Statement of Intent

2007–2010

Electricity Commission
Te Komihana Hiko

The Electricity Commission is a Crown agent as defined by the *Crown Entities Act 2004*. The Commission was established under the *Electricity Act 1992* to oversee New Zealand's electricity industry and markets. The Commission commenced operation in September 2003.

Electricity Act 1992

Section 172N Principal objectives and specific outcomes

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 the electricity industry 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;
- g the electricity sector contributes to achieving the Government's climate change objectives by minimising unnecessary 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.

Electricity Commission
Statement of Intent
2007–2010

Prepared in accordance with part 4 of the *Crown Entities Act 2004*

Outline

This *Statement of Intent 2007–2010* (SOI) is the Commission's formal public accountability document setting out its plans for 2007/08 in detail, and for the subsequent two years in more general terms. The SOI is required to be published under the *Crown Entities Act 2004*.

The SOI provides information on what the Commission will be doing to advance the principal objectives and specific outcomes in the *Electricity Act 1992* (the Act).

Chair's foreword

The foreword provides an outline of the Commission's priorities for the next three years.

Part one—strategic context and direction

Part one outlines the context in which the Commission works, the manner of operation, and the Commission's strategic priorities.

Part two—performance information

Part two specifies the financial and non-financial performance that the Commission expects to achieve across its statutory functions. The achievements against this section, as reported in the *Annual Report* for 2007/2008, will be audited by Audit New Zealand.

Part three—other information

Part three provides information about the Commission's structure, how the Commission works and its advisory groups.

Contents

Abbreviations used in this Statement of Intent

Act	*Electricity Act 1992*
BA	benchmark (transmission) agreement
Board	the Board of the Electricity Commission
CDS	centralised dataset
CFL	compact fluorescent lamp
CO_2	carbon dioxide
Commission	Electricity Commission
CQSO	common quality and system operations
EECA	Energy Efficiency and Conservation Authority
EGR Committee	Electricity Governance Rules Committee
GAAP	generally accepted accounting practice
GPS	*Government Policy Statement on Electricity Governance*
GIT	grid investment test
GST	goods and services tax
GUP	grid upgrade plan
GWh	gigawatt hour
HMDSG	Hedge Market Development Steering Group
HVDC	high-voltage direct-current
KWh	kilowatt hour
Minister	Minister of Energy
MED	Ministry of Economic Development
MOU	memorandum of understanding
MW	megawatt
MWh	megawatt hour
NZES	*New Zealand Energy Strategy*
NZEECS	*New Zealand Energy Efficiency and Conservation Strategy*
PCE	Parliamentary Commissioner for the Environment
Regulations	*Electricity Governance Regulations 2003*
RMA	*Resource Management Act 1991*
Rules	*Electricity Governance Rules 2003*
SOI	*Statement of Intent*
SOO	*Statement of Opportunities*
TPM	transmission pricing methodology
UTS	undesirable trading situation

A glossary is also provided in part three of this *Statement of Intent*—see page 75.

Chair's foreword

The Electricity Commission has, in its short life, gone through rapid developments, with the initial establishment phase completed, and then the bedding down of the organisation into a strong, stable and competent agency that is addressing basic market and system operation requirements.

The Commission is entering a new phase of development. A significant number of the specific tasks in the *Government Policy Statement on Electricity Governance* (GPS) are completed or nearing completion. Completion of major elements of the regulatory framework, such as the transmission pricing methodology, benchmark (transmission) agreement, and reconciliation rules illustrate the achievements of the Commission in resolving long-standing matters.

While the Commission will continue to monitor and develop its established work areas, the focus is becoming more proactive. For example, the conclusion of the market design review is intended to provide a clear picture of how electricity wholesale and retail markets are performing, and to provide certainty for the industry and other stakeholders on future direction of market regulation. The major expansion of the Commission's electricity efficiency work is an important long-term programme.

The Government's emphasis on sustainability and climate change mitigation is driving change in policy that will have long-term impacts on the electricity industry. The Commission needs to be cognisant of those changes and their potential implications for its regulatory activities. It is undertaking significant forward-looking projects across its workstreams to address future directions such as integration of intermittent generation into the electricity system.

These projects are to ensure that the *Electricity Governance Rules 2003* and *Electricity Governance Regulations 2003* provide a market and regulatory environment that facilitates the investments and initiatives needed to achieve sustainability and climate change objectives.

The Commission continues to emphasise timely, quality information. It will monitor the development of the market, and model supply and demand scenarios, in line with the changes and growing diversity of New Zealand's electricity supply. The goal is to provide the best possible information for market participants to understand trends and plan their businesses. Provision of relevant and high quality information to consumers is also a key consideration for the Commission's retail and electricity efficiency workstreams.

Recent developments and medium-term strategic priorities

In September 2006, the Commission consulted on its strategic direction and its medium-term strategic priorities. The priorities derive primarily from the principal objectives and specific outcomes for the Commission, in section 172N of the *Electricity Act 1992*. In developing the priorities and work programme for this SOI, the Commission has also considered the update to the GPS, released in October 2006, the draft *New Zealand Energy Strategy* (NZES) and the draft *New Zealand Energy Efficiency and Conservation Strategy* (NZEECS), both released in December 2006. The Commission considers that its medium-term strategic priorities support and align with the direction provided in these documents. The Commission will closely monitor developments with the NZES and NZEECS, to see if

further work is required, and will revise its priorities if necessary.

The Commission's medium-term strategic priorities are:

- security of supply;
- system security;
- fair and efficient markets; and
- environmental sustainability and efficient use.

All projects in this SOI were assessed against the medium-term strategic priorities and the GPS.

Working together

This SOI outlines the context in which the Commission works, the strategic direction that it has developed, and the outputs (both projects and business-as-usual) that will be delivered. It is the product of several months of planning and consultation with stakeholders. I believe that we have set a challenging and proactive programme for 2007/08 and beyond. We invite our stakeholders to work actively with us to ensure the best possible outcomes from this work for all of New Zealand.

Peter Harris
Deputy Chair

Part one

strategic context and direction

Electricity in context

Electricity is a key component of the overall energy sector. There are many factors that are likely to affect the overall demand for electricity and the pressures on the delivery of electricity when and where it is needed. At any given time the key factors might include:

- the price and availability of alternatives, for example, oil;
- policy and regulatory requirements, for example, clean air regulations—affecting home heating investment and operation decisions, and building regulations—improving the electricity efficiency of future housing stock;
- population change—growth, household composition, and location;
- the effect of La Niña and El Niño patterns on hydro storage and capacity;
- economic development—development, changes, and growth of the industrial and commercial sectors; and
- the outcome of gas exploration programmes.

In setting out the general statements that follow on the electricity sector in the global and national context, the Electricity Commission seeks to identify some of the key factors that it considers particularly relevant to planning for the 2007–2010 period.

Global context

International factors that have the potential to affect the electricity system of New Zealand. Key areas include:

- prices for non-renewable fuels used in electricity generation including gas, diesel and coal, which are affected by global markets;
- climate change projections and the effects of international agreements (for example, the Kyoto Protocol and European Union agreements) on greenhouse gas reductions, renewable energy and the development of a European Energy Policy;
- global economic trends such as company decisions on location of production facilities, and exchange rate changes, which impact on the cost of imported fuels and capital equipment; and
- global technology developments and demand for electricity equipment, for example, wind turbines.

National context

From a national perspective, key factors relevant to the operation of the Commission and to the electricity sector include the Government economic transformation priority, national policy (GPS, NZES, NZEECS—see page 9), and the availability of traditional and new sources of electricity generation. In 2006, several significant research, review and policy statements were released, which the Commission has considered in its planning. Key publications are discussed below.

- **Economic transformation**—in April 2006 the Government announced that economic transformation would be one of its three key priorities for the next decade.

  In addressing economic transformation the Government is focussing on five mutually supporting themes:

  – growing globally competitive firms;
  – innovative and productive workplaces;
  – world-class infrastructure;
  – an internationally competitive city—Auckland; and
  – environmental sustainability.

  An adequate, reliable, and environmentally sustainable electricity supply is a foundation block of the economy. The Commission's principal objectives align directly with the overall economic transformation agenda. The Commission seeks to work with the sector to ensure that a fair and efficient electricity market delivers a reliable and sustainable electricity supply. The Commission considers that the results it seeks in the electricity system contribute directly to the economic transformation priority.

  The Commission contributes to the theme of **an internationally competitive city—Auckland** through using its oversight of Transpower investment to promote an electricity supply that is reliable and meets the present and future needs of the city.

  The Commission contributes to the theme of **world-class infrastructure** through regulatory oversight and decision-making in relation to the electricity transmission infrastructure (see the section that follows on the **electricity system**).

The Commission contributes to the theme of **environmental sustainability** through a wide range of its projects, including demand-side management, load management, electricity efficiency and facilitating the development of renewables and their integration into the electricity system.

- **Electricity market review**—the electricity market review was reported to Cabinet in December 2006. The Cabinet papers were subsequently released. The report noted that some improvements can be made to the performance of current market arrangements, and that regulatory stability and investor confidence are essential to making a competitive market work.
- ***Draft New Zealand Energy Strategy*** **(NZES)** —the Government released its draft NZES in December 2006. The draft strategy puts emphasis on continuing to meet New Zealand's economic development needs, while at the same time reducing environmental impact, in particular climate change and reducing reliance on thermal electricity generation.
- ***Draft New Zealand Energy Efficiency and Conservation Strategy*** **(NZEECS)**—the Government released the draft NZEECS in December 2006. The draft strategy includes actions for the Commission, which are addresssed in the current work programme.
- ***Government Policy Statement on Electricity Governance*** **update**—in October 2006 the Government released a revised *Government Policy Statement on Electricity Governance* (GPS), with an increased emphasis on security of supply, system security (in particular for transmission investment decision-making) and environmental sustainability.
- **Parliamentary Commission for the Environment's *Electricity, Energy and the Environment Report 2006***—this annual report includes recommendations relating to the statutory duty of the Parliamentary Commissioner for the Environment (PCE) to examine the extent to which the Commission is meeting the outcomes and objectives of the GPS with regard to the environment.[1] The report was released in May 2006 and relates to the 2004/05 financial year.
- ***New Zealand Energy Outlook to 2030***[2]—the Ministry of Economic Development (MED) *Energy Outlook* report provides a comprehensive analysis of current trends and likely future scenarios.

Significant uncertainties—despite the range of research reports, reviews and policy statements and information sources outlined above, significant uncertainties exist for the Commission and the electricity sector in New Zealand including:

- finalisation of the NZES and NZEECS. These are significant policy documents. Their final form is likely to have a significant impact on the electricity sector and the work of the Commission. If appropriate, the Commission will consider re-prioritising its work programme in line with the final strategy documents;
- future Rio Tinto NZ (Comalco) power arrangements and requirements (Comalco uses about 14 per cent of New Zealand's electricity generation);
- future gas resource discovery and exploitation; and
- the future of carbon charges or trading of any form.

1 Electricity Act 1992, section 172ZP Report by Parliamentary Commissioner for the Environment.

2 New Zealand's Energy Outlook to 2030; September 2006. Ministry of Economic Development.

The electricity system

This section outlines the components of the electricity system and the roles of the Commission within those components.

There are two aspects to this system—the physical system and the financial/institutional system.

The physical electricity system consists of:

- power stations (generators);
- high-voltage power lines (transmission);
- low-voltage power lines (local lines companies, also called distribution companies or networks); and
- electricity consumers.

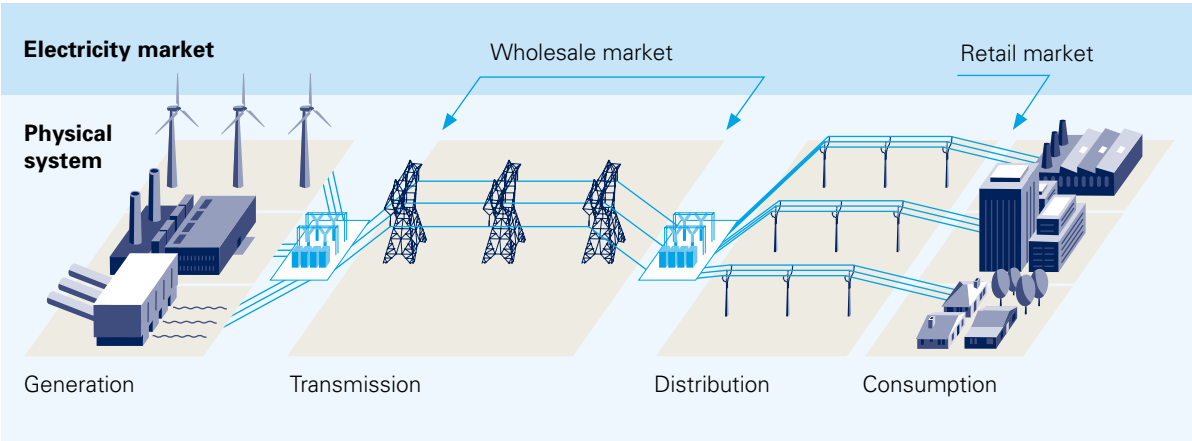
The financial/institutional electricity system includes:

- **generators** who sell power on the wholesale electricity spot market;
- **wholesale market**, comprising a short-term spot market and electricity hedges;
- **Transpower** (the monopoly transmission company) and the **distributors** (lines companies) providing the physical linkage between the generators and the consumers; and
- **retailers** who buy electricity on the electricity wholesale market, and sell it to the consumers.

There are other dimensions to this picture:

- Distributed generation refers to the small generators such as a wind turbine on a farm, or domestic solar power system where the owners sell their power into the system. This power is not sold on the spot market. When these parties sell power they are selling to the retailer.
- Distributors can also be generators, but section 17 of the *Electricity Industry Reform Act 1998* limits how much generation they can have.

Figure 1: the electricity system



Source: Electricity Commission

Generation

Physical system

The majority of New Zealand's electricity is generated from hydro (53.3 per cent), with the remainder as follows:

- gas 23.2 per cent;
- coal 13.9 per cent
- geothermal 6.3 per cent; and
- wind 1.5 per cent.[3]

Each of these sources has different characteristics.

- Hydro is subject to the varying lake levels as climatic conditions vary from year to year and hydro storage is limited.
- The level of extraction of geothermal energy can be managed up to a maximum capacity, which may be determined by either resource constraint or generation equipment constraints.
- Wind is the most volatile—it is either available or not and there is no 'storage' component.
- Coal, gas and oil are all fuels that can be stored.

The five major generators (Genesis, Mighty River Power, Meridian, Contact Energy and TrustPower) produce more than 90 per cent of New Zealand's electricity.

The balance of electricity generation is provided by some industries through self-generation (particularly wood products) and independent operators of small generators.

Financial/institutional system

The Commission provides information on generation and usage (demand) to assist generators in determining the extent and nature of investment in generating capacity.

Generators make the decisions on whether to build generation capacity, and how much and what type of generation capacity to build.

The Commission monitors the availability of electricity capacity and demand. The Commission also contracts for emergency (reserve energy) generation capacity to cover dry-years where hydro storage may not be enough to guarantee continuity of supply.

