CURTIN BUSINESS SCHOOL

TURNAROUND STRATEGIES:
Key Factors for Corporate Recovery in the Electricity Industry of New Zealand and the Philippines

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Declaration

Except where otherwise indicated, this thesis is my own work.

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ABSTRACT

This research is about the problem of identifying key factors for corporate recovery of electric utilities in New Zealand and the Philippines. Its primary objective is to learn from the experiences of three regulated government utilities and one small private distributor that are involved in the three sectors of electricity business in power generation, transmission and distribution. How these firms survived their decline problems, and managed and sustained their turnaround efforts is the focus of this study. The results indicate the importance of change management, leadership, cost reduction and financial control in reversing the decline of these firms. Also underscored are the crucial role of efficiency improvement and achievement of profit together with winning employee commitment and broad stakeholder support in sustaining the recovery effort.

These comparative case studies were undertaken at a time when crises and turbulence affected the management and organisation of electricity businesses in the Asia/Pacific region, particularly New Zealand and the Philippines. Electric utilities in both countries are regulated and less vertically integrated than anywhere else in the region. Significant changes to the ownership and control of these firms and their competitive relationships over the past decade have complicated the way strategic problems and issues have to be resolved. In the meantime, threats and pressures from all stakeholders have made the management and operations of these utilities difficult. Thus, a critical review of their specific circumstances and predicaments is in order for similarly affected enterprises to avoid past errors and to replicate only the strategies that may suit them. In this regard, this work contributes to the enrichment of the existing body of knowledge in business policy and strategic management that has been fast evolving during the nineties in electric utilities around the world.

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Chapter One

Introduction

This comparative study investigates the factors contributing to the decline and recovery of electric utility firms in New Zealand and the Philippines. By doing so, it is hoped that similarly situated electric utilities in the Asia/Pacific region can benefit from the experience of these companies in surmounting adversities during these turbulent times. The research has been designed to enrich the existing body of knowledge on turnaround management and strategies.

The research undertaking was carried out in two parts. The first part comprised of a series of field interviews of selected respondents of the National Power Corporation (NPC) and the San Fernando Electric Light and Power Company (SFELAPCO) and other informants in the energy sector in the Philippines and was conducted in mid-1994. The second schedule covering New Zealand, [i.e. the Electricity Corporation of New Zealand (ECNZ), Capital Power Limited and its power sector] was undertaken in March 1996. Gathering of secondary data on the sustainability of turnaround efforts in New Zealand and the Philippines was also conducted in 1996. Results of these field activities provided the empirical base from which the analyses and recommendations of this report have been anchored.

The study collated existing literature on turnaround management processes and techniques that enabled enterprises to weather business turbulence that, if left unattended, could have led to crises and dissolutions. To this extent, the present study furthers the research in this area that earned prominence in the eighties with the efforts of Russell Ackoff (1981) in the United States and related studies by Stuart Slatter (1984) in the United Kingdom. Further research by Igor Ansoff (1990) ensured his place as the acknowledged strategic management guru of the nineties. The present

research is attuned to current issues affecting both public and private enterprises in the electricity sector that provide critical input to national growth and development. Focusing this research in two countries in the Asia-Pacific region makes its scope a manageable one in terms of data accessibility and comparability and the time required to gather and analyse such data. At the same time, the research opens a wide field for further study that is being promoted and funded by academic and international organisations interested in assisting recovery through improved management and strategic thinking.

The research is presented as follows. Chapter One explains the background and presents an overview of the study. Chapter Two reviews the literature from which the paradigm of a successful turnaround strategy has been based. The review of literature also gives rise to the analytical framework for this study. Chapter Three describes the methodology used in this study, while Chapter Four is a comparison of the New Zealand and Philippine electricity supply industries. Chapter Five presents and analyses findings of the study. In Chapter Six, the summary and conclusions focus on clarifying main issues and presenting recommendations for continuing improvement of allied electric utilities in the region, including a proposed agenda for further research.

1.1 Background of the Research

In-depth analyses of decline problems experienced by public and private power utilities are not available in the existing business and management literature. Where relevant information does exist, the treatment of decline problems is handled across organisations of different types and circumstances (Ansoff 1990 and Slatter 1987). Surveys of unrelated companies belonging to the *World's Top 500 Corporations* are the norm, foremost and most recent of which are those undertaken by Gopal(1991) and Makridakis (1991). In his management dissertation, Donadio (1991) acknowledged the

lack of a unified theory behind business failures. To the extent that they exist at all, explanations are data-driven and are usually the results of number-crunching statistical analyses.

Though allied power utilities in the Asia/Pacific region hold annual conferences to discuss their financial and technical problems, they rarely confess to financial or operational decline. There seems to be a lack of recognition of the existence of decline problems particularly by electric supply authorities.

The present study emerged against the backdrop of declining organisational performance of electric utilities in the Asia/Pacific region. As empirical data on a number of these electric utilities have shown, evidence of declining performance is manifested in high system losses leading to low rates of return. Many of these utilities are plagued by high operating costs and disadvantages on debt-equity ratios that include the National Power Corporation (NPC) and the Manila Electric Company (MERALCO) in the Philippines, the Perusahaan Umum Listrik Negara (PLN) of Indonesia, the Metropolitan Electricity Authority (MEA) and the Provincial Electricity Authority (PEA) of Thailand, the Korea Electric Power Corporation (KEPCO) of South Korea and the Taiwan Power Company (TAIPOWER) of Taiwan. They are reported by the Asian Development Bank (1993) as having high operating and gearing ratios.

The primary purpose of this dissertation, therefore, is not only to break a virtual silence in the field but also to offer a strategic model for turnaround and sustainable recovery for companies experiencing decline.

The objectives of the research are:

1. To develop comparative case study analyses of power utilities in New Zealand and the Philippines;
2. To identify decline problems facing these electric utilities;

3. To examine similarities in approaches for turning problem utilities around; and
4. To assess these approaches in the cases of utility firms in two Asia/Pacific countries, with a view toward making recommendations for similar strategies in other utilities in the region.

New Zealand and the Philippines have been chosen for this study because of structural similarities of their electricity supply industries, which have been described as "less vertically integrated or having one government-owned utility that is responsible for power generation and transmission in the entire country and several local and private utilities distributing power to end-users in their exclusive franchise areas" (ADB 1993,p4). Differences in their organisational and environmental circumstances have also been noted.

1.2 Research Problem and Hypotheses

This study is intended to address the difficulties of power utilities in two countries in the Asia/Pacific region in designing and implementing turnaround strategies by identifying the causal factors of corporate decline and recovery.

It is also aimed at providing evidence to the following hypotheses:

1. Utilities in New Zealand and the Philippines face common problems such that short-term recovery strategies can be similarly applied.
2. In a turnaround situation, financial recovery is usually accompanied by marked improvements in key success and "frame-breaking" factors.
3. In a less vertically integrated power industry such as those in New Zealand and the Philippines, electricity distributors by virtue of being at the receiving end of the power business and not being exposed to high generation costs are better placed to recover from decline than power generators.

4. Due to the regulatory environment that restrains electric utilities from price adjustments, from achieving a commercial level of profitability and independent operation, management of these utilities have become ineffective and inefficient such that the removal of these regulatory pressures will set into motion key success and renewal factors necessary for corporate recovery.

1.3 Justification of the Research

This research was undertaken mainly to identify, compare and critique turnaround strategies adopted by electric utilities in two Asia/Pacific countries and assess their applicability in the region. As stated earlier, it is designed to accomplish the following specific objectives:

1. To develop a comparative analysis of power utilities in two countries of the Asia/Pacific region and see if a regional model can be adopted for the region;
2. To identify decline problems facing electric utilities and trace their causes and consequences;
3. To examine commonalities in turnaround management approaches; and
4. To assess the approaches of electric utilities in two Asia/Pacific countries with a view toward making recommendations that similar strategies be adopted in the region.

1.4 Methodology

Comparative performance indicators of electric utilities in the Asia/Pacific region have been consolidated to establish baseline data for analysis. This study entailed primary data gathering in New Zealand and the Philippines. The primary data

gathering was carried out with the use of specifically designed interview instruments that were administered face-to-face and by mail to key people in the utilities studied, the energy sector and the general public. It was supplemented by telephone interviews to clarify certain questions and responses.

Supplementary data were gathered through secondary sources including published materials and financial data from annual reports and data banks. Anonymity of secondary sources of information was assured when warranted.

Since this study focuses on comparable utility firms in New Zealand and the Philippines, fact -finding efforts were made to discern a predictable relationship among managerial and organisational environments and operational capability as well as the competitive environments with corporate recovery. Thus, cross-sectional and longitudinal analyses of variables were also undertaken.

The variables were operationalised as follows:

1. "Corporate recovery" is the achievement of profit after experiencing financial loss. It is "sustained" if profits continue over two or more years .
2. Changes in managerial environment have been measured in the following terms:
   - 2.1 The proxies for "organisational changes" are the changes in the ratio of support to direct operations personnel and the ratio of head office to regional or field personnel, primarily as indicators of the changing shape of the organisation and the degree of centralisation or decentralisation.
   - 2.2 "Managerial changes" consist of changes in span of control or the ratio of lower level staff to managers and executives.

2.3 "Operational changes" are indicated by changes in load factor [computed by the Asian Development Bank (1993) as gross generation divided by peak demand times 8.76 times 100] and in systems loss [the difference between power generated, or purchased if not generated, and power sold/consumed including errors in metering and billing of customers].

3. The proxy for "changes in competitive environments" has been measured in terms of stakeholders' shared values, using an approach patterned after the Kriegler et al.(1988) measure of corporate culture.

Financial ratio analyses have been undertaken to test the financial health of these firms before, during and after their turnaround to assess the response of top management to the crises.

In essence, this research is both exploratory and explanatory. In its exploratory sense, qualitative information from the case studies has been used to examine the managerial and competitive environments that impinge on corporate recovery. In its explanatory sense, quantitative data have been collected to determine the relationships among the independent variables that affect corporate recovery. Such data are needed in identifying the key success factors (KSFs) for strategy formulation (Jenster 1987; Vasconcellos 1988; and Hambrick 1989). In the application of key success factors, required data have been derived from face-to-face interviews and mailed questionnaires sent to selected respondents. The main problem of the inquiry revolves around the question pertaining to the importance of changes on the attributes for improving company profitability as enumerated and defined in Appendix 1.

1.5 Ethical Issues

Every effort has been made in all aspects of data collection to avoid the pitfalls associated with what many researchers referred to as "armchair research". Hence, questions were not asked of respondents who were not knowledgeable on the topic or whose answers were already known. Methods and procedures used in this study have been clearly described to enable other researchers to replicate procedures and conditions of the study for further investigation.

Since the electricity supply industry was used as the unit of analysis, other key players or stakeholders in the industry were also interviewed. Respondents' names were recorded in the event they would need to be contacted again at a later date. To ensure informed consent of respondents, the following matters were explained before conducting the interviews:

a) purpose of the study

b) anticipated uses of the data

c) identity of the researcher and his office

d) respondent's role in the study

e) degree of anonymity and confidentiality

f) data storage and statistical procedures to be used in the study

In framing the questions, there are instances where direct quotations from other surveys were adopted, for example from Kriegler et al.'s (1988) *measure of corporate culture*. Sensitivities of New Zealand and Filipino respondents to personal questions were also considered. Consistency in the use of terminologies was observed and terms such as the key success factors [KSFs] were carefully defined for a clearer understanding of the questions. Terms as defined by a number of authors, which are found applicable, have been used and cited in this study. In writing the research report, all sources of information have been properly acknowledged whether their words have

been paraphrased, summarised or quoted. Likewise, the comparative case studies followed the structured and unstructured approaches to information gathering. These approaches guided the writing of the main report in Chapter 5. The time period pertaining to each question is stressed even before the actual interview and explained in the covering letter attached to mailed questionnaires. In obtaining secondary data from government and private power utilities and offices, formal requests on access to these materials have been made.

Retrieved questionnaires and semi-processed data (statistical tabulations) have been kept for review at any time by the Research Supervisor or any member of the Graduate Studies Committee and other users.

1.6 Definitions

TERMS	DEFINITIONS
1. Alliances	- coalignments between two or more firms in which the partners hope to learn and acquire from each other the technology, products, skills and knowledge that are not otherwise available to their competitors (Lei and Slocum 1992).
2. Corporate recovery	- the management of firms in crisis, firms that will become insolvent unless appropriate management actions are taken to effect a turnaround in their financial performance (Slatter 1987,p13).
3. Corporate Success	- the competitive advantage which is based on distinctive capabilities, often derived from the unique character of the firm's relationships with its suppliers, customers, or employees and which is precisely identified and applied to relevant markets (Kay 1993).
4.Corporatis-ation	- getting better performance from government-owned enterprises, by creating a business and legal environment similar to that faced by commercial firms (De Lacy 1994).
5. Crisis	- situation that threatens the high-priority goals of the organisation,

	restricts the amount of time available for response and surprises decision-makers by its occurrence, thereby engendering high levels of stress (Slatter 1987,p61).
6. Currency Equivalents	- One New Zealand dollar is worth 70 U. S. cents and one Philippine peso is the equivalent of four (4) U. S. cents.
7. Cutback	- the reduction of personnel, output, equipment or services (Weitzel and Jonsson 1989).
8. De-regulation	- the process of creating and fostering competition within product markets as a means to greater efficiency (De Lacy 1994).
9. Failed /sick unit	- one that has failed to earn a reasonable return on capital (Gopal 1991).
10. Insolvency	- a situation of corporate bankruptcy, failure or collapse when assets of a company are taken over by creditors or under liquidator or receivership (Slatter 1987,pp16-17).
11. Load Factor	- the percentage of gross generation over peak demand times 876 (Asian Development Bank 1993).
12. Need for a turnaround	- existence of a loss situation or a severe decline in profit of 80 per cent or more in a single year (Slatter 1987,p20).
13. Resistance to change	- active and passive opposition to a change which produces cost overruns, delays, distortions, or rejection of a change (Ansoff 1990).
14. Retrench-ment	- a range of responses to diminished effectiveness, e.g. cost-cutting or focus on efficiency /productivity (Weitzel and Jonsson 1989).
15. Stakeholder	- any group or individual who can affect or is affected by the achievement of a corporation's purpose (Freeman 1984).
16. Strategic audit	- refers to the analysis of external and internal factors in making decisions that determine the position and profile of the organisation in a dynamic environment (Schuler 1992).
17. Strategic business	- a long-term corporate business agreement between two or more companies to pool, exchange and/or integrate specified company resources for

alliances	achieving some agreed objectives (Hung 1992).
18. Strategic business units (SBUs)	- units of a firm which are responsible for the development of one or more strategic business areas (Schuler 1992).
19. Strategic Management	- the development of corporate values, managerial capabilities, organisational responsibilities and administrative systems which link strategic and operational decision-making at all hierarchical levels and across all business and functional lines of authority in a firm (Hax and Majluf 1984).
20. Strategy	- the art of bringing the product and the market together under conditions which are conducive to profit (Schuler 1992).
21. Sustainable recovery	- when a firm whose real profits before tax increased in four out of the following six years after experiencing a loss situation (Slatter 1987,p118).
22. System Loss	- the difference between power generated or otherwise purchased and power sold/consumed including errors in metering and billing of customers.
23. Top management team	- the dominant coalition of individuals responsible for setting firm direction, and which identifies environmental opportunities and problems, interprets relevant information, considers organisational capabilities and constraints and formulates and implements strategic change (Schuler 1992).
24. Turbulence	- changeability in an environment characterised by the degree of novelty of challenges and the speed with which they develop (Ansoff 1990).
25. Turnaround	- process by which companies reduce their losses and achieve increased profitability (Gopal 1991).
26. Turnaround situation	- a condition wherein an organisation experiences several years of successively lower profits culminating in a loss situation and a cash flow crisis or when real profit before tax declined for 3 or more successive years (Slatter 1987,p19).

