The Aniwhenua and Wheao Hydro Schemes and the Energy Companies Act 1992

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Preface

The Bay of Plenty Electric Power Board (Bay Power) was established by Proclamation on 18 August 1925, in response to a ratepayers' petition under the Electric Power Boards Act 1918[1]. The board began operations in 1928.[2] After 45 years as a distributor of electricity purchased mainly from the New Zealand Electricity Department (NZED), the board in 1973 decided to move into generation. A site at Aniwhenua Falls was chosen in 1974, and the 25 MW Aniwhenua hydro scheme, representing an investment of $29 million[3], commenced operation on 3 October 1980. Over the twelve years from 1980/81 to 1991/92, Aniwhenua generated a total of 1,498 gigawatt-hours of electricity, 27% of Bay Power's total traded volume of 5,620 gigawatt-hours[4].

At March 1992 the Aniwhenua scheme had a book value of $21.1 million, comprising roughly half the board's total fixed assets of $40.7 million and just over 40% of the total assets of $50.9 million[5]. Over the four financial years to March 1992 the scheme returned an average annual net financial surplus of $3.5 million[6].

The Rotorua Area Electricity Authority (RAEA) was established under the Electricity Distribution Commission Act 1967 by Order in Council dated 9 August 1971[7], with all the powers, rights, duties, obligations and responsibilities of an electric power board. The main reason for constituting the new authority was to transfer the Rotorua urban electricity distribution system from the control of the Tourist and Publicity Department (which had run the system since 1901) into the hands of a new body covering the rural hinterland of Rotorua as well as the city itself[8]. The new Authority began investigations for a new hydro generation scheme in 1974 and the Wheao site was selected the same year. The 24 MW Wheao scheme entered operation in May 1984, having suffered long delays due to collapse of the canal in December 1982[9]. Over the eight years from 1984/85 to 1991/92, Wheao generated 890 gigawatt-hours of electricity, contributing 35% of the 2,563 gigawatt-hours traded by the RAEA in that period.

The Wheao scheme's all-up cost was $46.6 million[10]. At March 1992 the scheme had a book value of $42.3 million, accounting for two-thirds of the RAEA's fixed assets of $64.3 million

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[1] *New Zealand Gazette* 20 August 1925, pp.2453-2454.
[2] Rennie 1989, p.230.
[3] Audit Office 1987, p.12.
[4] See Table 4 below.
[5] Bay of Plenty Electric Power Board *Annual Report 1992*.
[6] See Table 4 below.
[7] *New Zealand Gazette* 12 August 1971 pp.1586-1587..
[8] Stafford 1988, p.23.
[9] Ministry of Works and Development 1983.
[10] Audit Office 1987 p.12.

and 54% of total assets of $77.6 million[11]. Over the four financial years to March 1992 the scheme moved from a net financial loss of $4.1 million in 1988/89 to a net surplus of $1.4 million in 1991/92. This rapidly improving profitability was attributable almost entirely to falling interest costs following a restructuring of the RAEA's debt in 1989 which included a write-off of $25 million owed to Government[12].

This research report covers the historical background to the emergence of the various types of electrical supply authorities in the New Zealand electricity system, the recent debates over ownership of those authorities, and the detailed history of the hydro-electric schemes at Wheao and Aniwhenua.

[11] See Table 2 below.
[12] RAEA General Manager's Report for 1988/89, p.2.

1 Electric Power Boards in the New Zealand Electricity System

1.1 Origins

Electric Power Boards were created as an integral part of central Government's plans for the development of a nationwide electricity supply system following the First World War. Prior to 1918 the construction of electricity generation plants and the distribution of electricity to consumers had been undertaken in an uncoordinated fashion by a wide variety of promoters - mining companies, local bodies, Government departments, private companies[13]. As the importance of electricity for the future development of the New Zealand economy became apparent, Government moved towards the establishment of an integrated generation and transmission system for each Island, with a clearly-defined division of roles between (a) the construction of large-scale hydro-electric stations and long-distance transmission lines, which was to be the direct responsibility of the Public Works Department, and (b) the development of local distribution networks and small-scale generation plant within each district, which was to be the task delegated to the new entities.

In passing the Electric Power Boards Act 1918, the Government was in effect inviting local communities to take on tasks in the development of the electricity system which would otherwise have fallen to central Government. The main perceived advantage of relying on local initiative to supplement Government development activity was that additional resources might thereby be mobilised to speed up the development programme compared to the pace which Government could sustain on its own.

The comments of Sir J.G. Ward, the Minister of Finance, in introducing the second reading of the 1918 Electric Power Boards Bill are revealing[14]

> *[The Bill] is to enable local public bodies ... to establish Electric-power Boards, to enable the system of electric forces being used in districts where the Government have not yet undertaken or is not in a position to undertake to commence or supply them as a Government work. The Bill contains all the necessary safeguards to ensure that no work*

[13] The early history of the electricity industry in New Zealand is described by Rennie 1989 and Martin 1991.

[14] *New Zealand Parliamentary Debates* Vol.183 pp.623-630.

can be undertaken except by the order of the Governor-General in Council, or with the authority of the Governor-General in Council, and that ensures that there can be no deviation from the regulation in the Public Works Department, which controls the electric-power system of the country... The safeguard of the Government as the custodian of the interests of the local people is also provided in connection with the financing of undertakings of the kind. There is in the Bill full provision for the resumption by the Government of the country of any works undertaken by the local authorities..... [E]verything is quite definite in regard to the repurchase of any works that may be built by the local authorities....

...

I... want to point out to those who take an interest in the development of water-power in this country that it is very necessary that legislation of this sort should be put upon the statute-book, unless you are going to defer for many years, in parts of the Dominion where water-forces are going to waste, action on the part of those who are willing under the conditions as laid down here, under full Government control, to put the water-forces into use.... Of one thing I am quite certain, that if the forces at other places than those undertaken by the Government are to be deferred until the Government works are finished it would mean probably ten or fifteen years before beginning some of the present needed works, because it must be self-evident to every one that the Government cannot at present undertake the carrying-out at the same time all the the works required in the country..

...

Some honourable members have asked where the local public authorities are going to obtain the finance required for the carrying-on of undertakings of this kind, and why, if they can obtain the money, the Government cannot do so and carry out the works. The Government has already committed itself to a very heavy yearly payment for works that the House has already been advised on and that the Government will be authorized to carry out. My opinion is that these works, for all practical purposes, for a long time to come will require all the money that the people have for investment in Government stocks in New Zealand, to enable them to carry on the various developmental works apart from water-power - railways, bridges, and other works, which will require practically all the money from year to year that the people can afford to set aside from their ordinary undertakings to enable the Government to obtain what is required for the payment of public-utility services and these water-powers generally. My opinion is that the Government will not go on the London money-market for many years to come, and the absence of New Zealand as a country from the money-market for some years to come will mean that our local bodies requiring over £100,000 can go there. Sums of less than £100,000 are not acceptable on the London money-market from local authorities or the Government....[T]he Government standing away from the London money-market and obtaining all the money they require for public works here in large sums in the aggregate will mean that there is room for the local public bodies to obtain all the money they require in London. They do not require to go out on the public market as does the Government. When the Government goes out on the

> *London money-market it goes out with a discounted loan of sometimes 5 and 6 percent discount. For the local public bodies in this country, unable to borrow within the country itself, there are enterprising business men in the Old Country who want to obtain the brokerage on the flotation of loans there....[T]he local public bodies can, at probably 5 per cent - that is the market rate of interest in London - ... obtain the money they want without the public flotation of a loan.*

From the outset, therefore, Government was clear in its objectives and regarded the new power boards as subordinate partners in pursuing those objectives. J.G. Coates, then Minister of Public Works, defined the roles of the two parties as follows in 1920[15]:

> *The function of the Government in connection with hydro-electric supply consists essentially in the construction of main generation stations and the main transmission lines and substations from which the power will be sold in bulk to the local distributing authorities. The latter will be left the duty of reticulation and retail sale. The Government policy will be to throw upon local organizations practically the whole business side of the undertakings other than the primary generation, high-tension transmission, and sale in bulk. In the past the only local authorities available have been the Borough and County Councils, but in order to provide a stronger and a specialized organization the Electric-power Boards Act 1918 was passed....*
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> *...[T]he principles on which the boundaries of electric power districts should be determined are not set out in the Act, but under clause 3 the responsibility of deciding whether proposed boundaries are desirable or otherwise is cast on the Governor-General in Council. Hitherto no amendment has been made in the districts as sought in the petitions submitted, but it is obvious that if the whole Dominion is to be dealt with in the best manner possible it is essential that a comprehensive scheme should be drawn up. This has been done, and in future it will be necessary for the petitions to be submitted to the Minister for approval before they are circulated, and any necessary alterations made in the boundaries...*

The Public Works Department proceeded to publish a list of "suggested electric power districts" which would meet its criteria for approval[16], and ratepayer petitions for the establishment of power boards thereafter were generally organised in accordance with this schedule.

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[15] *Public Works Statement by the Hon J.G. Coates* , in *Appendices to the Journals of the House of Representatives 1920* , D-1, p.xviii.

[16] "Annual Report of the Chief Electrical Engineer". Appendix D to *Public Works Statement by the Hon J.G. Coates* , in *Appendices to the Journals of the House of Representatives 1921* , D-1, pp.77-80.

In his 1921 statement Coates was even more explicit regarding the role of the power boards as subordinate partners in what was basically a central Government project[17]

> *Whilst it is recognised that the system adopted in Christchurch in connection with the Lake Coleridge scheme, under which supply is given by the Department to individual local authorities, has been very highly successful, and was necessary while the electric-supply business was growing and on its trial, it is now felt that better results can be obtained by deputing the whole of the business of distribution and supply in a district to one body whose special business it will be to see that the power is made available to all on the very best terms possible. With the policy of the Department supplying in bulk to a number of smaller local authorities it has been found that in many cases both the Department and the local authorities have to carry staffs and equipment to deal with this branch of the business, and that there is apt to be overlapping and duplication. It has also been felt that the local distributing authorities are too small, and that in consequence they have been unable to provide the special staff required to efficiently manage their electric-supply business....*
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> *My natural inclination is to let local authorities manage their own affairs; but after a very careful investigation of the proposals put forward by my expert officers, which are designed at every point to work in with the development of the most economical schemes in the interest of the country as a whole, and pay due regard to community of interest, I am convinced that it is necessary for the Government to insist on the formation of Electric-power Boards, in conformity with the scheme prepared by the Department, and not those dictated by immediate local interest...*
>
> *...*
>
> *The great objective is the development and distribution of electric power to the consumers at the cheapest possible rate. The only possible way to achieve that end is to plan from the beginning the eventual scheme of development, and to eliminate the minor considerations and influences dictated by circumstances, of temporary expedient and local influence.*

The reference to "local influence" in this statement reflects a strong political tension of the time between the Government's preference for having all electricity distribution handled by its new creatures, the power boards, and the refusal of several large urban authorities to relinquish their already-established positions as licensed generators and suppliers of

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[17] *Public Works Statement by the Hon J.G. Coates* , in *Appendices to the Journals of the House of Representatives 1921*, D-1, p.xxi.

electricity to their local areas. Rural electrification was a major policy priority of the Massey administration, and Coates sought to have urban areas combined with rural areas in power board districts in order to spread distribution costs across (low-cost) urban consumers and (high cost) rural ones.[18]. This political battle was, however, lost when the Municipal Corporations Act 1920 gave municipalities the right to generate and distribute electricity on their own account, and to transfer the resulting profits to fund other local-government activities[19]. Rennie comments as follows on the consequent emergence of Municipal Electricity Departments (MEDs) in several urban areas[20]:

> *Government loaded the electricity distribution revolver with the 1918 Electric Power Boards Act, but then shot itself in the foot with the Municipal Corporations Act 1920.... If the 1918 Act can be viewed as a victory for the rural interest, then the 1920 Act most emphatically redressed the balance. Unsurprisingly, with two pieces of legislation of such conflicting intentions on the books, electricity distribution systems in New Zealand represent a confusing mishmash of conflicting approaches.*

(Eventually, the need for some form of subsidy to make possible the reticulation of remote rural areas was met by the establishment of the Rural Electrical Reticulation Council under the Electricity Act 1945[21]).

Coates as Minister of Public Works repeatedly referred to the Government's view of the power boards as effective agents for the task of expanding the market for electricity and thus justifying the very large-scale generation schemes being built by the Department.[22]. His

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[18] See, for example, *AJHR 1920* D-1 p.xviii, where Coates recognises that "country distribution, although the most important part of the Power Boards' activities, and the most profitable from the national point of view, cannot be as remunerative as the city supply because of the longer lines that are required. The cities and larger towns, however, must realize the extent to which they are dependent for their prosperity on the country business, and co-operate heartily in comprehensive systems even including in each case substantial portions of less remunerative country reticulations." Further comments attacking the desire of some urban councils to hold onto control of their local electricity market are in *AJHR 1921* D-1 pp.xxi-xxii.

[19] Rennie 1989, p.93.

[20] Rennie 1989, p.93.

[21] Rennie 1989 pp.161-165.

[22] See, for example, *AJHR 1922* D-1 p.xxvi, where he threatened strong action against any Board that "fails to adopt a sufficiently progressive policy to enable the disposal of the proportion of the output of the Government power-stations developed for that particular district"; and *AJHR 1924* D-1 p.xviii where he justified the establishment of power boards as "bodies having direct interest in creating and increasing the load which it is essential the Government schemes must secure if they are to become profit-earning at an early date".

successor as Minister, K.S. Williams, reiterated the partnership theme in 1926, together with a further warning to Boards to stay within the guidelines of Government policy[23]:

> *The Department recognises that these electric-supply authorities are really partners with the Government in its general scheme of making power available generally throughout the country...*
>
> *...*
>
> *The whole question of Power Board finance and the prospect of success is now carefully reviewed by the Government, and only such Boards allowed to proceed [with borrowing to finance electric works] as are considered to have reasonable prospect of success and such as are designed and constructed to fall into the general scheme of development decided upon by the Government.*

The Electric Power Boards Act 1925 was basically a consolidating measure which repeated the main provisions of the 1918 Act.[24] Over the following sixty years the role of the boards remained essentially unchanged from the patterns established in the 1920s. A 1949 commentator described them as follows[25]

> *They are charged with the responsibility of distributing, usually State-generated electricity, and they hold their licence from the State ... The State Department and the power boards are really members in a great partnership whose one and only purpose is the service of the people.....*

Against this background, the role assigned to power boards by the Government under the 1977 small-hydro development policy was clearly a continuation of a well-established pattern. The policy itself is described in more detail below (see section 3); in summary, it involved Government financing and underwriting the construction of small hydroelectric stations by local authorities in order to meet a perceived shortfall in supply from the major NZED stations. Introducing the new incentives, the Minister of Energy Resources, G. F. Gair, explained them in the following terms[26]:

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[23] *Public Works Statement by the Hon K.S. Williams*, in *Appendices to the Journals of the House of Representatives 1926*, D-1, p.xvii.

[24] The preamble to the 1925 Act describes the Act as a consolidating measure, and the Schedule shows that the 1918 Act had been amended in every year 1919-1923 inclusive.

[25] Ammundsen 1949 p.83.

[26] *New Zealand Parliamentary Debates* Vol.412, p.1703, 28 July 1977.

The Government will assist local supply authorities to do what a Government department would do perhaps not as well, because it concerns local areas, local projects, and comparatively small schemes. Collectively, these local schemes could make a very important contribution to our total sources of energy. The local supply authority will be expected to carry out the initial feasibility study, but the Government will provide the money for the detailed investigation and design work, and will carry the cost unless the project proceeds, in which case it will be added to the cost of the scheme.

The Government will find 90 percent of the cost by way of loan to the supply authority, which will find the other 10 percent. The loan will be on the basis of 10 percent per annum, and the interest rate will be reviewed every 3 years. If the scheme operates at a loss in its early years, the deficit will be met by further loans from the NZED, at whatever interest rate the NZED pays to the Government for the money it borrows. Any indebtedness, either on original capital or on loans from the NZED to meet earlier losses, will have first claim on any profit the scheme returns. After original capital advances plus interest plus any loans to meet operating losses over the years have been repaid, any further net revenue will go to the local supply authority. This will provide the incentive for the local supply authorities to develop schemes they have proposed; I know of about 19 prospective schemes of this nature.[27].

Another element of continuity in the Government policy of guiding the development of the distribution sector was the establishment of the Electricity Distribution Commission under the Electricity Distribution Commission Act 1967, to oversee and coordinate the operation of the sector. This role included the consolidation of smaller power board districts into larger or re-drawn districts, in order to encourage the industry to adapt to the changed economics of electricity distribution by the 1960s. Section 28 of the 1967 Act introduced a new institution, the "Area Electricity Authority", which could be established by Order in Council as the product of a "reorganisation scheme" drawn up by the Commission under sections 17-25. The Rotorua Area Electricity Authority was the only such authority set up during the existence of the Commission, before it was absorbed into the Local Government Commission under the Local Government Act 1974.

The relationship between an "area electricity authority" under the Electricity Distribution Commission Act 1967 and an electric power board under the Electric Power Boards Act 1925

[27] The 19 schemes referred to were listed by the Minister in response to a question on 17 August 1977 - see *New Zealand Parliamentary Debates* Vol.412 p.2232. They included Aniwhenua and Wheao.

was left unclear by the 1967 Act, but they were evidently not intended to be identical, since the 1967 Act made no provision for the Electric Power Boards Act 1925 to apply to area authorities and instead gave the Electricity Distribution Commission wide discretion to design their powers, structure and functions. Section 28(3)(c)(ii) provided for revenue surpluses from operations to be distributed among constituent local authorities, a procedure not permitted to electric power boards. The Order in Council which established the Rotorua Area Electricity Authority[28] provided for that authority to have all the powers and duties of an electric power board, and the Electric Power Boards Amendment Act 1989 s.6 provided for the Rotorua Authority to be treated "as if that Authority were an electric power board constituted under the Electric Power Boards Act 1925", but in both cases this was an ad-hoc arrangement.

1.2 Early Financing of Power Boards

The original intention of Government in 1918 was that the financing of local electrical works should be undertaken by local communities. Power boards were therefore given the power to rate, and the ability to borrow against the security of this power[29].

Early power boards made full use of these powers. At the time of the original establishment of Power Boards after passage of the Electric Power Boards Act 1918 , several boroughs levied a special rate of £1 per section regardless of whether the property was connected to the electrical supply[30] . In several other areas ratepayers pledged their property "up to quite large sums" to provide initial security for Power Board borrowing[31].

Figures published by the Public Works Department show the growth of power board loans in the early days. By 1920 the 9 existing boards had obtained authorisation from their ratepayers

[28] A copy of this Order in Council is in Appendix III.
[29] Electric Power Boards Act 1925, sections 53, 56-65. The rating power was repealed by s.209)(1) of the Rating Powers Act 1988.
[30] See the 1925 speech by Rhodes, MP for Thames, *New Zealand Parliamentary Debates* Vol.207 p.919.
[31] See speech by Ransom, MP for Pahiatua, *New Zealand Parliamentary Debates* Vol.207 p.911. See also Rennie 1989, pp.24-120 *passim* , for information on the financing of various Power Boards' early activities.

to raise £2.95 million, about 6.7% of the unimproved rateable value of property[32]. By 1922 there were 23 power boards, with loan authorisations totalling £4.9 million (5.4% of rateable property values)[33]. By 1924 with 36 power boards formed, loan authorisations had reached £7.9 million (5.2% of rateable value) and actual capital expenditures, financed largely from loans, had reached £3.2 million. Seven boards had struck general rates and five had collected them; while another ten boards had struck special rates as security for loans, one of which had had to be collected.[34] Subsequent Public Works Statements through the 1920s detail the continuing importance of the rating powers of boards as a means of financing their initial investment.

An example of a power board that used to the full the mechanisms envisaged in 1918 was Southland, which in the early 1920s floated two £750,000 London loans - one at 6% and one at 5% - to construct the Monowai hydro-electric scheme and to undertake extensive reticulation in the province. The loans were Government guaranteed. In order to meet the revenue deficiency, a rate was struck sufficient to balance the books, which raised £500,000 over the twelve years 1923-1935. The Southland ratepayers therefore saw themselves as having met much of the cost of establishing the system and bringing it through to a paying position[35]. In the mid-1930s there were still areas of Southland which were paying the land rate but did not have electrical supply[36]. Southland's £1.5 million of debt was described in 1936 by the MP for Awarua as "a mortgage on all its land"[37]. However, Southland seems to have been the only really heavy rater by the mid-1930s - Walter Nash, then Minister of Finance, compared £37,610 of rates in Southland in that year with only £374 elsewhere[38]

The case of Southland, which in effect became insolvent and was nationalised by the Southland Electric Power Supply Act 1936, was an exception to prove the more general rule that once their systems came into operation, most electric power boards quickly became financially self-supporting from their sales revenues. The early role of ratepayers in getting

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32 *AJHR 1920* D-1 p.76.
33 *AJHR 1922* D-1 p.67.
34 *AJHR 1924* D-1 p.78.
35 *New Zealand Parliamentary Debates* 1936 p.689.
36 *New Zealand Parliamentary Debates* 1936 p.691.
37 *New Zealand Parliamentary Debates* 1936 p.693.
38 *New Zealand Parliamentary Debates* 1936 p.697.

the boards off the ground faded into the background as electricity consumers became the actual source of funds for further expansion. The claim that customers rather than ratepayers should therefore control the boards was already being heard in debates on the 1925 Electric Power Boards Bill. M.J. Savage, for example, argued that "The electric power scheme ... should be a self-supporting concern... Seeing that it is, it seems to be a plain admission that the ratepayers are not the people who pay the loan. I should say it was the consumers ..."[39]. This view was rejected by a majority of MPs in the division on Savage's amendment to replace ratepayers by electors in clause 20(1) of the Electric Power Boards Bill[40].

1.3 The Franchise for Power Board Elections

Corresponding to the early reliance upon financial support from ratepayers, electric power boards were to be established only following a petition by 25% of ratepayers of the district[41], and the right to vote in loan polls was restricted to ratepayers until 1986.[42] With respect to the election of the boards themselves, the 1918 and 1925 legislation made it possible for the initial ratepayer petitions to specify a ratepayer franchise to vote for power boards, while leaving the prevailing local-body franchise as the default option if ratepayer franchise was not specified.[43]

In both 1918 and 1925 the provisions covering elections of power boards attracted a large share of the parliamentary debate on the respective bills[44]. Attempts to eliminate the option of ratepayer franchise and replace it by a broad local-body or parliamentary franchise were defeated on both occasions. In practice, however, it appears that few if any ratepayer petitions requested a ratepayer franchise for power board elections, and boards were generally elected on the basis of the prevailing electoral franchise. The abolition of provision

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[39] *New Zealand Parliamentary Debates* Vol.207 1925 p.912.
[40] *New Zealand Parliamentary Debates* Vol.207 1925 p.922.
[41] Electric Power Boards Act 1925 s. 3(a). Ratepayers were replaced by "electors" by s.12 of the Local Government Amendment Act 1986.
[42] Electric Power Boards Act 1925 s.50. "Ratepayers" were replaced by "electors" by s.12 of the Local Government Amendment Act 1986.
[43] Electric Power Boards Act 1918 s.8; Electric Power Boards Act 1925 s.13 and s.20. This last section, permitting ratepayers to petition for a ratepayer franchise, was repealed by the Electric Power Boards Act 1947 s.2.
[44] *New Zealand Parliamentary Debates* 1918 pp.644--650; *New Zealand Parliamentary Debates* 1925 pp.912-922.

for ratepayer election of power boards in the Electric Power Boards Act 1947 was therefore not of great significance and merely recognised the prevailing status quo, that power boards were in general elected on the basis of the general rolls[45] - or in the words of the 1989 Crown Law opinion, "in much the same fashion as other local authorities"[46].

[45] *New Zealand Parliamentary Debates 1947* Vol.278, pp.437-449 and 581. In the debate, the Minister of Works, R. Semple, stated that all power boards except the Golden Bay Electric Power Board were at that time elected "on the parliamentary franchise" (p.437), while in the Legislative Council the Leader identified the words "the electors of the constituent districts" with the parliamentary roll for those districts. In fact most local body elections at that time were on a ratepayer-or-resident franchise.

[46] Crown Law opinion of 26 October 1989, p.2.

2. The Ownership Issue and Industry Restructuring Since 1985

2.1 Share Allocations Under the Energy Companies Act 1992

Following a recommendation of the Electricity Industry Task Force Report of 1989, Government has now moved to convert all existing electricity supply authorities into commercial companies under the Energy Companies Act 1992. A central feature of the Act is section 22, under which the establishment plan for each of the new companies which are to take over the assets of existing electricity supply authorities is required to include a "share allocation plan". This share allocation plan

> *shall set out the authority's recommendations as to the person or persons, or the class or classes of persons, to whom the voting equity securities in the relevant energy company should be allocated consequent upon the vesting in that company of the relevant energy undertaking...*

The question of who shall own the new companies is thus to be determined not by reference to any existing set of ownership claims, but by an entirely forward-looking process, which allows each supply authority to choose an ownership pattern for its successor company subject only to the approval of the Minister of Energy under section 27 of the Act. Once an establishment plan has been approved, the future ownership of each energy company is set, but until the plan has been approved there exists no clear position as to who are the present beneficial owners of the supply authorities (except for Municipal Electricity Departments, MEDs, which are owned by their local authorities, and whose special status is covered by section 56 of the Act).

Uncertainty over the "true" ownership of most electricity supply authorities has posed a problem for the Government's policy of converting them into commercial companies, since there was no clear 'seller' of the assets to whom the purchase price could be paid by any 'buyer' when the new companies were established. By the same token, however, there was no owner who could be said to have suffered a clear loss if shares in the new companies were distributed free to any arbitrarily-selected group of recipients. As a result, there exists great flexibility in the crafting of the new ownership structures for energy companies, with shares

in these companies able to be distributed without charge to any recipient group which is acceptable to the Minister of Energy. Insofar as there exist any parties with outstanding claims against electricity supply authorities, there is no barrier in the Energy Companies Act 1992 to those claims being met by allocations of shares in the new companies, provided only that such allocations are included in the relevant establishment plans and approved by the Minister.

(There is a barrier to such claims being met via any other mechanism, such as a transfer of specific assets in part or in whole by an existing supply authority to the claimants rather than to its successor company. Section 2 of the Energy Companies Act 1992 defines the electricity undertaking to be transferred as comprising "all the assets of the local authority used for or in connection with the electricity undertaking...." [Emphasis added.])

The next section describes recent attempts by government officials and others to resolve the issue of who currently owns the electricity supply authorities and their assets.

2.2 The Ownership Debate of 1989-1991

2.2.1 Preliminary Opinions

Restructuring of the New Zealand electricity industry began in 1983 when Government put pressure on two state-owned energy enterprises, New Zealand Electricity Division (NZED) and State Coal, to raise the rate of return on their assets by cutting waste and raising prices. Following the 1984 change of government, the decision was taken to corporatise these enterprises. A preliminary step towards corporatisation was to determine who actually owned the assets which were to be transferred to the new commercial companies. In the case of NZED, the two possible claimants to ultimate ownership were (i) taxpayers (who had underwritten the construction of the national generation and transmission system) and (ii) electricity consumers (who, by paying Government-regulated prices for electricity, had provided the actual funds for investment). This issue was quickly resolved in favour of taxpayers as the "true owners", so that when NZED was corporatised in April 1987, the

transaction involved the new corporation raising funds in the commercial marketplace in order to pay central Government for the assets being transferred. As of early 1993 the assets of the former NZED remained entirely in Crown ownership under the control of the state-owned Electricity Corporation of New Zealand.

This left the retail sector's future to be determined. The thrust of Government policy for electrical supply authorities (ESAs) has been towards corporatisation and possibly privatisation. Officials in the late 1980s were divided both over the desirability of privatisation, and over the issue of who actually owned the assets of ESAs (and hence would be able to lay claim to any proceeds from privatisation). Possible owners identified were[47]:

- **electors** (because by voting in power board elections they held the boards to account)
- **ratepayers** (because until 1988 they had been the underwriters of the boards' financial solvency through the rating powers of the boards under the Electric Power Boards Act 1925)
- **consumers** (because they had funded board investment by their payments for electricity purchased)
- **taxpayers** (because they had in practice, if not in terms of the law, provided financial underwriting for board activities)
- **local authorities** (in the case of MEDs, because they held legal title).

In 1989 Treasury sought a legal opinion from Chapman Tripp Sheffield Young on the ownership of ESA assets. That opinion set out three criteria that could be used to determine ownership:

(a) who was responsible for electing the boards?
(b) what was the source of funding for the bodies?
(c) who were the ultimate bearers of risk for activities undertaken by ESAs?

Chapman Tripp were unable to provide a definitive answer to the ownership question. They argued that the intention of Parliament in the acts which set up the ESAs was not clear (at least on their reading of the acts as they stood in 1989). Chapman Tripp tended to favour electors as the beneficial owners of Electric Power Boards, and the territorial local authorities

47 Letter of 11 October 1989 from Ministry of Commerce to Crown Law Office, reproduced in Appendix I.

as the owners of MEDs. They did not specifically address the question of ownership of the Rotorua Area Electricity Authority.

This preference for electors in the case of EPBs rested on the fact that section 13 of the Electric Power Boards Act 1925 as it stood in 1989 provided for the boards to be elected "by the electors of that district". The nature of this electoral franchise, Chapman Tripp felt, gave electors precedence over the claims of ratepayers, despite the facts that the Electric Power Boards Act 1918 had given EPBs the power to raise rates to finance their activities, and that this rating power had only just been removed by the Rating Powers Act 1988. The Chapman Tripp opinion did not traverse the history of the franchise for Electric Power Board elections.

Chapman Tripp were not supportive of the claims of electricity consumers or taxpayers (i.e. the Crown) to ownership of ESA assets.[48] There is no indication that their instructions from Treasury asked them to examine Treaty issues in relation to the ownership question.

2.2.2 The Corporatisation Decision

A firm decision that ESAs would be transformed into commercial companies was taken by Cabinet Policy Committee on 30 August 1989 [49], and officials were directed to report back on 18 October on the options available for possible privatisation. The ownership issue had now to be settled, and on 11 October a legal opinion was sought from the Crown Law Office.[50] The request did not ask for consideration of the Treaty issues.

On 18 October 1989 the Cabinet Policy Committee considered an officials' paper on privatisation options, dated 13 October, which referred to the Chapman Tripp opinion. This paper claimed that electric power boards had been elected by local-government (ratepayer) franchise prior to 1986 (which was considered to weaken the claim of electors to be the true owners of the boards), and pointed out that the ownership situation had been further muddied

[48](The above summary of the Chapman Tripp opinion is based on the Ministry of Commerce letter of 11 October to Crown Law Office reproduced in Appendix I, p.3 paragraph 9.

[49] POL(89) M28/2 refers.

[50] See Appendix I for the Ministry of Commerce letter of 11 October 1989 and the Crown Law opinion dated 26 October 1989

by the removal of the rating powers of electric power boards by the Rating Powers Act 1988.[51] The officials' paper set out the ownership position as follows[52]:

> *Present Ownership*
>
> *13 Discussions on the reform of the distribution industry have been predicated on the alteration, in whole or in part, of the present ownership structures. The ownership question, however, has not been tested before the New Zealand courts. Nor has a Crown position been formally established.*
>
> *14 Officials' view that ratepayers are the beneficial owners of Municipal Electricity Departments (MEDs) has been supported by preliminary legal advice obtained by Treasury from Chapman Tripp Sheffield Young. While the present ownership of MEDs is relatively clear, the difficulties of changing the environment under these circumstances could be greater than for Electric Power Boards.*
>
> *15 In one instance, the Southland Electric Power Supply, the Government is the direct owner, by purchase of the former Southland Electric Power Board's operations and assets in 1936. The options for its divestment are set out later in this report.*
>
> *16 The situation of Electric Power Boards is less clear cut. They are bodies corporate in their own right. By and large, EPBs regard themselves as owned by their consumers, who have paid for the Board assets; in effect, a co-operative by another name. In officials' view, if the "ultimate risk-taken" concept is followed, the intent of the draughtsmen of the original legislation (the Electric Power Boards Act 1925) is clear. Ratepayer petition was required for the establishment of Boards; the basis of their representation was territorial local government electoral divisions (local government then being elected on the basis of ratepayer franchise), and special rates could be struck to cover deficits or secure loans. The present situation is however less obvious, since the abolition of the ratepayer franchise for local government elections in 1986, and the removal of the rating power from Power Boards in the Rating Power Act 1988.*
>
> *17 A Crown Law opinion is being sought on the ownership question. The preliminary legal opinion referred to above suggests that the Government may have to make its own determination of the issue, and make that determination not subject to appeal.*

On 30 October 1989 the Cabinet, having evidently not yet seen the Crown Law opinion of 26 October, directed officials to report back to the Cabinet State Agencies Committee once

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[51] Officials Coordinating Committee 1989 p.4 paragraphs 13-17, quoted below. For the full paper see Appendix I.

[52] Officials Coordinating Committee 1989 p.4.

the Crown Law opinion had been received.[53] The result was a paper of 16 March 1990 which summarised the situation as follows[54] :

> *5 The Crown Law opinion on the ownership of ESAs has been sought and received. The following summarises the conclusions in the opinion:*
>
> *a an EPB has no "owner" in the legal sense, but its assets are owned by the board itself;*
> *b an MED is part of a territorial local authority and it is owned by that authority; and*
> *c if corporatisation occurred the boards and/or local authorities could claim compensation but not the electors or ratepayers.*
>
> *6 In light of the Crown Law opinion, it would be appropriate for Government to decide on the ownership pattern for electricity supply companies (ESCs) formed from ESAs, and to whom shares should be initially allocated, and to ensure these decisions should not be the subject of claims for compensation.*

The 16 March 1990 officials' paper canvassed the issue of beneficial ownership at more length on pages 13-16. This section reiterated that "There is no legal basis for determining the ownership rights for companies formed from ESAs"[55]. The argument that consumers are owners on the basis that they have been the source of the Boards' revenue over a long period was rejected, with reference to Poverty Bay Electric Power Board v Attorney General (Unreported - Wellington CP552/87 - Davidson CJ - 5.11.87)[56]. The Crown Law opinion that EPBs have no owner and that MEDs are owned by local authorities was noted and the comment added that "it could be argued that, in turn, the local authority has no owner as in the case of EPBs".

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[53] Officials Coordinating Committee 1990a p.2 para 4.
[54] Officials Coordinating Committee 1990a p.2 para 5.
[55] Officials Coordinating Committee 1990a, p.13.
[56] For discussion of this case see pp.2-3 of the Crown Law opinion in Appendix I

2.2.3 Government to Impose an Ownership Decision

The issue then arose of who should make the decisions on share allocation/distribution, and in this connection the March 1990 paper saw the possibility of recognising local authorities and EPBs as having "acted as trustees for both the consumer and investor owners of the current ESAs" on which basis equity should be transferred to them (that is, to the local authorities and boards themselves). The argument against doing so was that local authorities and EPBs had a vested interest against privatising the assets, and would fail to carry out the Government's wishes. The example given was that of port companies, which were described as having "similarities with the ESAs, in terms of ownership"[57] , and shares in which which had been retained by regional councils despite the clear desire of Government to see shares divested to private owners.

The officials' committee, tacitly rejecting the option of seeking a High Court ruling on the ownership question, recommended that Government should impose its own decision, on an overtly political basis[58]:

> *52 Since the legal ownership of ESAs provides no assistance in identifying the recipients of ESC shares or sale proceeds, the decision must be made on equity or income redistribution grounds. Under these circumstances the decision as to which group should receive the shares or proceeds from sale is properly one for Ministers, who are able to reflect the Government's view of the equity issues involved...*

The paper then canvassed the three groups with possible "equity" claims to be recipients of shares, and hence the ability to be "considered the 'true owners' of the companies", namely electors, ratepayers, and consumers. Taxpayers by now had been dropped from the officials' list of possible owners, and Maori were not specifically considered. Electors were ruled out because:

- they had not borne the residual risk associated with ESA operations;
- they had only become the relevant voters for EPBs in the 1986 Local Government Amendment Act (No 2); and

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[57] Officials Coordinating Committee 1990a, p.14, para. 50.
[58] Officials Coordinating Committee 1990a p.14, para. 52.

- arbitrariness and inter-generational problems arose in making a share allocation on this basis.[59] .

Ratepayers were claimed to have been among the electors of power boards until 1986, and the formal risk-takers of last resort until 1988. However, it was noted that in practice, Government had provided the safety net for boards which became insolvent, as shown by the Southland Electric Power Supply case in 1936, so that "the Government, not the ratepayer, could be considered to be the bearer of the residual risk". Ratepayers also, it was noted, could be regarded as the creators of an EPB because of the requirement for a petition from 25% of ratepayers to establish a Power Board under section 3 of the Electric Power Boards Act 1925. "However, ultimately the Government was responsible for the enactment of legislation which created EPBs and local authorities"[60] .

Consumers, the officials paper suggested, had a strong claim in equity, because not only had they funded board activities but in practice they had been the residual risk takers because of the monopoly nature of the boards. "If an ESA makes a loss, some of this would be funded from accumulated reserves and the remainder would be funded by way of higher electricity prices." Consumers in addition "represent a reasonable proxy for the community, with the exception of non-domestic consumers"[61]

Having failed to resolve the legal issue of ownership by means of the opinions from Chapman Tripp and Crown Law, officials finessed the problem. Rather than seeking a declaratory judgement, the matter was stated to be one of "equity" and officials proposed that the Government of the day impose a decision in favour of consumers. Officials' reports thereafter focussed on the detailed mechanisms for share allocation and sale.

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[59] Officials Coordinating Committee 1990a p.15, paras 54 & 55.
[60] Officials Coordinating Committee 1990a p.15, para.57.
[61] Officials Coordinating Committee 1990a pp.15-16, paras 59 & 60.

2.2.4 Treaty Issues Raised in 1990

Treaty of Waitangi issues were raised in the 16 March 1990 officials' paper by the Justice Department and Manatu Maori, with support from Ministry for the Environment. The first two of these departments declared themselves "extremely concerned that legal action may be taken by Maori over the privatisation of ESAs"[62] and urged that in each case a proportion of supply authority shares corresponding the land under claim should be held back by the Crown for settlement of claims[63].

Other departments (Treasury, Commerce, Prime Minister's and SOE Unit) strongly disagreed, stating that[64]

> *138 ESAs are not part of the Crown (nor is it intended that ownership pass to the Crown) and hence land held by them is non-Crown land*[65]*. They are not subject to the provisions of the Treaty of Waitangi Act. While the Government in its role as a legislator has some Treaty obligations, these are not clearly defined. To extend the coverage of the Act in the manner suggested would have significant implications for other areas of local authority activity.*

If indeed compensation was felt to be appropriate, these majority departments argued, then cash payments were probably better than share allocations to Maori[66].

The point made in the above quotation - that extending Treaty considerations to power boards would have "significant implications for other areas of local authority activity" - is obviously correct, but is clearly not in itself sufficient reason for refusing to consider such an extension. The basic issue, identified by the officials' committee participants, was whether electricity supply authorities are or are not "part of the Crown". Manatu Maori and the Justice Department seemed to imply that ESAs should be treated as though they could be viewed as Crown activities; the opposing stance (quoted above) explicitly asserted that they were not

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62 Officials Coordinating Committee 1990a p.30, para.127.
63 Officials Coordinating Committee 1990a p.30, para.124.
64 Officials Coordinating Committee 1990a p.31.
65 The Wheao dam and powerhouse, however, are sited on Crown land. The powerhouse is on Crown Forest asset land administered by the Department of Survey and Land Information, and the Wheao River dam is on State Forest land allocated to the Department of Conservation.
66 Officials Coordinating Committee 1990a p.32, para.139.

part of the Crown and hence not covered by the Treaty. The recognition by Treasury, Commerce, Prime Minister's Department and the SOE Unit that there were some Treaty obligations, "not clearly defined", which could be considered relevant, did not lead to any attempt by the committee to seek further legal advice on the precise scope of those obligations. Treaty issues do not appear to have figured in subsequent discussion of the ownership question.

2.2.5 Seeking a Justification for Share Allocations to Consumers

The approach taken to power board restructuring, once the Crown Law opinion had been digested by officials, is epitomised by a subsequent consultants' review of ownership issues for the Hutt Valley Energy Board. The Executive Summary of that paper began by asserting the advantages to be gained from privatisation, and then skipped quickly over the legal issues to a pragmatic case for giving shares to customers[67]:

> *A share allocation to customers is an attractive mechanism for privatising Electric Power Boards (EPBs). In a strict legal sense customers do not have any clear entitlement to the shares of EPBs, in the sense of being the "underlying owners" of these assets. However, the fact that in the past customers have borne many of the risks associated with EPB decisions (through cost-plus pricing) does make them more logical recipients of shares than, for example, rate payers.*
>
> *Treating a share allocation to customers as a common sense means to an end, rather than a strict legal entitlement, will greatly simplify a share allocation programme. In particular, this means that the focus can be on adequacy of distribution and keeping costs down, rather than on the painstaking definition and delivery of what would otherwise be seen as customers' rights.*

The discussion of the ownership question in the main body of the CS First Boston report[68] reflects the fact that by then the political decision to treat customers as the "true owners" of EPBs had been taken, reflected in a speech by the Minister of Energy, Hon. John Luxton, at the Electricity Supply Association conference in Queenstown, on 9 September 1991, p.6. The CS First Boston report is significant in that it includes an attempt to go back to first principles

[67] CS First Boston 1991, p.ii.
[68] CS First Boston 1991, pp.5-8.

in order to interpret the Government's decision, but is unable to find any bedrock. Instead it identifies merely a pragmatic case for the proposed ownership arrangements[69]:

> *There is uncertainty over the current ownership of EPBs. The general legal opinion on this matter, however, appears to be that ownership of the latter is vested in the Boards themselves. This has been the position adopted by the Electricity Supply Association, and also by the Electricity Task Force. Privatisation of EPBs, therefore, is a matter of divesting shares currently held by the Boards to private investors.*
>
> *In this section, we consider the argument that divestment should be to customers, and should be made by means of a share allocation to customers, rather than a sale. In Section 2.2 we consider whether, as suggested by the Minister of Energy, customers have a prior or natural claim to ownership.....*
>
> ***2.2 Customers as Owners***
>
> *The Minister proposes that consumers of electricity shall be deemed to be the underlying owners of EPBs and that, to allow the transfer of shares to consumers, shares will be initially vested in specially established trusts. The trusts will be required to divest a major portion of these shares to individual consumers within five years.*
> *...*
> *In our view, there are two sets of questions that should be considered here:*
>
> - *whether customers have some prior claim to ownership, rather than simply being attractive candidates for ownership; and*
> - *if it is a matter of political attractiveness, rather than entitlement, that leads to a designation of customers as preferred owners, and whether the benefits of this approach exceed the costs.*
>
> *...*
> ***2.2.1 The "Entitlements" of Customers***
>
> *Two, logically distinct, lines of argument can be made for focusing on customers as owners, and therefore allocating shares to them (rather than selling them more widely). The first relates to customer funding of past EPB investments. The second focuses on the increased electricity cost that the majority of customers will bear as a result of the removal of cross-subsidisation ...*
>
> *It is argued, first, that, as the assets of EPBs have been funded by their customers through the tariff they have paid over the years, they therefore already own the assets. In*

[69] CS First Boston 1991, pp.5-9.

support of this argument, it can be noted that EPBs have always been self-funding (including having minimal debt levels) and have been separate from local or central government activities. It is also argued that the EPB case differs from a competitive industry in that electricity customers have been served by a monopoly which was set up with their money.

However these arguments do not stand up strongly. Neither contributions to funding nor paucity of choice of supplier imply anything about ownership (as can be seen from the large number of cases in which these conditions exist without conferring ownership). Nor, for that matter, does the coexistence of the two create some ownership claim. Rather, ownership entails two things:

- *residual risk-taking and the right to the residual profits (or losses) of the company once all its other current financial commitments have been met; and*

- *the right to exercise control over the operational and strategic decisions of the company.*

Neither of these conditions applies, strictly speaking, to the customers of EPBs (although customers have had some limited ability to control management through the election of board members). An argument could be made that if regulation had forced customers to bear a degree of equity risk over time (manifested in the level and volatility of electricity prices, i.e. the consumers have borne the benefits or costs of relative efficiency by their EPB), they would in effect have functioned rather like owners. We are not convinced that an argument of this kind could be used to justify a full-blown notion of customer entitlement to shares in the case of the EPBs. However, it does suggest that, insofar as any group has a claim to be recipients of shares, customers have a stronger claim than, say, electors or ratepayers in the same region.

A counterclaim can be based on the fact that up until 1987 the ratepayers of a region covered by an ESA could be "rated" to provide financial support. The ratepayers were potentially risk-bearing. However, this was without recompense (in the sense of an insurance premium) or any right to residual profits. In fact this ability to "rate" has never been used and the costs of ensuring ongoing solvency have always been passed on to the customers.[70]

The second argument for an allocation of shares to customers turns on the tariff increases to domestic consumers that are likely to accompany the removal of cross-subsidisation. This argument does not hinge on any assertion about who are the real

[70] The material in section 1.2 above shows this claim to have been incorrect.

owners of ESAs. It is an issue that must be faced by EPBs irrespective of any change in ownership.

The difficulty of establishing a positive case for allocating shares to customers does not imply that allocating shares to customers is a bad idea. However, it does have (salutary) implications for the complexity of any allocation process....

...

... the EPBs, at least, are not government-owned...

If there were thought to be a genuine case for viewing customers as the true owners of EPBs, so that the proposed share allocation were, indeed, a matter of recognising entitlement, it would be appropriate to go to considerable lengths to ensure that the share allocation process correctly identified and met entitlements. If, however, as we have suggested, allocation to customers is attractive most simply as a matter of expedience, a simpler, albeit possibly arbitrary, share allocation mechanism will suffice.

3. The Local Authority Hydro Development Policy, 1973-1988.

3.1 Introduction

In the 1970s, a new era of local hydroelectric development began, following several decades during which electricity supply authorities had been withdrawing from generation and concentrating on the distribution of NZED-generated electricity. The ability of ESAs to undertake such local schemes hinged upon the willingness of the Crown to permit the use of a water-power resource over which it (the Crown) had since 1908 claimed monopoly control. All hydroelectric generation schemes undertaken since that date had been required to obtain a Crown licence for the use of water, on terms to be determined by the Crown. The next section outlines the history of legislation on the Crown water-power monopoly. The sections which follow trace the history of the local hydro development policy of the 1970s.

3.2 Right to Use Water Power Vested in the Crown since 1908

By the first decade of the twentieth century, the value of water power as a source of electricity generation was clearly apparent, and the Crown moved to declare a governmental monopoly over water by section 267(1) of the Public Works Act 1908. This read as follows:

> *(1) Subject to any rights lawfully held, the sole right to use water in lakes, falls, rivers, or streams for the purpose of generating or storing electricity or other power shall vest in His Majesty.*

The same declaration of a Crown monopoly appeared as section 306(1) of the Public Works Act 1928.

