



New Zealand



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Retail supply contestability was introduced progressively from 1993 and the wholesale electricity market established in 1996. At this time ECNZ was split into two SOEs. The 1998 Electricity Industry Reform Act required the full separation of electricity lines and the competitive elements of the industry (e.g. retailing and generation).

Concomitantly, ECNZ was split into three state-owned enterprises (Genesis Energy, Meridian Energy and Mighty River Power) and the second SOE earlier created listed on the New Zealand Stock Exchange as Contact Energy. Apart from TrustPower, which chose to sell its distribution lines business and remain a retailer (and acquired some generation assets at this time), lines businesses divested their retail businesses principally to the new SOEs and Contact Energy. Since the 1998 reforms, amendments to the law have allowed lines businesses to own some generation.

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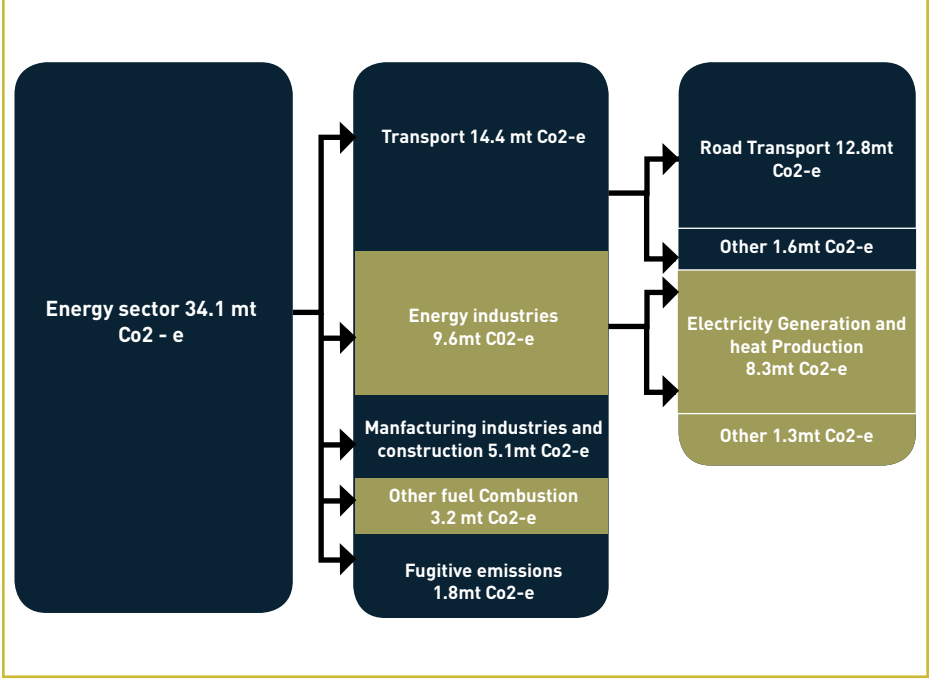
Photo: Bloomberg

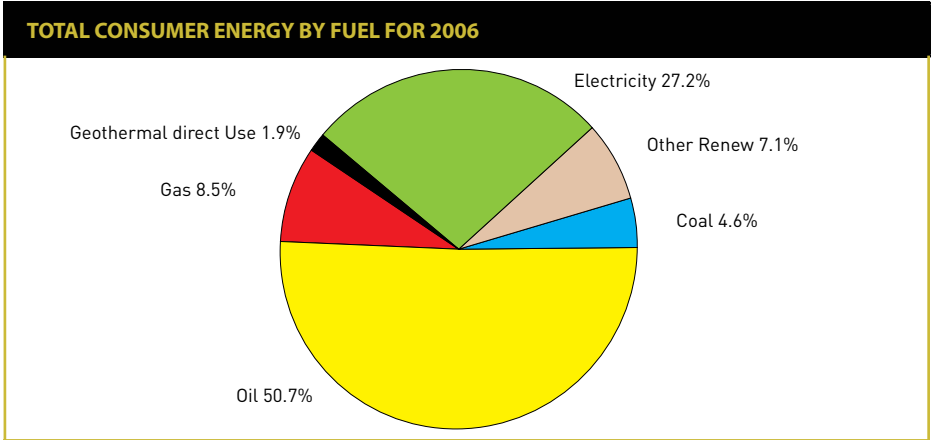
took responsibility for industry regulation and established the Electricity Commission which commenced operation 1 March 2004. In late 2007 the New Zealand Government released the New Zealand Energy Strategy to 2050: Powering Our Future, The Framework for a New Zealand Emissions Trading Scheme and The New Zealand Energy Efficiency and Conservation Strategy: Making It Happen. In short these provide for a

