaki spot revenue) in order to maintain an appropriate level of working capital. The Commission has exercised this option in 2006/07 and the operating surplus of $1.854 million will be used to increase equity. Net operating surplus is made up as follows:

	2007 $000	2006 $000
Interest income	1,844	1,576
Other revenue	10	7
Net operating surplus	**1,854**	**1,583**

5 MACQS refers to costs incurred by Transpower in relation to the MACQS (Multilateral Agreement on Common Quality Standards) reform process. Under the Electricity (Levy of Industry Participants) Regulations 2005, regulation 7(2)(b), MACQS 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.

6. Remuneration

	Number of employees	
Salary band	2007	2006
$100,000–$109,999	7	4
$110,000–$119,999	1	4
$120,000–$129,999	6	1
$130,000–$139,999	1	0
$140,000–$149,999	3	4
$150,000–$159,999	2	2
$160,000–$169,999	2	2
$170,000–$179,999	1	1
$220,000–$229,999	0	1
$240,000–$249,999	1	1
$250,000–$259,999	1	0
	25	20

The General Manager's annual remuneration and benefits are in the $240,000–249,999 band. In 2005/06 the General Manager's annual remuneration and benefits were in the $220,000–229,999 band.

7. 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.

	2007	2006
Severance payments ($000)	39	–
Number of employees	2	0

8. 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.

Commissioner Rodger holds a fixed interest bond with Transpower Finance Limited, a wholly-owned subsidiary of Transpower New Zealand Limited. The Electricity Commission has a contract with Transpower New Zealand Limited as System Operator. Expenditure against this contract in 2006/07 was $23.186 million.

9. Financial instruments

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.

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.

Fair value

The fair value of all financial instruments is equivalent to the carrying amount disclosed in the statement of financial position.

Currency and interest rate 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.

Interest rate risk is the risk that the Commission's return on any funds it has invested and the cost of borrowed funds will fluctuate due to changes in market interest rates. Under the Crown Entities Act 2004, the Commission cannot raise a loan without ministerial approval and all such loans have ministerial approval. Accordingly there is no interest rate exposure on funds borrowed.

10. Post balance date events

No significant events, which would materially affect the financial statements, have occurred between 30 June 2007 and the date of signing the financial statements.

11. Commissioners' remuneration

The following fees were paid to Commission members.

	2007 $000	2006 $000
L H Hemmingway	125	300
D C Close	106	91
D G Dell	95	77
P S Harris	174	73
G C Pinnell	145	118
S J Rodger	74	–
	719	**659**

Commission Chair Hemmingway left the Commission in November 2006. Commissioner Harris has undertaken an increased workload as Deputy Chair in the absence of a replacement Chair.

Commissioner Harris is also an associate member of the Commerce Commission, a role established to facilitate information sharing between the two Commissions. The Electricity Commission pays Commissioner Harris fees for time spent in this role, and invoices the Commerce Commission to offset this cost. The fees shown above are not offset by the amount recovered from the Commerce Commission.

12. Reconciliation of net operating surplus to net cash flows

	2007 $000	2006 $000
Net operating surplus	**1,854**	**1,583**
Add non-cash items		
Depreciation	333	284
Disposal of leased assets	(35)	–
Increase in employee entitlements	26	105
Repayments to levy payers	140	2,919
Total non-cash items	**464**	**3,308**
Add movements in working capital items		
(Increase) decrease in debtors and prepayments	20	100
Increase (decrease) in payables and accruals	3,840	6,215
Increase (decrease) in GST on operations	222	(1,769)
Net working capital movements	**4,082**	**4,546**
Net cash flow from operating activities	**6,400**	**9,437**

13. Change in accounting presentation

A change in the accounting presentation of Crown revenue was made after the 2006/07 budget was set but prior to the preparation of the 2005/06 annual report. This has resulted in presentation variances between 2006/07 budget and actuals. Prior year comparative figures are presented in the revised format and are therefore consistent with current year actuals. The change in presentation and its impact is explained below.

In previous years, Crown revenue reflected the total appropriation available to the Commission. Since Commission expenditure has always been less than the total appropriation, a 'surplus' existed. However, the term surplus is misleading since the Commission is not entitled to keep unspent appropriation.

A decision was made to reflect the situation more accurately by showing Crown revenue as the amount the Commission is entitled to receive, in other words, an amount equal to total expenditure.

This change has an impact on other items in the financial statements. The items affected by the change in presentation are listed below, with an explanation of the impact.

- *Crown revenue* (Statement of financial performance)
  - Previously showed total Crown appropriation.
  - Now reflects total expenditure.
- *Net operating surplus* (Statement of financial performance and Statement of equity)
  - Previously showed unspent appropriation plus interest and other revenue.
  - Now reflects only interest and other revenue.
- *Repayment of surplus to the Crown* (Statement of equity)
  - Previously, unspent appropriation was shown in the Statement of equity as a repayment of surplus to the Crown.
  - Now there is no unspent appropriation reflected in the financial statements therefore this figure is nil.

- *Payables and accruals* (Statement of financial position)
  - Previously, the difference between total appropriation and Commission expenditure was included as a Crown creditor within payables and accruals.
  - Now only the difference between appropriation actually drawn down and Commission expenditure is included as a Crown creditor.
- *Debtors and prepayments* (Statement of financial position)
  - Previously, it was necessary to include a Crown debtor to represent appropriation that had not been fully drawn down.
  - Now there is no unspent appropriation reflected in the financial statements, whether drawn down or not, therefore this figure is nil.