On the basis of this Crown monopoly, all parties wishing to develop hydro-electric generation were required to obtain a licence on terms to be set by the Governor-General by Order in Council until 1968, and by the Minister of Electricity thereafter.[71] This situation continued until 1987, when the Electricity Amendment Act 1987 s.3, by repealing s.25 of the

[71] Public Works Amendment Act 1908 s.5, superseded by Public Works Act 1928 s.318. This in turn was repealed by the Electricity Act 1968, s.56 and replaced by the licensing provisions in s.25 of the Electricity Act 1968.

Electricity Act 1968, extinguished the requirement for direct Crown consent to be secured for any use of water for hydroelectricity development.

Crown contol over natural water, however, remained enshrined in s.21 of the Water and Soil Conservation Act 1967, which read in part

> ***21. Rights in respect of natural water -*** *(1) Except as expressly authorised by or under this Act or any other Act, the sole right to dam any river or stream, or to divert or take natural water, or discharge natural water or waste into any natural water, or to use natural water, is hereby vested in the Crown subject to the provisions of this Act.*

This was a broader provision than the specific identification of water-power for electricity generation, and the power to grant rights for the use of natural water was to be exercised by Regional Water Boards rather than as a matter of ministerial discretion. The Crown's rights over water as set out in s.21 of the Water and Soil Conservation Act 1967 were retained by the Resource Management Act 1992, s.354(b).

At the time of the 1970s small hydro development scheme, the prevailing legislation on use of water power was the Electricity Act 1968 and the Water and Soil Conservation Act 1967. The procedures set out in both these Acts had to be followed by any would-be generator. The relevant section of the Electricity Act 1968 read:

> ***25. Generation of electricity by means of water power -***
> *(1) Except as expressly authorised by or under any other Act, no person or body shall generate electricity by the use of water without the consent of the Minister.*
> *(2) Where the use of water for the generation of electricity is also conditional on a grant of water rights under the Water and Soil Conservation Act 1967, an application under that Act shall be deemed to be an application under this section; and the authority to which the application is made under the Water and Soil Conservation Act 1967 shall refer the application to the Minister who may, if he thinks fit, consent to it in accordance with this section and so advise the authority:*
> *Provided that nothing in this subsection shall be construed as limiting the powers of the Minister under this Act.*
> *(3) The Minister may from time to time require any person using or proposing to use water for the generation of electricity to supply plans, particulars, reports, figures, or details of any such use or intended use.*

(4) In giving any consent under this section the Minister may impose such conditions as he thinks fit. [Emphasis added.]

The Electricity Amendment Act (No 2) 1976 s.2 replaced subsection 25(4) above by the following three subsections:

(4) Where authorisation is given under this section for the generation, otherwise than by a public authority, of electricity by the use of water, the Minister may impose a rental and, in determining the amount of the rental, the Minister shall take into account the cost of equivalent alternative sources of energy.
(5) Any rental imposed under subsection (4) of this section shall be subject to review at intervals to be determined by the Minister.
(6) In giving any consent under this section, the Minister may impose such conditions as he thinks fit on the generation of the electricity and its subsequent use.

Thus any hydro-electric development undertaken between 1908 and 1987 required the explicit involvement of the Crown, as grantor of rights to use water power. The ending of ministerial consents to generation by the Electricity Amendment Act 1987 coincided with the corporatisation of the NZED, and was in line with the prevailing policy orientation towards deregulation of the electricity sector and encouragement for new commercial generators.

3.3 Background to the Small Hydro Policy

In the late nineteenth century and early twentieth century, numerous small local power generation stations were built by both private and local authority initiative. From the 1920s through to the 1970s, as the state electricity system expanded and the national grid was developed, most of the small local stations were phased out, leaving only a few (most notably the Waipori scheme in Dunedin) in operation by 1970. The long process of centralisation of electricity supply was virtually complete.

Four developments of the 1970s, however, led to renewed expansion of the "fringe" of independent generators operating alongside NZED.

- **The 1973-74 oil shock** focussed attention on energy matters and indicated the likely advantages of developing all feasible non-oil sources of energy supply including small-scale hydro schemes.

- **Nationwide electricity shortages during the winters of 1973 and 1974,** occurred when NZED's construction programme failed to keep pace with expanding electricity demand, and central planners began to cast about for any supplementary generation projects they could find (a repeat of the motivation which had led Government to pass the 1918 Act).
- **A renewed policy emphasis on regional development** meant that central government was prepared to offer moral and financial support for local development initiatives.
- **Increased uncertainty about future wholesale electricity price trends** resulted from the extreme electricity price fluctuations caused by the interaction of high inflation rates and government price control[72].

Reinforcing these trends in the real world was the strong interest among economists, worldwide, in cost-benefit assessment and "shadow pricing"[73]. This body of economic theory favoured the use of tax and subsidy instruments to adjust prices towards their optimal level of equality with marginal cost[74]. The wholesale price of electricity in New Zealand, set unilaterally by NZED in accordance with the Electricity Act 1968, lay below the cost of electricity from new generating plant (and still does). In terms of the 1970s cost-benefit literature, this was a price distortion which disadvantaged new generators.

As the Audit Office notes[75], "[i]n the early 1970s electrical supply authorities, with support from state power planners, asked the Government for an incentive package which would enable them to construct further local hydro-electric schemes". The rationale for seeking these incentives was that a divergence existed between the commercial profitability of local hydro projects and their social desirability from the viewpoint of the national economy. The commercial rate of return on investment in new generation projects was governed by the market price of wholesale electricity, which at that time equated to the NZED Bulk Supply Tariff (BST). This was set on the basis of the average cost of supply from the NZED system, and did not reflect the cost of incremental supply (that is, the cost to NZED of supplying

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[72] See Culy 1992.

[73] Shadow pricing is a technique for valuing the resources used in a project, and the outputs of a project, according to their true value to society as a whole, rather than according to the market prices which private buyers must pay for them.

[74] Marginal cost is the economic term for the cost of increasing output by one more unit. In the case of an expanding electricity system, the marginal cost of supply in the long run is the cost per kilowatt-hour of electricity generated in newly-constructed power stations at the "margin" of the growing industry.

[75] Audit Office 1987, p.7.

additional electricity from new stations). The expansion of NZED's generation system at that time involved projects such as Marsden B, Huntly, and Rangipo, all of which had unit costs of supply well above the prevailing BST.

There was therefore a strong argument for the claim that supply authorities were facing the wrong price signals in deciding whether, and to what extent, they should generate their own electricity rather than purchasing it from NZED. With nationwide demand growing steadily, it was desirable that new generation projects be developed on the basis that any small-scale projects that were able to generate power for less than the cost of electricity from the least-cost new large-scale NZED projects, should proceed. The appropriate test for a small-hydro proposal to meet was not whether it was commercially profitable in competition with the BST, but whether it was a cheaper option than the next NZED generation project.

In confronting this issue of possible resource misallocation, Government had two clear policy options. One was to change NZED's pricing policy to ensure that the BST reflected the incremental cost of new supply. This would have involved a very large increase in electricity prices. The alternative was to retain the average-cost pricing practices of NZED, but to offset the resulting distortion in the market for new supply by providing a degree of subsidy for non-NZED generators. In the 1970s the latter option was chosen, and the 1977 Budget announced financial incentives for the development of new generation schemes by supply authorities.[76]

The Local Hydro Schemes policy, announced in the 1977 Budget[77], was not, in fact, a general subsidy to correct the price signal faced by supply authorities. Instead, Government

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[76] It may be noted in passing that the underlying economic logic of the policy should have led to a general incentive to all potential new generators, rather than an incentive limited to supply authorities. In restricting the scheme to ESAs, Government was apparently responding to strong lobbying from this particular group, while limiting its budgetary exposure and leaving the state-owned NZED in command of large-scale generation development. A general Government willingness to subsidise all new non-NZED generation investments by an amount reflecting the difference between the BST and the NZED's incremental cost of supply would have threatened both NZED's effective monopoly position and the interests of taxpayers. The underlying policy view of the time was that the national interest was served by a state-owned monopoly of generation and transmission, pricing at average cost to minimise the cost to users of electricity as an essential service, and competing only with a 'fringe' of small local generation and co-generation.

[77] *Financial Statement by the Rt Hon. R.D. Muldoon, Minister of Finance, 21 July 1977, AJHR 1977* B.6 p.8.

announced that it would provide concessional finance for the capital costs of new hydro generation. Grants were to be provided to fund investigation and design work, loans were to be made available to finance construction, and further loans from NZED were to be available to cover operating losses in the early years of approved schemes[78]. The subsidy element in the programme was thus built into the cost of finance for the schemes: the investigation grants reduced up-front costs of identifying and selecting viable projects, and the terms of the construction loans provided cheaper finance than the supply authorities could have obtained from alternative sources. In addition, in the late 1970s and early 1980s the Government itself, through the Ministry of Works and Development, undertook a comprehensive survey of small hydro opportunities in a number of regions, and published the results.

Following the Budget announcement, the Government in August 1977 set up the Committee on Local Authority Hydro Development (CLAHD) with representation from the Ministry of Works and Development, Ministry of Energy Resources (later Ministry of Energy), NZED, Department of Trade and Industry, Treasury, and the Electrical Supply Authorities Association. The committee was hosted and serviced by the Ministry of Works and Development. The basic function of CLAHD was to make case-by-case recommendations to Government on applications for grants or loans from supply authorities. The committee produced a set of guidelines which schemes would have to meet in order to qualify for concessional financing. This immediately narrowed down the field of potential candidates to those which either met the criteria on straightforward merit, or at least could be presented as meeting those criteria on the basis of reports by reputable consulting firms. The essential test which schemes had to meet was that of supplying electricity at less than the NZED estimate of nationwide incremental cost; this was set at 3 cents/kWh in 1977, and remained at that level (in 1978 dollars) throughout the period of CLAHD's operation.

In its retrospective evaluation of the local-hydro programme the Audit Office[79] concluded that although the 13 schemes actually constructed had an average cost roughly equal to the 3 ¢/kWh benchmark, the benchmark itself had been too high as an indication of the opportunity

[78] For details see the statement by the Minister of Energy Resources, G.F. Gair, *New Zealand Parliamentary Debates* 1977 p.1703, quoted in section 1.1 above.
[79] 1987 p.22.

value of new generation in the early-mid 1980s, and hence "[t]he schemes displaced electricity which could have been generated more cheaply from the State's surplus capacity. It would have been in the country's economic interest to have delayed most of the projects until the national surplus had been reduced." The Audit Office further suggested that the figure of 1.7 ¢/kWh (in 1978 dollars) which was suggested during a 1979 Cabinet policy review as the short-run marginal cost of supply from NZED existing capacity in 1979, would have been a more appropriate figure to use, and that the 1979 decision to stick with 3¢/kWh represented a lost opportunity to defer the projects. Perfect foresight, however, is not available in the real world, and decisionmakers in 1979 were faced with a situation of extreme uncertainty about both the reliability of their electricity demand forecasts and the future price of oil (which had a direct bearing on the extent of substitution of electricity for oil in energy consumption).[80]

In CLAHD's first year, 16 schemes were put forward for its consideration and 9 of these applications for grants or loans were approved[81]. By 1979 13 schemes had obtained grants for investigation and design, and eight schemes had construction loans approved[82]. At this stage the incentives policy came under serious question as electricity sector planners recognised a slowdown in consumption growth. This meant that electricity demand forecasts for the 1980s had to be revised sharply downwards. The 1978 demand forecast pointed to the emergence of a national surplus of generating capacity in the 1980s; as the Ministry of Energy commented[83],

> *One effect of the 1978 Power Plan has been to reduce, in the meantime, the value to the country of small hydro development. A review of the policy was therefore necessary. The Ministry if participating in this review, the results of which should be announced shortly.*

The outcome of the review was described as follows in the Ministry's 1980 report[84] :

> *The small hydro development policy was reviewed in the light of reduced electricity demand forecasts and expected surplus in national generating capacity. The Government decided to continue the availability of grants for investigation/design and loans for the construction*

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[80] The Audit Office data on the economics of the 13 small hydro schemes is reproduced in Appendix II.
[81] Ministry of Energy Resources 1978 p.7
[82] Ministry of Energy 1979 p.18
[83] Ministry of Energy 1979 p.18.
[84] Ministry of Energy 1980 p.14.

of several schemes being investigated. Subject to review following publication of the annual energy plan each year, no new schemes are to be considered for investigation grants.

In accordance with this moratorium, CLAHD recommended no loans or grants for new schemes in 1979-80, but did recommend approval for six extensions to previous grants and a construction loan for one scheme.

By the following year, the demand/supply outlook had again been reversed, in part because of plans for large-scale aluminium smelting developments in the South Island. The Ministry of Energy noted[85]

The small hydro development policy has been reviewed in the light of increased electricity demand forecasts and an expected tight situation in national generating capacity. The availability of grants for investigation/design is expected to be reintroduced. However, reflecting widespread concern over the preservation of smaller rivers for other uses, a moratorium has been declared on new construction and it will remain in force until an amendment to the Water and Soil Conservation Act 1967 is considered by Parliament in 1981.

By 1982, 13 schemes had been approved for construction loans; at this stage grants of $2.15 million and loans of $162 million had been approved[86]. A further $276,000 of grants and $24.8 million of loans were approved in 1982-83[87], and in 1983-84 $30.9 million of construction loans were approved[88]. In addition, in 1982-83 the NZED made available "supplementary operating loans" totalling $2,126,714[89] and $1,908,494 in 1983-84[90], to cover operating losses as schemes came onstream.

Construction loans for schemes came from the National Provident Fund and were supposed to be repaid over 20 years. The NPF loans were supposed to be rolled over and repayments begun as the new hydro plants were commissioned; but because of cost overruns and commissioning delays many of the boards were unable to support the costs of doing this.

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85 Ministry of Energy 1981 p.22.
86 Ministry of Energy 1982 p.55.
87 Ministry of Energy 1983 p.40.
88 Ministry of Energy 1984 p.31.
89 Ministry of Energy 1983 p.40; *AJH*R 1984 B7 Pt I p.106.
90 Ministry of Energy 1984 p.31; *AJHR 1985* B7 Pt I p.123.

Interest on the NPF loans was suspended and capitalised until schemes became operational, and this had the effect of escalating the financial commitments faced by boards as schemes came onstream. These commitments in turn increased the operating losses which Government had promised to fund through supplementary operating loans.

When NZED was corporatised, the Supplementary Operating Loans passed onto the books of the Ministry of Energy. Many of them were eventually written off, along with NPF loans, at the time of the restructuring of the NPF in the first half of 1989.[91]

The Fourth Labour Government, elected in 1984, raised interest rates on the construction loans, and at the end of 1986 the Cabinet Expenditure Control Committee called an abrupt halt to Supplementary Operating Loan lending . This left several Power Boards (including Rotorua - see section 4 below) in a very difficult financial position, with continuing heavy financial deficits on their generation activities which had to compete with an NZED wholesale price which was being held down well below the cost of new generation.

In terms of the original rationale for the small-hydro policy, these power boards had quite a strong case for claiming that Government had encouraged them to undertake unprofitable projects on national interest grounds, and had then left them in the lurch. However, as is pointed out below, several of the schemes, including Aniwhenua, had already been well advanced towards construction before any Government subsidy was announced. After a good deal of behind-the-scenes negotiations, power board indebtedness was restructured by a series of write-downs of their hydro scheme loans from Government, with the losses being carried by taxpayers.

[91] It appears, incidentally, that the Government raised Swiss loans to fund the NPF arrangement and failed to arrange forward exchange cover, with the result that the fall of the NZ dollar against the Swiss franc implied heavy losses, which Treasury funded from the Consolidated Fund. The Audit Office (1987 p.5) states that "costs of administering the loans, including any exchange losses on overseas borrowing" totalled $71 million by 31 March 1986, on loans of roughly $300 million.

4. The Wheao Scheme

4.1 History of the Rotorua Area Electricity Authority and the Wheao Scheme

Until April 1972, the supply of retail electricity in Rotorua was controlled by the Department of Tourism and Publicity and all assets were Crown assets. This arrangement arose from the 1896 decision of the Seddon Government to promote Rotorua as a health resort of world standing, for which purpose Government undertook drainage and electrical works including the Okere Falls power station (which opened in May 1901). The Government in fact ran all municipal affairs in Rotorua until 1923, when the Rotorua Borough Council was established[92].

Okere Falls was closed in July 1939, and thereafter all electricity for Rotorua came from the national system. The nationwide shortages of the late 1940s brought public pressure for a power board to be formed, on the basis that Government was taking advantage of its control of Rotorua to impose power cuts there before other areas (served by Electric Power Boards) were forced to make cuts, and also because of a feeling that prices were higher in Rotorua than elsewhere[93] . However it was not until 1966 that the Rotorua Borough and County Councils promoted a Bill to allow them to take over electricity supply. In the event the Bill did not proceed but negotiations led to the establishment of the Rotorua Area Electricity Authority (RAEA) in 1971 and the transfer of the assets, valued at $3 million, from the Government on 1 April 1972. The transfer price was announced as $1.9 million[94] and the purchase was financed by a $1.99 million loan advanced to the RAEA by the Tourist and Publicity Department [95] .

The new authority had barely settled in when power shortages appeared again during the winters of 1973 and 1974 and the possibility of a local source of supply began to be

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[92] Stafford 1988 p.12 ; Rennie 1989 pp.51-54.
[93] Stafford 1988 pp.19-20.
[94] *Daily Post* (Rotorua) 12 August 1971 p.1.
[95] RAEA Annual Accounts 1973.

canvassed. Early in 1974 the Authority discussed the idea with the Minister of Electricity and was encouraged to proceed with investigations. At that stage (according to the 1974 RAEA Chairman's Report) the most likely site was the Kaituna River, site of the original Okere Falls station, where the Ministry of Works and Development Power Planning Committee had proposed a large new hydro scheme in 1965[96].

The Board's consultants, Murray-North Partners Ltd, reported back in September 1974 recommending a scheme on the Wheao and Rangitaiki Rivers as being economically more attractive than the two main alternatives, on the Kaituna and Tarawera Rivers. The Board gave the go-ahead for further design work and for a full environment impact report, which was produced in January 1977. The Commission for the Environment appraised and approved the environmental impact assessment in May 1977.

The ecological aspects of the scheme's environmental impact were covered by Donovan[97] who concentrated mainly on the large trout population in the Wheao and Rangitaiki Rivers, which were popular angling rivers. Eels were covered briefly as follows[98] :

> *Eels are present in the lower Wheao River i.e. downstream from the proposed powerhouse site, however their numbers are very low. I would also expect eels to be present in the lower Rangitaiki River, below the proposed weir site.*
>
> *The low number of eels combined with their large size suggests that recruitment to this area from the sea is at a very low rate. I consider this is due to the location of the Matahina Dam, which forms a barrier to fish movement throughout the Rangitaiki River*[99].

Donovan further suggested that natural waterfalls blocked upstream movement on both the Wheao and Rangitaiki Rivers and recorded[100] "the absence of native fish in the upper reaches of the Wheao and Rangitaiki Rivers and Flaxy Creek". He suggested that downstream movement of fish would be possible both through the powerhouse of the proposed scheme

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[96] The idea was dropped in 1968 because of strong opposition to the environmental impact - Stafford 1988 p.22.
[97] 1977.
[98] Donovan 1977 p.3.
[99] Whether the Matahina dam has continued to block fish movement up the Rangitaiki River in the fifteen years since Donovan's study has not been researched for this report.
[100] Donovan1977 p.10 .

(with an estimated survival rate of 50% of the fish passing through the turbines and over the spillways)[101] .

The most serious impact identified by Donovan was the destruction of eighteen kilometers of trout fishery on the Rangitaiki River (the section from which water would be diverted into the Wheao canal).

The RAEA's application for a water right was heard by the Bay of Plenty Water Board in April 1977 and the right was granted on 1 July 1977. There were nine objectors:

- Rotorua Anglers' Association
- Nature Conservation Council
- Department of Internal Affairs
- Urewera Angling Club
- Bay of Plenty Electric Power Board
- New Zealand Forest Service
- Whakatane Trout Fishing Club
- Royal Forest and Bird Protection Society (Eastern Bay of Plenty Branch)
- Whakatane District Council

The dominant theme of objections concerned the effect on the trout fishery. The Forest Service, however, was concerned about the impact on its land; and the Bay of Plenty Power Board (which was well advanced with its Aniwhenua scheme downstream on the Rangitaiki) was concerned about the effect on flow rates, sediment and floating debris. No Maori interest appeared, nor was any concern expressed about possible Maori claims at any stage in the hearing or the Board report. The water board reflected the thrust of the objections by treating the trout fishery as the main victim of the scheme[102].

The water right was appealed against by the Royal Forest and Bird Society and the Conservator of Wildlife. Both appeals focussed on the impacts on wildfowl (four native duck species) and trout. The Town and Country Planning Appeal Board decision of 2 March

[101] Donovan 1977 p.10
[102] Bay of Plenty Regional Water Board 1977 pp.13-14.

1978[103] weighed the loss of these values against the benefits from power generation and came down in favour of the water right.

Meanwhile the Taupo County Council had made provision for the Wheao scheme in its new Operative District Scheme effective from 1 September 1977.

In April 1978 the RAEA made the decisions to apply for the following[104]:

- approval for loan funding from the Committee on Local Hydro Development;
- loan sanction from the Local Authorities Loans Board;
- a licence to generate from NZED;
- agreement for lease of land from the Forest Service; and
- approvals under the Harbours Act

Loan finance was approved by CLAHD in February 1979; contracts for the turbines were let in October 1979, construction tenders in November 1979, and work began on 7 December 1979[105] .

Cost escalation was a feature of the Wheao scheme, as for most local hydro projects of the late 1970s and early 1980s. In July 1976 the scheme was estimated to cost $9.5 million; by April 1978 this had risen to $17.7 million, with the expectation that continuing 12% inflation would raise the figure to $29.5 million by the time of completion in 1982.[106] By February 1982, in fact, the cost had risen to $35 million[107] , and additional loan finance had to be sought from the Local Authorities Loans Board. Following the collapse of the canal in December 1982 (at which stage the scheme was virtually completed), Murray-North[108] estimated the cost of reinstatement of the scheme, including "additional works and betterment", at $9.7 million on top of costs already incurred. Eventually the 1986 RAEA Secretary-Treasurer's Annual Report[109] stated that

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[103] See Appendix III.
[104] Rotorua Area Electricity Authority, 1978b, p.2 .
[105] Stafford 1988 p.25
[106] Stafford 1988 p.25.
[107] Stafford 1988 p.26.
[108] 1983 p.24.
[109] Page 4.

Provisional final costing for the Wheao scheme, reinstatement and betterment shows overall expenditure of $52,738,324. This was funded from:-

Government Loans	*$44,075,795*
Private Loans	*3,376,125*
Insurance Recoveries	*5,283,566*
Power Fund	*2,838*
	$52,738,324

The major item outstanding is the claim made by the tunnelling contractors for $4,103,614 at 31 March 1986. This will go to arbitration.

The contractor was awarded $2.9 million in October 1986[110].

A similar figure for all-up cost comes from the RAEA balance sheet entries for the book value of the Hydro Development Scheme at 31 March, shown in Table 1 below.

Table 1

Book Value of the Wheao Hydro Scheme in the RAEA Balance Sheets, at 31 March of Years Shown

Year	Book value $000
1978	0
1979	396
1980	1,633
1981	7,198
1982	20,110
1983	35,180
1984	46,870
1985	51,863
1986	42,674*
1987	47,193
1988	46,061
1989	45,084
1990	44,109
1991	43,172
1992	42,279

* Large write-offs in the 1986 balance sheet appear to have been reversed in the following year's accounts.

[110] 1987 Secretary-Treasurer's Report p.5 .

The Audit Office study[111] listed a total cost for Wheao of $46.6 million as the "actual amount spent in dollars of the day"; this figure almost certainly excludes the capitalised interest which was included in the RAEA figure of $52.7 million cited above.

In one important respect, the RAEA was lucky. In September 1981 the new Ruahihi power station built by the neighbouring Tauranga Electric Power Board suffered a major canal collapse which severely damaged the powerhouse and left Tauranga facing an expected repair bill of $13.7 million[112] . Wheao shared with Ruahihi a design which involved a high-level canal above the powerhouse, and in early 1982 the RAEA decided to take out insurance on the Wheao scheme despite the heavy premiums involved[113] . When, thus, the Wheao canal collapsed in December 1982 with massive damage to the powerhouse, the Authority was able to recover much of the cost of rebuilding from its insurers, leaving the scheme with far less debt to service than Ruahihi (which had to be rebuilt with additional borrowing, contributing to the 308% cost overrun for that scheme compared to only 57% for Wheao[114].

Tenders for the rebuilding of the Wheao scheme were called in May 1983, and the first power was generated in May 1984, with the completed station handed over in July 1984[115] .

The financing history of the Wheao scheme passed through several phases as central Government policy shifted. The 1984 Secretary-Treasurer's Report[116] noted that under the Local Hydro Development policy, Government loans were available up to 90% of the completed cost of a scheme, with the authority having to raise the remainder. Attempts to float two loans during 1983/84 were unsuccessful; the report commented that "the terms that the Authority can offer for loan money make it almost impossible to attract subscriptions from private sources. These restrictions apply to other local authorities as well as the RAEA. The earnings that the Authority has been able to retain over the past few years will help to bridge this period when loan money is very difficult to obtain."

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[111] 1987 p. 12 , in Appendix II below.
[112] Beca Carter Hollings & Ferner 1982.
[113] Stafford 1988 p.26.
[114] See Audit Department 1987 p.12, in Appendix II.
[115] Stafford 1988 p.26.
[116] Page 3.

The 1985 Secretary-Treasurer's Report[117] noted that the 10% Government Loans obtained to finance construction were to be consolidated into a single Redemption Loan, at the much higher rate of 16%, as from the date of first commercial generation. The 1986 Report[118] recorded that a Government Redemption Loan of $43,250,795 had been approved in October 1985, with a term of 6 years from 1 August 1984 and a rate of 16%. Projections indicated that this meant the scheme would run at a loss until 1990/91, but would eventually move into surplus.

The 1987 Secretary-Treasurer's Report[119] noted the Government's decision to discontinue Supplementary Operating Loans, which "has resulted in the short payment of interest to the lender, National Provident Fund, of $1,010,500". The Report went on to note[120] that

> *At this stage it is not known just what solution Government will provide for those Authorities with local hydro schemes. Possibilities are to restructure the outstanding debt, write portion of it off, adjust interest rates or enforce Authorities to provide for generation losses out of revenue.*

The 1988 Chairman's Report noted that[121]

> *Unfortunately ... after more than a year, the rearrangement of finances for the Wheao hydro scheme was no closer to a solution. Government ceased providing supplementary operating loans in December 1986 and in spite of assurances of debt restructuring no concrete proposals have been made. The continuing losses and uncertainty in financial planning have created a very difficult environment in which to operate.*

The 1988 General Manager's Report[122] indicated that the RAEA had gone into default on its construction loan servicing:

> *The loss situation created by the cessation of Government loan funds to meet the deficit on generation scheme operation continued. This matter remained unresolved at the end of the year, and default in interest payments on construction loans continued in the interim.*

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[117] Page 4.
[118] Page 3.
[119] Page 2.
[120] Page 7.
[121] Page 1.
[122] Page 2.

The 1988 Statement of Accounting Policies noted[123] that "with the government withdrawing Supplementary Operating Loans which covered the generation deficit, the Authority has capitalised $3,939,500 of interest payments on the Government Redemption Loan."

These financial problems were resolved in the 1988-89 year. The Chairman's 1989 Report[124] described matters as follows:

> *The highlight must be on the financial front, where the Authority saw the culmination of approximately two years' work by our agents, Fay Richwhite & Co., in negotiating debt write-off and debt restructuring for the Wheao Power Scheme. ...*
>
> *...[T]he situation of the growing debt we had on the scheme, was really not of the Authority's making, and I believe that view is vindicated by the Government's acceptance of write-off not just of debt on the Wheao scheme, but on many other local authority hydro loans.*

The 1989 General Manager's Report[125] reported "the restructuring of the Wheao Power Scheme debt and associated write-off of $M24.86 which occurred at the end of the year", and described the write-off as follows[126]:

> *Rotorua had retained a firm of Merchant Bankers approximately two years ago to negotiate and to act on its behalf in reaching a satisfactory debt structure which would once again make the hydro scheme a viable and economic proposition. Progress was slow and at times very frustrating for both Rotorua and Fay Richwhite. A few weeks prior to 31 March 1989 word was received that the matter was to be resolved within the current financial year. Our agents spent many days in negotiations with Treasury and National Provident Fund prior to reaching the new debt level. Finally, late in the afternoon of Friday 31 March 1989 in Wellington, all documentation of the new debt level was completed and in place. Fay Richwhite also arranged stock issues and finances associated with the new debt level.*

The 1989 Statement of Accounting Policies set out the changes to the RAEA's total debt position[127]:

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[123] Page 2 Note 5.
[124] Page 1.
[125] Page 2.
[126] Page 15.
[127] Page 1.

> *With agreement by the Government to enter into negotiation on restructuring the debt of the Wheao Hydro Scheme the Authority has capitalised interest payments for the year ended 31 March 1989 of $10,338,657.62, on its Government Redemption Loan, Government Construction Loan and Supplementary Operating Loans*.
>
> *After protracted negotiations the Government agreed on 31 March 1989 to write off part of the debt amounting to $24,863,359, which has now put the hydro scheme on a sound financial footing.*

The net result of this and other transactions was to reduce the RAEA's outstanding debt from $59.8 million at 31 March 1988 to $39.1 million at 31 March 1989[128].

The 1990 General Manager's Report,[129] noted that the debt restructuring had been expected to bring the generation account into surplus after one or two initial loss years; but in the event a surplus was achieved in 1989-90.

The 1992 General Manager's Report stated that[130]

> *A major refinancing of debt on the Wheao power scheme was arranged, which gave access to a reserve account which enabled the debt to be reduced significantly to $29 M, and introduced more flexibility into the arrangement.*

4.2 Financial Data

Table 2 assembles the figures from the RAEA Statement of Accounts for March years 1972/3 to 1991/2, and Figures 1 and 2 present some of the data visually. The costs and profitability of the Wheao scheme are here presented from an accountant's point of view, which has two particular implications for analysing the results. The first is that the electricity produced by Wheao is valued as having been "sold" to the RAEA at a wholesale price equal to that charged by NZED for its electricity. Thus the revenue contribution of the scheme is treated as the amount of money that RAEA did not have to pay to NZED as a result of having Wheao as an alternative source of supply. Insofar as this NZED market price was below the "true"

[128] 1989 Accounts p.10.
[129] Page 12.
[130] Page 1.

value of additional generation to the national economy (the "shadow price" of electricity), the result is that the accounts understate the "social" profitability of the scheme.

The second, partly offsetting, bias in the accounts is that all financial benefits to RAEA of the Government subsidies to the hydro scheme costs are fully incorporated into the Authority's accounts, and have the effect of raising profitability relative to what it would have been without the subsidies. Loan servicing costs were lower than they would have been had finance been raised entirely on the open market, and the fact of not bearing the risk of the scheme may have enabled the Authority to devote more resources than would otherwise have been possible to the development of their other lines of business.

The Rotorua situation is an example of a "typical" local small-hydro story of the period. The Audit Office[131] indicates that the Wheao scheme succeeded in producing electricity at a full financial cost of less than 3 cents/kWh in 1978 dollars (the criterion set in the late 1970s for schemes to be in the national interest); indeed, at 2.2 cents/kWh Wheao was arguably a good economic proposition even in the context of the surplus capacity of the 1980s. Obliged to compete with the NZED bulk tariff, however, the scheme never came close to earning a surplus (and would still be in the red today) until Government wrote off $25 million of its debt in March 1989. The losses on the Wheao scheme dragged the Rotorua Board's overall operation into deficit from 1985 until the debt was restructured (Figure 1) and the board's balance-sheet ratios deteriorated seriously, with the debt:equity ratio going from 38:62 in 1979 to 84:16 by 1988 before coming back to 50:50 following restructuring (and subsequently being brought down to 30:70 by 1992).

[131] 1987 p.12.

Table 2: Rotorua Area Electricity Authority Accounts, 1972/73 to 1991/92

	March years:		*1972/3*	*1973/4*	*1974/5*	1975/6	1976/7	1977/8	1978/9	1979/80	1980/1	1981/2	1982/3	1983/4	1984/5	1985/6	1986/7	1987/8	1988/9	1989/90	1990/1	1991/2
BALANCE SHEET SUMMARY																						
Assets:																						
	Total Current Assets							*2.72*	*2.77*	*3.70*	*4.27*	*5.25*	*6.92*	*11.23*	*10.51*	*10.49*	*9.98*	*10.43*	*9.66*	*11.46*	*11.74*	*11.82*
	Total Investments							*0.35*	*0.79*	*1.36*	*1.09*	*0.69*	*0.89*	*0.75*	*0.93*	*0.83*	*0.84*	*1.36*	*1.68*	*4.63*	*5.56*	*1.07*
	Total Fixed Assets							*4.88*	*5.72*	*7.62*	*14.45*	*28.70*	*44.33*	*56.49*	*62.99*	*58.29*	*63.14*	*64.72*	*64.91*	*65.11*	*65.14*	*64.32*
	of which:	Hydro Development at cost						*0.00*	*0.40*	*1.63*	*7.20*	*20.11*	*35.18*	*46.87*	*0.00*	*0.00*	*0.00*	*49.24*	*49.32*	*49.33*	*49.33*	*49.33*
		Hydro Development at cost less depreciation						*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*46.87*	*51.86*	*42.67*	*47.16*	*46.06*	*45.08*	*44.11*	*43.17*	*42.28*
	Deferred income tax benefit																				*0.47*	*0.35*
	Total Assets							***7.95***	***9.39***	***12.68***	***19.81***	***34.64***	***52.14***	***68.47***	***74.42***	***69.61***	***73.95***	***76.51***	***76.25***	***81.20***	***82.91***	***77.56***
Liabilities:																						
	Current Liabilities							*1.21*	*1.37*	*2.04*	*3.20*	*4.70*	*3.66*	*10.10*	*11.64*	*3.62*	*5.57*	*6.53*	*2.65*	*4.96*	*13.95*	*15.17*
		of which: Wheao Insurance Holding						*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*4.86*	*5.01*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
	Loan liability		*1.99*	*2.39*	*2.70*	*2.89*	*2.89*	*3.08*	*2.99*	*4.32*	*8.98*	*20.47*	*33.37*	*37.54*	*40.80*	*53.95*	*55.10*	*58.66*	*38.96*	*38.10*	*27.68*	*18.50*
	Deferred loan liability												*3.59*	*6.51*	*7.74*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
	Total liabilities							***4.29***	***4.37***	***6.36***	***12.18***	***25.17***	***40.62***	***54.15***	***60.18***	***57.57***	***60.67***	***65.19***	***41.72***	***43.06***	***41.63***	***33.67***
Corporate ownership								***3.66***	***4.92***	***6.32***	***7.63***	***9.47***	***11.52***	***14.32***	***14.25***	***12.04***	***13.28***	***11.31***	***34.53***	***38.13***	***41.28***	***43.89***
Debt:equity ratio								46:54	38:62	41:59	54:46	68:32	76:24	75:25	77:23	82:18	81:19	84:16	53:47	50:50	40:60	30:70
Sources for Table 2: Data assembled from RAEA Annual Reports except for the quantities of electricity purchased and generated, which are from annual issues of the Annual Statistics in Relation to Electric Power Operation in New Zealand.																						
	Electricity volume figures for 1990 and 1992 are estimates.																					

		March years:	*1972/3*	*1973/4*	*1974/5*	1975/6	1976/7	1977/8	1978/9	1979/80	1980/1	1981/2	1982/3	1983/4	1984/5	1985/6	1986/7	1987/8	1988/9	1989/90	1990/1	1991/2
INCOME AND EXPENDITURE																						
Income																						
	Sales of electricity		*2.37*	*2.68*	*2.84*	*3.27*	*4.68*	*6.40*	*6.78*	*9.18*	*10.50*	*12.19*	*14.44*	*15.21*	*16.25*	*20.08*	*25.79*	*27.38*	*31.65*	*32.75*	*33.33*	*34.77*
	RERC subsidy						*0.01*	*0.00*	*0.00*	*0.00*	*0.00*	*0.01*	*0.01*	*0.01*	*0.02*	*0.02*	*0.01*	*a*	*a*	*a*	*a*	*a*
	Interest rent & sundries		*0.07*	*0.03*	*0.05*	*0.03*	*0.05*	*0.08*	*0.15*	*0.24*	*0.26*	*0.31*	*0.54*	*0.57*	*1.06*	*1.96*	*1.47*	*1.04*	*1.05*	*1.12*	*0.35*	*0.39*
	Total income		***2.44***	***2.71***	***2.89***	***3.30***	***4.74***	***6.48***	***6.94***	***9.42***	***10.76***	***12.51***	***14.99***	***15.80***	***17.33***	***22.05***	***27.28***	***28.41***	***32.70***	***33.87***	***33.68***	***35.17***
Expenditure																						
	Cost of electricity	from NZED	*1.52*	*1.60*	*1.64*	*1.87*	*2.82*	*3.84*	*4.12*	*6.12*	*7.09*	*8.02*	*9.65*	*9.73*	*8.39*	*10.08*	*11.41*	*12.88*	*12.73*	*13.92*	*14.38*	*16.47*
		from other sources										*0.01*	*0.01*	*0.00*	*0.00*	*0.00*	*0.01*	*0.14*	*0.16*	*0.20*	*0.24*	*0.29*
		value of own generation @ NZED Bulk Tariff													*2.77*	*4.52*	*6.04*	*6.08*	*7.76*	*7.69*	*7.44*	*7.16*
		Total	*1.52*	*1.60*	*1.64*	*1.87*	*2.82*	*3.85*	*4.12*	*6.13*	*7.09*	*8.02*	*9.65*	*9.74*	*11.16*	*14.60*	*17.45*	*19.10*	*20.66*	*21.82*	*22.06*	*23.92*
	Maintenance & operation		*0.34*	*0.42*	*0.46*	*0.52*	*0.58*	*0.67*	*0.88*	*1.02*	*1.26*	*1.39*	*1.61*	*1.55*	*1.68*	*1.97*	*2.23*	*4.48*	*4.27*	*4.11*	*4.39*	*3.68*
	Admin. costs & general expenses		*0.29*	*0.29*	*0.39*	*0.46*	*0.51*	*0.55*	*0.57*	*0.64*	*0.80*	*0.92*	*1.21*	*1.23*	*1.22*	*1.51*	*1.96*	*2.27*	*3.87*	*3.13*	*3.52*	*3.34*
	Interest on loans		*0.00*	*0.00*	*0.16*	*0.16*	*0.25*	*0.18*	*0.20*	*0.12*	*0.19*	*0.19*	*0.18*	*0.18*	*0.15*	*0.12*	*0.09*	*0.08*	*0.09*	*0.08*	*0.05*	*0.04*
	Depreciation		*0.09*	*0.10*	*0.05*	*0.20*	*0.21*	*0.22*	*0.27*	*0.30*	*0.34*	*0.39*	*0.46*	*0.49*	*0.57*	*0.84*	*0.95*	*1.28*	*1.40*	*1.47*	*1.54*	*1.53*
	Total expenditure		***2.25***	***2.41***	***2.70***	***3.21***	***4.38***	***5.46***	***6.04***	***8.21***	***9.68***	***10.92***	***13.12***	***13.18***	***14.78***	***19.03***	***22.68***	***27.22***	***30.27***	***30.61***	***31.57***	***32.51***
Surplus on trading activities			***0.19***	***0.30***	***0.18***	***0.09***	***0.36***	***1.02***	***0.90***	***1.20***	***1.08***	***1.59***	***1.88***	***2.61***	***2.56***	***3.02***	***4.60***	***1.19***	***2.42***	***3.26***	***2.11***	***2.65***
Generation surplus (from Generation Account)			*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*-2.85*	*-4.56*	*-4.32*	*-5.07*	*-4.14*	*0.40*	*0.40*	*1.38*
Net surplus			***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***1.88***	***2.61***	***-0.30***	***-1.55***	***0.28***	***-3.88***	***-1.71***	***3.66***	***2.51***	***4.03***
GENERATION ACCOUNT																						
	Operating expenses*													*0.00*	*0.41*	*0.52*	*0.14*	*0.22*	*0.06*	*0.11*	*0.08*	*0.07*
	Repairs & maintenance																*0.17*	*0.17*	*0.12*	*0.16*	*0.17*	*0.12*
	Salaries, wages & transport													*0.00*	*0.08*	*0.16*	*0.20*	*0.16*	*0.15*	*0.14*	*0.13*	*0.12*
	Loan interest													*0.00*	*4.55*	*7.58*	*8.53*	*9.13*	*10.20*	*5.70*	*5.58*	*4.42*
	Insurance																*0.39*	*0.35*	*0.26*	*0.17*	*0.12*	*0.13*
	Depreciation													*0.00*	*0.57*	*0.80*	*0.91*	*1.09*	*1.06*	*0.98*	*0.94*	*0.89*
	Sundries													*0.00*	*0.00*	*0.00*	*0.00*	*0.01*	*0.01*	*0.00*	*0.00*	*0.00*
	Overhead & administrative expenses													*0.00*	*0.01*	*0.01*	*0.02*	*0.02*	*0.04*	*0.03*	*0.04*	*0.03*
	Cost of generation														***5.62***	***9.08***	***10.36***	***11.15***	***11.90***	***7.30***	***7.05***	***5.79***
	Value of power generated													*0.00*	*2.77*	*4.52*	*6.04*	*6.08*	*7.76*	*7.69*	*7.44*	*7.16*
	Generation surplus													***0.00***	***-2.85***	***-4.56***	***-4.32***	***-5.07***	***-4.14***	***0.40***	***0.40***	***1.38***
** Repairs & maintenance and insurance included in operating expenses till 1985/86*																		*a. Included in sundries*				
Gigawatt-hours of electricity generated at Wheao															*74*	*93*	*108*	*87*	*138*	*123*	*129*	*137*
Gigawatt-hours of electricity purchased from outside suppliers					*199*	*223*	*224*	*223*	*223*	*223*	*238*	*250*	*262*	*271*	*213*	*206*	*204*	*225*	*177*	*204*	*216*	*229*
Total gigawatt-hours of electricity traded					*199*	*223*	*224*	*223*	*223*	*223*	*238*	*250*	*262*	*271*	*287*	*299*	*312*	*312*	*315*	*327*	*346*	*366*

Figure 1

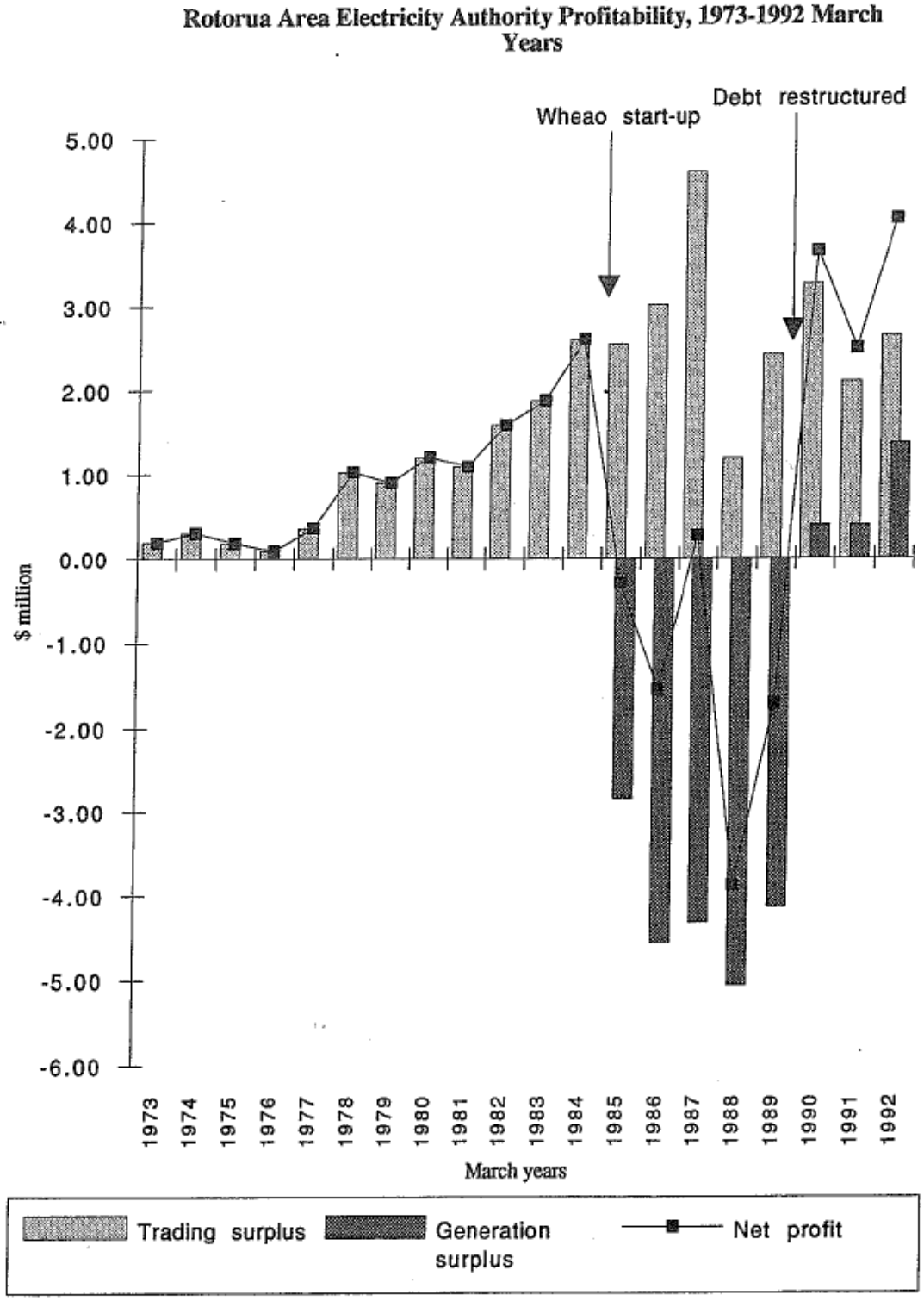
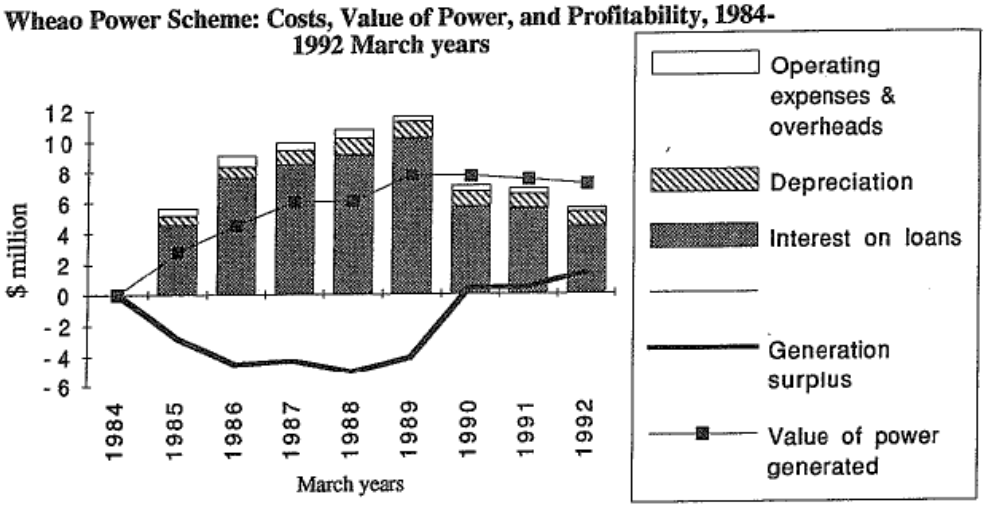

Rotorua Area Electricity Authority Profitability, 1973-1992 March Years
Wheao start-up
Debt restructured
5.00
4.00
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
-4.00
-5.00
-6.00
$ million
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
March years
Trading surplus
Generation surplus
Net profit

Figure 2


Wheao Power Scheme: Costs, Value of Power, and Profitability, 1984-1992 March years
$ million
12
10
8
6
4
2
0
- 2
- 4
- 6
1984
1985
1986
1987
1988
1989
1990
1991
1992
March years
Operating expenses & overheads
Depreciation
Interest on loans
Generation surplus
Value of power generated

5. The Aniwhenua Scheme

5.1 History

The Bay of Plenty Electric Power Board had been established in 1926 and so entered the 1970s as an established organisation, in contrast to Rotorua which became an ESA only in 1972. The demand for electricity in Bay Power's area had grown rapidly following the establishment of forestry processing operations at Kawerau and Murupara in the early 1950s and rapid growth of sales was continuing in the early 1970s when a nationwide shortage of electricity began to be encountered. Bay Power's first moves towards a local hydro scheme were made in mid 1973 when the Board engaged Tonkin and Taylor to "report on the possibility of developing a potential source within the Board's district"[132], in response to indications from central Government that it would encourage local hydro development to help meet the rapid growth in electricity consumption. Spending on hydro investigation in the 1973-74 year was shown in the Accounts as $600.

