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WHO'S AFRAID OF THE DARK? TRANSPOWER NEW ZEALAND, LTD

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On 12 June 2006, the lights went out in New Zealand's largest city and major commercial centre, Auckland. Business was disrupted and many thousands of people inconvenienced. The unscheduled power cut was the latest in a series of electric power problems in New Zealand over the past decade. Attention turned to state-owned enterprise [SOE] Transpower, which was in charge of maintaining and developing New Zealand's national electricity grid. The problem of 12 June was traced to two shackles in poor condition, small but essential parts of the electricity grid infrastructure. Closer examination of New Zealand's electricity sector indicated these shackles were merely the tip of a power supply iceberg. Transpower's Chief Executive, Ralph Craven, was now answerable to the Prime Minister for the issues creating the problems, and a workable solution to fix them.

In mid-June 2006, Prime Minister Helen Clark issued a list of questions to Transpower's management, regarding the power outage earlier that month, and she wanted answers.

As reported in the New Zealand Herald:

> By all accounts, Wednesday mornings Beehive[1] meeting of the Cabinet's policy committee was a pretty torrid affair. Officials from the Ministry of Economic Development responsible for energy policy were cross-examined at length by the Prime Minister, who was not well-pleased by Monday's power blackout across Auckland. Her questioning is said to have been direct and exhaustive. In short, officials were put through the wringer. Was the snapping of the cable a design fault? Or did it result from poor maintenance? Should the building of the new (South Auckland) substation be brought forward rather than wait until the construction of the now-delayed high voltage 400kV transmission line originally scheduled by 2010? Were other substations on the national grid vulnerable to similar failures? (Armstrong, 2006, ¶1).

Transpower Chief Executive Ralph Craven needed to produce answers that went well beyond the problem of the two faulty shackles. The power crisis had brought to the fore wider issues of roles, responsibilities, and expectations in relation to the supply of electric power in New

Zealand. Transpower was contending with these issues on a daily basis; however, the incident on 12 June publicly highlighted the urgent need for solutions that served the stakeholders in this critical industry. Craven's job was to respond.

Background to New Zealand's Public Sector Reforms

New Zealand underwent major public sector reform beginning in the 1980s with the intention of increasing the efficiency and effectiveness of the public sector (Mulgan, 1997). The reforms were consistent with an international trend in public sector management intended to align management of public sector organizations with that of private sector organizations (Martin, 2003). The new approach emphasized results and outcomes, together with effective use of public sector resources.

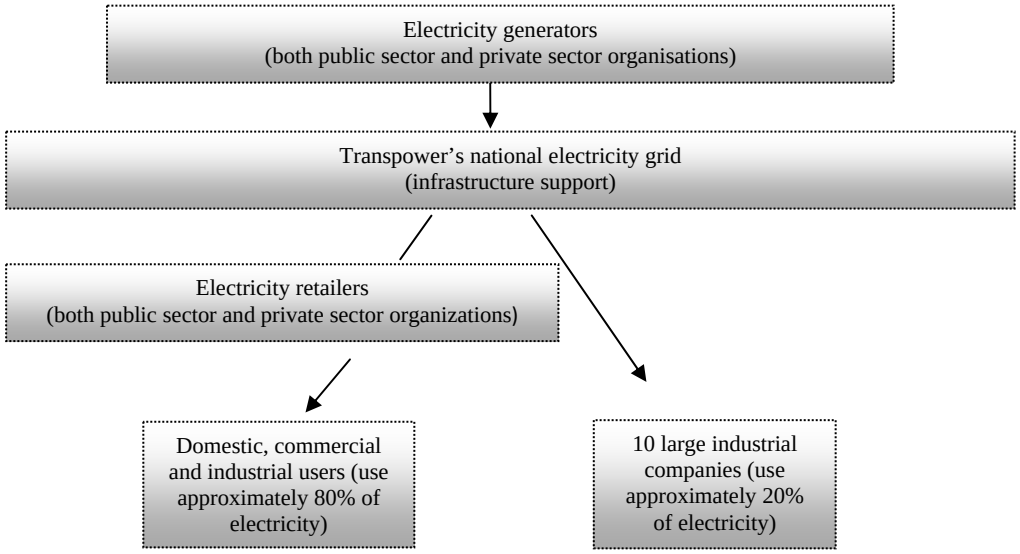
As part of these reforms, government departments with a strong trading function were corporatized and/or privatized. The espoused rationale was that such services could be more efficiently provided by commercially-orientated organizations, rather than remaining subject to ministerial control and government interference. Specifically, New Zealand's SOE reforms involved market deregulation, with express profit-making requirements imposed on SOEs, resulting in accountability for both competitive services and commercial results. Other features of the reforms included self-funding obligations, separation of SOE management and the state, the role of government defined as sole shareholder and purchaser of outputs rather than provider of inputs, together with performance-based contracts and rewards for managers (Brash, 1996). Thus, corporatization provided the opportunity and the incentive for these former government departments to become both efficient and profitable, enabling freedom of commercial choice and responsibility for commercial results.