14. Major budget variances

Statement of financial performance

Revenue

Interest income was greater than budget due to higher than expected cash holdings during the year (see Statement of financial position comments below).

Expenditure

Personnel costs were higher than budget due to the replacement of external market support functions by staff within Commission workstreams. There were also higher than expected contractor costs incurred in Electricity Efficiency in order to accelerate progress in this area.

External advice costs were below budget due to the in-sourcing of external market support functions, and delays in budgeted expenditure in areas such as common quality development projects.

Electricity efficiency programmes were below budget due largely to the timing of expenditure in the second compact fluorescent lamp (CFL) campaign. Costs were expected to fall within the 2006/07 year but a significant portion have been incurred in 2007/08 due to the timing of campaigns run by contracted parties to align with the winter period.

Working groups costs were below budget due to fewer meetings of shorter duration than anticipated in some workstreams, and a contingency for potential dry-year working groups that was not required.

Statement of financial position

Cash and investments

The budget for cash and investments was conservatively set based on minimum expected balances. Actual cash holdings were higher than the minimum due to the underspend against budget, the deferral of payments under the Whirinaki contract while issues were resolved, and the payment of suppliers one month in arrears.

Leased asset liability

During the financial year the Commission replaced all office equipment owned under finance lease arrangements with equipment hired under operating leases.

15. Impact of adopting New Zealand equivalents to international financial reporting standards

The Commission will adopt the New Zealand equivalents to International Financial Reporting Standards (NZ IFRS) for the financial year commencing 1 July 2007. The Commission has reviewed the impact on its financial statements of adopting NZ IFRS and determined that the impact is unlikely to be significant. The key change is in the treatment of software assets. These are currently classified as fixed assets but will be reclassified as intangibles under NZ IFRS. This change has no financial impact. Consideration will also be given to the inclusion of sick leave and long-service leave.

Statement of significant underlying assumptions

These financial statements have been compiled on the basis of government policies at the time the statements were finalised. These financial statements comply with generally accepted accounting practice, and have been prepared on a going-concern basis.

Statement of accounting policies

Reporting entity

The Electricity Commission is listed as a Crown Agent under the Crown Entities Act 2004.
These financial statements have been prepared in accordance with the Crown Entities Act 2004.

Measurement system

These financial statements have been prepared on an historical cost basis.

Particular accounting policies

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

a Budget

The budget figures are those approved by the Board at the beginning of the financial year. The same policies are used for budgets as for the actual amounts in these financial statements.

b Receivables

Receivables are recorded at their expected realisable value, after providing for doubtful and uncollectable debts.

c Property, plant and equipment

All fixed assets costing $1,000 (excluding GST) or more are capitalised and recorded at historical cost.

d Depreciation

Depreciation of fixed assets is provided on a straight-line basis, so as to allocate the depreciable amount of assets over their useful lives. The depreciable amount is the historical cost or revalued amount, less the residual value. The estimated useful lives are listed below.

- Computer equipment and software 3 years
- Furniture and fittings 5 years
- Office equipment 5 years

The cost of leasehold improvements is capitalised and depreciated over the unexpired period of the lease.

All assets are assumed to have no residual value.

Capital work in progress is recognised as costs are incurred. Depreciation is not recorded until the asset is fully operational.

e Provision for employee entitlements

Provision is made for the Commission's liability for annual leave. Annual leave is recognised as it accrues to employees at current rates of pay.

f Taxation

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

g Revenue recognition

Revenue is derived through the provision of outputs to the Crown, from services to third parties and from interest on deposits. Such revenue is recognised when earned, and is reported in the financial period to which it relates.

h Goods and services tax (GST)

The statement of financial position is exclusive of GST, except for accounts payable and accounts receivable, which are GST inclusive. All other statements are GST exclusive.

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 (as appropriate).

i Leases

Leases are classified as operating leases where the lessor retains all the risks and rewards incident to ownership. Operating-lease costs are accounted for as an operating expense over the period of the lease.

Leases are classified as finance leases where the risks and rewards incident to ownership are substantially transferred to the lessee. Finance leases are accounted for in accordance with the Institute of Chartered Accountants of New Zealand publication Statement of Standard Accounting Practice No. 18 (SSAP18).

j Financial instruments

The Commission is party to financial instruments as part of its normal operations. These financial instruments include bank accounts, short-term deposits, receivables, and payables.

Except for those items covered by a separate accounting policy, all financial instruments are shown at their estimated fair value.

k Statement of cash flows

The following are definitions of the terms used in the statement of cash flows.

- Cash means coins, notes, current accounts, and short-term deposits.
- Investing activities are those activities relating to the acquisition and disposal of non-current assets.
- Financing activities comprise changes in the capital structure.
- Operating activities include all transactions and other events that are not investing or financing activities.