1.7 Limitations and Key Assumptions

One limitation of a comparative case study is data comparability. Another is its generalisability. Another foreseen problem that goes with this study is the difficulty of recall by respondents on questions involving different time periods. These limitations have been addressed by being selective on secondary data used in this study. Moreover, overarching statements in its conclusion have been avoided to the extent possible. A careful selection of respondents has also been undertaken. Respondents are closely guided on the time reference involved in each set of questions. This close guidance is, however, difficult on respondents reached by mailed questionnaires in Wellington, New Zealand and in Southern Luzon and the Visayas in the Philippines. This difficulty has been remedied by telephone interviews of a number of respondents coming from these areas.

This researcher has tried to be as unobtrusive, casual and impersonal as possible in interviewing respondents right in their workplaces so as to encourage the latter to bring out their straightforward replies to the questions.

Chapter Two

Literature Review

Contemporary studies and documented lessons of experience provided an interesting array of literature on turnaround management. The review of literature was undertaken to form the foundation for an integrative framework for analysing turnaround management in the electric utilities included in the comparative case studies.

The need to design sustainable turnaround strategies was suggested by Makridakis (1991) in view of his observation of staggering losses due to profit declines happening in almost all sorts of businesses. These phenomena had been alarming in that for every one successful turnaround, Makridakis (1991) observed that there were two failures. He elaborated his observation by saying that:

a) more than 1,500 automobile firms in the world have failed

b) 350 computer firms have failed in the last 20 years

c) more than 40 global companies have accumulated losses of more than $ 10 billion in 1987

d) there were close to half a million business bankruptcies in 1988

e) the top 200 banks in the world lost $ 7 billion in 1989

As these phenomena reached catastrophic and worldwide proportions, academics and management practitioners were caught in a frantic search for successful turnaround models.

2.1 Turnaround Models

The turnaround efforts of Niagara Mohawk Power in 1988 provided an example in turning an electric utility around (Losee 1992). Faced with the problem of operating a costly nuclear plant like the mothballed Philippine Nuclear

Power Plant 1, it came up with an action plan involving (1) the hiring of 20 new senior officers; (2) functional assessment of 11,000 employees uncovering million dollars in productivity savings; (3) breaking down the company into four strategic business units; and (4) negotiating with the Nuclear Regulatory Agency and assuring its customers that Niagara was a safe plant. As a result, Niagara Mohawk Power is now in commercial operation.

Another case was the five-part rehabilitation of Sydney Electricity in January 1992 (Lyons 1993). Its rehabilitation program included the revamp of accounting procedures, the installation of a financial management information system (FMIS), the improvement of its billing, budget control and planning system and the voluntary redundancy of 800 employees.

The other two cases, Blue Cross and UNISYS, are not electric utilities but have transacted business with the NPC in the Philippines as medical insurer and mainframe supplier, respectively. The turnaround efforts of Blue Cross were carried out in three stages over a five-year period (Monroe 1992). The first two years which was called the *survival stage* established leadership in its strategic business units (SBUs) and the urgency of the things to be done. In the third year, which was devoted to stabilisation, Blue Cross tried to build stakeholders' trust. The final two years of rebuilding and growth saw the realignment of the organisation and training of key personnel. The result was spectacular: from a loss of $ 60 million in 1986 to a reserve of $ 500 million in 1992. UNISYS Corporation, a mainframe supplier of NPC, has yet to get off the hook (Weber 1992). In a way, UNISYS has been helped by the National Power Corporation (NPC) in the Philippines by purchasing one of its expensive computer hardware facilities that turned out to be a big printing press for NPC payrolls and

accounting records. The point here was the irony that NPC, on its way to its own crisis, manage to save such companies as UNISYS and Blue Cross and a number of rural electric cooperatives, public and private utilities from organisational decline -- yet it could not save itself.

Private non-utility organisations also provide relevant experiences that NPC and other Asia/Pacific utilities may learn from. One notable experience was the successful turnaround of British Airways (BA) with the help of Kepner-Tregoe consultants who designed and actively participated in the human relations aspects in selling the change efforts. It resulted in the smooth sell out of BA's engine overhauling business to General Electric and the contracting out of minor services. Cost reduction and improved labor productivity also resulted. Another success story was the cost reduction and downsizing plan of Aetna Life and Casualty Insurance Corporation that displaced 7,400 jobs (Financial Executive 1992). It was carried out in a two-phased top-down, bottom-up approach. The first phase involved the abolition of divisional structures in favor of strategic business units (SBUs). The second phase was the streamlining of SBUs using staffing templates or modules.

Another triumph was the downsizing of 15, 000 employees by the Digital Equipment Corporation which was accepted by employees after they saw that the revamp started from the top and as the new CEO slowed down the process as it touched on the rank and file.

From an academic standpoint, Harrigan (1980) prescribed an end-game strategy for declining businesses that were due to decreased demand. Her model had the following alternatives:

a) increase investment or market dominance

b) hold investment level

c) shrink selectively

d) milk the investment

e) divest or get out now

This "sink or swim" approach to strategy formulation may not, however, be relevant to most electric utilities which have been experiencing increased power demand. The economic and socio-political environments faced by these firms are such that they have to provide more than enough electric power so that they will not lose face to their customers every time a big power plant breaks down.

This brings us to the other related phenomenon of overcapacity that has been observed in electric utilities in Australia, Canada, New Zealand, UK and the U S. Aynsley Kellow (1996) attributes overcapacity to four factors namely:

a) absence of a profit incentive encourages publicly owned utilities to invest in excess capacity.

b) "Averch-Johnson effect" or the capital intensiveness of the electricity supply business exacerbates overcapacity under a rate of regulation environment.

c) "gold plating" or the tendency of electric utilities to spend more on capital than necessary to improve thermal efficiency.

d) the belief that the long-run cost of overcapacity is less than the cost of undercapacity.

Ackoff (1981) proffered a systems model which considers the organisation as a purposeful system -- parts of which are people with purposes of their own. Ackoff held the view that the world was already in the "systems age" after coming out from the "machine age". To a large extent, the future of the organisation

could be what its members wanted it to be that depended on the latter's actions or actuation.

This brings us to the "stakeholder view" of the firm (Freeman 1984) wherein each stakeholder has his own contribution to and needs from the organisation. Freeman (1984) looked at the corporate environment in two dimensions. In the first, there is direct interaction among stakeholders. This he termed as the "transactional dimension". In the other, "contextual" the organisation has minimal or no control -- for example, the ecological, economic and political environments. From this view, he specified a set of "commandments" regarding what an organisation should do or not do in order to succeed. One of them was "Thou shall not commit mistakes", meaning that consensus and commitment must be obtained from stakeholders. In present usage, this is what is meant by the need for broad and well-meaning support of all stakeholders in formulating and implementing turnaround strategies.

Taylor (1983) and Guy (1989) are of the same mould. They believe that organisations, like the humans who comprise them, are capable of making mistakes and redeeming themselves by simply coming back into a state of congruence with the environment. An organisation has been likened to the Phoenix, a mythical Egyptian bird that was "consumed in fire by its own act but rose in youthful freshness from its ashes"(Guy 1989,p2). A symbol both of decline and the forces of renewal, the Phoenix myth has provided good lessons and inspirations for companies experiencing decline.

2.2 Tools for Diagnosing Decline Problems

There are a number of tools for diagnosing decline problems according to management literature. These diagnostic tools include financial ratio analysis,

market share analysis, stakeholder analysis, competitive pressure analysis, force field analysis and SWOT (acronym for Strength-Weaknesses-Opportunities and Threats) analysis that are all needed in the strategic audit of the corporation (Rowe et al. 1990 and Ansoff 1990; Freeman 1984; and Ackoff 1981). Waterman (1987) argues that organisational declines can be analysed by applying the seven Ss of organisation such as structure, system, skills, shared values, staff, strategy and style combined with the seven Cs of planning such as culture, control, capability, chance, communication, crisis points and causes and commitments. Skills and capability go together as well as shared values and culture. These equivalent factors bind these "magnificent sevens" into a "renewal ring" (Waterman 1987).

There have been a number of studies using different survey methodologies on unrelated companies to unravel the mysteries surrounding organisational decline. Among these studies were those undertaken by Gopal, Gopinath, Baysinger, Boeker and Whittington.

Gopal (1991) did a survey of 120 Indian companies that had experienced decline as measured in terms of their abnormally low return on capital but were able to regain from losses and eventually realized profits resulting from their turnaround efforts. He first tapped the secondary sources of information such as published documents before preparing his questionnaire. He then pre-tested and administered his questionnaires for a period of two months. Questions asked were why these companies failed and how they were able to recover. His general finding was that 60 per cent of failures were due to internal factors. His research report included a distribution of responses on internal and external causes of company sicknesses, short and long-term strategies as well as preventive measures in ensuring that these strategies were successfully implemented.

The Indian experience as reported by Gopal (1991) identified the principal causes of business failures to be poor top management and conservatism, cancellation of major projects and increased competition. It was found that the strategies for turnaround as implemented by these sick companies were cost and capital expenditure control as well as the selling of excess landholdings. The replacement of CEOs and organisational streamlining were undertaken only as last resorts in contrast with the general practice.

Gopinath (1991) did a related survey but on a smaller sample of 22 companies out of those previously identified by Fortune, Business Week, Forbes and Management Review magazines as firms in crisis during the 1975 to 1988 period. Questions asked focused on managerial reactions to decline problems and reasons for the variability of their reactions. It was found that 21 out of the 22 surveyed firms replaced their CEOs with outsiders. In these organisations, incumbent management was frequently among the last to admit a deteriorating condition for their firms such that a management change had to be undertaken as an initial step in their turnaround efforts. This was one of the reasons why Greene (1990) observed that CEOs lose their jobs when they differ with the Board.

Donadio (1991) in his investigation of Argenti's theory of corporate collapse confirmed that one-man rule was the common cause of most business failures. One-man rule exists when the CEO is also the Chairman of the Board. The problem starts when an autocratic leader embraces a dogma that influences him to alter or reinterpret dissonant facts and events.

In establishing a case for the privatisation of state-owned enterprises in Egypt, Gaballa (1990) argued that performance of public enterprises had been hampered by policies external to these enterprises. Management of these firms

had no real power, authority and control and therefore could not absolutely assume accountability and responsibility for corporate failures.

The study of Baysinger et al.(1991) had interesting findings on the organisational dynamics of a turnaround situation. These were related to management and stockholder conflicts of interests that often lead to company failures. The study focused on their opposite orientations to examine the hypothesis that managers' objectives were to assure personal wealth, job security and prestige; these prompted them to adopt a conservative, safe but short-sighted stance in management. Stockholders, by contrast, were assumed to be interested in the long-term profitability of the firm and the value of their investments; consequently, they were found to adopt high-risk but high return strategies for management.

The methodology used by Baysinger et al.(1991) was more sophisticated and covered a larger sample of 176 Fortune 500 companies. Research and Development (R & D) expenditure per employee was utilised as the dependent variable that had to be explained by such independent variables as levels of stock concentration of investors and per cent of insiders on the Board of Directors. Ownership concentration was measured using the so-called *Herfindahl formula.* Average industry R & D intensity, diversification and firm size were used as covariates or controlling variables. The statistical analysis entailed the measurement of central tendencies, application of Pearson correlation and simple linear regression and compared to the results of Herfindahl formulation on independent variables. A positive relationship between independent and dependent variables was established. Likewise, the positive effect of the cumulative measure of stock concentration was validated, but not in the

Herfindahl measure. The strong influence of top management composition on the critical strategic factor of R & D investment was also confirmed. Large institutional firms were able to spread R & D risks more effectively than small ones. Lastly, diversification and R & D spending had no significant relationship.

Boeker and Goodstein (1991) did another interesting study of 290 California hospitals during the period covering 1980 to 1986. They postulated that the Board was a linking mechanism between the organisation and its environment. Therefore, its composition must represent the major sectors that impact on its operation and profitability. In this study, two contradictory statements were examined. First was the assertion that poor performance exacerbates conservatism and inertia. The opposing view was that organisational success breeds the illusion of invulnerability resulting in complacency. Thus, organisational performance was utilised only as a moderating variable. The results of the study revealed that environmental change has a direct effect on board composition and that organisational performance as measured in terms of profitability and hospital occupancy rates moderates this relationship. The study applied the t-test to see the difference among such controlling variables of size, hospital ownership and performance. The change in board composition was the dependent variable while environmental change was the independent variable. Both longitudinal and cross-sectional data were analysed and corrected for auto-correlation and heteroscedacity using the appropriate model with the method of least squares. This study suggested the interchangeability in the treatment of these variables, e.g. to what extent board changes can affect changes in such organisational characteristics as structure, strategy, shared values, style, staff, skills and systems.

Whittington (1991) did a questionnaire survey to study the strategic dilemma suffered by British manufacturing firms during the recession. This was that, if top management became over-pessimistic, it could lead to lost opportunities in the eventual recovery. On the other hand, if it became over-optimistic, this might mean rapid bankruptcy. Some 267 questionnaires were sent out during the winter of 1984 to 1985 which was deemed as the end of cyclical recovery among firms that were thought to be *recession survivors*. Only 45.6 per cent responded. Nevertheless, there were three significant findings, namely:

1) CEO turnover fell during the recession

2) stronger firms held on to their CEOs for their corporate recovery

3) traditionally weak performers introduced outside CEOs for change in strategy and for rationalising focus as well as for greater gains in profitability.