Wholesale market

Physical system

Nearly all electricity generated in New Zealand is sold in the wholesale spot market.[4] Generators offer their electricity into the market and compete to be dispatched (put onto the grid). Generators with the lowest offers are generally dispatched first.

The Commission oversees the operation of the wholesale market and contracts with external parties to provide core services to facilitate the market, such as the information system, pricing manager and clearing manager functions.

Financial/institutional system

The wholesale electricity market includes the spot market for electricity, and the hedge market where participants trade financial products to manage spot-price risks. Generators sell electricity into the wholesale market, and large consumers and retailers purchase electricity at the spot price or hedge price.

The Electricity Commission is responsible for monitoring and enforcing wholesale market rules contained in the *Electricity Governance Rules 2003* (Rules). The Commission is also responsible for recommending changes to the Rules to the Minister of Energy.

Transmission

Physical system

The national high-voltage transmission system is commonly referred to as the 'national grid'. The grid comprises approximately 12,000 kilometres of transmission lines and transports electricity from some 40 power stations to connect with distribution networks at more than 200 grid exit points all over New Zealand. The grid can be compared to the national highways. Once the network is in place it can absorb significant growth in usage with maintenance and improvement until it reaches the point where significant new investment is required. The electricity grid has now reached the point where it needs significant investment.

Financial/institutional system

The transmission network is owned by Transpower, a state-owned company. Transpower is also the planner for the network.

3 Source—MED *Electricity Data File*, Table 1, year ended March 2006.

4 A minor exception is electricity that is generated and sold within the same distribution network. In these circumstances, the parties are free to establish their own arrangements for determining the price at which the transaction is settled.

The Commerce Commission regulates Transpower's overall transmission charges and the distribution prices charged by local lines companies.

The Electricity Commission is responsible for ensuring that the rules for transmission investment and pricing are fair to all parties and that significant investments in transmission are justified on an economic basis.

The relationship between the Electricity Commission and Commerce Commission is addressed in paragraphs 101 to 108 of the GPS. The two commissions have developed a memorandum of understanding (MOU), which was updated in 2007, consulted on, and is currently being finalised.

Distribution

Physical system

Distribution takes the power from the major grid exit points (commonly referred to as sub-stations) to the consumers using the local lines. Distribution includes maintenance of lines, dealing with outages (for example when storms bring lines down) and addressing local environmental issues such as undergrounding of lines in urban areas.

Financial/institutional system

Of the 28 distribution companies, three companies (Vector, Powerco and Orion) jointly service 60 per cent of New Zealand consumers. Distribution companies are usually owned by community trusts or local authorities, although some distributors are privately owned (for example, Powerco).

The Commerce Commission is responsible for ensuring that distributors operate within acceptable market models.

Retailers

Physical system

The electricity retailer is the organisation that reads the meter and bills the consumer for the electricity that they use.

Financial/institutional system

When the retail market was created, the initial (incumbent) retailers received the accounts of all consumers in their area as a starting point. Consumers can now change retailers, the same way they can change phone companies. Electricity retailers purchase electricity from the wholesale spot market and sell it to consumers.

Most consumers pay a fixed rate for power. This means that the retailer is exposed to the differences between the fixed price they sell electricity for, and the variable price at which they buy it on the wholesale spot market.

Retailers use two mechanisms to manage these risks. They commonly have hedge contracts that are like an insurance policy against price changes. The other risk protection is that most retailers are also generators—if they are paying more for electricity on the spot market, they should also be making more from the electricity they are generating and selling into the spot market, thus smoothing out the impact.

In New Zealand, the five biggest retailers are the same companies as the five biggest generators. There is a high degree of alignment between generation and retail market share (vertical integration).

The Electricity Commission is responsible for monitoring and enforcing retail market rules embodied in the *Electricity Governance Rules 2003* (Rules). The Commission is also responsible for recommending changes to the Rules to the Minister of Energy.

The Commerce Commission is responsible for ensuring that retailers operate within acceptable market models.

Consumers

Physical system

The electrical wiring and equipment beyond the meter in a consumer's premises is owned by that consumer.

Consumers can choose how much electricity they use by making choices about energy efficiency, for example, installing insulation and compact fluorescent lamps (CFL), and by making choices about their usage behaviour, for example, turning off unused appliances.

Consumers can also choose the extent to which their energy needs are met from electricity or from other sources, for example, gas, solid fuel heating, or solar water heating.

Financial/institutional system

All consumers, except some very-high-user industries, have supply contracts with retailers. These contracts typically include fixed and variable supply charges and fixed and variable rates for electricity used. A small number of consumers purchase electricity from the spot market and use hedge contracts to manage their price risk.

Consumers can choose their retailer, based on who has the plan that best fits their needs—similar to the telecommunications industry.

The Electricity Commission has some consumer protection responsibilities, including the development of model contracts, overseeing the consumer complaints scheme, and ensuring appropriate regulations and rules are in place. The Commission also carries out electricity efficiency research and develops and manages electricity efficiency programmes.

The Energy Efficiency and Conservation Authority (EECA) has a wider energy efficiency role (including gas and transport). The Commission has a memorandum of understanding with EECA and 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.

The Electricity Commission

The Government amended the *Electricity Act 1992* (the Act) to establish the Electricity Commission in September 2003. The Commission is a Crown agent and operates in accordance with the *Crown Entities Act 2004*.

The Act sets out the principal objectives and specific outcomes with which the Commission is charged. It also sets out the Commission's functions and lists the processes under which the *Electricity Governance Regulations 2003* (Regulations) and *Electricity Governance Rules 2003* (Rules) are established and amended.

In October 2006 the Minister of Energy released an updated *Government Policy Statement on Electricity Governance* (GPS), which was a limited revision of the October 2004 GPS. The GPS sets out the Government's expectations of the Commission, including a detailed list of objectives, actions, and outcomes that the Commission is expected to accomplish.

The Regulations set out in detail some of the obligations and responsibilities of the Commission. The Regulations include provisions related to service provider contracts, undesirable trading situations, Rule breaches and exemptions, and the establishment and proceedings of the Rulings Panel.

A key function of the Commission is recommending and subsequently administering the Rules, which set out the various authorities and responsibilities of the Commission and arrangements for the operation of the electricity system and markets.

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

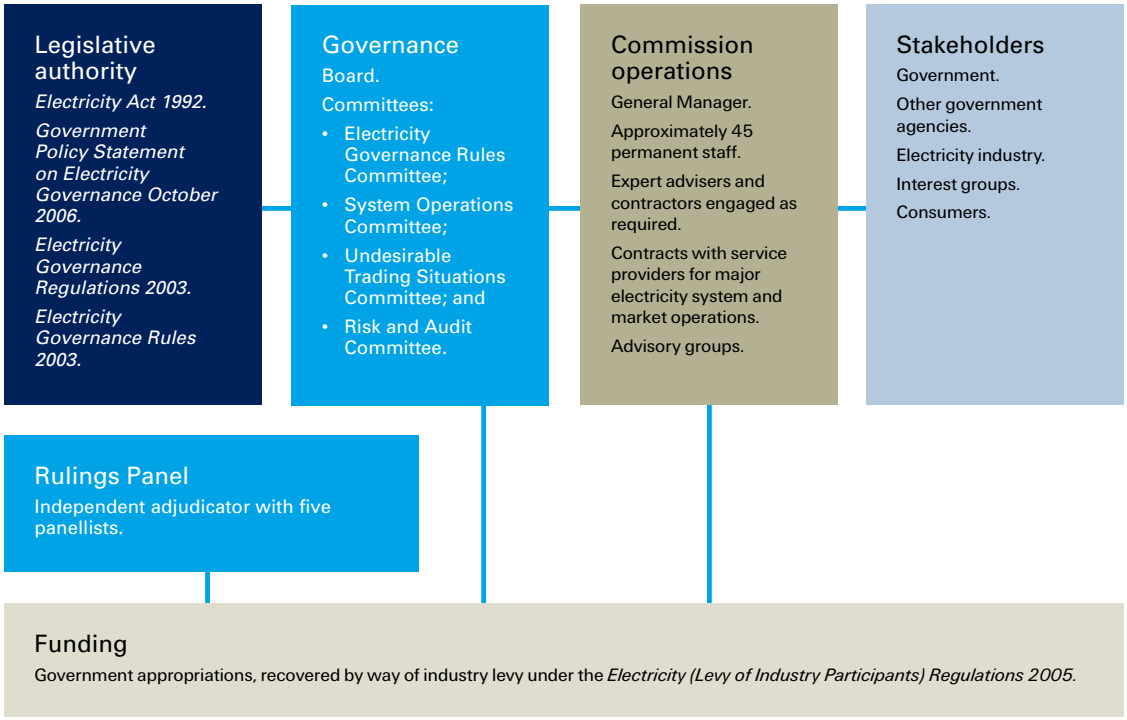
Governance and management

The Commission is governed by a Board appointed by the Minister of Energy.

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. The Commission also draws on the experience of industry advisory groups. Service provision contracts are used for the delivery of six major services central to the effective functioning of the electricity system and markets.

Further detail on the Board members, the Commission management team and advisory groups is provided in part three of this *Statement of Intent*. Service provider information is included under the section on **electricity system and market operations** on page 33 of this SOI and on the Commission's website: **www.electricitycommission.govt.nz**

Figure 2: governance, management and funding of the Electricity Commission



Electricity Commission roles

Figure 3 illustrates the Commission's roles as well as the limitations on those roles and the related functions of other parties in the energy sector. Figure 4 shows influences of these other parties on the Commission's work.

The Ministry of Economic Development (MED) is the Government's policy adviser on energy as a whole. However, the Commission is responsible for advising the Minister of Energy (Minister) on statutory Regulations and Rules to ensure that the wholesale and retail markets operate efficiently and fairly. The Commission also monitors and enforces compliance with the Regulations and Rules.

The Commission has responsibility 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 33).

The Commission has a statutory responsibility for decision-making on grid investment proposals from Transpower. 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 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 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 significant and growing role in carrying out research and delivering programmes for electricity efficiency. The Government has approved funding of almost $34 million over the next three years, with the goal of significantly reducing electricity demand and CO_2 emissions through more efficient use of electricity. This work is described on page 51.

Figure 3: Electricity Commission roles

What the Commission does	What the Commission does not do	Others involved
Regulation and regulatory approvals • Proposes and administers Regulations and Rules. • Approves consumer protection mechanisms, eg guidelines for domestic consumer contracts and a consumer complaints scheme. • Grants exemptions from Rules. • Approves grid pricing methodology. • Determines contracting parties for Transpower. • Assesses and approves (or declines) Transpower's grid upgrade plans. **Information** • Collects and provides information to industry to assist with informing investment decisions on generation and transmission. • Provides information to consumers to assist with informing purchase and use decisions (including efficiency and power savings). • Collects and provides information on to security of supply. • Promotes hedge markets. • Promotes wholesale and retail competition. **Security of supply** • Uses reasonable endeavours to ensure security of supply including contracting for reserve energy. • 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. **Electricity system and market operations** • Contracts providers for core services for operation of the electricity system and markets (see part two for a description). **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). **Oversight, monitoring and compliance** • Provides an oversight to security of electricity supply issues. • 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. • Monitors the implementation of model agreements and guidelines it has issued, eg for domestic consumer contracts.	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. Set policy or national strategy for energy efficiency or conservation. Adjudicate on retail disputes. Regulate the gas industry.	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. EECA is the agency responsible for leading strategy for energy efficiency and conservation. The industry is required to establish a consumer complaints scheme. The gas industry has a co-regulatory arrangement under the Gas Industry Co Ltd.

Commission results sought

This section sets out the relationship between the activities carried out by the Commission and the outcomes (or results) being sought. These relationships are complex and are strongly influenced by a range of factors outside the direct control or ambit of the Commission. Some of these influences are outlined at a high level in the global and national context section (see page 8). The Commission has some control, through its statutory powers and functions to make positive contributions to achieving outcomes.

The results to which the Commission contributes are referred to as outcomes. An outcome is defined by 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'. The Commission also uses 'results sought' in terms of desired changes to outcome state as this is more common-usage language.

In the case of the Commission, principal objectives and specific outcomes are specified in the *Electricity Act 1992*.

Section 172N Principal objectives and specific outcomes

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 the electricity industry 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;

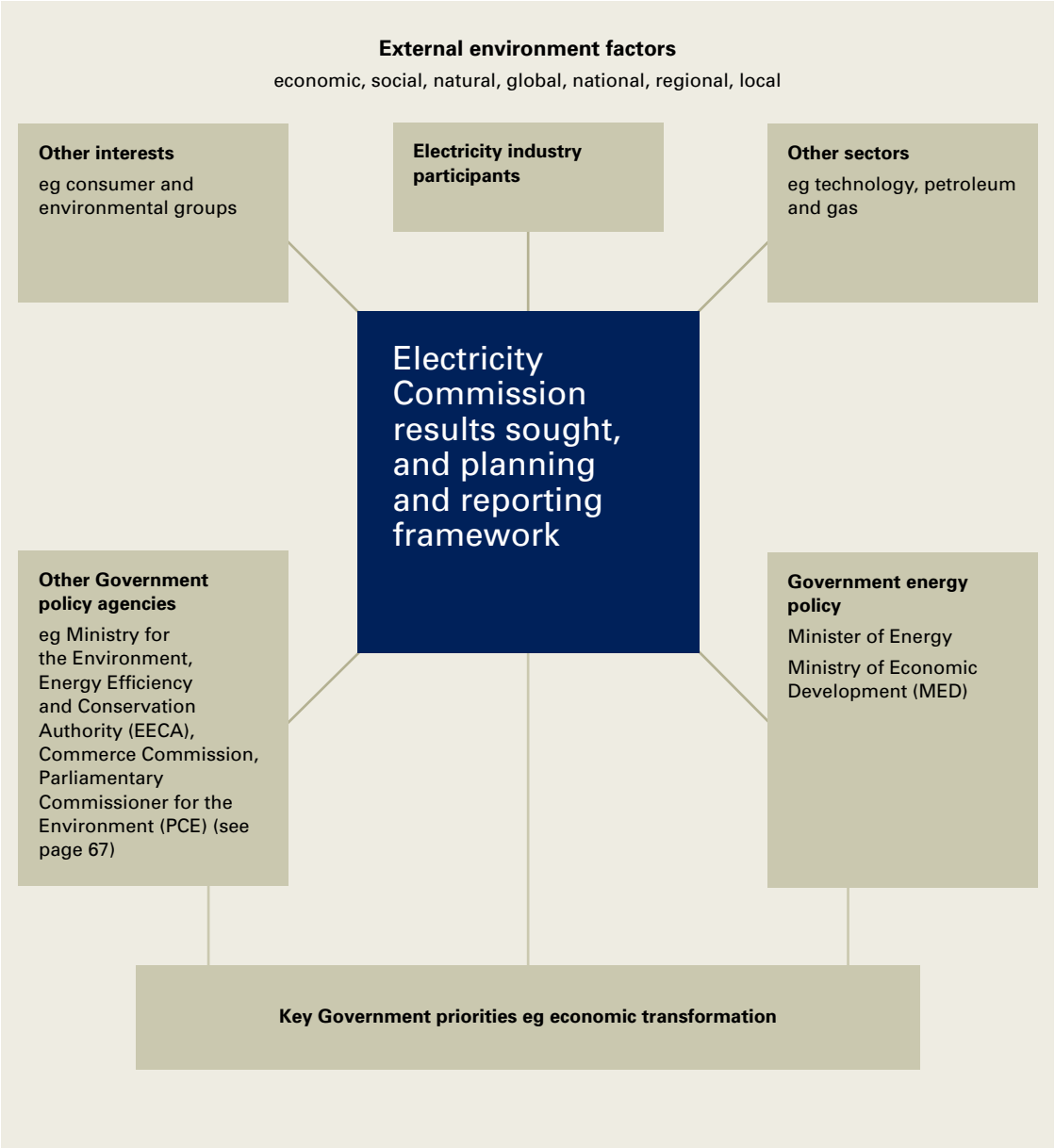
   f delivered electricity costs and prices are subject to sustained downward pressure;

   g the electricity sector contributes to achieving the Government's climate change objectives by minimising unnecessary 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.