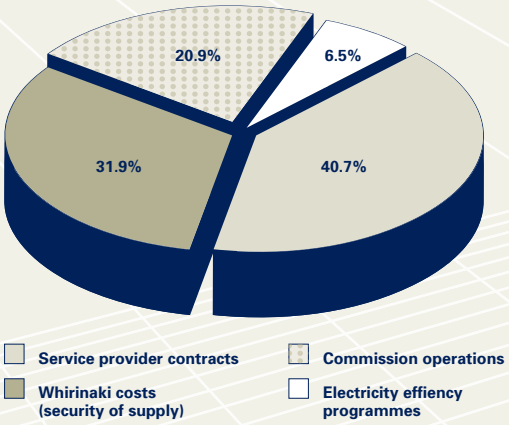
Changes in accounting policies

There have been no changes in accounting policy.

Electricity Commission 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 4 shows the broad areas of the Commission's expenditure for 2006/07.

Figure 4: Expenditure 2006/07



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.

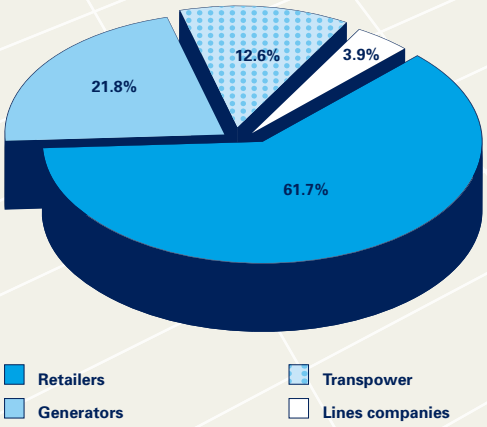
Commission operations—all operational costs of the Commission except service provider costs. These include rent, overheads, staff costs, Board costs and external legal and other professional advice.

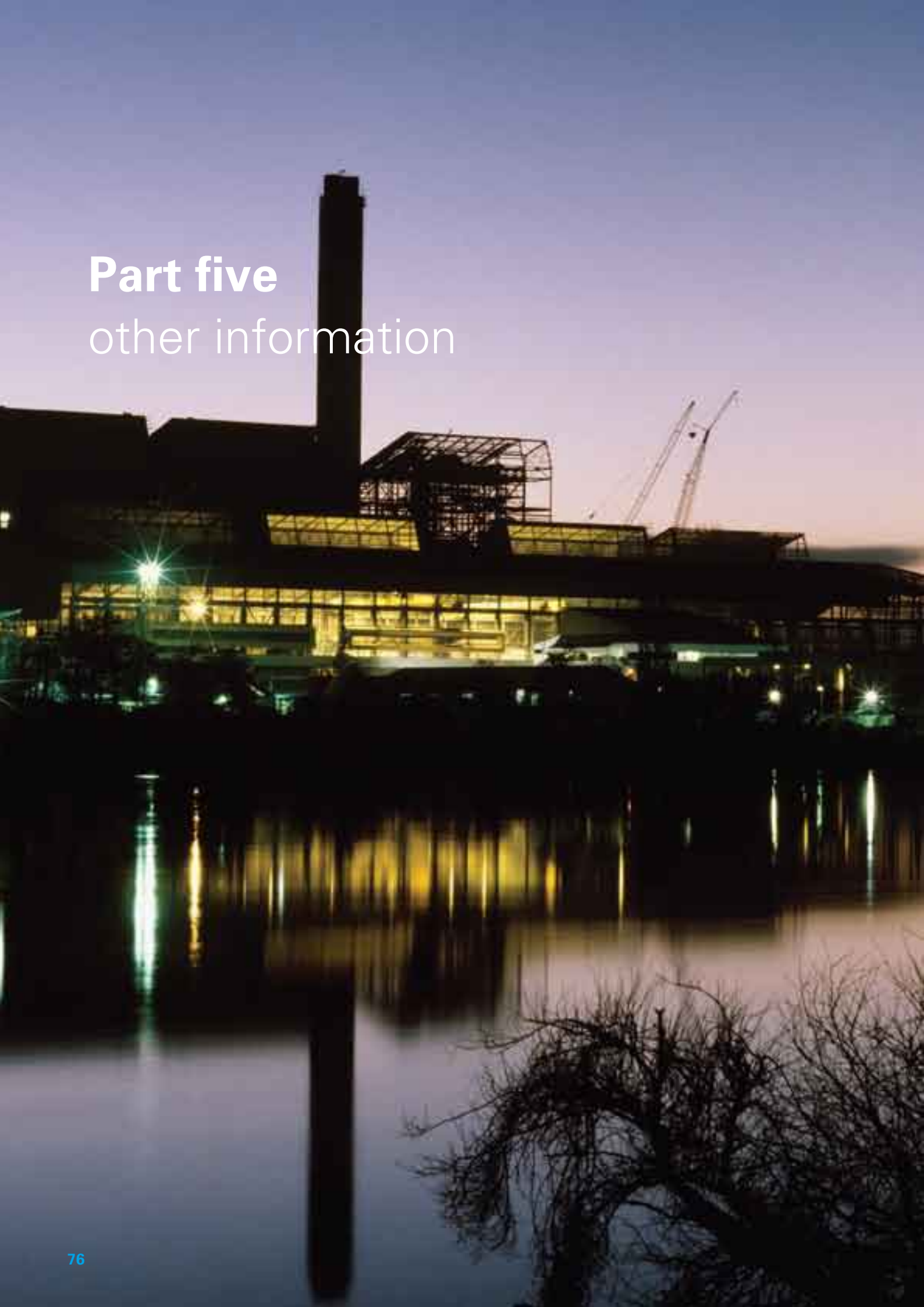
Whirinaki costs (security of supply)—costs of the Commission's contract with the Crown for the availability and operation of the Whirinaki power station. Also included is the cost of tendering for reserve energy, if needed.