2.3 Indicators of Corporate Decline

Maynard (1991) has observed that the root causes of company failures at the individual level are inexperience, indecision, arrogance, greed and the rest of the "seven deadly sins". Pearson (1992) added that company failures were due to negative, risk averse and bureaucratic work environments. Too much focus on company politics and playing the corporate game aggravate the situation. He said that to counteract these propensities, managers should get involved in the substance of business and avoid focus on administrative processes. Likewise, there must be an acceptable performance-based reward system to sustain employee motivation towards work.

In his book Corporate Recovery, Stuart Slatter (1987,p26) enumerated the causes and symptoms of decline:

a. Poor management. By management, Slatter referred to the Board of Directors, the CEO and his management team. Either there was a one-man rule in that the positions of Chairman and CEO were combined; the Board of Directors was ineffective because many members lacked the required qualifications or there was lack of balance in representation; management as a whole neglected its core business; or the management bench had become shallow because the better managers left before the crisis.

b. Inadequate financial control. This is reflected in badly designed management accounting systems, underutilisation of information and inadequate cash flow forecasts, costing systems and budgetary controls. This is also indicated by the absence of adequate checks and balances in the finance organisation.

c. High capital and operating costs. This is caused by operating inefficiencies such as low labor productivity, lack of adequate maintenance, very bureaucratic procedures and poor production planning.

d. Delay in the execution of major projects. This may be due to environmental and technical problems, poor planning or ill-timed expansion, inaccurate cost estimates or the projects being simply too big for the firm to undertake.

e. High gearing or debt-equity ratio. This means that the company may no longer be capable of servicing its long-term debts because of the small proportion of resources put up by its owners or stockholders. Alternatively, Donadio (1991) views high gearing as an indicator of organisational slack, resulting in overpayment of dividends and accounts to both owners and creditors.

Other indicators of decline are the consequences of overconservative financial policy, decrease in demand, output, sales, profit, liquidity, market share and ability to compete.

In addition, Makridakis (1991) listed contributory factors to corporate failures as follows:

a. *conservatism which results from resistance to change*

b. *innovating too much too soon*

c. *shortsightedness*

d. *overconfidence*

e. *overreaction*

f. *personal inadequacy of the CEO*

g. *inability to adopt*

h. *bad luck*

i. *bureaucratic risk averse or negative work environment*

j. *board-management conflicts*

2.4 Stages of Organisational Decline

Weitzel and Jonsson (1989) argued that organisational decline comes in five stages: *blindness, inaction, faulty action, crisis and dissolution.* The first four stages are reversible while the last is hopeless. To counter organisational blindness, management needs to implement open communication and good internal monitoring systems to encourage the sharing of information, feedback and response. To reverse inaction, management should de-layer the organisation, delegate more authority and accountability to frontline people. To avoid faulty action, management should promote trust and loyalty and implement participative management, retrench or cutback if necessary. To turn crisis into opportunity, the

organisation must experience "frame-breaking" changes in strategy, power, structure and control and re-orient people to the necessity of subordinating their interests temporarily in favor of the organisation's good. As an initial step, it has to replace its CEO and management team and carry out an image building program. If corporate dissolution is inevitable, then the organisation must find a buyer who can give the highest value for its assets.

2.5 Turnaround Strategies

A review of related research findings reveals that cost control and reduction are the immediate measures for corporate recovery (Lyons 1993; Heller 1992; Gopal 1991; Henrici 1986; Sathe 1978; and Meredith 1964). It was only in the studies of Monroe, Castrogiovanni and McKenna (1992) that attention to top management changes emerged. The reports of Harrigan and Beehler (1980) and the National Association of Accountants (1964) in the U.S. stressed the need for effective cash management and long-range profit planning as crucial to the healthy financial operation of a company. McKenna (1992) also noted that the improvement in employee responsiveness to customer needs followed the formation of a responsible and invigorated management team.

It is universally acknowledged that the CEO, if not the top management team needs to be replaced in order to have an effective turnaround situation. Corporate turnaround specialists, led by Ansoff (1990) -- the acknowledged strategic management guru of recent years, followed by Salmon (1993), Finkelsten, Goldstein, Johnson and Weirsema (1992), Gopal, Maynard and Whittington (1991), Ancona(1989) and Hall (1989), Schaffer (1988) and Finkin and Slatter (1987) were unanimous in saying this. Satisfying the multitudinous needs and expectations of such stakeholders as employees, consumers, political

leaders, lenders and suppliers is another concern of turnaround strategies according to Castrogiovanni (1992), Ansoff, Rowe et al. (1990), Waterman (1987), Freeman (1984), Taylor and Tichy (1983) and Ackoff (1981). Among these turnaround experts, a UK-based expert, Slatter (1987) acknowledges the importance of cost control and reduction in the overall recovery effort. Ansoff (1990), Beehler and Harrigan (1980) also see the need for strong financial control in a turnaround strategy. Other management interventions such as organisational development (OD), productivity improvement and changed management style have been suggested by Dodge and Heller (1992) and Guy (1989).

Whereas researchers view cost control and reduction as the more critical strategy for corporate recovery, practitioners believe that managerial changes are first and foremost. Wiersema (1992) argues that significant changes are likely if the CEO successor comes from outside the organisation. This contradicts the belief that turnaround strategies are best initiated by company insiders who are more familiar with their company problems and their rootcauses. Errors in the selection of a new CEO are very difficult to undo and tend to cause long-term and irrecoverable damages to the organisation. This is the reason Johnson (1992) looks for such qualities as creativity, initiative, decisiveness, willingness to take risks, high energy levels, self-confidence, ability to sell ideas, human relations skills and -- above all -- leadership from a new CEO.

Echoing the prescriptions of Tom Peters (1980), the leadership factor has been emphasized by Bernie Villegas (1983) in relating the story on how the Philippine National Oil Company (PNOC) surmounted the oil crisis during the seventies.

At this point, the strategic role of human resource management must not be understated (Schuler 1992). This is because people are at the heart of every successful turnaround (Finkin 1987). Human resource management plays a major role in the proper selection and placement of people and in drawing up strategies for their development and those of their organisation. This is also the reason Beer, Eisenstat et al. (1990) emphasize the importance of achieving a proper balance between cost reduction and continuing investment on human resource development in order to develop a conducive climate for corporate turnaround.

From the experiences of these companies and prescriptions of academics and turnaround experts, strategies for corporate recovery may be classified and summarised as follows:

a. Short-Term Strategies

1. control of cost and capital expenditures
2. sale of assets
3. stepped-up collection efforts
4. rescheduling of debt repayments
5. injection of additional funds
6. zero hiring/staff reduction or downsizing
7. employee re-orientation
8. retrenchment and cutback
9. change the CEO

b. Long-Term Strategies

1. executive/management succession planning
2. strategic planning

3. design and implementation of management information support and control system
4. organisational streamlining/re-organisation
5. staff training and development
6. centralised cash management
7. procedural changes
8. performance-based reward system
9. intensified public image building
10. strategic alliances

2.6 Use of Key Success Factors

During the latter part of the eighties, the use of key success factors (KSFs) has become fashionable in strategic planning and management (Jenster 1987 Vasconcellos 1988 and Hambrick 1989). KSFs have been defined as "events, conditions, circumstances or activities in a limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance of the organisation" (Jenster 1987,p102). Depending on the industry and the circumstance of individual firms, key success factors (KSFs) or attributes have been identified from which the performance of firms are evaluated. The use of KSFs starts with determining the elements of success from the general environment, industry characteristics, competitive forces to which a particular firm is subjected, and company-specific characteristics as well as personal values of key players and resource availability. Then, identified KSFs are inputed in the formulation of strategies, pinpointing those responsible for their accomplishments and selecting strategic performance indicators by which accomplishments are measured as well as control and evaluation are based. The main idea is to match

company strengths with the KSFs of the industry within which a particular company operates.

In the case of the electricity supply industry, which has been identified to have medium to low transaction complexity and process technology, a number of attributes or KSFs have been readily identified. These are customer needs for reliable and adequate service, including delivery at competitive cost. Likewise, changes in critical attributes of operation such as teamwork, employee motivation and productivity, plant capacity and technological sophistication of equipment have been enumerated (Vasconcellos and Hambrick 1989). Scholars who have studied the electricity supply industry in the Philippines have identified this set of factors as critical in the successful performance of the National Power Corporation (Aliman 1984; Alfafara 1988; Brigoli and Delarmente 1989; Tioleco 1990 and Cu 1991).

2.7 Roles of Key Organisational Players

Key organisational players such as the CEO or top management and corporate planning staff have central roles in the turnaround effort. Hanna (1985) described the critical role played by the CEO as the leader of corporate culture and as a value shaper. To Kilmann and Associates (1988), the CEO must be able to lead by example, take action, communicate, take the blame and responsibility in the recovery effort. As the orchestra follows the baton of the conductor, the role of employees can not be underplayed. Schaffer (1988) emphasizes these roles. The CEO makes decisions and the specialists provide critical skills and information. Slatter (1987) mentions state involvement in recovery efforts. The government as the fairy godmother turns the CEO's baton into a magic wand. It goes without saying however that, with or without government intervention, the

outcome of recovery efforts will depend on the resolve of an organisation's players. For Reutner (1991), corporate success is assured when a company has the capacity to perform (defined as the ratio between strategic barriers and relative costs) and marketing advantage (defined as the ratio of strategic barriers to relative price charged by the firm) relative to its competitors. He then identified the primary, secondary and subsidiary factors of corporate success based on their impact on the financial performance of the organisation.

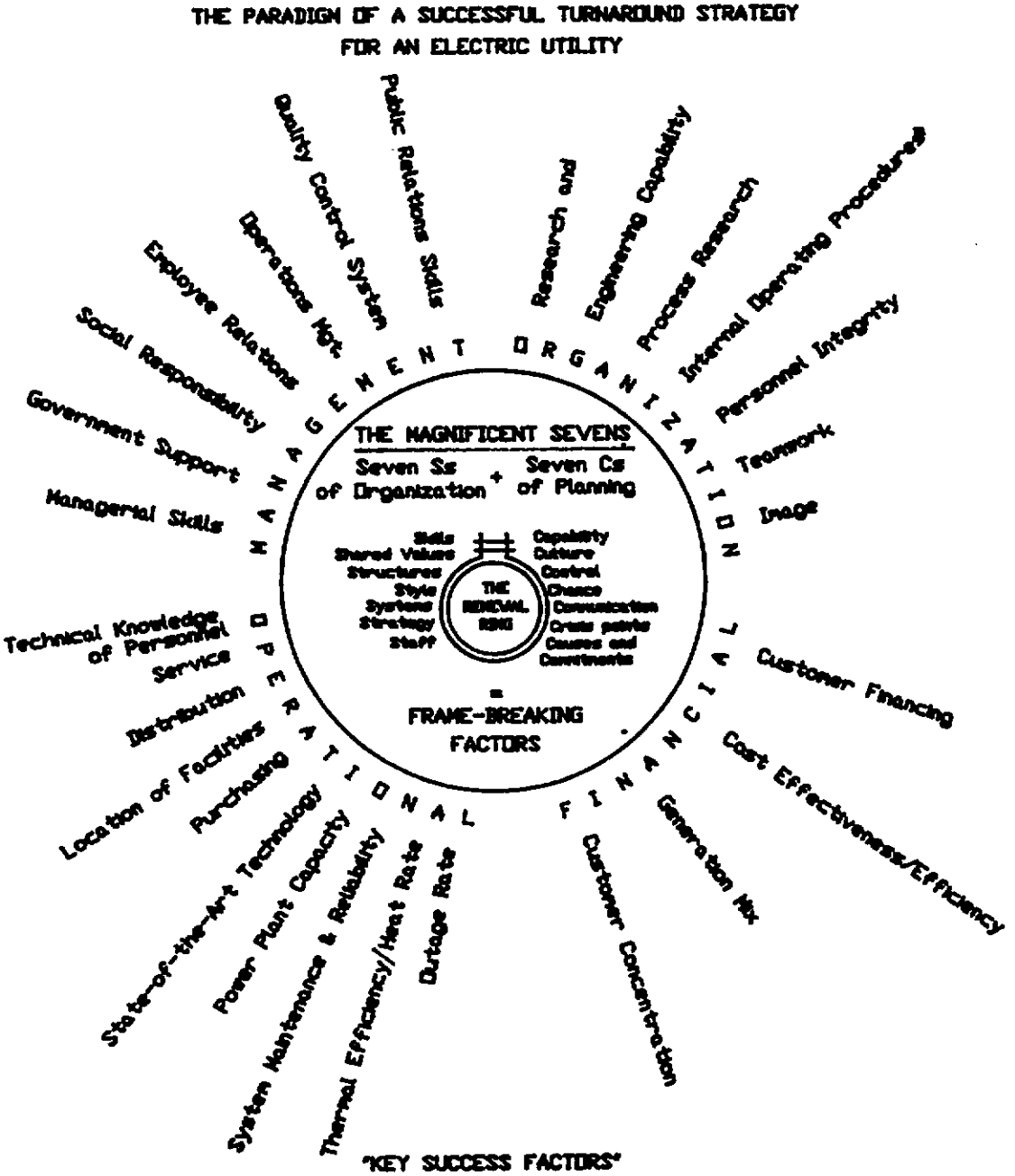
2.8 Implications

A review of literature reveals a number of factors and relationships that may lead to corporate decline and recovery. However, the significance of each factor and its impact on corporate performance must be measured, particularly when applied to the electricity supply industry in Asia/Pacific. This was the challenge addressed in the present study. Such factors as management change will set into motion organisational changes and elicit responses from the internal and external environments that may trigger a further series of changes. Other independent or causal factors need to be examined as they impact on corporate recovery. The dynamics of these changes must be ascertained now or in the future to determine the efficacy of any given strategy.

As suggested by Weitzel and Jonsson (1989), another challenging task of research in this area is to develop sets of qualitative organisational indicators that are predictive of each stage of decline and to link this information to operational and financial statistics over time.