A pre-investigation report from Tonkin and Taylor in August 1973 covered possibilities on the Rangitaiki River and focussed on the Aniwhenua Falls site as the best prospect, followed by two alternatives at Snake Hill and Mangamako downstream from Aniwhenua[133] . The area had earlier been the subject of Ministry of Works and Development investigations[134] aimed at a large-scale generating scheme between Kopuriki and Waiohu to utilise the Rangitaiki above the NZED's Matahina scheme (which had been built in the early 1960s). Tonkin and Taylor's 24 MW proposal for Aniwhenua Falls was on a smaller scale than MWD's Kopuriki concept and appeared commercially attractive. Preparation of a feasibility report was authorised in December 1973, and the report was submitted in September 1974, showing the scheme to be technically feasible, financially viable, and environmentally acceptable[135] . The estimated cost was put at $12.5 million[136] . It was noted that the main opposition to the

[132] Chairman's report 1974; Tonkin and Taylor 1975 p.1.
[133] Tonkin and Taylor 1975 p.39.
[134] Healy 1960; MWD 1964.
[135] cf Tonkin and Taylor 1975 p.2.
[136] Chairman's Report 1975.

scheme came from farmers whose land was likely to be affected.[137] The Environmental Impact Report produced by Tonkin and Taylor in December 1975 noted that the 14,200-hectare Galatea Plain above the proposed dam had 10,000 hectares under dairy farming with about 140 farmers. The dam would flood 390 hectares of which 320 hectares had dairying potential, and about half of this was actually being used for dairying. Eight properties, including some forestry interests, were said to be involved[138] The expectation was that farming and forestry interests would have to be paid compensation should the scheme proceed.

Arguments advanced in the scheme's favour were threefold.[139] First was economic attractiveness: the scheme was estimated to be able to supply power to the board at a lower cost than NZED bulk-supply power, so that the investment was expected to be profitable in the prevailing market environment in its own right. (The major problem for projects of this kind in the early-mid 1970s was the difficulty of raising loan finance. The 1974 Chairman's Report commented that "the loan market for Local Authority loans is the worst it has been for some considerable time and unless the Government can open avenues for Local Authorities to obtain money the construction of new work will have to be curtailed."[140])

Second was security of supply; the Board was "vulnerable to any major system disturbance"[141] and would benefit from having local supply to supplement the NZED system (which services the Bay of Plenty region via a long spur line, without reinforcement).[142]

Third was the national-interest argument: growing demand for electricity was putting strain on the supply, and cost-effective hydro generation was to be preferred to the thermal plants then being planned by NZED.

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[137] Ibid...
[138] Tonkin and Taylor 1975 p.32 . Elsewhere (ibid. p.81) they refer to three dairy farmers seriously affected and six others less seriously.
[139] Tonkin and Taylor 1975 pp.3-4.
[140] Page 3.
[141] Tonkin and Taylor 1975 p.4.
[142] The validity of this argument was shown following the 1987 Edgecumbe earthquake, when Aniwhenua was used to maintain supply to Whakatane until the NZED system could be restored . See Rennie 1989 p.217.

During 1975 the formal planning procedures were set in train. A water right application was submitted to the Bay of Plenty Regional Water Board in June 1975, and a public hearing of the application was held on September 29 and 30 1975. There were seven objectors[143]:

1. Murupara Lions Club and R.W. Covell: This objection accepted the concept of small hydro-electric generation but claimed that the Aniwhenua scheme would
   (a) Remove good quality farmland from production
   (b) Adversely affect surrounding land by raising water tables
   (c) Deprive the public of the amenities of the falls and rapids
   (d) Create sedimentation problems.
2. Conservator of Wildlife, Rotorua: Mr Burstall considered the scheme could have long term advantages to fish and other wildlife but requested
   (a) Involvement in planning and executing reservoir dewatering procedures
   (b) Care during construction
   (c) Protection of stranded fish
   (d) Screens sized to exclude larger fish from the turbines
3. B.D. Shaw and Others: Their views were similar to those expressed by the Lions Club and also included concern for:
   (a) Weed growth in reservoir
   (b) Disruption to transport routes
4. Kopuriki Farms Ltd: The Black family were primarily concerned about the economic effect of the scheme on their land. They felt the land should be retained as farmland and that tourist and recreational developments would be to the disadvantage of farming.
5. Environmental Defence Society: The Society considered that the scheme would not be in the public interest.
6. Tuhoe Waikaremoana Maori Trust Board - (Matahina E. Block) and (Waiohau D. Section 2, Aniwhenua Falls): Their concern was similar to that of Kopuriki Farms Limited but they also raised the possibility of forest fire problems with increased public access. Erosion of land and changes in road routes also gave concern. They considered their objections would be met by rights to draw water from the reservoir, provision of exclusive access to the foreshore, and adequate compensation.
7. Galatea Branch of Federated Farmers: The objections related to taking of farmland, upsetting existing transport routes and alterations to the natural pattern of flow causing siltation and raising water tables.

[143] Tonkin and Taylor 1975 pp.59-60

8. Bay of Plenty Catchment Commission: Technical information was presented to the Regional Water Board on water quality and use, landuse, ecology, erosion and sedimentation by the Commission's Chief Engineer.

The Regional Water Board's Standing Tribunal recommended in favour of the applicant on 24 November 1975[144] and the water right was granted in December 1975[145]. In respect of the objection from the Tuhoe Waikaremoana Maori Trust Board, the Tribunal made the following comments[146]

> *At the hearing this objector conceded that there appeared to have been no breach of statutory procedures. While accepting that this objector would lose some land the Tribunal, as previously stated, believes that in the overall public interest use of the land for electricity generation is preferred. The Tribunal believes that the conditions proposed will adequately control any reduction in water quality and erosion, and will ensure that adequate vehicular access across the river valley is provided to maintain the economic use of farmland adjacent to the proposed lake. While the Tribunal proposes that public access be provided around the lake shore, it does not envisage any undue interference with the objector's existing rights and land utilisation. Compensation payments are beyond the scope of this Tribunal.*

The written report of the hearing ran to 311 pages. Objectors had until 18 February 1976 to lodge appeals, and some of the local landowners did so, leading to some sharp remarks from the Bay Power Chairman in his 1976 Report[147] about the high cost of waiting for the democratic process to be completed.

The Town and Country Planning Appeal Board decision went in favour of the scheme. Ministerial consent to generate electricity by water-power was obtained in December 1976. Meanwhile the Environmental Impact Report for the scheme had been published in December 1975 and public submissions were considered by the Commission for the Environment. The Commission for the Environment's audit of the EIR was published on 25 March 1976 and recommended that the scheme should proceed. The Commission had no serious reservations.

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144 See Appendix IV below.
145 See Appendix IV below.
146 Bay of Plenty Regional Water Board 1975 p.7.
147 Page 1.

The contract for generation equipment was let in July 1977, tenders for construction work were called in August 1977 and Downer and Co were awarded the contract in October 1977. Earthworks were underway by the end of 1977.[148] The decision to proceed with the scheme had therefore been taken before CLAHD finance became available. Several farm properties were acquired by the Board to be retained until after establishment of the lake[149] and these were redeveloped and put on the market in 1980-81[150] .

Progress on Aniwhenua was steady during 1978 and 1979, and the Board began moves at this time to develop a further scheme downstream. Tonkin and Taylor[151] produced a pre-feasibility report for Snake Hill and Mangamako in May 1978, and this was accepted by the Committee on Local Authority Hydro Development as suitable for further study, leading to a feasibility report[152]. This scheme was one of those caught by the CLAHD review in 1979[153] but grants of $115,000 had by then been obtained to finance investigations.[154]

Aniwhenua began generation on 3 October 1980 and was officially opened by the Prime Minister, Sir Robert Muldoon, on 11 February 1981. The finished cost of the station was $27.6 million[155] . Financing arrangements were summarised as follows in the 1982 Annual Report[156]:

Government loans	*$24,628,809*
Private borrowing by the Board	*2,760,600*
Board funds	*361,168*
Depreciation to 31 March 1982	*16,626*
Total cost to 31 March 1982	*27,767,203*

148 Chief Engineer's Report 1978 p.6.
149 Ibid. p.7.
150 1981 Annual Report p.5.
151 1978.
152 Chief Engineer's Report 1979 p.5.
153 Chairman's Report 1980 p.2.
154 Annual Report 1981 p.4.
155 Annual Report 1981 p.3.
156 Page 4.

5.2 Financial data

Table 3 below sets out the book value of the Aniwhenua project as shown in the Power Board's annual balance sheets. These data show a book value six months after completion of $27.1 million at 31 March 1981, which had been written down to $21.1 million by 1992. The capital outlays implied by the rise in book value over the construction period 1976-1981 are shown in the right-hand column.

Table 3
Book Value of the Aniwhenua Hydro Scheme in the RAEA Balance Sheets, at 31 March of Years Shown

March year	Book value at end of March year $000	Implied capital outlays during March year $000
1975	0	
1976	201	201
1977	326	125
1978	2,880	2,554
1979	9,651	6,771
1980	17,985	8,334
1981	27,104	9,119
1982	26,760	
1983	26,056	
1984	25,513	
1985	24,855	
1986	24,184	
1987	21,402	
1988	20,662	
1989	23,159	
1990	22,315	
1991		
1992	21,109	

Aniwhenua was the most trouble-free of the 13 local hydro schemes built in the late 1970s and early 1980s. The Audit Office study[157] reported only a 13% cost overrun and an 11 month delay in first generation. (The total cost of the scheme as recorded by the Audit Office was $29.0 million). The scheme had the second-lowest power cost per kWh (2.1 cents at

[157] 1987 p.12.

1978 prices, beaten only by Teviot at 1.5 cents). It nevertheless ran initially at a financial loss, requiring supplementary operating loans to bridge the gap between costs and revenue.[158]

Table 4 assembles figures from the annual accounts of the Bay of Plenty Power Board from 1974/5 to 1991/2, and Figures 3 and 4 show the costs and profitability of Aniwhenua from an accountant's point of view (cf earlier comments in the discussion of Wheao above, on the divergence between accountants' and economists' measurements).

The Bay of Plenty figures show both a more conservative management approach than Rotorua's and a more profitable hydro scheme (largely because Aniwhenua was built earlier than Wheao, without major cost overruns or engineering failures). Aniwhenua was breaking-even financially by 1985/86 and was able to trade its way into long-run profit without debt write-offs. Restructuring of debt in April 1988 reduced loan servicing costs for the Board[159] and was reflected in a sharp upturn in the generating profit (Figure 4). Indeed, as Figure 3 shows, in the years 1989-1992 the profits from Aniwhenua were what kept the board in the black overall, since its trading activities ran at a loss during that period.

The Aniwhenua project certainly put pressure on the Board's balance-sheet position, with the debt:equity ratio rising from 27:73 in 1975 to 73:27 by 1982 before drifting back down to 42:58 by 1992. Comparison with the Rotorua figures in Table 2 clearly shows the greater financial viability of Aniwhenua compared to Wheao, and the Bay of Plenty debt:equity trend through the 1980s was of a scheme trading its way into the black, whereas the Rotorua case showed virtual insolvency by 1988.

[158] Annual Report 1982 p.4.
[159] 1989 Chairman's Report p.4.

Table 4: Bay of Plenty Electric Power Board Accounts, 1974/75 to 1991/92

	March years:		1974/5	1975/6	1976/7	1977/8	1978/9	1979/80	1980/1	1981/2	1982/3	1983/4	1984/5	1985/6	1986/7	1987/8	1988/9	1989/90	1990/1	1991/2
Income & Expenditure Account		**$millions**																		
Income																				
	Sales of electricity		3.16	3.66	5.78	8.57	9.10	13.58	15.23	16.65	19.37	20.07	21.95	27.05	29.89	30.05	33.70	37.54	38.55	37.85
	RERC subsidy		0.05	0.03	0.00	0.03	0.01	0.01	0.00	0.00	0.04	0.02	0.02	0.02	0.06	0.00	0.00	0.00	0.00	0.00
	Interest rent & sundries		0.05	0.03	0.06	0.06	0.11	0.22	0.29	0.33	0.49	0.55	0.68	0.93	2.42	1.50	0.76	0.67	0.75	0.41
	Surplus from Appliance Sales and Servicing		0.01	0.03	0.02	0.01	0.01	0.02	0.05	0.07	0.04	0.07	0.16	0.02	0.11	0.09	0.22	0.35	0.41	0.44
	Total income		3.27	3.74	5.85	8.67	9.24	13.83	15.58	17.05	19.94	20.72	22.82	28.03	32.48	31.64	34.68	38.55	39.72	38.70
Expenditure																				
	Cost of electricity	from NZED	1.95	2.18	3.96	6.12	6.37	9.94	10.33	8.29	10.55	10.75	11.87	14.95	15.79	17.45	19.13	21.49	0.02	0.02
		from other sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		value of own generation @ NZED Bulk Tariff	0.00	0.00	0.00	0.00	0.00	0.00	0.77	4.04	3.53	3.98	4.48	5.64	6.74	6.52	7.98	8.65	9.70	9.09
		Total	1.95	2.18	3.96	6.12	6.37	9.94	11.10	12.33	14.07	14.73	16.35	20.59	22.54	23.97	27.11	30.14	32.30	31.65
	Maintenance & operation		0.42	0.42	0.61	0.72	0.87	1.05	1.25	1.54	1.73	1.67	1.96	2.07	2.70	4.03	3.92	3.95	4.26	3.56
	Admin. costs & general expenses		0.32	0.40	0.45	0.52	0.65	0.74	1.00	1.07	1.19	1.19	1.20	1.48	1.97	2.23	2.68	3.20	3.74	3.14
	Interest on loans		0.11	0.12	0.14	0.16	0.29	0.31	0.33	0.27	0.31	0.35	0.38	0.34	0.34	0.11	0.09	0.07	0.05	0.01
	Depreciation		0.20	0.30	0.33	0.33	0.35	0.40	0.44	0.52	0.62	0.70	0.84	0.92	0.90	1.27	1.42	1.57	1.67	1.63
	Abnormal items		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.56	1.02
	Total expenditure		3.01	3.42	5.49	7.85	8.54	12.43	14.12	15.74	17.92	18.63	20.72	25.40	28.45	31.61	35.22	38.92	41.46	41.01
Surplus			0.26	0.32	0.36	0.82	0.70	1.40	1.46	1.32	2.02	2.09	2.10	2.63	4.03	0.03	-0.53	-0.37	-1.74	-2.31
Generation surplus			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Aniwhenua		0.00	0.00	0.00	0.00	0.00	0.00	-0.17	-0.66	-1.36	-1.20	-0.65	0.27	0.02	0.09	2.75	3.06	3.81	4.26
	Toi		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.29	0.33	0.14
	Total		0.00	0.00	0.00	0.00	0.00	0.00	-0.17	-0.66	-1.36	-1.20	-0.65	0.27	0.02	0.09	2.75	2.77	4.14	4.40
Net pre-tax surplus			0.26	0.32	0.36	0.82	0.70	1.40	1.29	0.66	0.66	0.89	1.45	2.90	4.05	0.11	2.21	2.40	2.40	2.09
Taxation																			0.66	0.73
Net profit after tax			0.26	0.32	0.36	0.82	0.70	1.40	1.29	0.66	0.66	0.89	1.45	2.90	4.05	0.11	2.21	2.40	1.74	1.36
GENERATION ACCOUNT ANIWHENUA																				
	Operating expenses							0.00	0.02	0.33	0.01*	0.30	0.21	0.24	0.37	0.60	0.27	0.27	0.34	0.46
	Salaries, wages & transport							0.00	0.09	0.33	0.26	0.28	0.27	0.34	0.37	0.40	0.30	0.30	0.27	0.27
	Loan interest							0.00	0.49	3.18	3.70	3.69	3.74	3.85	4.90	4.39	3.68	3.79	3.49	2.47
	Depreciation							0.00	0.28	0.73	0.75	0.73	0.72	0.73	0.84	0.78	0.72	0.68	0.63	0.58
	Sundries							0.00	0.05	0.09	0.15	0.14	0.14	0.17	0.20	0.22	0.24	0.37	0.26	0.29
	Overhead & administrative expenses							0.00	0.01	0.03	0.03	0.03	0.04	0.04	0.05	0.06	0.04	0.05	0.06	0.06
								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Cost of generation							0.00	0.94	4.70	4.89	5.18	5.13	5.37	6.72	6.43	5.23	5.47	5.05	4.13
	Value of power generated							0.00	0.77	4.04	3.53	3.98	4.48	5.64	6.74	6.52	7.98	8.53	8.86	8.39
	Generation surplus							0.00	-0.17	-0.66	-1.36	-1.20	-0.65	0.27	0.02	0.09	2.75	3.06	3.81	4.26
* Operating expenses 217,445 minus recoveries in respect of canal repair 212,623																				

	March years:		1974/5	1975/6	1976/7	1977/8	1978/9	1979/80	1980/1	1981/2	1982/3	1983/4	1984/5	1985/6	1986/7	1987/8	1988/9	1989/90	1990/1	1991/2
GENERATION ACCOUNT TOI																				
	Operating expenses																	0.05	0.24	0.27
	Repairs & maintennance																	0.00	0.00	0.00
	Salaries, wages & transport																	0.05	0.05	0.06
	Loan interest																	0.00	0.00	0.00
	Insurance																	0.00	0.00	0.00
	Depreciation																	0.29	0.20	0.20
	Sundries																	0.02	0.02	0.03
	Overhead & administrative expenses																	0.00	0.00	0.00
	Cost of generation																	0.41	0.51	0.56
	Value of power generated																	0.12	0.84	0.70
	Generation surplus																	-0.29	0.33	0.14
Gigawatt-hours of electricity generated at Aniwhenu									51	143	106	123	120	129	133	116	149	146	146	135
Gigawatt-hours of electricity generated at Toi																		2	17	16
Gigawatt-hours of electricity purchased from outside suppliers			299	336	375	418	407	421	377	284	331	332	355	344	317	320	338	361	355	375
Total gigawatt-hours of electricity traded			299	336	375	418	407	421	428	426	437	454	475	473	450	435	487	509	518	526
BALANCE SHEET SUMMARY																				
Assets:																				
	Total Current Assets		1.30	1.50	2.12	2.99	3.28	5.06	4.63	6.43	7.64	8.62	10.30	12.78	14.75	15.37	11.67	13.49	15.99	10.18
	Total Investments		0.42	0.46	0.63	0.63	0.86	1.11	1.57	2.03	2.13	2.18	2.43	1.62	1.09	0.76	0.31	0.03	0.00	0.00
	Total Fixed Assets		6.37	7.03	6.44	9.48	17.02	26.02	36.03	36.41	37.11	38.25	38.98	39.82	38.17	39.40	42.36	42.85	42.39	40.69
		in which Aniwhenua Generation Scheme at cost		0.20	0.33	2.88	9.65	17.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.66
		Aniwhenua at cost less depreciation							27.10	26.76	26.06	25.51	24.86	24.18	21.40	20.66	23.16	22.32	0.00	21.11
		Other hydro at cost					0.07	0.10	0.11	0.13	0.14	0.17	0.17	0.23	0.24	0.00	0.00	0.00	0.00	0.00
	Total Assets		**8.09**	**9.00**	**9.19**	**13.09**	**21.16**	**32.19**	**42.23**	**44.86**	**46.88**	**49.06**	**51.71**	**54.22**	**54.00**	**55.53**	**54.34**	**56.37**	**58.39**	**50.87**
Liabilities:																				
	Current Liabilities		0.64	0.78	1.17	1.59	1.90	2.74	3.46	2.49	2.87	3.39	3.58	4.60	7.07	8.38	4.89	5.36	5.46	4.19
	Loan liability		2.03	2.31	2.55	5.06	11.98	20.60	28.45	30.97	31.31	31.72	32.42	30.82	26.30	26.36	26.74	27.11	26.94	19.28
	Deferred taxation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.37
	Total liabilities		2.66	3.09	3.72	6.65	13.88	23.34	31.92	33.45	34.18	35.11	36.00	35.42	33.37	34.73	31.63	32.47	32.71	23.84
Corporate ownership			**5.42**	**5.90**	**5.47**	**6.44**	**7.28**	**8.85**	**10.32**	**11.41**	**12.70**	**13.95**	**15.71**	**18.79**	**20.64**	**20.79**	**22.71**	**23.90**	**25.68**	**27.04**
Debt-equity ratio			**27:73**	**28:72**	**32:68**	**44:56**	**62:38**	**70:30**	**73:27**	**73:27**	**71:29**	**69:31**	**67:33**	**62:38**	**56:44**	**56:44**	**54:46**	**53:47**	**51:49**	**42:58**

Figure 3

Bay of Plenty Electric Power Board Profitability, 1975-1992 March Years

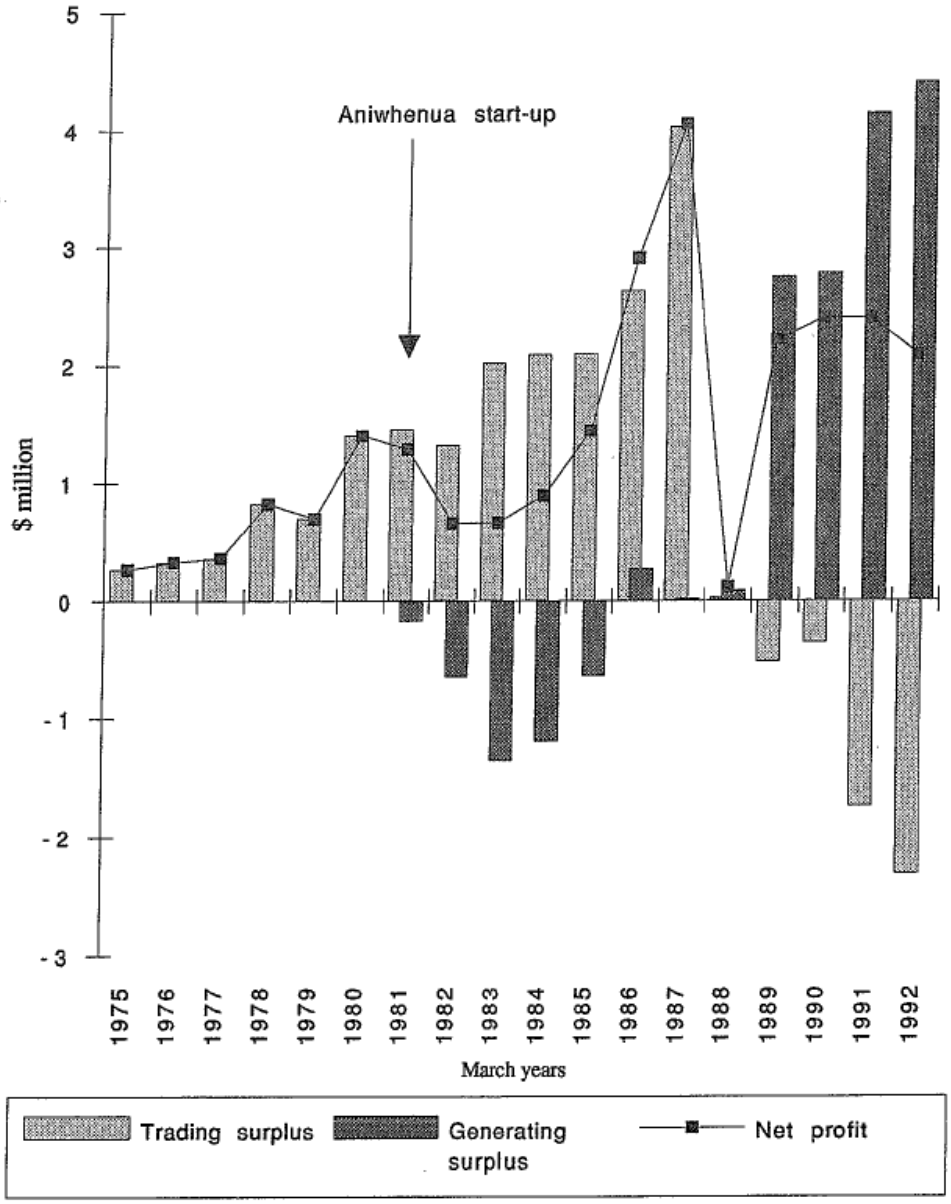
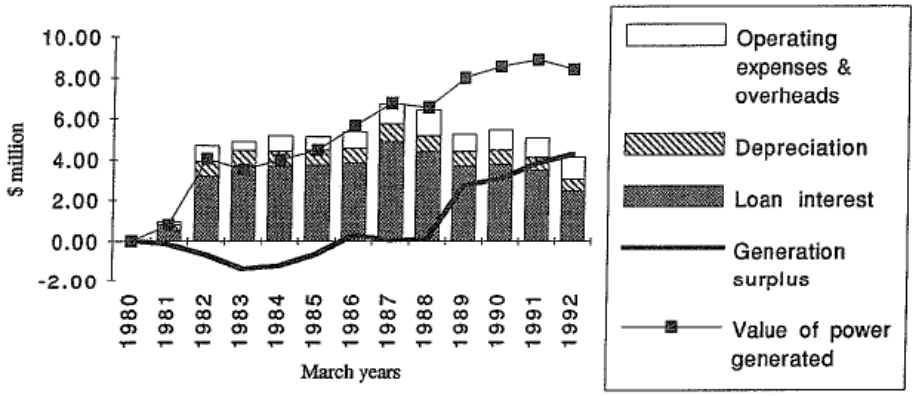


Figure 4

Aniwhenua Power Scheme: Costs, Value of Power, and Profitability, 1980-1992 March Years



6. Some Issues Relating to the Pending Transfer of Generation Assets

Under the Energy Companies Act 1992, most electricity supply authorities including those of Rotorua and Bay of Plenty have now submitted establishment plans to the Minister of Energy for his approval. These establishment plans are required to "identify with reasonable precision the energy undertaking that is to be vested in the relevant energy company", value that undertaking, propose a share allocation plan, indicate possible special issues of debt or equity securities that may be appropriate, contain a draft memorandum of association, set a timetable, and "contain such other details as the Minister may from time to time require or as the establishing authority considers appropriate".[160]

While the general thrust of the Energy Companies Act 1992 is for the entire assets of the existing supply authorities to be transferred as a whole, there seems to be no reason why certain specific assets could not be separately identified and shares allocated on the basis thereof, provided that this was acceptable to the Minister.[161]

In the context of Treaty claims over certain assets currently held by electricity supply authorities, the possibility of separating out assets subject to claim from those to be transferred was raised in 1990 by Manatu Maori and the Justice Department.[162] At that time the issue was seen primarily in terms of "land", but Treaty claims involving rights over water would clearly fall under the same general category. While the March 1990 officials' paper pointed out that "the Crown Law opinion expresses the view that the only parties with a legitimate claim [to compensation for expropriation of assets] are the ESAs in respect of the assets which they manage"[163], it is apparent from the Crown Law opinion itself that the scope of the opinion was restricted to the ownership of electric power boards and MEDs as such, rather than to the question of whether any person or persons might be entitled to compensation for the transfer of specific assets held by particular boards. The question of Treaty claims was not even mentioned in the Crown Law opinion.

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[160] Energy Companies Act 1992, s.18.
[161] Subsection 18(i) in particular provides a possible catch-all umbrella for such unbundling of assets.
[162] Officials Coordinating Committee 1990a, p.30 para 123.
[163] Officials Coordinating Committee 1990a, p.23 para.89.

The situation with local hydroelectric generation schemes, where local iwi lay claim to rights to the water power utilised under the Treaty, would seem to be a possible example of an area where supply authority assets might be "unbundled", so that in "identifying with reasonable precision" the undertaking to be transferred, the relevant authorities would record separately the physical dam and powerhouse structures and plant therein, the associated land, and the value of the right to utilise water power for electricity generation. As was noted in section 3.2 of this paper, this last right has been vested in the Crown since 1908. Since the 1987 repeal of the relevant sections of the Electricity Act 1968, it is unclear where ownership of water power (as distinct from natural water as such) lies, although if in fact it had passed out of Crown hands there would no doubt have been Treaty implications.

It would probably therefore be prudent for establishment plans from supply authorities which operate hydro-electric schemes (formerly licensed by the Crown to use water for generation) to treat their rights to use of water-power as an asset separate from the physical structures. Neither the Bay Power nor the RAEA establishment plans do this.

The result of "unbundling" supply authority assets and possibly withholding some of them from transfer to the new energy companies[164] would be to reduce the value of the packages of assets initially transferred in such cases to the successor energy companies, and thus to reduce the market value of shares in those companies issued to consumers or others. Setting aside a block of shares corresponding to those assets would have the same implication for the value of consumers' share allocations. However the consumer share recipients have had no clearly-established claim to ownership prior to the establishment plan itself, and any reduction in the value of their allocation resulting from the withholding of dam or water-use-rights assets (or a corresponding block of shares) would not mean an actual loss for consumers.

[164] As pointed out in section 2.1 of this report, as it stands the Energy Companies Act 1992 s.2 appears to rule out this option at present.

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The Aniwhenua and Wheao Hydro Schemes

and the

The Energy Companies Act 1992

Volume II

Supporting Appendices to the Research Report

Geoff Bertram

March 1993

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APPENDIX I

DOCUMENTS FROM THE OFFICIAL DEBATE ON ESA OWNERSHIP:

Officials' Coordinating Committee paper to Cabinet Policy Committee, dated 13 October 1989

Officials' Coordinating Committee paper to Cabinet State Agencies Committee, dated 16 March 1990

Ministry of Commerce letter to Crown Law Office, dated 11 October 1989

Crown Law opinion dated 26 October 1989

13 October 1989

Chairman
Cabinet Policy Committee

ELECTRICITY DISTRIBUTION RESTRUCTURING : THE OWNERSHIP ISSUE

INTRODUCTION

1 At its meeting of 30 August 1989, Cabinet Policy Committee considered the report report on the findings of the Electricity Task Force (POL (89) M28/2 refers). Cabinet noted that the Cabinet Policy Committee, inter alia:

h confirmed that Electricity Supply Authorities, ESAs, be formed into companies;

i noted that the Government has deferred a paper on the initial distribution of ESA shares [POL (88) 108 and POL (88) M38/1 refer];

j noted that officials are now divided on the form and extent of the privatisation of ESAs;

k directed officials to report again to the Cabinet Policy Committee on 18 October 1989 on the options available for the privatisation of ESAs;

l confirmed the removal of area franchises and the associated obligation to supply;

m agreed to regulate distribution line connections and charges in the same manner as proposed for transmission, but also requiring:

- separation of transmission and distribution charges from energy charges;
- development of yardstick performance measures;
- further examination of the rights of consumers to connect; and

n agreed with the Task Force that the spur lines currently owned by Electricorp Marketing should be owned by TransPower. (CAB (89) M31/10 refers.)

2 A July 1988 officials paper proposing various ownership and restructuring options was deferred pending the completion of the Electricity Industry Task Force's recommendations for industry efficiency. (POL (88) 108 of 25 July 1988, and POL (88) M 38/1 of 11 October 1988 refer). The completion of the Electricity

Task Force study and developments in local government reform, have both contributed to Ministers' familiarity with the restructuring issues canvassed in some detail in the July 1988 paper. Those developments, together with changes in industry attitudes, and further analysis by officials, have necessitated a fairly substantial change from the July 1988 paper.

ELECTRICITY INDUSTRY TASK FORCE CONCLUSIONS

3 The Task Force concluded that the existing ESAs had considerable market power deriving from the exclusive nature of the area franchising system and, more significantly, from the barriers to entry into electricity distribution and the nature of demand for electricity. Ownership was seen to be important because it influences the incentives that the owners (or their representatives) have to establish the goals of the business and monitor the performance of the its managers.

4 Five ownership options were considered by the Task Force:

i Privatisation
ii Part Privatisation
iii Local Authority
iv Consumer Co-operative
v Trust

5 The Task Force concluded that ESAs should be privatised with direct ownership and transferable shares. This option was only just favoured over consumer co-operatives and local body ownership. It warned that many of the current ESAs are too small to be publicly listed companies and attract any interest from investors, and suggested that between 15 and 20 electricity suppliers of similar size would be large enough to warrant floating them. However, "If the ESAs' shares were to be given away, a larger number of companies might be practical."

6 There was not a consensus that the arguments in favour of private direct ownership were significantly ahead of the arguments for consumer co-operatives. This view arose from the concern that the additional gains from private ownership do not warrant the costs incurred, when empirical work does not discern significant differences between public and private regulated firms. The strongest contribution to efficiency comes from the introduction of effective competition.

7 The Task Force also considered whether the two major activities of the existing ESAs should be conducted under separate ownership. These are the "line" (distribution) and "energy" (supply) functions. The first, construction and maintenance of distribution lines, is a natural monopoly. The selling of energy is potentially a competitive market, although practicalities may restrict individually negotiated retail sales to larger customers. A supplier might be able to subsidise the competitive product (energy) from the monopoly product (lines) to prevent competitive entry. The Task Force rejected the imposition of full ownership separation of the two ESA functions, proposing that distribution (line) and energy charges be

separated within ESAs in accounting terms. The Government has accepted this proposal.

OBJECTIVES OF REFORM

8 In considering the restructuring of the distribution sector, officials have been guided by two principal objectives:

a to introduce contestability into electricity retailing, so that one distributor may be able to compete with another for the supply of electricity.

b to improve the overall efficiency of the sector, considering allocative, productive and dynamic efficiencies.

9 The first of these objectives cannot be met while the area franchises and the associated obligation to supply are in place. Government has already agreed (see paragraph 1) that these be removed. Competition may still be hindered by barriers to entry, but these should be further reduced by the regulatory decisions, also already taken, to separate transmission and distribution charges from energy charges and to require the development of yardstick performance measures. By implementation of these decisions, a significant proportion of the benefits available will have been captured. Ownership will affect the degree of competition taking place, but is a lesser consideration, at present, compared with the other decisions which have been made. It is possible, however, that some of the benefits of changes to the regulatory environment will be eroded over time.

10 Implementation of the decisions already taken (h, l and m of paragraph 1) will lead to significant benefits in both efficiency and contestability. The additional benefits of privatisation are less clear cut, as can be seen from the Task Force's lack of consensus. However, before forming the ESAs into companies, and before deciding on their ultimate ownership, the question of the present ownership needs to be addressed.

11 Officials propose that the regulatory changes be implemented forthwith and that Ministry of Commerce be authorised to report on necessary arrangements in consultation with the Ministry of Energy, the Treasury and others as necessary.

12 In order to implement the recommendations relating to the regulation of distribution lines and the development of yardstick performance measures, a high level of information transparency from ESAs will need to be maintained throughout the reform process. Publication may be required of detailed statements of accounts, pricing policies and tariffs and performance measures. Additional cost information, which may be of a commercially sensitive nature, will need to be made available to the monitoring agency, which may publish aggregated data.

PRESENT OWNERSHIP

13 Discussions on the reform of the distribution industry have been predicated on the alteration, in whole or in part, of the present ownership structures. The ownership question however, has not been tested before the New Zealand courts. Nor has a Crown position been formally established.

14 Officials' view that ratepayers are the beneficial owners of Municipal Electricity Departments (MEDs) has been supported by preliminary legal advice obtained by Treasury from Chapman Tripp Sheffield Young. While the present ownership of MEDs is relatively clear, the difficulties of changing the environment under these circumstances could be greater than for Electric Power Boards.

15 In one instance, the Southland Electric Power Supply, the Government is the direct owner, by purchase of the former Southland Electric Power Board's operations and assets in 1936. The options for its divestment are set out later in this report.

16 The situation of Electric Power Boards is less clear cut. They are bodies corporate in their own right. By and large, EPBs regard themselves as owned by their consumers, who have paid for the Board assets; in effect, a co-operative by another name. In officials' view, if the "ultimate risk-taken" concept is followed, the intent of the draughtsmen of the original legislation (the Electric Power Boards Act 1925) is clear. Ratepayer petition was required for the establishment of Boards; the basis of their representation was territorial local government electoral divisions (local government then being elected on the basis of ratepayer franchise),and special rates could be struck to cover deficits or secure loans. The present situation is however less obvious, since the abolition of the ratepayer franchise for local government elections in 1986, and the removal of the rating power from Power Boards in the Rating Powers Act 1988.

17 A Crown Law opinion is being sought on the ownership question. The preliminary legal opinion referred to above suggests that the Government may have to make its own determination of the issue, and make that determination not subject to appeal.

ULTIMATE OWNERSHIP

18 Cabinet has agreed that ESAs should be formed into companies, but has not decided on the ownership pattern.

19 The Task Force considered the issue in its report and favoured, by a small margin, the option of a limited liability company with 100 percent private ownership. There are issues of the incentive effects both in terms of the nature of the owner and the corporate form adopted. A limited liability company of itself does not create appropriate economic incentives. This depends on ownership and ability of owners to exercise control.

20 Within a limited liability company officials have identified 5 possible ownership structures:

: Ministers
: Trust
: Co-operate
: Private Owners
: Mix of private and others

21 In order to decide on the ultimate ownership structure several steps are involved:

a a need to definitively determine the current ownership as this has implications for the ultimate ownership structure: for example, if the Crown Law opinion is that ESAs are owned by the public then a share give away mechanism may be appropriate;

b there are questions of the sequencing of both the incorporation and ownership changes and their impact on the ultimate ownership structure;

c while the benefits of a particular outcome may be clear the transition costs need to be worked through prior to a decision on the ultimate structure being taken.

21 Officials consider that it would be premature to formalise a decision on the ultimate ownership structure until the existing ownership is established. We would also like the opportunity to report more fully on the merits and otherwise of share give aways, relative transitional costs and benefits, amalgamations and mergers.

TRANSITIONAL MANAGEMENT

22 Officials consider it vital that the process for restructuring the ESAs into company form be driven by centrally accountable agencies, rather than by local or regional government. There are two sets of reasons for this:

a The first set concerns the consistency and momentum of restructuring. Consistency is likely to be easier to achieve from a centrally driven reform process. It is important that similar businesses are valued and structured in the same way, to facilitate any ownership transfer and to monitor performance. Momentum for restructuring will be maintained only if the driving agency has incentives to see it through. Since part of the rationale for restructuring is to remove the scope for local authorities to influence commercial decisions, they may not have the incentive to progress the restructuring, particularly if it is viewed as a prelude to privatisation.

The proposal that ESA reform be centrally driven contrasts with the approach taken with respect to ports and trustee banks, in which legislation was enacted directing incumbent

board members to restructure their respective businesses into company form. In these cases, while the assets and liabilities were transferred to the companies which were formed, the ownership of the companies' shares remained with the harbour boards and trustee banks. This contrasts with the potential situation with ESAs, where the assets and liabilities would be transferred to the companies, and shares bestowed, in some form, on parties other than the current ESAs. Under these circumstances, the incentives on current ESA board members to establish companies from existing operations, in a manner consistent with Government's intended policy, may well be different from those of harbour boards and trustee bank boards.

b The second set derives from the changes taking place throughout the electricity industry. These are of such a magnitude to require identification of those assets being transferred to the new companies, and those to the new transmission company, a process which is likely to give rise to disputes. In addition, if ESAs were allowed to restructure themselves, and issued shares in the new companies, any structural changes which the Government then found necessary would be difficult to implement without infringing the rights of shareholders.

23 Two options have been proposed for the interim management of the ESA businesses:

a Regional Trust Boards: the task of reconstituting the ESA businesses as companies and managing them until competitive reform is complete could be given to regional Trustee Boards, which are appointed by Ministers and accountable to them. The assets of ESAs would be transferred to to the regional Trustee and interim profits be accumulated in the business to form part of its ultimate value or dispersed to the region according to its Deed of Trust. It is suggested that these Trusts could be created on much the same geographical basis as Regional Government, but in conformity with existing ESA boundaries, and contain some minority Regional Government representation. The regional aggregation is not intended as a vehicle for restructuring the industry along Regional Government lines, nor for forcing the amalgamation of ESAs, although it may facilitate the latter.

b Limited Liability Company with direct or indirect Ministerial Shareholding: these businesses could be established with 55 ESAs, each being a separate entity, or by forming regional companies with a total of 55 subsidiaries. In this case, it is proposed that two Ministers would be shareholders of each company or shareholders in a holding company (or companies) which in turn hold shares in the 55 electricity retailing companies.

24 The essential difference between the two options is the specificity of the initial instructions Ministers would need to provide. The first would require publicly available terms of

reference to ensure that the Trustees pursue the Government's objectives, while the second provides a continued role for Government in the evolutionary process of the development of policy.

25 It should be emphasised that either proposal might be perceived as the usurping by central Government of the property rights of local authorities, or local community owned assets. This is likely to be highly contentious. It is also likely that compensation to local parties, either by way of cash or shares, is sought. Despite this, however, officials consider that they can be justified in terms of the Government's legitimate role of promoting measures to improve the efficiency with which resources are used in the economy.

RURAL CONSUMERS

26 The social and rural impacts of restructuring the electricity distribution industry are being considered in a separate exercise. Cabinet Policy Committee has, in July of this year, (POL (89) M 24/5 refers) directed officials to report back on proposals to repeal the Rural Electricity Reticulation Council, and agreed that any assistance package for low-income and rural consumers would be funded from general taxation. A further report is due by 31 December 1989.

SOUTHLAND ELECTRIC POWER SUPPLY (SEPS)

27 Special account needs to be taken of SEPS, which is owned by the Crown rather than local government. SEPS was taken over by the Crown in 1937, when it became insolvent. The Crown wrote off outstanding loans, as SEPS continued to lose money until 1952. Since that time, SEPS has generally been profitable. SEPS has no loan liabilities, and its net funds comprise $34.0M of capital and general reserves, yielding an after tax profit of $4.3M in 1988/89. SEPS is and has been managed by Electricorp (and its predecessors).

28 SEPS is an anomaly, and its position ideally should be resolved so as to make it consistent with the approach being taken with respect to all other ESAs in the restructuring exercise. Once decisions have been made by Cabinet Policy Committee in response to the ownership and transitional management of ESAs, Officials will prepare recommendations regarding SEPS which are in conformity with the Committee's decisions - with a view towards disposing of SEPS out of government ownership as soon as practicable.

VIEWS OF ECNZ

<u>Ownership</u>

29 Like the transmission grid, the ESAs' lines are a monopoly and ownership of ESAs has a critical bearing on the presence or otherwise of cost minimising incentives. It was acknowledged by the ESAs during the Task Force analysis that the majority of ESA operation consisted of line maintenance, operations and

construction. Consequently, if efficiency gains are to be made in the distribution industry, then these are going to come from the management of lines and it will be essential that strong cost-minimising incentives are brought to bear in this management process in order to improve efficiency to any great extent.

30 In fact, exactly the same arguments can be brought to bear on ESA ownership management of lines as have been brought to bear on the ownership of the transmission grid. The light handed regulatory framework being proposed for the transmission grid is also proposed for ESAs lines requiring high degree of transparency and adoption of industry guidelines and operating rules including:

i Setting out principles for separation of energy and distribution pricing.

ii Providing access rights and appropriate access conditions to distribution lines.

iii Adopting cost-minimisation objectives.

iv Contestability for maintenance and construction services (ie use of contracting out of tendering arrangements).

31 During the Task Force debate, a similar organisational structure for distribution lines was proposed as that for the transmission grid. This involved total separation of distribution lines from the energy merchant function. However, it was accepted that the costs of such separation could be high although these costs were never quantified. Because the monopoly of distribution lines is not being separated, ownership incentives provide the only strong efficiency improvement opportunity for distribution. Officials observe in this paper that the formation of ESAs into companies in itself is not sufficient to produce cost minimising incentives. It is ECNZ's view that private ownership will be the dominant factor in obtaining efficiency gains in the distribution sector. Strong cost-minimising incentives will emerge if regulatory restraint is required on line operation and unrestrained profits are only able to be obtained from the selling of energy. The already vigorous competition between energy forms in the energy market will increase the pressure to minimise costs in those parts of the industry where profits are restrained.

32 Furthermore, the Government's own SOE model has been responsible for the major efficiency gains already achieved by ECNZ. The distribution sector of the industry provides a further opportunity to improve industry efficiency and it will be essential to introduce strong efficiency incentives to this sector to achieve similar gains.

33 The Task Force recommendations represented total package of proposals which were tightly integrated. It is ECNZ's view that individual recommendations cannot be charged without re-examining the others. Private ownership of the distribution industry was a precondition to the formation of a club owner for

the transmission grid. Without the private owner cost-minimsing incentives, ESAs would not be an appropriate owner for the transmission grid nor would they be an appropriate owner for the monopoly distribution lines.

34 It has been drawn to our attention by Prof Paul Joskow of MIT, an eminent expert on electricity issues, that distribution 33 kV lines have identical characteristics to the spur lines being proposed for transfer to the transmission grid. He argues that these lines should also be transferred to the tranmission grid in order to ensure that bottleneck facilities are not controlled by parties who have an interest in restricting access to them. ECNZ agrees and believes there should be some examination of this issue in conjunction with a transfer of Electricorp Marketing spur lines to the transmission grid.

35 ECNZ is already undertaking the transfer process of its marketing spur lines to Trans Power and this prices is already well down the track. the decision to undertake this transfer was made separately from the Task Force work and arose through the refinement of management structures within Electricorp Marketing.