Electricity efficiency programmes—costs of pilot programmes and research, such as the electricity efficiency potentials study.

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 5.

Figure 5: Levy allocation 2006/07





Part five
other information

Organisational development during 2006/07

Organisational profile

The ongoing challenge for the Commission after its start up phase is to retain and recruit the skills and experience required to staff the small professional team that supports the Board. The Commission currently has 45 staff, two of whom are part-time.

An important part of the management focus is on development of a strong team atmosphere, enabling and encouraging debate and ensuring a work focus. As a result, staff are committed, understand the importance of their work and contribute strongly to high quality work.

Human resource systems and processes

The Commission implemented a new performance management process during the year. Performance development plans have been implemented across the organisation to ensure development within existing roles and where appropriate development for future roles. The system will be reviewed after the first year of use during 2007/08.

Emphasis during the year was also placed on health and safety with the introduction of an Employee Assistance Programme, and measures to encourage wider participation in physical activity. A reference document on stress management will also be published for staff during 2007/08. The Commission continually reviews its policies and practices to ensure compliance with Good Employer obligations.

The Commission operates a market-based pay system where salaries relate to market data and are reviewed annually.

The appointment in 2007 of a permanent HR Adviser will result in a review and continued development of current HR processes and production of focussed reporting.

Skills mix

To ensure an appropriate mix of knowledge, skills and experience within the core staff, the Commission advertises roles both internally and externally, and sound processes ensure selection on the basis of merit. The induction process is reviewed regularly to ensure appropriate and timely information for new staff.

The Commission utilizes a wide range of external advisers to complete it's work, where it would not be economic to recruit and retain these resources within the organisation.

A focus in 2007/08 is to utilize existing staff across the organisation to broaden their exposure to the industry and maximize their contribution to the Commission.

Risk management

The Commission identifies key risks that may affect its ability to perform its functions and to achieve its performance objectives on an ongoing and a project by project basis.

During the year the Commission has approved the following policies and processes to provide the framework for addressing key risks:

- risk management policy;
- risk management framework;
- internal audit framework; and
- internal audit plan.

Relationships with other government agencies

Ministry of Economic Development

The Ministry of Economic Development (MED) is the government policy adviser for the energy sector, including the electricity sector. The Ministry leads the development of sector strategy (for example, through the development of the NZES), and is involved in formulating legislation (acts and regulations) for the electricity sector.

The MED also acts as the purchase adviser to the Minister of Energy regarding the requirements of the Crown Entities Act 2004.

Commerce Commission

The relationship between the Electricity Commission and the Commerce Commission is addressed in paragraphs 101–108 of the GPS. The two commissions developed an initial memorandum of understanding (MOU) on 15 May 2006.

The two commissions reviewed the MOU as required under the paragraphs 107A and 107AA of the Government Policy Statement on Electricity Governance (GPS). Public consultation was undertaken. The revised MOU was signed on 16 August 2007, and has been published on the Commission website.

Energy Efficiency and Conservation Authority

The Electricity Commission's role and relationship with the Energy Efficiency and Conservation Authority (EECA) are outlined in paragraphs 25–34 of the GPS.

The Commission works closely with EECA to co-ordinate electricity efficiency initiatives and to design and implement programmes that promote and encourage the uptake of electricity efficiency measures among consumers.

A MOU between the two agencies was signed on 31 August 2005, and 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. As an independent Officer of Parliament, the PCE has wide-ranging powers to investigate environmental concerns. 'Independent' means independent of the government of the day, so the PCE reports not to a government minister but to Parliament. The Commissioner is separate from the Ministry for the Environment, which is a government department, responsible to the Minister for the Environment.

Section 172ZP of the Electricity Act 1992 requires that the PCE examine the extent to which the Commission is meeting the GPS objectives and outcomes concerning the environment, as soon as practicable after the end of each financial year. The reports are available on the PCE website: **www.pce.govt.nz**

Organisation information

Commission management team

General manager	Mervyn English
Transmission	John Gleadow
System operations and common quality	Darryl Renner
Retail	Ron Beatty
Wholesale	Tim Street
Forecasting and modelling	Bruce Smith
Reserve energy	Gari Bickers
Electricity efficiency	Richard Norris
Chief financial officer	Kevin Lampen-Smith
General counsel and market governance	Jim Meates
Communications	Peter Thornbury

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.

The Rulings Panel comprises five independent members:

- Neville Young (Chair)
- John Isles
- John O'Sullivan
- Craig Taylor
- Gael Webster

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

Board Committees

Electricity Governance Rules Committee

The creation of effective electricity regulations and rules is one of the Commission's core functions. This led to the establishment of the Commission's Electricity Governance Rules (EGR) Committee. The Committee is responsible for:

- making decisions in respect of requests for exemptions;
- dismissing the notification of an alleged breach;
- appointing investigators;
- deciding that no formal complaint should be laid with the Rulings Panel;
- making recommendations to the Board regarding the Board's decision:
  - to approve settlements; or
  - to lay a formal complaint with the Rulings Panel.