PROFILE

Capital Area	Wellington	Installed Capacity	8,362MW
Population	268,680 km ²	Population Electrified	100%
GDP	4.2 million	Main Voltages (kV)	220, 110, 66
Currency	US\$109,626 billion	Natural Resources	natural gas, coal and hydropower
	New Zealand Dollar		

EMISSIONS FROM ENERGY STRUCTURE FOR 2007



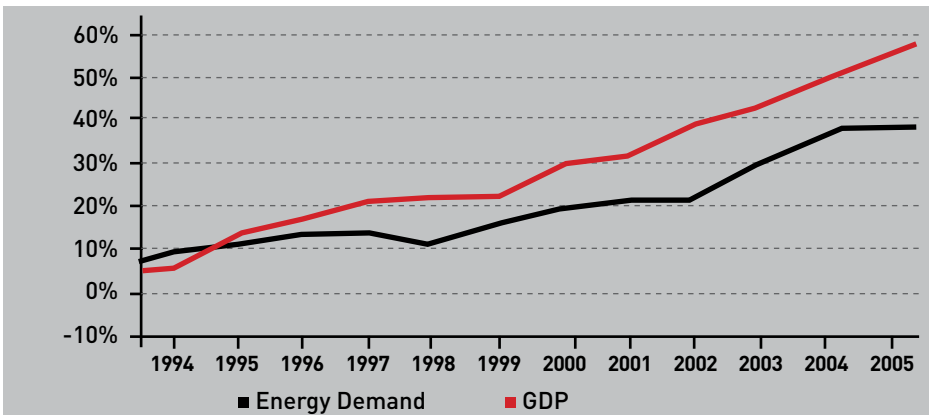


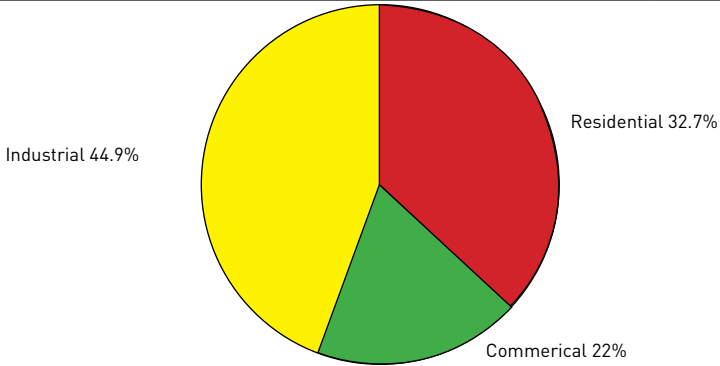
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TOTAL CONSUMER ENERGY BY SECTOR FOR 2007

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CUSTOMER CLASS	MARCH 2006 AVERAGE RATE (P/kWh)	MARCH 2007 AVERAGE RATE (P/kWh)
Residential	8.73	8.70
Lifeline	5.80	6.01
Non-Lifeline	9.21	9.15
Commercial	8.18	7.70
GS, Small and Medium	8.77	8.43
Large	7.87	6.69
Very Large	7.37	6.79
Industrial	7.00	6.71
Small and Medium	8.37	8.14
Large	7.36	6.93
Very Large	6.82	6.32
Extra Large	6.41	6.09
TOTAL	8.03	7.75

It Happen. In short these provide for a target of 90% renewable electricity generation by 2025, restrictions on the construction of thermal generation and an emissions trading scheme applicable to the stationary energy sector from 1 January 2010 but eventually incorporating all sectors of the economy and the six greenhouse gases specified in the Kyoto Protocol by 2013.