36 ECNZ strongly supports the concept of using a share giveaway mechanism. We believe that this will not only be attractive to ratepayers and consumers and avoid many objections from them but it will also largely overcome the question on ownership. Since municipal organisations (and Electric Power Boards) are deemed to represent the communities interests, then there should be little objection from the distribution of shares to the community.

37 Furthermore, this would be a politically attractive solution to the ownership questions. In the process of financial restructuring, and given that ESAs have very low debt levels, the new companies should be able to borrow to buy Transpower shares for club ownership of the grid, providing a substantial cash injection to the Government from the debt markets, thereby avoiding draw on equity sources. This process would substantially avoid a difficult ESA valuation problem.

38 The outstanding question which does not appear to have been dealt with in this paper is the mechanism for appropriate distribution of shares by this means. However, we are confident that appropriate mechanisms can be developed.

Transition Process

39 ECNZ agrees with officials that the distribution restructuring should be centrally driven and centrally accountable in order to ensure reform is speedy. We believe that local body representation is not material to the undertaking of these reforms and contradicts, in fact, the goals of ensuring strong momentum and incentive to see the reforms through. We agree that commercial decisions should be outside the scope for local authority influence and should be locally driven by the ESAs themselves. In this respect ECNZ's experience, and that of other SOEs, with the development of an Establishment board drawn from the commercial sector to oversee the process of reform in

each ESA, combined with some central co-ordination, would be the most appropriate method to ensure efficient operational transition.

Regulation

40 ECNZ believes that the light handed regulatory form being proposed for the distribution sector will require considerable industry consultation. This will be especially necessary in the development of a yardstick comparison between companies, the development of appropriate pricing principles, the setting of fair access rights and access conditions etc. We believe there should be significant industry consultation in the development of regulatory reforms and this consultation should not be restricted to the distribution sector alone. For example, ECNZ has spent a significant effort over the last 12-18 months examining the complex issue of the separation of transmission charges from energy charges. Much of this work will have direct application to the distribution sector as the issues are very similar; but the method of application different. In this area, ECNZ is breaking new ground and has undertaken significant international consultation on its approach in order to ensure that it is both successful and practical.

Conclusion

41 It is difficult to comment on this paper as it makes little progress form the Task Force analysis. However, there are a number of important principles that need to be adhered to in order to achieve a consistent restructuring within the electricity industry.

i Private ownership provides the only strong cost minimising incentives for the monopoly line function which dominates the distribution activity.

ii Private ownership of distribution is a pre-condition to ESAs having joint ownership of the grid to ensure alignment of objectives of grid owners for cost minimising.

iii 33 kV distribution lines are bottleneck facilities identical to Electricorp Marketing's spur lines and should be considered for transfer to the transmission grid along with Marketing spur lines. ECNZ believes all lines should be treated in the same way but accepts there may be practical difficulties.

iv The transition policy framework should be centrally developed and driven. On the other hand , the use of Establishment Boards consisting of proven business people, as for SOEs, has demonstrated track record for handling all commercial issues.

v There are going to be many complex issues for development of light handed regulatory form. Industry consultation will thus be essential in developing the regulatory rules.

vi Implementation of decisions (l), (m) and (n) of CPC (POL (89) M28/2 refers) should be handled by officials for the development of policy and legislation and by the industry for commercial and technical issues.

VIEWS OF THE ELECTRICITY SUPPLY ASSOCIATION

Objectives of Reform

42 The Electricity Industry Task Force (EITF) had a single overriding objective guiding it in its examination of the electricity industry. This was the objective of economic efficiency. The EITF evaluated contestability in electricity supply as a means to achieving economic efficiency. The ESA acknowledges this objective as being very important but believes that there are other important objectives to be considered when restructuring the electricity industry. This view was shared by overseas consultants associated with the work of the EITF.

43 The ESA has carried out a detailed study of the electricity industry and has a clear set of objectives which have been summarised in their publication 'A Better Deal For the Power Consumer'. In this process all changes proposed for the electricity industry are evaluated against a set of performance criteria for the customer (who is after all the reason there is an electricity industry in the first place). In this study economic efficiency was important and this is borne out by the fact that several of the conclusions arising from the ESA study are equivalent to those put forward by the EITF.

Implementation of Decisions Already Made

44 The ESA notes that recommendations (l), (m) and (n) in the introduction to this paper have already been approved by the Cabinet Policy Committee. Recommendation (b) in para 66 directs the Ministry of Commerce to prepare proposals for the implementation of those decisions. The ESA believes that it must formally be part of the consultation process and seek that this recommendation be so amended.

45 Recommendations (l), and (m) are almost equivalent to similar recommendations put forward in the ESA's own industry paper. These recommendations were strongly supported at a special meeting of the electrical supply industry. There is a willingness to change amongst ESAs and our attitude to officials has been one of support and cooperation.

46 Recommendations (l) and (m) represent a change more significant than any others that have occurred in the seventy year history of electrical supply authorities. The ESA would like to see these recommendations implemented as soon as practical. However in spite of that enthusiasm, it is essential

that the process of implementation and the mechanisms associated with the implementation are considered and put into practice in a prudent and well considered manner.

47 This requires the development of:

(i) a pricing mechanism that allows a separation of energy and distribution charges;

(ii) a set of yardstick comparisons to permit similar supply authorities to be consistently compared with one another;

(iii) a mechanism for removing the franchise areas and the accompanying obligation to supply.

48 It is interesting to note that the Cabinet Policy Committee in confirming the removal of the obligation to supply acknowledges in its recommendation (m) that a further examination of the rights of consumers to connect needs to be made. ESAs agree that this is important particularly with respect to domestic and rural customers. It is acknowledged that the domestic customer is subsidised in most cases to a varying degree from 20% to 60% by non domestic customers. The removal of franchise areas may result in price increased of up to this amount to the average domestic customer. In addition, the removal, of the obligation to supply will mean that it will be in supply authorities' commercial interests not to persist with supplies to customers who cannot pay their power accounts. The recovery of revenue from the many thousands of domestic customers who go beyond the final notice stage is very expensive. It would be in ESA's commercial interests not to supply these customers.

49 The ESA proposes a two stage removal of franchise areas allowing an early contestability of supply to those industrial customers with loads greater than 5 GWhs. These customers have the appropriate metering for contestable supply and together account for approximately 35% of the electricity retail energy market. Once the market mechanisms have been tested in this environment and once the examination of the rights of consumers (as in recommendation (m)) has been evaluated then an informed decisions can be made whether to go to the final stage of complete removal of franchise areas. In the UK there is a two-tier license in which only large industrial customers are contestable. the remaining small customers and domestic customers are supplied within that franchise area and distributors have an associated obligation to supply. This option should form part of the further study.

50 The ESA proposal for a two stage removal of franchise allows a rapid introduction of contestability into a significant part of the retail market without endangering the rights of customers.

Corporatisation

51 The changes agreed to by the Cabinet Policy Committee in recommendations (l), (m) and (n) will achieve the majority of the efficiency gains sought by the EITF. There is however, the further step of corporatisation that can be put into place to ensure that ESAs work with commercial objectives and not confuse these with other social and non-commercial objectives.

52 Corporatisation is the process of setting up organisations in a company structure with a set of appointed commercial directors. These directors would bring commercial skills and business acumen. Commercial directors would apply pressures on management to ensure their competent performance. The ESA believes this has been supported by independent consultants that corporatisation capture the majority of the claimed benefits.

53 Although the ESA has expressed its support for the principle of community ownership of distribution companies (which would be consistent with corporatisation) it recognises that much work needs to be done on the precise form of ownership and the ESA wishes to participate in that work with officials.

54 The ESA does not support privatisation at this time. It notes the EITF paper which claims that there is no empirical evidence to demonstrate that privately owned utilities perform any better than publicly owned utilities in a regulated environment.

55 ESAs believe that the questionable efficiency gains from going the final step to privatisation are significantly outweighed by the costs of that privatisation. (e.g. the cost of trading and running a share registry and the associated significant transaction costs not considered by officials.) ESAs have proposed a mechanism of corporatisation. Also performance monitoring has been proposed through the measures laid out in recommendation (m).

56 The ESA proposes to a two option method of corporatisation. Both options will achieve the benefits of corporatisation but will not require resolution of the controversial ownership issues that would be necessary with privatisation. The ESA proposes the establishment of a board of trustees for each supply authority. These trustees would be set up by direct appointment from the constituent district councils within an ESA area, territorial local authorities for MEDs and in the case of power boards an election by consumers.

57 These trustees would have the following duties:

1 Appoint directors with business acumen and commercial skills;
2 Approve an annual statement of corporate intent;

3 Receive six monthly and annual reports from the directors. There would not be a dividend question to be considered as in the interim period profits would be accumulated in the business to form part of its ultimate value.

58 The important issues is that commercial directors are appointed who have direct oversight of the operation of their ESA and its managers. The Waikato Electricity Authority Act 1988 is an example of legislation that permits this to happen.

ESAs are surprised at some of the proposals put forward in this paper by officials. The use of regional trust boards appears to be at odds with the objective of introducing contestability into the supply of electricity. It is hard to see contestability between neighbouring ESAs if they report to the same set of regional trustees. ESAs are concerned that the share issue or give away mechanisms being considered by government and its officials would perpetuate in ownership a cross-subsidisation which had been a objective to be removed in pricing. As outlined in paragraph 25 the ESAs would most certainly see the regional trust board model as usurping by central Government or the Treasury the rights of local authorities, and this would be strongly opposed.

60 The ESA seeks to be part of the evaluation and reporting listed in paragraph 66 recommendation (c).

Other Issues

61 In paragraph 26 reference is made to study on the impact of industry restructuring on rural customers. This is an area of major concern to ESAs and it seeks to work cooperatively with officials to propose the best solution for these customers and avoid the widespread move from reticulated supply to won generation. There has been very strong adverse feedback from rural customers following the release of the EITF report.

62 The ESA notes that in the paper on generation, Electricorp will continue to be the the dominant generator. The ESA is amazed to note that officials recommend only an investigation of light-handed regulation to apply to ECNZ as the dominant generator. The ESA believes that in such circumstances it is quite inappropriate for ECNZ to enter the retail market place as clearly they have the opportunity to abuse their market power. This concern has already been conveyed to Ministers in the dissenting view of the ESA representatives on the Task Force. One of the prime reasons for setting up the EITF was to address concerns raised bout the market power of ECNZ. A dominant ECNZ taking part in retailing extends that organisation's market power.

Conclusion

63 The ESA is supportive of change to the industry but only with the objective of ensuring a better deal for the electricity customer. The ESA supports the changes already approved by Government and seeks to be part of the process to determine the best manner of implementation. The ESA believes that corporatisation will achieve the necessary additional efficiency gains. Privatisation and the associated troublesome ownership issues need not be addressed unless it is demonstrated through monitoring that the changes put into palce do not achieve the efficiency objectives sought by Government.

SUMMARY

64 Of the recommendations made by the Task Force, relevant to the distribution industry, that of ownership was the least conclusive in terms of efficiency gains. In contrast, the regulatory recommendations could be implemented relatively quickly, and their effects on efficiency observed over a short space of time. Officials see a clear need to implement the Government's decisions in steps, in order to monitor the effects of each change. Change to ultimate ownership will probably be the last of these, and take the longest to implement.

65 The opinion of Crown Law needs to be established before either the ESAs can be established as companies or further consideration can be given to the ultimate ownership and the transitional management of distribution companies.

RECOMMENDATIONS

66 It is recommended that Cabinet Policy Committee:

a agree that the implementation of the regulatory decisions in paragraph 1 should proceed immediately, with the ownership issues to be implemented as decisions are made;

b direct the Ministry of Commerce, in consultation with the Ministry of Energy and other departments, to prepare proposals for the implementation of decisions (l), (m) and (n) of the Cabinet Policy Committee (CAB (89) M 31/10 refers), including the preparation of draft legislation;

c direct officials to report further, with recommendations, on the ultimate ownership and corporate structures for the electricity distribution industry (and Southland Electric Power Supply), including the transitional stages to achieve those structures, once the Crown Law opinion as to the current beneficial ownership of the industry has been received; and

d note the views of the ESA and ECNZ.

for J. Taylor

J M Chetwin
Chairperson
Officials Coordinating Committee

Departments involved in this report:

Ministry of Commerce
State Owned Enterprise Unit
Treasury
Ministry of Energy

CONFIDENTIAL

16 March 1990

The Chairperson
Cabinet State Agencies Committee

ELECTRICITY DISTRIBUTION RESTRUCTURING:
ULTIMATE OWNERSHIP AND COMPANY FORMATION

Executive Summary

1 Cabinet has decided that electricity supply authorities (ESAs) should be formed into companies, but has not yet decided on their ownership. This report addresses three main questions:

a who should own ESAs?

b how and to whom should ownership be transferred? and

c how should ESAs be turned into companies?

2 In their present form ESAs exhibit a number of inefficiencies such as high costs of operation, cross-subsidisation between consumer groups, adoption of a mix of social and commercial objectives, and poor financial accounting. Through regulatory reforms (such as the removal of franchise areas) and corporatisation, which have already been decided upon, a large proportion of the available gains in efficiency will be achieved, at least initially. This will occur in a manner similar to the SOE process. It is likely that these gains in efficiency will be gradually eroded over time and private ownership with tradeable shares will offer the prospect of achieving greater efficiency.

Who should own ESAs?

3 The two main options are investor and consumer ownership, with the latter potentially occurring through some form of local government, co-operative or trust. Given that local distribution networks are natural monopolies, this choice involves an assessment of the impacts of ownership on both cost efficiency and profit maximisation. With privately held and tradeable shares, capital market pressures are likely to minimise

costs but lead to higher prices, subject to regulatory constraints. However, consumer-based co-operatives or trusts are less likely to minimise costs, but are also less likely to exploit price raising opportunities. Neither empirical studies nor economic arguments from first principles produce a conclusive result in terms of the relative efficiency of investor or consumer ownership under these conditions. The evidence points towards private ownership, but is influenced by the particular form of regulation which has been adopted. For a number of reasons ownership by territorial authorities is a less preferred option, in particular because of the opportunities for cross-subsidisation between the various economic activities undertaken by those authorities. Local authorities are also faced with an increased conflict between regulatory and ownership functions as a result of roles assigned to them under resource management law reforms.

4 The case for private ownership is based on several factors. Over time the benefits of corporatisation and regulation will erode, making ownership incentives more important in the pursuit of efficiency. There is also scope at the local level for a variety of non-commercial objectives to be introduced if local government ownership is adopted. A third reason is that where consumer ownership is dispersed, and particularly where the interests of consumer groups diverge, their monitoring of management is likely to be less effective. While a compelling argument cannot be made for a particular pattern of ownership, on balance officials propose that ownership rights be passed to members of the local community, who can themselves determine the ownership structure they prefer. Individuals would be free to retain or sell their share, or vest it in a trust.

How and to whom should ownership be transferred?

5 A Crown Law opinion indicates that the beneficial ownership of EPBs is not established by its enabling legislation. MEDs are owned by local authorities, but the ownership of them is again unclear. Any initial allocation of shares or rights to shares is arbitrary, and will involve wealth transfers. While the merits of electors, ratepayers and consumers as recipients of initial share transfers are canvassed in this report, the choice is left to Ministers. The choice will be affected by the costs involved, and the ability to minimise fraud. On these grounds, the choice points towards electors.

6 Should a decision be made to transfer ownership officials argue that central Government, rather than local authorities, should retain overall control over the ownership transfer process. This is because local authorities do not have appropriate incentives to transfer ownership, or to decide on the distribution of any proceeds.

7 Two mechanisms for ownership transfer are compared, namely share sale and share give-away. A share sale requires a decision on the distribution of proceeds. If these are not to be distributed either by the central Government's tax/expenditure system or by local governments, then sale proceeds would be returned to the ownership class chosen by Ministers. The sale of shares by the agency responsible for transition would, to some degree, reduce the choice of the owners. It would, however, be likely to reduce the costs of initial distribution plus re-aggregation of shares. A share give-away, on the other hand, while possibly more costly to implement, would allow owners to make a choice.

How should ESAs be turned into companies?

8 Two options are available for transferring the assets and liability from ESAs to the new corporations however owned, namely the negotiation of a sale and purchase agreement with each ESA, or the legislated transfer of assets. Officials prefer the latter course in that, while it will be construed as expropriation, it will substantially shorten what could be a very protracted exercise. Further, if local interests are the recipients of these assets, expropriation claims will have less justification. With 54 ESAs to be corporatised, clear processes will need to be designed, particularly in relation to the valuation of assets and liabilities to be transferred, to ensure that fully commercial pricing and investment decisions are taken in the new environment.

9 Legislation will be required to transfer the assets and liabilities of ESAs into the new companies, to abolish EPBs, and also to restrict litigation and compensation claims by the current owners of those assets, particularly MEDs.

10 As with any transfer of ownership, the transfer of assets and liabilities will be a complicated task. It will require a transition agency with the incentives to make progress quickly, to minimise disruption of ESAs' operations, and to ensure that the companies are established on a commercial basis. It is recommended that regional trustee boards, appointed by and accountable to Ministers, be in charge of the corporatisation and ownership transfer process. It is also proposed that, at the outset, clear guidelines be adopted which establish objectives, methodologies and processes be developed which ensure a consistent treatment of ESAs, and minimise the cost of transition.

11 The process of asset transfer from ESAs to corporations allows amalgamations to occur. Scope exists during this time for the regional trustee boards which are overseeing the process to actively encourage amalgamations where size, location and cost characteristics suggest that this will lead to a more efficient local distribution system. Extensive amalgamations will, however, make it more difficult to apply yardstick regulation to comparable ESAs.

12 At the same time as Cabinet considered options for ESA ownership it agreed that ownership of local authority gas trading activities should be dealt with in the same manner as local authority electricity trading activities. Recommendations are made accordingly. Further study is required to deal with the issues raised by the joint ownership of gas and electricity activities of the Hutt Valley Energy Board and the New Plymouth City Council.

13 The views of officials on the implications for Maori of these changes to ESA ownership are presented at the conclusion of this report.

Recommendations

14 It is recommended that the Cabinet State Agencies Committee:

a agree that the shares in the companies formed from ESAs should be held privately and be tradeable;

b agree that the initial transfer of ownership should be by way of a share give-away;

c **EITHER Treasury, Commerce, PMs, SOE Unit**

i decide whether the shares should be gifted by way of a rights issue to either:

- electors; or
- ratepayers; or
- consumers;

ii agree that a report be prepared on the parameters for discussions with Maori on a strictly without commitment basis to identify the possible Treaty issues involved in the changes proposed in ESA ownership;

OR Manatu Maori, Justice, Environment

Either

i agree that the decisions on electricity distribution restructuring be deferred until associated Treaty issues are considered adequately;

Or

ii agree that the Crown should reserve a proportion of shares for the settlement of Maori land claims, and that that proportion should be the same as the proportion of the value of claimed land to the total land transferred at the time a company is formed; and

iii agree that each company should be obliged to issue new shares, which would preserve the proportion referred to above, to meet any situation where reserved shares are not sufficient to cover the claim; and

iv decide whether the shares, not reserved for the settlement of claims, should be gifted by way of a rights issue to either:

- electors; or
- ratepayers; or
- consumers;

d agree that the formation of companies and distribution of shares for all ESAs be undertaken by regional trustee boards appointed by and directly accountable to Ministers;

e **EITHER Treasury, Commerce, PMs, SOE Unit**

agree that the trustee boards should comprise four members, appointed for their skills and abilities in commercially restructuring businesses, particularly legal, financial and industrial relations skills, as well as their standing in the community concerned;

OR **Manatu Maori, Justice, Environment**

agree that the trustee boards should comprise four members, appointed for their skills and abilities in commercially restructuring businesses, particularly legal, financial and industrial relations skills, as well as their standing in the community concerned, and that one member should be appointed in consultation with the appropriate iwi;

f agree that the trustee board members should be appointed as members of the ESA boards for which they are responsible for forming into companies, with one member of the trustee board being appointed the Chairperson;

g agree that the current ESA board members should relinquish their positions, but that the trustee boards should have the ability to co-opt these individuals to the board to oversee day-to-day operations, as they see fit;

h agree that the assets and liabilities of the ESAs be transferred to the companies by way of an Order in Council, similar to the mechanism used for Auckland Airport;

i agree that draft legislation should be prepared along the lines outlined above and direct officials to have drafting commence forthwith;

j EITHER **Manatu Maori, Justice, Environment**

agree that provisions be put into legislation that where lands, which were conpulsorily acquired by the Crown, are transferred to the companies and subsequently cease to be used for electricity distribution, these lands should be offered back to the original owners or their successors under Sections 40 and 41 of the Public Works Act and Section 436 of the Maori Affairs Act;

OR **Treasury, Commerce, PMs, SOE Unit**

agree that this matter should be reported on in the report proposed in (c)(ii);

k agree that this legislation should, as far as possible, be drafted to minimise litigation and other claims for compensation from either local authorities or existing ESAs;

l agree that amalgamation of small existing ESAs as part of the process of establishing the companies should be actively encouraged, but that such mergers be subjected to the scrutiny of the Commerce Commission in respect of the impact on the operation of the regulatory environment;

m direct the Minister of Commerce to consider making a Statement of Government Policy to the Commission, requiring the Commission to have regard to the effects of amalgamations on the proposed yardstick monitoring regime;

n EITHER **Treasury, Commerce, PMs, SOE Unit**

agree that these recommendations on ESA ownership transfer supersede the 28 February 1990 decision of the Cabinet Policy Committee to form SEPS into a company subject to State-Owned Enterprises Act;

OR **Manatu Maori, Justice, Environment**

agree that any further decisions in respect of SEPS be delayed until the general Government policy on the disposal of Crown owned lands is settled;

o agree to local authority gas trading activities being formed into companies and the shares in these companies being given away in the same manner as for ESAs as set out in the above recommendations; and

p direct officials to investigate the appropriate means of dealing with the Hutt Valley Energy Board's and the New Plymouth City Council's ownership of both gas and electricity trading activities and to report back by 30 April 1990.

J M Chetwin
Chairperson
Officials Co-ordinating Committee
on Electricity Restructuring

Departments involved in the preparation of this report:

Ministry of Commerce
Department of the Prime Minister and the Cabinet
The Treasury
SOE Unit
Ministry of Maori Affairs
Ministry for the Environment
Department of Justice (Treaty Unit)

INTRODUCTION

1 Cabinet has agreed that electricity supply authorities (ESAs), both Electric Power Boards (EPBs) and Municipal Electricity Departments (MEDs), should be formed into companies (ESCs), but has not decided on the ownership pattern. This report addresses three main questions:

a who the ultimate owners of ESAs should be;

b how transfers in ownership can be effected; and

c how the existing ESAs can be formed into limited liability companies.

Important aspects of the report are the equity impacts of the initial sale or gifting of shares, the requirements for legislation, the overall logistics of ownership transfer given the scale of the industry, the incentives facing those agencies responsible for the transition, and the possible amalgamation of some of existing ESAs.

2 The outline of this report is as follows:

SECTION I: BACKGROUND AND PREVIOUS DECISIONS

3 The relevant decisions from Cabinet's meeting of 4 September 1989 were that Cabinet noted that the Cabinet Policy Committee had:

a confirmed that Electricity Supply Authorities (ESAs) be formed into companies;

b noted that the Government had deferred a paper on the initial distribution of ESA shares [POL (88) 108 and POL (88) M 38/1 refer];

c directed officials to report again to the Cabinet Policy Committee on 18 October 1989 on the options for the privatisation of ESAs; and

d confirmed the removal of franchise areas and obligation to supply, and agreed to regulate distribution line connections and charges in the same manner as proposed for transmission, but also requiring:

- separation of transmission and distribution charges from energy charges;
- development of yardstick performance measures;
- further examination of the rights of consumers to connect.

(CAB (89) M 31/10 refers)

4 At its 18 October 1989 meeting the Cabinet Policy Committee considered an officials' paper on the options for the privatisation of ESA. At its meeting on 30 October 1989 Cabinet directed officials to report further to the Cabinet State Agencies Committee with recommendations on the ultimate ownership and corporate structures for the electricity distribution industry (and Southland Electric Power Supply), including the transitional stages needed to achieve those structures, once the Crown Law opinion as to the current beneficial ownership of the industry had been received.

5 The Crown Law opinion on the ownership of ESAs has been sought and received. The following summarises the conclusions in the opinion:

a an EPB has no "owner" in the legal sense, but its assets are owned by the board itself;

b an MED is part of a territorial local authority and it is owned by that authority; and

c if corporatisation occurred the boards and/or local authorities could claim compensation but not the electors or ratepayers.

6 In light of the Crown Law opinion, it would be appropriate for Government to decide on the ownership pattern for electricity supply companies (ESCs) formed from ESAs, and to whom shares should be initially allocated, and to ensure these decisions should not be the subject of claims for compensation.

7 At its meeting on 18 October 1989, Cabinet Policy Committee agreed that the issue of the ownership of local authority gas trading activities should be dealt with in the same manner as the local authority electricity trading activities, and that this issue be considered in conjunction with the work on the electricity industry (POL (89) M 35/9 refers). Recommendations contained in this report can also be applied to gas trading activities of local authorities.

SECTION II: LIMITATIONS OF THE ESA INSTITUTIONAL FORM

8 ESAs perform two functions: they provide distribution lines; and they trade in electricity. Like the transmission grid, an ESA's distribution network is a natural monopoly. The lines will not be duplicated to any extent (with the possible exceptions being at the borders of adjacent ESAs, and from ECNZ points of supply to major users). The cost of constructing, operating and maintaining lines accounts for over 90% of an ESA's costs. Further, substitutes for electricity are not available in a number of regions and end uses, which allows prices to be raised and monopoly rents to be extracted. The retailing or trading function that ESAs perform can, however, be duplicated, although this necessitates access by other parties over an ESA's distribution network to customers. This function is potentially competitive, especially to larger customers. This places pressures on this part of the ESA's activities to be efficient. However, the absence of competition in distribution means that pressures for efficiency there will need to come from other sources. The two options are essentially regulation and ownership.

9 In order to justify changes in ESA ownership, clear deficiencies should be visible in ESAs as they are presently constituted. At the same time, in considering the merits of changing the ownership of ESAs, it should be noted that some of the inefficiencies attributed to ESAs stem from other factors, in particular:

a statutory provisions establishing franchise areas and the obligation to supply, which restrict entry and require cross subsidisation between consumers;

b the lack of separation of costs and charges for electricity distribution and retailing functions, charges, which in the absence of franchise areas would restrict other suppliers' access to the ESA's lines; and

c the absence of the corporate form, which allows fuzzy objectives and poor financial accounting to continue.

10 The Government has already made decisions to deal with these non-ownership issues. Franchise areas are to be removed, ESAs are to be corporatised, line and energy charges are to be separated and yard stick regulations are to be instituted which will allow comparisons of the performance of similar ESAs. The question is whether, once these changes have been made, there remain efficiency benefits which can be achieved by changes in ownership. The Electricity Supply Association has argued that most of the efficiency gains will be achieved through regulatory and organisational reforms, whereas the benefits of changes in ownership are uncertain, and do not outweigh the costs involved.

Symptoms of Poor Performance

11 Several studies of economies of scale in distribution have been made, and have implications relevant for amalgamations of ESAs. These indicate that there would be significant cost savings in reducing the number of ESAs: The US consultants Putnam Hayes & Bartlett (PHB), in their review of the distribution industry for the Electricity Task Force suggest that economies of scale occur up to about 20,000 customers and that approximately 20 - 30 ESAs would probably be an efficient number; a Ministry of Energy study suggests there are cost advantages in reducing to 30 - 40 ESAs. In addition, PHB

noted very substantial cost differences between similar sized ESAs, even after allowing for cost influencing factors such as density of customers and percentage of underground lines. This indicates that significant cost savings might be available, and that the ESA institutional form allows wide cost divergences for similar businesses.

Pricing

12 Other evidence from those who have worked in the industry confirms that most ESAs do not have a clear understanding of the costs of supplying customer groups. In particular, they currently have little detailed understanding of their distribution costs. Consequently, prices cannot be said to reflect costs. Under the present institutional form, there has been no particular need to understand these costs. With current legislation, ESAs have had very limited ability to reflect different supply costs in their charges. Except in a few instances where natural gas has provided effective competition, there has been no competitive motivation either. In addition, there is a sizeable subsidy, reflected in the pricing structure of all ESAs, from the commercial and industrial customers to domestic (household) customers. The primary reason for this subsidy is political: ESA Board members are effectively elected by domestic customers.

13 In terms of cross subsidisation, PHB reported that in 1986/87, the average retail electricity price was 6.66 cents per kilowatt hour for domestic customers and 10.29 cent per kilowatt hour for commercial customers. While the ratio of commercial to domestic rates has declined over time it has remained at or above 1.55 since 1982. There is also a substantial variation amongst ESAs. The Task Force reported that domestic consumers are subsidised in most cases by between 20 and 60% by non-domestic customers. MEDs generally have higher levels of cross subsidisation than EPBs. Average price ratios are as follows:

Supply Authority	Commercial/ Domestic Prices	Industrial/ Domestic Prices
EPBs	1.49	1.04
MEDs	1.74	1.39

14 Since the Government has announced its intention to remove area franchises and require line and energy costs to be separated, some ESAs have begun to examine their cost structures, and market competitiveness. Their pricing strategies are beginning to reflect these.

Costs

15 Under the current institutional form, there has been little motivation for hard-nosed examination of expenditure. In some ESAs that have recently undertaken a major restructuring in anticipation of the Government's moves, around 30% staff reductions have been achieved. Capital budgets in ESAs are generally engineering-driven with little consideration for their economic justification. Further, there are also instances where, as with central Government trading operations in the past, ESAs have made significant capital investments to meet perceived needs which either did not arise or did not justify the expenditure. Maintenance is also a significant cost item in ESAs. Yet overall

maintenance expenditure is generally based on the resources available in the ESA after allowing for the desired capital projects to proceed. Significant efficiencies have been achieved in ECNZ from focusing on maintenance needs, and similar efficiencies could be expected in ESAs.

16 No overall study of industry costs has been undertaken. But based on discussions with those who have worked in the industry over many years it is concluded that a saving in costs of up to 20% or 30% can be achieved by ESAs operating on a commercial basis. This would represent a saving of $140 million to $200 million per year.

Financial

17 ESAs have typically funded capital expenditure directly out of revenue. This has been appropriate, given their non-commercial form. The result is that they have not been driven by the normal commercial pressures to justify capital expenditure by the return that can be earned on it. Consequently, their capital expenditure programmes have been relatively inefficient from a commercial perspective and their prices are not set to reflect the cost of the capital invested.

18 Financial systems in ESAs vary from some which are relatively sophisticated, to others which do little more than record the ESA's cash position. But, with few exceptions there appears to be only a weak link between the information recorded and its potential use in making key decisions, such as in setting specific tariffs, or in managerial decision making with regard to operations or capital investment. This is largely a reflection of their institutional arrangement in which the emphasis has been on generating sufficient revenues to cover cash costs. As discussed above, there has been little motivation for cost-based pricing or for more efficient use of resources, both of which will encourage ESAs to recognise the need for financial systems that are fully integrated into management decision making.

Culture

19 At both corporate and board levels, the ESA culture has been essentially non-commercial. An elected board inevitably views its responsibilities in terms of the community which elects it. Thus ESA boards have had a strong concept of social responsibility. They have generally attempted to meet this by ensuring a high standard and reliability of supply to all customers, and a low price to domestic customers, since these are the most visible indicators of performance. Within ESAs, the institutional structure has encouraged managers to think almost solely in terms of their engineering responsibility to provide a reliable supply to all customers in the franchise area. Cost has been a secondary consideration, as long as price increases could be held to acceptable levels.

20 Most ESAs also lack an explicit decision making process and accountability mechanisms. In general, board members spend a great deal of time and effort on day-to-day operational issues and little time on policy making. Consequently, executive management have little incentive for quality decision making since they have little accountability for decisions made. Often within the executive management also, the

accountability mechanism is diffused. Largely because of their engineering emphasis and inward-looking orientation, ESAs have had relatively little pro-active contact with their customers. This is now changing and some have in recent months started pro-active marketing and customer relations programmes.

Benefits from Regulatory Reform

21 The removal of franchise areas and the obligation to supply will have a significant effect on the present level of cross subsidisation. Large consumers of electricity will then be able to seek lower cost suppliers. At the same time, the re-balancing of domestic tariffs is also likely to occur. The extent of this effect is limited by the cost of metering and the ability of consumer groups (eg a shopping mall) to jointly negotiate a tariff schedule. The separation of line and energy charges will also facilitate yardstick competition and yardstick regulation. The former occurs where larger customers are able to make comparisons between the costs of ESAs. While the sunk cost of the customer's plant prevents choice between ESAs, the information on suppliers costs provides some leverage in negotiations. Yardstick regulation occurs where the data on comparable ESAs allows more informed judgements on ESA performance and the need for intervention, and may be used to set performance standards.

22 A company structure is an efficient organisational form for a commercial enterprise. It will encourage a more explicit focus on commercial objectives, and more informative financial accounts. However, structuring of a business as a company alone will not, of itself, produce the efficiency gains which the Government has sought in the electricity distribution industry. Rather, it is a means to an end. The critical element is the incentives on the shareholders and the nature of their relationship with management.

Conclusion

23 For corporatisation to occur, with opportunities to trade in shares, ownership will have to be settled. Simply corporatising ESAs may not be as effective as it was for SOEs if local authorities or electors do not have the same efficiency objectives as the Government. The present ambiguity in ownership contributes to poorer accountability. A clarification of ownership will also help to clarify objectives.

SECTION III: OWNERSHIP OF COMPANIES FORMED FROM ESAs

24 Inherent in the Government's decision to establish ESAs as limited liability companies is the need to specify the ownership of the companies being formed. Ownership is important because parties differ in their goals for the business, and their ability to monitor the performance of its managers. Two general ownership options are considered:

- Private Investor
- Community Ownership
  - Local Authority
  - Consumer Co-operative
  - Trust

25 This section:

a contrasts investor and consumer ownership;

b assesses their incentives for cost minimisation;

c assesses their incentives for raising prices; and

d reviews the empirical findings on the trade-off between these two effects.

26 Investor ownership is the conventional business model where the rights to control and to appropriate residual earnings (or liabilities) are held by the suppliers of capital. The other three options are various forms of community ownership in which consumers or ratepayers possess these rights. Ratepayers potentially have a much wider range of interests than consumers of electricity. There are certain similarities between investor and consumer controlled institutional forms. In both cases, ownership and management of the firm are separated. Thus, both types of organisation potentially display indirect forms of ownership, and each have mechanisms for the election or appointment of directors by the dispersed owners. In practice, however, shares in the investor owned corporation are often aggregated by one particular owner to give it ownership control. This could also occur in co-operatives or trusts, if, for instance, representation occurred on the basis of volume consumed. It is more normal however for ownership to be widely dispersed (eg "one person, one vote"). Compared to investor ownership, cooperatives generally seek to satisfy a wider range of objectives.

27 There are essentially two types of trust - one where the beneficiaries and parties who appoint or elect the trustees are defined as the government or the public at large, and one where the beneficiaries and parties who appoint or elect the trustees are consumers. In the first instance the trust option would be very similar in performance and behaviour to the local authority option. In the second instance the consumer owned trust would perform and behave like a consumer co-operative.

28 Many ESAs favour local community ownership, through the establishment of a board of trustees elected by consumers, who would in turn appoint directors with commercial skills, approve annual Statements of Corporate Intent, and monitor performance.

Comparison of Alternatives

29 These two general forms of control need to be compared, in order to assess the cost and effectiveness of investor and consumer monitoring of the distribution company's management. The criteria by which an assessment is made fall largely into two categories. The first is productive efficiency, or the minimisation of costs consistent with providing a reliable service. The second is the extent of regulation which ownership requires for those parts of the industry which exhibit natural monopoly characteristics. Thus, comparisons are made largely on an economic efficiency basis. Wider social objectives are presumed to be achieved through other means.

Incentives for Cost Minimisation

30 It is generally considered that having a direct financial interest in an enterprise through tradeable shares gives individuals the best incentive to monitor the performance of the business. The holders of shares in a company are best able to assess the value of the investment in relation to other possible investments. If the returns on the investment made are less than the returns which can be made elsewhere, then shares can be sold, and/or the management may be replaced, and/or the business may be taken over. Further, it is conceivable that a single investor with specific expertise in the electricity industry will obtain a controlling interest in the business, and be more able to monitor its commercial performance and influence management. For these reasons, it is argued that strong incentives exist for managers to operate the companies in a fully commercial and cost minimising manner consistent with the owners' objectives. These incentives exist because of narrow commercial objective, sanctions for poor performance (ie take-over or management replacement), and rewards in terms of remuneration (eg management shareholding, performance bonuses etc.). However, cost minimisation incentives are weaker in a monopoly because of the absence of product market completion.

31 With dispersed consumer ownership these incentives and sanctions operate with less force. Consumers as a whole have an incentive to minimise prices. However, as price minimisation is not directly related to cost minimisation, the effect of this form of ownership on costs is not so clear. While the owners of consumer cooperatives possess property rights - shares in the firm - these are dispersed. This implies that owners face higher costs in monitoring the firm's managers, and consequently have less incentive to do so. Any benefits from doing so are widely spread. The inability to aggregate shares raises the costs of exercising ownership rights, and eliminates the possibility of take-overs. The dominant consumer group or dominant coalition in the voting structure for the board will determine who is favoured by the price structure.

32 Compared with the narrow commercial objective of the investor owned firm, the representatives of consumers (ie the elected or appointed Board) will have more difficulty in finding the balance of owners' interests and objectives, and in gaining a clear mandate from the owners, many of whom will not be aware of the value of their interest in the business. Boards of this nature have to balance the interests of investors and consumers which results in a mixing of both social and commercial functions. Multiple objectives, expressed by a variety of customer classes, does not make for clear decision making and accountability within a commercial enterprise, and are likely to lead to inefficiency.

33 Local territorial authorities have reduced incentives to monitor marginal performance, as there is little benefit from cost reduction. Political pressures will act to constrain cost and price increases, although prices may vary between consumer classes. Monopoly pricing is possible with local government as well as with a private firm. Local authorities may set prices for electricity above the efficient level to provide funding for other services, so that domestic consumers, who form the bulk of the electorate, face lower rates than other consumers. Scrutiny of the company's affairs by lenders is reduced because of the guarantee implicit in the local authorities ability to make capital injections from tax revenue. Local authorities also have a number of regulatory functions wherein they are empowered to allocate resources such as land to certain uses. If they cannot take any revenue from this activity, they may allocate the resources to businesses which they own as a means of capturing some of the value of the resource for themselves. Service quality may be set too high to domestic consumers given that local politicians will not wish to face complaints from electors. Given all these problems, and in particular those regarding the structure and level of prices, the need for regulation is not entirely eliminated.

Minimisation of Regulation

34 It is generally considered that local distribution (ie the lines) constitute a natural monopoly. Electricity distribution companies, whether investor or consumer owned, will have an element of market dominance, and the potential to price above or below a level which equates to the cost of transporting electricity to the consumer. The aim of regulation is to ensure that prices, as far as possible, reflect the costs of production for a good or service. The relative effectiveness of investor and consumer ownership can be assessed in relation to the potential for and form of the exploitation of market dominance.

35 A private investor owned firm in the pursuit of profit maximisation could be expected to set high overall level of prices and would to some degree achieve this outcome in the absence of competition given a regulator's difficulty in restraining prices, or the effectiveness of the threat of regulation. However, the cost minimising incentives of owners are reduced by both the regulation which limits their claims to the firm's residual profits. Direct regulatory controls on prices tend to encourage the lowering of quality standards.

36 Indirect owners' representatives may pursue price minimisation as their principal objective for the company they control. Initially, this appears entirely consistent with the purpose current legislation to control market dominance is designed to achieve. However, there is no guarantee that price minimisation will apply to all consumers equally. Those chosen to represent the "owners" are likely to favour the constituency which appointed or elected them. Moreover, due to reduced incentives to pursue efficiencies within the companies, the the costs of production may not be minimised, and thus prices could be at a higher level than would be found under investor ownership.

37 Regulatory intervention may also not be minimised because the owners' representative, say a local authority, may have an interest in generating income from an electricity distribution company in order to finance some other activity, or to reduce the rates bill. Under these circumstances, the same incentives to maximise prices (subject to regulatory intervention) apply as with direct ownership.

38 With tradeable shares, if a sufficient number of shareholders are also consumers it is possible that, while maintaining a desire to receive a satisfactory return on their investment, the shareholders will restrict prices to the costs of providing retail electricity transport and have the firm minimise those costs as far as possible. On this basis, it is possible that the need for regulation might be mitigated. However, this may depend on the number of consumers who pursue both price minimisation and commercial objectives within the company concurrently. The initial and ongoing distribution of shares would have a significant bearing on this.

Empirical Evidence on Ownership

39 A number of empirical studies have been made of the relative performance of private and publicly owned organisations in a range of industries where market dominance occurs. While a number of methodological problems arise in making such comparisons, such as adjusting for subsidies or regulation, two general conclusions emerge. The first is that the introduction of effective product market competition makes the strongest contribution to efficiency. A corollary is that where this competition occurs, there is little justification for public ownership. The second general conclusion is that where substantial market power occurs, often combined with heavy regulation, there is little discernible difference in the performance of companies under private and public ownership.

40 Studies on the effect ownership has on efficiency in the supply of electricity have been carried out in the USA. These compare prices and cost structures for public utilities and private firms. Conflicting results have been obtained, giving no clear evidence that one form is superior to the other. However, the regulatory system in the USA. is quite different from that envisaged in this country. U.S. Firms are subject to rate-of-return regulation. These conditions provide little incentive to minimise costs.

41 Officials have previously undertaken a review of the merits of local Government ownership in the context of a general analysis of local government activities (LATAs). Arguments for involvement of local territorial government agencies in trading activities principally revolved around the scope for influencing prices, and for meeting some wider social objectives. The consequences for pricing have been covered already. In the former case, local government ownership can be justified if it is difficult for it to write contracts which ensure that the social objective is met. It is not clear that objectives other than least cost reliable supplies are involved. An issue such as the undergrounding of lines can be negotiated directly between the supply authority and the territorial authority.

Conclusions Private vs. Public

42 Thus there is no compelling case for favouring one kind of ownership structure for ESAs over another. Local government ownership is not preferred by officials as there is weaker accountability between the trading activity and the ultimate owners, and there is greater scope for cross-subsidisation. There is also a greater conflict with regulatory functions, as local authorities are assigned with responsibilities under the resource management law reforms. As with the SOE model, it is likely that the benefits of regulatory reform and corporatisation are greatest initially as there is a climate for change and the threat of competition is strongest. However, it seems likely that those

benefits will be eroded over time as actions which effectively circumvent regulation or owner monitoring are found. Ownership incentives then become more important. Where ownership shares are widely dispersed amongst consumers, and where the interests of consumer groups are not homogeneous, the effectiveness of consumer monitoring is reduced. Except with rural ESAs, these conditions are likely to hold.

43 Under the current regime, the roles of owners as investors and consumers are not able to be separated. In the absence of compelling evidence for either preventing or permitting the transfer of ownership, officials argue that the local community should be allowed to make that choice. On this basis, officials recommend that private ownership of ESCs with fully tradeable shares should be adopted. The choice can be summarised as follows:

Supply Authority	Distribution Company
* all directors elected every 3 years	* partial board elections by rotation every year
* electors are constituents in a geographical area	* electors are owner-investors
* ownership stake cannot be sold	* shares can be sold
* dividends implicit in electricity prices	* dividends paid separately, as agreed by owners.

SECTION IV: TRANSFER OF OWNERSHIP

44 If the Government accepts the recommendation that the equity of the companies formed from ESAs should be privately held and fully tradeable, decisions need to be made as to whom the equity (either in the form of cash or shares) should be distributed, and how such a distribution should occur. This section:

a begins with an assessment of the rights to beneficial ownership of ESAs;

b assesses whether responsibility for any ownership transfer can be left to local authorities or ESAs;

c discusses whether an ownership transfer should be made to electors, ratepayers or consumers;

d compares a share sale and a share give-away; and

e evaluates several processes for ownership transfer.

Establishing Rights to the Equity

45 Officials have argued for private ownership as this would permit the roles and objectives of investor and consumer in the holding of equity to be separated. Divestment by owners could occur. This suggests that the equity in companies formed from existing ESAs should be distributed to those who have both an investment interest in the ESA and an interest as an electricity consumer. Therefore, the task in assessing the rights to the equity in the newly formed companies (ESCs) is essentially one of choosing between parties who are both investors and consumers in the current ESAs.

46 There is no legal basis for determining the ownership rights for companies formed from ESAs. While the consumer base for ESAs is relatively clear, establishing that there is a case for consumer ownership, per se, is more difficult. Legally, the courts have ruled that consumption of a good or service, even over a substantial period of time, does not confer beneficial ownership of a firm on the consumer (see Poverty Bay Electric Power Board v Attorney General (Unreported - Wellington CP552/87 - Davidson CJ - 5.11.87)). Moreover, the Crown Law opinion obtained by Officials indicates that EPBs have no owner and that MEDs are owned by the relevant territorial local authority. It could be argued that, in turn, the local authority has no owner as in the case of EPBs.

Who Should Distribute Equity

47 It could be argued that the EPBs and territorial local authorities, rather than central Government, should decide who should hold the shares and how the proceeds from the sale of the shares, if any, should be distributed. This would make any further consideration of ownership questions by officials redundant. These local bodies could be said to have acted as trustees for both the consumer and investor owners of the current ESAs and are best placed to assess the wishes of those owners. In this regard, current EPBs and therefore local authorities could be regarded as consumer cooperatives for electricity users. This would suggest that the equity should be transferred to the EPBs and local authorities, and that those entities should make the final choice for the distribution of the equity.

48 There are, in fact, limited incentives for EPBs or local authorities to institute voluntarily decisions and mechanisms to sell or give away ESC shares. The rewards for a local authority or an EPB to distribute the shares to private owners are limited. There may be some electoral advantage for a City or Borough Council (ie. those with MEDs), but this a offset by their reluctance to lose a "cash cow". Given that EPBs cease to exist once the ESC equity is in private hands, even this incentive does not exist in most instances. For EPBs and local authorities which have financial difficulties, for example with a high debt level, there may be some incentive to sell the shares. This, however, may not yield the fairest distribution of the equity.

49 There are considerable negative features in utilising current entities instituting private ownership of ESC shares. Local authority members and EPB board may cease to have the prestige associated with being members of the controlling bodies of ESAs since they would cease to exist once the shares were privately held. There may be considerable pressure from management not to proceed with private ownership because of the additional commercial pressure on them which would arise from private ownership. Over time, quite varied ownership patterns could emerge.

50 Harbour boards, as port company shareholders, did not sell any of those shares to private interests, despite having statutory rights to sell up to 49 percent of that equity. We understand that there are now calls for the Regional Councils, which now hold port company shares, to be legislatively required to divest a proportion of those shares to the public. Officials' assessment of the incentives to voluntarily divest shares in companies currently held by locally elected bodies appears to be borne out in the Port Company case. Given the similarities with the ESAs, in terms of ownership, it is likely that a similar situation would arise with EPBs and local authorities owning and then divesting ESC shares.