During 2006/07 the Commission has been developing its understanding of the relationship between its actions and the desired outcomes, and continues to develop means of translating this understanding into its way of working. This has resulted in the development of a planning and reporting framework, and the progressive development of elements of the framework, which will continue into 2007/08.

The following diagram (figure 4) illustrates some of the factors that influence the results the Commission is seeking and the relationships that are essential to ensuring positive changes to the desired outcomes. These influences have been considered in the development of the planning and reporting framework explained in the following section.

Figure 4: influences on the achievement of results sought by the Commission



Source: Electricity Commission

Planning and reporting framework

In addition to the requirements of the *Crown Entities Act 2004*, specific consultation, planning and reporting requirements for the Commission are contained in the *Electricity Act 1992* and the GPS. The planning and reporting framework has been developed to ensure that all of these requirements are met effectively and efficiently.

In addressing the long-term nature of the principal objectives as incorporated in the Act, and the medium-term focus for planning for the SOI, the Commission has developed a planning and reporting framework that translates the principal objectives into medium-term strategic priorities and work programme (see figure 5).

Development of the framework draws on information on the current and medium-term future context for the Commission's work. This includes statutory requirements and the GPS. Relevant statistical publications and policy statements, such as the *draft New Zealand Energy Strategy* (NZES) and the *draft New Zealand Energy Efficiency and Conservation Strategy* (NZEECS), have also been taken into account.

The planning and reporting framework provides the basis for the Commission to ensure that all aspects of the principal objectives are incorporated into key decision processes including:

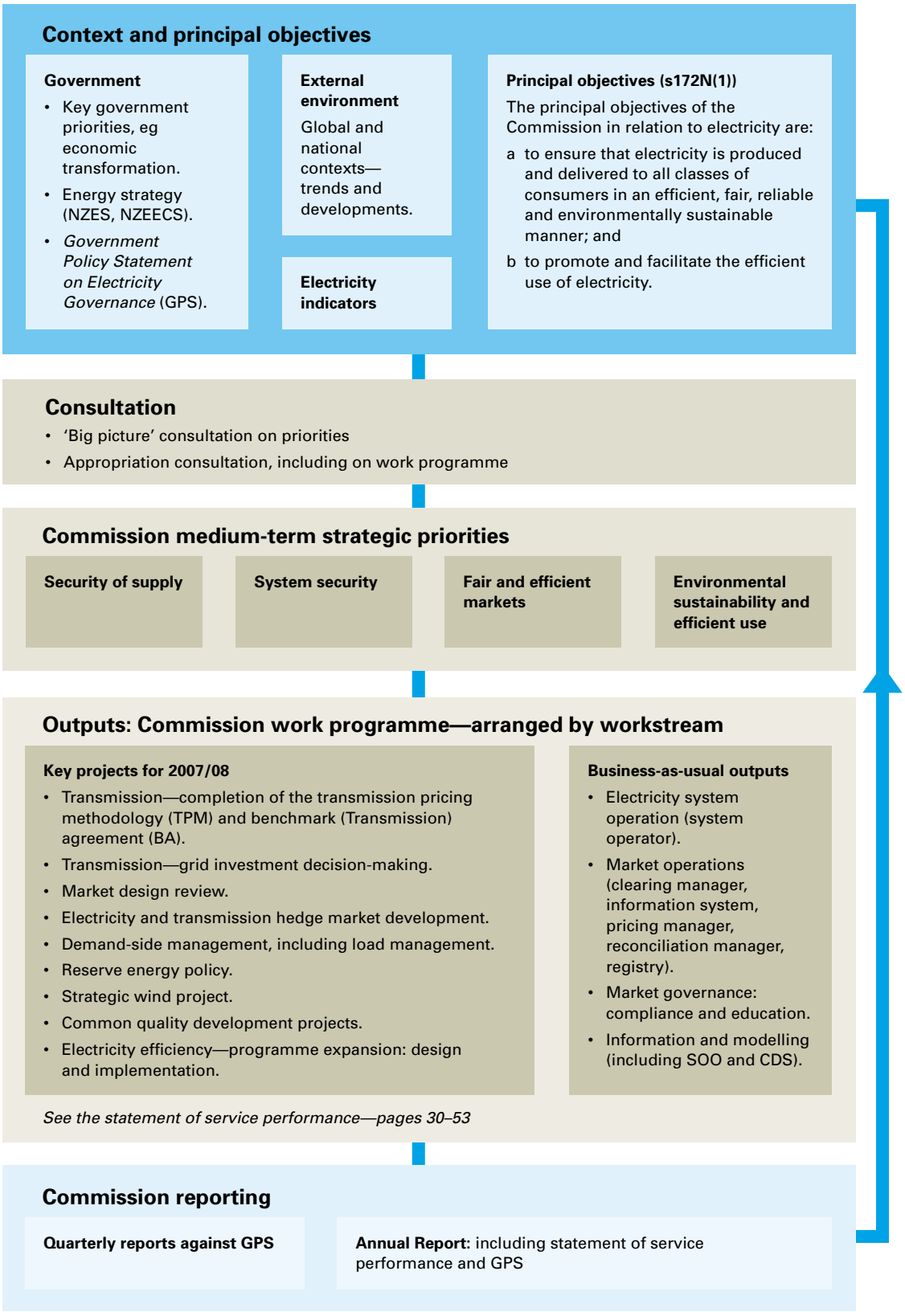
- planning and project management; and
- policy advice and individual Board decisions.

The Commission will be undertaking further development and application of the framework during the SOI period. The Commission will consider the finalised NZES and NZEECS as part of finalising this framework.

The framework has the following components, as illustrated in figure 5, and discussed in the following sections of this SOI:

- **principal objectives**—section 172N(1) of the *Electricity Act 1992*—development of principal objective explanatory, usage and relationship statements;
- **electricity indicators**—long-term development of statistics or indicators that assist in providing a high-level view of the status of the electricity sector;
- **strategic priorities**—development and review of medium-term strategic priorities that address the principal objectives, reflect information on the global, national and electricity sector environments, and address government policy priorities;
- **use of the strategic priorities in programme development**—application of strategic priorities to work programming that is set out in detail for 2007/08 in part two of this SOI;
- **generic quality performance measure**—which applies to consultation papers, reports to the Minister, rule-change recommendations, and published information reports; and
- **reporting**—annual report against the SOI and GPS, and quarterly reports against the GPS.

Figure 5: Commission planning and reporting framework



Developing principal objective explanatory statements and electricity indicators

Principal objective explanatory statements

The Electricity Commission's principal objectives and specific outcomes are contained in section 172N of the *Electricity Act 1992* (see page 16).

During 2006/07 the Commission has developed draft explanatory statements for its principal objectives. The Commission has been conscious of the complexity of its responsibilities as set out in the in the Act, including its principal objectives and specific outcomes. Further complexity arises out of other legislative requirements, government strategy and the requirements of the GPS. The Commission considers that there is value in developing an informational statement clarifying how these policy statements relate to the responsibilities of the Commission.

The draft set of principal objectives statements developed in 2006/07 included explanatory statements, a usage statement and a relationship statement. The Commission consulted on the draft of this framework and considerable feedback has been received and analysed. The consultation paper and feedback are available on the Commission's website.

During 2007/08 the Commission expects to complete its principal objectives statements and integrate these into its planning, operational and decision-making processes. It is intended that this work will also be informed by the final NZES and NZEECS.

Electricity indicators

The electricity sector contributes to the overall economy of New Zealand as part of the wider energy sector. The earlier sections on the global and national context for the Commission's operations introduced some of the numerous sources of energy data, statistics, projections and scenarios. Many of these sources are focused on the energy sector and not specifically on electricity or electricity in the context of the Commission's areas of responsibility.

Consistent with the Government's emphasis on management for outcomes, the Commission is identifying indicators that relate to the principal objectives, specific outcomes and strategic priorities of the Commission.

Over the longer term, the Commission wishes to establish a set of outcome indicators for electricity that mesh with wider energy sector indicators. In the medium term the Commission is establishing outcome indicators that provide an overview picture of the electricity sector.

Progress to date includes:

- consultation on the strategic priorities and possible indicators—undertaken as part of the 'big picture' consultation process;
- development of a draft set of electricity indicators—by the Commission's management team; and
- development of the market review issues paper, which includes many electricity statistics and indicators, and through which detailed input will be sought on the merits of various potential indicators.

For 2007/08 the programme includes:

- coordinating the next stage of work on the principal objectives with the development of electricity indicators. Consultation on the principal objectives has highlighted the value of progressing this work simultaneously; and
- reviewing the draft principal objectives statements and draft electricity indicators in light of the finalised NZES. It is expected that the NZES will provide clearer direction on indicators.

Consultation

As part of its planning process the Commission publicly consults on the priorities and work programme for the coming planning round in two stages.

- During the early part of the planning round, the Commission invites high level input through 'big picture' consultation on priorities.
- The Commission combines input from the 'big picture' consultation with information from other sources and suggested priorities from staff, to develop an appropriation consultation proposal. The Commission formally consults with levy payers on its appropriation proposal in accordance with section 172ZCA of the Act. This consultation also includes information about key project proposals.

For significant projects, the Commission also undertakes consultation at key stages, for example in determining the key issues, and in considering specific rule-change proposals.

Medium-term strategic priorities

As part of the Commission's commitment to quality and timeliness, much of its work is programmed as projects. The Commission's planning process involves an annual review of strategic priorities and of all projects in the context of those priorities. The review process consists of:

- consultation—including with the industry as outlined above;
- review and amendment or confirmation of the Commission's medium-term strategic priorities;
- assessment of projects for contribution and links to strategic priorities by the relevant workstream leaders; and
- consideration of projects by the Commission in light of their contribution and links to strategic priorities to determine the work programme for the coming year.

The Commission's medium-term strategic priorities translate the long-term principal objectives, specific outcomes, and GPS requirements into a set of priorities that assist the Commission in prioritising the development of its work programme.

Until strategic issues surrounding long-term generation and transmission capacity are comprehensively resolved, the Commission considers that security of supply and system security will continue to warrant high priority. The October 2006 amendments to the GPS reinforced this priority. The Commission expects to make significant progress on security of supply and system security in the 2007/08 year, in particular with major transmission investment decisions programmed for 2007/08 and completion of the strategic wind project.

The Commission notes the growing emphasis on environmental sustainability coming through in the draft NZES, and draft NZEECS. The Commission expects that the final versions of these documents will give greater guidance on government priorities in these areas and are likely to influence the Commission's future medium-term strategic priorities.

Commission workstreams

The Commission delivers its outputs through its operational workstreams. These workstreams are explained below. The **generic quality performance measure** (page 31) 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 (CQSO)— 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, that 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 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 governance 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.

Reserve energy workstream—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 and conservation).

Workstream links to objectives and outcomes

Principal objectives and specific outcomes	Workstreams							
	MARKET GOVERNANCE	TRANSMISSION	CQSO	RETAIL	WHOLESALE	MODELLING	SECURITY OF SUPPLY	ELECTRICITY EFFICIENCY
Principal objectives								
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	✓	✓	✓	✓	✓	✓	✓	✓
b to promote and facilitate the efficient use of electricity				✓				✓
Specific outcomes								
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 the electricity industry 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	✓	✓	✓	✓	✓	✓	✓	✓
g the electricity sector contributes to achieving the Government's climate change objectives by minimising unnecessary 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		✓	✓	✓	✓	✓	✓	✓

Workstream links to strategic priorities

The strategic priorities were used as part of the processes of selecting the programme of work, and the links between projects and priorities are presented as part of the statement of service performance in part two of this SOI.

Electricity Commission reporting

The Electricity Commission is accountable to the Minister of Energy in terms of its outputs. The Board is responsible to the Minister for the governance and management of the Commission. The Commission also provides advice to the Minister on development and review of Regulations and Rules, and the Minister makes the final decisions on these matters.

The Ministry of Economic Development (MED) acts as adviser to the Minister on the Minister's accountability relationship with the Commission. The Minister is consulted on the development of Commission's SOI, and is responsible for reviewing and providing comments or directions on the SOI under sections 146 and 147 of the *Crown Entities Act 2004*. The final SOI is tabled in Parliament and published in hard copy and on the Commission's website.

The Commission Chair meets with the Minister on a regular basis. The Commission provides the Minister with briefings and advice as requested or on its own volition.

The Commission formally reports to the Minister on a quarterly basis.

The Commission publishes a report against the GPS on its website on a quarterly basis and in its *Annual Report*. The GPS section of the *Annual Report* provides the information required under section 172ZM of the *Electricity Act 1992*. The report includes aspects of the GPS for which development work has been completed and the Commission's focus is now on business-as-usual monitoring and compliance. These areas therefore do not have associated projects in this SOI.

At the end of the financial year, the Commission prepares an *Annual Report* against the SOI for that year. The financial, non-financial and GPS reports in the *Annual Report* are audited by Audit New Zealand on behalf of the Office of the Controller and Auditor-General. The audited *Annual Report* is tabled in Parliament. The *Annual Report* for this SOI will include reports against the **generic quality performance measure** and **generic timeliness measure** included on pages 31–32 of this SOI.

In addition, under section 172ZP of the *Electricity Act 1992*, the Parliamentary Commissioner for the Environment (PCE) examines and reports on the extent to which the Commission is meeting the GPS objectives and outcomes concerning the environment. The PCE's report: *Electricity, Energy and the Environment: Environmental Performance Assessment 1 July 2004–30 June 2005* is available on the PCE's website: **www.pce.govt.nz**

Part two
performance information

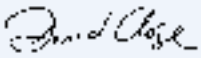
Statement of responsibility

We acknowledge responsibility for the information contained in the *Statement of Intent 2007–2010*, including the appropriateness of the assumptions underlying the prospective financial statements and all other required disclosures.

We certify that the information contained in this report is consistent with the appropriations contained in the Estimates for the year ending 30 June 2008 that were laid before the House of Representatives under section 9 of the *Public Finance Act 1989*.