Overview of Transpower

Transpower was established as a SOE in 1994. It assumed the role of owner and operator of New Zealand's national electricity transmission grid. "The national grid" comprised over 12,000 kilometers of high voltage transmission lines connecting power stations owned by generating companies to more than 170 electricity substations feeding local networks that distributed electricity to commercial and residential consumers. A few major electricity consumers were supplied directly from the national grid (see Figure 1 below for the current structure of the New Zealand electricity industry). New Zealand's electricity supply was mainly, but not entirely, from renewable sources. The breakdown in 2006 was hydro (65%), gas (16%), coal (9%), geothermal (6%), wind and other 4% (Ministry of Economic Development, 2006).

The electricity grid served three core functions: transportation of energy throughout New Zealand, facilitation of competition between energy generation providers, and the provision of a secure, safe, and reliable energy supply (Transpower, 2006). Transpower's main operating objective was to "keep New Zealand's electricity flowing and support a sustainable energy future" (Transpower, 2007). However, on a midwinter Monday morning on 12 June 2006, Aucklanders were in the dark as the supply of electric power failed throughout much of the city—including in the country's prime commercial center and office towers. With 230,000 customers affected for several hours, many businesses disrupted, and thousands of people inconvenienced, Transpower's reputation was at stake.

Figure 1: New Zealand's Electricity Industry Structure



Despite recognition as a developed nation (see Figure 2), New Zealand had experienced a series of electricity problems over the past decade, as indicated by newspaper headlines (see Figure 3). There was a large and growing population on the North Island, particularly concentrated in the greater Auckland region where more than a third of the total population now lived. A good deal of the power generation capacity was located much further south, especially in New Zealand's larger and more sparsely-populated South Island. There were issues around both producing more power and transporting it northwards.

Many factors had been blamed for the country's electricity problems. Some blamed over-regulation of the electricity industry and the regulatory constraints of New Zealand's Resource Management Act 1991. Some criticized a lack of maintenance and investment in infrastructure, and an undue focus on profitability rather than a secure electricity supply. And some even saw the weather as the cause of the problems. Low water levels in the main South Island hydro dams, at times, had caused supply concerns in the so-called "dry years" resulting in nationwide public conservation campaigns, and water heating restrictions in 2001 and 2003. New Zealand's population growth and increasing demand for electricity by both business and domestic consumers meant that the issue of ensuring a secure supply of electricity for the next decade and beyond had once again surfaced.