Based on these readings, a paradigm for a successful turnaround strategy of an electric utility has been designed as shown in Figure 1. This illustration shows that changes in Waterman's (1987) magnificent seven Ss of organisation

FIGURE 1


THE PARADIGM OF A SUCCESSFUL TURNAROUND STRATEGY
FOR AN ELECTRIC UTILITY
MANAGEMENT
Public Relations Skills
Quality Control System
Operations Mgt.
Employee Relations
Social Responsibility
Government Support
Managerial Skills
ORGANIZATION
Research and
Engineering Capability
Process Research
Internal Operating Procedures
Personnel Integrity
Teamwork
Image
FINANCIAL
Customer Financing
Cost Effectiveness/Efficiency
Generation Mix
Customer Concentration
OPERATIONAL
Technical Knowledge of Personnel
Service
Distribution
Location of Facilities
Purchasing
State-of-the-Art Technology
Power Plant Capacity
System Maintenance & Reliability
Thermal Efficiency/Heat Rate
Outage Rate
THE MAGNIFICENT SEVENS
Seven Ss of Organization + Seven Cs of Planning
Skills
Shared Values
Structures
Style
Systems
Strategy
Staff
THE RENEWAL RING
Capability
Culture
Control
Chance
Communication
Cross points
Causes and
=
FRAME-BREAKING FACTORS
"KEY SUCCESS FACTORS"

combined with the seven Cs of planning into a so-called *renewal ring* constitute the "frame-breaking" factors needed to jumpstart the turnaround efforts and that continuing improvements in *key success factors* would sustain and complete the corporate recovery process. This paradigm incorporates the main theoretical framework of this study. Recognition of these two sets of factors as key to the turnaround process facilitates the planning of a successful recovery effort. These factors impact not only on the needed changes in the management systems but more importantly on the operating systems and, thus, can ensure greater competitiveness, growth and profitability of the organisation. This assertion does not, however, prescribe an (all or nothing) approach to any recovery effort but rather suggests carefully planned countermeasures to such factors contributing to failing performance of the organisation. This, in effect, is the central thesis of this study.

Chapter Three

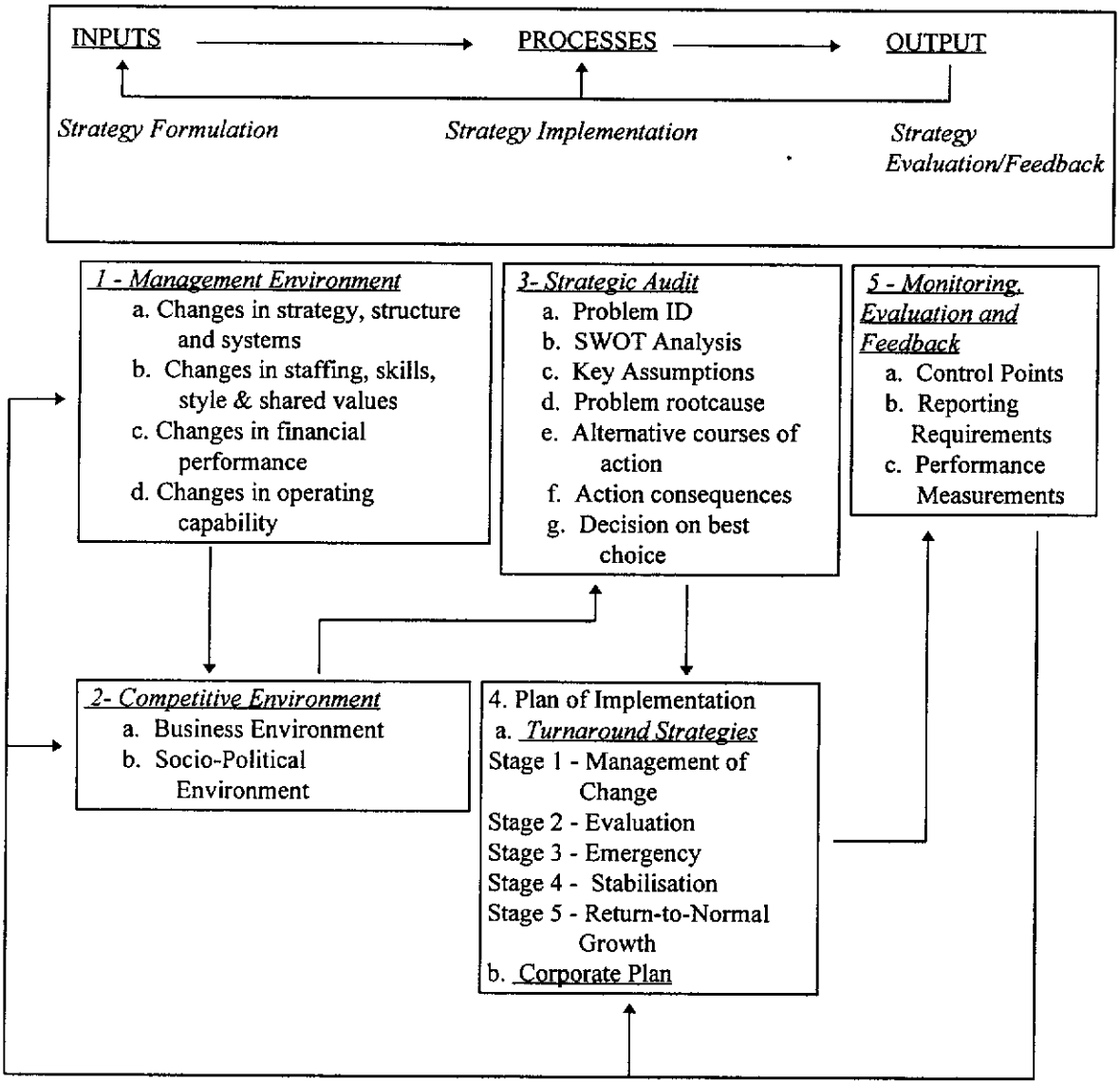
Methodology

This chapter elaborates on the framework and methods of collecting and analysing the data obtained from the comparative case studies, including the design of an integrated theoretical model. Three distinct methods of analysis have been adopted in these studies. The first is the Systems Analysis Method that is used in drawing the theoretical framework for these studies and in describing the competitive pressures on corporate recovery. The second is the Case Method that is used in developing the interview questionnaires for respondents of the four utilities and the electricity sector. The third are the Statistical Methods applied in the interpretation and analysis of data. Each of these three methods of analysis have its underlying tools and applications.

3.1 Analytical Framework

This section describes a systems view of strategic planning that incorporates the steps and elements that are considered essential in designing and implementing turnaround strategies. This systems view, which provides the framework for organising and analysing the data collected in this study, is patterned after the "open systems" model of Kast and Rosenzweig (1985) and is used to formulate the theoretical basis for a comprehensive turnaround strategy for public utilities experiencing decline problems. The model also integrates a number of approaches to strategic audit, including the "factor analysis" of Waterman (1987) , "case study analysis" of Magnus (1978) , "SWOT analysis" of Stevenson (1976) and the "five-stage turnaround process" of Bibeault (1982), into one coherent method of analysis. (See **Figure 2)**. The model has three main stages and follows the general pattern for strategic planning and

Figure 2. **TURNAROUND MANAGEMENT FRAMEWORK**

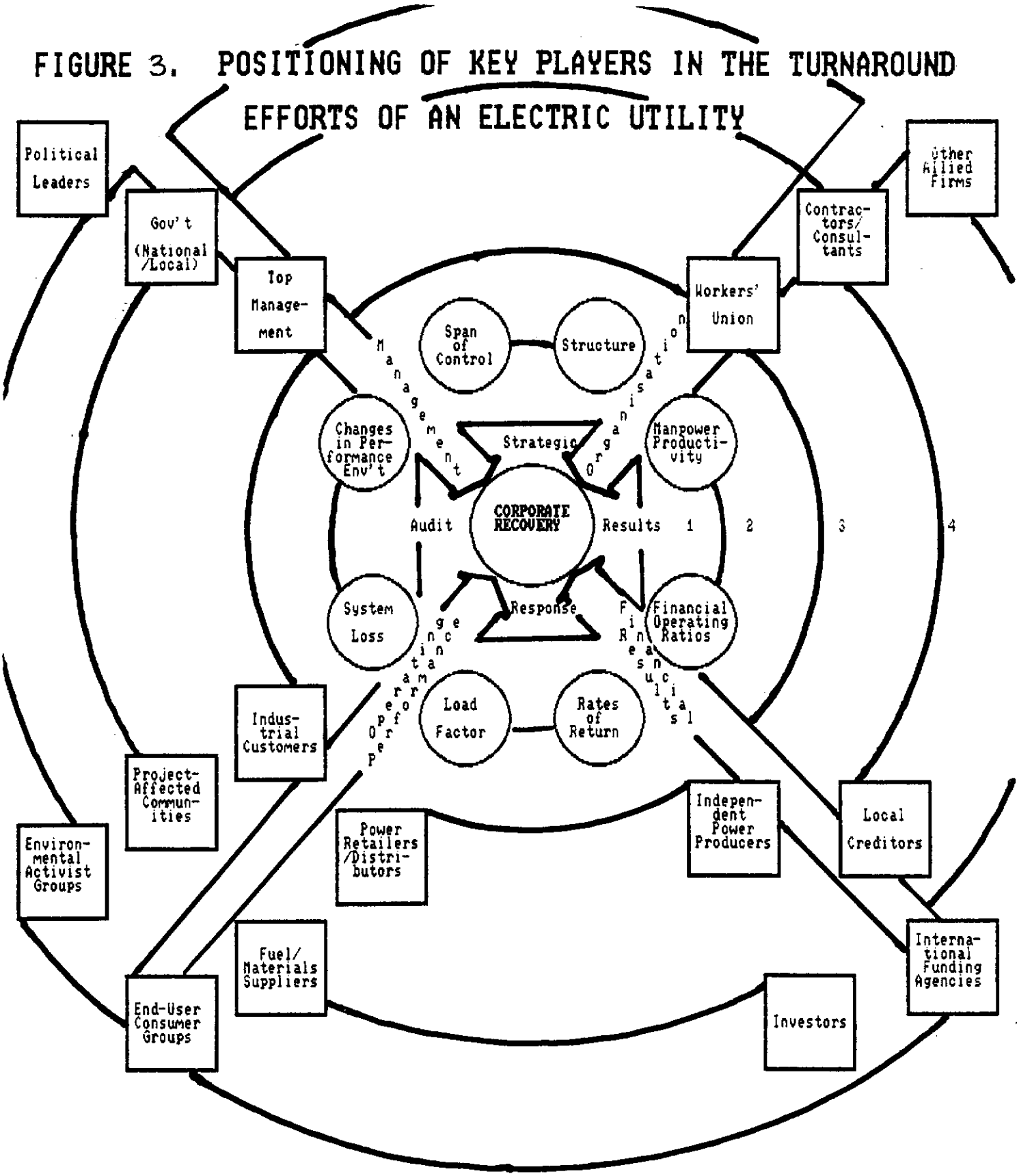


implementation. The first stage is the ***strategy formulation*** stage that requires the gathering of data on the management and competitive environments of the organisation.

1. **Management environment.** The management environment is described in terms of changes in the seven Ss of organisation, which include the three hard Ss of strategy, structure and systems and the four soft **Ss of** staff, skills, style and shared values. Included in the management environment are changes in the operating capability of the organisation.

2. **Competitive environment.** The competitive environment is characterised by the competing demands and interests of the stakeholders constituting the larger business and socio-political context (See Figure 3). Key business stakeholders are *suppliers, creditors, power distributors, contractors and consultants, industrial customers, allied utilities/investors and independent power producers.* Key stakeholders involved in the socio-political environment are *political leaders, government departments and regulatory bodies, workers' union, consumer groups, environmental activist groups, local governments and project-affected communities*. Figure 3 represents another way of looking at the systems model, i.e. as a series of concentric circles. Because the degree and direction of impact of these stakeholders to corporate operation depend on their access to decision-makers, stakeholders at the inner circles have greater impact on corporate recovery than those at the outer circles. Actions of a group of players such as creditors and competitors, for example, may have a direct impact on corporate financial performance. This stakeholder group can raise lending rates and undertake actions that may affect the pricing and internal rates of return of an electric utility. Other politicised groups may intervene in the composition

FIGURE 3. POSITIONING OF KEY PLAYERS IN THE TURNAROUND EFFORTS OF AN ELECTRIC UTILITY



of the board, organisational structuring, appointments and other key management decisions. Workers and contractors may control the pace of project implementation. Other more marginal groups may be important shapers of public opinion. The demands of these stakeholders must be considered as they may drive or constrain the turnaround efforts.

3. **Strategic audit.** Relevant environmental data are then assessed using the "case study analysis" (CSA) and "SWOT analysis" approaches to the strategic audit of the corporation. Magnus (1978) applied the CSA approach in diagnosing the development problems and needs of a particular country or community. Hence, it is presumed to be an appropriate instrument for investigation of so large a sector of the national economy as the power industry.

However, in the present application, SWOT analysis has been incorporated (replacing the original steps 2 and 3 below) in order to identify the strengths and vulnerabilities of the four companies covered in this study. The CSA approach (Magnus 1978) prescribes the following steps in the problem-solving or decision -making process:

Step 1 - Define problems and issues in the case.

Step 2 - Identify relevant facts and data; appraise how they bear upon the case.

Step 3 - Identify unknown data that should be taken into account.

Step 4 - Summarise key assumptions about the situation.

Step 5 - Identify the causes of the problem(s).

Step 6 - Identify alternative courses of action and appropriate ways of analysing the facts and data relevant to making a decision.

Step 7 - Determine the consequences of each alternative course of action.

Step 8 - Weigh and decide among alternative courses of action -- giving full consideration to conclusions suggested by facts and analysis and to own judgment regarding the "best choice".

Step 9 - Develop a plan of implementation.

The "SWOT analysis" approach of Stevenson (1976) includes a number of distinct elements:

- It has a time and space dimension. Thus, strengths (S) and weaknesses (W) refer to past and present company performance with particular reference to its internal factors. Strengths (S) are advantages that operate in favour of the company, which are capitalised to the fullest. Weaknesses (W) are disadvantages that impede performance, which need to be overcome. In other words, strengths are organisational capabilities to carry out its tasks and weaknesses are its inabilities to fulfil its purposes.

- Opportunities (O) and threats (T) refer to the future or prospective changes in factors found outside the organisation that can influence its operation. Opportunities are prospective advantages from the external environment that favour or can be exploited by the company. Threats are negative external influences to company operation that must be minimised or coped with.

SWOT analysis then results in an assessed level of organisational performance based on the matching of advantages and disadvantages faced by the company.

4. **Plan implementation.** Requisite turnaround strategies and corresponding plans of implementation are formulated based on the five-stage turnaround process of Bibeault (1982):

Stage 1 - Management of Change - This is the initial stage where the new CEO takes charge of the company, gets an appreciation of the critical problems at hand and gives his or her vision for the organisation on the immediate things to be done.

Stage 2 - Evaluation - This requires a quick review of key result areas and formation of cross-functional teams to be responsible for studying and undertaking "frame-breaking" changes.

Stage 3 - Emergency - This is the period when the new CEO tries to stem the cash outflow or, conversely, to improve the cash position of the company.

Stage 4 - Stabilisation - This is the next period wherein structural, systems and procedural changes are set in place to strengthen the core business units for long-term profitability and growth.