Peter Harris
Deputy Chair

29 June 2007



David Close
Commissioner

29 June 2007

Appropriations summary

The Electricity Commission manages the following Vote Energy appropriations on behalf of the Ministry of Economic Development (MED).

Governance and market operations

The **governance and market operations** appropriation provides for governance and monitoring of New Zealand's electricity market under the Rules and Regulations. The governance and market operations appropriation funds the general operations of the Electricity Commission, including the Board and the advisory groups. The appropriation covers most of the Commission functions as set out in section 172O of the *Electricity Act 1992*. It also covers core electricity system and market operation functions, carried out under service provider contracts (approximately $30 million). This appropriation funds the Commission's governance and market operations output class.

Electricity efficiency

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

Reserve energy and emergency measures—availability

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

Reserve energy and emergency measures—variable

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

Electricity Commission litigation fund

The **Electricity Commission litigation fund** appropriation provides funding to ensure that the Electricity Commission is able to participate in litigation effectively and without delay. This is a Crown expense appropriation that is not usually drawn on.

Appropriations summary table

Appropriation ($m, excl. GST)	2006/07 budget	2007/08 budget	2008/09 forecast	2009/10 forecast
Governance and market operations—income	$49.043	$49.043	$49.043	$46.723
Governance and market operations—expenditure	*$49.043*	*$49.043*	*$49.043*	*$46.723*
Electricity efficiency—income	$9.111[5]	$13.074[6]	$15.801	$15.595
Electricity efficiency—expenditure	*$9.111*	*$13.074*	*$15.801*	*$15.595*
Reserve energy and emergency measures—availability—income	$29.981	$29.981	$29.981	$29.981
Reserve energy and emergency measures—availability—expenditure	*$29.981*	*$29.981*	*$29.981*	*$29.981*
Reserve energy and emergency measures—variable—income	$14.222 (multi-year appropriation ending in 2006/07)			$5.000 (over five years 2007/08 to 2011/12)
Reserve energy and emergency measures—variable—expenditure	*$14.222 (multi-year appropriation ending in 2006/07)*			*$5.000 (over five years 2007/08 to 2011/12)*
Electricity Commission litigation fund—income	$0.444	$0.444	$0.444	$0.444
Electricity Commission litigation fund—expenditure	*$0.444*	*$0.444*	*$0.444*	*$0.444*

5 Original appropriation was $9.778 million. Transfer of $0.667 million took place in the October Baseline Update.

6 Budget made up of $0.667 million transferred from 2006/07, plus $12.407 million new initiative funding for 2007/08.

Statement of service performance

The Commission has a comprehensive programme of work to assist it to achieve the principal objectives and specific outcomes of the Act, and to meet the requirements of the GPS.

This section of the SOI sets out the output classes and outputs of the Commission, and provides the performance specification for those outputs.

The Commission has established operational workstreams to deliver the outputs and focus on the outcomes to be achieved. These workstreams constitute the building blocks for the Commission's day-to-day workload.

The statement of service performance includes:

- the main performance measures for the Commission's outputs, as required by section 142 of the *Crown Entities Act 2004*;
- specification of the generic quality performance measure and generic timeliness performance measure for Commission projects; and
- detailed specification of the outputs to be delivered under the Commission's output classes, including reference to relevant GPS paragraphs about the performance standards requirement of section 172ZL of the *Electricity Act 1992*.

The Commission's output classes are:

- **governance and market operations**, including:
  - electricity system and market operations;
  - market governance;
  - transmission;
  - common quality and system operations;
  - retail;
  - wholesale;
  - modelling; and
  - security of supply governance;
- **reserve energy and emergency measures;** and
- **electricity efficiency**.

Main performance measures

The statement of service performance includes performance measures, and expected progress statements for multi-year projects. These are the performance measures as required under section 142 of the *Crown Entities Act 2004*, and performance standards as required under section 172ZL of the *Electricity Act 1992*.

The outputs of the Commission are a mix of projects and business-as-usual operations. Quality and timeliness are the key measures of project performance. The Commission has developed main performance measures for quality and timeliness that apply to relevant projects set out for the workstreams. These measures also apply to some business-as-usual outputs as indicated under the workstream sections.

The Commission's **main performance measures**, which may apply across more than one workstream, are described as follows.

1 The **generic quality performance measure**, which applies to all SOI projects and is defined below.

2 The **generic timeliness performance measure**, which applies to all SOI projects and is defined below.

3 **Electricity system and market operations are delivered in accordance with the *Electricity Governance Rules 2003*** (applies to electricity system and market operations, page 33).

4 **compliance with the *Electricity Governance Regulations 2003* and *Electricity Governance Rules 2003* is monitored and enforced** (applies primarily to the market governance workstream, page 34).

Generic quality performance measure

The Commission considers that quality is of paramount importance. Quality is formally assessed for Board papers, advice or reports to the Minister of Energy, rule-change recommendations, consultation documents, publication of final decisions and published information documents. The Commission has established a generic quality performance measure that is applied to relevant ongoing outputs and to all projects.

Generic quality performance measure

The target performance for all consultation papers, reports to the Minister, rule-change recommendations, and published information reports is for the following to be achieved where applicable:

- **issue definition**—provides a clear statement of the issue or problem being addressed;
- **objectives and outcomes assessment**—provides an assessment of the issues or problem in terms of the principal objectives and specific outcomes in the Act. Provides an assessment against GPS requirements, if applicable;
- **options assessment**—considers the range of viable options to address the policy issue. For each option: explains how it would address the issue, provides intervention logic for how it would achieve the objectives, discusses the costs/benefits, and sets out the advantages and disadvantages;
- **assumptions**—states any assumptions made in the analysis;
- **consultation**—demonstrates the Commission has applied an appropriate consultation process, and issues raised have been considered;
- **conclusions**—are based on the information and evidence available;
- **recommendations**—contains clear, logical recommendations;
- **written for audience**—presented clearly, logically and accurately for intended audiences; and
- **meeting all appropriate requirements**—legislative requirements will be met for all work. Advice will conform with Ministerial or Cabinet Office requirements, as appropriate.

The *Annual Report* for this SOI will include a report against the **generic quality performance measure** in aggregate form, as assessed as part of the Commission's quality review process.

Generic timeliness performance measure

The statement of service performance includes **expected progress** statements for projects. These statements focus on the results to be achieved within the financial year, rather than the intermediate deliverables and milestones for the projects.

The Commission undertakes a large number of projects. A proportion of these projects:

- may be subject to change in scope as issues covered become better understood, or as circumstances change;
- may be subject to changes in process that are related to changes to scope and issues covered, for example, allowing for cross-submissions or more than one consultation round;
- are undertaken in conjunction with other agencies;
- are dependent on the actions of other organisations;
- are interdependent with other projects; and/or
- reflect a specific year's deliverables and milestones on a long-term project rather than a discrete project to be completed within a financial year.

It is therefore expected that a proportion of project schedules will change during the year. Amendments to **expected progress** statements may take place either on a project basis or as part of regular Commission reporting to the Minister of Energy. The Board approves amendments to **expected progress** statements except where the statements relates to specific dates in the *Government Policy Statement on Electricity Governance* (GPS), in which case Ministerial approval will be sought.

Generic timeliness performance measure

- The progress expected is achieved. The progress expected is defined as the progress expected as published in the SOI and as amended from time to time by the Board or Minister. Amendments to expected progress statements will be included in the results reported in the *Annual Report.*

The *Annual Report* for this SOI will include a report against the **generic timeliness performance measure** for each project. Where relevant, the report will include:

- the original expected progress statement;
- any amendments to expected progress statements approved during the year; and
- the financial year-end actual result.

Output class one—governance and market operations

This output class includes the provision of electricity system and market operations outputs, which fall across a range of Commission workstreams; and outputs delivered through the following operational workstreams:

- market governance;
- transmission;
- common quality and system operations;
- retail;
- wholesale;
- modelling; and
- security of supply governance.

Electricity system and market operations

Description

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.

Strategic priority links			
System security	**Security of supply**	**Fair and efficient markets**	**Environmental sustainability and efficient use**

Key outputs

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

Information systems—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.

The Commission contracts third parties to deliver these outputs on its behalf. These are collectively referred to by the Commission as 'service providers'. Further information about service providers is available on the Commission's website: **http://www.electricitycommission.govt.nz**

Performance measures

- *Electricity system and market operations are delivered in accordance with the **Electricity Governance Rules 2003**.*
- *Reconciliation manager, registry, clearing manager, pricing manager and information systems service provider performance standards are agreed before the start of the 2008/09 financial year (1 July 2008).*
- *Annual performance review of the system operator completed within three months of receipt of the system operator's report.*
- *Annual update of the system operator policy statement completed in accordance with the Rules and the **Electricity Act 1992**, by 1 September 2007.*
- *Annual update of the system operator procurement plan completed in accordance with the Rules and the **Electricity Act 1992**, by 1 December 2007.*

Market governance workstream

Description

The focus of the market governance workstream is on monitoring and enforcement of compliance with the *Electricity Governance Regulations 2003* and *Electricity Governance Rules 2003*, as required by paragraph 11 of the GPS. The Board has delegated responsibility to the Electricity Governance Rules Committee (EGR Committee) to make decisions on how to respond to breach notifications. 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.

Paragraph 17 of the GPS also provides for ongoing monitoring and enforcement of the *Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004*.

The objective of this workstream is more than 'policing' the industry. It extends to facilitating greater understanding of, and thereby improving compliance with, the Rules, and to identifying areas of the Rules that may need change. This work contributes to the requirements of paragraph 10 of the GPS.

Strategic priority links			
System security	**Security of supply**	**Fair and efficient markets**	**Environmental sustainability and efficient use**

Key outputs

Delivery of compliance services

The Commission expects to receive approximately 200 breach notifications from the industry during the year. There is a wide range in the type and complexity of breach notifications. An initial fact-finding assessment is carried out for all notifications. A decision is then made whether to proceed to formal investigation. Approximately ten per cent of notified alleged breaches proceed to formal investigation and one per cent to the independent Rulings Panel. About half the investigations are dealt with through negotiated settlement.

Performance measures

- *Investigation processes followed.*
- *Quality standards for investigations met.*
- *Fifty per cent of investigations of alleged breaches completed within three months of notification.*
- *Eighty-five per cent of investigations of alleged breaches completed within six months of notification.*

Project—compliance education

The compliance education plan developed during 2006/07 will continue to be implemented in 2007/08. Work will be carried out to identify and develop improved means for providing information, derived from analysis of breach investigation work, back to industry participants. Improved information will assist with better understanding of the Rules and increasing future compliance.

Progress to 30 June 2007

- Initiation, planning and development of approach. Implementation commenced.

Expected progress to 30 June 2008

- *Complete implementation of the compliance education plan.*

Expected progress beyond 30 June 2008

- Include in business-as-usual.

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Transmission workstream

Description

The Electricity Commission has two major roles in relation to transmission of electricity:

- provision of information on opportunities for investment in transmission and transmission alternatives through the regular publication of the *Statement of Opportunities* (SOO) and *Centralised Dataset* (CDS)[7]; and
- review, audit and—if appropriate—approval of new investment in the transmission system as part of Transpower's grid upgrade plans (GUPs).

This workstream addresses the requirements of paragraphs 34A and 79–95 of the GPS.

Key outputs

Project—Statement of Opportunities

The Commission publishes a *Statement of Opportunities* (SOO) for transmission and transmission alternatives every two years, as required by paragraph 86 of the GPS. The SOO enables the identification of potential opportunities for efficient management of the grid, including investment in upgrades and investment in transmission alternatives. Dates for SOO production are to be finalised once the NZES is completed.

Strategic priority links			
System security	**Security of supply**	**Fair and efficient markets**	Environmental sustainability and efficient use

Progress to 30 June 2007

- Initial SOO published in July 2005.
- Updated grid planning assumptions released in May 2007.

Expected progress to 30 June 2008

- *SOO finalised and published.*

Expected progress beyond 30 June 2008

- Updated SOO released by 31 March 2010.

Programme—transmission investment decision-making

A core ongoing role of the Commission is the review and decision-making on Transpower grid upgrade plan (GUP) proposals. This work ensures efficient transmission investment to maintain security and efficient interconnection of demand and supply requirements. The Commission assesses Transpower's proposals to upgrade the transmission grid. This involves analysis of proposals, consultation with stakeholders, and decision-making. Relevant GPS paragraph reference: 34A, and 87–90. Expected progress for the major transmission projects is set out below.

Strategic priority links			
System security	**Security of supply**	**Fair and efficient markets**	Environmental sustainability and efficient use

7 CDS development and production is included under the modelling workstream.

Project—HVDC upgrade (inter-island link)[8]

Progress to 30 June 2007

- Discussion commenced with Transpower on modelling assumptions and input data.

Expected progress to 30 June 2008

- *Transpower expected to submit proposal by 31 December 2007.*[9]
- *Complete review and issue decision.*

Project—Central North Island grid upgrades

Progress to 30 June 2007

- Discussion commenced with Transpower on modelling assumptions and input data.

Expected progress to 30 June 2008

- *Transpower expected to submit proposal by 31 December 2007.*[9]
- *Complete review and issue decision.*

Project—South Island grid upgrade

Progress to 30 June 2007

- Discussion with Transpower on modelling assumptions and input data.

Expected progress to 30 June 2008

- *Transpower expected to submit proposal by 31 July 2007.*[9]
- *Complete review and issue draft and final decisions.*

Expected progress beyond 30 June 2008

- If not finalised in 2007/08, complete decision-making about investment proposal.

Project—North Auckland and Northland grid upgrade

Progress to 30 June 2007

- Discussion commenced with Transpower on modelling assumptions and input data.

Expected progress to 30 June 2008

- *Transpower expected to submit proposal by 31 July 2007.*[9]
- *Complete review and issue draft and final decisions.*

Expected progress beyond 30 June 2008

- If not finalised in 2007/08, complete decision-making about investment proposal.

Programme—transmission pricing and contracting arrangements

The Commission is charged with putting transmission pricing and contracting arrangements in place to ensure fair and efficient access to the transmission network.

8 Commonly referred to as the 'Cook Straight cable'.

9 Transpower has provided the Commission with indicative dates for its proposals. The actual dates will depend on Transpower's work in preparing proposals and consulting stakeholders. Changes to submission dates will impact the dates for Commission reviews and decisions on these projects.

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

The transmission pricing methodology (TPM) is a key project for the Commission, for which implementation is expected to be completed in 2007/08. The pricing methodology will provide clarity for long-term pricing, which will contribute to fairness and efficiency objectives. Relevant GPS paragraph reference: 91–95.

The benchmark (transmission) agreement and related interconnection rules were completed in 2006/07. As part of the work on the benchmark (transmission) agreement, the Commission has identified several areas of work to be addressed that may result in related proposals for regulation and/or rule changes. These are expected to be completed in 2007/08 and include the interconnection service measures, outage protocol, and connection code. With development work in this area nearing completion, 2008/09 is expected to see the translation of the project work into the Commission's ongoing monitoring and administration role. Relevant GPS paragraph reference: 85.