Figure 2: A Profile of New Zealand

- New Zealand is a modern, prosperous, developed country with an estimated population of 4 million people, and approximately 40 million sheep (SeedQuest, 2003)
- The country is heavily dependent on trade, particularly in agricultural products, as almost 20 per cent of the country's output is exported (by comparison it is 21 per cent for the United Kingdom).
- New Zealand has a high standard of living with GDP per capita estimated at $26,400 (comparative figures are Australia $31,900 and United States $41,800).
- The standard of living has also been measured in other forms, including being ranked 20th on the 2006 Human Development Index and 15th in *The Economist's* 2005 world-wide quality-of-life index
- New Zealand is a member of APEC, the OECD, and the United Nations. It is a signatory to the Kyoto Protocol, and has a strong environmental profile and strict nuclear-free policy.
- As a relatively small country, the New Zealand Government is trying to promote its profile within the OECD to boost its economy by encouraging foreign trade and investment in New Zealand.
- New Zealand's largest city is Auckland with a population of approximately 1.2 million people, and is recognized as the commercial centre of New Zealand
- By 2050, the population of Auckland is expected to increase to 2 million people

Figure 3: Headlines on New Zealand's Electricity Woes

1998	Auckland nears state of emergency on power	(The Press, 1998)
	City plunged into darkness	(Gerbich, 1998)
	Power cuts disrupt city retailers	(Cosgriff, 1998)
	Energy crisis…what energy crisis?	(Balls, 2003)
	Power plays as energy crisis looms	(The Press, 2003)
	Government creams profits from energy crisis	(Scoop, 2003)
	Making way for grid revamp	(Gorman, 2004)
	Transpower deal puts (South Island) power grid at risk	(Gorman, 2005)
	Well-merited jolt for Transpower	(New Zealand Herald, 2006a)
	Auckland's blackout could have been avoided, inquiry finds	(New Zealand Herald, 2006b)
	Lack of investment blamed for blackout	(Steeman, 2006)
	Blackout reports raise more questions than answers	(Scoop, 2006)
2006	Power cut threat for two years	(Oliver, 2006)

Most people accepted that the national grid required upgrading. Major stakeholders included the New Zealand Government as owner and investor in Transpower, the electricity industry comprising Transpower as grid operator, and electricity generators and retailers (including four other SOEs). These stakeholders all wanted to match demand and supply in an increasingly complex market. Other major stakeholders included the business community for whom power cuts disrupted trading and restricted profits, as well as made local investment less attractive, and the general public who had experienced repeated threats of power cuts in peak winter periods.

A strong lobby group in New Zealand was the farming community in general, and specifically farmers in the rural areas where Transpower had plans to locate new high voltage

power lines to bring more power northwards to Auckland city. With farming still the backbone of New Zealand's export economy (Mallard, 2007), the farmer voice maintained some clout.

In recent years, the New Zealand Labor Government had relied on the support of the Green Party, which fostered energy policy based on the use of renewable energy sources, ecologically sustainable use of energy, and citizen involvement in energy decisions. A major industry issue was balancing the provision of new generation capacity with the views of environmental lobbyists and the Green Party who had increasing influence in government deliberations on energy issues. Not only was demand increasing, but other power supplies were also less certain. No one knew exactly how much remained in the country's natural gas reserves. There was also uncertainty regarding whether new power stations would proceed as planned, compounded by environmental factors bound up in New Zealand's Resource Management Act 1991, the government's commitments to the Kyoto Protocol, and possible climate change agreements beyond.

Transpower's Operating Environment: Operating in the Shadow of Regulatory Authorities

As a SOE, Transpower operated within a framework designed to be free from government intervention and political influence in its day-to-day operations. As owner-operator of New Zealand's national electricity grid, however, Transpower was regulated by a number of government authorities. The New Zealand Electricity Commission was established in 2004 to approve transmission investments and the allocation of transmission service costs among users of the national grid. Specifically, the Electricity Commission's role included determining whether proposed upgrades of the national grid could be justified on the basis of cost versus benefit to the wider economy (Armstrong, 2006).

The Commerce Commission, a separate government authority, had also been established to oversee business and ensure fair trading in a wide range of industries. The Commerce Commission had particular responsibilities to monitor the efficiency and quality of the services provided by Transpower, the generators, and retailers in the electricity industry. It also regulated the quantum of Transpower's revenues to ensure excessive, monopoly-like profits were avoided (Transpower, 2005a).