51 Accordingly, officials do not recommend that existing local authorities be given responsibility for deciding the initial ownership of and distribution mechanism for shares in ESCs. Thus the Government needs to be involved. To achieve this, legislative intervention is required, and the Government has to appoint an agent to act on its behalf. This is discussed in Section V.

Initial Ownership of Shares/Sale Proceeds

52 Since the legal ownership of ESAs provides no assistance in identifying the recipients of ESC shares or sales proceeds, the decision must be made on equity or income redistribution grounds. Under these circumstances the decision as to which group should receive the shares or proceeds from sale is properly one for Ministers, who are able to reflect the Government's view of the equity issues involved. However, officials can provide advice on the historical role of each group in relation to ESAs and on the transactions cost associated with distribution to each group of the proceeds or shares.

53 Officials have identified three groups, apart from local authorities, that potentially could be considered the "true owners" of the companies, namely electors, ratepayers and consumers.

<u>Electors</u>

54 The 1986 Local Government Amendment Act (No 2) provided that Parliamentary electors became the electors for EPBs, also voting on proposals to borrow money. This has increased the accountability of EPBs to the electors of that district. They have not, however, contributed to ESAs in the past. This group has also not borne the residual risk associated with the operation of ESAs.

55 In terms of minimising the transactions costs of the process, this group does have the advantage that it would be the easiest to identify, through the electoral rolls. In addition, given the impending national elections, the rolls should be more up to date than at other times, thus minimising boundary problems. However, the definition for electors is arbitrary and, therefore, there may be some inequity in distributing shares or sales proceeds to 18 year olds, but not to 17 year olds, for example. Conversely, older electors would argue that they have supported ESAs for a longer period of time. This generational argument would also apply to ratepayers and consumers.

Ratepayers

56 Before 1986, ratepayers were the electors of power boards. They have traditionally been the risk-takers of last resort, as ESAs have the ability to levy rates to cover losses. In practice, this provision has rarely been used, and consequently their contribution has been negligible. However, the Government has, on previous occasions, played a major role in reconstituting and, in some cases, operating local authority trading activities which have become insolvent. Examples include Government ownership of the Southland Electric Power Supply after it became insolvent in 1937, the operation of the Port of Westport by the Ministry of Transport under similar circumstances and advances to the Greymouth Harbour Board when it was faced with severe financial difficulties. Under these circumstances the Government, not the ratepayer, could be considered to be the bearer of the residual risk.

57 The ratepayers could be regarded as the creators of an EPB. Under the Electric Power Boards Act 1925, an EPB came about as the result of a petition by ratepayers. However, ultimately the Government was responsible for the enactment of legislation which created EPBs and Local Authorities.

Consumers

58 Irrespective of the legal issues involved, it could be argued that consumers have some rights to the equity of ESCs. EPBs and MED boards have acted, to some extent, as regulators of prices in the consumer's interests. However, it is clear that residential consumers, have received more benefits from these entities than have industrial consumers. This arises because, in general, prices faced by residential consumers are subsidised by substantially higher prices faced by commercial consumers. This could suggest a distribution of shares or the proceeds from sale on the basis of electricity usage.

59 A further argument for distribution to consumers is that they are the residual risk takers. Due to the natural monopoly aspect of the retail electricity industry ESAs are able to charge a wide range of prices. If an ESA makes a loss, some of this would be funded from accumulated reserves and the remainder would be funded by way of higher

electricity prices. Moreover, current electricity industry acts and regulations have the effect of requiring ESAs to distribute profits by way of lower electricity prices and/or additional expenditure on electricity supply assets.

60 Allocation of the shares or sales proceeds to consumers may find favour with the ESAs (particularly EPBs). This would be consistent with the view that EPBs are community owned and operated. Consumers represent a reasonable proxy for the community, with the exception of non-domestic consumers. This representation would depend on the means of allocating the share or proceeds. A major issue would be whether allocation occurred on the basis of consumption or was averaged across all consumers. An allocation which was proportional to consumption would bias ownership transfer away from domestic consumers.

61 ESAs have a reasonable data base of their consumers both in terms of names and consumption. This may be equal to the electoral rolls. However, there will still be some questions as to who actually is the beneficiary within a household. The housewife may be unfairly disenfranchised. Difficulties will also arise with changes of address and location. This latter point also applies to electors and ratepayers. A listing of consumers would, however, also give ownership to non-natural persons - eg businesses and organisations.

Viability in the Value of ESAs

62 While in total the value of the distribution industry assets could exceed $4 billion, there are likely to be considerable variability in the value of the shares or proceeds which will be received by those assessed to be the "true" owners. This raises a further equity issue. It is conceivable that those who are already considered to be wealthy will receive a substantial addition to that wealth potentially at the expense of other individuals who are less wealthy.

63 At one extreme, there are some ESAs which are technically insolvent and without reconstruction of their balance sheets would not be able to be formed into companies. It could be argued that these ESAs are effectively owned by their creditors. In any event, the beneficiary group, as decided by Ministers, will receive nothing from the reform process. At the other extreme, the equity of other ESCs could be worth up to $2000 per shareholder. The scope for allegations of inequity is clear.

Auditing of Applications for Shares/Proceeds

64 Where shares are sold at significantly less than their market value, or where proceeds are being distributed, there will need to be concern over the scope for fraud. Fraud should be relatively simple to control in the case of the electoral rolls, as these will be completed in the near future for the purposes of the General Election. Given the checks already being made on this roll, fraudulent duplication is relatively unlikely. More extensive checks will be required for rolls of consumers. Systems could be developed which vetted any data base, for instance, for individuals with the same three names, and put the onus of proof on those individuals. Multiple applications could be identified by correlating names, addresses and bank account details. More sophisticated fraud (eg by using different names, PO Box numbers and multiple bank accounts) could not be detected but is believed to be relatively limited.

Conclusion: Initial Allocation of Shares/Proceeds

65 While the choice between prospective owners is an equity issue, it is also driven by the need to be able to define the rights to the equity as clearly as possible. An issue of this nature is properly one for Ministers, based on the Government's view of equity. However, officials note that the least transactions costs will be incurred in distributing the shares or equity where there is a definitive data base for the recipients as is the case for electors and consumers. There is likely to be lower costs in preparing the roll for electors, as this will have been done for the forthcoming general election.

Mechanisms for the Transfer

66 Once a decision on initial ownership has been made, a mechanism for transferring shares is required. A number of factors influence the choice. Firstly, if shares are sold, the distribution of proceeds becomes an issue. Secondly, there are substantial costs involved in forming a share register, and distributing rights or shares to the parties. Thirdly, there are costs involved in re-aggregating those shares, if the process of transferring ownership leads to a very dispersed ownership. Processes which minimise these costs should therefore be sought.

67 There are two general approaches to ownership transfer. One is for the agency responsible for the transition to progressively sell parcels of shares, on the instructions of either the Government or the chosen owners, and to forward the proceeds from those sales to the chosen owners. The other is for shares or rights to shares to be assigned to the chosen owners, and for them to exercise their right to sell, hold, or assign to another institution to act on their behalf. It seems likely that the cost of establishing and validating rolls, and forwarding sale proceeds or shares/rights to the people on those rolls are relatively similar under both approaches. The costs and benefits of re-aggregation of those shares, however, are likely to differ considerably. A process which required periodic communications with a dispersed ownership (in terms of financial reports, notices, dividends) would have a relatively high administration cost. An approach which involved the sale of shares could have lower re-aggregation costs, but would to some degree prevent the owners exercising their rights (although they could subsequently purchase shares from sale proceeds). Where the value of an ESA asset is low, the cost of dealing in small parcels of shares could be prohibitive. To minimise re-aggregation costs, officials propose that the share give-away route is followed, but that ownership options be presented to the chosen owners which will simplify the re-aggregation process.

Share Sale

68 The sale of shares in the ESCs has the attraction of permitting the shares to reach those investors and or consumers who are best able to ensure the efficiency of the companies in the shortest time. However, such an approach necessitates decisions as to how the proceeds should be distributed, assuming the decision about the recipients has been made.

69 A sale of shares by the Government agent gives more importance to the interests of investors than consumers. Once the funds are received by the ultimate owners it would be possible for an individual to purchase shares that had been sold. However, it

is unlikely that sufficient re-aggregation by consumers would occur to permit them to exercise their interests.

Management of Sale

70 It has been argued above that there are limited incentives on EPBs and local authorities to implement Government policy in respect of ESAs in an efficient and timely manner. In contrast, short-term trustee boards, comprising individuals with significant local standing, but appointed by the Government, would have an incentive to complete the task of forming the companies and selling the equity. This would particularly apply if remuneration is tied to their performance. For example, a bonus on completion of the task, with specific timing for the process, could be prescribed.

Distribution of Proceeds

71 The least cost mechanism for the distribution of the proceeds would be to vest these in the relevant local authority. However, the definition of the appropriate authority could prove difficult because many of the EPB boundaries are not contiguous with those of territorial local authorities. More importantly, the local authorities may not utilise the funds in the manner which fits the interests of the "true" owners, but to finance projects which have lesser economic benefits. Officials recommend that local authorities should not have the proceeds from the sale of shares in ESCs distributed to them. Nor would it be acceptable for these funds to be appropriated by central Government.

72 If a sale of ESC shares were adopted, it would be a relatively simple matter to distribute the proceeds to the beneficiaries as decided by the Government on the basis of existing data bases. Each beneficiary could receive a cheque either through the mail (registered post) or by receiving notification by mail and supplying a bank account number into which the proceeds could be paid.

Conclusion: Share Sale

73 A share sale does not necessarily permit the balancing of interests between investor and consumer by the individual "owners". However, the sale of shares in ESCs would permit ownership to quickly reside in those most able to ensure efficiency gains. If the Government adopts this approach, officials recommend that such a process should be undertaken by short-term trustee boards with suitably devised employment packages to ensure that the process is undertaken in the manner intended by the Government. Local authorities do not have these same incentives. With private sale the proceeds should not be distributed to local authorities (on behalf of the "owners") because of the potential boundary difficulties and the likelihood of uneconomic investments. Distribution of the proceeds to beneficiaries decided by the Government has the advantage of being relatively simple, while allowing the recipients the choice of how the funds are used. This should yield a relatively efficient outcome from the recipients' perspective. Unless sale is on a very staggered basis, it would be difficult for capital markets to absorb the flotation of these assets.

Share Give-away

74 A share give-away is essentially a share sale where the shares are "sold" at a 100 percent discount. As with a share sale, it is recommended that the process be managed by a short- term trustee board appointed by the Government, with appropriate financial and other incentives.

75 A critical element with the share giveaway is the ability of the recipients of the shares to make choices in respect of their shareholding. The shareholders would need to balance their objectives as consumers with that of investor. Share ownership or rights to shares permits this differentiation to be made. The choices the owners may wish to make include ongoing shareholding, sale of the shares, or the assignment of their ownership rights to a trust. Given that most of these people will not have owned shares before, information on the costs and consequences of these courses of action would need to be described. A trust may pursue price as well as investor objectives, although this could potentially be achieved without the formation of a co-operative or trust. The biggest constraint on choices available to owners will be the costs of providing particular options and information on these options. The publishing of an offer document, as for a public issue of shares, would facilitate this. It would be desirable for the decision to assign rights to a trust to be reversible - that is for owners to be able to sell at a later date.

76 Time should be given for offers to be formulated. The reconstruction of the ESA's financial structure will be required before an assessment of share value can be made. The regulatory environment will also need to be settled and largely in place, for the consequences of this on revenue streams to be evaluated. Major investors are likely to pay a premium for control. Take-overs may be considered. Time will be required for this information to be available in the market place. This in turn will affect the timing of the share give-away.

77 The costs of the options for the shareholders can be minimised by having structures in place which are easily accessible. For example, a "shell" trust could be instituted into which shareholders could pass their shares. The "shell" trust could be given objectives which are both to maximise the value of the company and to minimise the prices charged to consumers. The choice between holding or selling shares will depend on the information provided by the company.

78 These choices, and any others, could be permitted by rights to the shares being distributed in the first instance rather than the share certificates themselves. The rights issue could contain a means by which holders indicated which options they wished to take, for example either to retain the shares, sell them immediately or place them with a trust. A central registrar could thus take the appropriate action on the choices, once the indications had been received. In this way the costs of the transactions could be minimised.

79 A further issue is the likelihood of the shares being re-aggregated from such a widespread shareholding base. Re-aggregation is important because of the impact that a firm with a controlling interest would have on the efficiency of the companies. In this respect, a rights issue will permit decision to be quickly telegraphed. It is unclear how many consumers will want to hold onto their shares. It is also unlikely that individual

consumers will take the initiative themselves to re-aggregate their shares in order to exercise their interests as consumers as opposed to investors. The provision of "shell" trusts is proposed because of the costs to the individuals of doing this. Where the interests of consumers are more homogeneous, such as in rural areas, the interest in a trust will be greater. In terms of the time path to an equilibrium shareholding and share price, some evidence is available from the public sale of British Telecom. The shares in BT were issued at a substantial discount. There were, in that case, restrictions on the ability of shareholders to re-aggregate. Nevertheless there was a considerable amount of trading in BT shares, and the number of investors involved was reduced by about 20% in about 6 months.

Conclusion: Share Give-away

80 Gifting of the shares in electricity distribution companies represents a means by which the current "owners" (be they electors, consumers or ratepayers) may make choices as to the relative weighting of their interests as consumers and investors. A rights issue permits choices between different mechanisms for holding shares and meeting either or both of the shareholders' objectives. The facilitation of these choices requires sufficient information on the companies being available (potentially through an offer document) and a "shell" trust being instituted. The process should be achieved in a timely manner by the trustee board appointed by Government.

Conclusions On Ownership Transfer

81 Sale or gifting of shares presents the same difficulties in terms of the distribution of the proceeds or the shares respectively. Officials recommend that for consistency and equity reasons (among other things) that this decision should be made by central rather than local government. Local government is unlikely to fully reflect the balance of investor and consumer interests and has limited incentives to make an appropriate decision. The available options for the initial allocation of ownership are:

a electors;

b consumers; or

c ratepayers.

The decision about the distribution of the shares is one of equity which is properly the domain of Ministers. However, a further consideration is the ability to clearly define the group of beneficiaries. Boundary difficulties and opportunities for fraud should be minimised.

82 Officials recommend that the shares be held privately and that the initial allocation of ownership occur using a share giveaway. This will permit the real owners of the companies (however defined) to make decisions consistent with the balance of their objectives rather than having these decision made by either central or local government. To ensure that this occurs in a least cost manner, officials recommend the gifting of rights to the shares to owners with a reply being required as to the future status of the shares either by retaining ownership, sale to a third party or placing the shares in a trust.

83 Control of this process has considerable linkages with the process which is used to form the companies. As is discussed below an important factor in this is the ability of parties (namely Local Authorities and Electric Power Boards) to pursue litigation. Consistent with that, as well as the issue of the incentives for local authorities to institute the reforms in a manner consistent with Government policy, officials recommend that the process should be managed by regional trustee boards appointed by Government but comprising individuals who have considerable standing in the community as well as other requisite skills.

Gas Trading Activities

84 The Government has decided to adopt the same approach for the resolution of the issue of the appropriate ownership for the shares in the gas trading activities of local authorities, once they were corporatised, as was determined for ESAs, because of the similarities between the two. Local authority gas trading activities are also competitors to ESAs. As such it is important that neither type of business has any advantage over the other. To ensure that this remains the case it is inappropriate that gas trading activities should be impeded in competing with electricity companies by the constraints of local authority ownership or advantaged by the local authorities regulatory powers. In addition local authority gas trading activities also suffer from many of the same efficiency problems that ESAs have. Officials therefore recommend that gas trading activities be formed into companies and that the shares in these companies be distributed via a share give-away administered by Government appointed regional trustee boards.

SECTION V: FORMATION OF COMPANIES FROM ESAs

85 The previous sections of this report have concentrated on the ownership issue with respect to companies formed from ESAs. However, it is clear that until the companies are formed, and assets and liabilities are transferred into them, there will be nothing to own. This section addresses the formation of the companies. An outline of the tasks involved in forming the companies is given, followed by a discussion of the legislative requirements which exist. Since there are about 54 ESAs, the transition will be a major undertaking. Mechanisms for facilitating and achieving consistency in the formation of companies are therefore recommended.

Tasks in Forming Companies

86 Irrespective of who physically has responsibility for the process of forming the companies the following tasks will need to be undertaken:

a legal formation and registration of the companies, including articles and memoranda of association;

b transitional decision making, management of the ESA/ESC during the transition, appointment of executives to the companies and industrial relations matters;

c hiring of consultants to value the business, make recommendations on capital structure, asset and liability identification etc.;

d transferring the assets and liabilities of an ESA to the new company;

e establishment of a process for the winding up of the ESA, residual management, completion accounts etc.;

f potentially making arrangements and/or recommendations for new board to be appointed once the company has been created with assets and liabilities;

g transfer of equity to owner(s) either trust, private ownership, share giveaway.

87 These tasks would be augmented by the decisions taken on ownership. For example, if a decision for private ownership is taken, additional work could be required in the preparation of a prospectus and/or information memorandum. This would coincide with the other tasks of valuing the company in other circumstances.

Legislative Requirements

88 Establishment of the companies will require legislation. It would be desirable that this legislation encompass all of the ESAs involved. A further aspect is gaining space in the legislative timetable for 1990. This could be achieved by including clauses related to the corporatisation of ESAs in the legislation which addresses the regulatory reforms (principally the removal of area franchises) for the electricity distribution industry. While this legislation has been accorded a space in the 1990 legislative programme, a priority has not yet been granted.

Possible Litigation

89 The formation of companies and the transfer of assets and liabilities from the ESAs to the companies will be perceived as being an expropriation of the assets of the ESAs, or portrayed as overriding the respective community's interests by central Government. The Crown Law opinion expresses the view that the only parties with a legitimate legal claim are the ESAs in respect of the assets which they manage and the local authorities in the case of MEDs. It may also be necessary for the required legislation to include measures to ensure that litigation and compensation claims which could disrupt the process are minimised, if not precluded.

90 If the approach to forming companies from existing ESAs outlined in this report is applied to MEDs there is a considerable chance that the beneficial owners, the local authorities, will proceed with court action, unless legally prevented from doing so. This could be achieved through legislation which deemed MEDs to be EPBs for the period of the restructuring and subsequently to be abolished when the companies had been formed. Legislative means to prevent action by beneficial owners of such entities has been employed before, for example the case of Auckland Airport. However, in this case the Crown was an owner of the former Auckland Airport Authority.

Transfer of Assets and Liabilities from ESAs to Companies

91 The transfer of assets and liabilities requires some attention, particularly given the risks of litigation. Given the current ownership of the assets and liabilities in ESAs, particularly the fact that they are not in direct Government ownership, some legislative mechanism may be required to vest assets and liabilities in the companies. In substance, this process is no different to the situation which existed with the corporatisation of Auckland Airport. In this case, it was recognised that a normal commercial sale and purchase agreement for the transfer of the assets and liabilities from the Auckland Airport Authority to the Auckland Airport company (as was used for the SOEs) would lead to protracted and unproductive negotiations on the value of the business. In addition, there was a multitude of local authority owners, which has some relevance for MEDs.

92 The transfer of assets and liabilities from the former Auckland Airport Authority to the Auckland Airport Company was achieved by Order in Council which vested the assets from the Authority into the company. A similar mechanism, with some specific changes to meet the circumstances, is being employed with respect to Radio New Zealand Ltd and Television New Zealand Ltd. Experience suggests that a direct transfer from the ESA to the company is preferable. Under this scenario the Order in Council which transferred the assets and liabilities to the ESC could also abolish the ESA. The other option which is to abolish the ESA first and have the assets and liabilities held by a third party (possibly the Crown or a Crown owned holding company) pending transfer is less satisfactory.

93 This mechanism requires legislation and the making of subsequent Orders in Council to be effective. Thus there would need to be some input from officials to facilitate the transfer, but the onus should be on a transition agency to make recommendations to Ministers (with advice from officials) as to the specific details of the value and capital structure of companies.

94 If it is decided that the ownership of the companies is to reside with a co-operative or a trust, the valuation of the assets and liabilities being transferred becomes relatively more important than if the equity is transferred to private owners. This is because of the need to make yardstick comparisons of the performance of various electricity supply companies as part of the regulatory regime for the electricity distribution industry. The private market will place comparable values on all the companies. This is not necessarily the case with trustee or co-operative ownership where the "share price" is effectively set by the value at which the assets and liabilities are transferred.

Overall Logistics of the Exercise

95 The processes employed to form the companies is an important part of the reforms. The task is likely to involve the commitment of resources that will be greater than any other commercial transaction or series of transactions ever undertaken in New Zealand. For this reason it is important that the process is managed by those who are appropriately motivated to complete the task.

96 At present there are 54 ESAs from which companies could be formed. These are differentiated by their statutory nature (ie some are MEDs and others are EPBs) and size (for example some have customers bases of only two or three thousand). This process is large in comparison to the SOE process. The formation of 9 SOEs in 1987 was a significant exercise which utilised considerable resources, particularly in terms of available financial expertise. The formation of companies from the ESAs is a larger exercise and will, therefore, require robust strategies to ensure that the expertise available is used is in the most effective manner.

97 A local share broking firm has made preliminary estimates of the costs of the initial share give-away as being between $30 and $50 million (excluding GST). A major qualification in this costing is the uncertainty about what steps are necessary before listing. These costs arise from valuation, due diligence, registry, printing and distribution, promotion, legal and audit activities. Some are common to all ESAs, irrespective of their size; most, however, will vary in proportion to size. The initial cost of a share sale would differ from that of a share give-away in the following respects:

a underwriting and brokerage costs would be paid (at, say, about 2.5 to 3% of capital issued); and

b advertising would be substantially more active, say about triple what is indicated, and image presentation (such as glossy, colour prospectuses) would be important.

They estimate the costs of a share sale very approximately at about $180 million. Their costs for share give-away and share sales, are not comparable, as the former would need to be increased by the costs of share aggregation to give the type of share distribution likely to emerge under the sale option. Re-aggregation of small lots of shares is relatively costly, although overall costs of a share give-away may not be much more for share sale.

Incentives in the Formation of the Companies

98 As with the allocation of the shares in the ESCs, the process of forming the companies critically depends on those involved having the appropriate incentives. In proceeding with the formation of ESAs into limited liability companies it will be necessary to ensure that, as far as possible:

a progress in the restructuring process is made as quickly as possible;

b costs associated with the process are minimised, including legal costs and industrial disruption;

c that the new companies are established on a wholly commercial basis with an objective of being successful businesses; and

d the day-to-day operations of ESAs are not disrupted.

These factors indicate that the roles of the participants in the restructuring process comprise making day-to-day operational decisions in the retail supply of electricity and the establishment of the companies from existing ESAs.

99 The existing ESA board members will have a vested interest in process of establishing the new companies. It is likely that this will be accompanied by relatively fixed views as to the manner in which the restructuring should proceed which could differ from that agreed by the Government. In addition, the ESA board members may reflect the interests of their constituents as they perceive them and may seek to pursue these interests through litigation. This would have a significant impact on the speed with which the companies could be formed. As a result, it is recommended that existing ESA board members are not placed in a position where such conflicts arise.

100 The individuals involved in the establishment of the companies (eg existing board members or consultants) may also have conflicts of interest. They should be seeking to achieve the most appropriate commercial outcome in the establishment of the companies, particularly in terms of an economic value. Given the relatively small pool of people to choose from, some conflicts of interest are inevitable. New board members will need to be chosen on the basis of the contribution they can make. Consultants might be prohibited for a period of time from acting for an ESC that they helped set up.

101 Officials consider that there is a need for the implementation of the restructuring to be overseen by individuals appointed by Ministers who are separate from and have no affiliations to existing ESAs. This should ensure that the reforms are implemented in a timely manner and in accordance with Government policy. Groups of three, and preferably four, individuals (trustee boards) chosen for their commercial skills and abilities in restructuring businesses would be required. The skills of individual members should include financial, legal and industrial relations experience. A requirement for the trustees to have significant standing in community affairs would also be advantageous (this is discussed below). These skills are unlikely to be found within the ranks of existing board members. The regional trustee boards would be responsible for the establishment of three or four ESAs as companies.

Existing ESA Boards

102 Given the potential conflicts of interest for existing ESA board members in the restructuring process and their relationship with the management of the ESAs there is an important trade-off in retaining the existing Board membership until the new companies are formed. This is characterised by the need to maintain the smooth operation of ESAs while the companies are being established and the prospect of the existing Boards frustrating the electricity distribution reforms.

103 A solution to the potential dilemma is to institute a regime which changes the nature of Board members responsibilities but maintains the relationship between them and the ESA management. In this regard, officials recommend that the regional trustee boards which are responsible for the restructuring process replace the existing board, but that they be given the power to co-opt former board members, on appropriate terms, to continue making operational decisions within the ESAs while the companies are formed.

104 In the period between an announcement which foreshadowed the abolition of the ESA boards, and their replacement or supervision by trustee boards, there is a risk that some ESA boards may decide to commence expenditure on activities that could not be justified on commercial grounds, or might otherwise be contrary to the intention of Government. The decisions made by the Auckland Harbour Board in its last months of existence are an example of the type of behaviour that might occur. It would be desirable to avoid the need for legislation of a retrospective nature, similar to the Local Government Reorganisation (Property Transfer) Bill to deal with such actions. If the time period between the announcement of the policy and appointment of trustees was kept short and the overall policy was generally acceptable to ESA boards, then no specific action would need to be taken. If, however, this time period was relatively long or substantial opposition was expected from the ESA boards, then some action will be required. A section similar to section 33 of the Port Companies Act which required any significant expenditure or disbursement of funds by the outgoing board to be approved by the Minister or the delegated authority responsible for the restructuring would be an appropriate check on the actions taken by outgoing ESA boards.

Consultations with Unions

105 Clear identification of the industrial relations issues involved in the transition will be required. This would draw on experience already gained on other instances of restructuring at the local government level. Informal consultations are now occurring between officials and representatives of several of the affected unions. A strategy for dealing with the industrial relations issues should be incorporated in the guidelines for managing the transition which officials propose to have prepared.

Establishing a Transition Methodology

106 A major constraint on the process is the availability of appropriate expertise both in terms of the regional trustee boards and consultants. Depending on the level of amalgamation, about 40-50 companies will need to be formed. It will be important for an efficient transition process to be designed which minimises the costs involved, which obtains a substantial degree of consistency in the treatment of companies, and which

reduces the scope for disruption and stalling in the transition. Officials recommend that a specialist task force of officials and financial experts be formed to devise a set of overall objectives, guidelines and processes which could be used in the case of each ESA. This could involve, for instance, standard approaches for issuing script and trading in script. More importantly, the guidelines should include a methodology for valuing assets, reconstructing accounts, and establishing new balance sheets which would be followed by each ESA. This will help ensure that the new companies adopt appropriate pricing and investment policies and will facilitate the transition process. Officials suggest that the development of guidelines include a pilot programme with several ESAs which support the process, to determine their feasibility. Clarification will also be required on how the costs of transition are shared between the Government and the individual ESAs (or their successors).

107 There are a number of areas where guidelines could be prepared in some detail:

a Standard Articles of Association - would be relatively straightforward and could be defined in a short space of time.

b Finances - the main issue here is valuation and establishment of initial balance sheet. Extensive data already exists for comparison of ESAs, including data on major variances between the major ESAs. Models can be quickly developed that will encompass the large bulk of variances between ESAs.

c Legal Requirements - there is the advantage that MEDs and EPBs are currently relatively uniform in their corporate forms. The structure for transformation for limited liability companies could also be prescribed in some detail.

d Auditing - a standard schedule for the information required for auditors to finalise annual accounts and verify prospectus information again would be relatively straightforward. This would cover requirements for Stock Exchange listing and Securities Regulations requirements. However, this is a crucial area in terms of adequate due diligence being undertaken such that new Directors would be prepared to "sign off" on the prospectus.

e Prospectus Preparation - while much of the detail of prospectuses will have to be written with reference to individual ESAs, the overall outline and detail prescription of the information required is again relatively straightforward. We would recommend a minimal prospectus containing little more than the statutory requirements - although individual management may press for a greater "PR" content.

f Directors Sign Off - directors of the companies and the trustees will presumably have to sign off on prospectus information. The nature of their sign off and consequent possible liability would need to be very carefully defined in order that, together with audit reports, there is a clear definition of the responsibilities of Directors and Trustees.

108 There will be some linkages with other aspects of the electricity reform process, for instance in the formation of and ESAs (as currently constituted) participation in the

transmission club. This will require that the ownership and the commercial form of the ESCs is in place at an early date.

109 The issue of whether the companies formed will have a comparative advantage over ESAs which remain to be restructured, assuming that franchise areas and the obligation to supply are removed, has also arisen. The scope for competitive advantage for the companies over the ESAs is almost entirely dependent on the ability and willingness of the ESAs to act in a commercial manner. The ESA boards may be disadvantaged by an inappropriate mix of skills, particularly commercial skills. However, it could be argued that both the companies and the ESAs will have a considerable task in changing the cultures of their respective operations. There are some lessons to be learnt from similar experiences with electricity generation in the United Kingdom, where the Government was eventually forced to phase competition in over an 8 year period.

Amalgamation

110 During the period over which the reforms to the electricity industry have been considered only a limited number of amalgamations of ESAs have occurred. The Minister of Energy has had a policy of permitting amalgamations where this is justified on the basis of efficiency. The formation of companies from the existing ESAs provides an opportunity for possible amalgamations to be considered. The amalgamation issue has been examined from a commercial and a regulatory perspective.

111 On the commercial side, amalgamations should occur where it is economically beneficial for both parties to merge. This will be dictated by the amount of duplication there is in the operations and economies of scale which exist. It is evident from the analysis undertaken by Putnam, Hayes and Bartlett (consultants to the Electricity Task Force) that there are increasing returns to scale for ESAs up to about 20,000 consumers. It was also found that some small ESAs were as efficient as some of their larger counterparts. Under these circumstances, the parties to the merger are better placed than the Government to assess the commercial value of amalgamation.

112 The formation of companies from small ESAs will incur many of the same costs as those with large ESAs. In circumstances where these entities are adjoining, or one is completely encompassed within a larger ESAs' geographic region, a case can be made for forming a single company from the two ESAs. Accordingly there are grounds for actively encouraging amalgamation of two ESA operations in order to minimise restructuring costs.

113 Although there are clear advantages to speeding up the inevitable amalgamation of some of these organisations, there may be issues to be dealt with relating to the distribution of shares. For example, where a financially healthy ESA absorbs an ESA which is unprofitable, this could be seen as a transfer of wealth from one set of customers/electors to another. In particular, if some potential shareholders see that the value of their "gift" is to be diluted by an amalgamation which is in all other senses positive, they might seek to hold up the timetable.

114 As the scope for competition in the electricity distribution sector is limited, yardstick monitoring is to be introduced to provide incentives for productive efficiency. Therefore mergers between ESAs, both before and after companies are formed, will

have implications for regulatory regime proposed. The efficacy of yardstick monitoring requires that a reasonable number of comparable ESAs remain, between which comparisons can be made. In the absence of yardstick regulation dominance in the distribution market is likely to be increased. Merger proposals, where the aggregate value of a merger exceeds $100m, will be subject to Commerce Commission scrutiny. The Commerce Commission should be required to consider the consequences of a proposal to merge distribution companies and the effect this will have on yardstick regulation and in turn the effect on market dominance, and weigh this against the other factors when making its decision. Therefore officials recommend that the Government convey to the Commerce Commission a statement of policy on the intended regulatory environment for the electricity distribution sector indicating that the Commerce Commission should have regard for the efficacy of the monitoring regime proposed of any merger which comes before it.

Southland Electric Power Supply (SEPS)

115 Special account needs to be taken of SEPS, which was taken over by the Crown in 1937, when it became insolvent. The Crown wrote off outstanding loans, as SEPS continued to lose money until 1952. Since that time, SEPS has generally been profitable. It has no loan liabilities, and its net funds comprise $34.0M of capital and general reserves, and yielded an after tax profit of $4.3M in 1988/89. SEPS is currently managed by ECNZ.

116 Proposals on the future of the SEPS were considered by the Cabinet Policy Committee on 28 February 1990. That Committee, inter alia, agreed that SEPS should be formed into a company subject to the accountability provisions of the SOE Act [POL(90) M4/2]. After further consideration officials consider that SEPS can be treated as part of the reform proposed above. Accordingly, it is recommended that CPC's decisions with regard to SEPS be superseded by the recommendations of this report.

117 Crown ownership of SEPS has some advantages, as the formation of a company from it should cause fewer problems than for other ESAs. There would be no grounds for claiming compensation by any other party, for example.

Chatham Island Electricity System

118 The Crown is also the owner of a small electricity distribution system on Chatham Island currently administered by the Residual Ministry of Energy. It will be both convenient and appropriate to apply the reform process outlined above to this business. Such reform does not interfere with the ongoing restructuring of the provision of services in the Chatham Islands.

SECTION VI: IMPLICATIONS FOR MAORI

Justice Department's and Manatu Maori's View

Consultation with Maori

119 Manatu Maori and the Justice Department are concerned at the lack of early and detailed consultation with iwi in relation to the electricity distribution restructuring proposals.

120 Part of Government's policy in the Maori Affairs area is to empower iwi. This thrust can be seen in the document "Principles for Crown Action on the Treaty of Waitangi" and in pending legislation such as the Runanga Iwi Bill, the Resource Management Bill and the Local Government (No 8) Bill 1989.

121 To be consistent with this approach Government should, in addressing the question of ownership of ESAs, be prepared to relate to tribes in a manner which recognises the rangatiratanga of the "separate and several" tribes.

122 While we are unsure as to the extent of Maori claims over assets involved in this restructuring, we believe that, in order to avoid legal action being taken by Maori, proper consultation should take place.

Land Under Claim

123 The Government must ensure that assets which may be subject to Waitangi Tribunal recommendations are not transferred into private company ownership without adequate safeguards.

124 A mechanism should be legislated for whereby shares, equivalent to the value of land under claim, should be reserved by the Crown for the settlement of claims. The exact proportion of shares would be equal to the proportion of land claimed to the total land transferred to each company.

125 Thus, if the Tribunal makes a recommendation that land is to be returned to an iwi, then the Crown would gift reserved shares to the successful claimants.

126 The Crown has instituted a special scheme to protect Maori claimants to SOE land. The Crown cannot argue that it should only institute special arrangements for one particular class of land and not another. In terms of utmost good faith, the Crown should honour its own stated principles in relation to the Treaty of Waitangi.

127 Irrespective of the views of other officials we are extremely concerned that legal action may be taken by Maori over the privatisation of ESAs.

Land Acquired under the Public Works Act

128 The Public Works Act allowed the compulsory acquisition of land for public works.

129 Current Government policy is that, where the Crown acquired land for electricity distribution under the Public Works Act from Maori owners, that land, on ceasing to be used for electricity supply, should be offered back to its original owners under the Public Works Act and Section 436 of the Maori Affairs Act.

130 The new Land Act will make this process mandatory. This question has recently arisen in relation to the Irrigation Schemes Bill introduced late last year. That Bill is to be amended to provide that where the land concerned ceases to be used for an irrigation scheme, that land must be offered back.

131 There needs to be provision in the legislation for land to be offered back to the original owners from whom it was acquired. In other words, land acquired under the Public Works Act should not be freely alienable by the new companies. It should first be offered to the original owners or their successors.

SEPS - The Issue of the Alienation of Crown-Owned Land

132 The consistency of the Crown's policy on the alienation of Crown-owned land has implications for the alienation of SEPS land.

133 The Crown Task Force on the settlement of its claims is examining the issue of alienation at the present time. It is therefore important that the question of SEPS land be delayed and dealt with in terms of the Crown's general policy for the disposal of Crown-owned land.

134 The Maori Council case, even though dealing with the narrower issues of SOE lands can be seen to have placed on the Crown a general obligation to act in relation to Maori with the utmost good faith.

135 The proposal to provide a special regime for SEPS owned land could be interpreted as a means to evade this obligation.

Views of Majority of Officials -
(Treasury, Ministry of Commerce, Department of the Prime Minister and Cabinet, and the SOE Unit)

136 These departments do not agree with the assumptions or recommendations made by Manatu Maori and Justice.

Jurisdiction

137 The Treaty of Waitangi Act binds the Crown and Section 6 sets out the jurisdiction of the Tribunal.

138 ESAs/MEDs are not part of the Crown (nor is it intended that ownership pass to the Crown) and hence land held by them is non-Crown land. They are not subject to the provisions of the Treaty of Waitangi Act. While the Government in its role as a legislator has some Treaty obligations, these are not clearly defined. To extend the coverage of the Act in the manner suggested would have significant implications for other areas of local authority activity.

Compensation

139 Notwithstanding the above, if the Government eventually decided that some form of compensation was thought necessary/desirable, then provision of shares (as compared with, say, cash) may not be the best option. Maori will receive shares under the general proposals being made for a share give-away.

SEPS

140 The sale of SEPS land could be subject to whatever general rules are established for Crown land disposal, but the process of restructuring of SEPS need not be delayed.

Restoring Mana to Iwi

141 The Manatu Maori and Justice position raises not just the issue of land claims relating to non-Crown land but the broader issue of restoring mana to the iwi. It is a matter that is beyond the scope of the electricity industry restructuring group - it is a core group issue.

142 One of the issues which relates to the restoration of mana to the iwi is Maori participation in the decision making process on issues other than Article II matters. That position is still evolving.

143 Given the extensive nature of the proposed changes, some discussions with Maori would pre-empt difficulties in the transition process.

144 In these circumstances, the majority of Officials propose that they report further on the parameters for such discussions. The parameters would need to clearly define the basis for the discussions to determine Treaty issues involved. They would be on a strictly without commitment basis.

View of the Ministry for Environment

145 The Ministry for the Environment is concerned that Treaty issues have not been adequately investigated in the preparation of the paper.

146 The view (expressed by Treasury, SOE Unit, Department of the Prime Minister and Cabinet and Ministry of Commerce) that decisions should be taken now and investigated subsequently for their Treaty implications makes no logical sense, invites litigation, may be prejudicial to present and future claimants and is not consistent with the principle of partnership.

147 Although the recommendations proposed by Manatu Maori and Department of Justice can only be regarded as a second best option in that they have been formulated without the opportunity of consultation with Maoridom they do at least propose a mechanism for preserving the opportunity of meeting legitimate claims in a responsible manner.

148 Consequently, the Ministry supports the view that the paper be deferred so that the Treaty issues associated with the restructuring of the distribution sector can be

considered adequately or, if urgency is required, the proposals put forward by Manatu Maori and the Department of Justice be followed.

SECTION VII: RECOMMENDATIONS

149 It is recommended that the Cabinet State Agencies Committee:

a agree that the shares in the companies formed from ESAs should be held privately and be tradeable;

b agree that the initial transfer of ownership should be by way of a share give-away;

c EITHER **Treasury, Commerce, PMs, SOE Unit**

i decide whether the shares should be gifted by way of a rights issue to either:

- electors; or
- ratepayers; or
- consumers;

ii agree that a report be prepared on the parameters for discussions with Maori on a strictly without commitment basis to identify the possible Treaty issues involved in the changes proposed in ESA ownership;

OR **Manatu Maori, Justice, Environment**

Either

i agree that the decisions on electricity distribution restructuring be deferred until associated Treaty issues are considered adequately;

Or

ii agree that the Crown should reserve a proportion of shares for the settlement of Maori land claims, and that that proportion should be the same as the proportion of the value of claimed land to the total land transferred at the time a company is formed; and

iii agree that each company should be obliged to issue new shares, which would preserve the proportion referred to above, to meet any situation where reserved shares are not sufficient to cover the claim; and

iv decide whether the shares, not reserved for the settlement of claims, should be gifted by way of a rights issue to either:

- electors; or
- ratepayers; or
- consumers;

d agree that the formation of companies and distribution of shares for all ESAs be undertaken by regional trustee boards appointed by and directly accountable to Ministers;

e EITHER **Treasury, Commerce, PMs, SOE Unit**

agree that the trustee boards should comprise four members, appointed for their skills and abilities in commercially restructuring businesses, particularly legal, financial and industrial relations skills, as well as their standing in the community concerned;

OR **Manatu Maori, Justice, Environment**

agree that the trustee boards should comprise four members, appointed for their skills and abilities in commercially restructuring businesses, particularly legal, financial and industrial relations skills, as well as their standing in the community concerned, and that one member should be appointed in consultation with the appropriate iwi;

f agree that the trustee board members should be appointed as members of the ESA boards for which they are responsible for forming into companies, with one member of the trustee board being appointed the Chairperson;

g agree that the current ESA board members should relinquish their positions, but that the trustee boards should have the ability to co-opt these individuals to the board to oversee day-to-day operations, as they see fit;

h agree that the assets and liabilities of the ESAs be transferred to the companies by way of an Order in Council, similar to the mechanism used for Auckland Airport;

i agree that draft legislation should be prepared along the lines outlined above and direct officials to have drafting commence forthwith;

j EITHER **Manatu Maori, Justice, Environment**

agree that provisions be put into legislation that where lands, which were conpulsorily acquired by the Crown, are transferred to the companies and subsequently cease to be used for electricity distribution, these lands should be offered back to the original owners or their successors under Sections 40 and 41 of the Public Works Act and Section 436 of the Maori Affairs Act;

OR **Treasury, Commerce, PMs, SOE Unit**

agree that this matter should be reported on in the report proposed in (c)(ii);

k agree that this legislation should, as far as possible, be drafted to minimise litigation and other claims for compensation from either local authorities or existing ESAs;

l agree that amalgamation of small existing ESAs as part of the process of establishing the companies should be actively encouraged, but that such mergers be subjected to the scrutiny of the Commerce Commission in respect of the impact on the operation of the regulatory environment;

m direct the Minister of Commerce to consider making a Statement of Government Policy to the Commission, requiring the Commission to have regard to the effects of amalgamations on the proposed yardstick monitoring regime;

n EITHER **Treasury, Commerce, PMs, SOE Unit**

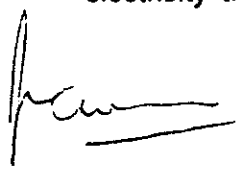
agree that these recommendations on ESA ownership transfer supersede the 28 February 1990 decision of the Cabinet Policy Committee to form SEPS into a company subject to State-Owned Enterprises Act;

OR **Manatu Maori, Justice, Environment**

agree that any further decisions in respect of SEPS be delayed until the general Government policy on the disposal of Crown owned lands is settled;

o agree to local authority gas trading activities being formed into companies and the shares in these companies being given away in the same manner as for ESAs as set out in the above recommendations; and

p direct officials to investigate the appropriate means of dealing with the Hutt Valley Energy Board's and the New Plymouth City Council's ownership of both gas and electricity trading activities and to report back by 30 April 1990.



J M Chetwin
Chairperson
Officials Co-ordinating Committee on Electricity

Departments involved in the preparation of this report:

Ministry of Commerce
Department of the Prime Minister and Cabinet
The Treasury
SOE Unit
Ministry of Maori Affairs
Ministry for the Environment
Department of Justice (Treaty Unit)

11 October 1989

The Solicitor General
Crown Law Office
P.O.Box 5012
WELLINGTON

REQUEST FOR A LEGAL OPINION - OWNERSHIP OF ELECTRICAL SUPPLY AUTHORITIES

1. Your assistance is sought in providing an opinion on the current legal ownership of Electric Power Boards and the Municipal Electricity Departments of territorial local authorities (referred to in this request as Electicity Supply Authorities or "ESAs").

Enclosed please find:

a A copy of a legal opinion prepared for the Treasury by Chapman Tripp Sheffield Young, which discusses the issue of the ownership of ESAs;

b The following Cabinet papers:
   i Review of the Electricity Distribution Market (P (87) 185) dated 9 December 1987;
   ii Electricity Distribution Industry Reform (POL (88) 108) dated 26 July 1988;

c Task Force Report dated 13 September 1989;

d Draft officials paper Electricity Distribution Restructuring: The Ownership Issue, dated 4 October 1989.

Background

2. In February 1988, the Government established a review of the structure and regulatory environment for the bulk electricity supply industry. A Task Force was appointed, comprising representatives from the Treasury, the Ministry of Energy, the Ministry of Commerce (formerly the Department of Trade and Industry), and the Electricity Corporation of New Zealand (ECNZ). Later the Task Force was expanded to include representatives from electricity supply authorities (ESAs), and at the same time the

role of the Task Force was expanded to involve a detailed study of the industry as a whole, continuing the investigation of electricity distribution previously undertaken by officials and reported on in the papers referred to in paragraph 1(b) above.

3. At its meeting of 30 August 1989, Cabinet Policy Committee (POL(89) M 28/2 refers) inter alia:

h confirmed that Electricity Supply Authorities, ESAs, be formed into companies;

i noted that the Government has deferred a paper on the initial distribution of ESA shares [POL(88) 108 and POL(88) M38/1 refer];

j noted that officials are now divided on the form and extent of the privatisation of ESAs;

k directed officials to report again to the Cabinet Policy Committee on 18 October 1989 on the options available for the privatisation of ESAs;

4. Officials consider that before forming ESAs into companies, and before deciding on their ultimate ownership, the question of where current ownership rights in ESAs lie needs to be addressed. This is felt to be a significant issue as compensation may be claimed for rights lost in the restructuring process by parties who consider themselves to be the current owners of ESAs.

5. The officials state in their draft memorandum to Cabinet Policy Committee dated 4 October (attached), at page 3:

> "The ownership question has not been tested before in the New Zealand courts. Nor has a Crown position been formally established. It is likely that Power Boards would seek injunctions against implementation of Government decisions, pending resolution of present ownership, if those decisions were not acceptable to the industry or the public."

Ownership of ESAs

6. The term "supply authority" was defined in section 2 of the Electrical Supply Associations Act 1930 which expired on 1 April 1989. Section 20 of the Electricity Act 1968 provides for the authorisation of persons and bodies to supply electricity as follows:

> " 20.---(1) No person or body shall supply electricity to the public except under the authority and subject to the provisions of a licence issued to him by the Minister under this section...
>
> (4) The holder of a licence under this section may, subject to the provisions of his licence and subject to this Act and any regulations made under this Act, lay, construct, put up, place, or use all electric lines and works which may

from time to time be required for the distribution and supply of electricity within the area specified by the licence."

7. The two types of Electrical Supply Authority are Electric Power Boards (EPBs) and Municipal Electricity Departments (MEDs). The provisions of the Electric Power Boards Act 1925 apply to EPBs; and MEDs are provided for in the Local Government Act 1974 provisions applying to the supply of energy by territorial authorities (sections 520 - 536).

8. Officials wish to ascertain who, if anyone, currently owns ESAs. They consider that the following groups may have claim to ownership of ESAs.

Electors
Ratepayers
Consumers
Taxpayers
Local Authorities (in the case of MEDs)

9. An opinion prepared for the Treasury by Chapman Tripp Sheffield Young is attached for your information. It discusses the issue of ownership of EPBs and ESAs from the point of view of who is responsible for electing the members of the respective bodies, the source of the funding for the bodies and the ultimate bearers of risk for activities undertaken by ESAs. The opinion concludes that, in respect of EPBs; from the Electric Power Boards Act 1925, it would appear that the strongest claimants to "residual ownership" rights would be the electors, based on the right to elect the members of the EPB, and the resulting accountability of the EPB to them. The electors are also the group that the EPB consults when it wishes to take a poll on any matter, including a proposal to borrow money. The opinion also notes that ratepayers may have some claim, based on the fact that they are the ultimate legal risk carriers in respect of EPBs.