Strategic priority links			
System security	Security of supply	**Fair and efficient markets**	Environmental sustainability and efficient use

Progress to 30 June 2007

- Benchmark (transmission) agreement and interconnection rules completed.
- Initial work on connection code, outage protocol and interconnection services.
- TPM recommended to the Minister.

Expected progress to 30 June 2008

- *Transpower input on connection code, outage protocol and interconnection services received.*
- *Draft connection code, outage protocol and interconnection services released for consultation and final versions added to Rules.*
- *TPM implementation completed.*

Expected progress beyond 30 June 2008

- Support implementation, approval of transmission agreements and rule breach process for interconnection.
- Business-as-usual monitoring.

Common quality and system operations workstream

Description

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

The Commission also has the role of overseeing the activities of the system operator, who manages the real-time operation of the power system, including the delivery of common quality services. See **electricity system and market operations**, on page 33.

This workstream makes a significant contribution to addressing the requirements of paragraphs 34A and 75 of the GPS.

Strategic priority links			
System security	**Security of supply**	**Fair and efficient markets**	**Environmental sustainability and efficient use**

Key outputs

Project—strategic wind project

This project will enable anticipated wind generation to be successfully integrated into the New Zealand electricity system over the next five to ten years, accounting for:

- investment certainty from standards certainty;
- allowing integration of wind generation operationally-including ensuring no inefficient barriers to entry; and
- GPS renewables and climate change policy.

Work to be completed in 2007/08 addresses rule changes arising from impact investigations. This may include rule change work under security of supply, wholesale and common quality workstreams. Relevant GPS paragraph reference: 34A and 75.

Progress to 30 June 2007

- 2005/06: project initiated and two consultation rounds completed.
- 2006/07: analysis of the impacts of the scenarios of increased volumes of wind on the system and market.

Expected progress to 30 June 2008

- *Complete options identification and rule changes.*

Expected progress beyond 30 June 2008

- Business-as-usual.

Programme—common quality development

The Commission's common quality development plan has several projects to be progressed. Relevant GPS paragraph references: 1, 2 and 75. Projects to be progressed in 2007/08 are discussed below.

Project—expanding the normal frequency band

This project will review the normal frequency bands, and immediately adjacent bands, and the corresponding approach to specifying frequency-keeping procurement needs. This review is being conducted with a view to reducing the overall costs of frequency-keeping.

Progress to 30 June 2007

- Scope and investigation work.

Expected progress to 30 June 2008

- *Complete investigation work.*

Expected progress beyond 30 June 2008

- Complete rule changes and implement.

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Project—multiple frequency keepers

This project involves the development of a system to coordinate multiple frequency keepers, along the lines of an automatic governor control system, but tailored to New Zealand requirements. The project will also consider changing market arrangements to co-optimise frequency keeping with energy and instantaneous reserves in order to ensure lowest overall costs.

Progress to 30 June 2007

- Commence market integration investigation and expert technical investigation.

Expected progress to 30 June 2008

- *Complete expert technical investigation and start market integration investigation.*

Expected progress beyond 30 June 2008

- Complete market integration investigation.
- Complete business case and rule changes.

Project—optimising emergency management

This project involves an emergency management review that will examine under-frequency, voltage management and the need for a standby reserves scheme to ensure least overall cost over time. The first stage involves establishing a modelling framework and reviewing the under-frequency regime, the under-voltage regime, and extended load control.

Progress to 30 June 2007

- Commence work on technical options and constraints.

Expected progress to 30 June 2008

- *Establish modelling framework and review under-frequency regime, under-voltage regime and extended load control.*

Expected progress beyond 30 June 2008

- Potential for further work beyond the scope of work completed in 2007/08.

Project—HVDC instantaneous reserve transfer capability

This project will allow South Island reserve providers to enter the North Island reserve market.

Progress to 30 June 2007

- Commence investigation work.

Expected progress to 30 June 2008

- *Complete investigation and recommend course of action.*

Expected progress beyond 30 June 2008

- Potential for further work beyond the scope of work completed in 2007/08.

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Retail workstream

Description

The Commission oversees the operations of the retail market for electricity and monitors the performance of the service providers that operate the market. The responsibilities of the retail workstream include:

- physical information settlement and customer switching, including metering, switching and reconciliation under part D, part E and section VI of part G of the Rules;
- management of the reconciliation manager and registry service providers;
- carrying out the functions of the market administrator;
- audit certification and approval processes for data administrators and test houses;
- delivery of policy requirements for consumer protection such as protections for low-income earners, benchmark contracts and approval of consumer complaints systems; and
- interfacing with market participants, including generators, retailers, lines companies, meter owners and test houses.

The retail workstream addresses the following paragraphs of the GPS: 10, 12–24, 31, 98–100, and 109–119.

Strategic priority links			
System security	Security of supply	**Fair and efficient markets**	**Environmental sustainability and efficient use**

Key outputs

Business-as-usual outputs

Ongoing activities in the retail workstream include:

- **ongoing consumer protection**—ensuring that consumers are fairly treated in the electricity market, including:
  - approving and monitoring a consumer complaints resolution scheme;
  - publishing retail information to show indicators of market activity; and
  - monitoring arrangements for the benefit of low income consumers.
- **retail market operations**—managing the operational aspects of the retail market to ensure that participants understand and comply with the requirements of the Rules, including:
  - carrying out the functions of the market administrator;
  - audit programme;
  - participant education;
  - certifications and approvals;
  - exemptions;
  - rules development;
  - monitoring (including model agreements);
  - model contracts; and
  - meter compliance.

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Performance measure

- *Business-as-usual activities are delivered in accordance with the **Electricity Governance Rules 2003**.*

Project—market design review

The Commission is undertaking a broad review of the operation of the market. The review will assess current performance and consider potential future improvements within the ambit of the Commission's roles and functions. The progress statements for this project are included under the wholesale workstream.

Programme—load management and metering

Strategic priority links			
System security	**Security of supply**	Fair and efficient markets	**Environmental sustainability and efficient use**

Project—load management

This is a key project for the Commission and addresses the optimal load management infrastructure for New Zealand in order to facilitate the removal of barriers to investment in existing and new technology. This project scope includes implementation of any recommendations or rule changes. Relevant GPS paragraph reference: 30–31.

The project is made up of three phases:

- phase 1—investigating and establishing the current supply-side load management equipment in use, and the price signals passed to consumers;
- phase 2—establishing existing capability and the price/value of load control and technology; and
- phase 3—researching new load management technology and its cost-effective application for demand management.

Progress to 30 June 2007

- Phase 1 completed.
- Phase 2 started.

Expected progress to 30 June 2008

- *Phases 2 and 3 completed, results published and any required Rule changes completed.*

Expected progress beyond 30 June 2008

- Monitor uptake of any recommendations made to the industry.

Project—advanced metering technology

This project addresses long-term implementation of technologies to the benefit of the industry and consumers. Relevant GPS paragraph reference: 73 and 118. The project includes:

- consulting on advanced meter guidelines including addressing attributes, opportunities and risks, and potential rule implications associated with wide-spread introduction of these devices; and
- developing model agreements for access to electricity meters by retailers.

Progress to 30 June 2007

- Monitoring developments.
- Commencing consultation on advanced metering guidelines.

Expected progress to 30 June 2008

- *Publish advanced metering guidelines.*
- *Complete model agreements for access to electricity meters by retailers.*

Expected progress beyond 30 June 2008

- Monitor uptake of advanced metering technology, and industry uptake of guidelines and/or model agreements.

Programme—consumer issues

The consumer issues programme has two main projects: consumer complaints scheme and transparency of energy and line charges. The Commission's market design review, referred to earlier in this section and specifically covered in the wholesale workstream, includes consumer issues.

Strategic priority links			
System security	Security of supply	**Fair and efficient markets**	Environmental sustainability and efficient use

Project—consumer complaints scheme

This project involves approving and monitoring of a consumer complaints scheme in accordance with paragraphs 21–24 of the GPS.

Progress to 30 June 2007

- Consultation completed on a system of measuring performance of complaints schemes (for both approval and ongoing monitoring purposes).

Expected progress to 30 June 2008

- *Complete consumer complaints scheme approval and implementation.*

Expected progress beyond 30 June 2008

- Continue to investigate and make recommendations for facilitating retail competition.

Project—transparency of energy and line charges

This project addresses pricing transparency for consumers, which may require Rule changes. Relevant GPS paragraph reference: 114.

Progress to 30 June 2007

- Project initiated.

Expected progress to 30 June 2008

- *Publish consultation report.*

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Expected progress beyond 30 June 2008

- Rule changes completed, if required.
- Business-as-usual monitoring in 2009/10.

Programme—distribution

The Commission has a range of projects relating to distribution. The two major projects are distribution pricing methodologies and loss factor methodologies. Relevant GPS paragraph references: 25, 30, 31, 98–100, 109–113, and 117.

Strategic priority links			
System security	Security of supply	**Fair and efficient markets**	**Environmental sustainability and efficient use**

Project—distribution pricing methodologies

This is a project to complete the development, consultation and implementation of model methodologies for the calculation of distribution prices. The project is intended to reduce the risks and potential barriers to entry to the retail market from the range of methodologies currently being used.

Progress to 30 June 2007

- Started development of principles or model approaches to distribution pricing.

Expected progress to 30 June 2008

- *Complete consultation and publish distribution pricing method.*

Expected progress beyond 30 June 2008

- Monitor uptake of distribution pricing method.

Project—loss factor methodologies

Determination of distribution losses is critical to the accurate operation of the reconciliation system, and to the accuracy of consumer pricing. The loss factors methodologies project contains two components:

- distribution loss factors methodologies—carry out consultation and develop final recommendations; and
- distribution loss optimisation—develop recommendations for the management, minimisation and allocation of distribution losses.

Progress to 30 June 2007

- Develop principles or model approaches to distribution loss factor calculation.

Expected progress to 30 June 2008

- *Complete consultation and publish model approach.*

Expected progress beyond 30 June 2008

- Monitor uptake of model approach.

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Other retail projects

The following individual projects are not part of larger programmes.

Project—implementation of reconciliation rules

This is a project to complete implementation of global reconciliation rules enacted in November 2006, including carrying out industry education and audits. Relevant GPS paragraph reference: 117.

Strategic priority links			
System security	Security of supply	**Fair and efficient markets**	Environmental sustainability and efficient use

Progress to 30 June 2007

- Reconciliation Rule change completed.

Expected progress to 30 June 2008

- *Participants meet the required effective date of the new rules.*

Expected progress beyond 30 June 2008

- Business-as-usual in 2008/09.

Project—distributed generation

Once promulgated, the Commission will have responsibility for monitoring of compliance with the Distributed Generation Connection Regulations, and for encouraging the development of smaller distributed generation installations, contributing to overall generation availability. Relevant GPS paragraph references: 100 and 109–113.

Work for 2007/08 includes:

- implementing the ability to trade non-half-hour embedded generation in the reconciliation rule change;
- monitoring the implementation of model contracts that have been developed;
- developing extensions to existing model contracts for embedded generation to facilitate connection and sale of embedded generation; and
- monitoring and ensuring effective implementation of the development of the Distributed Generation Connection Regulations.

Strategic priority links			
System security	Security of supply	**Fair and efficient markets**	**Environmental sustainability and efficient use**

Progress to 30 June 2007

- Requirements included in the development of the reconciliation rules.

Expected progress to 30 June 2008

- *Complete setup of monitoring for the Distributed Generation Connection Regulations.*

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Expected progress beyond 30 June 2008

- Monitor the purchase of small-scale generation by retailers from distributed generators.

Wholesale workstream

Description

The Commission makes recommendations about the development of the wholesale market, both through voluntary arrangements and Rules. As part of this output, the Commission oversees the operation of the wholesale market and contracts with external parties to provide core services to facilitate the market, such as the information (trading) system, and the pricing manager and clearing manager functions.

Ongoing activities in the wholesale workstream include:

- addressing undesirable trading situations (UTSs) as required;
- reviewing and decision-making on exemption applications as required; and
- reporting on the wholesale market.

The wholesale workstream makes particular contributions to the requirements of the following GPS paragraphs: 10, 25, 29, 34A, 75–78, 86, 114, 120, and appendix 1.

Strategic priority links			
System security	**Security of supply**	**Fair and efficient markets**	**Environmental sustainability and efficient use**

Key outputs

Project—market design review

The Commission is undertaking a broad review of the operation of the market. The review will assess current performance and consider future improvements within the ambit of the Commission's roles and functions. Relevant GPS paragraph references: 10, 34A, 28, 75–78 and 114.

Progress to 30 June 2007

- Market design project initiated in February 2007.
- Issues paper published in May 2007.

Expected progress to 30 June 2008

- *Publish options paper and commence implementation, if required.*

Expected progress beyond 30 June 2008

- Continue implementation, if required.

Project—electricity hedge market development

This project continues work carried out in 2006/07 to develop and implement effective and liquid energy hedge arrangements. Relevant GPS paragraph reference: 76-77 and 120.

Progress to 30 June 2007

- Project to develop and implement effective and liquid energy hedge arrangements initiated and consultation took place in October 2006.
- Progress specific initiatives outlined in the consultation paper and as recommended by the Hedge Market Development Steering Group (HMDSG).

Expected progress to 30 June 2008

- *Complete consultation on contract disclosure rules.*
- *Complete survey of participants.*

Expected progress beyond 30 June 2008

- Implementation of some initiatives may continue into 2008/09.

Project—transmission hedge market development

This project continues work carried out in 2006/07 to develop and implement an effective mechanism that would allow participants to manage location risk through transmission hedges. Key work is analysing and prototyping locational rental allocations, as a potential mechanism by which retailers and generators can better manage the risks associated with purchasing and selling electricity at different points on the grid. Relevant GPS paragraph references: 78 and appendix 1.

Progress to 30 June 2007

- Consultation completed in October 2006.

Expected progress to 30 June 2008

- *Publish consultation paper on transmission hedge rules.*

Expected progress beyond 30 June 2008

- Implementation expected to take place in 2008/09.

Project—demand-side initiatives

This project continues the demand-side bidding and forecasting project from 2006/07. A series of measures has been identified to relax the bidding requirements on the demand side. New forecasting techniques will improve the accuracy of forecast prices and provide more accurate information for maintaining system security and quality. This work includes completion of implementation. Relevant GPS paragraph references: 25, 29 and 86.

Progress to 30 June 2007

- Submissions considered and discussions held with a broad range of market participants in 2005/06.
- Consultation paper being developed on measures to relax the bidding requirements on the demand side and introduce new forecasting techniques.

Expected progress to 30 June 2008

- *Publish consultation paper on proposal, complete rule changes, and complete implementation.*

Expected progress beyond 30 June 2008

- Becomes business-as-usual.

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Project—pricing process improvements

The purpose of this project is to address concerns about the certainty, accuracy and level of wholesale electricity prices. Relevant GPS paragraph reference: 75.

Progress to 30 June 2007

- Develop scope and project plan.

Expected progress to 30 June 2008

- *Publish consultation paper on proposal, complete rule changes, and complete implementation.*

Expected progress beyond 30 June 2008

- Work expected to continue into 2008/09.