Stage 5 - Return-to-Normal-Growth - This is the final period of recovery effort devoted to the sustaining of financial viability and planned expansion of company operation.

5. **Monitoring, evaluation and feedback.** At the final stage, quantified targets and appropriate control points are established for monitoring strategy implementation. As shown in Figure 3, each stakeholder group will have an impact on its respective aspect of corporate recovery (i.e. management, organisation, operating performance and financial results). Such impact is measured in terms of the changes in management indicators (i.e. span of control and performance environment), in operational indicators (i.e. system loss and load factor), in organisational change indicators (i.e. structure and manpower

productivity) and in terms of financial ratios (i.e. rates of return, etc.). These indicators are included in the key success factors identified for the electricity supply industry by such analysts as Vasconcellos and Hambrick (1989) and Filipino scholars Brigoli and Delarmente, et al. (1989).

A review and evaluation procedure is then set in place to assess the success of strategies, using the key success and renewal factors identified in Figures 1 and 3.

Feedback is defined in terms of the effects of turnaround strategies on the management and competitive environments and of responses from key stakeholders. These results and findings are "fed back" as bases for making modifications in the next planning cycle. The process is repeated until it is refined and desired results are achieved.

3.2 Statistical Methods Used

This research was conducted ex post facto and used standard measures of statistical analysis, including frequency distributions, and simple and weighted averages. Cross-tabulations to examine associations among variables have also been performed and data presented in both tabular and graphical forms.

Data were collected from both primary and secondary sources. Primary data were derived from face-to-face interviews and questionnaires from a cross-section of key players in the energy sector. Secondary data were obtained from published materials of firms under study as well as from business books and journals. In addition, comparable background data on electric utilities in the Asia/Pacific region came mostly from the Asian Development Bank (1993).

To gain insight into the electricity supply industry and to validate information supplied by respondents, it was also necessary to gather field data

from industry observers and service organisations. Industry observers were representatives of government departments or ministries dealing with power or energy, international funding agencies, environmental or activist groups, the banking community, tax and regulatory agencies, employee unions, the media, industrial customers and consumer groups, local governments and non-government organisations. Service organisations were composed of power supply associations, contractors, consultants, auditors, advertising and manning agencies. The main sources of primary information were executives, employees and former employees of power supply companies who were members of the business development staff, operations and engineering groups, corporate planning staff, personnel and public relations departments, purchasing and R& D departments.

Company visits were also undertaken to clarify responses of key informants in the energy sector and to validate data gathered on the sustainability of turnaround efforts by management of these firms. Gathering of cross-sectional and longitudinal data was undertaken to obtain a big picture of the results of these efforts and to draw conclusions and recommendations.

3.3 Questionnaire Design

Two sets of questionnaires were prepared for this study. One set was designed to elicit information from managers of the firms under study. The other set was designed for other stakeholders in the electricity supply industry. The first set of questionnaire is divided into two sections. Section One, which is the Main Inquiry portion, questions respondents on the problems, causes, the response and approaches taken by company management to decline problems, their perceptions on the results and effectiveness of the response, and

their overall assessment of the changes that have taken place since the problems emerged. Section Two deals with personal background, i.e. respondents' position, age, gender, marital status, work station, education and length of service in the company. There is a covering letter in each of these questionnaires explaining the purpose of the research, its time reference and assurance of anonymity and confidentiality. Key success factors (KSFs) have been defined and appended in each questionnaire for common understanding and reference.

3.4 Interpretation and Analysis of Results

The questions were pre-coded for easier data tabulation and analysis. In the rating of KSFs by respondents, the five point Likert-type scaling procedure as introduced by Emory (1976,p248) was applied. These rating scales were arranged such that respondents rated each KSF along a five-point scale from "very poor" to "excellent" in relation to its contribution to corporate recovery. Data were analysed by multiplying the weights from -2 to +2 to the corresponding frequency of response for each point in the scale. The results were added to come up with a weighted average for each factor. The weighted averages were ranked from highest to lowest to show which among the KSFs contributed the most and the least to corporate recovery. This method was also used in determining which contributed the most in the poor company image of NPC in 1991. The question on company image was used as a surrogate variable to measure broad stakeholder support.

A linear discriminant analysis of financial variables following Altman's z-score method has been undertaken to rank the performances of the four electric utilities.

3.5 Electric Utilities Selected for the Study

Four electric utilities in Asia-Pacific countries of New Zealand and the Philippines were chosen for this comparative case study. The New Zealand utilities are the Electricity Corporation of New Zealand (ECNZ) and Capital Power Limited. Their Philippine counterparts are the National Power Corporation (NPC) and the San Fernando Electric Light and Power Company (SFELAPCO). These utilities represent the broad spectrum of electricity business in their respective countries from power generation, transmission and distribution. It has been said that Thailand has comparable electric utilities but they have been excluded in this study because Thailand is a Southeast Asian nation that the Philippines already represented and the Philippines being the home country of this student. The choice of New Zealand utilities is due not only to its comparability with the Philippine utilities but also to the fact that it widens the scope of the comparison to the larger Asia-Pacific region that is now emerging as a strong trading group.

Initial data gathering and field work were undertaken in the Philippines in 1994. This activity resulted in the gathering of needed data and literature review on the National Power Corporation, the San Fernando Electric Light and Power Company and the Philippine energy sector. Field work in New Zealand was undertaken during the middle of March 1996. By mid-1996, a follow-up data gathering on the sustainability of turnaround management in the Philippines and comparative analysis of time-series data on the two countries have been accomplished. The draft report was completed in September 1996 and was presented to the Thesis Committee in October 1996 and to the National Power Corporation in the following month. The approach to the comparative case study and the outline of the report adopted the structured format to the extent

possible as contained in the analytical framework and model. Where the adoption of the structured format was not possible, unstructured reporting had been resorted. Nevertheless, majority of the elements of the analytical framework and model have been included in writing the report to preserve the complete application and comparative consistency of the data gathered from the interviews and mailed questionnaires. Likewise, the elements of the analytical framework and model were operationalised in the questionnaires designed for the research. Final editing and drafting were undertaken in March and April 1997.

Chapter Four

COMPARISON OF NEW ZEALAND AND PHILIPPINE ELECTRICITY SUPPLY INDUSTRIES

This chapter examines the similarities and differences of the electricity supply industries in New Zealand and the Philippines. It also presents a brief socio-economic profile of the two countries as well as the structures of their respective electricity supply industries (ESI). Included in this discussion is an examination of relevant policies of government, including strategies adopted to improve ESI performance.

New Zealand and the Philippines are two moderately industrialising countries situated on the opposite extremes of the Asia/Pacific region. They have been selected for this comparative case study for a number of reasons. Their economic profiles and energy industry environments during the turbulent years leading to the nineties provide particularly fertile ground for the study of corporate turnaround in the energy sector. For one thing, both countries have similar ESI structures (i.e. less vertically integrated), which are different from those of other Asia-Pacific nations (excluding Thailand). This is shown in the classification of ESIs in Table 1 by the Asian Development Bank (1993). Both have experienced energy problems in crisis proportions that sapped the strength of their economies in general and the performance of their electric utilities in particular.

4.1 Country Profiles

In terms of geographic area and population size, the Philippines is bigger than New Zealand. Likewise, the Philippines has a slightly higher total economic output than New Zealand. In 1995, the Philippines has a Gross National Product of US $ 34.6 billion compared with New Zealand's GNP of US $ 33.1 billion. Since the

population of the Philippines is almost 20 times bigger than New Zealand's, the latter has a much higher per capita income. New Zealand's currency reflects this economic advantage, with a value of 70 US cents in contrast to four US cents for the Philippine peso (Table 2). Power sector growth in terms of electricity consumption in New Zealand is sluggish at two per cent per year for the period 1986 to 1991. In the Philippines, it is growing at the rate of 12 per cent per year during the same period. New Zealand's North and South islands are interconnected by high voltage transmission lines (HVDC) while the Philippines is still undertaking the interconnection of its three major islands of Luzon, Visayas and Mindanao.

4.2 Structures of Electricity Supply Industries

The ESIs in New Zealand and the Philippines have been classified by the Asian Development Bank as belonging to the same structural category with Thailand in which the functional responsibilities of power generation, transmission and distribution have been divided among two or more utilities (ADB 1993).

In New Zealand, the Electricity Corporation (ECNZ or ElectriCorp) is responsible for bulk generation, and Transpower, which owns the national grid, handles transmission of electricity and the sale in bulk to the 54 electricity supply authorities (ESAs). To a limited extent, ECNZ distributes to the provinces and supplies a number of industrial, commercial and domestic consumers directly. There are also a number of self-generating establishments. The power supply situation in New Zealand can be described by the surplus and cheaper hydropower in the South Island and higher demand in the power deficient North Island. There is also an emerging competition for sources of energy other than electricity in sectors like transport, industry and households.

In the Philippines, the government-owned and controlled National Power Corporation (NPC) is responsible for generation and transmission of power to the entire country while the 16 private and municipal distribution utilities and 120 rural electric cooperatives (RECs) sell power in their exclusive franchise areas. This industry structure is also true for Thailand. However, other countries in Asia/Pacific belong to other structural variations as shown in Table 1.

Table 1. **Structural Categories of the Electricity Supply Industries in Asia/Pacific As of 1990**

CATEGORY	DESCRIPTION	UTILITY/COUNTRY
1	One government-owned generation,transmission and distribution utility for the entire country	PLN, Indonesia KEPCO, South Korea PUB,Singapore TAIPOWER, Taiwan
2	Two or more government and privately-owned power utilities in respective franchise areas	HEC, Hongkong CLPC, Kowloon CCECO, Cheng Chau TNB, Kuala Lumpur SESCO,Sarawak SEB, Sabah Utilities in Australia, China and Japan
3	Two or more utilities divide the function of generation, transmission and distribution	NPC/MERALCO/NEA in the Philippines EGAT/MEA/PEA in Thailand ElectriCorp/Transpower/ ESAs in New Zealand

SOURCES: Goulden Reports (1990) and ADB (1993)

4.3 Key Industry Players

The performance and survival of electric utilities in New Zealand and the Philippines depend in part on the pressures and demands from key industry players.

In New Zealand, the major industry player is the ElectriCorp of New Zealand (ECNZ), the owner of 40 power stations that supply 96 per cent of the electricity requirement of the country. The remainder of the power generation is contributed by

Table 2.**COMPARATIVE FEATURES OF THE ELECTRICITY SUPPLY INDUSTRIES OF NEW ZEALAND AND THE PHILIPPINES**

Features	New Zealand	Philippines
A. Context		
1. Country Profile		
a. GNP in US $ Million	33,100	34,620
b. Population in Thousand	3,435	68,410
c. Area in Square Kilometers	268,704	300,000
d. Currency in US cents	70	4
2. Industry Profile		
a. Installed Gen. Cap. in MW	7,600	6,744
b. Total Elect. Production in GWH	30,858	25,123
c. Total Elect. Consumption in GWH	27,819	20,087
d. Length of TD Lines in Kilometers	178,000	149,340
e. Assets in US $ Billion	6.74 (ElectriCorp)	9.82 (NPC)
f. Number of Employees	12,922 (ElectriCorp)	14,145 (NPC)
g. Cost /KWH Sold in US cents	3.38	6.33
h. Ave. Revenue /KWH Sold in US cents	3.47	6.55
i. Generation Mix in Per Cent		
- Oil	17	47
- Geothermal	7	24
- Hydropower	75	21
- Coal	1	8
j. Energy Consumption by Sector in Per Cent		
- Industrial	40	45
- Domestic	37	27
- Commercial	20	21
- Farming	2	0
- Others	1	7

Sources: Electricity Corporation of New Zealand and National Power Corporation, 1995

58 small generators owned by 54 electricity supply authorities (ESAs) comprising 36 electric power boards (EPBs), 14 municipal electricity departments (MEDs) and four electric power supply companies that also control the distribution of electricity through ESAs' 119,000 substations and 165,000 kilometers of distribution lines. Power transmission, which is a natural monopoly, is controlled by Transpower. Other stakeholders include wholesale buyers like COMALCO (an aluminum company), large and small industries, domestic and commercial consumers that are directly connected to the power grid.

In the Philippines, the National Power Corporation (NPC) is the major player but its dependence on other stakeholders for fuel supply and credit has created serious obstacles to efficient operation. Pressures and threats come from the federation of electric cooperatives that functions as a lobby group and from the private power distributors led by the Manila Electric Company (MERALCO). The National Electrification Administration (NEA), which finances electrification projects of rural electric cooperatives, is quite influential in the countryside. NPC employees are unionised. NPC power rates are regulated by the Energy Regulatory Board (ERB). The project contractors, materials and fuel suppliers as well as foreign creditor banks each have their say on industry and company issues. Likewise, the demands of consumer and environmental activist groups are further source of inputs. Independent power producers (IPPs) that insure power adequacy when needed are also important stakeholders as are locally and nationally elected leaders.

4.4 Industry and Utility Performance

a. Generation and transmission. In 1995, the National Power Corporation in the Philippines had assets of almost US $ 10 billion and employed more than

14,000 personnel (Table 2). In contrast, ECNZ had assets of almost US $ 7 billion and employs around 13,000 personnel. ECNZ, with more hydropower resources than NPC, generates 30,858 gigawatt-hours (GWH) while NPC generates some 25,000 gigawatt-hours (GWH). The cost of generating electricity in New Zealand is less than in the Philippines.

b. Distribution. In 1995, the San Fernando Electric Light and Power Company (SFELAPCO) in the Philippines had assets of US $14 million and employed 116 personnel. These employees serve 28,000 customers in the capital town of San Fernando, Pampanga. In contrast, Capital Power Limited in New Zealand has assets of US $ 60 million and employs 140 personnel. There are about 55,000 electric consumers at its franchise area of Wellington, New Zealand.