10. The opinion states that in relation to MEDs, it appears that territorial authorities would have the strongest claim to ownership of the assets, and that the same arguments apply in relation to the interests of ratepayers and electors as apply to EPBs. The opinion concludes that:

> "It is not possible to state definitively that any one group should clearly be regarded as legal residual owners of EPB or MED assets. The issue depends largely on the interpretation of Parliament's intention as manifested in the relevant Acts. Unfortunately this is unclear, presumably because it has rarely, if ever before been an issue."

11. I would tend to agree with these comments. It would seem unlikely that the issue of the ownership of, or residual ownership interests in, ESAs was an issue at the time the legislation providing for the supply of electricity was enacted. At that time, the issue of privatisation of the electricity industry would not have been contemplated. It may not be possible, therefore to provide a definitive answer to this question. This highlights the

need for firm decisions to be made and clear indications to be given in the course of the privatisation process as to how the assets of existing ESAs are to be distributed, and for these to be implemented in legislation to preclude any legal challenge.

12. Cabinet has directed officials to report back to the Cabinet Policy Committee on 18 October 1989 on the options available for the privatisation of ESAs (see paragraph 3 above). Your assistance is therefore sought in advising officials, as soon as practicable, of your opinion as to whether any group of persons has current legal ownership of Electric Power Boards and the Municipal Electricity Departments of territorial local authorities, and whether you consider that any grounds exist upon which the decision to form ESAs into private companies may be challenged

13. If you should require clarification of any aspects of the factual background to this matter, please contact Andrew Duncan at the Ministry of Commerce. I am available to discuss this matter at your convenience.

Liz Gilbert
Solicitor.

E II R
NEW ZEALAND

RECEIVED

139-141 Featherston Street
WELLINGTON 1.

Matter number: C0053077

Your reference:

CROWN LAW OFFICE
P.O. Box 5012
WELLINGTON

Telephone (04) 721 719
Fax (04) 733 482
DX 8161
Wellington Central

26 October 1989

The Secretary of Commerce
Ministry of Commerce
Head Office
FAX (04) 734-638
WELLINGTON

Attention: Ms Gilbert

Dear Sir

Ownership of Electrical Supply Authorities

I refer to your letter of 11 October, received here on the 16th idem, by which you seek an opinion on the following three matters:

1. The current legal ownership of electric power boards.

2. The current legal ownership of municipal electricity departments of territorial local authorities.

3. Whether in the event of your proposals for formation of companies to conduct the business presently carried on by electric power boards or MED's, a claim for compensation could arise from any body or group of persons claiming ownership.

In summary my answers are:

1. An electric power board has no "owner" in the legal sense, but its assets are owned by the Board itself.

2. An MED is part of a territorial local authority and its assets are owned by such authority.

3. Absent any statutory authority, the dispossessed Board or local authority (but not its electors or ratepayers) could claim compensation or damages.

Amongst the material provided is an opinion dated 19 January 1988 from Messrs Chapman Tripp Sheffield Young which examines at some length the claims of various groups, such as electors, ratepayers, etc. and concludes -

> "It is not possible to state definitively that any one group should clearly be regarded as legal residual owners of EPB or MED assets. The issue depends largely on the interpretation of Parliament's intention as manifested in the relevant Acts. Unfortunately, this is unclear, presumably because it has rarely, if ever before, been an issue."

Although your letter seeks an opinion on the "legal ownership of electric power boards ..." I take it that the real concern is with the ownership of assets presently vested in such bodies.

While, as the opinion from Messrs Chapman Tripp Sheffield Young shows, it is possible to advance various arguments, which dependant on one's particular standpoint may have some validity in economic theory or perhaps social ethics, as a matter of law, an electric power board does not have an owner.

Such Boards were created under the Electric Power Boards Act 1925 (or earlier similar legislation). The Board members are elected in much the same fashion as other local authorities, and the Boards themselves are bodies corporate with perpetual succession and capable of owning all forms of property - s.9(2). Each Board is therefore an artificial legal person distinct from its elected members and from its electorate. It is the Board in is capacity as a body corporate which owns whatever assets it may from time to time possess.

This, I think, comes through quite strongly from s.7 (which deals with the adjustment of assets and liabilities where the boundaries of the district of any Board are changed) and from s.95, under which the Governor-General may acquire the Board's electric works on behalf of Her Majesty the Queen and pay to the Board compensation for them.

The question of who ultimately "owns" the Board has some light thrown upon it by the decision in Poverty Bay Electric Power Board v Attorney-General (Unreported - Wellington CP552/87 - Davison CJ - 5.11.87) where the issue was, whether the Board, as part of the purchase price of electricity from the Crown, could be said to have acquired some form of legal interest in the generating and other works constructed by the Crown, and which were then about to be sold to Electricity Corporation of New Zealand Limited. The Court had no difficulty in rejecting

such a proposition. Sir Ronald Davison, Chief Justice, said, at p.12,

> "The power boards and supply authorities have no proprietary interest whatsoever in the revenues once they have been received by the Crown nor have they any proprietary interest in any of the assets which may be purchased by the Crown. The power boards and supply authorities simply pay a certain price for electricity supplied to them and that price is so calculated as to hopefully produce a surplus which is payable to the general revenue account from which account if there is any credit balance sums may be used for capital works".

There is an obvious analogy between the position of the Boards, vis-a-vis the Crown, as expressed by the Chief Justice, and the Board's consumers, vis-a-vis the Board, and its assets.

A judgment presently awaited from the High Court in relation to the distribution of the assets of the Auckland Harbour Board, pursuant to the recent reorganisation of local government, may, perhaps, be of some assistance on this point, but it is not an issue which is central to the case.

However, I have no doubt that, in the legal sense, there is no "owner" of an electric power board, and no-one, other than the Board itself, who would be empowered to seek compensation in the event of a Board being converted into a company.

The position of a Municipal Electricity Department of a local authority (such as the Wellington City Council) is somewhat different. Municipal authorities generate and supply electricity pursuant to (now) ~~to~~ Part XXX of the Local Government Act 1974, though, of course, the original statutory authority was given much earlier.

Their precise establishment may vary, but such agencies are generally departments of the municipal authority, and all works for the supply of energy vest in the local authority - s.526

Earlier sections of the same Act make special financial provision for the transfer of what are defined as trading assets of a local authority - e.g. s.37H, as distinct from the transfer of non trading local authority functions, for which no compensation is payable - s.35(4).

Apart, therefore, from statutory authority for their [illegible]sition without payment of compensation, the removal of such [illegible] the ownership of the local authority would almost

certainly give rise to claims for damages or compensation, but by the dispossessed local authority, as owner, not by its ratepayers; for similar reasons to those advanced above in relation to power boards.

If some further elaboration is required, please do not hesitate to let me know.

Yours faithfully

K Robinson
Crown Counsel

APPENDIX II

DATA FROM THE AUDIT OFFICE'S 1987 STUDY OF LOCAL AUTHORITY HYDRO PROJECTS

LOCAL HYDRO-ELECTRIC SCHEMES CONSTRUCTED

Scheme	MW	Estimates at Time of First Construction Loan Application: Total Cost[1] ($M)	Estimates at Time of First Construction Loan Application: Generation Start Date	Actual at Scheme Completion: Total Cost[2] ($M)	Actual at Scheme Completion: Generation Start Date	Delay in First Generation (Months)	Percent Overrun of Total Cost	Cost of Installed Capacity ($M/MW)	Economic Cost of Electricity: Estimate (c/kWh 1978 Prices)	Economic Cost of Electricity: Actual (c/kWh 1978 Prices)	Economic Cost of Electricity: Percent Change
Patea	30.7	42.4	Sep 83	86.5	Jun 84	9	104	2.8	2.8	4.1	+46
Aniwhenua	25.0	25.6	Nov 79	29.0	Oct 80	11	13	1.2	2.1	2.1	nil
Wheao	24.4	29.7	Nov 82	46.6	Jul 84	20	57	1.9	2.4	2.2	−8
Ruahihi	20.0	15.5	Sep 79	63.2	Jul 81	22	308	3.2	2.9	5.7	+97
Paerau Gorge	12.2	24.7	Jun 83	34.3	Jun 84	12	39	2.8	2.3	3.5	+52
Branch	11.0	19.4	Mar 83	25.0	Aug 83	5	29	2.3	2.3	2.5	+9
Teviot	9.1	4.6	Apr 79	6.7	May 81	25	46	0.7	1.6	1.5	−6
Hinemaiaia	3.75	4.2	Aug 80	5.9	Nov 81	15	41	1.6	3.2	4.4	+38
Waihi	5.0	6.8	Feb 83	26.8	Jul 85	29	294	5.4	2.7	6.9	+156
Wairere Falls[5]	3.0	2.7	Sep 80	4.4	May 81	8	63	1.5	[4]	[4]	[4]
Montalto	1.7	2.9	Mar 81	4.6	Jun 82	15	59	2.7	2.1	3.3	+57
Duffers[5]	0.62	0.6[3]	Jun 80	0.7[3]	Jul 81	13	17	1.1	[4]	[4]	[4]
Turnbull[5]	0.6	0.8	Mar 80	1.0	Aug 81	17	25	1.7	[4]	[4]	[4]

NOTES: [1] Includes value of investigation/design grants, interest during construction, and allowance for construction cost escalation due to price increases.
[2] Actual amount spent in "dollars of the day".
[3] Does not include provision for interest during construction and allowance for construction cost escalation due to price increases.
[4] Figures not available.
[5] Information adapted from CLAHD data.

VI

ECONOMIC AND FINANCIAL VIABILITY

This chapter addresses the question whether the 1977 local hydro schemes policy and the individual projects were successful in economic and financial terms. Three issues are focussed upon. First, did the policy have a positive national benefit? Second, to what extent was each project constructed within the cost estimated at the approval stage? And third, is each project financially viable? It should be borne in mind that the assessment of viability has been made in 1986 when the schemes have much of their life yet to run.

6.1 National Economic Benefit

The main economic objective of the policy was to provide electricity at an economic cost not greater than the new cost of supply by the State. Retrospective evaluations suggest that the actual cost of supply of the 13 schemes averaged about 3 c/kWh in 1978 prices.

While the 3c/kWh benchmark was confirmed by Cabinet in 1979, the estimated economic value of additional electricity at that time was 1.7c/kWh or less. Only Teviot was estimated to generate electricity at below this latter figure. There is no authoritative retrospective assessment of the economic value of electricity over the period but the forecast electricity surplus, which led to the downward revision in the estimated cost of supply, did appear. Preliminary estimates suggest that 1.7c/kWh has, in the event, proved to be near the correct figure.

This means that while on average the schemes were near the ceiling cost of 3c/kWh (in 1978 prices) that had been set for them, the ceiling was too high, and much of the electricity produced by the schemes has been of no national economic benefit. The schemes displaced electricity which could have been generated more cheaply from the State's surplus capacity. It would have been in the country's economic interest to have delayed most of the projects until the national surplus had been reduced.

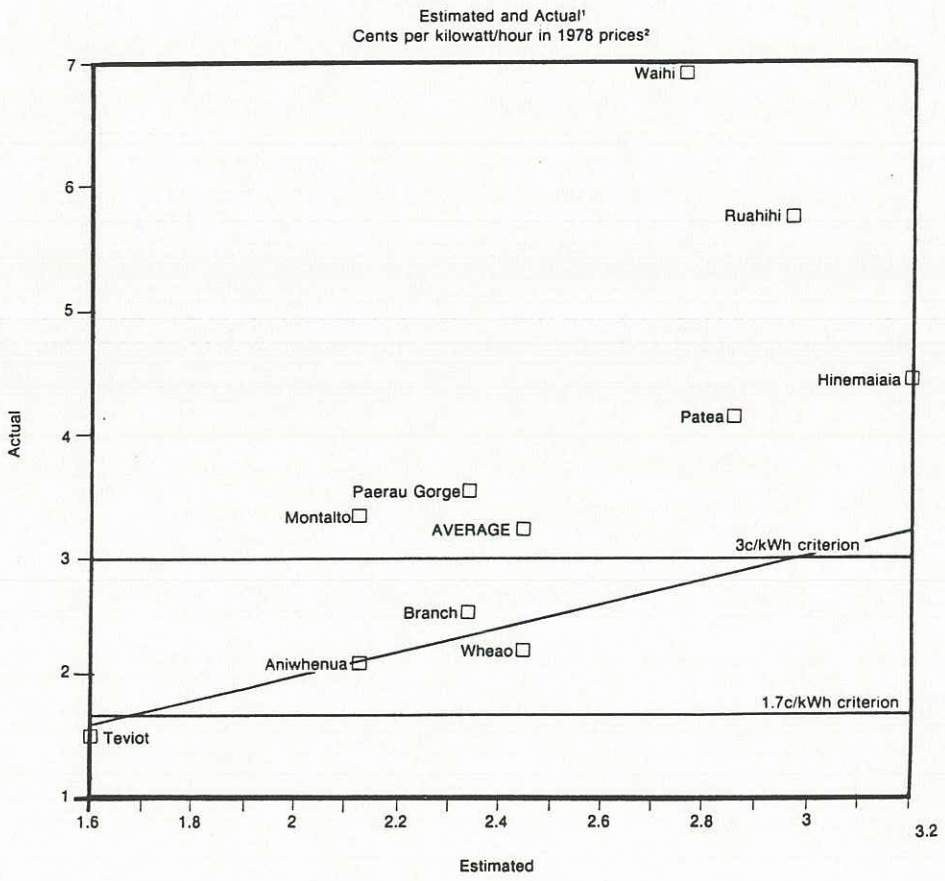
Thus the policy does not appear to have been to the national economic benefit. Although a few of the individual schemes may have produced an economic benefit, most of them certainly have not.

6.2 Scheme Construction Costs

A major reason for the higher than estimated economic cost of electricity generated is the final construction cost. It appears that six of the schemes experienced significant construction cost increases over the approved estimate, which included an allowance for inflation. Nine of the thirteen schemes were commissioned at least a year late. While in each case specific justifications were given for the cost excesses, our examination of a number of schemes showed that some components of the excesses were not identifiable, and others could be attributed to poor estimation and/or poor management.

CLAHD guidelines gave no guidance as to what would be a reasonable provision for contingencies; in some cases the actual allowances were totally inadequate in the light of experience. Moreover, as noted in Chapter III, the nature of the Crown's loan provisions gave little monetary incentive for the supply authorities to estimate with precision or manage the project tightly. Nevertheless, some schemes were managed to a high professional standard.

ECONOMIC COST OF ELECTRICITY



Notes:

1. The costs are calculated in each case on the same basis as that contained in CLAHD's evaluation rules. They do not take account of any environmental benefits or disbenefits, and assume all energy produced to be of equal value—even though a scheme may have been designed, for example, to reduce the authority's peak demand cost.
2. Costs have been converted to 1978 prices by applying the movement in the Ministry of Works and Development's Construction Cost Index.
3. Information was not available to determine the actual cost of electricity generated at Wairere Falls, Duffers, and Turnbull.
4. The diagonal line indicates an equality of actual and estimated costs.

6.3 Schemes' Financial Viability

"Financial viability" is defined to mean that the scheme should pay off the Supplementary Operating Loans in a reasonable time. Major influences on the exact time will depend on the rates of increase in the bulk supply tariff and operating costs and the interest charged on the various loans.

It is widely recognised that one scheme, Waihi, is not financially viable under many plausible scenarios. The supply authority has approached the Government for a grant to enable it to write off some of its loan commitments. The Montalto scheme may be in a similar situation.

Financial simulations suggest that under some scenarios other schemes could also be financially unviable. For instance, if inflation falls sharply, real interest rates remain high and the bulk supply tariff rises no faster than the general rate of inflation, some schemes could find themselves unable to service their debt from the returns from generation or could be able to repay the debt at only a very slow rate.

APPENDIX III

DOCUMENTS RELATING TO THE WHEAO PROJECT

Order in Council establishing the Rotorua Area Electricity Authority, 9 August 1971

Report of Special Tribunal of the Bay of Plenty Regional Water Board, dated 1 July 1977

Decision of Town and Country Planning Appeal Board, dated 2 March 1978

Wheao Water Right

Consent by Minister of Electricity to Generate Electricity by the Use of Water Power, dated 28 November 1978.

revokes the Order in Council, dated 11 March 1963, and published in *New Zealand Gazette*, 21 March 1963, at page 369, and deposited in the Land Registry Office at Wellington as No. 555064, declaring land to be a motorway, in so far as it affects the land described in the Schedule hereto, the land being no longer required for that purpose.

SCHEDULE

WELLINGTON LAND DISTRICT

A.	R.	P.	Being
0	0	1.7	Part Lot 2, D.P. 1278, being part Section 10, Porirua District; coloured sepia on plan.
0	0	4.9	Part Section 10, Porirua District; coloured orange, edged orange, on plan.
0	0	0.1	Part Section 10, Porirua District; coloured blue on plan.

As the same are more particularly delineated on the plan marked M.O.W. 25351 (S.O. 28268) deposited in the office of the Minister of Works at Wellington, and thereon coloured as above-mentioned.

J. M. K. HILL, for Clerk of the Executive Council.

(P.W. 71/9/0; Wn. D.O. 27/1/1/0, 27/1/1/0/77)

Constitution of the Rotorua Area Electricity Authority

ARTHUR PORRITT, Governor-General

ORDER IN COUNCIL

At the Government Buildings at Wellington this 9th day of August 1971

Present:

THE RIGHT HON. SIR KEITH HOLYOAKE, G.C.M.G., C.H., PRESIDING IN COUNCIL

PURSUANT to the Electricity Distribution Commission Act 1967, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, hereby makes the following order.

ORDER

1. ROTORUA ELECTRIC SUPPLY DISTRICT

The area defined in the First Schedule to this order is hereby constituted as the Rotorua Electric Supply District.

2. ROTORUA AREA ELECTRICITY AUTHORITY

The Rotorua Area Electricity Authority is hereby constituted for the purpose of administering the supply of electricity in the Rotorua Electric Supply District.

3. REPRESENTATION

(i) The constituent districts which are bracketed together in the first column of the Second Schedule to this order shall be a combined district, and the local authority of the constituent district distinguished by the letter "(P)" shall be the principal local authority of the combined district.

(ii) The number of representatives of each constituent district or combined district shall be the number specified in the Second Schedule to this order opposite the name of that constituent district or combined district.

(iii) The first representatives of the constituent district and combined district shall be nominated by the Rotorua City Council and the Rotorua County Council and shall hold office until the next triennial local body election. All subsequent representatives of the constituent district and combined district shall be elected by the electors of the said constituent district and combined district.

4. FIRST MEETING OF AUTHORITY

The first meeting of the Rotorua Area Electricity Authority shall be held at Rotorua within 1 month of the date of this order.

5. FUNCTIONS, POWERS, AND RESPONSIBILITIES OF AUTHORITY

The Rotorua Area Electricity Authority shall have all the powers, rights, duties, obligations, and responsibilities of an electric power board constituted under the Electric Power Boards Act 1925, in so far as they may be applicable to an area electricity authority, and the provisions of the Electric Power Boards Act 1925, in so far as they are not contrary to this order shall apply to the Authority.

6. TRANSFER OF THE ROTORUA ELECTRIC SUPPLY UNDERTAKING

The Rotorua Area Electricity Authority shall enter into an agreement with the Tourist and Publicity Department for the purchase of the Department's Rotorua Electric Supply undertaking on such terms and conditions as may be agreed upon between them and approved by the Electricity Distribution Commission.

7. STAFF

(i) Pursuant to the Local Authorities (Employment Protection) Order 1971, the Rotorua Area Electricity Authority is deemed to be a local authority for the purposes of the Local Authorities (Employment Protection) Act 1963. The Authority shall continue to employ, in accordance with that Act and under such other terms and conditions as may be agreed upon, all permanent employees of the Tourist and Publicity Department's Rotorua Electric Supply undertaking who elect to transfer to the Authority.

(ii) The Authority shall negotiate with the Tourist and Publicity Department and the New Zealand Public Service Association an agreement for the employment of all staff, and in particular for the employment of those members of the staff of the Department's Rotorua Electric Supply undertaking who wish to transfer to the Authority. In general terms, the agreement shall be such that taking into account all relevant factors, the conditions of employment shall be no less favourable than those enjoyed formerly.

FIRST SCHEDULE

ROTORUA ELECTRIC SUPPLY DISTRICT

FIRST, all that area in the Counties of Matamata, Rotorua, Taupo, Tauranga, and Whakatane, and the Borough of Rotorua, in the South Auckland Land District, bounded by a line commencing at a point in Block II, Rotorua Survey District, being the intersection of the eastern boundary of the Matamata County as described in *Gazette*, No. 15, of the 16th day of March 1950, page 277, with the northern boundary of Taumata No. 3A 1B Block, and running easterly along the southern boundary of the Tauranga County as described in *Gazette*, No. 48, of the 5th day of August 1954, page 1266, to and along the western boundary of Block I, Rotoma Survey District, to the south-western corner of that Block I; thence along a right line running due east to and southerly along the eastern boundary of the State forest in Blocks II and VI, Rotoma Survey District, set apart by *Gazette*, 1938, page 1687 (formerly Hannon's Road), and along a right line across Pongakawa Valley Road to the northernmost corner of Section 8, Block VI, aforesaid; thence along the generally south-western side of Pongakawa Valley Road, aforesaid, to and along the north-eastern and eastern boundaries of part Rotoiti No. 10 Block, crossing the intervening public roads, to and along the shores of Lake Rotoma to and along the southern boundaries of Block VI, aforesaid, and Block VII, Rotoma Survey District, to and again southerly along the western boundary of the Whakatane County as described in *Gazette*, No. 37, of the 9th day of May 1957, page 808, to the southern boundary of Block VII, Ruawahia Survey District; thence along a right line to the north-eastern corner of Block XV of that Survey District and along another right line to the easternmost corner of Pokohu C No. 1 Block; thence along the south-eastern boundary of that C No. 1 Block to and along the northern and eastern boundaries of the land uplifted from State forest by, and fourteenthly described in subsection (2) of section 29 of the Reserves and Other Lands Disposal Act 1953, and shown on S.O. Plan 35574, and along a right line being the last-mentioned boundary produced to the middle of the Ngatamawahine Stream; thence up the middle of that stream to its intersection with a right line between Trig. Station Te Rere, on the southern boundary of Block II, Kaingaroa Survey District, and the north-eastern corner of Section 1, Block IX, Kaingaroa Survey District, and again southerly along that right line to and along the eastern boundary of that Section 1 and the eastern boundary of Section 1, Block XIII, Kaingaroa Survey District, to and along the north-eastern boundary of part Lot 4, the northern, north-eastern, and south-eastern boundaries of part Lot 3, the generally southern boundary of part Lot 4, aforesaid, and the south-western boundary of the aforesaid part Lot 3, the said lots all being shown on D.P. 20886, and being parts Kaingaroa No. 1A North Block, and along the south-western boundaries of Paeroa East No. 3C and part No. 3A Blocks to, and again southerly along the generally northern boundary of the Taupo County as described in *Gazette*, No. 15, of the 16th day of March 1950, page 277, to the northern boundary of Block XI, Takapau Survey District; thence generally westerly along the northern boundaries of Blocks XI, aforesaid, X and IX of the said survey district, to and up the middle of the Waikato River, to and along the eastern boundaries of Blocks XII and VIII, Tatua Survey District, to a point due east of the confluence of the Kowaimouku and Otawheta Streams in

Block VII, Tatua Survey District; thence along a right line running due west to the confluence of the said two streams, and down the middle of the Orakonui Stream to a point in line with the southern boundary of Tahorakuri No. 3 Block; thence along another right line to and along that southern boundary to and along the south-eastern, south-western, and western boundaries of Section 1, Block VI, Tatua Survey District, along the western boundary of part of the northern portion of Te Hukui Block and along the south-western boundary of Tutukau East B No. 6 Block and the western and north-western boundaries of Tutukau West B Block, to and along the south-western and western boundaries of Lot 2 D.P. 16198, being part Tauri No. 3c Block, along the western boundary of Tauri No. 4 Block and along the southern boundary of Tatua East No. 2 Block, and a right line being that boundary produced to the western side of the Wairakei-Tirau State Highway; thence along that side of the said highway, to and along the northern boundaries of Blocks XIV, XIII, and XII, Te Atiamuri Survey District, to the eastern boundary of Section 3, Block IX, of the last-mentioned survey district; thence northerly along that eastern boundary, and the eastern boundaries of Section 1, Block IX, aforesaid, and Pouakani B No. 6E Block, crossing an intervening public road, to and down the left bank of the Waikato River to a point on a right line between Trig. Station No. 807 (Uraura) in Block VII, Ngautuku Survey District, and the middle of the mouth of the Waihora Stream in Block XIV, Marotiri Survey District; thence north-easterly along that right line to Trig. Station No. 807 (Uraura), aforesaid, and along another right line to the westernmost corner of Section 9, Block V, Horohoro Survey District; thence still north-easterly along the generally eastern boundary of the Matamata County aforementioned, to the point of commencement; as the said area is shown outlined in orange on the plan marked S.H.D. 497 deposited in the office of the New Zealand Electricity Department at Wellington.

Secondly, all that area in the South Auckland Land District, Matamata County, containing 1,780 acres, more or less, commencing at the north-western corner of Section 3, Block XIII, Rotorua Survey District, and proceeding easterly along the northern boundaries of the said Section 3, and Sections 4, 5, 6, 7, 8, and 9 to the intersection of the western boundary of the area described in the first paragraph of this Schedule; thence southerly along that boundary to the intersection of the southern boundary of Section 11 and westerly along that boundary and the southern boundary of part Section 10 to the south-western corner of the said part Section 10; thence north-easterly along the north-western boundary of the said part Section 10, a right line crossing a public road, the Auckland-Rotorua Railway, Arahiwi Road, to and along the north-western boundary of Section 3, all the aforesaid sections being of Block XIII, Rotorua Survey District, to the point of commencement; the said area being more particularly shown outlined in red on the plan marked N.Z.E.D. 568 deposited in the office of the New Zealand Electricity Department at Wellington.

Thirdly, all that area in the South Auckland Land District, Matamata County, containing 1,780 acres, more or less, commencing at the north-western corner of Section 3, Block XIII, Rotorua Survey District, and proceeding easterly along the northern boundaries of the said Section 3 and Sections 4, 5, 6, 7, 8, and 9 to the intersection of the western boundary of the area described in the first paragraph of this Schedule; thence southerly along that boundary to the intersection of the southern boundary of Section 11 and westerly along that boundary and the southern boundary of part Section 10 to the south-western corner of the said part Section 10; thence north-easterly along the north-western boundary of the said part Section 10, a right line crossing a public road, the Auckland-Rotorua Railway, Arahiwi Road, to and along the north-western boundary of Section 3, all the aforesaid sections being of Block XIII, Rotorua Survey District, to the point of commencement; the said area being more particularly shown outlined in red on the plan marked N.Z.E.D. 568 deposited in the office of the New Zealand Electricity Department at Wellington.

SECOND SCHEDULE

REPRESENTATION

Constituent Districts	Number of Members
Rotorua City	5
Part Rotorua County (P) Part Taupo County Part Matamata County Part Whakatane County Part Tauranga County	3

J. M. K. HILL, for Clerk of the Executive Council.

(N.Z.E.D. 10/88/1, 10/0/18)

Warrant Appointing Additional Conciliation Commissioner Under the Industrial Conciliation and Arbitration Act 1954

ARTHUR PORRITT, Governor-General

PURSUANT to section 11 of the Industrial Conciliation and Arbitration Act 1954, I, Sir Arthur Espie Porritt, Baronet, the Governor-General of New Zealand, hereby appoint

Stephen James McConnell

to be an additional Conciliation Commissioner for the purposes of the said Act for a period of 3 months from the 9th day of August 1971.

As witness the hand of His Excellency the Governor-General this 29th day of July 1971.

J. R. MARSHALL, Minister of Labour.

(Lab. H.O. 5/21/28)

Staff of His Excellency the Governor-General

HIS Excellency the Governor-General has been pleased to approve the appointment of Commander Campbell Munro Herbertson, RNZN, as Honorary Aide-de-Camp to His Excellency with effect from 28 July 1971, *vice* Commander John Munford Coleman, RNZN, who has been posted to Auckland.

Dated at Wellington this 4th day of August 1971.

DAVID S. THOMSON, Minister of Defence.

(NA. 31/1/5)

Member of Physiotherapy Board Appointed

PURSUANT to section 4 of the Physiotherapy Act 1949, His Excellency the Governor-General has been pleased to reappoint

Sheila Patricia Glendining, M.N.Z.S.P.

to be a member of the Physiotherapy Board for a period of 3 years from the 1st day of January 1972.

Dated at Wellington this 29th day of June 1971.

D. N. McKAY, Minister of Health.

Revocation of Appointment of Officers for the Purpose of the Food and Drug Act 1969

PURSUANT to the Food and Drug Act 1969, His Excellency the Governor-General has revoked the appointment of

William George Lamason

as officer for the purposes of the Food and Drug Act 1969.

Dated at Wellington this 3rd day of August 1971.

D. N. McKAY, Minister of Health.

Appointment Notice of Member of Castlerock-Mossburn Pest Destruction Board (No. 80 Ag. 20891A)

PURSUANT to section 48 of the Agricultural Pests Destruction Act 1967, His Excellency the Governor-General has been pleased to appoint

Graeme Fotheringham Keown

to be a member of the Castlerock-Mossburn Pest Destruction Board, *vice* Mr A. R. Dawson.

Dated at Wellington this 30th day of July 1971.

D. J. CARTER, Minister of Agriculture.

Appointment Notice of Member of Waipa Pest Destruction Board (No. 82 Ag. 20891A)

PURSUANT to section 48 of the Agricultural Pests Destruction Act 1967, His Excellency the Governor-General has been pleased to appoint

Robert Budgen Peake

to be a member of the Waipa Pest Destruction Board.

Dated at Wellington this 3rd day of August 1971.

D. J. CARTER, Minister of Agriculture.

BAY OF PLENTY REGIONAL WATER BOARD

1. REPORT OF SPECIAL TRIBUNAL, appointed by the Regional Water Board, which heard and considered the application of the ROTORUA AREA ELECTRICITY AUTHORITY - Application No. 253 - and which refers to the Authority's proposed Rangitaiki-Wheao Hydro-Electric Development Scheme. The Authority's application sought water rights to:-

   (a) Dam the Rangitaiki River at Map Reference N95:969439 and divert up to 21 cubic metres of water per second into a canal leading to a head pond to be formed near the Wheao River gorge.

   (b) Dam the Wheao River at Map Reference N95:015381 and divert the total flow up to 12 cubic metres of water per second into a tunnel discharging into a small pond to be formed by damming Flaxy Creek.

   (c) Dam Flaxy Creek at Map Reference N95:003407 and divert up to 12 cubic metres of water per second from the pond so formed into a pipeline discharging into the canal referred to in (a) above. No more than 2 cubic metres per second of this water will be diverted from Flaxy Creek itself.

   (d) Take up to 24 cubic metres of water per second from the headpond at the downstream end of the canal, use the water for the generation of electric power, and discharge the water into the Wheao River at Map Reference N95:027437.

2. THE HEARING of the application and objections and submissions thereto was held on the 28th and 29th April 1977 before a Special Tribunal consisting of the following:-

Mr. T.R. Woolliams (Chairman)	Chairman of the Regional Water Board.
Mr. A.B. McLean	A Member of the Regional Water Board.
Mr. R.E. Hermans	A Member of the Regional Water Board and District Commissioner of Works, Ministry of Works & Development, Hamilton.
Mr. E.G. Turbott	An Ornithologist and Ecologist. Director of the Auckland Institute and Museum.

The hearing was held in the Board Room, Bay of Plenty Electric Power Board Building, Commerce Street, Whakatane.

3. THE HEARING OF EVIDENCE of the various parties concluded on the 29th April 1977 and, prior to considering its recommendation to the Regional Water Board, the Tribunal carried out an inspection of the area and, in particular, the proposed dam sites on the Rangitaiki River, Flaxy Creek, and the Wheao River; the route of the proposed tunnel, pipeline and canal, the proposed powerhouse site on the Wheao River, and a considerable reach of the Wheao River downstream of the powerhouse site. This inspection was undertaken the day following the hearing, viz: Saturday, 30th April 1977 and, during the inspection, the Tribunal was accompanied by Mr. B. Underwood of Murray-North Partners Limited representing the Applicant Authority, and Mr. P.J. Burstall, Conservator of Wildlife, Internal Affairs Department, representing the objectors. Also present were the Water Resources Engineer and the Secretary to the Regional Water Board.

4. A REPORT AND EVIDENCE were submitted to the Tribunal as follows:-

4.1. Report of Water Resources Engineer.
At the commencement of the hearing, a report by the Water Resources Engineer to the Regional Water Board, Mr. W.A. Taylor, was submitted prior to other evidence being called. This was a departure from the usual procedure adopted at Tribunal Hearings; the Chairman indicating that this variation of the procedure was being made in order that the Tribunal, the applicant, and the objectors could be made aware of the Water Resources Engineer's report, and any suggested conditions he might propose, if a right was recommended.

Mr. Taylor's report gave a background to the applicant's proposals and, during the submission of his report, he indicated, by reference to maps, locations of the various dams and diversions etc. His report also described the various structures which would be incorporated in the scheme.

The report summarised the nine objections which had been lodged against the application, gave a description of the hydrology of the area, and summarised flow figures which had been produced by the Applicant's Consultants.

The Engineer's report also commented on various reports which had been made available to him by the Applicant and which referred to sedimentation, ecological, and environmental aspects.

The Engineer's report indicated that he had twice inspected the relevant area, once in company with a representative of the Applicant Authority and, on the second occasion, with representatives of one of the objectors.

The report also commented on the alternatives available to the Tribunal and stated that, if the right was granted, some of the objections could be met by attaching suitable conditions to any right granted.

The Engineer, as an attachment to his report, submitted suggested conditions to attach to the right should a right be recommended.

In concluding his report, the Water Resources Engineer stated that it was usual to make a recommendation to the Tribunal but, at this stage, due to a lack of information in support of the various objections, he was not able to provide any firm recommendation.

4.2. Evidence submitted on behalf of the Applicant:

Counsel for the Applicant Authority, Mr. R.H. Brewster, called evidence from the following:-

(i) Mr. H. Allen Mills - Chairman of the Rotorua Area Electricity Authority - who gave background information as to the reasons why the Authority wished to proceed with the Rangitaiki/Wheao Hydro-Electric Scheme proposals.

(ii) Mr. L. Brierly - Chief Engineer to the Rotorua Area Electricity Authority - who gave evidence referring to statistics of power used by the Authority and the effect the implementation of the proposed scheme would have as far as the Authority was concerned.

(iii) Mr. B.H. Underwood - A Director of Murray-North Partners Limited, Consulting Engineers to the Authority, who had investigated and prepared the proposals on which the water right applications had been based.

(iv) Dr. A.J. Sutherland - A Reader in Civil Engineering, University of Canterbury - who gave evidence on the sedimentation aspects of the proposed scheme.

(v) Dr. W.F. Donovan - A Consultant Biologist and a Principal of Bioresearches Limited of Auckland - who gave evidence in support of the application on the effects the scheme would have on the Rangitaiki and Wheao Rivers in their capacity as fish habitats and also the effects on wildfowl.

(vi) Mr. R.E. Still - Murray North Partners Limited - a Consultant on economic and financial matters - who gave evidence on the economics of the scheme.

4.3. Evidence of Objectors.

(i) Rotorua Anglers Association:

The Association was represented by Mr. J.N. Barrowman, Vice President of the Association, who, in addition to giving evidence on behalf of the Association, called as witnesses, Messrs. H. McDowell and R. Witherow. Both these gentlemen were obviously skilled and dedicated trout fishermen and Mr. Witherow showed colour slides of actual fishing activities at various locations on the Wheao River.

(ii) Nature Conservation Council:

The Council was represented by Mr. J.S. Macdonald, Executive Officer, who gave evidence to the effect that the Council had been aware of earlier proposals to establish a hydro-electric scheme in the area and had, as far back as 1969, recorded and advised of its opposition to any scheme being implemented. After having studied information made available in respect of the present application, he confirmed the Council's continued opposition to the scheme.

(iii) Department of Internal Affairs:

The objection from the Department of Internal Affairs was lodged by the Conservator of Wildlife, Rotorua, Mr. P.J. Burstall, who represented the Department at the hearing and, in addition to giving evidence himself, called evidence from Mr. Rex Forrester, a well known fisherman and guide, employed by the New Zealand Government Tourist Bureau as Hunting and Fishing Officer.

Mr. Forrester gave evidence to the effect that the Rangitaiki River and particularly its main tributary, the Wheao, provide the finest dry fly fishing in the Rotorua area; the Wheao having become world famous amongst dry fly anglers.

Mr. N.B. Ewing, Senior Field Officer, Fisheries, Wildlife Service, Department of Internal Affairs, Rotorua, who gave evidence on the current status of the fisheries in the area and the potential effects of the scheme on the fisheries in the area.

Mr. R.W. Little, Senior Fisheries Management Officer, Freshwater, Ministry of Agriculture and Fisheries.

Mr. Little's evidence made specific comment on the various waterways involved and the likely effect the scheme would have on each. His evidence made particular mention of native

fishes and the need to determine the status of fish in the Upper Rangitaiki River system.

Mr. W.D. Witherow, a post graduate student at Otago University, who, while having a professional interest in freshwater fisheries, stated that his objection to the scheme and his evidence were basically those of an angler and that he was particularly concerned with the effects of the scheme on the Wheao River, which was unique in a number of attributes, viz; freedom from flooding; stability of banks; absence of pollution; clarity of water; and trout population density. Mr. Witherow also provided information for the 1972 and 1973 seasons from his angling records on the Wheao.

Mr. Burstall also gave evidence on the likely effects of the proposed scheme on the waterways, both in respect of fishing and fisheries management and also gave evidence on uncommon waterfowl which are found in the area, viz: brown duck and blue duck. His evidence also stated that other waterfowl species whose numbers are declining elsewhere - grey duck and scaup - are present in the area.

Mr. Burstall concluded by recommending that, in view of the irreversible damage that could accrue to the Wheao River, further investigations be undertaken to find an alternative to the scheme proposed.

(iv) Urewera Angling Club:

Mr. I.N. London, President of the Urewera Angling Club, gave evidence to the effect that the Club had been in operation for two years and that since its formation, interest in fishing had increased, especially among the younger generation. The Club's objection was based not only on the effect the scheme would have on the unique fishing in the Wheao but also on the detrimental effect the implementation of the scheme could have on the Rangitaiki River down to the proposed Aniwhenua Lake.

(v) Bay of Plenty Electric Power Board:

On behalf of the Bay of Plenty Electric Power Board, the Chief Engineer, Mr. G.W. Latham, gave evidence that his Board's objection had been discussed with representatives of the Applicant Authority and he submitted a draft set of conditions which, if incorporated in any right granted, would meet the Board's objection.

The draft conditions had been agreed to by the Authority (a letter was submitted confirming this) but, as the suggested conditions also involved the Bay of Plenty Catchment Commission, that authority would require to be consulted. The draft conditions submitted covered various aspects of concern to the Power Board, viz: flow fluctuations, scour and sedimentation, bank protection, flushing of trapped sediment, interception of floating debris, and the need to provide for observations to be made in respect of scour and bank erosion both before and following implementation of the scheme.

(vi) N.Z. Forest Service:

A late objection from the New Zealand Forest Service was considered by the Tribunal. It is mandatory for the Regional Water Board to consult with this Department where any application is likely to affect land under the Department's control. However, the Applicant Authority had consulted with the Conservator of Forests and a letter dated 26th April 1977 from the Conservator to the Authority was produced, which set out conditions under which the N.Z. Forest Service would agree to the scheme proceeding.

The Chairman of the Authority, Mr. H.A. Mills, in evidence, confirmed that the conditions as set out by the Forest Service were acceptable to the Rotorua Area Electricity Authority.

(vii) Whakatane Trout Fishing Club and

(viii) Royal Forest & Bird Protection Society: (Eastern Bay of Plenty Branch).

Both these objectors had claimed the right to be heard at the hearing. A telegram of apology for non-attendance was received from the Society but no representative was present to give evidence from the Whakatane Trout Fishing Club. However, the objections of these two organisations, which had been circulated at the hearing, were read and duly noted.

(ix) Whakatane District Council:

The District Council had not claimed the right to be heard and the objection lodged was duly taken note of by the Tribunal.

5. THE APPLICATION publicly notified differs in one respect from the proposals submitted to the hearing, in that, whereas formerly it was proposed to construct a headpond at the end of the canal near the Wheao Gorge, it is now proposed to increase the size of the "small pond" created by damming Flaxy Creek into a lake of some 20 hectares and this and the canal itself will be used for whatever storage of water is required.

The Tribunal considered that this variation as to detail was not of such significance as to alter the nature of the application.

In summary, the application considered by the Tribunal was for rights to:-

"Dam the Rangitaiki River, Wheao River, and the Flaxy Creek, and to divert waters from such impoundments by way of a tunnel, pipeline and canal to penstocks leading to a power-house on the Wheao River, use such water for the generation of electric power, and to discharge such water into the Wheao River."

6. COMMENTS ON EVIDENCE AND INSPECTION:

The Tribunal has considered the evidence and submissions put before it by both the applicant and the objectors and it also had before it a report by the Regional Water Board Water Resources Engineer. All this information, together with the many maps, photos and other exhibits submitted, were carefully studied by the Tribunal, who also inspected the area immediately following the hearing. During the inspection the Tribunal noted that the applicant had installed gauging stations at four locations and requested that readings be taken and flow measurements be supplied.

This information has been submitted and, on the particular day, the following was the position:

Site	Flow (Cumecs)
Upper Wheao (Tunnel Intake)	0.8
Flaxy Creek	0.45
Rangitaiki River intake site	7.0
Lower Wheao (below powerhouse)	2.0

These flow figures are all indicative of the low summer flow conditions prevailing during and prior to the inspection. The flow of 2.0 cubic metres per second in the Wheao at the powerhouse site was of particular interest to the Tribunal as that will be the approximate flow in this reach under normal flow conditions when the flow in the upper Wheao has been diverted by the proposed intake dam. The Tribunal understands that this flow of water is adequate for trout fishing interests.

During the inspection, the Tribunal took note of a large pumice washout on the left bank of the Wheao River downstream of the powerhouse site. The washout, which is understood to have occurred in 1969, had a volume of many thousands of cubic metres, all of which had entered the Wheao River over a relatively short period without, apparently, causing any irreversible damage to the river ecology.

Having considered the whole of the evidence, and having drawn on the specialised knowledge of its Members, and having given careful consideration to all relevant aspects of private and public interest and also to public benefit, the Tribunal concludes that it is appropriate that the rights sought by the applicant be granted. The Tribunal, however, recognises that as far as is possible there is a need to protect fisheries, wildlife, ecology and the environment generally. In recommending that the appropriate rights be granted, the Tribunal has imposed conditions to ensure that these aspects are preserved to the extent practicable.

The rights and conditions recommended to the Regional Water Board are as follows :

"THAT RIGHTS BE GRANTED TO THE ROTORUA AREA ELECTRICITY AUTHORITY TO :

(a) (i) Dam the Rangitaiki River at about map reference N95:969439 to form a small lake;

(ii) Divert up to 21 cubic metres of water per second from the lake so formed into a canal leading to the Wheao Power Station penstocks;

(iii) Discharge surplus water over the dam into the original course of the Rangitaiki River;

(iv) Discharge water through the dam into the original course of the Rangitaiki River to remove sediment from the lake or to provide water for fire-fighting purposes.

(b) (i) Dam the Wheao River at about map reference N95:015381 to form a small lake;

(ii) Divert up to 12 cubic metres of water per second from the lake so formed into a tunnel;

(iii) Discharge the water from the tunnel at about map reference N95:000400 into a lake formed by damming Flaxy Creek;

(iv) Discharge surplus water over the dam into the original course of the Wheao River.

(c) (i) Dam Flaxy Creek at map reference N95:003407 to form a lake;

(ii) Divert up to 12 cubic metres of water per second from the lake so formed into a pipeline;

(iii) Discharge the water from the pipeline at about map reference N95:009438 into a canal;

(iv) Discharge surplus water over the dam into the original course of Flaxy Creek.

(d) (i) Discharge up to 24 cubic metres of water per second from the canal at about map reference N95:023436 into penstocks leading to a power station.

(ii) Use the water from the penstocks for the generation of electric power.

(iii) Discharge up to 24 cubic metres of water per second into the Wheao River at map reference N95:027437.

SUBJECT TO THE FOLLOWING CONDITIONS :

1. RANGITAIKI RIVER :

1.1 The dam across the Rangitaiki River shall have a maximum height of 11 metres above the river bed.

1.2 The Grantee shall at all times release a flow of at least 0.5 cubic metres of water per second through the dam to provide compensation water for the downstream reach.

1.3 The Grantee shall erect and maintain at suitable locations between the intake dam and the confluence with the Wheao River, appropriate signs to warn

the public of variations in river levels during sediment flushing operations.

1.4 As far as practicable all bush and scrub upstream of the Rangitaiki River dam and below the contour level of the dam crest shall be cleared to the satisfaction of the Regional Water Board Engineer, before lake filling commences.

2. WHEAO RIVER INTAKE :

2.1 The dam across the Wheao River shall have a maximum height of 14 metres above the river bed.

2.2 As far as practicable, all bush and scrub upstream of the Wheao River dam and below the contour level of the dam crest shall be cleared to the satisfaction of the Regional Water Board Engineer, before lake filling commences.

2.3 The Grantee shall erect and maintain at suitable locations upstream of the power station, appropriate signs to warn the public of variations in river levels when water is being spilled at the Wheao River dam.

3. FLAXY CREEK :

3.1 The dam across Flaxy Creek shall have a maximum height of 14 metres above the creek bed.

3.2 The variation in the water level of Flaxy Creek lake shall not exceed 0.5 metres during normal operating conditions.

3.3 As far as practicable, all bush and scrub upstream of the Flaxy Creek dam and below the contour level of the dam crest shall be cleared to the satisfaction of the Regional Water Board Engineer, before lake filling commences.

3.4 The intake to the pipeline from Flaxy Creek lake to the canal shall be fitted with a screen with a gap between bars of no greater than 30 millimetres.

3.5 The outfall from the pipeline leading from Flaxy Creek lake to the canal shall be constructed so that it forms a velocity barrier to prevent trout entering the pipeline.

4. CANAL :

4.1 The intake to the power station penstocks shall be fitted with a screen with a gap between bars of no greater than 30 millimetres. A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

4.2 In the event of it being found necessary to lower the water level of the canal, the Grantee shall, other than in exceptional circumstances, ensure that a water depth of at least 0.2 metres is maintained in the bottom of the canal for the preservation of aquatic life.

4.3 Should exceptional circumstances arise so that it is found necessary to completely dewater the canal or sections thereof, the Grantee shall give prior notice to the Conservator of Wildlife, Internal Affairs Department, Rotorua, and shall in co-operation with the Department take action to ensure

that, wherever possible, trout and any other forms of aquatic life are salvaged and transferred to other nearby natural waters specified by the Department.