System Operations Committee

The System Operations Committee of the Board fulfils the following functions:

- to give detailed consideration to the monthly System Operator Reports and to identify any emerging real-time security issues on a timely basis; and
- to address technical rule change proposals, not of a policy nature, in the area of wholesale, retail and common quality, including:
  - approval for consultation; and
  - recommendation to the Minister.

Undesirable Trading Situations Committee

Under Part 3 of the Electricity Governance Regulations 2003 (the Regulations), the Electricity Commission is responsible for investigating undesirable trading situations (UTSs) and, if the Commission finds that an undesirable trading situation is developing or has developed, it may take steps in relation to that undesirable trading situation. The UTS Committee addresses UTS investigations and comprises all members of the Board of the Commission.

Risk and Audit Committee

The purpose of the Board Risk and Audit Committee is to provide advice to the Electricity Commission Board in discharging its responsibilities with respect to:

- overseeing, reviewing, and assessing the quality and integrity of financial reporting of the Commission, to include managing the relationship with the external auditor;
- considering whether the Commission has established appropriate policies and put in place management processes to ensure risks are properly identified and managed; and
- overseeing and assessing the internal audit process for evaluating the effectiveness of risk management, control and governance processes.

Advisory and project groups

Paragraph 8 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 representatives as appropriate to the role of the group. The groups provide a wide range of advice and input to the operation of the Regulations and Rules as well as other policy and work programme matters.

The terms of reference for the advisory groups, working papers and minutes are on the Commission's website at: **http://www.electricitycommission.govt.nz/advisorygroups**

The Commission also uses project teams and specialist consultants for specific tasks as required. Information on all project-related teams is available on the Commission's website at: **http://www.electricitycommission.govt.nz/advisorygroups/pjtteam**

Advisory group members

Transmission Advisory Group

The members of the Transmission Advisory Group are:

- Bill Heaps Chair (Strata)
- Bob Simpson (Transpower)
- Dick Whitelaw (New Zealand Steel)
- Malcolm Alexander (Genesis Energy)
- Michael Whaley (Powerco)
- Ralph Matthes (Major Energy Users Group)
- Peter Calderwood (TrustPower)
- Tas Scott (Orion)
- Tim Densem (Mighty River Power)
- Tim George (Transpower)
- Clive Bull (Vector)
- Guy Waipara (Meridian Energy)
- James Collinson-Smith (Contact Energy)
- Russell Longuet (Exergi Consulting)

John Gleadow, Senior Adviser Transmission, is the Commission's representative on the group.

Transmission Pricing Advisory Group

The Transmission Pricing Advisory Group was disbanded in July 2007 following completion of the Transmission Pricing Methodology. The Commission thanks all members of the group who have contributed to addressing this important area of the Rules.

The members of the Transmission Pricing Advisory Group were:

- Carl Hansen, Chair (M-co)
- Graeme Ancell (Transpower)
- Simon Coates (Contact Energy)
- Nevill Gluyas (Meridian Energy)
- Neil Williams (Mighty River Power)
- Duncan Head (Vector)
- Ray Deacon (Comalco)

John Gleadow, Senior Adviser Transmission, was the Commission's representative on the group.

Common Quality Advisory Group

The members of the Common Quality Advisory Group are:

- Toby Stevenson, Chair (Law and Economics Consulting Group)
- Tim Chatterton (Vector)
- Bryan Leyland (Consulting Engineer)
- Terrence Currie (T C Associates)
- Chris Ewers (Meridian Energy)
- Pauline Buckley (Mighty River Power)
- Carmen Blacker (Contact Energy)
- John Clarke (Transpower—System Operator)
- Nalin Pahalawaththa (Transpower—grid owner)

Darryl Renner, Senior Adviser System Operations and Common Quality, is the Commission's representative on the group.

Retail Market Advisory Group

The members of the Retail Market Advisory Group are:

- David Russell, Chair (Independent)
- Keith Tempest (TrustPower)
- Rob Jamieson (Orion)
- Nigel Barbour (Powerco)
- Neil Barton (Federated Farmers)
- Peter Rutledge (Grey Power)
- Anne Herrington (Smart Power)
- Cory Franklin (Contact Energy)
- Raewyn Fox (New Zealand Family Budgeting Association)
- John Scott (Consultant)

Ron Beatty, Senior Adviser Retail, is the Commission's representative on the group.

Wholesale Market Advisory Group

The members of the Wholesale Market Advisory Group are:

- Bill Heaps, Chair (Strata)
- Grant Sullivan (Meridian Energy)
- Therese Thorn (TrustPower)
- Doug Goodwin (Transpower)

- John Scott (Consultant)
- Phil Gibson (Mighty River Power)
- Kit Wilson (King Country Energy)
- Graham Stairmand (Grey Power)
- Rod Boyte (Smart Power)
- Bob Weir (Genesis Energy)

Tim Street, Senior Adviser Wholesale, is the Commission's representative on the group.

Hedge Market Development Steering Group

The members of the Hedge Market Steering Group are:

- Tony Baldwin, Chair (Independent)
- Carl Daucher (Morrison and Co)
- James Moulder (Mighty River Power)
- Mark Trigg (Contact Energy)
- Paul McIver (TrustPower)
- Ralph Matthes (Major Electricity Users Group)
- Russell Longuet (Exergi Consulting)

Tim Street, Senior Adviser Wholesale, is the Commission's representative on the group.