In 2004, regulations imposed by the Commerce Commission effectively restricted Transpower's revenue generation by applying a revenue threshold based on the Consumer Price Index, less one percent, to Transpower's services (Transpower, 2005a). As such, Transpower was restricted in increasing the amount it charged for services, and it was technically prevented from adjusting its prices to keep up with inflation. Transpower viewed the threshold as inappropriate, given the adverse impact this restriction had on its profits and overall operations. In view of the level of activity and investment required in the national grid, Transpower refused to comply with this restriction, and it was subsequently subject to a formal enquiry for breaching the threshold in 2004 and 2005. Despite the enquiry, Transpower expected these breaches would continue (Transpower, 2005a).

In 2005, Transpower referred to the regime administered by the Electricity Commission as new and evolving but expressed "serious concerns on the direction being taken" (Transpower, 2005a, p. 4). Of particular concern was the overlap in the scope of the two regulatory authorities' roles with respect to Transpower's revenue, pricing, and services.

This overlap was publicly acknowledged by various stakeholders. John Sexton (*Rural News*, 2006) of the Federated Farmers Association, a key stakeholder in the proposed project to run new high voltage power lines into Auckland, referred to the industry as "dysfunctional." National Party Energy spokesman Nick Smith (*Scoop*, 2006, ¶5) noted "the reality for Transpower in the past two years is that both the Commerce Commission and the Electricity Commission have been blocking its attempts to invest and upgrade the grid."

Transpower's 2005 Annual Report contained a call from the company for a more rationale regulatory regime:

> Effective regulation is needed to ensure that necessary new investment can be undertaken in a timely manner. Unfortunately that is not what appears to be developing in New Zealand. The Electricity Commission's approach to regulating transmission investment risks undermining Transpower's accountability for the performance of the national grid (Transpower, 2005a, p. 6).

Seeking to establish a more effective and workable regime in New Zealand, Transpower referred to regulatory environments, such as those in the United Kingdom, Australia and the United States, characterized by:

- a single regulatory regime which integrated the roles allocated to the Electricity Commission and Commerce Commission;
- establishment of transmission charges based on assessments of future operating and capital expenditure; and
- approval of investments in an efficient manner (Transpower, 2005a).

However, Transpower had not been effective in getting changes along these lines made to date.

A Year Like No Other

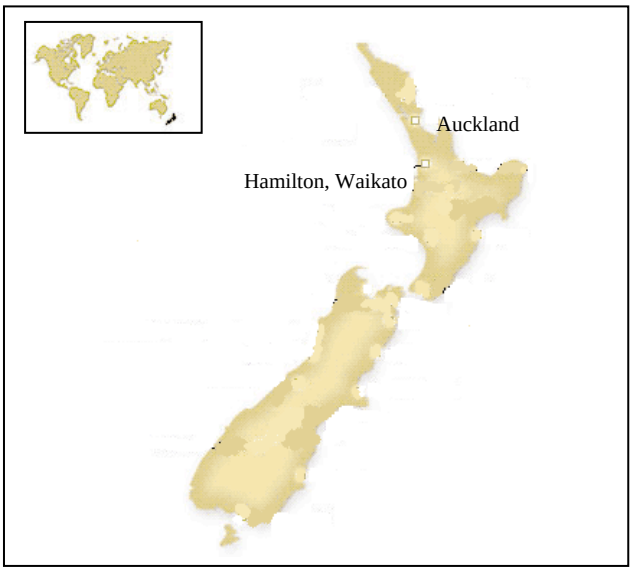
Transpower (2005a, p. 4) noted that the financial year ended June 2005 was a year 'unlike any other in the company's history'. In late 2004, the first of Transpower's major grid investment projects had commenced with a program of community consultation which included affected landowners as the proposed high voltage lines crossed farmland.