Project—offer and dispatch rule development

This project continues 2006/07 work to improve the offer and dispatch rules. The project is intended to allow distributed, renewable and alternative forms of generation to participate effectively within the market (for example through block dispatch of hydro generation, and offer and dispatch rule concessions for small distributed plant). Relevant GPS paragraph reference: 75.

Expected progress beyond 30 June 2008

- Industrial co-generation rules completed February 2007.

Expected progress to 30 June 2008

- *Publish consultation paper on other initiatives.*

Progress to 30 June 2007

- Work expected to continue into 2008/09.

Modelling workstream

Description

The Commission has developed an analysis and modelling capability to meet the GPS information requirements and to provide input to project work across the organisation. The Commission's role is to provide robust data collection and analysis. For example, the Commission compiles authoritative forecasts of load growth and new generation scenarios. These provide important information for potential investors in base-load generation about the timing and nature of new investments in transmission and generation.

Demand forecasts have been published at the national and regional levels based on comparative data, including data provided by other agencies. These demand forecasts support all the other Commission workstreams and are also included in generation scenarios in the Commission's *Statement of Opportunities* (SOO) (see the transmission workstream section, page 35).

The modelling workstream contributes in particular to the requirements of the following GPS paragraphs: 10, 38–39, 87E, and 89.

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 underpins 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 workstream section (page 35).

Strategic priority links			
System security	**Security of supply**	**Fair and efficient markets**	**Environmental sustainability and efficient use**

Key outputs

Project—centralised dataset

Regular update and development of the centralised dataset (CDS) is an ongoing output required from the Commission.

Expected progress to 30 June 2008

- Publish CDS in DVD format by 31 December 2007.
- Publish CDS in DVD format by 30 June 2008.

Project—market simulation modelling, dispatch model

This project is intended to build capability to investigate market issues, support market refinement work, and support part F processes of the Rules. The resulting model is intended to become public. Relevant GPS paragraph references: 10 and 75.

Progress to 30 June 2007

- Initial work started in January 2006.

Expected progress to 30 June 2008

- *Publish an initial dispatch model.*

Expected progress beyond 30 June 2008

- Becomes business-as-usual.

Security of supply governance workstream

Description

A core Commission responsibility is to use reasonable endeavours to ensure security of supply without assuming any demand reduction from emergency conservation campaigns, while minimising distortions to the ordinary operation of the electricity market. As part of the GPS, the Government requires the Commission to use reasonable endeavours to ensure security of supply in a 1-in-60 dry year. The Commission publishes security of supply information to support market participants to maintain supply, and oversees responses to risks when they emerge. The Commission evaluates the need for reserve energy several years in advance. This includes consideration of potential generation or demand reductions withheld from the market except in circumstances of heightened risk to supply.

The Commission is able to contract for the provision of reserve energy to maintain security of supply using the **reserve energy and emergency measures—availability** appropriation. See output class two—reserve energy and emergency measures on page 50.

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

The security of supply governance workstream addresses the GPS requirements under paragraphs 10, and 35–74.

Ongoing activities in the security of supply workstream include:

- annual review of need for reserve energy—review of need for reserve energy in 2008, assessment of need for 2009, security assessment 2010–2018 (including assessment of peak capacity);
- information provision and monitoring—ongoing acquisition of information for publication and monitoring market outcomes (for example, COMIT, hydro, minzone, market simulations, data manipulation); and
- contingency planning (emergency management)—co-ordination of contingency planning within industry, which will consist initially of pandemic planning.

Strategic priority links			
System security	**Security of supply**	Fair and efficient markets	Environmental sustainability and efficient use

Key outputs

Project—review of reserve energy policy

This project completes the review of reserve energy policy started in 2006/07 and to implement any required changes. Relevant GPS paragraph references: 65–67.

Progress to 30 June 2007

- Review of reserve energy policy initiated and consultation paper published in February 2007.
- Review report May 2007.

Expected progress to 30 June 2008

- *Complete implementation of recommendations as agreed with the Minister of Energy.*

Expected progress beyond 30 June 2008

- Business-as-usual monitoring.

Project—correlation of intermittent generation

This project will investigate the correlation, if any, between periods of low hydraulic inflows and wind. If wind speeds are lower when inflows are lower, there will be a need to assess the extent to which the correlation should be factored into assessments of security of supply and the need for reserve energy. Relevant GPS paragraph references: 65–67.

Expected progress to 30 June 2008

- *Complete input into reserve energy needs analysis.*

Expected progress beyond 30 June 2008

- Modify security assessment to factor in correlation between periods of low hydraulic inflows and wind.

Output class two—reserve energy and emergency measures

Description

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

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

The output class is funded from two appropriations. The **reserve energy and emergency measures—availability** appropriation provides for reserve energy requirements. (This appropriation covers tendering for reserve energy generation and emergency options, and the costs associated with the Whirinaki power station being available if needed.) A multi-year **reserve energy and emergency measures—variable costs** appropriation is also available to implement emergency options if needed, including fuel for Whirinaki. In general this appropriation is not drawn down as the revenue generated exceeds the fuel cost.

The reserve energy and emergency measures output class addresses various GPS requirements under paragraphs 35–74.

Strategic priority links			
System security	**Security of supply**	Fair and efficient markets	Environmental sustainability and efficient use

Key outputs

Develop contingency plans for emergency situations

This output includes developing plans, such as a conservation campaign, and preparing for implementation of other options, in case market mechanisms prove insufficient to address any supply shortage that may eventuate. Relevant GPS paragraph reference: 68–74.

Expected progress to 30 June 2008 and out-years

- *Conduct tendering of reserve energy generation and emergency options for demand reduction as required.*

Tendering for generation and emergency options

This output includes tendering for generation and emergency options as required. The process includes completing tender design, preparing tender documents, administering the tender process, and finalising procurement contracts (if needed for procurement of reserve energy or emergency measures). Relevant GPS paragraph references: 47–67.

Expected progress to 30 June 2008, and out-years

- *Conduct tendering for generation and emergency options as required.*

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Whirinaki availability

This output involves contracting for the availability of the Whirinaki power station for the generation of reserve energy as required. The Whirinaki power station is available for generation as required for maintaining electricity supply to the market. The Commission has contracted the Crown's 155MW diesel-fired Whirinaki power station to provide long-term reserve energy. The contract specifies a minimum plant availability of 94.2 per cent including planned outages. If the Crown does not achieve a minimum level of availability, payment for Whirinaki will be proportionately reduced. Relevant GPS paragraph references: 47–67.

Performance standard (multi-year)

- *Whirinaki power station availability is delivered in accordance with the contract.*

Output class three—electricity efficiency

Description

The *Electricity Act 1992* was amended in October 2004 to give the Commission additional powers to promote and facilitate the efficient use of electricity. The Commission's investment in electricity efficiency programmes aims to encourage cost-effective electricity savings. The Commission works closely with the Energy Efficiency Conservation Authority (EECA) to co-ordinate electricity efficiency initiatives and design and implement programmes to promote and encourage the uptake of electricity efficiency measures among consumers.

The Commission's electricity efficiency outputs include 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). The relevant GPS paragraphs are 25–27 and 31–34.

The major emphasis of the Commission's electricity efficiency work to date has been on:

- conducting electricity efficiency research, in particular the electricity efficiency potentials study;
- conducting electricity efficiency pilot projects; and
- developing effective working relationships with other agencies, relevant industry sectors and electricity efficiency programme providers.

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 potentials study will contribute to the development of the final NZEECS.

Pilot projects have been carried out on compact fluorescent lamps (CFL), including the sale of 125,000 CFLs in Christchurch in late 2005. The evaluation of the Christchurch pilot indicated annual electricity savings and consumer power bill savings of 5.7 GWh and $910,000 respectively. Based on these results, the Commission started a national programme focusing on residential uptake of CFLs in 2006/07.

The Commission has also 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. These results have assisted the Commission to develop work programmes for 2007/08 that will most efficiently and effectively capture electricity efficiency gains in these areas.

Further development of the Commission's electricity efficiency functions may take place as a result of the electricity efficiency potentials study and subsequent analysis, and the completion of the *New Zealand Energy Strategy* (NZES) and *New Zealand Energy Efficiency and Conservation Strategy* (NZEECS).

Investment in the development and management of electricity efficiency programmes through a range of interventions, including incentives and consumer education, is expected to realise sustained electricity efficiency and conservation gains. Ongoing annual benefits by the end of the 2009/10 financial year, from the combined programmes, are expected to be:

- electricity savings of 450 GWh per annum; and
- CO_2 savings of 87,000 tonnes per annum.

Savings are expected to be delivered at an average cost over the life of the investment of under 4 cents per KWh.

Strategic priority links			
System security	**Security of supply**	Fair and efficient markets	**Environmental sustainability and efficient use**

Key outputs

Project—research

Progress to 30 June 2007

- Complete the electricity efficiency potentials study.

Expected progress to 30 June 2008

- *Complete the electricity efficiency potentials model, and use it to inform ongoing programme design.*

Project—efficient lighting

Progress to 30 June 2007

- Residential CFL pilots and evaluation completed.
- 2.4 million CFLs sold nationwide.

Expected progress to 30 June 2008

- *Sell a further 3.4 million CFLs in 2007/08.*
- *Consider the merits of a CFL information campaign, as part of an exit strategy.*
- *Develop and implement lighting efficiency programmes beyond the scope of the residential CFL programme.*

Expected progress beyond 30 June 2008

- Subsidise and sell a further 2.3 million CFLs in 2008/09.
- Initiate exit strategy for CFL programme.

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Project—compressed air

Progress to 30 June 2007

- Industry stakeholder group established.
- Economic assessment completed (compressed air and motors).
- Pilot completed.

Expected progress to 30 June 2008

- *Develop and deliver best practice package for compressed air operation and maintenance.*
- *Complete best practice assessments for 40 large industrial consumers.*

Expected progress beyond 30 June 2008

- Complete migration of management of best practice programme to an industry body.

Project—electric motors

Progress to 30 June 2007

- Pilot completed.
- Electric motors efficiency study and economic assessment completed (compressed air and motors).

Expected progress to 30 June 2008

- *Develop and implement awareness programme and policies for motor replacement.*
- *Consider motor replacement incentive programme.*

Expected progress beyond 30 June 2008

- Complete implementation of awareness and incentive programmes.

Project—commercial buildings

Progress to 30 June 2007

- Economic assessment of barriers to uptake of electricity efficiency technologies completed.

Expected progress to 30 June 2008

- *Develop and implement commercial building electricity efficiency programme.*

Expected progress beyond 30 June 2008

- Complete implementation of commercial buildings programme.

The **generic quality performance measure** and **generic timeliness measure** apply to all projects in this section.

Prospective financial statements

The *Crown Entities Act 2004* requires prospective financial statements to be presented in the *Statement of Intent*. The purpose of these financial statements is to provide a base against which the Commission's actual financial performance can be assessed in order to promote public accountability.

These prospective financial statements are prepared for the purpose described above and the information may not be appropriate for any other purpose. Actual financial results achieved for the period covered may vary from the information presented, and the variations may be material.

There is no intention to update the prospective financial statements subsequent to presentation.

Reporting entity

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

The Commission is a public benefit entity, as defined under NZIAS 1, and a reporting entity for the purposes of the *Financial Reporting Act 1993*, the *Public Finance Act 1989* and the *Crown Entities Act 2004*.

Statement of compliance and basis of preparation

These prospective financial statements have been prepared in accordance with Generally Accepted Accounting Practice (GAAP) in New Zealand, adopting the New Zealand equivalents to International Financial Reporting Standards (NZIFRS) and its interpretations approved by the Accounting Standards Review Board.

The financial statements are presented in New Zealand dollars rounded to the nearest thousand.

The accounting policies that follow have been applied consistently to all periods presented in the financial statements.

These prospective financial statements comply with FRS 42.

Statement of significant assumptions

These financial statements have been compiled on the basis of government policies and legislation at the time the statements were finalised.

A conservative view has been adopted with the assumption that funding will remain at the currently appropriated levels over the forecast period of these statements.

Budget and forecast expenditure is based on the assumption that the cost of inputs will increase in line with general inflation, except where specific contractual obligations exist.

Prospective statement of financial performance

	Note	Budget 2007/08	Forecast 2008/09	Forecast 2009/10
Crown revenue	1	89,206	92,713	90,991
Whirinaki spot revenue[10]		–	–	–
Interest income		646	646	646
Other revenue		13	13	13
Total revenue		**89,865**	**93,372**	**91,650**
Employee benefits	3	6,599	6,797	7,001
Depreciation and amortisation expense		1,600	1,748	1,685
Other operating expenses	2	81,007	84,168	82,305
Total expenses		**89,206**	**92,713**	**90,991**
Surplus/(deficit) for the period		**659**	**659**	**659**

Prospective statement of movements in equity

	Budget 2007/08	Forecast 2008/09	Forecast 2009/10
Opening balance at 1 July	**4,951**	**5,610**	**6,269**
Surplus/(deficit)			
– Governance and market operations	659	659	659
– Reserve energy and emergency measures—availability	–	–	–
– Reserve energy and emergency measures—variable	–	–	–
– Electricity efficiency	–	–	–
– Electricity Commission litigation fund	–	–	–
	659	**659**	**659**
Closing balance at 30 June	**5,610**	**6,269**	**6,928**

10 Spot revenue is earned when the Whirinaki power station generates electricity. Whirinaki only generates electricity under specific conditions that may or may not occur. Due to the unpredictable nature of its operation, these figures are not able to be estimated with any degree of certainty. For this reason they are not included in the forecast financial statements.

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

Prospective statement of financial position

	Note	Opening at 1 July 2007	Budget 2007/08	Forecast 2008/09	Forecast 2009/10
Taxpayers' funds		**4,951**	**5,610**	**6,269**	**6,928**
Assets					
Current assets					
Cash and cash equivalents		20,067	3,953	6,310	8,604
Receivables and prepayments		95	95	95	95
		20,162	**4,048**	**6,405**	**8,699**
Non-current assets					
Property, plant and equipment	4	693	1,369	1,099	876
Intangible assets	5	89	9,751	8,323	6,911
		782	**11,120**	**9,422**	**7,787**
Total assets		**20,944**	**15,168**	**15,827**	**16,486**
Liabilities					
Current liabilities					
Payables and accruals		9,153	9,153	9,153	9,153
Employee benefits		405	405	405	405
Provisions		6,435	–	–	–
		15,993	**9,558**	**9,558**	**9,558**
Total liabilities		**15,993**	**9,558**	**9,558**	**9,558**
Net assets employed		**4,951**	**5,610**	**6,269**	**6,928**

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

Prospective statement of consolidated cash flows

	Budget 2007/08	Forecast 2008/09	Forecast 2009/10
Cash flows from operating activities			
Cash received from the Crown	82,772	92,713	90,991
Cash received from Whirinaki spot revenue	–	–	–
Cash received from third parties	13	13	13
Cash paid to suppliers	(81,007)	(84,168)	(82,305)
Cash paid to employees	(6,599)	(6,797)	(7,001)
Net GST refunded/(paid) on operations	–	–	–
Net cash flows from operating activities	**(4,821)**	**1,761**	**1,698**
Cash flows from investing activities			
Interest received from investments	646	646	646
Acquisition of property, plant and equipment	(1,108)	(40)	(40)
Acquisition of intangibles	(10,831)	(10)	(10)
Net cash flows from investing activities	**(11,293)**	**596**	**596**
Net increase/(decrease) in cash and cash equivalents	(16,114)	2,357	2,294
Cash and cash equivalents at beginning of year	20,067	3,953	6,310
Cash and cash equivalents at end of year	**3,953**	**6,310**	**8,604**

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

Statement of significant accounting policies

a) Foreign currency transactions

Transactions in foreign currencies are translated at the foreign exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are translated to New Zealand dollars at the foreign exchange rate ruling at that date. Foreign exchange differences arising on translation are recognised in the statement of financial performance.

b) Property, plant and equipment

Classes of property, plant and equipment

The major classes of property, plant and equipment are as follows:

- leasehold improvements;
- computer hardware;
- furniture and fittings; and
- office equipment.