5. POWER STATION :

5.1 The maximum rate of change of discharge of water from the power station shall not exceed one cubic metre per second per minute.

5.2 To prevent an excessive increase in flood flows in the Wheao River, the Grantee shall not discharge from the power station any water taken from the Rangitaiki River if the flow in the Wheao River at the flow measurement station, immediately downstream of the power station, exceeds 30 cubic metres of water per second.

6. WHEAO RIVER DOWNSTREAM OF POWER STATION :

6.1 The power scheme shall be operated in such a way as to ensure that at all times the flow in the Wheao River below the power station shall not be reduced below two (2) cubic metres per second. Under normal operating conditions a flow of at least six (6) cubic metres per second shall be maintained.

6.2 The Grantee shall continue operation of the existing flow measurement station on the Wheao River just downstream of the power station site and shall provide the Regional Water Board, by the 14th day of the month following, with monthly returns containing the following information :-

a) The minimum, mean and maximum discharges for each day from the power station to the Wheao River.

b) The minimum, mean, and maximum discharges for each day in the Wheao River at the flow measurement station.

The requirement for this information may be reviewed annually by the Regional Water Board.

6.3 The Grantee after consultation with the Catchment Commission Engineer, shall carry out a survey and submit proposals for the approval of the Commission for the carrying out of channel clearing and channel widening to provide an increased channel capacity at selected points or reaches in the Wheao River. The material excavated under this condition shall not exceed 75,000 cubic metres.

6.4 The Grantee shall from time to time as directed by the Bay of Plenty Catchment Commission carry out channel maintenance and bank protection works on the Wheao River between the power station site and the confluence with the Rangitaiki River.

6.5 The Grantee shall carry out a survey of the Wheao River between the power station site and the confluence with the Rangitaiki River to identify and locate the natural controls that exist in the channel at present.

The Grantee shall submit a plan and a report to the Bay of Plenty Catchment Commission on the results of such survey and shall submit to the Commission proposals for carrying out training or protection works that may be required to maintain the present natural controls.

6.6. The Grantee shall prepare proposals for modifying the alignment of the Wheao River at its confluence with the Rangitaiki River to ensure easy transition for the increased flows.
The Grantee shall submit such proposals to the Bay of Plenty Catchment Commission and shall carry out and maintain any works deemed necessary by the Commission Engineer.

6.7. The Grantee shall, after consultation with the Regional Water Board, establish at least ten (10) cross sections extending across the Wheao River and adjacent banks between the power station site and the confluence with the Rangitaiki River. The cross sections shall be surveyed before the power station commences operating and then re-surveyed every three (3) months for the first year following the commencement of operation of the power station and thereafter at intervals of six (6) months. The results of the surveys shall be sent to the Regional Water Board as soon as they are available. The requirement for these surveys may be reviewed every five years by the Regional Water Board.

6.8. The discharge of water from the power station shall not be authorised until the works referred to in conditions 6.3., 6.5., and 6.6 are carried out to the satisfaction of the Commission Engineer.

7. RANGITAIKI RIVER DOWNSTREAM OF CONFLUENCE WITH WHEAO RIVER:

The Grantee shall, after consultation with the Regional Water Board, establish at least four cross sections extending across the Rangitaiki River between the confluence with the Wheao River and Murupara. The cross sections shall be surveyed before the power scheme commences operating and then at intervals of six months to determine if erosion or degradation is occurring because of the reduced sediment load. The results of the surveys shall be sent to the Regional Water Board as soon as they are available. The requirement for these surveys may be reviewed every five years by the Regional Water Board.

8. ECOLOGICAL SURVEYS:

8.1. After the scheme has commenced operating, the Grantee shall engage the services of suitably qualified ecologists on at least one occasion per annum to carry out field investigations into the ecology of the Rangitaiki River between the dam and the confluence with the Wheao River and the ecology of the Wheao River between the dam and the confluence with the Rangitaiki River.

The investigations shall pay particular attention to the effects of the scheme upon trout, the food supply for trout and upon wildfowl habitat and native fish.

8.2 A written report shall be sent to the Regional Water Board and to the Wildlife Service of the Department of Internal Affairs as soon as possible after the investigations are completed.

8.3 The Regional Water Board may review the frequency at which the ecological surveys shall be carried out after an initial period of five years following commencement of operation of the scheme.

9. SUPERVISION OF WORKS :

All planning, design, construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

10. CONSTRUCTION AND MAINTENANCE WORKS :

The Grantee shall to the satisfaction of the Regional Water Board Engineer take every care during construction and maintenance of the works to prevent materials from entering any watercourse or from being washed into any watercourse.

11. THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

12. THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interests, the interests of lawful users of water, or the interests of future applicants for water rights so requires; but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter. "

In recommending that the above rights be granted, the Tribunal is mindful that fishing interests will be affected to a marked degree in the Rangitaiki River below the proposed dam. However, the requirement for compensation water to be passed through the dam and the presence of natural inflows will ensure that there is a residual flow in the river bed at all times.

Although the effects of the scheme upon the Rangitaiki River were of some concern to the objectors, their main concern was for the effects they considered the scheme would have on the value of the Wheao River as a fishery. Although the Tribunal does not doubt the sincerity of the objectors, it notes that there was no substantiated evidence produced as to the number of anglers who take advantage of the existing trout fishing facilities of the Wheao River. From the evidence given, it must be concluded that the Wheao trout fishing is enjoyed by a relatively small number of anglers.

The Tribunal acknowledges the value of the Wheao River as a trout fishery and has recommended certain conditions in relation to the reach of the Wheao below the powerhouse which should ensure that the scheme causes the minimum disruption to trout fishing and channel stability in that reach. The Tribunal recognises that the capacity of the existing Wheao channel will need to be increased to accommodate the proposed extra flows and, rather than allow this to happen by the natural processes of bank erosion and bed degradation, has required the Grantee to carry out works to increase the channel capacity before the scheme commences operation. The advantages of this approach are that channel enlargement will take place over a relatively brief period compared with that required for it to occur naturally with consequent reduced stress on the fishery, that widening can be planned to affect one bank only in many reaches, that the excavated vegetation and spoil will be removed from the river instead of passing downstream, and that access to the river banks for anglers will be improved in many sections.

Other conditions relating to this reach of the Wheao place limits on the rate at which the flow from the power station may be changed, so that fluctuations in downstream water levels will be gradual, and require the Grantee to cease adding water obtained from the Rangitaiki River when floods of a certain magnitude are exceeded in the Wheao. A minimum discharge has been set for the reach of the Wheao immediately downstream of the power station so that river water level fluctuations will be limited to some extent. There are also requirements for regular surveys of both the Wheao and Rangitaiki Rivers downstream of the power station, so that the Regional Water Board can monitor

changes in the river channels and, if necessary, require the Grantee to carry out remedial works.

Further conditions attached to the right relate to other areas to be affected by the scheme and require the Grantee to erect screens and fish barriers where it was felt that these would be of benefit to fishing interests, to clear storage areas before they are filled, and to co-operate with the Department of Internal Affairs when the canal is to be dewatered.

The Tribunal considers that the proposed power scheme will have a minimum of effect on the environment, particularly when compared with some of the alternative methods of producing electricity. The Tribunal acknowledges that blue ducks are present in the area of the scheme but expert advice was available to the effect that well established populations can be expected to remain in quieter sections of the same area. There have been reports of sightings of the uncommon brown duck on the Wheao River downstream of the power station site. The opinion was expressed by one expert witness that the increased flows in the Wheao would result in an increase in the formation of swampy areas suitable for colonisation by wildfowl, particularly the brown duck.

Various objectors, including the Bay of Plenty Electric Power Board, referred to possible problems arising downstream through the operation of the power scheme. The Tribunal considers that these objections are met as far as practicable by the requirement that the Grantee carry out and maintain extensive works in the downstream reach of the Wheao River to ensure the formation of a stable channel.

7. COSTS:

At the conclusion of the hearing the applicant and objectors were advised that if they wished to claim costs, written submissions should be made to the Regional Water Board.

No submissions have been received and the Tribunal recommends that the costs of the applicant and the various objectors be left where they fall.

In respect of the costs of the Regional Water Board, the Tribunal refers this to the Board for decision.

DATED: this 1st day of July, 1977.

.....Chairman
T.R. Woolliams

..... Member
A.B. McLean

.....Member
R.E. Hermans

..... Member
E.G. Turbott

No. 522/77 and 523/77 **89**

IN THE MATTER of the Water and Soil Conservation Act 1967

and

IN THE MATTER of two appeals under section 25 of the Act.

BETWEEN THE ROYAL FOREST AND BIRD PROTECTION SOCIETY OF NEW ZEALAND INC. (appeal no. 522/77)
and
THE CONSERVATOR OF WILDLI (appeal 523/77)
Appellants

AND BAY OF PLENTY REGIONAL WATER BOARD
Respondent

AND ROTORUA AREA ELECTRICITY AUTHORITY
Applicant

BEFORE THE NUMBER ONE TOWN AND COUNTRY PLANNING APPEAL BOARD

Messrs A.R. Turner S.M. (Chairman)
R.S. Martin
G.R. Tutt
G.J. Broker

Hearing at ROTORUA on the 12th and 13th days of December 1977.

Appearances: Mr D.G. Collingwood for Appellant in appeal 522/7
Mr L.H. Moore for Appellant in appeal 523/77
Mr T.S. Richardson for Respondent
Mr R.H. Brewster for Applicant

DECISION

These appeals arise out of a decision given by the respondent on an application for the grant of certain rights under the Act necessary to permit the applicant to operate an electricity generating station using the waters of the Rangitaiki and Wheao Rivers, on a site within the Kaingaroa State Forest approximately 25 km southwest of Murupara and about 60 km from Rotorua.

The applicant is the electricity supply authority for the Rotorua area and it has a proposal for generating electricity from hydro power at a local source. The principal features of the Kaingaroa Forest area are the volcanic plateau and the massive rock sheet known as the Kaingaroa ignimbrite. The Rangitaiki River flows on the top of the sheet before it drops steeply to its confluence with the Wheao River. The latter river follows the edge of the sheet, but within a deep gorge, the bottom of which is some 130 m. below the plateau. The proximity of the two rivers, their substantial difference in elevation and the geological conditions constitute a favourable situation for the generation of electricity. The proposal% involves the diversion of three separate water sources. The components of the proposal% are:

(i) a weir across the Rangitaiki River and a canal to divert the waters of that river some 4.8 km to a headpond above the Wheao River, twin penstocks to channel the water from the headpond through turbines located on the left bank of the Wheao River some 130 m. below the penstock intake, and the discharge of the water into the Wheao River;

(ii) a small dam across the upper Wheao River and the diversion of the water from that stream through a tunnel into the catchment of Flaxy Creek (a tributary of the Wheao), a small dam across that creek to impound both the diverted waters of the Upper Wheao and the waters of the Creek, which dam would create a lake some 20 ha. in area, and the diversion of the water from that lake through an underground pipeline into the canal leading to the headpond.

The position proposed for the weir on the Rangitaiki River is some 18 km above the confluence of that river and the Wheao River. The position proposed for the dam on the upper Wheao is about 1 km upstream of the junction of that river and the Waione Stream and about 6 km above the power house site. The position proposed for the dam on Flaxy Creek is about 2 km above the junction of that creek and the Wheao River. The power house site is about 12 km upstream of the confluence of the Rangitaiki and Wheao Rivers.

The present mean flows available are:

Rangitaiki River	11.50 cubic metres per second (cumecs)
Upper Wheao River	2.25 cumecs
Flaxy Creek	1.00 cumecs
	14.75 cumecs

The mean flow of the Wheao River at the power house site is 5.6 cumecs and the low flow there is about 2 cumecs.

The Rangitaiki River at the proposed diversion point has a particularly stable flow, its upper catchment being in a mainly pumice region which releases groundwater at a more or less constant rate. Thus the scheme does not need a large balancing reservoir. In general terms the storage in the canal would allow for the differences between day and night generation demands and the stored water from the upper Wheao and Flaxy Creek would be drawn on during morning and evening peak periods. The installed capacity of the full proposals - mean flow of 12.75 cumecs, gross head of 130 m. and a plant factor of 0.55 - would be 24 MW and the annual units generated would be 114 million kWh. For the year ended 31.3.77 that was 46% of the applicant's maximum demand and 51% of its consumption. The population served by the applicant was then approximately 56,000. We were given to understand that the scheme could operate without the water from the upper Wheao and Flaxy Creek, in which case the annual units generated would be 86 million kWh.

The applicant sought rights under the Act to:

(i) dam the Rangitaiki River and divert up to 21 cumecs into the canal;

(ii) dam the upper Wheao River and divert the total flow up to 12 cumecs into the tunnel discharging into the Flaxy Creek catchment;

(iii) dam the Flaxy Creek and divert up to 12 cumecs from the artificial lake into the canal; and

(iv) take up to 24 cumecs from the headpond, use it for electricity generation and discharge it into the Whaeo River.

The respondent granted the rights sought, subject to a number of conditions, which included ones to the following effect:

(i) That a flow of at least 0.5 cumecs shall at all times be released through the Rangitaiki dam to provide compensation water for the downstream reach (none is required in the Upper Wheao or in Flaxy Creek);

(ii) That other than in exceptional circumstances, a water depth of not less than 0.2 m. be maintained in the canal;

(iii) That the variation in the water level of the Flaxy Creek lake shall not exceed 0.5 m. during normal operating conditions.

(iv) That the maximum rate of change of discharge of water from the power station shall not exceed 1 cumec per minute. (The applicant and the respondent propose that on an appeal by the applicant this condition be amended to apply "during normal operating conditions.")

(v) That the power station shall not discharge Rangitaiki water into the Wheao when the flow in the latter exceeds 30 cumecs; under normal operating conditions a flow of at least 6 cumecs below the power station shall be maintained, and at all times that flow shall not be reduced below 2 cumecs.

(vi) That the applicant shall carry out approved channel clearing and widening works on the Wheao River to provide increased channel capacity at selected points or reaches downstream of the power station, the material excavated not to exceed 75,000 cubic metres; that it shall carry out any modification works deemed necessary at the confluence of the Rangitaiki and Wheao Rivers; and that it will establish and regularly survey cross-sections of the Wheao River downstream of the power station.

The appellants then brought these appeals against the grant of the rights.

By his appeal the Conservator of Wildlife sought that the decision granting the rights be cancelled and the rights refused, on the grounds that the granting of the rights will detrimentally affect fish and wildlife values in those parts of the Rangitaiki and Wheao Rivers and Flaxy Creek encompassed by the applicant's scheme. By its appeal the Royal Forest and Bird Protection Society Inc. sought only that the right to dam the upper Wheao River be cancelled; but on the hearing of the appeals it joined with the Conservator in seeking that all rights be refused.

The objects of the Water and Soil Conservation Act 1967 and the considerations relevant on an application for the grant of a right under that Act, are summarised in its Long Title; and there is no need for us to set them out here. It is sufficient to say that section 20(6) specifically requires every regional water board to have due regard to recreational needs and the safeguarding of scenic and natural features, fisheries and wildlife habitats in considering applications for rights.

In this case the applicant's proposals involve the diversion of water from several sub-catchments, and its discharge at a lower point in one of those sub-catchments. The obvious effects will be to reduce the volume of water in several streams, to increase the volume below the point of discharge (the new mean flow immediately below the powerhouse would be 2.9 times the present mean flow) and to alter the velocities. No other person's rights to water would be affected by the diversions. The stretches of water in question all lie within the Kaingaroa State Forest and the N.Z. Forest Service consents to the works (subject to the final approval of the Minister.) There are no foreseeable future demands on the water which could not be provided for. And we are satisfied by the evidence that the conditions imposed by the respondent in respect of flows and channel correction works are sufficient to ensure that the stability of the Wheao River downstream of the works is adequately provided for. Little productive land

would be lost because of the scheme - about 70 ha. of exotic forest. But the scheme would have a serious effect upon the ecology of the waters concerned, upon them as fisheries, and upon wildlife in the Wheao Valley.

The Rangitaiki River between the proposed weir and the confluence with the Wheao is steep and fast flowing with boulder strewn stretches, waterfalls and deep pools; in places it flows over smooth ignimbrite sheets. The channel is generally narrow with sections confined in very steep-sided gorges. The gorges and dense margins of gorse and scrub inhibit access along the stream banks. Above the powerhouse site the Wheao River is confined by a narrow valley with tree-clad slopes. The stream is very steep, strewn with large boulders and there are some major waterfalls. Below the powerhouse site the river gradually flattens and changes to a sand bed channel with significant pool-ripple systems; there are pronounced meanderings in the lower reaches.

The Rangitaiki River was first stocked with rainbow trout in 1901 and with brown trout in 1920; rainbow trout were first released in the Wheao in 1913 and brown trout in 1945. After further stocking, self-supporting stocks have now been established. The 18 km of the Rangitaiki River between the proposed weir and the confluence with the Wheao is relatively inaccessible as a fishery but does contain some sections that are fished at present. It is not important as a fishery at the present time but could become more important in the future as a result of an increase in the number of anglers, and of being made more accessible. Some 14 km of the Wheao River upstream of the Wheao/Rangitaiki confluence is an important trout fishery; above the 14 km point the river is important to the fishery in that it contains the major tributaries, is a source of food supply to the lower fishery and is a nursery for young rainbow trout which eventually supplement the down-stream stock. We were informed that the length of accessible fly-fishing waters within 60 km by road of Rotorua, Whakatane and Murupara is of the order of 260 km. But the fishing offered by the Wheao is of a specialist kind, viz., dry-fly fishing for rainbow trout, and the lengths of water available for that type of fishing are very limited indeed. We were informed in evidence by an expert fisherman that: "the Wheao meets all the requirements of a perfect nymph and dry-fly rainbow stream and even in Southland there isn't a better one. It is the right size, can be waded almost anywhere. The water depth and strength are such that a nymph can be got down to the level of feeding fish. The water itself is spectacularly clear and the fish are large, numerous and easily seen." Royalty and other distinguished overseas visitors have been taken there for the fishing, and many tourists pay $120 per day for a guided fishing expedition to that river. The Conservator said in evidence that the Wheao is the fishing river which he cherishes above all others in his district. Another experienced angler likened its quality to the chalk streams of England and said that if it existed anywhere else in the world it would be premium water priced beyond the means of the average angler. The merits of the Wheao as a fishing river are not generally well-known. Access requires a permit from the Forest Service and the stream is a considerable distance from a public road.

Four species of waterfowl are seen regularly in the Wheao catchment, viz., grey duck, scaup (black teal), blue duck and brown teal. Some are present only in small numbers. The brown teal is now uncommon in New Zealand and is considered in the endangered category; major remnant populations are found only on Great Barrier Island and at Helena Bay, Northland. The blue duck although not classed as rare in New Zealand, is on the endangered list. The lower Wheao River has vastly modified banks throughout much of its length, though it seems that there has been little change in recent years. At present the river comprises a balanced ecology with the necessary aquatic foods and security to make it a suitable habitat for the birds. We were informed by experts in the field that the association of the four different New Zealand ducks in this one comparatively short stretch of river is unique; that the ducks have maintained a tolerance to a changing habitat; and that this small remnant stock of brown teal by adapting itself to partially changed habitat is important to the survival of the species in the broader context of New Zealand as it exists today. Other native species are also found in the Wheao.

We have already referred briefly to the fact that the applicant proposals would affect the volume and velocity of the waters in the various streams affected thereby. One of the effects of the reduction in the volume of the Rangitaiki between the weir and the confluence with the Wheao, would be to destroy that stretch of the river as a fishery. One of the most dramatic consequences of the alteration to the volume and velocity of the Wheao below the power house site would be the channel widening and deepening and the reduction in channel slope which would occur as the river adapted to the new flow regime. Experts estimate that if the river is left to do the work naturally, it would take about 12 years for the river channel to stabilize; given the work required by the conditions imposed by the respondent on the rights granted to the applicant it would take about five years for the river channel to stabilise. Whether the channel stabilisation were to occur naturally or be accelerated by artificial means, the period of instability would be a traumatic time for the river as a fishery and for the wildlife which at present inhabit the river valley. During this period of instability the Wheao as a fishery would be completely disrupted but in due course fishing conditions would return. What the quality of that future fishery would be is difficult to predict. The Conservator took a pessimistic view and said that a minor fishery could emerge but it would not be of sufficient value to attract anglers. Certainly the fishery would be nothing like the excellent quality which exists at present. Quite apart from other factors the river would be a different size and anglers would not be able to wade the area. For the purposes of this decision we accept that an excellent dry-fly stream would be lost forever and replaced by a poor quality fishing stream.

It is certain that the present association of the four different New Zealand ducks in the one locality would not survive the transitional period. Expert opinion was expressed that the habitat of the grey duck, the blue duck and the brown teal would be destroyed. The value of the Wheao as a wild life habitat would be disrupted during the transitional period

and thereafter a habitat of a lower ecological value and interest would persist.

Other environmental consequences of the applicant's proposals were considered in detail by the witnesses, but it is not necessary for us to go into further detail in this decision. We have outlined the broad and most significant consequences, but we have of course taken all factors into account in our consideration of the evidence.

The separate conclusions of the Board members from the evidence and submissions now follow.

Chairman:

The objective of the Act is that as far as possible competing demands on natural water shall be reconciled and that multiple use shall be made of natural water. But in this case the competing demands on the water concerned cannot be reconciled; if the rights sought by the applicant are upheld then the special and particular value of the Wheao as a fishery and as a wildlife habitat will be lost. There is in this case not even the conflict usually found in hydro-electric proposals, viz., that between the energy which can be made available and the land resource which would be lost. The conflict is between the use of the energy resource and a substantial loss of fishing and wildlife values.

The issue is an uncomplicated one involving purely a value judgment. Every value judgment is largely a matter of subjective personal opinion and cannot be fully explained nor indeed adequately substantiated. But bearing in mind that the Board makes its decision on behalf of the community as a whole I shall endeavour to articulate the factors why in my opinion the rights granted by the respondent should be sustained and the appeals dismissed.

Every New Zealander makes a demand for energy and it is inevitable that the total energy demand will increase in future, though there is room for difference of opinion over the likely rate of increase of demand. The method of electricity generation proposed in this case does not involve the consumption of a resource, it utilises a constantly renewing energy source; one that will be available indefinitely. Furthermore this method of electricity generation involves little or no pollution (though it usually involves some loss of environmental quality) whereas other methods of electricity generation create substantial pollution problems.

The fishery which would be lost in this case is of very high quality. But it is enjoyed by very few people and relatively speaking only a few people would benefit from the fishing compared with the large number who would be assisted by the energy produced. Furthermore the trout fishing is not a natural asset; the trout have been introduced by man himself.

The loss of the particular characteristics of the Wheao as a wildlife refuge would be a painful one, but no rare bird would thereby become extinct; rather the situation highlights the challenge to man's skill and ingenuity that he would assist rare species to survive in a modified habitat.

The conjunction of natural features which makes possible the generation of electricity by water power is not common. Most of the obvious situations have already been exploited for their energy and there are not a great number of those situations which remain unexploited. I do not say that economic values - values related to the standard of living - should always triumph over environmental values, and the intangible values which enhance the spirit of mankind. But in my judgment, in this case the overall public benefit justifies the conclusion that this particular source of energy should now be exploited notwithstanding the consequences to fisheries and wildlife habitats.

Mr Broker:

It cannot be gainsaid that there is a continuing and far from satisfied demand for electric power. Whether the shortfall should be alleviated to the extent available from the proposed hydro-electric scheme which is the subject of these appeals, having regard to the cost in terms of the consequent loss of diminishing natural amenities, is the principal question which this Board is called upon to answer. It is not concerned with alternative schemes or comparative monetary costs: those matters are decided elsewhere.

The Board was informed in evidence of the engineering aspects of the proposals, which involve works of considerable but not massive proportions. The proposed works are also of considerable ingenuity, involving the diversion of natural waters from the upper Wheao River through tunnel and pipeline to merge with waters which are to be diverted from the upper reaches of the Rangitaiki River by way of a canal. Those mingled waters, having thus developed a substantial head, would thence flow through hyrdro station penstocks to return into lower reaches of the Wheao river, which is itself a tributary of the Rangitaiki.

Evidence for the appellants was directed toward showing that, as a result of the proposed diversions, the natural habitat of four species of wildfowl - not otherwise found in association in New Zealand - would be interfered with to such an extent as to imperil their existence: also that highly favoured fishing reaches of wide renown - claimed to be of unique quality - would be irretrievably destroyed.

The situation thus disclosed is another incident in the age-old conflict between man and his environment. Once again a choice must be made between utilising natural resources and preserving such of them as remain. It is a matter of balancing the consequent disadvantages, to the extent that they are now discernible, against the more obvious benefits to the community at large.

Insofar as the protection of wildfowl is concerned, while the association of the four species in one locality is no doubt exceptional if not unique in New Zealand, that fact seems to be of considerable scientific interest but not necessarily of so much importance from a community point of view. In any event there does not seem to be a danger that the individual species would be imperilled to the point of extinction. Although they are relatively few in number, it is perhaps significant that no serious attempt seems yet to have been made to protect these birds from predators - an existing hazard entirely unconnected with such disturbance of the habitat as would result from the carrying out of the proposals.

As for the fear of losing fishing waters of unusually attractive if not unique qualities, the evidence did not disclose that those waters were frequented by a large number of anglers. It seemed to me to suggest, rather, that they were the prerogative of a somewhat elite class of discerning and well-informed sportsmen, including tourists from overseas who could afford to patronise such exclusive facilities.

It must not be overlooked that the grant of water rights by the Respondent was made subject to a comprehensive series of conditions, which are intended to protect the ecology and minimise the impact of exercising such rights as far as possible.

Having endeavoured to place in proper perspective from a community point of view the considerable volume of evidence adduced, in my view the Board has no alternative but to disallow the appeals, confirm the grant of rights, and so permit the proposed works to proceed.

Mr Tutt:

There is little doubt that electricity can be generated at this site, at a cost much lower than where a larger amount of capital is required; and therefore, is a benefit to the consumers of the district.

But this generation can be at the expense of the recreational interests of the Wheao River, in particular - the upper Rangitaiki and Flaxy Creek being, at the present, of little interest and value. The Whaeo River undoubtedly has unique features for the fly-fishing angler - although that group may be privileged to a few New Zealanders and some overseas visitors.

The works will change the form and nature of the Wheao, but after completion of the construction works, there will be a period of stabilising, before the river can return to somewhere near its former environment. Further, other streams and rivers may be discovered or improved, to fill what loss there can be from the Wheao.

The loss of bird colonies may be serious to wildlife but to those interested in ecology generally, there will be every opportunity for the birdlife to become re-established and not be permanently lost.

Forestry will be unaffected and can continue in the area, whilst there will be little (if any) disruption to agricultural pursuits.

Having considered every aspect of this matter, I believe that the evidence is more than sufficient for the Board to uphold the right granted and accordingly to dismiss the appeal.

Mr Martin:

The Board is faced with the making of a decision between the development and use of a hydro electrical resource and the preservation from possible loss of a fresh water fishing asset and the probable destruction of a minor wildlife habitat.

There are practically no means by which a common factor may be reached upon which to base a factual or a balanced judgment, and therefore the decision must be a value judgment alone. As a Board Member, then I find that I must commit myself to a subjective opinion which, although solely my own opinion, is formed on behalf of the country as a whole, after full consideration of all the evidence that was placed before the Board.

Thus I set out to rationalise my opinion that the greatest good would be achieved for the greatest number if the Right sought by the Power Authority was granted and the appeal consequently dismissed.

My reasons are as follows:

(1) Despite the fact that by comparison with N.Z.E.D. Power Development Projects, this scheme may be classified as a small unit, nevertheless it will contribute 48% of the maximum demand of energy for the Supply Authority concerned and will benefit 56,000 consumers.

(2) The Scheme does not inundate vast areas of productive land, whether such be of agricultural or forestry oriented usage, so that no economically competing uses are here apparent.

I do not consider in this regard that the Tourist use of these waters are of sufficient size as to weigh in favour of competing against the power potential.

(3) My judgment overall is upon this project and site and on this alone, that is to say, this scheme on this river at this site. Alternatives are not placed before the Board and cannot be a factor in the final decision.

I therefore judge the issue mindful of the fact that the Regional Water Board has laid down most stringent conditions as to operation, as to water quantities to be used, as to the rates of flow changes, as to the size of mesh screens and, above all, to a rehabilitation programme to be undertaken in order to stabilise the river regime at the earliest date,

upon the conclusion of the works. Further, the Regional Water Board has applied conditions to the control of the river and its protection during the construction period.

A strict monitoring programme is another condition which the Board has required for the full use of all concerned with the river and its many and varied uses, not the least of which are 2 other hydro electrical generating schemes downstream of this proposal, and including fisheries, wildlife habitat and flood prevention and control.

The responsibility for the implementation and the continuing operation of this monotoring programme is to be to the Power Authority and the distribution of the information gleaned to all parties likely to be affected, including the Conservator of Wild Life.

(4) The site is completely within the Crown Land area vested in the N.Z.F.S. so that any chance of trespassers or others likely to despoil the efforts for rehabilitation of the waters to a reasonable standard for fishing or for wildfowl are reduced to a minimum.

(5) Whilst strong evidence was given that the fishing would probably be destroyed forever and the wildlife leave the area, no evidence was adduced that this was absolute. I judge therefore, that the chances of the waters recovering as a fishing habitat and possibly for a wildlife refuge, are not that remote.

(6) Finally, my value judgment is weighted towards the necessity to conserve the Nation's resources of fossil fuels which are not inexhaustible, to conserve similarly geothermal energy and, above all, to prevent for so long as may be possible, the necessity to use nuclear energy for electric power production, so long as the problem of the safe disposal of nuclear wastes remains.

(7) For the above reasons I hold that the appeal be dismissed.

Addendum by all Members:

We wish to bring to notice that as far as we are aware, apart from the provisions of s.28 Town and Country Planning Act 1953, there are no statutory guidelines indicating:

(a) the policies underlying the provision of electrical energy and as to the alternative ways in which that energy can be produced; and

(b) the relative importance to the community as a whole of the natural resources and wildlife and scenic values which can be affected by hydro proposals.

In cases such as the one at present before us, we find great difficulty in making a value judgment on behalf of the community without guidelines bearing upon those matters.

As to the policies underlying the provision of electrical energy, they fall outside the scope of the Water and Soil Conservation Act 1967. Yet regional water boards (and this Board on appeal) must make decisions bearing upon them.

As to the relative importance of particular resources and wildlife and scenic values, some definition of community priorities could be obtained if regional water boards were required to prepare water allocation plans for their regions and if such plans were given statutory force. But even so, no adequate account of national policies relating to energy would follow unless such plans were reconciled on a national basis.

In deciding this appeal a relevant consideration which has weighed with us in the conclusion we have reached is that the Rangitaiki River system as a whole is already affected by a hydro station and that a second is in the course of construction. The applicant's proposals do not affect a river system which is still in its natural state.

Costs:

Although the appellants have exercised a statutory right of appeal available to them, they had full opportunity to put their cases to the respondent when it dealt with the matter in the first instance. The judgment which we have been called upon to make is no different from that which the respondent had to make, and we believe that we were in no better position, nor better able, to make that judgment than the respondent was. By exercising their right of appeal the appellants have put the respondent and the applicant to considerable expense. Somewhat hesitantly, we have concluded that no order for costs should be made on these appeals. But we warn that in future if an appeal which involves principally a value judgment is unsuccessful, it is likely that an order for costs will be made against the appellant.

Determination:

These appeals are dismissed.

DATED this 2nd day of March. 1978.

Chairman

Appendix I

No. 253
101

BAY OF PLENTY CATCHMENT COMMISSION
AND REGIONAL WATER BOARD

COPY

RIGHT IN RESPECT OF NATURAL WATER

Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, by a decision dated 7th JULY 1977 HEREBY GRANTS to the

ROTORUA AREA ELECTRICITY AUTHORITY

114 Tutanekai Street (Private Bag),
ROTORUA.

RIGHTS TO :-

(a) (i) Dam the Rangitaiki River at about map reference N95:974442 to form a small lake;

(ii) Divert up to 21 cubic metres of water per second from the lake so formed into a canal leading to the Wheao Power Station penstocks;

(iii) Discharge surplus water over the dam into the original course of the Rangitaiki River;

(iv) Discharge water through the dam into the original course of the Rangitaiki River to remove sediment from the lake or to provide water for fire-fighting purposes.

(b) (i) Dam the Wheao River at about map reference N95:018379 to form a small lake;

(ii) Divert up to 12 cubic metres of water per second from the lake so formed into a tunnel;

(iii) Discharge the water from the tunnel at about map reference* N95:001402 into a lake formed by damming Flaxy Creek;

(iv) Discharge surplus water over the dam into the original course of the Wheao River.

(c) (i) Dam Flaxy Creek at map reference N95:003407 to form a lake;

(ii) Divert up to 12 cubic metres of water per second from the lake so formed into a pipeline;

(iii) Discharge the water from the pipeline at about map reference* N95:006437 into a canal;**

(iv) Discharge surplus water over the dam into the original course of Flaxy Creek.

**after using it for the generation of electric power.

(d) (i) Discharge up to 24 cubic metres of water per second from the canal at about map reference N95:023436 into penstocks leading to a power station;

(ii) Use the water from the penstocks for the generation of electric power;

(iii) Discharge up to 24 cubic metres of water per second into the Wheao River at map reference N95:027437.

SUBJECT TO THE FOLLOWING CONDITIONS :

1. RANGITAIKI RIVER :

1.1 The dam across the Rangitaiki River shall have a maximum height of 11 metres above the river bed.

1.2 The Grantee shall at all times release a flow of at least 0.5 cubic metres of water per second through the dam to provide compensation water for the downstream reach.

1.3 The Grantee shall erect and maintain at suitable locations between the intake dam and the confluence with the Wheao River, appropriate signs to warn the public of variations in river levels during sediment flushing operations.

1.4 As far as practicable all bush and scrub upstream of the Rangitaiki River dam and below the contour level of the dam crest shall be cleared to the satisfaction of the Regional Water Board Engineer, before lake filling commences.

2. WHEAO RIVER INTAKE :

2.1 The dam across the Wheao River shall have a maximum height of 14 metres above the river bed.

2.2 As far as practicable, all bush and scrub upstream of the Wheao River dam and below the contour level of the dam crest shall be cleared to the satisfaction of the Regional Water Board Engineer, before lake filling commences.

2.3 The Grantee shall erect and maintain at suitable locations upstream of the power station, appropriate signs to warn the public of variations in river levels when water is being spilled at the Wheao River dam.

....

3. FLAXY CREEK :

3.1 The dam across Flaxy Creek shall have a maximum height of 14 metres above the creek bed.

SEE VARIATION:

3.2 ~~The variation in the water level of Flaxy Creek lake shall not exceed 0.5 metres during normal operating conditions.~~ **(See back hereof)

3.3 As far as practicable, all bush and scrub upstream of the Flaxy Creek dam and below the contour level of the dam crest shall be cleared to the satisfaction of the Regional Water Board Engineer, before lake filling commences.

3.4 The intake to the pipeline from Flaxy Creek lake to the canal shall be fitted with a screen with a gap between bars of no greater than 30 millimetres.

3.5 The outfall from the pipeline leading from Flaxy Creek lake to the canal shall be constructed so that it forms a velocity barrier to prevent trout entering the pipeline.

4. CANAL :

4.1 The intake to the power station penstocks shall be fitted with a screen with a gap between bars of no greater than 30 millimetres. A floating boom shall be installed across the full width of the intake to safeguard persons using the canal for recreation.

4.2 In the event of it being found necessary to lower the water level of the canal, the Grantee shall, other than in exceptional circumstances, ensure that a water depth of at least 0.2 metres is maintained in the bottom of the canal for the preservation of aquatic life.

4.3 Should exceptional circumstances arise so that it is found necessary to completely dewater the canal or sections thereof, the Grantee shall give prior notice to the Conservator of Wildlife, Internal Affairs Department, Rotorua, and shall in co-operation with the Department take action to ensure that, wherever possible, trout and any other forms of aquatic life are salvaged and transferred to other nearby natural waters specified by the Department.

** 3.2.1 The variation in the water level of Flaxy Creek Lake shall not exceed 1.5 metres.

3.2.2 The Grantee shall provide the Regional Council with monthly returns of the maximum and minimum level of Flaxy Creek Lake each day and of the length of time each day when the lake level was below R.L. 531.00 metres (Moturiki Datum)

~~**except during the first five years of operation when the variation in lake level may be up to 1.5 metres subject to compliance with the following:~~

~~3.2.1 The Grantee shall advise the Regional Water in writing stating the date when water from Flaxy Creek Lake was first used for power generation in the Wheao Power Station. The five year term of this variation shall be deemed to have commenced on that date.~~

~~3.2.2 The ecological surveys referred to in Condition 8.1 shall be extended to include the Flaxy Creek Lake and canal areas.~~

~~3.2.3 The Grantee shall provide the Regional Water Board with monthly returns of the maximum and minimum level of Flaxy Creek Lake each day and of the length of time each day when the lake level was below R.L. 531.00 metres (a.s.l.).~~

....

5. POWER STATION :

5.1 During normal operating conditions, the maximum rate of change of discharge of water from the power station shall not exceed one cubic metre per second per minute.

5.2 To prevent an excessive increase in flood flows in the Wheao River, the Grantee shall not discharge from the power station any water taken from the Rangitaiki River if the flow in the Wheao River at the flow measurement station, immediately downstream of the power station, exceeds 30 cubic metres of water per second.

6. WHEAO RIVER DOWNSTREAM OF POWER STATION :

6.1 The power scheme shall be operated in such a way as to ensure that at all times the flow in the Wheao River below the power station shall not be reduced below two (2) cubic metres per second. Under normal operating conditions a flow of at least six (6) cubic metres per second shall be maintained.

6.2 The Grantee shall continue operation of the existing flow measurement station on the Wheao River just downstream of the power station site and shall provide the Regional Water Board, ~~by the 14th day of the month following, with monthly returns~~ by the 31st of November each year with an annual return for the period ending 31st October for the preceding 12 month containing the following information :-

SEE VARIATION:

a) The minimum, mean and maximum discharges for each day from the power station to the Wheao River.

b) The minimum, mean, and maximum discharges for each day in the Wheao River at the flow measurement station.

The requirement for this information may be reviewed annually by the Regional Water Board.

6.3 The Grantee after consultation with the Catchment Commission Engineer, shall carry out a survey and submit proposals for the approval of the Commission for the carrying out of channel clearing and channel widening to provide an increased channel capacity at selected points or reaches in the Wheao River. The material excavated under this condition shall not exceed 75,000 cubic metres.

....

6.4 The Grantee shall from time to time as directed by the Bay of Plenty Catchment Commission carry out channel maintenance and bank protection works on the Wheao River between the power station site and the confluence with the Rangitaiki River.

6.5 The Grantee shall carry out a survey of the Wheao River between the power station site and the confluence with the Rangitaiki River to identify and locate the natural controls that exist in the channel at present.

The Grantee shall submit a plan and a report to the Bay of Plenty Catchment Commission on the results of such survey and shall submit to the Commission proposals for carrying out training or protection works that may be required to maintain the present natural controls.

6.6 The Grantee shall prepare proposals for modifying the alignment of the Wheao River at its confluence with the Rangitaiki River to ensure easy transition for the increased flows.

The Grantee shall submit such proposals to the Bay of Plenty Catchment Commission and shall carry out and maintain any works deemed necessary by the Commission Engineer.

6.7 The Grantee shall, after consultation with the Regional Water Board, establish at least ten (10) cross sections extending across the Wheao River and adjacent banks between the power station site and the confluence with the Rangitaiki River. The cross sections shall be surveyed before the power station commences operating and then re-surveyed every three (3) months for the first year following the commencement of operation of the power station and thereafter at intervals of six (6) months. The results of the surveys shall be sent to the Regional Water Board as soon as they are available. The requirements for these surveys may be reviewed every five years by the Regional Water Board.

6.8 The discharge of water from the power station shall not be authorised until the works referred to in conditions 6.3, 6.5, and 6.6 are carried out to the satisfaction of the Commission Engineer.

....

7. RANGITAIKI RIVER DOWNSTREAM OF CONFLUENCE WITH WHEAO RIVER :

The Grantee shall, after consultation with the Regional Water Board, establish at least four cross sections extending across the Rangitaiki River between the confluence with the Wheao River and Murupara. The cross sections shall be surveyed before the power scheme commences operating and then at intervals of six months to determine if erosion or degradation is occurring because of the reduced sediment load. The results of the surveys shall be sent to the Regional Water Board as soon as they are available. The requirement for these surveys may be reviewed every five years by the Regional Water Board.

8. ECOLOGICAL SURVEYS :

8.1 After the scheme has commenced operating, the Grantee shall engage the services of suitably qualified ecologists on at least one occasion ~~per annum~~ every two years to carry out field investigations into the ecology of the Rangitaiki River between the dam and the confluence with the Wheao River, ~~and~~ the ecology of the Wheao River between the dam and the confluence with the Rangitaiki River,* The investigations shall pay particular attention to the effects of the scheme upon trout, the food supply for trout and upon wildfowl habitat and native fish.

SEE VARIATION:

SEE VARIATION:

*(Insert) and Flaxy Creek Lake and canal areas.

8.2 A written report shall be sent to the Regional Water Board and to the Wildlife Service of the Department of Internal Affairs as soon as possible after the investigations are completed.

8.3 The Regional Water Board may review the frequency at which the ecological surveys shall be carried out after an initial period of five years following commencement of operation of the scheme.

9. SUPERVISION OF WORKS :

All planning, design, construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

10. CONSTRUCTION AND MAINTENANCE WORKS :

The Grantee shall to the satisfaction of the Regional Water Board Engineer take every care during construction and maintenance of the works to prevent materials from entering any watercourse or from being washed into any watercourse.

....

11. THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

12. THIS RIGHT may be cancelled upon not less than twelve months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interests, the interests of lawful users of water, or the interests of future applicants for water rights so requires; but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

DATED at Whakatane this 13th day of March 1978.

For and on behalf of
The Bay of Plenty Catchment Commission
and Regional Water Board.

J.D. CARLING,
Secretary.

By a decision of the Regional Water Board dated 3rd September 1981 the above water right (No. 253) was varied as follows:

(1) That map references be amended as follows:

Clause (a)(i)	-	Rangitaiki River Dam - change N95:969439 to N95:974442
Clause (b)(i)	-	Wheao River Dam - change N95:015381 to N95:018379
Clause (b)(iii)	-	Discharge from Wheao Tunnel into Flaxy Creek Lake - change N95:000400 to N95:001402
Clause (c)(iii)	-	Discharge from Flaxy Creek Lake pipeline into main canal - change N95:009438 to N95:006437

(2) That Condition 3.2 of the right be amended to read as follows:

"The variation in the water level of Flaxy Creek Lake shall not exceed 0.5 metres during normal operating conditions except during the first five years of operation when the variation in lake level may be up to 1.5 metres subject to compliance with the following:

**(See back hereof)

**3.2.1 The Grantee shall advise the Regional Water Board in writing stating the date when water from Flaxy Creek Lake was first used for power generation in the Wheao Power Station. The five year term of this variation shall be deemed to have commenced on that date.

3.2.2 The ecological surveys referred to in Condition 8.1 shall be extended to include the Flaxy Creek Lake and canal areas.

3.2.3 The Grantee shall provide the Regional Water Board with monthly returns of the maximum and minimum level of Flaxy Creek Lake each day and of the length of time each day when the lake level was below R.L. 531.00 metres (a.s.l.).

(3) That Clause (c)(iii) of the right be amended to read as follows:

"Discharge the water from the pipeline at about map reference N95:006437 into a canal after using it for the generation of electric power.

The above variation was recorded hereon on the 7th day of October 1981.

J.D. CARLING
Secretary
Bay of Plenty Regional Water Board

VARIATION OF RIGHTS

This Right was varied in accordance with a decision of the Bay of Plenty Regional Council, dated 26 April 1990, as follows:-

i) Delete Condition 3.2 and replace with

3.2.1 The variation in the water level of the Flaxy Creek Lake shall not exceed 1.5 metres.

3.2.2 The Grantee shall provide the Regional Council with monthly returns of the maximum and minimum level of Flaxy Creek Lake each day and of the length of time each day when the lake level was below R.L. 531 metres (Moturiki Datum)

ii) Amend Condition 8.1 by insertion of the words, "Flaxy Creek Lake and Canal areas"

J A JONES
General Manager

VARIATION

This permit was varied in accordance with a decision of the Bay of Plenty Regional Council Environmental Monitoring Committee dated 29 November 1991, as follows:

REQUIRED CHANGE

Deletion of the words "per annum" from condition 8.1 of the permit and replacement with "every two years".

Under section 127 of the Resource Management Act the written approval of the sought changes by all parties who made submissions to the original application is required unless it is the council's opinion that this is unreasonable. Staff consider that because of the minor nature of this matter, this is a clear case where it would be unreasonable to require consent to the change sought by the original objectors.

J A JONES
General Manager

VARIATION

This permit was varied in accordance with a decision of the Bay of Plenty Regional Council Environmental Monitoring Committee dated 19 December 1991, as follows:

REQUIRED CHANGE

Amend condition 6.2 by deleting the words "... by the 14th day of the month following, with monthly returns ..." and replacing with "... by the 31st of November each year with an annual return for the period ending 31st October for the preceding 12 months ... "

J A JONES
General Manager

Southland County Council, pursuant to the said section and as from the date of this notice, the said land shall ined to be Crown land, subject to the Land Act 1948.

SCHEDULE

SOUTHLAND LAND DISTRICT—SOUTHLAND COUNTY

4. hectares, more or less, being unformed legal road ing through Run 561, Blocks II, XV, XX and XXI, ndon Survey District, as marked "A" on S.O. 9446.
square metres, more or less, being unformed legal road through Run 561, and adjoining Section 1, Block III, Survey District, as marked "B" on S.O. 9446.
19 square metres, more or less, being unformed legal road ining Run 561, Block I, Waikaia Survey District, as "A" on S.O. 9447.
square metres, more or less, being unformed legal road ing Run 561, Block I, Waikaia Survey District, as ed "B" on S.O. 9447.
93 square metres, more or less, being unformed legal road ing Run 561, Block I, Waikaia Survey District, as "C" on S.O. 9447.
square metres, more or less, being unformed legal road ining Run 561, Block III, Waikaia Survey District, as ed "D" on S.O. 9447.
hectares, more or less, being unformed legal road through Run 561, Block I, Waikaia Survey District, ed "E" on S.O. 9447.

ated at Wellington this 27th day of November 1978.

VENN YOUNG, Minister of Lands.

d S. H.O. 16/3257; D.O. RLF 584)

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ion of Unformed Road in Blocks VII and VIII, onside Survey District, Southland County

T to section 191B of the Counties Act 1956, the of Lands hereby declares that the land, described in dule hereto, has been transferred to the Crown by Southland County Council, pursuant to the said section , and as from the date of this notice, the said land shall ed to be Crown land, subject to the Land Act 1948.