Transpower's 2005 Annual Report alluded to this project and its challenges, stating:

> The controversy that resulted from the North Island 400kV project (involving a new high voltage line between the Waikato district and the existing South Auckland site) has been a catalyst for a growing national discussion on the future shape of our country's electricity supply (Transpower, 2005a, p. 4).

See Figure 4 for a map of New Zealand, indicating the affected regions.

Figure 4: Map of New Zealand



The consultation process was described as "often confrontational and always challenging, working to find a balance between infrastructure requirements and the private property rights and interests of communities" (Transpower, 2005a, p. 4). Landowners became increasingly resentful. They complained about the lack of any compensation for the 70 meter high and 20 meter wide pylons proposed for construction on their property. They were concerned about unauthorized access by Transpower staff onto their properties. And they were not impressed by consultation sessions arranged by Transpower, reportedly staffed by temporary workers of a public relations firm "who struggled to discuss the issues, instead offering 0800 (toll free) numbers and pamphlets" (Fisher, 2008a, ¶21). The then Electricity Commissioner Roy Hemmingway[2] noted:

> No electricity company in the United States in my experience would take the risk of treating landowners in the way Transpower does routinely in New Zealand. I am disturbed that Government has not strongly indicated its displeasure to Transpower with the way the company has treated landowners' (Hemmingway in Gorman, 2008, ¶19).

Transpower's Profile under the Spotlight

While Transpower was forced to operate under the shadow of regulatory authorities, several stakeholders suggested Transpower's position that there was no alternative to stringing 430 huge power pylons across the Waikato and South Auckland landscape (*New Zealand Herald*, 2006a) may have contributed to its problems. The highly visible infrastructure of more than 400 large pylons proposed by Transpower, was strongly promoted as necessary by the SOE but not well received publicly. A community of several hundred small-scale farmers and landowners in the area who felt directly threatened by the pylons, coupled with a broad-based sense of pride in New Zealand's landscape and clean green image posed major obstacles to the proposal. The SOE's attitude in rejecting alternative proposals was increasingly perceived as arrogant, further contributing to the conflict.

Approximately 500 landowners in the Waikato region had refused Transpower access to their properties, even for servicing existing lines (Harper, 2007). Reports of intimidation and bullying tactics by Transpower and its contractors were regularly made. Forced access onto private properties by Transpower (sometimes without the required authorization), reports of physical altercations with landowners, and attendance by police wearing bullet proof vests, were viewed as aggressive and offensive. Further complaints were made regarding letters issued by Transpower referring to court action which would be taken against landowners if access to properties was not granted (Holloway, 2007).

As noted by landowner Peter Phillips:

> We don't want to go to court. We've got better things to do than fight [Transpower] in court. We have not got the time or the money to do that (*New Zealand Herald*, 2007).

Yet Transpower was not the only party facing criticism. The Electricity Commission, in its role as independent arbiter, was also under fire. Required to assess proposed investments, the Electricity Commission rejected Transpower's proposal and suggested an alternative power station be built. This alternative involved delaying the new power line until seven years after the deadline considered essential by Transpower to avoid the risk of more power cuts.

According to the *New Zealand Herald*:

> The seven year delay may save the country as much as $250 million. But why wait if that saving may come at a serious cost in terms of the robustness and reliability of Auckland's power supply? (*New Zealand Herald*, 2006a, ¶3).

Concern was raised as to whether there could be any justification for delaying what both the Electricity Commission and Transpower saw as an inevitable response to Auckland's power problems.

Transpower's Strategy: The Long Road Ahead

Transpower's strategy was one of growth, as it prepared to invest in upgrading the existing infrastructure and securing electricity supply to meet growing demands for power in New Zealand (Roberts, personal communication, July 6, 2006). The four aspects to Transpower's investment in the national grid included on-going maintenance of existing infrastructure, short-term tactical investments to maximize capacity of existing grid assets, working with local distribution companies to develop grid enhancements, and developing a national grid plan for the next 40 years.