Owned assets

Items of property, plant and equipment are stated at cost, less accumulated depreciation and impairment losses. Where material parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items of property, plant and equipment.

Disposal of property, plant and equipment

Where an item of plant and equipment is disposed of, the gain or loss recognised in the statement of financial performance is calculated as the difference between the net sale price and the carrying amount of the asset.

Leased assets

Leases where the Commission assumes substantially all the risks and rewards of ownership are classified as finance leases. The assets acquired by way of finance lease are stated at an amount equal to the lower of their fair value and the present value of the minimum lease payments at inception of the lease, less accumulated depreciation and impairment losses.

Subsequent costs

Subsequent costs are added to the carrying amount of an item of property, plant and equipment when that cost is incurred if it is probable that the future economic benefits embodied with the item will flow to the Commission. All other costs are recognised in the statement of financial performance as an expense as incurred.

Depreciation

Depreciation is charged to the statement of financial performance using the straight line method. Depreciation is set at rates that will write off the cost of the assets, less their estimated residual values, over their useful lives. The estimated useful lives of major classes of assets and resulting rates are as follows:

Type of asset	Estimated life	Depreciation rate
Computer equipment	3 years	33%
Furniture and fittings	5 years	20%
Office equipment	5 years	20%

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 and not depreciated until the asset is completed and fully operational.

c) Intangible assets

Software

Software applications that are acquired by the Commission are stated at cost less accumulated amortisation and impairment losses.

Subsequent expenditure

Subsequent expenditure on intangible assets is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure is expensed as incurred.

Amortisation

Amortisation is charged to the statement of financial performance on a straight-line basis over the estimated useful lives of intangible assets.

Type of asset	Estimated life
Software	3–10 years

d) Receivables and prepayments

Receivables and prepayments are stated at cost less impairment losses. Bad debts are written off during the period in which they are identified.

e) Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits. Bank overdrafts that are repayable on demand and form an integral part of the Commission's cash management are included as a component of cash and cash equivalents for the purpose of the statement of cash flows.

f) Impairment

The carrying amounts of the Commission's assets are reviewed at each balance date to determine whether there is any indication of impairment. If any such indication exists, the recoverable amount for the asset is estimated. The estimated recoverable amount is the greater of the fair value of the asset less costs to sell and value in use.

If the estimated recoverable amount of an asset is less than its carrying amount, the asset is written down to its estimated recoverable amount and an impairment loss is recognised in the statement of financial performance.

g) Employee benefits

Defined contribution plans

Obligations for contributions to defined contribution plans are recognised as an expense in the statement of financial performance as incurred.

Long service leave

The Commission's net obligation in respect of long service leave is the amount of future benefit that employees have earned in return for their service in the current and prior periods. The obligation is calculated using the projected unit credit method and is discounted to its present value. The discount rate is the market yield on relevant New Zealand government bonds at the balance sheet date.

Annual leave

Annual leave is a short-term obligation and is calculated based on the actual amount the Commission expects to pay.

Sick leave

The Commission provides for accumulating sick leave to the extent that it is probable that the employees will take more than their future annual entitlements. The calculation of the provision for sick leave is based on historical payroll information, using remuneration rates current as at the reporting date to measure the liability.

h) Provisions

A provision is recognised when the Commission has a present legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation.

i) Payables and accruals

Payables and accruals are stated at cost.

j) Income tax

The Commission is a public authority under the *Income Tax Act 1994* and is therefore exempt from income tax.

k) Goods and services tax

All amounts are shown exclusive of goods and services tax (GST), except for receivables and payables, which are stated inclusive of GST. Where GST is not recoverable as an input tax, it is recognised as part of the related asset or expense.

l) Revenue

Crown revenue

The Commission is funded by appropriations from Parliament which cover the range of outputs the Commission provides to the Crown. Revenue from appropriations is recognised when matched by expenditure in the period in which it is incurred.

Whirinaki spot revenue

The Commission earns spot revenue from the sale of electricity generated by the Whirinaki power station. This revenue is recognised when earned, and is reported in the financial period to which it relates.

Interest income

Interest income is recognised in the income statement as it accrues, using the effective interest method.

Other revenue

Other revenue is for services provided to third parties. Such revenue is recognised when earned and is reported in the financial period to which it relates.

m) Expenses

Operating lease payments

Payments made under operating leases are recognised in the statement of financial performance on a straight-line basis over the term of the lease.

Changes in accounting policies

There have been no changes in accounting policies.

Notes to the financial statements

1 Crown revenue

	Budget 2007/08	Forecast 2008/09	Forecast 2009/10
Governance and market operations	49,043	49,043	46,723
Reserve energy and emergency measures—availability	26,645	27,425	28,229
Reserve energy and emergency measures—variable[11]	–	–	–
Electricity efficiency	13,074	15,801	15,595
Electricity Commission litigation fund	444	444	444
	89,206	**92,713**	**90,991**

2 Other operating expenses

	Budget 2007/08	Forecast 2008/09	Forecast 2009/10
Service provider contracts	29,951	28,129	28,281
Whirinaki contract	25,997	26,777	27,580
Whirinaki fuel costs[12]	–	–	–
External advice	9,335	10,432	7,810
Efficiency programmes	11,778	14,775	14,537
Audit fees	35	36	37
Auditor fees for other services	15	–	–
Advisory and working group fees	178	183	189
Commissioners' fees	912	939	968
Rulings Panel fees	167	172	178
Operating lease expenses	469	555	555
Travel expenses	391	391	391
Other expenses	1,779	1,779	1,779
	81,007	**84,168**	**82,305**

3 Employee benefits

	Budget 2007/08	Forecast 2008/09	Forecast 2009/10
Salaries and wages	6,361	6,552	6,749
Contributions to defined contribution plans	238	245	252
Increase/(decrease) in employee benefit provisions	–	–	–
	6,599	**6,797**	**7,001**

11 Reserve energy and emergency measures—variable is a multi-year appropriation to cover the cost of fuel for the Whirinaki power station. Spot revenue is earned from the sale of electricity generated by Whirinaki and will usually be higher than the cost of fuel. It is therefore unlikely that this appropriation will be drawn down.

12 Whirinaki fuel costs arise only when electricity is generated. The Whirinaki power station only generates electricity under specific conditions that may or may not occur. Due to the unpredictable nature of its operation, these figures are not able to be estimated with any degree of certainty. For this reason they are not included in the forecast financial statements.

4 Property, plant and equipment

	Budget 2007/08	Forecast 2008/09	Forecast 2009/10
Computer hardware	92	50	30
Computer hardware (service provider)	808	682	556
Office equipment	65	47	37
Furniture and fittings	78	48	35
Leasehold improvements	326	272	218
Net book value at 30 June	**1,369**	**1,099**	**876**

5 Intangible assets

	Budget 2007/08	Forecast 2008/09	Forecast 2009/10
Software	269	159	66
Software (service provider)	9,482	8,164	6,845
Net book value at 30 June	**9,751**	**8,323**	**6,911**

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

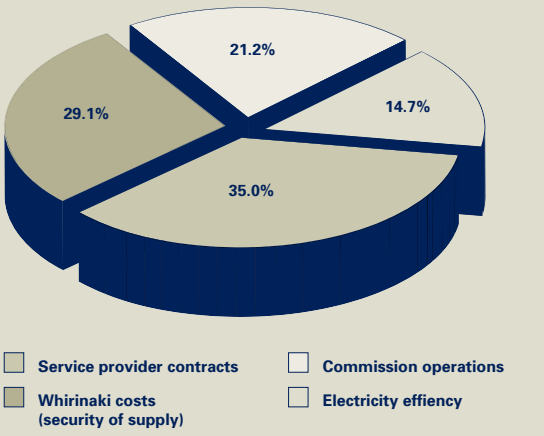
Part three
other information

Electricity Commission funding

The Commission is funded by appropriations from Parliament, under Vote: Energy. The appropriations cover all the services and activities of the Commission.

Figure 6 shows the broad areas of the Commission's budgeted spending for 2007/08.

Figure 6: forecast expenditure for 2007/08



Source: Electricity Commission

Service provider costs—costs that cover agreements between the Commission and the companies that provide services to keep the electricity market operating.

Commission operations—costs incurred for all operational costs of the Commission. These include rent, overheads, staff costs, board costs and external legal and other professional advice.

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

Security of supply costs—predominantly 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 Commission levy

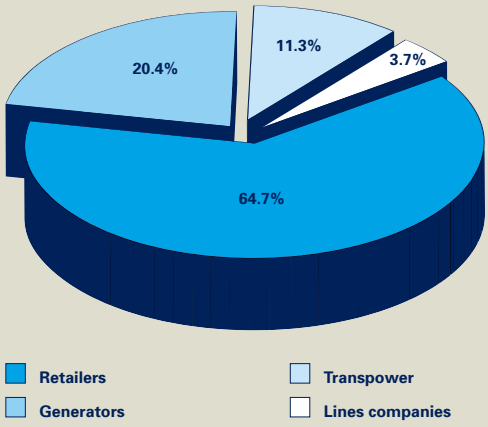
The Crown is reimbursed for the cost of the Commission by way of a levy on the electricity industry. The levy is collected by the Commission on behalf of the Crown.

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.

Electricity retailers recover their share by billing consumers. Some retailers choose to include the levy as an itemised charge on consumers' accounts, while others incorporate it in the overall price they charge consumers.

Allocation of the levy to electricity industry sectors is shown in figure 7.

Figure 7: levy allocation for 2007/08



Source: Electricity Commission

Organisational health and capability

People

As at 1 June 2007, the Commission employed 45 permanent staff. This number is made up mainly of specialist positions relating to the functions of the Commission under the Act, and a small team of support staff.

As an employer of highly skilled, highly qualified staff the Commission is particularly vulnerable to the pressures of a competitive local and international labour market. To attract and retain high-calibre individuals from New Zealand and around the world, the Commission strives to maintain an environment that delivers balance, scope for innovation and achievement, a range of appropriate recognition and rewards, and opportunities for growth and development.

It is coming up to four years now since the Commission was established. To date the focus on organisational development has been on ensuring that the structure and staffing resources of the Commission meet the organisation's requirements. This has involved ongoing adjustments to ensure resources fit work demands, and several more formalised reviews.

To ensure that the Commission has the right mix of people, in 2006/07 a review was completed of the mix of out-sourcing and in-housing of various duties. As a result, the Commission has recruited staff in order to bring the role of market administrator in-house. This role, which is required under the Rules, was previously provided by an external consultancy company. The Commission has also recruited staff to carry out other work previously provided by external providers under market support contracts.

Looking forward to 2007/08 and beyond the focus is on bedding in the human resource systems and processes that have been implemented to date. These include the performance management system for all staff, Employee Assistance Programme services, health and safety, and training and development programmes for all staff.

During 2007/08, the Commission will also be recruiting staff to implement the expanded electricity efficiency programme announced in the Government's budget. The skills sought are in high demand at present. The Commission will therefore be putting significant emphasis on ensuring that it attracts high-calibre staff to deliver this important programme.

The Commission supports a healthy life balance. The Commission appreciates that its work can sometimes be very demanding, addressing critical issues for the future of electricity in New Zealand, often in tight timeframes. Emphasis is placed on achieving a healthy balance between work, personal, family and community commitments. A flexible approach is taken to delivering work requirements, with the emphasis on achieving high quality to agreed timeframes rather than taking a time-sheet, attendance based employment focus.

Staff members are encouraged to remain active in their out-of-work responsibilities be it family related, charity orientated or involvement in community service, whilst trusted to deliver on work priorities.

A healthy and active lifestyle is considered an excellent tonic for demanding, office-based work and is strongly encouraged. The Commission encourages and supports its staff to take on sporting endeavours, and takes pride in the sporting achievements of its staff, be it in competition at a world-class level, or taking on new sporting challenges at beginner level.

Progress to 30 June 2007

- Establishment of structure and operations completed and HR systems and processes in place.

Expected progress to 30 June 2008

- *Electricity efficiency team fully established.*
- *HR systems and processes fully operational.*

Business and information systems

In 2005 the Commission completed a review of the pathway forward for information management. Since then various projects have been undertaken that have enabled, for example, better accessibility of the Commission's systems for staff who need to work remotely and improved use of standard document formats for both staff and external advisers.

During 2007/08 the Commission expects to complete work on providing remote access for staff and approved external advisers.

A review of the 2005 report will be carried out during 2007/08 to ensure that the Commission's systems continue to meet its needs in the medium and long terms.

The Commission continues to outsource the management of its desktop and server environment. This approach is working well with no change of approach forecast in this area.

During the 2007/08 year the Commission expects to complete work on ensuring its principal objectives and specific outcomes are appropriately integrated into its planning and decision-making.

Progress to 30 June 2007

- Establishment of business systems and processes completed.

Expected progress to 30 June 2008

- *Remote access system fully operational.*

Risk management

In 2006 the Board established a Risk and Audit Committee. The committee's role includes:

- oversight of the quality and integrity of financial reporting;
- consideration of the appropriateness of the Commission's policy framework and management processes regarding risk identification; and
- management and oversight of the internal audit process to evaluate the effectiveness of risk management.

The committee has approved a risk framework and risk register. The risk register is regularly updated and mitigation actions recorded. Progress on mitigation actions is monitored by the Chief Financial Officer, General Manager, and Risk and Audit Committee.

The Commission is currently finalising its business continuity plan. The plan incorporates guidance for staff and, in particular, includes steps to be taken in the event of a pandemic.

The Commission has also planned for a coordination role in pandemic management across the electricity sector on behalf of the Ministry for Economic Development.

Progress to 30 June 2007

- Risk and Audit Committee and policies in place.

Expected progress to 30 June 2008

- *Business continuity plan completed and fully operational.*

Communication/stakeholder relationships

The Commission relies heavily on its ongoing relationship with companies in the electricity industry to gain feedback on proposals for the development of improvements to the operation of the New Zealand electricity market.

The Commission maintains active communication links with industry, and with other interested groups such as Grey Power, through the operation of advisory groups. The focus for these groups ranges from advice on transmission pricing to the operation of the wholesale market. In addition specific project teams are established for the duration of individual projects where a high level of external input is beneficial. Project teams include, for example, the retail/social agency protocol working group; the lighting efficiency stakeholder group; and the wind generation investigation project—technical stakeholders group.