Security Advisory Group

The members of the Security Advisory Group are:

- Peter Harris, Chair (Electricity Commission)
- Duncan Head (Vector)
- Kevin Small (Transpower)
- Peter Kimber (Genesis Power)
- Simon Coates (Contact Energy)
- Michael Scotton (Rio Tinto Aluminium Power NZ)
- John Noble (Grey Power)
- Barbara Elliston (Elliston Power Consultants)
- Grant Smith (Meridian Energy)

Gari Bickers, Senior Adviser Reserve Energy, is the Commission's representative on the group.

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. This work addresses paragraph 75 of the GPS.

The Commission contracts third parties to deliver these outputs on its behalf. These are collectively referred to by the Commission as 'service providers'.

Clearing Manager—monitors prudential security requirements, and invoices and settles electricity and ancillary service payments.

Wholesale Information and Trading System—the software system used to transfer information between participants, as required by the Rules, especially the uploading of bids and offers.

Pricing Manager—calculates and publishes final prices.

Reconciliation Manager—facilitates the monthly reconciliation process and reconciles metering data against a register of contracts.

Registry—the database that identifies every point of electricity connection, which enables electricity flows between retailers to be reconciled. The registry also informs retailers when a customer switches supplier.

System Operator—schedules and dispatches electricity in a manner that avoids fluctuations in frequency or disruption of supply. The System Operator is responsible for the real-time co-ordination of the electricity system. It instructs generators when to generate electricity and how much electricity to generate (that is it 'dispatches' generation) so that injections of electricity into the system match off-take by electricity consumers at each moment in time.

Further information about service providers is available on the Commission's website: **http://www.electricitycommission.govt.nz/aboutcommission/**

Service provider tender processes

The Electricity Commission's competitive tender for the Clearing Manager, Pricing Manager, Wholesale Information and Trading System (formerly Information System), Reconciliation Manager and Registry service provider agreements was completed in June 2007 and the results announced on 2 July 2007. The outcome of the tender was:

Service provider agreement	Previous provider	Successful tender
Clearing Manager	The Marketplace Company Ltd	The Marketplace Company Ltd
Pricing Manager	The Marketplace Company Ltd	The Marketplace Company Ltd
Wholesale Information and Trading System	The Marketplace Company Ltd	The Marketplace Company Ltd
Reconciliation Manager	Energy Market Services Ltd	The Marketplace Company Ltd
Registry	Jade Direct NZ Limited	Jade Direct NZ Limited

As part of the agreements, with the exception of the Pricing Manager role, all software is now to be licensed to the Commission. This arrangement provides the market with better management of risks of provider continuity of service and enhancement of competition in any future competitive tenders for these services.

With the exception of the Reconciliation Manager role, all new agreements commenced on 1 July 2007. The Marketplace Company Limited (M-co) has now commenced the development of a new reconciliation system, to support the new part J reconciliation rules that will come into effect on 1 May 2008. Until the new system has been developed, Energy Market Services Ltd (the current service provider) will continue to provide reconciliation manager services on a transition basis.

System Operator service provider agreement

The Commission and Transpower are reviewing the System Operator service provider agreement. It is intended that any proposed changes to the current arrangements, including the fee basis, would be included in material released for consultation during the Commission appropriations consultation for 2008/09 year.

Glossary

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 G of the Rules, it includes an embedded network owner. For the purposes of part C of the Rules, it includes consumers with a point of connection to the grid.

Electricity Act 1992 (the Act)—as amended by later Acts, 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, 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. It 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 was conducted by the Commission with 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). The Rules (parts A, C, D, E, G, H and I) were approved by the Minister of Energy on 18 December 2003, and took effect during February and March 2004. Part F, dealing only with transmission issues, came into force in May 2004.

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.

Financial transmission rights—a financial risk management product that protects against price risks arising from transmission losses and constraints.

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 Act. 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, and updated in October 2006.

Grid or national grid—the high-voltage electricity transmission network that transmits electricity throughout New Zealand. It 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 12,000km 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—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 and is intended to provide a 1-in-74 security of supply standard (more conservative than the Government's 1-in-60 years target). That is, in only one year out of 74 would there be shortage that would require further action. The Minzone calculation is the storage required to meet demand for the coming 12 months (assuming inflows no lower than the lowest on record). 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). A Draft New Zealand Energy Strategy was released in December 2006.

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). A draft revision of the strategy was released in December 2006.

1-in-60 dry year—a year in which there is a drought in hydro catchments of the severity that, statistically, can 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 industry-related groups or individuals who engage with the Commission including (see meanings set out in the Regulations):

- 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
- payee generators, ancillary service agents and the System Operator regarding payment for ancillary service administrative costs.

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 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, if needed.

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/or 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 in a 1-in-60 dry year.

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

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.

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 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.

Consultation papers during 2006/07

The Commission consulted on the following papers during the 2006/07 year.