The proposed 400kV line was referred to as "a major infrastructure project in every sense of the word" (Transpower, 2005a, p. 8). Approvals were required from industry regulators, local councils, and individual landowners affected by the proposed project. While Transpower had statutory rights to construct new lines and conduct significant upgrades on private property, it was required to negotiate property rights with landowners, usually in the form of easements involving monetary compensation. Negotiations and agreements could be made with landowners on either an individual or collective basis. However, the strong resistance by various landowners to Transpower's proposals meant both individual and collective agreements were difficult to obtain. Further complexities arose from unclear and

often untested legislation such as the Resource Management Act 1991, on which clarification was sought regarding the rights and obligations of both Transpower and landowners.

Transpower's 2005 Statement of Corporate Intent noted:

> [There is] potential for the requirements of the Resource Management Act (RMA) 1991 to limit Transpower's ability to provide much needed investment in the national grid in a timely manner. Whilst a thorough review of the RMA has been initiated by the Government, the outcomes of this review and their impact on Transpower's ability to facilitate timely National Grid upgrades are uncertain (Transpower, 2005a, p. 3).

Broader concerns were also raised in relation to the implications for New Zealand in international markets. The SOE's 2005 Annual Reprort warned that "There are real risks for New Zealand in the long-term if we fail to promote a regulatory regime which is recognizable and acceptable to international capital markets" (Transpower, 2005a, p. 6).

Transpower's Operating and Financial Performance

The Crown Company Monitoring Advisory Unit (CCMAU), set up to monitor the performance of government organizations, referred to Transpower's performance as "steady" in recent years (2005, p. 79). While the past decade's power supply problems had resulted in significant adverse publicity for Transpower, the company's financial performance remained solid. Table 1 presents a summary of Transpower's performance over the five year period from 2002 to 2006 detailing profits in the range of $23.2 million to $144.5 million, and dividends in the range of $10 million to $82.9 million. Forecast dividend payments for 2007 to 2008 were negotiated down to $10 million per annum, to allow for large-scale investment in the grid (Transpower, 2005a).

Although Transpower's management was comfortable with the SOE's past performance, they were aware of the task ahead, and the impact it may have on the company's results in the future. The firm's 2005 Annual Report identified this challenge, stating that: "A key commercial challenge ahead of Transpower in undertaking this new investment will be to ensure that it can earn and secure payment of an appropriate rate of return for its shareholder" (Transpower, 2005a, p. 5).

Other stakeholders, however, were critical of Transpower's financial results. "While businesses were being forced to close because of high spot prices[3], the government was collecting the profits" (National Party Energy spokesperson Roger Sowry in *Scoop*, 2003, ¶2). Table 2 shows the change in electricity prices from 2000 to 2006. In the year ended 30 June 2003, the government received nearly $270 million in dividends from state-owned power companies, yet these companies were warning electricity shortages could return (*Scoop*, 2003).

> The Government should not expect to continue collecting growing dividends while its management of the industry is so poor. People should be justifiably outraged that they've been forced to save power while the Government rakes in bigger dividends (Sowry in *Scoop*, 2003, ¶8).