Both countries suffer from price distortions brought about by cross-subsidies favoring domestic and rural energy consumers. The government monopoly of power generation and transmission in the two countries has contributed to operational inefficiencies, heavy external debt and high public sector borrowing requirements (PSBRs). In the early nineties, each country reportedly incurred close to US $30 billion in total external debt (Bollard 1992, Cabalu 1994). However, the responsiveness of both governments and their utilities' management in surmounting decline problems has differed in certain aspects. While both countries found the need to further corporatise and privatise their power sectors at almost the same time towards the end of the eighties, the New Zealand ESI, which was partially corporatised, implemented its reforms much faster. NPC was corporatised in 1936 while the corporate existence of ECNZ started only in 1987. Because these utilities have the monopoly of electric power, ECNZ and NPC are the largest companies in

respective countries. However, this monopoly position is being eroded by the process of deregulation, further commercialisation and privatisation. The financial standing of these utilities, regardless of function, ownership, structure or regulatory environment, still needs improvements. Packages of measures such as debt restructuring, greater asset utilisation, subsidy removal, cost reduction and pricing strategy that approximates the long-run marginal cost (LRMC) have been introduced (ECNZ and NPC 1992). New Zealand reforms have improved ECNZ's international credit standing and annual manpower productivity by 17 per cent between 1987 and 1995. Its net income increased by 25 % during the same period. Similarly, Capital Power Limited improved its manpower productivity by 16 per cent and its profitability is at a record high of 17 per cent in 1995. In the Philippines, NPC improved its profit margin by an average of three per cent per annum though its employee productivity increased only by an average of one per cent per year from 1988 to 1995. The annual profitability of SFELAPCO, on the other hand, erratically averaged US $ 330, 000 though its manpower productivity increased only by four per cent during the same period. The results of these utilities' recovery efforts are explained in the following chapters.

Chapter Five

Analysis of Data

This chapter contains the detailed results of the comparative case studies and analysis of data. Time-series financial, managerial, organisational and operational data of the four electric utilities are presented in Appendices 4 to 40. Each company case study uses and refers to these secondary data sets for comparison purposes.

5.1 New Zealand Case Studies

The case studies covered the ESI functions of electricity generation, transmission and distribution in New Zealand. The power generation and transmission functions were represented by the Electricity Corporation of New Zealand (ECNZ) whose transmission or natural monopoly function was "ring-fenced" with the organisation of a separate State-Owned Enterprise (SOE), Transpower New Zealand Limited in 1994. The power distribution function was represented by the Capital Power Limited.

The ECNZ, by way of a background, was corporatised as an SOE on February 26, 1987 by an act of the New Zealand Parliament and after constituting the ECNZ Establishment Board in December 1986. The Act effectively transferred the assets and functions of the Electricity Division (NZED) of the State Ministry of Energy in favor of ECNZ but all shares of stocks were owned by the New Zealand Government.

The ECNZ corporatisation was part of the nationwide economic reform program of the then Labor Government that included other state trading organisations such as telecommunications, postal services and air traffic control. The program involved policy issuances concerning deregulation, taxation and investment promotion (ECNZ 1996). ECNZ, at the time of incorporation, controlled 96 per cent of the electricity generation market in New Zealand. With the government decision to sell a number of

ECNZ's power stations in order to introduce competition in power generation, ECNZ's market share has been reduced to 60 per cent in 1996.

The case study on power distribution was focused on Capital Power Limited that represented 14 Municipal Electricity Departments (MEDs) and 36 Electric Power Boards (EPBs), which comprised the Electricity Supply Authorities (ESAs) in New Zealand.

Capital Power Limited was established as an energy company pursuant to the November 1992 Energy Companies Act of the City Council of Wellington, the national capital of New Zealand. Prior to its incorporation, it was an electricity department under the Wellington City Council. In January 1995, the Wellington City Council relinquished 49 per cent of its interest in Capital Power in favor of TransAlta Corporation of Canada. The sale resulted in the appointment of three new directors to represent TransAlta, as the new minority owner. Capital Power's more than 200 staff serve more than 50,000 power consumers in and around the City of Wellington. With the deregulation of the energy distribution business, Capital Power continued to own and operate its distribution lines but Wellington consumers have the option to purchase energy from other low-cost suppliers. The latter would then only pay fixed access charges to Capital Power. New power consumers have the option to connect from other line providers. These changes in the way the power distribution business was done were the results of the removal of exclusive distribution franchises and the obligation to supply that effectively split the distribution business in New Zealand between line and energy (Capital Power 1995).

a. Electricity Corporation of New Zealand (ECNZ)

1. Characteristics of Respondents

The case study of the Electricity Corporation of New Zealand took an unstructured approach. While an attempt was made to administer a structured interview, the ECNZ respondents, after reading the facsimile questions sent in advance, provided all information that responded to the questions. Meetings with key respondents responsible for strategic development, business planning and personnel management were undertaken to clarify specific questions on the context of turnaround efforts at the ECNZ and their results on financial performance and personnel productivity. Annual reports and statements of corporate intent covering the period 1988 to 1995 were provided by ECNZ and its subsidiary companies like TransPower New Zealand Limited and Design Power Limited. Other key respondents responsible for the development of the electricity market in New Zealand and representatives of the Electricity Supply Association of New Zealand (ESANZ) were interviewed. These respondents had extensive backgrounds on current reforms implemented in the electricity supply industry in New Zealand, having been involved in the industry when ECNZ was still the Electricity Division under the Ministry of Energy (NZED) or before ECNZ was incorporated in April 1987. These respondents were mostly managers and top executives of the organisations they represented at the time of the interview. They were mostly based in Wellington, the national capital and headquarters. Review of related studies on electricity industry restructuring in New Zealand, particularly those of Barry Spicer and associates of the University of Auckland, Kieran Devine of ECNZ, S. E. Blanch of DesignPower New Zealand Limited, J.R. Ram of Electricorp Marketing (ECNZ) and Barry Leay of the Electricity Supply Association of New Zealand (ESANZ) provided significant background.

2. Summary of Findings

The turnaround situation at the ECNZ happened between 1987 and 1988 when it was corporatised as a State-Owned Enterprise (SOE) from its government form (NZED). ECNZ's corporatisation was mandated by virtue of the SOE Act of the New Zealand Parliament in response to the strong pressures from the political and business sectors who were opposed to providing budgetary support for departmental trading activities that did not realize net returns to taxpayers. Internally, ECNZ also faced a lot of problems.

2.1 Problems Encountered by ECNZ. The ECNZ had acquired from its old organisation (NZED) excess power capacity of 20 per cent from years of spending for additional capacities based on high demand forecasts that never eventuated. Its excess capacity was due to the statutory obligation to supply the highest possible level of power demanded by the New Zealand public. Other problems included non-commercial pricing and a high degree of cross-subsidy in favor of rural customers. There was a lack of focus on cost reduction and efficiency that was typical of a regulated public utility. The financial consequence of this was revealed in a 1988 study of Spicer et al. (1991) which showed net profit before tax registered at negative two per cent after adjusting the year-end financial results for interest rate fluctuations, depreciation and the revaluation of assets. Spicer demonstrated that, in 1988, the reportedly lowest net income of ECNZ in years of NZ $ 141 million was actually a loss of NZ $ 28 million (See Appendix 4).

There was also a growing concern for the funding requirement of future projects that could be sourced from the international capital market and creditors abroad. Other internal problems that plagued the company before its incorporation was the government's interference in decision-making. Hiring had to be done through the State Services Commission. Treasury and finance functions were centrally controlled by the

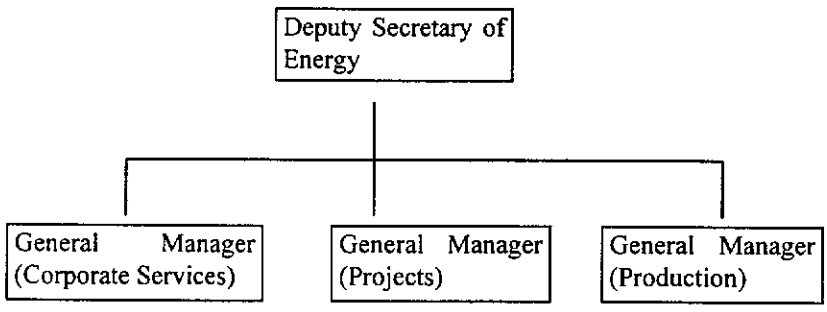
Treasury Department. The overall sentiment was that managers had no full power and autonomy to manage the company's affairs and needed to be held responsible and accountable - that there were simply too many layers of review for efficient functioning. Spicer recounts a critical incident "involving a middle manager at TransPower who was responsible for making decisions involving millions of dollars of revenue but lamented that he could not even choose the types of pencils and number of people he could use as these were controlled by the stores and personnel managers based on government regulations" (Spicer et al. 1991,p39).

External control of ECNZ was exercised in relation to electricity pricing, budgets, pay levels, award negotiations and computer systems development. Contracting out agreements had to pass through the Public Service Association (PSA), the key union in the government departments. The ECNZ in 1987 had a staffing of 5,739 personnel as compared with its staffing of 1,740 in 1995 (ECNZ 1995).

Prior to ECNZ incorporation, its organisational structure was as follows (Figure 4):

Figure 4

ECNZ STRUCTURE BEFORE INCORPORATION



With this structure, ECNZ top management reported finding the following weaknesses:

1) A number of functions were poorly performed or missing if the ECNZ had to perform independent corporate and commercialised functions. These were marketing, treasury, personnel and industrial relations, financial management and corporate planning.

2) The organisation was too centralised and there was no clear differentiation of business functions. There were too many levels of management review that it was difficult to pinpoint responsibilities for certain functions.

3) The Projects group, which was responsible for design and construction, was given primacy; however, the major need of the organisation was to optimise the efficient operation of existing power plants.

4) Staff numbers had been increasing to the detriment of productivity.

5) There was no real motivation to perform as there were no incentives for good performance for employees other than to accomplish their work according to budget and schedules and to please their bosses.

Upon incorporation under the SOE Act of 1986 by the New Zealand Parliament, the ECNZ was given a clear mandate to achieve its own autonomy. At the same time, ownership was to be retained by the government and the corporation would report to the Shareholding Ministers who would have no voting rights in the new corporation. Corporate control was vested in ECNZ top managers who were made accountable to the board. The new corporation was expected to

1) earn reasonable profits like any other private business enterprise;

2) be a good employer and socially responsible (e.g. pay taxes);

3) do away with non-commercial functions. The ECNZ could ask for payment if government would require the former to do community service tasks.

4) submit performance contract and business plans to the Shareholding Ministers and the public through the Statement of Corporate Intent; and

5) publish financial statements and annual reports.

Despite these new mandates, the following social and political pressures on ECNZ continued to build up. There were conflicts with unions on matters related to manning levels, employee safety, contracting out major works and hiring of new personnel. The people resisted ECNZ's commercial pricing policies. There were ethnic issues being discussed with Maori groups such as the latter's project-affected landholdings, water and geothermal rights as well as environmental concerns. The ECNZ was being pressured on its payment of local government taxes and because of this ECNZ had a poor public image. The ESANZ, an influential association of power distributors, was putting pressures on its transmission pricing policies. Other government policies deemed to still keep ECNZ's monopoly position were being opposed by business groups.

The removal of cross-subsidies between North and South Island (resulting from the undersea cable connection at Cook Strait) and between urban and rural users of electricity as well as the unbundling of system charges into line and energy were also being opposed by affected groups. The Auckland Electric Power Board (AEPB), the biggest power distributor, had led these actions. The on-going tension between ECNZ and the electricity supply authorities (ESAs) over pricing was well-orchestrated by their association (ESANZ), which strongly opposed ECNZ's pricing formula and seemingly monopolistic behavior. ECNZ's managers recalled that the public relations strategy of ECNZ did not perform well in regard to clarifying the technical, market, political and environmental issues affecting its operation.

2.2 Top Management Response to Company Problems. ECNZ's transformation into an SOE, despite the attendant pressures, provided top management with a stronger capability to address its problems. As an SOE, the only difference between ECNZ and a private enterprise was its ownership structure. ECNZ was still wholly-owned by the State, with the Minister of Finance and the Minister for SOEs acting as Shareholding Ministers. When ECNZ was established in 1987, the government removed its protection from competition, but ECNZ's control over the sale of its power stations and pricing strategy served as effective barriers to this competition. In short, while ECNZ's monopoly status had been dismantled, its dominant role in the electricity business continued.

a. Changes in competitive strategies. The removal of government protection from competition exposed ECNZ to the threat of rival ESAs that wanted to build their own power stations, firms with co-generation capabilities and other private corporations wishing to enter the generation market. This created powerful pressure on ECNZ to adopt a competitive strategy to deter these threats. Despite its surplus generating capacity, ECNZ was compelled to consider the prospect of constructing additional power plants to deter potential competitors. It also examined its pricing policy to find ways of deterring entry without sacrificing net return and profitability. It also studied the financial effects of entry by other major generators and developed possible pricing responses to new entry. On the basis of these studies, ECNZ realised the damaging effects of deregulation to its dominant status in the industry. This fear was expressed by the Corporate Development Manager, who told an external auditor in 1991 that "new competitors would reduce ECNZ revenue base and the funds needed to pay for surplus plants for the entire period that the new plants were operated by the new competitor"(Spicer et al. 1991). The ECNZ management had also foreseen the loss of

market share of electricity vis-a-vis substitute fuel inputs of rival industries such as gas and coal.

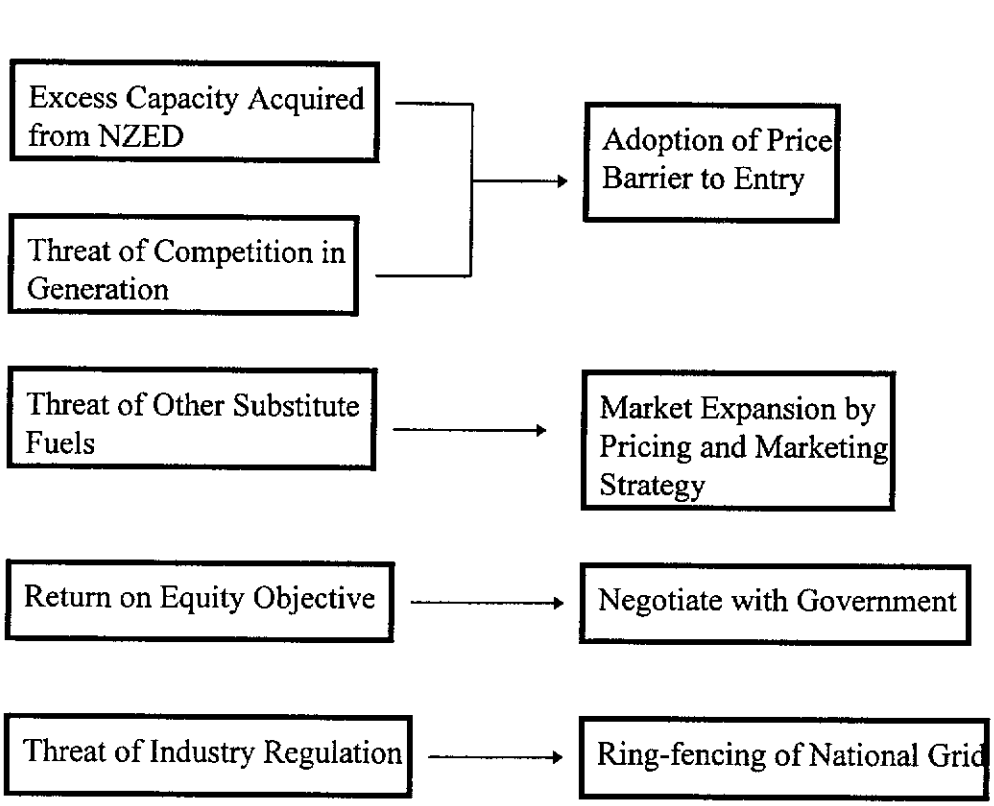
Under the SOE Act, the ECNZ top management was committed to generate a commercial return on shareholders' funds. Pressures to meet this commitment came primarily from the Board itself and the new CEO. These pressures had been exacerbated by the fact that ECNZ's asset base had been revalued upwards, to a level of NZ$ 6.6 billion. This meant that it would be difficult to achieve its return on equity target that it initially committed to the government. Likewise, there were pressures on the operation of the national grid as the natural monopoly part of the restructured electricity industry and to the ECNZ's dominant role in the industry. ECNZ, through its subsidiary (TransPower), was required to allow open access to the national transmission system to other generators on non-discriminatory terms; at the same time, it was not permitted to raise user fees unreasonably as these actions were contrary to the Commerce Act lest generators would sue and government could undertake regulatory actions.