Consultation paper	Closing date
Reconciliation rule change proposal 62—transition rules.	26 July 2006
Transmission pricing methodology implementation date.	10 August 2006
Amended information systems definition.	19 September 2006
Otahuhu substation upgrade IGE application.	20 September 2006
Rules relating to intermittent generators.	22 September 2006
e3p exemption application.	25 September 2006
Call for cross-submissions on draft benchmark agreement and proposed interconnection rules.	27 September 2006
Grid planning assumptions.	29 September 2006
Duplicate protection.	4 October 2006
Hedge market consultation papers.	25 October 2006
Proposal for rolling outage regulations and planning.	27 October 2006
Rules relating to the publication of daily demand data.	7 November 2006
Annual security and reserve energy needs assessment, October 2006.	16 November 2006
Transpower's 20 October 2006 proposal for NI grid upgrade project.	22 November 2006
Proposed request for appropriations for its electricity efficiency function.	11 December 2006
Proposed request for appropriations for its electricity efficiency function.	11 December 2006
Duplicate protection (second round).	21 December 2006
Publication of reserve offers.	15 January 2007
Appropriations 2007/08.	19 January 2007
Proposed transmission pricing methodology.	2 February 2007
Otahuhu grid upgrade proposal.	12 February 2007
Approval method for consumer complaints resolution schemes.	23 February 2007
Forward estimate audit.	30 March 2007
Transpower's North Island grid upgrade proposal.	30 March 2007
Castalia review of the electricity security of supply policy.	11 April 2007
Benchmark agreement and interconnection rules drafting comments.	18 April 2007
Peak demand information consultation paper.	18 April 2007
Routine testing of assets.	24 April 2007
Principal objectives (paper for comment).	27 April 2007
Demand forecasting methodology for security of supply.	7 May 2007
System Operator 2007 draft policy statement.	14 May 2007
Memorandum of understanding between the Commerce Commission and Electricity Commission.	16 May 2007
IGE application for conducting a trial into demand-side participation and grid support contract development in the upper South Island.	1 June 2007

Consultation paper	Closing date
Allocation of under-frequency event charge rebates.	8 June 2007
Two traders at a point of connection.	15 June 2007
Upper South Island reactive support IGE application—May 2007.	25 June 2007

The Commission commenced consultation on the following papers during the 2006/07 year.

Consultation paper	Closing date
Otahuhu substation proposal.	13 July 2007
Market design review issues paper.	20 July 2007
System Operator 2007 draft procurement plan.	25 July 2007

Rule changes completed in 2006/07

The Commission completed the following rule changes during the 2006/07 year.

Rule change	Gazetted on
Revised policy statement.	3 August 2006
Schedule D2 of part D.	21 September 2006
Minor pricing and settlement rule changes.	28 September 2006
Revised procurement plan for System Operator ancillary services.	5 October 2006
Indications and measurements.	19 October 2006
Operational communications.	19 October 2006
Notification of constraints.	26 October 2006
Reconciliation rule change.	23 November 2006
Rules relating to intermittent generation.	21 December 2006
High spring washer pricing.	1 March 2007
Offer and dispatch rules for co-generation plant.	1 March 2007
Publication of reserve offers.	5 April 2007
Duplicate protection.	19 April 2007
Publication of demand half-hour metering information.	3 May 2007
Benchmark agreement and interconnection rules.	31 May 2007

Appendix one
principal objective explanatory statements

The Electricity Commission's principal objectives are contained in section 172N(1) of the Electricity Act 1992 (and are included on the inside front cover of this report).

The Commission is clear that there is no hierarchy to the components of the principal objectives, and that these cannot be considered in isolation to the specific outcomes or the GPS.

To assist it in its work, and to assist those with whom it works, the Commission has sought to clarify the key components of the principal objectives, and the related roles of the Commission and others. These key components, italicised in bold, are:

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

These statements have been developed after feedback from consultation early in the 2007 calendar year.

'Efficient'

Efficiency is essential in all parts of the industry to deliver the desired level of reliability at a price consumers are prepared to pay. Efficient market operation ensures that prices reflect the true cost of production and delivery at any given time, which is expected to vary given our reliance on hydro generation in particular, and the increasing amount of wind generation.

An efficient market will respond to reduced supply by increasing prices and driving down demand, and will provide incentives for investment in new generation to expand supply.

Efficiency contributes to reliability by ensuring usage decisions follow price signals that reflect the availability of electricity and desired security levels at any time.

Efficiency may also relate to the use of resources for the production of electricity. For example, minimising hydro spill is an efficiency measure relating to resource use linked to an environmental sustainability objective.

Efficiency includes dimensions of productive, allocative and dynamic efficiency.

- **Productive efficiency** (least cost production). This requires a given output to be produced at the lowest possible cost, in light of known technologies and resource prices.
- **Allocative efficiency** (resources allocated to highest value uses). Allocative efficiency is achieved when resources and technical knowledge are allocated to produce the collection of products and services that buyers value most highly, as indicated by their collective willingness to pay for them at their marginal costs. In a situation of allocative efficiency, total surpluses (consumer and producer surpluses) are maximised.
- **Dynamic efficiency** (maximising net benefits of investment). Dynamic efficiency occurs when the net present value of production is maximised over time, allowing for the uptake of new production processes and the fulfilment of new demands. Dynamic efficiency is a critical consideration in decisions involving capital-intensive and long-life assets, as is typical of electricity industry investments. Dynamic efficiency provides the greatest net benefits to society over time.

The competitive impact of efficiency is to drive producers to innovate to improve the quality and cost of their goods and services, and respond to emerging market developments to support resilience and responsiveness in the economy.

'Fair'

The Commission will be cautious in applying this component of the principal objectives in an expansive way. It acknowledges that the term 'fair' can be perception-laden, and may mean quite different things to different people. In applying this objective, the Commission also recognises the statutory functions other agencies have for ensuring fair practices.