Table 1: Summary of Transpower's Financial Performance

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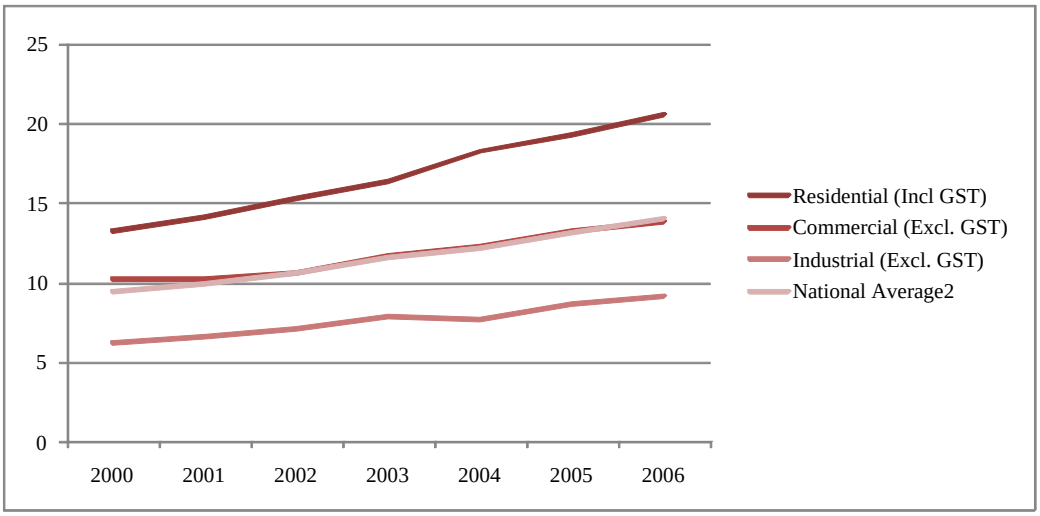
		2002	2003	2004	2005	2006	Average
1	Revenue	545.6	528.9	534.1	636.1	640.2	577.0
2	NPAT	144.5	23.2	59.2	141.5	96.9	93.1
3	Total assets	2,281.3	2,242.8	1,745.8	2,743.5	2,888.3	2,380.4
4	Contributed capital	1,200.0	1,200.0	1,200.0	1,200.0	1,200.0	1,200.0
5	Equity	1,012.6	1,001.0	1,043.6	1,145.1	1,232.0	1,086.9
6	Dividends %	57%	150%	28%	28%	10%	55%
7	Dividends paid	82.9	34.9	16.5	40.0	10.0	36.9
8	Tax paid	0.1	26.0	33.7	54.2	56.7	34.1
9	Total payments	83.0	60.8	50.2	94.2	66.7	71.0
10	ROE	14%	2%	6%	12%	8%	9%
11	ROCI	12%	2%	5%	12%	8%	8%
12	ROI	7%	5%	4%	8%	6%	6%

Key

1. Revenue - total revenue for the year
2. Net profit after tax for the year
3. Total assets - based on year end values
4. Contributed capital - total contributed capital based on year end values (representing the amount of capital contributed by the New Zealand Government)
5. Equity - total owners' equity based on year end values
6. Dividends % - dividends paid compared to net profit after tax for the year
7. Dividends paid for the year
8. Tax paid for the year
9. Total payments = dividend paid + tax paid, being the two main forms of cash returns to Government from SOEs
10. ROE: Return on Equity = Net profit after tax ÷ Equity
11. ROCI: Return on capital invested = Net profit after tax ÷ Contributed capital
12. ROI: Return on investment = Total payments ÷ Contributed capital

Table 2: New Zealand's Electricity Price Trends from 2000-2006



Cents per kilowatt from 2000-2006

While Transpower had established profitable operations, strong financial results in 2005 proved costly in terms of the company's reputation. The significant increase in profits during

2005 was attributable to an increase in the demand for electricity, as well as one-off gains from two rather controversial transactions. In 2003, Transpower entered into two separate arrangements referred to as "cross-border lease and structured finance transactions" (CCMAU, 2005, p. 79). While CCMAU (2005, p. 80) seemed satisfied the transactions were "legal in the relevant jurisdictions and tax positive for New Zealand," the New Zealand media and other commentators were less accepting.

Concerns were raised over whether crucial national assets should be involved in unnecessary transactions. Further concerns related to the legal status of the assets after the transaction. The position taken by Transpower's management was that at no time had the SOE lost legal ownership of the assets; however, they also claimed commercial confidentiality limited the ability to answer questions. As reported in the *New Zealand Herald*:

> Transpower seems to have ignored its social responsibility. The other issue is transparency. We should know what is happening with our assets. What did the Government know about this? Has the South Island electricity grid been sold or leased? Transpower will not confirm details (Gorman in Alexander, 2005, ¶8).