Distribution of Demand

There is no easily accessible split of rural and urban electricity demand. Demand is concentrated in the north of New Zealand, except for New Zealand Aluminium Smelter's Tiwai point (Southland) smelter which constitutes approximately 13% of New Zealand's electricity demand.

Transmission and Distribution of Energy

The electricity transmission system is owned by state-owned enterprise Transpower. The grid is the physical hub of the electricity system bringing electricity from remote generation sites to customers some distance away. High voltage electricity is transmitted across the grid from the GIPs to the points of distribution at the grid exit points (GXPs).

At the GXPs electricity is reduced to lower voltage at transformer substations for distribution on local networks to consumers.

Transpower owns the high voltage national electricity grid. The Electricity Commission manages a contractual service provider agreement with Transpower to ensure the grid management in real time.

Distribution

There are around 28 lines companies that own the local distribution networks throughout New Zealand. The lines companies are connected to the national grid at the GXPs. Low voltage electricity is distributed via the local networks to end commercial and domestic consumers.

Generally the lines companies sell their distribution or lines services to retailers who manage the electricity supply agreements with end consumers. Some commercial and industrial consumers contract directly with lines companies for electricity supply.

Governmental Controls and Regulations

The New Zealand electricity industry and markets are overseen by the Electricity Commission, a Crown entity set up by the Electricity Act 1992, to ensure electricity is produced and delivered to all consumers in an efficient, fair, reliable and environmentally sustainable manner.

The Government's more specific objectives and outcomes for the Electricity Commission are set out in the Government Policy Statement (GPS) on Electricity Governance. The Commerce Commission has both an enforcement and adjudication role under the Electricity Industry Reform Act 1998 (EIR Act). The EIR Act was introduced to reform the electricity industry to better ensure that costs and prices in the electricity industry are subject to sustained downward pressure and the benefits of efficient electricity pricing flow through to all classes of consumers by:

- Effectively separating electricity distribution from generation and retail; and
- Promoting effective competition in electricity generation and retail.

The EIR Act allows the Commission to exempt parties from the application of the Act. In August 2001, a new Part 4A of the Commerce Act 1986 established an industry specific regulatory regime for large electricity lines businesses (Transpower, the national grid owner and operator and the 28 distribution businesses) Three principal features of the new legislation were for, the Commerce Commission to:

- Assess lines businesses against thresholds set by the Commission and determine whether those thresholds have been breached;
- Take over the administration of the electricity information disclosure regime for line businesses from the Ministry of Economic Development (MED); and ensure that the valuation of lines businesses' system fixed assets reflects the correct application of the ODV method, and review of the appropriate asset valuation methodology for lines businesses.

Under Part 4A of the Commerce Act the Commission is given powers to impose price control on electricity lines businesses, carry out re-calibration of the values of the fixed assets of line owners, conduct a review

DEMAND VERSUS SUPPLY - ELECTRICITY SUPPLY & CONSUMPTION

	2005	2006
Total Gross Production	42,725	43,239
less Own Use	1,262	1,532
TOTAL NET PRODUCTION	41,463	41,707
Primary Producer	39,784	39,834
Secondary Producer	1,679	1,873
Observed Generation	896	1,089
Estimated Generation	783	784
less Transmission & Distribution Losses	3,039	2,967
TOTAL CONSUMPTION	38,424	38,740
Residential	12,733	12,231
Commercial	7,975	8,383
Industrial	16,190	16,780
Onsite Generation & Consumption	1,526	1,346
Electricity entering system	39,937	40,361
National loss ratio	7.6%	7.4%

of the asset valuation methodology and administer the information disclosure regime.