The Electricity Commission puts considerable emphasis on effective consultation in carrying out its functions. This includes:

- consultation on issues on which the Commission may consider recommending Rules or rule changes;
- consultation in respect to grid investment decision-making (as required under Part F of the Rules); and
- consultation on management and accountability matters, including:
  - annual public consultation on the 'big picture' issues that should be considered in developing the work programme and SOI;

  - annual consultation with levy payers on the Commission's appropriations (as required under section 172ZCA of the *Electricity Act 1992)*; and
  - annual consultation with the Minister of Energy on the draft SOI (as required by section 146 of the *Crown Entities Act 2004*, and section 172ZL of the *Electricity Act 1992)*.

The Commission has well-developed consultation processes that have been refined and further developed over the past year. A consultation protocol has been published for Part F processes to address the requirement of paragraph seven of the GPS. The existing Part F consultation protocol will be reviewed and updated as part of development of a Commission-wide consultation protocol in 2007/08.

Section 141(g) of the *Crown Entities Act 2004* requires the SOI to include matters on which:

- the Commission will consult or notify the Minister of Energy before making a decision. There are no specific matters on which the Commission is required to consult or notify the Minister. However, the Commission Chair meets with the Minister on a regular basis and the Commission provides the Minister with briefings and advice as requested or on its own volition; and
- the matters on which the Commission will report to the Minister, and the frequency of reporting. The Commission provides the Minister with ad-hoc reports as agreed, and a quarterly report, which includes:
  - year-to-date progress against outputs (see part two);
  - year-to-date financial performance;
  - life-to-date progress against the GPS; and
  - quarterly updates on consultation papers and rule-changes.

The Commission also publishes a report against the GPS on its website on a quarterly basis and in its *Annual Report*. The GPS section of the *Annual Report* provides the information required under section 172ZM of the *Electricity Act 1992*.

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

Progress to 30 June 2007

- Consultation processes developed, including Part F consultation protocol.

Expected progress to 30 June 2008

- *Complete commission-wide consultation protocol.*

Relationships with other government agencies

Ministry of Economic Development

The Ministry of Economic Development (MED) is the Government's policy adviser for the energy sector, including the electricity sector. The 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 in respect to the requirements of the *Crown Entities Act 2004*.

Ministry for the Environment

The Ministry for the Environment is responsible for administering the *Resource Management Act 1991* (RMA). The Ministry is a government department, responsible to the Minister for the Environment. The RMA is the legislation under which generators apply for resource consents for the construction and operation of generating plant and any associated development work. RMA requirements also apply to the development of transmission and distribution infrastructure, and some maintenance work. Applications for resource consent under the RMA are made to territorial local authorities, and may be appealed to the Environment Court.

Commerce Commission

The relationship between the Electricity Commission and the Commerce Commission is addressed in paragraphs 101–108 of the GPS. The two commissions have developed a memorandum of understanding (MOU), which was updated in 2007, consulted on, and is currently being finalised.

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 memorandum of understanding (MOU) was agreed between the two agencies in August 2005. The MOU 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.

Each year the PCE examines the Electricity Commission's achievement against GPS environmental objectives and outcomes under section 172ZP of the *Electricity Act 1992*. The reports are available on the PCE website: **www.pce.govt.nz**

Organisation information

Board members

The Electricity Commission is governed by a Board that is appointed by the Minister of Energy. The Board shall 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 current Board members are listed below.

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 is 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.

Commission management team

General manager	Mervyn English
Market governance and business improvement	Richard Norris
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 (acting)
Chief financial officer	Kevin Lampen-Smith
General counsel	Vacant
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 as listed below:

- 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/**

Advisory and project groups

The *Government Policy Statement on Electricity Governance* (GPS) sets out the objectives and outcomes for how the Commission should go about its work. Paragraph eight of the GPS requires the Commission to make extensive use of advisory groups, wherever possible, to develop industry arrangements and make recommendations concerning Regulations and Rules.

The Commission has appointed industry, consumer, and independent representatives to its advisory groups, in accordance with its charter. 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 Commission is evolving work practices aimed at maximising the considerable value the groups can contribute.

The groups' various responsibilities and functions include the following:

- considering and advising on the Commission's work programme and strategic direction;
- advising on proposed regulation and rule changes, including all practicable alternatives and the relative cost-benefit trade-off of each alternative;
- providing technical advice and industry expertise in the preparation of such outputs as:
  - system operator policy statement;
  - system operator procurement plan;
  - grid investment test;
  - grid reliability standards;
  - grid planning assumption;
  - statements of opportunities;
  - transmission alternatives; and
  - transmission pricing methodology;
- advising on the development of the retail, wholesale and hedge (electricity and transmission) markets;
- advising on how the Commission may use reasonable endeavours to ensure security of supply in a 1-in-60 dry year, without assuming any demand reduction from emergency campaigns, while minimising distortions to the normal operation of the electricity market; and
- providing general advice to the Commission on other matters raised.

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. Current project teams include:

- wind generation investigation project—technical stakeholders group;
- code of practice D5 review panel;
- constraint issues group;
- load management existing capability working panel;
- model distribution review panel;
- retail/social agency protocol working group; and
- standing data-formats group.

A lighting efficiency stakeholder group is being formed in conjunction with the Energy Efficiency and Conservation Authority (EECA) and the Lighting Council of New Zealand. The purpose of the group is to encourage and facilitate input into the development of an efficient lighting strategy from across the lighting industry and wider stakeholders. Summary information about the wind generation investigation project—technical stakeholders group, is provided below.

Information on all project-related teams is available on the Commission's website at:
http://www.electricitycommission.govt.nz/advisorygroups/pjtteam

Advisory and project group members

Transmission Advisory Group

The Transmission Advisory Group:

- considers and develops rule-change proposals affecting Part F of the Rules; and
- provides comment as necessary to advisory groups whose work impacts on transmission.

The members of the Transmission Advisory Group are:

- Bill Heaps, Acting Chair (Strata)
- Bob Simpson (Transpower)
- Dick Whitelaw (New Zealand Steel)
- Malcolm Alexander (Genesis Energy)
- Michael Whaley (Powerco)
- Ralph Matthes (Major Electricity 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:

- provides advice on the transmission pricing methodology proposed by Transpower;
- considers and develops rule-change proposals affecting sections IV and V of Part F of the Rules; and
- provides comment as necessary to advisory groups whose work impacts on transmission pricing issues.

The members of the Transmission Pricing Advisory Group are:

- 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, is the Commission's representative on the group.

Common Quality Advisory Group

The Common Quality Advisory Group provides the Commission with:

- advice on any common quality standards development;

- technical advice and expertise regarding the system operator's policy statement and procurement plan;
- input to the review of common quality direction; and
- advice as requested on issues arising from the Commission's oversight of the common quality arrangements and system operation.

The members of the Common Quality Advisory Group are:

- Toby Stevenson, Chair (Law & Economics Consulting Group)
- Tim Chatterton (Vector)
- Bryan Leyland (Consulting Engineer)
- Terrence Currie (T C Associates)
- Chris Ewers (Meridian Energy)
- Adam Fletcher (Mighty River Power)
- 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.

Wind Generation Investigation Project—Technical Stakeholders Group

The Wind Generation Investigation Project—Technical Stakeholders Group has been established under the Wind Generation Investigation Project with the role of reviewing the work of the project team. The Wind Generation Investigation Project is considering issues related to the integration of wind generation over the next five to ten years. Technical Stakeholders Group members have been appointed for the full term of the Wind Generation Investigation Project.

The members of the Technical Stakeholders Group are:

- Bill Heaps, Chair (Strata)
- James Glennie (Independent)
- John Galambos (Meridian Energy)
- John Woods (Contact Energy)
- Richard Spearman (TrustPower)
- Mark Pearce (Consultant)

Retail Market Advisory Group

The Retail Market Advisory Group:

- considers and develops rule-change proposals affecting parts B, D and E of the Rules; and
- provides comment as necessary to advisory groups whose work impacts on the operation of the retail market.

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 (NZ Family Budgeting Association)
- John Scott (Consultant)

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

Wholesale Market Advisory Group

The Wholesale Market Advisory Group:

- considers and develops Rule change proposals affecting part G (trading, pricing, dispatch, wholesale reconciliation) and part H (settlement and security Rules) of the Rules; and
- provides comment as necessary to advisory groups whose work impacts on the operation of the wholesale market.

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 Hedge Market Development Steering Group:

- provides advice to the Commission on the implementation of a transparent and liquid electricity hedge market; and
- provides comment as necessary to advisory groups on the operation of the electricity hedge market.

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 Security Advisory Group provides advice to the Commission about how it may use reasonable endeavours to ensure security of supply in a 1-in-60 dry year, without assuming a demand reduction from emergency campaigns, while minimising distortions to the normal operation of the electricity market.

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.

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. Thermal electricity generation contributed 24.5 per cent of CO_2 in 2005, and about twice the level of CO_2 equivalent emissions as the 1990 level (source: R*evised New Zealand Energy Greenhouse Gas Emissions 1990–2005*, MED, December 2006).

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 (CQSO).

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—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 production 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, a distributor 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 (Act)—the *Electricity Act 1992*, 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—the *Electricity Amendment Act 2004* was enacted in October 2004. It 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—the Electricity and Gas Complaints Commissioner is 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 is being conducted by the Commission 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 in order to realise the cost effective electricity efficiency improvements?

The study is being carried out with EECA and will inform future electricity efficiency programme development and design.

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 a number of 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 Conservation Act 2000.* It promotes energy efficiency, energy conservation and renewable energy.

Estimates of Appropriations—the *Estimates of Appropriations* (Estimates) are Government's 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—financial transmission rights are 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, in respect of 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)—the *Government Policy Statement on Electricity Governance* is 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 and be examined. 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/national grid—the grid, also referred to as the national grid, is 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)—the grid investment test is 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)—a grid upgrade plan is 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)—one 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)—the Ministry for the Environment is responsible for administration of the *Resource Management Act 1991*.

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

Minzone—the Minzone is an analytical tool that helps electricity system planners understand the data about hydro storage levels. It is based on the record of 74 years of hydro inflows into the storage lakes 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)—the *New Zealand Energy Strategy* is a national strategy, for which development and implementation is led by the Ministry of Economic Development (MED). A draft of the strategy was released in December 2006.

New Zealand Energy Efficiency and Conservation Strategy (NZEECS)—the *New Zealand Energy Efficiency and Conservation Strategy* is 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.

Outcome—an outcome is 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—an output is 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 set up under the *Environment Act 1986*.

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 in relation to 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—reserve energy is 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 *Resource Management Act 1991* is 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/sells 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 event.

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

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

Rulings Panel—the 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 (described in part two of this SOI) through service provider contracts:

- clearing manager;
- information systems;
- 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 *Statement of Intent* 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 as set out 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 publishes a *Statement of Opportunities* (SOO) for transmission and transmission alternatives, under section III of part F of the Rules. The Commission is required to publish a SOO at least every two years, 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—the Systems Operations Committee is a committee of the Board.

System operator—the service provider responsible for scheduling and dispatching electricity in a manner that avoids fluctuations in frequency or disruption of supply.

Undesirable trading situation (UTS)—an 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—the Undesirable Trading Situations Committee is a committee of the Board.

Directory

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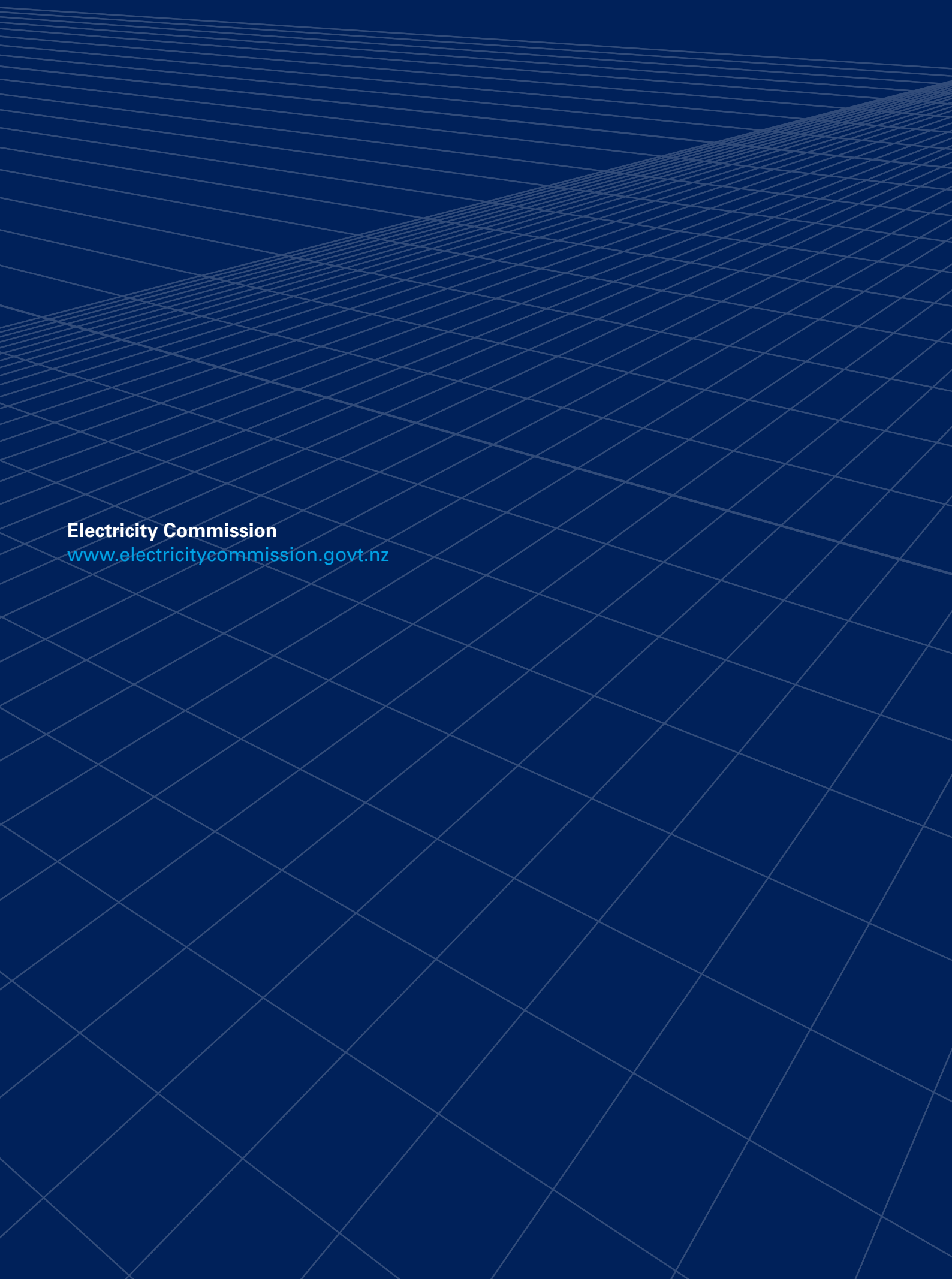

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