Responses of ECNZ to these pressures are summarised in Figure 5. The ECNZ action of containing the price of electricity to deter entry by a competitor was also meant to avert loss of revenue. This strategy was under the direct control of the ECNZ Board of Directors; prior to corporatisation, it had been influenced by political and fiscal considerations. The threat of competing fuels was met by ECNZ action to build its market share and volume. This marketing strategy was designed and implemented by the ECNZ marketing arm, Electricorp Marketing. The rate of return requirement was renegotiated with the Shareholding Ministers. ECNZ management had argued that prescribing higher rates of return would result in putting upward pressure on prices

which, given the competitive situation faced by the company, could result in the long-term reduction in its net worth.

Figure 5

STRATEGIC RESPONSES OF ECNZ TO KEY PRESSURES



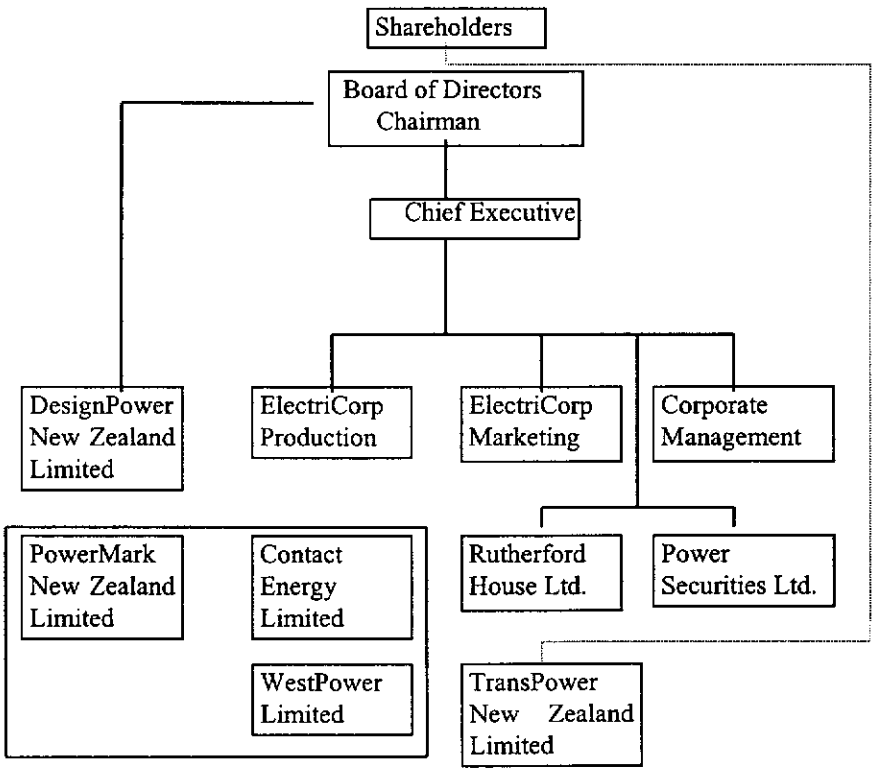
The ring-fencing of the national grid was completed with the establishment of TransPower New Zealand Limited as a separate SOE from the ECNZ in 1994. The ownership of TransPower had been vested to a "club" composed of ECNZ, ESAs and direct supply customers. The legal separation of TransPower from the ECNZ had been designed to promote autonomy, transparency, free market competition and a level playing field in the electricity market of New Zealand. The subsequent transfer of assets in favor of TransPower brought with it a gearing ratio, lower than commercial norms and not appropriate for ECNZ, that would likely result in increased borrowing.

Central to the strategies adopted by the ECNZ was the building of a profit-oriented organisational culture that involved radical changes in both structural and behavioral processes.

b. Organisational changes . The organisational changes (illustrated in Figure 6) were explained by the Human Resources Manager of ECNZ. After corporatisation, changes particularly at the head office management group and corporate functions were instituted. Some traditional functions were spun-off into separate subsidiary corporations and new groups were corporatised.

Figure 6

ECNZ ORGANISATIONAL STRUCTURE



1) ECNZ Top Management

A creation of the Establishment Board pursuant to the SOE Act of 1986, the Board of Directors of ECNZ reported directly to the Shareholding Ministers of Government. Members of the Establishment Board had been directed to constitute the

Board of Directors of ECNZ and to transform NZED into an SOE. Day-to-day operations were administered by the Chief Executive. The new set of officers, comprising the overhead organisation of ECNZ, gave new directions for change. Based on these directives, policies and strategies were developed by corporate managers to provide a framework for investment decisions and business planning to take place. Hence, the structure and processes had been effectively altered to empower the management of the new corporation. A number of interrelated changes were pertinent to this:

1.1 Central government control over corporate management had been removed, particularly in the case of the State Services Commission and the Treasury.

1.2 The ECNZ organisation had been de-layered and decision-making had been further decentralised to place responsibility and authority on individual managers and other frontline personnel.

1.3 Positive cultural change was promoted with the introduction of incentive contracting, in which managers were evaluated not only in terms of their competence but also on the number of jobs that they could obtain for the corporation. Working within budgetary limits and achieving savings while accomplishing their work to a high level were the minimum qualifications for earning performance incentive bonuses.

1.4 Demonstrating entrepreneurial skills by managers in such innovative activities as offshore consulting, contracting out within ECNZ and joint ventures with allied companies were also rewarded under the performance contracting scheme.

The Corporate Management Group performed the holding company functions in the central office such as administrative and financial services, public relations, strategic, market and business development functions for ECNZ subsidiaries and other business units.

2) Electricorp Marketing

Electricorp Marketing buys all the electricity produced by ECNZ power stations and from generators outside the company. It then sells in bulk to electricity retailers like ESAs and other direct-supply customers. With the formation of Electricorp Marketing, ECNZ has embarked on a campaign to sell electricity as the leading product to be marketed against substitute energy forms as gas, coal and liquid fuels. Electricorp Marketing has been organised along marketing lines (e.g. electric power supply, appliance wholesale and retail services) to allow for the measurement of success in specific markets. Its role is to maximize profit. Thus, it operates as a profit center of ECNZ.

3) Electricorp Production

Electricorp Production operates ECNZ power stations. With the introduction of competition in generation, a number of ECNZ power stations had been sold to Contact Energy Limited and Westpower Limited in 1995 and 1996, respectively with eight other small hydrostations still offered for sale (ECNZ 1996). It is regionally organised by type of power plant. Like Electricorp Marketing, it also operates as a profit center. Thus, managers can negotiate supply and transfer price contracts with each other. As cost minimiser and profit maximiser, Electricorp Production encourages market-driven and profit-oriented mindsets among managers (Spicer et al. 1991).

4) TransPower New Zealand Limited

TransPower operates the high voltage national grid transmission system both for producers and retailers of energy. It was separated from ECNZ with its own independent board in July 1994. Installation and maintenance capabilities were deliberately excluded from its structure so that all capital development and maintenance jobs were to be contracted to its sister units (Electricorp Marketing, Electricorp

Production and PowerMark) and to external contractors. As a separate SOE, it had to undertake these contract dealings in an arms-length manner. This was intended to result in both internal and external competition for work. TransPower had been saving 35 to 40 per cent annually of operating cost since the onset of competitive bidding on installation and maintenance works in 1990 (Spicer et al. 1991). These savings were expected to improve with Transpower's separation from the ECNZ.

5) Power Design Build Group Limited

This group undertakes design, engineering consultancy, contracting and construction works. It has two companies, DesignPower New Zealand Limited and PowerMark New Zealand Limited. PowerMark was bought by GEC Alstrom in April 1995. It undertakes contracting and construction works. With ECNZ's surplus power capacity, new construction works were set aside in favor of existing asset management and exploring business opportunities in the off-shore market. The latter proved to be difficult and costly in its initial year of operation. DesignPower, which focuses on design and engineering consultancy, had to survive on its own merits because the government required it to compete for ECNZ work and in the external market. It had also to attract potential investors and partners for its off-shore projects.

6) Other ECNZ Subsidiaries

ECNZ also has a financing and borrowing arm, Power Securities Limited. Another group, Rutherford House Limited, manages the ECNZ head office buildings and properties. ECNZ has a 100 per cent stake in Electricorp Services Limited, ECNZ Insurance Limited, Kinleith Cogeneration Limited and Electricity Farmland Holdings No.1 Limited. Likewise, it has a 50 per cent stake at the Electricity Market Company Limited (EMCO) that is in charge of developing the wholesale electricity market and 40 per cent interest at Energy Advances Limited, a financing firm (ECNZ 1995).

At the start of ECNZ organisation, all positions were declared vacant and contestable. NZED employees had been required to apply and take up the challenge in the new corporation by attending training programs on change management. Most top management personnel were new and came from outside the organisation. NZED insiders who were retained by the ECNZ board were given appropriate positions in the new management team. Those who were not accommodated in the new structure were given commensurate redundancy and retirement benefits. The high redundancy cost affected the 1988 results of operations. The beneficial effects of adjustments and restructuring were, however, seen in the financial turnaround the following years. Between 1987 and 1995, an average annual staff turnover of 15 per cent was effected that reduced ECNZ manning level to only 1,740 warmbodies in 1995 from a high figure of 5,739 in 1987 (Appendices 32 and 33). While the redundancy cost was high in 1988, it was more than compensated by the lower operating costs and increased productivity during the succeeding years. It could also be gleaned that the downsizing effort of ECNZ resulted in its "lean and mean" organisation. Support personnel as a ratio of direct operations personnel was cut by half (Appendices 34 and 35). As the number of managers and executives of ECNZ increased from 14 in 1988 to 18 in 1995, this change resulted in improved control by managers and executives over lower level staff (Appendices 36 and 37).

2.3 Impact of Top Management Response. ECNZ's top management response to its problems affected its financial standing, market competitiveness, socio-political climate and overall organisational performance.

Financial Performance. It should be stated here that the government of New Zealand implemented three levels of reform, namely: (1) commercialisation that was considered the lowest level involved restructuring to introduce accountability, economic

efficiency and enable market forces to influence government activities; (2) corporatisation that was an intermediate level of reform transferred departmental trading activities of the government to state-owned corporations but did not change the ownership structure of said activities; and (3) privatisation that is the highest level withdrew state production of goods and services. This level of reform involved the sale of assets or government equity similar to that taking place in most countries of Asia, Eastern and Western Europe and Latin America (Savas 1992).

With the onset of the incorporation process in 1987, ECNZ top management carried out adjustments to its accounting systems consistent with its commercial objectives. Specifically, the accounting treatment of interest, taxation, foreign exchange accounts, depreciation, capital expenses and asset valuation had been revised as part of changes in its accounting policies. These adjustments had their cost which, in addition to the redundancy of personnel, made it difficult for ECNZ to realize profit during the initial year. These difficulties were seen in the high operating ratio, negative or zero profit and slow asset turnover in 1988 as compared with the ten-year average of the period 1985 to 1995 (Table 3).

Table 3. Selected Financial Indicators of ECNZ (1985 to 1995)

(In Per Cent)

Indicators	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Operating Ratio	47	45	38	50	44	46	47	49	47	48	55
Return On Investment	3	3	5	0	4	5	6	6	4	6	9
Return On Equity	9	8	14	0	10	10	14	13	8	13	15
Asset Turnover	22	26	28	19	20	21	19	19	20	28	31
Fixed Asset Turnover	24	29	32	21	22	22	23	23	21	29	34

SOURCE: Electricity Corporation of New Zealand, 1996

Soon after 1988, all financial ratios began to normalize and register improvements that surpassed averages prior to corporatisation.

A closer look at the financial ratios in Table 3 shows that improved profitability after 1988 was not accompanied by increased liquidity and leverage (Appendix 4 and 5). Applying Altman's z-score method of analysing financial variables, the combined effects of past improvements in ECNZ's financial ratios did not result to its safe and sound financial position even in the longer term (Appendices 38 and 39).

The cost reductions that ensued after corporatisation were realised from such major items as capital (60 %), manpower (20%) and fuel (20%). As a result, operating expenses over sales were reduced by a little over one per cent per year between 1987 and 1995. This was quite an achievement considering that the three other studied utilities registered no such reduction during their recovery periods (Appendices 20 and 21).

The transfer of assets in favor of TransPower, which was separated from ECNZ in 1994, brought with it a gearing ratio that was lower than commercial norms and not appropriate for ECNZ (Spicer et al. 1991). This had been aggravated by the fact that by 1994 much of its debt became current (Appendices 6 and 7). This created pressure on ECNZ management to borrow money for capital projects from private and external sources as government budgetary support would be difficult to avail.

Market Competition. The decision of ECNZ top management to strengthen its competitive position affected the markets for capital (debt), fuel supply, manpower, managers, maintenance services and project works. ECNZ entered the international capital market by creating instruments to convert its NZ$ 3 billion government obligation into private debt. Considering its high asset base of NZ $6.6 billion between 1987 and 1988 (caused by asset revaluation), ECNZ embarked on longer-term

financing, interest expense paid in New Zealand dollars and fixed interest rate contracting with its major customers. It also obtained higher international rating from Standard and Poor's and Moody's, credit rating agencies, to improve the marketability of its debt instruments (Devine 1990). At the same time, it established a secondary market outside New Zealand for its debt instruments and risk financing.