All aspects of the electricity industry are also covered the Commission's general powers and responsibilities under the Fair Trading Act and Commerce Act. The aim of the Commerce Act is to promote competition in markets within New Zealand. It prohibits conduct that restricts competition (restrictive trade practices) and the purchase of a business's shares or assets if that purchase leads to a substantial lessening of competition in the market.

The Fair Trading Act was developed with the Commerce Act to encourage competition and to protect consumers from misleading and deceptive conduct and unfair trading practices.

The Gas Industry Company Limited is an industry owned entity established to fulfil the role of the industry body under the Gas Act 1992. The Gas Industry Company,

as the industry body, is the co-regulator of the gas industry, working with both the 4 Government and the gas industry to develop outcomes that meet the Government's policy objectives as stated in the Government's April 2008 Policy Statement on Gas Governance.

As a co-regulatory body, the Gas Industry Company is able to make recommendations to the Minister of Energy on a wide range of industry matters, including the making of rules and regulations in relation to the wholesaling, processing, transmission, distribution and retailing of gas.

The Government's overall policy objective for the gas industry is "to ensure that gas is delivered to existing and new customers in a safe, efficient, fair, reliable, and environmentally sustainable manner."

The Gas Industry Company is committed to:

- Where possible, developing industry-led solutions to issues facing the gas

- industry in New Zealand;
- Being consultative with industry participants and consumers;
- Adopting principles by pragmatic approaches to meeting its objectives;
- Being professional and independent, with transparent processes;
- Acting with integrity, responsibility and respect; and
- Achieving high standards of excellence.

Tariffs

The structure of the New Zealand electricity market with five principal electricity retailers and 28 distribution networks creates literally hundreds of electricity tariffs. As well, as a competitive retail market, tariff schedules are treated to a degree as confidential by retailers in order to protect competitive positions. The Ministry of Economic Development undertakes a quarterly survey of electricity prices and an annual survey of domestic and commercial electricity prices. There is no price control of retail tariffs.

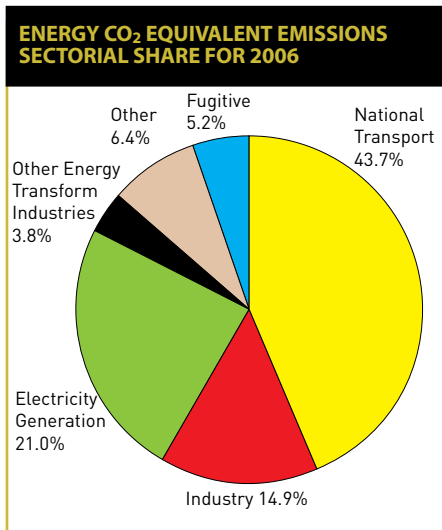
Energy Efficiency

The New Zealand Energy Efficiency and Conservation Strategy: Making It Happen (NZECS) released in October 2007 sets out the Government’s action plan to maximise energy efficiency and renewable energy. The NZECS aims to improve on its predecessor (released in 2001) by:

- A clearer focus on consumer (demand-side) action;
- Sector-based actions and targets and clear accountabilities for delivery;
- Improved resources; and
- New programmes for specific sectors such as primary production and tourism.

Some of the high level targets for the NZECS are:

- 90% of electricity generated from renewable sources by 2025;
- 15,000-20,000 solar water heating systems by 2010; and



- 70,000 interest free loans for insulation, energy efficiency or clean heat loans by 2015.

The Energy Efficiency and Conservation Authority (EECA) is the main body responsible for helping to deliver the Government’s extensive energy efficiency agenda. Its function is to encourage, promote and support energy efficiency, energy conservation and the use of renewable energy sources.

It has developed the New Zealand Energy Efficiency and Conservation Strategy in conjunction with the Ministry for the Environment.

New Energy

A resource consent granted under the Resource Management Act 1991 is required for the construction of new generation. The New Zealand Energy Strategy to 2050: Powering Our Future seeks to promote the development of renewable energy including wind, hydro-generation, geothermal, wave and solar energy. Projects utilising all these technologies are either under construction or investigation by a variety of companies.