Fairness, as an economic principle, involves those who receive the most of the benefit paying for most of the cost of the asset and/or service. The Commission acknowledges that it is difficult to assign the costs of common goods, including transmission and common quality, to beneficiaries on a user pays basis. The Commission seeks to allocate such costs as equitably as is practical having regard to such factors as the transaction cost of more complex pricing regimes. The Commission accepts that some 'free riding' is inevitable. In such circumstances, the Commission is in a position of having to decide what is the most fair or the least unfair.

For the electricity system and market to operate fairly requires that all parties:

- only have to pay charges for products and services that are reasonable given the extent to which they cause the need for, use or benefit from the product or service;
- are able to obtain information which they need to make decisions if they are willing to bear the costs of provision of the information (noting that some information will not be generally available due to commercial sensitivity);
- have the opportunity to understand and comment on proposals to change the rules and regulation;
- receive natural justice in the application of rules and regulations; and
- are able to participate in or gain from trade when they are willing to bear all reasonable costs of doing so.

For electricity to be produced and delivered fairly requires that all classes of consumers:

- have access to a competitive environment to ensure fair price;
- receive the information necessary to make choices in provider and provision contracts;
- have access to mechanisms for the resolution of conflicts or disagreements; and
- are assured that the 'essential service' aspect of electricity supply is recognised and provided for in the delivery of electricity services and supply.

'Reliable'

The focus of much of the Commission's work to date has been to address the fundamental need for reliability in the electricity system. The Commission's strategic priorities of system security and sufficient supply reflect the emphasis on ensuring reliability.

Long term reliability is achieved when there is an appropriate level of investment and innovation to meet future consumer demand. However, this cannot be defined in absolute terms. The level of reliability achieved relates to the balance between the willingness to invest and the acceptance of disruption. Reliable means that these expectations are clearly stated, understood and achieved within acceptable costs and prices.

For electricity to be produced and delivered in a 'reliable' manner requires both **1. sufficient supply** and **2. system security**. The two components are interlinked.

Sufficient supply

Supply is sufficient when the electricity system (generation, transmission and distribution) can meet:

- current demand;
- reasonably foreseeable demand, taking account of:
  - foreseeable growth in demand;
  - dry year scenarios;
  - scheduled outages; and
  - reasonably expected unscheduled outages of the various system elements.

System security

The system is secure when electricity delivered meets user expectations in terms of common quality characteristics. The common nature of electricity delivery means that a consumer cannot isolate the reliability for which that individual alone is prepared to pay. The interconnected nature of the electricity system means that everyone in a particular area receives the same level of 'reliability'. Therefore a minimum administered reliability standard, that is acceptable to each grouping of customers in an area, needs to be agreed.

Ongoing investment in electricity infrastructure is needed to meet reliability requirements in the face of growing demand and changing generation and use patterns. Demand-side and load management initiatives assist with maintenance of system security.

'Environmentally sustainable'

The principal objective use of 'environmentally sustainable' can be interpreted as including the concepts of environment and of sustainable management as defined below, modified by the scope of the Commission's functions, and the primary focus of the principal objectives—the production and supply of electricity. However, it should be noted that many of the impacts of electricity production and delivery are addressed by regional and local authorities and the Environment Court through the Resource Management Act 1991 and that the Commission has limited involvement in these processes.

'Environment' is defined in the Environment Act:[6]

"Environment includes:

- ecosystems and their constituent parts including people and communities;
- all natural and physical resources;
- those physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes; and
- the social, economic, aesthetic, and cultural conditions that affect the matters listed above or that are affected by those matters."

Electricity delivers essential services to society. In addition to its importance to the economy, a reliable supply of electricity is an essential element of our quality of life, social cohesion, and public welfare.

'Sustainable management' is defined in the Resource Management Act 1991:

"Sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while:

- sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations;
- safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
- avoiding, remedying, or mitigating any adverse effects of activities on the environment."

In the context of electricity supply and delivery, environmental sustainability requires that supply meets the needs of the present without compromising the ability of future generations to continue using natural and physical resources to meet their own needs.

Environmental sustainability takes a long-term view and emphasises efficiency in operation and use, a transition to the use of renewable resources, at rates not exceeding their rates of natural regeneration, pollution not exceeding the environment's assimilative capacity, and avoiding irreversible impacts on ecosystems. Environmental sustainability also means considering solutions that create options and resilience, so that the electricity system can respond to future shocks and trends that are not readily discerned at present.

'Efficient use'

An increase in the efficiency of energy use means a change to energy use that results in an increase in net benefits per unit of energy consumed. Promotion and facilitation of efficient use means ensuring that all parties receive the information needed to make informed decisions about energy production, transmission, distribution and use, and that pricing and regulatory mechanisms encourage efficient use.

Achieving behaviour changes required to deliver electricity efficiency may require programmes that subsidise and promote electricity efficiency technologies. The Commission considers such programmes when they deliver demonstrable savings significantly greater than the long-run marginal cost of new generation. Benefits from Commission programmes are cumulative: once a switch is made to more efficient technologies, it is anticipated that the new technology will become the preferred choice for future replacements.

6 As used in the report: Electricity, Energy, and the Environment, Parliamentary Commissioner for the Environment, May 2006.

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