Questions were also raised in the media. "Strictly legal or not, is it ethical? Why would you put major assets at risk for $34 million?" (Newberry, in Gorman, 2005, ¶28). Concerns relating to the second transaction included potential default payments if the loan conditions (e.g. repayment schedules) were not met by other parties. Further concerns were also raised by the media in relation to the overall accountability of Transpower's management. As reported in *The Press*:

> The grid company says its chairman never talks to the media; its chief executive, Dr Ralph Craven, leaves it to his public relations staff to weather the storm… Craven has again proved to be more elusive in a crisis than a torch in a blackout (*The Press*, 2005, ¶4).

In 2003, Transpower entered into what was essentially a "lease-in lease-out" arrangement involving overseas banks and a syndicate of United States investors with entities in the Cayman Islands. The circular lease transactions had no commercial purpose, other than to provide tax benefits for the US investors. Transpower's involvement in the transaction was necessary to ensure its large asset base (i.e. Transpower's $700 million high-voltage transmission grid located in New Zealand's South Island) could be used in the series of lease transactions, where no genuine services were actually provided. As consideration for its involvement in the transactions, Transpower received a single payment of $34.6 million (Roberts, personal communication, July 6, 2006).

The second arrangement involved a loan of $700 million taken out by Transpower, $500 million of which was sub-lent to other companies. The arrangement effectively provided Transpower with a lower interest rate on the $200 million funding it required, but meant it was ultimately responsible for the $500 million sub-lent to others.

Both arrangements were subject to significant criticism within New Zealand, regarding the legitimacy and ethics of the first transaction (i.e. involvement in an arrangement to avoid tax, and being paid to do so), and the unnecessary assumption of risk with respect to the latter transaction (Alexander, 2005; Gorman, 2005). While the lease-in lease-out transaction was

legal at the time, the transaction was subsequently made illegal under United States tax law (Alexander, 2005). This change was consistent with legal frameworks in various other countries, which disallow transactions where the sole purpose is to avoid paying tax. By participating in the transaction; however, Transpower effectively helped another company to pay substantially less tax and was itself paid more than $30 million for its participation in the arrangement. Transpower's view was that it managed the associated risk, and resourcefully accessed cost-effective finance. Chris Roberts, Transpower's then Communications Manager noted:

> What the taxpayers fail to see is that [receipt from the first arrangement] was $34.6 million [the public] didn't have to pay for electricity (Roberts, 2006).

Transpower's Future: Where There's Light, There's Hope

Although Auckland city power was gradually restored on 12 June 2006, a number of challenges remained. Transpower's Statement of Corporate Intent (2005, p.2) referred to the national grid as "sound and serviceable, but aging and requiring major upgrading" in an environment of increasing demand for electricity. There was the need to deal with the formal enquiry into Transpower under the Commerce Act – a time-consuming process bearing uncertainty and reputational risk. Transpower needed to gain public acceptance on investment plans affecting residential and rural areas. It also had to obtain approval for proposed investments from the Electricity Commission, a relationship referred to as "strained" (CCMAU, 2005 p. 80). Further obstacles related to satisfying requirements under New Zealand's Resource Management Act 1991, and addressing regulatory constraints imposed by New Zealand's Commerce Commission, impacting upon revenue and therefore funding, for future planned investments. There were challenges ahead for Transpower's management. Ralph Craven believed that the SOE's increased investment program, if approved, would be a step in the right direction to secure New Zealand's electricity supply into the future. The first, step, however, was to respond to the Prime Minister's questions.

Endnotes

[1] Colloquial reference to New Zealand's Parliament building, the architecture of which resembles a beehive.

[2] Considered to be an industry expert with over 30 years' experience in the Unites States.

[3] The spot price reflects the supply/demand balance for electricity at any period of time. A high spot price indicates a supply shortage or sonstraint, signaling commercial consumers to reduce consumption to reduce their own costs.

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