SCHEDULE

SOUTHLAND LAND DISTRICT—SOUTHLAND COUNTY

re metres, more or less, being unformed legal road Section 4, Block VIII, Wendonside Survey District. ed 'A' on S.O. 8949.
10 square metres, more or less, being unformed legal road through Section 13, Block VIII, Wendonside Survey As marked 'B' on S.O. 8949.
quare metres, more or less, being unformed legal road through Section 1, Block VII, Wendonside Survey ct. As marked 'C' on S.O. 8949.
0 square metres, more or less, being unformed legal road Part Section 12, Block VII, Wendonside Survey As marked 'A' on S.O. 8950.
quare metres, more or less, being unformed legal road through Part Section 12, Block VII, Wendonside y District. As marked 'B' on S.O. 8950.
uare metres, more or less, being unformed legal road through Part Section 11, Block VII, Wendonside istrict. As marked 'C' on S.O. 8950.
0 square metres, more or less, being unformed legal road g through Section 10, Block VII, Wendonside Survey As marked 'A' on S.O. 8951.
uare metres, more or less, being unformed legal road rough Section 10, Block VII, Wendonside Survey t. As marked 'B' on S.O. 8951.

ed at Wellington this 30th day of November 1978.

VENN YOUNG, Minister of Lands.

S. H.O. 16/3257; D.O. 9/59, LIP 952, LIP 508, 34)

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ption of Unformed Road in Block XVI, Rotoiti Survey District, Rotorua County

to section 191B of the Counties Act 1956, the of Lands hereby declares that the land, described in hedule hereto, has been transferred to the Crown by the Rotorua County Council, pursuant to the said section 191B, and as from the date of this notice, the land shall be deemed to be Crown land, subject to the Land Act 1948.

SCHEDULE

SOUTH AUCKLAND LAND DISTRICT—ROTORUA COUNTY

2183 square metres, more or less, being a portion of Public Road adjoining Part Okataina No. 4 Block and Section 7, both situated in Block XVI, Rotoiti Survey District. Part *New Zealand Gazette*, 1924, p. 624, and Warrant No. 5759. S.O. Plan 49760.

Dated at Wellington this 30th day of November 1978.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. Res. 3/3/43; D.O. 13/132/3)

Revocation of the Reservation Over a Reserve Specifying that the Land Shall Vest in the Putaruru Borough Council in Fee Simple and how the Value Thereof Shall be Utilised

PURSUANT to the Reserves Act 1977, the Minister of Lands hereby revokes the reservation as a reserve for recreation purposes over the land, described in the Schedule hereto, and further, declares that the said land shall vest in the Putaruru Borough Council in fee simple provided that a sum equal to the current market value of the said land is paid by council into its reserves account, such monies to be used and applied in or towards the improvement of other reserves under the control of the council or in or towards the purchase of other land for reserves.

SCHEDULE

SOUTH AUCKLAND LAND DISTRICT—PUTARURU BOROUGH

1401 square metres, more or less, being Section 16, Block I, Village of Putaruru, situated in Block X, Patetere North Survey District. Part certificate of title, No. 5C/1160. S.O. Plan 47052.

Dated at Wellington this 29th day of November 1978.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. Res. 3/2/178; D.O. DPU 3093)

Appointment of The Minister of Internal Affairs to Control and Manage a Reserve and Declaration that the Said Reserve shall be Subject to the Provisions of The Wildlife Act 1953

PURSUANT to the Reserves Act 1977, the Minister of Lands hereby appoints the Minister of Internal Affairs to control and manage the reserve, described in the Schedule hereto, subject to the provisions of the said Act, as a reserve for Government purpose (wildlife management) and further declares that the said reserve shall be subject to the provisions of the Wildlife Act 1953.

SCHEDULE

SOUTH AUCKLAND LAND DISTRICT—WHAKATANE DISTRICT

8.6350 hectares, more or less, being Lot 1, D.P. S. 8489, being Part Allotment 108A, Matata Parish, situated in Block III, Awaateatua Survey District. All certificate of title, No. 9C/800. Appurtenant hereto is a drainage easement in favour of Lot 1, created by T. 433080. Subject also to a drainage easement created by S. 413780.

Dated at Wellington this 7th day of December 1978.

VENN YOUNG, Minister of Lands.

(L. and S. H.O. Res. 3/6/7; D.O. 8/5/267/24)

Consent to the Generation of Electricity by the Rotorua Area Electricity Authority by the Use of Water

PURSUANT to section 25 of the Electricity Act 1968, the Minister of Energy consents to the generation of electricity by the Rotorua Area Electricity Authority, subject to the following conditions.

CONDITIONS

1. The conditions directed by the Water Power Regulations 1934, to be implied in every licence to use water for the purpose of generation or storing electricity, shall be deemed to be conditions of this consent as if it were such a licence.

2. This consent is subject to compliance with the Water Power Regulations 1934, the Electrical Supply Regulations 1976, the Electrical Wiring Regulations 1976, the Radio Interference Regulations 1958, and all regulations hereafter made in amendment or in substitution for any of those regulations, as if in the case of the Water Power Regulations 1934 it were a licence under the Public Works Act 1928, to use water for the purpose of generating electricity, as well as a consent under the Electricity Act 1968, to generate electricity by the use of water.

3. The generation of electricity by the use of water, pursuant to this consent, shall be carried out by means of the works described in the Schedule hereto.

4. This consent shall, unless it is sooner lawfully determined continue in force for a period of 21 years from the 1st day of January 1979.

5. This consent is granted subject to compliance with the Water and Soil Conservation Act 1967.

6. This consent shall come into force on the 1st day of January 1979.

7. The station shall be operated to supply the normal electricity demand of the Rotorua Area Electricity Authority and to conform reasonably to the pattern of the supply authority's daily load curve.

8. For the purpose of assessing in accordance with the Water Power Regulations 1934, the rental or annual sum payable in respect of this consent, the maximum generating capacity of the scheme shall be assessed at 24,000 kW.

SCHEDULE

GENERAL DESCRIPTION OF WORKS

THE Wheao hydro-electric scheme utilises water diverted from the Rangitaiki River by a canal supplemented by water diverted from the Upper Wheao River by means of a tunnel into the Flaxy Creek reservoir and hence by a pipeline into the main canal. The combined flow is then passed through a generating station in the gorge of the Wheao River with a hydraulic head of 130 metres.

WORKS involved in the scheme include the following:

(a) Dam the Rangitaiki River at about Lands and Survey N.Z. Topographical 1:63,360 (1 inch to 1 mile) Series N.Z.M.S.1 map reference N95:969439 Block XIII, Wheao S.D., to form a small lake and construct intake, settling pond and sluice gates. Divert up to 21 cumecs into a 4,800 metre canal terminating in a forebay and the Wheao Power Station penstocks.

(b) Dam the Wheao River at about map reference N95:015381 Block III, Heruiwi S.D., to form a small lake and construct spillway. Divert up to 12 cumecs through a tunnel into a lake formed by damming Flaxy Creek at map reference N95:000400.

(c) Dam Flaxy Creek at map reference N95:003407, Block XIV, Wheao S.D., to form about a 20 hectare lake and construct spillway. Divert up to 12 cumecs from the lake through a gate and pipeline into the Rangitaiki Canal at about map reference N95:009438.

(d) Discharge up to 24 cumecs from the canal at about map reference N95:023436 into two penstocks and utilise the 130 metre hydraulic head in the Wheao powerhouse with two turbine-generators having a combined rated capacity of 24,000 kW together with all necessary associated equipment including inlet valves, switchgear, transformers, transmission line termination, etc.

(e) Discharge up to 24 cumecs from the powerhouse tailrace into the Wheao River at about map reference N95:027437 Block XIV, Wheao S.D.

All as shown on the plan marked N.Z.E. 971 and deposited in the office of the Electricity Division of the Ministry of Energy, at Wellington.

Dated at Wellington this 28th day of November 1978.

GEORGE F. GAIR, Minister of Energy.

(N.Z.E. 10/119/1)

Increase in Wheat Research Levies

PURSUANT to the Wheat Research Levy Act 1974, I have increased the rates of the wheat research levies to the following levels:

Wheat growers and producers	18 cents per tonne
Flourmillers	28 cents per tonne
Bakers	28 cents per tonne

The new rates will be effective from 1 January 1979.

Dated at Wellington this 4th day of December 1978.

L. W. GANDAR, Minister of Science and Technology.

The Community Centres (Cust Community Centre District) Levies Notice 1978

PURSUANT to section 50 (1) of the Counties Amendment Act 1971, the Minister of Local Government hereby gives the following notice:

NOTICE

1. This notice may be cited as the Community Centres (Cust Community Centre District) Levies Notice 1978.

2. Within the area of the Cust Community Centre District, the Rangiora District Council is hereby authorised to levy a uniform annual fee, not exceeding $10, to be paid by the occupier of each dwelling unit within the community centre district.

Dated at Wellington this 7th day of December 1978.

D. A. HIGHET, Minister of Local Government.

(I.A. 103/704)

Freshwater Fish Processing and Dealing Licence (No. 2060, Ag. FM 42/31/4)

PURSUANT to regulation 4 and regulation 7 of the Fish Farming Regulations 1972, a Fish Processing and Dealing Licence is hereby granted to

Talley's Fisheries Ltd., Port Motueka, Nelson

(herewith called "the licensee"), to receive salmon of the species *Oncorhynchus tshawytscha* and process and deal with such fish within that factory holding Fish Packhouse Licence No. 1 as issued under the Fish (Packing for Export) Regulations 1977.

This licence is issued for a period of six (6) years from and after the 7th day of December 1978, subject always to the requirements, provisions and conditions contained in the Freshwater Fish Farming Regulations 1972, and also the following conditions:

(a) This licence shall be void and of no effect if fish are received from other than the Bubbling Springs Salmon Farm Co.

(b) The licence shall be void and of no effect if all salmon dealt with under provisions of this licence do not carry a tag as provided for by the Freshwater Fish Farming Regulations 1972.

(c) This licence shall be void and of no effect if salmon offal is disposed of other than to the satisfaction of an Authorised Officer.

Dated at Wellington this 7th day of December 1978.

JIM BOLGER,
Signed in Place of the
Minister of Agriculture and Fisheries.

Licence No. S.F./1

Freshwater Fish Farm Licence (No. 2061, Ag. F.M. 42/31/4)

PURSUANT to regulation 7 of the Freshwater Fish Farming Regulations 1972, a Fish Farming Licence is hereby granted to:

Bubbling Springs Salmon Farm Co.

(Hereinafter called "the licensee"), to establish and maintain a freshwater fish farm for the raising of salmon of the species *Oncorhynchus tshawytscha* within the area described in the Schedule hereto.

SCHEDULE

ALL those parcels of land containing 5.9691 hectares, more or less, being that part of Section 43, District of Takaka, and those parts of Section 46, Takaka Original, lying to the south east of Bells Creek, all of said pieces of land being more

APPENDIX IV

DOCUMENTS RELATING TO THE ANIWHENUA PROJECT

Report of Standing Tribunal of the Bay of Plenty Regional Water Board, dated 24 November 1975

Aniwhenua Water Right

Consent by Minister of Electricity to Generate Electricity by the Use of Water Power, dated 28 November 1976

BAY OF PLENTY CATCHMENT COMMISSION

AND REGIONAL WATER BOARD

1. REPORT of STANDING TRIBUNAL of the Regional Water Board which heard and considered the application of the BAY OF PLENTY ELECTRIC POWER BOARD (No.190) in respect of the following :-

"A right to dam the Rangitaiki River at its junction with the Pokairoa Stream at map reference N86:235829; to divert up to 75 cubic metres (2 650 cubic feet) of water per second into a canal leading to a headpond; to dam the Pahekeheke Stream at map reference N86:235847 to form the headpond; to use the water for the generation of electric power, and to discharge the water back into the Rangitaiki River at map reference N86:237847."

2. ATTACHED as an appendix is a report of the Tribunal Hearing held at Whakatane on the 29 and 30 September 1975. The membership of the Tribunal and representation of the various parties attending the hearing are set out in the hearing report which also comprises a transcript of verbal and written evidence submitted.

3. THE HEARING OF EVIDENCE of the various parties concluded on the evening of the 30 September 1975 and prior to considering its recommendation to the Regional Water Board, the Tribunal carried out an inspection of the proposed dam site and adjoining land. This inspection took place on Wednesday, 29 October 1975 after two earlier dates for the inspection were cancelled, due to unfavourable weather conditions.
The inspection consisted of a jet boat trip up the Rangitaiki River to the Aniwhenua Falls - by courtesy of three local jet boat owners, Messrs Needham, Dent and Miller - an inspection of farm properties in the Kopuriki area that would be affected by the lake to be formed and a view from above the Aniwhenua Falls via the road access. On the inspection the Tribunal was accompanied by its Solicitor and various staff members; Mr.J.Duder representing the Consultants for the Power Board and during the property inspections by Mr.J.C.Beck, representing the Galatea Branch of the Federated Farmers. Following the inspection, the Tribunal met to consider its recommendations.

4. THE APPLICATION No.190 refers to a right to dam the Rangitaiki River and Pahekeheke Stream immediately upstream of the Aniwhenua Falls and to take and discharge water for the purpose of hydro electricity generation.

The Tribunal has carefully weighed and considered the objections and evidence and submissions of all parties, and has travelled to the area to inspect the River and the Aniwhenua Falls, the land which would be flooded, and adjacent lands which will be or are alleged to be likely to be affected. The Tribunal has considered all relevant aspects of private interest and public benefit and particularly the loss of productive farm land. It particularly sympathises with the objectors who will be personally affected, but nevertheless after full consideration of all available facts and informed opinion it has decided to recommend the grant of the water right, subject to conditions, as being in the greater public interest having regard to the benefit to be gained by using the land for the purpose of generation of electricity rather than for agricultural uses and to the need at both local and national level to use indigenous resources for the generation of electricity in the public interest.

The Tribunal recognises the need to protect fisheries, wildlife, ecology and the environment generally, the interests of adjacent landholders, the recreational use of the waters by the public and the preservation of existing water uses for watering stock, fire-fighting and the like. The Tribunal believes that such protection can be afforded by ensuring proper management of the hydro-electricity scheme. To this end the Tribunal recommends that the conditions which it proposes be attached to the grant of the right as it believes they are essential to ensure that the Regional Water Board retains the power to supervise the proper management and control of the water resource to attain the maximum public benefit and maximum harmony between the competing water uses.

The rights and conditions recommended to the Regional Water Board are as follows :-

"THAT RIGHTS BE GRANTED TO THE BAY OF PLENTY ELECTRIC POWER BOARD TO :-

(a) Dam the Rangitaiki River and Pokairoa Stream at their confluence to form a lake to be known as the 'Aniwhenua Lake' (map reference N86:235829).

(b) Dam the Pahekeheke Stream to form the 'Pahekeheke Headpond' (map reference N86:235846).

(c) Divert water from Lake Aniwhenua into a canal leading to the Pahekeheke Headpond.

(d) Take water from Lake Aniwhenua through an outlet pipe, use the water for the generation of electric power and discharge the water into the original course of the Rangitaiki River downstream of Lake Aniwhenua (map reference N86:235829). This water shall hereinafter be referred to as 'Compensation Water'.

(e) Take water from the Pahekeheke headpond through a control structure and penstocks leading to a powerhouse (map reference N86:237847) and use the water for the generation of electric power.

(f) Discharge water from Lake Aniwhenua into the original course of the Rangitaiki River (map reference N86:235829).

(g) Discharge water from the Pahekeheke headpond through a drawoff pipe into the original course of the Pahekeheke Stream (map reference N86:235846).

(h) Discharge water from the powerhouse into the Rangitaiki River downstream of the Aniwhenua Falls (map reference - N86:237847).

SUBJECT TO THE FOLLOWING CONDITIONS :

1. TAKING, USE AND DISCHARGE OF WATER :

1.1. The rate of taking and using of water from Pahekeheke headpond and the discharge from the powerhouse shall not exceed 75 cubic metres per second. The rate of change of discharge from the powerhouse shall not exceed 10 cubic metres per second per minute.

1.2. The rate of taking, using and discharging of compensation water from Lake Aniwhenua as referred to in (d) shall be not less than two point five (2.5) cubic metres per second during daylight hours or one (1) cubic metre per second at all other times.

1.3. The discharge from Lake Aniwhenua of surplus water not used for the generation of electric power shall be through spillway structures incorporated in the dam into the original course of the Rangitaiki River downstream of the dam.

1.4. The rate of discharge of water from the Pahekeheke headpond to the original course of the Pahekeheke Stream by way of a drawoff pipe as referred to in (g) shall not exceed seven (7) cubic metres per second.

2. LAKE ANIWHENUA WATER LEVELS :

2.1. The term 'water level' shall in this right mean the level of the water of Lake Aniwhenua above sea level based on the Moturiki Datum and measured on a gauge to be installed by the Grantee to the satisfaction of the Regional Water Board as close as practicable to the entrance of the canal leading from Lake Aniwhenua to the Pahekeheke headpond.

2.2. The water level of Lake Aniwhenua shall be maintained between 146.6 metres and 146.8 metres under normal operating conditions.

2.3. For the purpose of weed control, the water level of Lake Aniwhenua may be lowered to 144.6 metres on no more than two occasions each year. Before the level of Lake Aniwhenua is lowered for weed control, the Grantee shall give the Bay of Plenty Catchment Commission and the Conservator of Wildlife seven (7) days notice in writing of the intention to do so; and shall at the same time give public notification through newspapers circulating in Whakatane, Kawerau, Murupara, Galatea and Rotorua districts to inform the public. The water level of the lake shall not be allowed to remain below the level of 146.6 metres for more than ten (10) days, unless written approval is obtained from the Regional Water Board.

2.4. When the water level of Lake Aniwhenua is being lowered for any approved weed control or other maintenance works, excluding flood control, the rate of drawdown shall not exceed 0.3 metres per hour.

3. SPILLWAY CAPACITIES :

The spillway gates incorporated in the dam must be capable of passing a flow of 850 cubic metres per second at a water level of 146.8 metres. Additional spillway capacity must be provided so that a total flow of 1 270 cubic metres per second can safely pass through or over the dam at a water level not exceeding 147.5 metres. Under normal operating conditions the rate of opening the spillway gates shall ensure that the rate of change of discharge from all spillway structures shall not exceed 60 cubic metres per second per minute.

The opening and closing mechanism of all spillway gates shall be provided with an alternative means for their operation in the event of any electrical power failure.

4. INTAKE FOR COMPENSATION WATER :

The invert level of the intake for the compensation water shall be located a minimum height of one (1) metre above the sill of the radial gates of the dam.

5. SCREENS AND BOOMS :

5.1. Floating booms must be installed across the intake to the canal and across the full width of the spillway of the Aniwhenua Dam to safeguard persons using the lake for recreation.

5.2. The intake to the penstocks shall be fitted with screens with a gap no greater than 60 millimetres between bars.

6. SEDIMENT SURVEYS :

The Grantee shall establish at least six (6) cross-sections extending across the proposed Aniwhenua Lake and these shall be surveyed before the lake is filled and thereafter at least once annually, to determine the amount of siltation occurring. The sites of the cross-sections shall be to the approval of the Regional Water Board and the results of each annual survey shall be sent to the Regional Water Board within seven (7) days of such results becoming available.

7. ECOLOGICAL SURVEYS :

7.1. After Lake Aniwhenua has been filled, the Grantee shall employ a suitably qualified ecologist on at least two occasions each year to carry out at least two (2) days field investigations into the ecology of the lake.

7.2. The timing of the investigations shall be to the approval of the Regional Water Board and a written report shall be sent to the Regional Water Board as soon as possible after the investigations are completed. The ecological surveys shall pay particular attention to the amount and species of aquatic weeds established in the lake and the reports shall include plans of the lake showing the location and extent of weed beds.

7.3. The Regional Water Board may review the frequency at which surveys referred to in this clause shall be carried out after an initial period of five (5) years.

8. OPERATIONAL RECORDS :

The Grantee shall provide the Regional Water Board by the fourteenth (14th)day of the month following with monthly returns containing the following information :-

(a) The minimum and maximum daily discharges from the powerhouse to the Rangitaiki River and the times and durations of such minimum and maximum discharges.

(b) The occasions when water was discharged through the spillway structures and an estimate of such discharges and their duration.

(c) Daily records of Lake Aniwhenua levels, including times and details of drawdown when the lake level was lowered for any approved purpose.

9. AQUATIC LIFE :

9.1. In the event of it being found necessary to lower the water level of the canal and headpond the Grantee shall except in exceptional circumstances ensure that an adequate water depth is maintained for the preservation of aquatic life.

9.2. Should exceptional circumstances arise so that it is found necessary to completely dewater the canal or the headpond, or sections thereof, the Grantee shall give prior notice to the Conservator of Wildlife, Internal Affairs Department, Rotorua and shall in co-operation with the Department take action to ensure that wherever possible trout and any other forms of aquatic life are salvaged and transferred to other nearby natural waters specified by the Department.

10. GROUND WATER TABLE :

10.1. The Grantee shall forthwith submit to the Regional Water Board for its approval a plan showing the location, depth and details of groundwater bores on properties that will adjoin the lake and shall submit quarterly (3 monthly) returns of groundwater levels in each bore, taken not less than once every two (2) weeks, but the Regional Water Board may vary this requirement by written notice altering the frequency and extent of the returns to be submitted.

10.2. After a period of two (2) years from the date of commencement of generation of electricity the Grantee may apply to the Regional Water Board to reduce the frequency and extent of the returns or to cancel this requirement and the Regional Water Board may vary or cancel this requirement accordingly.

11. LAKE CLEARING AND FILLING :

11.1. The Grantee shall submit a plan to the Regional Water Board for its approval, showing in detail the extent to which it is proposed to cut or remove trees and shrubs from the lake area.

11.2. Before any lake filling commences the Grantee shall obtain notice in writing from the Regional Water Board that the work of cutting or removing trees and shrubs from the lake area has been completed to the satisfaction of the Regional Water Board.

12. LAKE SHORE RESERVE :

12.1. The Grantee in addition to acquiring land that will be inundated by lake waters shall also acquire additional land for the creation of a lake foreshore reserve with a minimum width of 20 metres around the total perimeter of the lake. The Grantee shall take all necessary action to ensure that such reserve is created a public reserve, in terms of the Reserves and Domains Act 1953 to be vested in the Grantee or some other authorised body or corporation for management purposes.

12.2. Prior to carrying out any clearing or other works or engaging in the management of the said foreshore reserve the Grantee shall submit to the Minister of Lands, and obtain his approval of, a plan or plans showing all such works and management proposals.

13. EXISTING STREAMS AND DRAINS :

The Grantee shall forthwith submit to the Regional Water Board a plan showing details of all streams and public and private drains from properties that will depend on drainage to the lake and following filling of the lake shall take action to ensure that such waterways and drains in the area downstream from the boundary of the lake foreshore reserve are maintained to a good standard.

14. RIVER TRAINING WORKS :

The Grantee shall not construct any training works within Lake Aniwhenua or adjacent thereto without first having submitted plans and details of such work to the Bay of Plenty Catchment Commission and obtained the approval thereof.

15. ROADING :
The Grantee shall with the approval of all appropriate authorities, acquire land for and form and construct in accordance with all legal requirements a public roadway to provide vehicular access from the eastern side to the western side of the Rangitaiki River in the vicinity of Lake Aniwhenua. The Grantee shall take all necessary action to vest the public roadway so formed in the appropriate corporation in accordance with Part I of the Counties Amendment Act, 1972.

16. ANIWHENUA FALLS :
The Grantee shall take action to carry out works that will ensure that even with a diminished flow under normal conditions the Aniwhenua Falls are retained in a form that will be aesthetically acceptable as indicated in part 3.5.(page A11) of the submissions in support of the application and shall construct and maintain road access and viewing facilities in close proximity to the Aniwhenua Falls.

17. WARNING DEVICES :
The Grantee shall erect and maintain signs sufficient to warn the public of the extent of the variations in the level of Lake Aniwhenua during the operation of the electricity generation scheme and shall instal and maintain sound signal warning devices which shall give a clear indication to the public of any impending change in water level.

18. SUPERVISION OF WORKS :
All planning, design, construction and operation of works associated with this right shall be supervised by Engineers duly registered and practicing pursuant to the Engineer's Registration Act 1924.

19. THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

20. THIS RIGHT may be cancelled upon not less than twelve (12) months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires; but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter. "

5. APART from an overall assessment of the evidence the Tribunal has considered the various objections and proposes to deal with its reasons for rejecting them under the following headings :-

5.1. B.D. Shaw and Others
This group comprised two classes of objector. The Crawfords, Waughs, Pountneys and Shaws will all lose land if the scheme proceeds. The Clarkes, Caies, Holmes, Moores, Kalffs and Bridgemans expressed fears that their lands would be affected to a greater or lesser extent by a greater incidence of flooding, rising water table and drainage problems. Evidence was given by Mr. Bowis on production losses and this was compared against the evidence of Mr.Jones and Mr.Sole for the applicant. So far as the loss of productive farmland is concerned the Tribunal is of opinion that the greater public benefit will be achieved if the land is used for the production of electricity.

The Tribunal accepts that there may be a disruption in transport with its associated problems which may threaten the continued economic use of land close by the proposed lake, but it believes that the conditions imposed by the right granted will, on the whole alleviate or minimise such risk. The Tribunal accepts that there may be some adverse affect on some land by a higher water table, but the Tribunal, on the evidence given and weighing its collective experience, believes that some part of the land affected will benefit from a higher water table. The Tribunal accepts that there is a possibility of sedimentation of drains around the lake perimeter and has recommended conditions to ensure that the applicant clears and maintains drains around the lake shoreline. The conditions imposed on dewatering are designed to alleviate or minimise objectionable factors, but at the same time ensure the control of lakeweed. The Tribunal is satisfied that there will be no appreciable increase in intensity or duration of flooding in adjoining areas as a result of the formation of the lake.

5.2. Kopuriki Farms Limited

So far as the weighing of the competing claims of farming and electricity generation in respect of the land to be flooded the Tribunal's views expressed previously also apply. The Tribunal recognises that there are some unique financial and family problems involved, but except so far as those matters relate to the economic use of the land to be taken the Tribunal has no jurisdiction to consider the points raised. While the Tribunal has considerable sympathy with this objector, as with other objectors who will lose land, it nevertheless accepts that in this case the use of the water resources of the Rangitaiki River must be preferred to the use of the land to be flooded.

5.3. Federated Farmers, Galatea Branch

This objection covered in broad terms the basic arguments of the individual farmer objectors. The Tribunal believes it has expressed its reasons for disallowing those objections and confirms this view. The Tribunal does not believe that works proposed to be carried out by the Bay of Plenty Catchment Commission will be materially affected.

5.4. Tuhoe Waikaremoana Maori Trust Board

At the hearing this objector conceded that there appeared to have been no breach of statutory procedures. While accepting that this objector would lose some land the Tribunal, as previously stated, believes that in the overall public interest use of the land for electricity generation is preferred. The Tribunal believes that the conditions proposed will adequately control any reduction in water quality and erosion, and will ensure that adequate vehicular access across the river valley is provided to maintain the economic use of farmland adjacent to the proposed lake. While the Tribunal proposes that public access be provided around the lake shore, it does not envisage any undue interference with the objector's existing rights and land utilisation. Compensation arrangements are beyond the scope of enquiry of this Tribunal.

5.5. Murupara Lions Club (Inc) & Another

So far as these objectors commented on flooding of farmland and water table problems the Tribunal confirms its preference for the competing need for electricity generation. By its proposed conditions the Tribunal believes that it can ensure the replacement of one scenic amenity for another and that the "new" Aniwhenua Falls, while not normally displaying the sheer spectacle of force and power, will provide a peaceful and attractive spectacle. The Tribunal is concerned to see that the amenities constructed by this objector are restored by the applicant and remain a useful public utility. The Tribunal points out that its enquiry cannot extend to the assessment of other alternative proposals. The Tribunal does not forsee, on the evidence, any appreciable water temperature problems. By its conditions the Tribunal has ensured the removal of standing vegetation on the lake bed. The Tribunal is aware from the evidence of the existing sediment problems in the locality, but believes that the stated management proposals of the applicant afford a measure of control.

5.6. Department of Internal Affairs

The Tribunal was very much aware of the need to protect the ecology. It finds from the evidence that the formation of the lake will exchange one aquatic environment for another. To this end conditions have been formulated to control dewatering, excessive growth of lakeweed, undue erosion and the prevention of fish stranding. Consultation with this objector is proposed and scientific monitoring will be required. The question of pollution during construction was not considered by this Tribunal.

5.7. Environmental Defence Society (Inc)

The Tribunal feels unable to comment on this objector's call for a national assessment of water resources other than to say that such submissions ought to be directed to other sources. The Tribunal confirms its view that the proposal will serve the public interest and that adequate account has been taken of fisheries, wildlife and recreational uses of the water in the imposition of conditions.

6. COSTS AT THE HEARING :

Various parties raised the question of whether the applicant should meet the objector's costs. Having regard to the time and trouble taken by all parties to present all relevant information to the Tribunal, and to the overall complexity of the matter, the Tribunal recommends that the Regional Water Board do reserve the question of costs at this stage and seek written submissions from the various parties, such submissions to be considered at a later date.

DATED at Whakatane this 24th day of November 1975.

..... Chairman
C.W. Mundt

..... Member
T.G.K. Lennard

..... Member
L.A.J. Baker

..... Member
T.R. Woolliams

..... Member
P.J. Kilgarriff

BAY OF PLENTY CATCHMENT COMMISSION

AND REGIONAL WATER BOARD

RIGHT IN RESPECT OF NATURAL WATER

COPY

Pursuant to Section 21(3) of the Water and Soil Conservation Act 1967, the Bay of Plenty Catchment Commission, in its capacity as REGIONAL WATER BOARD for the Bay of Plenty Catchment Area, by a decision dated 4th DECEMBER 1975 HEREBY GRANTS to the

BAY OF PLENTY ELECTRIC POWER BOARD

52 Commerce Street (P.O. Box 404), WHAKATANE.

RIGHTS TO :-

(a) Dam the Rangitaiki River and Pokairoa Stream at their confluence to form a lake to be known as the 'Aniwhenua Lake' (map reference N86:235829).

(b) Dam the Pahekeheke Stream to form the 'Pahekeheke Headpond' (map reference N86:235846).

(c) Divert water from Lake Aniwhenua into a canal leading to the Pahekeheke Headpond.

(d) Take water from Lake Aniwhenua through an outlet pipe, use the water for the generation of electric power and discharge the water into the original course of the Rangitaiki River downstream of Lake Aniwhenua (map reference N86:235829). This water shall hereinafter be referred to as 'Compensation Water'.

(e) Take water from the Pahekeheke Headpond through a control structure and penstocks leading to a powerhouse (map reference N86:237847) and use the water for the generation of electric power.

(f) Discharge water from Lake Aniwhenua into the original course of the Rangitaiki River (map reference N86:235829).

(g) Discharge water from the Pahekeheke Headpond through a drawoff pipe into the original course of the Pahekeheke Stream (map reference N86:235846).

(h) Discharge water from the powerhouse into the Rangitaiki River downstream of the Aniwhenua Falls (map reference N86:237847).

SUBJECT TO THE FOLLOWING CONDITIONS :

1. TAKING, USE AND DISCHARGE OF WATER :

1.1. The rate of taking and using of water from Pahekeheke headpond and the discharge from the powerhouse shall not exceed 75 cubic metres per second. The rate of change of discharge from the powerhouse shall not exceed 10 cubic metres per second per minute.

1.2. The rate of taking of compensation water from Lake Aniwhenua as referred to in (d) shall be not less than two point five (2.5) cubic metres per second during daylight hours or one (1) cubic metre per

See Variation No. 1

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4. INTAKE FOR COMPENSATION WATER :

The invert level of the intake for the compensation water shall be located a minimum height of one (1) metre above the sill of the radial gates of the dam.

5. SCREENS AND BOOMS :

5.1. Floating booms must be installed across the intake to the canal and across the full width of the spillway of the Aniwhenua Dam to safeguard persons using the lake for recreation.

5.2. The intake to the penstocks shall be fitted with screens with a gap no greater than 30 millimetres between bars.

6. SEDIMENT SURVEYS :

The Grantee shall establish at least six (6) cross-sections extending across the proposed Aniwhenua Lake and these shall be surveyed before the lake is filled and thereafter at least once annually, to determine the amount of siltation occurring. The sites of the cross-sections shall be to the approval of the Regional Water Board and the results of each annual survey shall be sent to the Regional Water Board within seven (7) days of such results becoming available.

7. ECOLOGICAL SURVEYS :

7.1. After Lake Aniwhenua has been filled, the Grantee shall employ a suitably qualified ecologist on at least two occasions each year to carry out at least two (2) days field investigations into the ecology of the lake.

7.2. The timing of the investigations shall be to the approval of the Regional Water Board and a written report shall be sent to the Regional Water Board as soon as possible after the investigations are completed. The ecological surveys shall pay particular attention to the amount and species of aquatic weeds established in the lake and the reports shall include plans of the lake showing the location and extent of weed beds.

7.3. The Regional Water Board may review the frequency at which surveys referred to in this clause shall be carried out after an initial period of five (5) years.

8. OPERATIONAL RECORDS :

The Grantee shall provide the Regional Water Board by the fourteenth (14th) day of the month following with monthly returns containing the following information :-

(a) The minimum and maximum daily discharges from the powerhouse to the Rangitaiki River and the times and durations of such minimum and maximum discharges.

(b) The occasions when water was discharged through the spillway structures and an estimate of such discharges and their duration.

(c) Daily records of Lake Aniwhenua levels, including times and details of drawdown when the lake level was lowered for any approved purpose.

....

13. EXISTING STREAMS AND DRAINS :

The Grantee shall forthwith submit to the Regional Water Board a plan showing details of all streams and public and private drains from properties that will depend on drainage to the lake and following filling of the lake shall take action to ensure that such waterways and drains in the area downstream from the boundary of the lake foreshore reserve are maintained to a good standard.

14. RIVER TRAINING WORKS :

The Grantee shall not construct any training works within Lake Aniwhenua or adjacent thereto without first having submitted plans and details of such work to the Bay of Plenty Catchment Commission and obtained the approval thereof.

15. ROADING :

The Grantee shall with the approval of all appropriate authorities, acquire land for and form and construct in accordance with all legal requirements a public roadway to provide vehicular access from the eastern side to the western side of the Rangitaiki River in the vicinity of Lake Aniwhenua. The Grantee shall take all necessary action to vest the public roadway so formed in the appropriate corporation in accordance with Part I of the Counties Amendment Act 1972.

16. ANIWHENUA FALLS :

~~The Grantee shall take action to carry out works that will~~ ensure that even with a diminished flow under normal conditions the Aniwhenua Falls are retained in a form that will be aesthetically acceptable as indicated in part 3.5. (page A11) of the submissions in support of the application and shall construct and maintain road access and viewing ~~facilities in close proximity to the Aniwhenua Falls.~~

See Variation No.2

17. WARNING DEVICES :

The Grantee shall erect and maintain signs sufficient to warn the public of the extent of the variations in the level of Lake Aniwhenua during the operation of the electricity generation scheme and shall install and maintain sound signal warning devices which shall give a clear indication to the public of any impending change in water level.

18. SUPERVISION OF WORKS :

All planning, design, construction and operation of works associated with this right shall be supervised by Engineers duly registered and practising pursuant to the Engineers Registration Act 1924.

19. THE RIGHT hereby authorised is granted under the Water and Soil Conservation Act 1967 and does not constitute an authority under any other Act, Regulation, or By-Law.

20. THIS RIGHT may be cancelled upon not less than twelve (12) months notice in writing by the Regional Water Board to the Grantee, if in the opinion of the Regional Water Board the public interest, the interests of lawful users of water, or the interests of future applicants for water rights so requires; but without prejudice to the right of the Grantee to apply for a further right in respect of the same matter.

DATED at Whakatane this 5th day of November 1976.

For and on behalf of
The Bay of Plenty Catchment Commission
and Regional Water Board.

See Variations No.1 and 2 attached hereto

~~See variation attached hereto~~

J.D. CARLING,
Secretary.

Variation to Water Right No.190 (No.2)
Bay of Plenty Electric Power Board

By a decision of the Bay of Plenty Regional Water Board dated the 3rd February, 1983 Water Right No. 190 granted to the Bay of Plenty Electric Power Board was varied as follows:

"That Condition 16 of Water Right No. 190, Bay of Plenty Electric Power Board, be varied by adding the words 'if required by the Regional Water Board' after 'The Grantee shall ---'. Clause 16 of the right to then read:

'The Grantee shall if required by the Regional Water Board take action to carry out works that will ensure that even with a diminished flow under normal conditions the Aniwhenua Falls are retained in a form that will be aesthetically acceptable as indicated in part 3.5 (page A11) of the submissions in support of the application and shall construct and maintain road access and viewing facilities in close proximity to the Aniwhenua Falls.' "

DATED at Whakatane this 18th day of March, 1983.

For and on behalf of
The Bay of Plenty Regional
Water Board

J.D. CARLING
Secretary

Post Office Bonus Bonds—Weekly Prize Draw, No. 1, January 1977

PURSUANT to the Post Office Act 1959, notice is hereby given that the result of the weekly prize draw No. 1, for 1 January 1977 is as follows:

One prize of $6,500: 380 724485.

HUGH TEMPLETON, Postmaster-General.

Post Office Bonus Bonds—Weekly Prize Draw, No. 2, January 1977

PURSUANT to the Post Office Act 1959, notice is hereby given that the result of the weekly prize draw No. 2, for 8 January 1977 is as follows:

One prize of $6,500: 586 788899.

HUGH TEMPLETON, Postmaster-General.

Post Office Bonus Bonds—Weekly Prize Draw, No. 3, December 1976

PURSUANT to the Post Office Act 1959, notice is hereby given that the result of the weekly prize draw No. 3 for 18 December 1976 is as follows:

One prize of $6,500: 891 365701.

HUGH TEMPLETON, Postmaster-General.

Post Office Bonus Bonds—Weekly Prize Draw, No. 4, December 1976

PURSUANT to the Post Office Act 1959, notice is hereby given that the result of the weekly prize draw No. 4, for 25 December 1976 is as follows:

One prize of $6,500: 281 205516.

HUGH TEMPLETON, Postmaster-General.

The Traffic (Manukau City) Notice No. 3, 1976

PURSUANT to the Transport Act 1962, the Minister of Transport hereby gives the following notice.

NOTICE

1. This notice may be cited as the Traffic (Manukau City) Notice No. 3, 1976.

2. The Traffic (Manukau City) Notice No. 1, 1976, dated the third day of February 1976†, under section 52 of the Transport Act 1962, and regulation 27 of the Traffic Regulations 1956*, which relates to Butley Drive, is hereby revoked.

3. So much of the Traffic (Manukau City-Pakuranga/Clevedon Wards) Notice No. 1, 1976, dated the 24th day of September 1976‡, under section 52 of the Transport Act 1962, and regulation 27 of the Traffic Regulations 1956*, which relates to Butley Drive, is hereby revoked.

Dated at Wellington this 20th day of December 1976.

C. C. A. McLACHLAN, Minister of Transport.

*S.R. 1956/217 (Reprinted with Amendments No. 1 to 16: S.R. 1968/32)
Amendment No. 17: S.R. 1969/54
Amendment No. 18: S.R. 1969/115
Amendment No. 19: S.R. 1970/157
Amendment No. 20: S.R. 1970/272
Amendment No. 21: S.R. 1971/117
Amendment No. 22: S.R. 1972/83
Amendment No. 23: S.R. 1972/252
Amendment No. 24: S.R. 1973/95
Amendment No. 25: (revoked by S.R. 1973/316)
Amendment No. 26: S.R. 1973/316
Amendment No. 27: S.R. 1974/251
Amendment No. 28: S.R. 1974/273
Amendment No. 29: S.R. 1974/323
Amendment No. 30: S.R. 1975/195
Amendment No. 31: S.R. 1976/153

†*New Zealand Gazette*, No. 15, dated 12 February 1976, p. 298
‡*New Zealand Gazette*, No. 103, dated 30 September 1976, p. 2237

(TT. 29/2 Manukau City)

The Traffic (Westland County) Notice No. 2, 1976

PURSUANT to the Transport Act 1962, the Minister of Transport hereby gives the following notice.

NOTICE

1. This notice may be cited as the Traffic (Westland County) Notice, No. 2, 1976.

2. The roads, specified in the Schedule hereto, are hereby declared to be closely populated localities for the purposes of section 52 of the Transport Act 1962, to the intent that a person driving any motor vehicle thereon at any time during the period commencing with the Friday before Labour Weekend in each year and ending with the Tuesday following Easter in the next ensuing year shall be subject to the maximum speed limit of 50 kilometres an hour fixed by the said section.

3. The roads specified in the Schedule hereto are hereby declared to be 70-kilometres-an-hour speed limit areas for the purposes of regulation 27A of the Traffic Regulations 1956*, to the intent that a person driving any motor vehicle thereon at any time during the period commencing with the Wednesday following Easter in each year and ending with the Thursday before Labour Weekend in the same year shall be subject to the speed limit fixed by the said regulation.

SCHEDULE

SITUATED within Westland County at Lake Kaniere:

Lake Kaniere Road: from a point 100 metres measured northerly generally along the said road from Stuart Street to the Tahua Stream Bridge.

Sunny Bight Road: from Lake Kaniere Road to the southern end of Sunny Bight Road at Sunny Bight.

Dated at Wellington this 20th day of December 1976.

C. C. A. McLACHLAN, Minister of Transport.

*S.R. 1956/217 (Reprinted with Amendments No. 1 to 16: S.R. 1968/32)
Amendment No. 17: S.R. 1969/54
Amendment No. 18: S.R. 1969/115
Amendment No. 19: S.R. 1970/157
Amendment No. 20: S.R. 1970/272
Amendment No. 21: S.R. 1971/117
Amendment No. 22: S.R. 1972/83
Amendment No. 23: S.R. 1972/252
Amendment No. 24: S.R. 1973/95
Amendment No. 25: (revoked by S.R. 1973/316)
Amendment No. 26: S.R. 1973/316
Amendment No. 27: S.R. 1974/251
Amendment No. 28: S.R. 1974/273
Amendment No. 29: S.R. 1974/323
Amendment No. 30: S.R. 1975/195
Amendment No. 31: S.R. 1976/153

(TT. 29/2 Westland County)

Consent to the Generation of Electricity by the Bay of Plenty Electric Power Board by the Use of Water

PURSUANT to the Electricity Act 1968, the Minister of Electricity hereby consents to the generation of electricity by the Bay of Plenty Electric Power Board by the use of water, subject to the following conditions.

CONDITIONS

1. The conditions directed by the Water Power Regulations 1934 to be implied in every licence to use water for the purpose of generating or storing electricity shall be deemed to be conditions of this consent as if it were such a licence.

2. This consent is subject to compliance with the Water Power Regulations 1934, the Electrical Supply Regulations 1976, the Electrical Wiring Regulations 1976, the Radio Interference Regulations 1958, and all regulations hereafter made in amendment of or in substitution for any of those regulations, as if in the case of the Water Power Regulations 1934 it were a licence under the Public Works Act 1928 to use water for the purpose of generating electricity as well as a consent under the Electricity Act 1968 to generate electricity by the use of water.

3. The generation of electricity by the use of water, pursuant to this consent, shall be carried out by means of the works described in the Schedule hereto.

4. This consent shall, unless it is sooner lawfully determined, continue in force until the 15th day of February 1992.

5. This consent confers no rights to water under the Water and Soil Conservation Act 1967 or otherwise.

6. For the purpose of assessing in accordance with the Water Power Regulations 1934, the rental or annual sum payable in respect of this consent, the maximum generating capacity of the scheme shall be assessed at 24 160 kW.

7. The station shall be operated to supply the normal electricity demand of the Bay of Plenty Electric Power Board and to conform reasonably to the pattern of the supply authority's daily load curve.

SCHEDULE

GENERAL DESCRIPTION OF WORK

ANIWHENUA Scheme—

(a) The Rangitaiki River and Pokairoa Stream at their confluence to form a lake to be known as "Aniwhenua Lake", and returned to the Rangitaiki River at a point below the Aniwhenua Falls map reference 237847 N86,

(b) The Pahekeheke Stream at a point upstream of its confluence with the Rangitaiki River, map reference 235847, to form the Pahekeheke headpond and returned to the Rangitaiki River at a point below the Aniwhenua Falls, map reference 237847 N86, and the water shall be used for the generating of electricity by means of the following works:

(a) Headworks consisting of a dam incorporating a spillway, radial gates and a canal intake located immediately downstream of the confluence of the Rangitaiki River and the Pokairoa Stream.

(b) A canal approximately 2200 metres in length leading from the said intake along the west bank of the Rangitaiki River to a headpond formed in the Pahekcheke stream by a small dam just above its confluence with the Rangitaiki River.

(c) Two penstocks leading from the headpond to a powerhouse situated on the west bank of the Rangitaiki River.

(d) A powerhouse with two 12 000 kW turbines.

(e) A tailrace leading from the powerhouse to the Rangitaiki River.

All as shown on plans marked N.Z.E.D. 935 Sheet 1 and 2 deposited in the office of the New Zealand Electricity Dpartment at Wellington.

Dated at Wellington this 20th day of December 1976.

E. S. F. HOLLAND, Minister of Eectricity.

(N.Z.E.D. 10/24/2)

Consent to the Distribution of New Therapeutic Drugs

PURSUANT to section 12 of the Food and Drug Act 1969, the Minister of Health hereby consents to the distribution in New Zealand of the new therapeutic drug set out in the Schedule hereto.

SCHEDULE

Name of Drug	Form	Active Ingredients (as listed on label)	Name of Manufacturer	Address
Medihaler Pulmadil	Aerosol	Rimiterol Hydrobromide 10mg/ml	Riker Labs. Aust. Pty Ltd.	Australia

Dated this 20th day of December 1976.

FRANK GILL, Minister of Health.

Consent to the Distribution of New Therapeutic Drugs

PURSUANT to section 12 of the Food and Drug Act 1969, the Minister of Health hereby consents to the distribution in New Zealand of the new therapeutic drugs set out in the Schedule hereto.

SCHEDULE

Name of Drug	Form	Active Ingredients (as listed on label)	Name of Manufacturer	Address
Ascorbic Acid	Tablet	Ascorbic acid 250 mg	Riker Laboratories	Australia
Ascorbic Acid	Tablet	Ascorbic acid 500 mg	Riker Laboratories	Australia
Anadep	Tablet	Chlorpromazine hydrochloride 10 mg	Kempthorne Prosser (N.Z.) Ltd.	New Zealand
Anadep	Tablet	Chlorpromazine hydrochloride 25 mg	Kempthorne Prosser (N.Z.) Ltd.	New Zealand
Anadep	Tablet	Chlorpromazine hydrochloride 50 mg	Kempthorne Prosser (N.Z.) Ltd.	New Zealand
Anadep	Tablet	Chlorpromazine hydrochloride 100 mg	Kempthorne Prosser (N.Z.) Ltd.	New Zealand
Anadep	Syrup	Chlorpromazine hydrochloride 25 mg/5 ml	Kempthorne Prosser (N.Z.) Ltd.	New Zealand

Dated this 21st day of December 1976.

FRANK GILL, Minister of Health.