Likewise, ECNZ adopted a multi-fuel strategy to encourage competition among fuel suppliers. The Huntly Thermal Power Plant, for example, was now alternatively operated by burning coal and gas. With ECNZ's good generation mix of hydro, gas, coal and geothermal plants, switching between fuels to avoid overreliance on one particular fuel or supplier became an effective strategy. ECNZ also forced a renegotiation of its coal contract by operating Huntly on gas. Importation of coal from other countries such as Australia and Venezuela was also begun. ECNZ also freed its top managers from union coverage (except those doing engineering consultancy, who were controlled by the Public Service Association [PSA]).

One significant ECNZ action was the improvement of employment opportunities for managers and accountants. The shift in operational requirements from professional engineers to those with accounting, management and marketing background became apparent as the new corporation required it in its changed functions and orientations. It was reflective of the changing nature of managerial work that needed business, marketing and finance backgrounds. The big winners under the new set-up were really engineers with business and financial mindsets. The changed way of doing business meant that groups within ECNZ have had to compete among themselves and other outside contractors for engineering and maintenance services.

Electricity pricing in the reformed electricity industry of New Zealand was done in this manner. Cost of generation differed according to the time of day, season of the

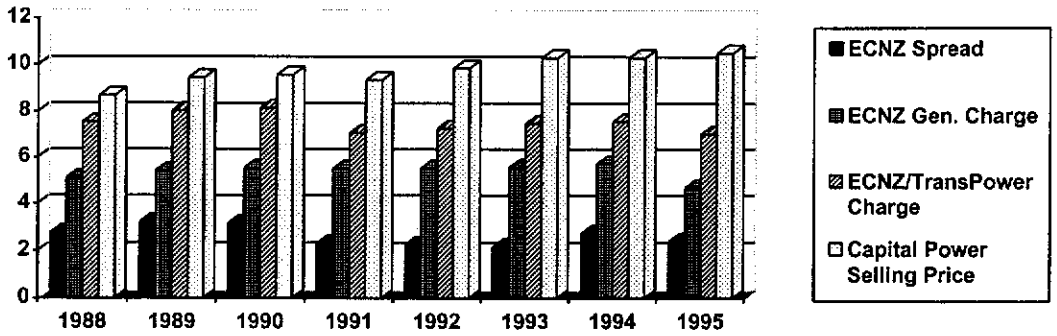
year, level of storage reservoirs and the generation mix at any particular time. As the wholesale price of electricity was divided between energy and transmission charges, the retail price of electricity was divided into line and energy charges. Transmission charges consisted of 90 per cent fixed recovery cost and 10 per cent variable cost to cover transmission losses, cost of spinning reserve and delivery charge. This transmission pricing formula moved away from the concept of average price across the country towards the concept of "user pays", which was distance related. Generators, retailers or direct customers of ECNZ that were far from the transmission facilities would therefore have to pay more.

The efficiency gains from competition in the generation market are shown in Figure 7. The generation and transmission cost components of electricity prices were reduced from an average of 7.58 cents per kilowatthour before the conversion of TransPower into a separate SOE to 7.28 cents per kilowatthour in 1994. These gains were significant for the ECNZ. Generation charge and profit margin of ECNZ have been decreased down to just 4.67 cents and 2.39 cents per kilowatthour, respectively, in favor of power retailers like Capital Power Limited (Figure 7). The Chairman of the ECNZ Board claimed that "a decrease of 15 per cent in real terms in wholesale electricity prices benefited both consumers and taxpayers "(ECNZ 1993, p6).

The impact of ECNZ's response to markets for output can be illustrated by an examination of the changes in electricity pricing as shown in Figure 7.

Figure 7

PRICE CHANGES IN NEW ZEALAND RESULTING FROM CORPORATISATION
(in cents per kilowatthour)



The introduction of time-of-use and spot market prices provided dynamism for energy use by different power consumers. A new company, Electricity Market Company Limited (EMCO), had been set up with ECNZ, TransPower and the Electricity Supply Association of New Zealand (ESANZ) as equity partners so that electricity and related financial products such as hedges could be traded to the benefit of all producers, wholesalers, retailers and users of electricity and in order to formulate fair and acceptable market rules and procedures. To ensure a fair market competition based on a match between electricity demand and supply, EMCO established a system that would match the needs of buyers and sellers in the wholesale electricity market based on one-year fixed interest rate power demand contracts. ECNZ also encouraged load spreading (i.e. shifting day time peak load to night load) as part of its energy efficiency initiatives (Devine 1990).

Socio-Political Climate. New Zealand's socio-political landscape for doing electricity projects was characterised by the government efforts to put in place capital intensive hydropower projects that were situated in places of potential ethnic conflicts. New Zealand depended on hydroelectric power resources for 75 per cent of its electricity requirements. The impact of ECNZ response to this socio-political

environment could be seen in the way the New Zealand public have now regarded ECNZ as an SOE. As a corporate entity, ECNZ became well-known for its sponsorships of sports, Maori arts and community development activities, thus building a positive public image for itself and its product. Nevertheless, the threat of regulation by government against the monopolistic tendency of ECNZ was apparent. This was expressed by no less than the ECNZ Board Chairman in his 1988 report:

" It is our strong belief that the threat of regulation is more effective than regulation itself'(ECNZ 1988,p8).

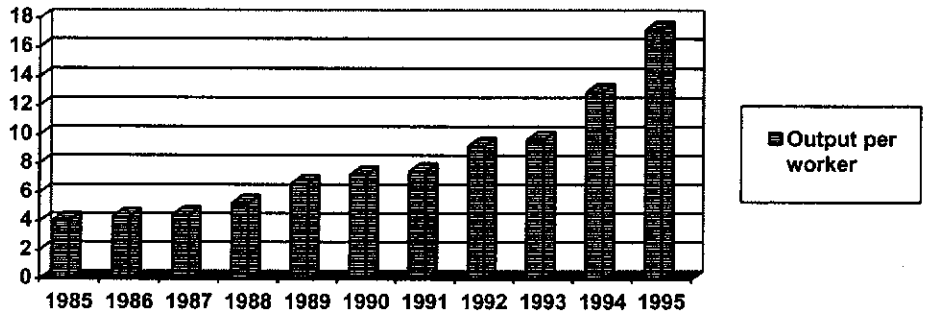
ECNZ endeavored to fulfill its obligations to the Treaty of Waitangi. The treaty includes an agreement between ECNZ and representatives of the Maori people on the use of water resources in protected ethnic areas. Thus, the rights and sentiments of the Maori people as enshrined in said treaty had been considered in the implementation of power projects. The treaty assured that the ECNZ would not lose its rights to the hydropower use of identified areas that could have otherwise cost the corporation from $ NZ 350 million to $ NZ 1.6 billion in foregone benefits without the treaty (Devine 1990). ECNZ remained subject to the Official Information Act that required it to be transparent in its transactions and responsive to the needs of the public.

Organisational Performance. ECNZ's improved organisational performance was reflected in the highest level of profitability as expressed in terms of return on investment (ROI) and equity (ROE) of 9 and 15 per cent in 1995 from a level of 3 and 9 per cent, respectively ten years ago (Table 3). Asset turnover reached a high of over 30 per cent in 1995, immediately following the sale of 40 % of ECNZ's generating assets (ECNZ 1995). Employee productivity between 1985 and 1995 improved by an annual average of 14 per cent corresponding to the reduction in staffing levels and

increase in output per worker from 4 gigawatthour per worker to 17 gigawatthour per worker as shown in Figure 8:

Figure 8

Productivity Improvement at ECNZ



Sales continued to grow at a yearly average of two per cent since 1985. ECNZ's generation charge decreased by a yearly average of 1.3 per cent since incorporation culminating in a cost of 4.67 cents per kilowatthour in 1995 (Figure 7). This company performance was achieved by a lean organisation, which had cut personnel by 15 per cent annually between the period 1987 and 1995 without degrading the quality of its generation and transmission systems.

2.4 Evaluation of ECNZ's Change Efforts on Key Success Factors. Interviews of key ECNZ officials in March 1996 revealed that leadership played a crucial role in the recovery process of their organisation. The top executives represented by the Chairman of the Board and the Chief Executive provided the vision and direction for the change process. They were supported by the Board and the new management team, most of whom came from outside the organisation. The blueprint of the new organisation was developed thoroughly and discreetly.

This was carried out by a Task Force comprising of a management consultant as the team leader, one representative of existing senior management and two individuals

from the old organisation as members. The Task Force informed existing senior management that an organisational audit was to be undertaken preparatory to its reorganisation as an SOE. The Task Force members were told by the Board Chairman to "start with a clean sheet" or to organise ECNZ based on the new functions that needed to be performed under the reformed electricity sector. The Chairman announced the guiding principles for the reorganisation work such as decentralisation of decision-making, proprietorship concept, internal contestability and competition, ring-fencing of the national grid, cost and staff reduction, among others. Implementation targets were set on reappointments, formation of the new management team, performance contracting process and incentives, and consultation with unions. These changes underscored the importance of forming a cohesive management team to implement and monitor changes according to plan. An appropriate management framework such as that provided in the SOE Act was used to advantage by the Establishment Board and its Reorganisation Task Force. A system for appraising the performance of new managers and employees on such variables as work competence, marketing ability and efficiency needed to be designed in relation to the performance contracting process.

The ECNZ did a benchmarking study to find out how its performance compared against other utilities that adopted known best practices and performance standards. The results of this benchmarking study showed that ECNZ's operations and quality of energy management was of world class standard (ECNZ 1995). This was demonstrated by the fact that it improved its load factor (i.e. power plant utilisation) by a little over one per cent annually during the seven-year period from 1988 to 1995 (Appendices 30 and 31). In addition, the ECNZ led the other three utilities in customer performance, operationally defined as lowering the cost of service and improving power reliability

(Appendices 22,23 and 26, 27). Whether this performance translated into cheaper and more reliable service by power distributors to end-consumers was another matter.

This positive self-assessment, however, did not find acceptance among ECNZ's direct energy consumers and retailers. The latter opined that power reliability had not improved from the NZED to ECNZ. One customer, Auckland Electric Power Board (AEPB), lamented the declining quality of maintenance of transmission facilities that could not be attributed to current maintenance policies or past inadequacies (Spicer et al. 1991). Moreover, the ESANZ was of the belief that ECNZ agreed to competition only on its own terms. The ECNZ continued to resist a number of ESAs' attempts to build their own generators. Outages affecting ECNZ and TransPower reliability that started in the 1992 power crisis and line trippings caused by lightning and a bird flying over the bus bar structure of a TransPower's substation in 1993 and 1994 were still fresh in the minds of inconvenienced retailers and consumers (Capital Power 1994). Despite the installation of interconnecting transformer banks by ECNZ in 1990, there were three major power interruptions in that year alone (Capital Power 1990).

On the financial side, the magnitude of changes in accounting policies need to be assessed in order to reach a judgment on the results of corporatisation. The Labour Government's commitment to implement the three levels of reforms had been questioned. There were people like the Chairman of the ECNZ Board himself who lamented that no real moves had been made to privatise ECNZ (ECNZ 1993). For him, the SOE Model was only a half-way measure which necessitated privatisation to complete the recovery process. He also expressed the view that ECNZ was still vulnerable to political pressures (and not the other way around) and that this had constrained the corporation in areas of pricing, marketing strategies and renewal of resource consent agreements with ethnic groups.

Overall, there have been marked improvements in almost all aspects of the new corporation resulting from the turnaround efforts, particularly with regard to the "frame-breaking" factors such as structures, staff and strategy. More improvements are still needed in systems, skills and capabilities of managers and personnel. Interviews with the Business Planning and Personnel managers of ECNZ indicated that a strategic plan had been formulated based on inputs from senior and middle management on their industry outlook as well as environmental and competitive position analyses. However, this plan had yet to be translated into workable business plan and budget comparing planned and actual performance with world's best practice. Then and only then could the strategy of the new corporation be fairly evaluated. Establishing world performance benchmarks is a project that is on-going. ECNZ has to continue its support of the development of the electricity market and needs to show its neutrality and transparency to all players by providing open access to facilities and information. The results of these measures should translate to reasonable electricity pricing that is understandable and acceptable to the power end-users. This concern must not be overshadowed by its profit motive.

b. **Capital Power Limited**

For the purpose of this case study, the Chief Executive and Electricity Trading Manager of Capital Power were interviewed at their Wellington offices in March 1996. They also answered the questionnaires that were earlier sent to them. They clarified certain points regarding the problems encountered by their company and how their management team responded to these problems. Copies of Capital Power's annual reports and existing organisational structure were also provided. Interviews with executives of the Electricity Supply Association of New Zealand (ESANZ) and the

Electricity Market Company Limited (EMCO) were conducted to provide additional context for the electricity supply industry in New Zealand.

1. Summary of Findings

The situation at Capital Power Limited reached a crisis in 1988 - almost simultaneously with that of ECNZ - against the backdrop of uncertainty over government legislation to deregulate the electricity supply industry, particularly the retail sector. The primary concern of management was the predictability of financial returns that would result from competition. At that time, Capital Power was beset by low profitability - five per cent return on investment (ROI) and eight per cent return on equity (ROE) in 1988 - while working capital and retained earnings were also reported as negative in the Annual Report (Capital Power 1989).

1.1 Problems Encountered in 1988. Asked about their other problems and their probable causes, respondents identified the following:

a. Organisational structure that was top heavy, overstaffed and very tall for a company servicing a compact city such as Wellington. In 1988, staff numbered 320 personnel servicing 54,720 residential and non-residential customers or a ratio of 171 customers per employee (Capital Power 1989). This problem was attributed to its history of being a local government-owned electricity department that guaranteed the security of tenure of public servants. The relative conservatism of management then and the personal inadequacy of the former Chief Executive to address this problem aggravated it.

b. Low profitability. This was again blamed on poor management, low pricing, high capital and operating costs, high incidence of bad debts and interest expense. Growth in power demand and sales was also perceived to be relatively slow though the increase in 1990 was already thrice the national average. System loss, the difference

between power purchased from ECNZ and power actually delivered or sold to consumers, averaged a little over four per cent in 1990 (Devine 1990).

c. Inefficient operation. This contributed to low profitability and was due to inadequate financial controls. As managers were politically appointed, there was no real motive for efficiency.

d. Asset underutilisation. As the franchise was limited to the city of Wellington and there was a delay in the execution of major projects, Capital Power's maintenance equipment and acquired assets were not fully utilised. Added to these problems was the fact that Capital Power was engaged in other businesses, such as appliance retailing and repair services, which diverted management attention from real and more urgent problems affecting the company.

1.2 Top Management Response to the Problems. As the above-cited problems affected the company's profitability, top management introduced a series of measures that included cost reduction, retrenchment and cutback, replacement of the Chief Executive and freezed the hiring of personnel.

a) Organisational improvements. The urgency of these measures was realised by the Wellington City Council, which owned Capital Power, after the Federal Government had finally approved legislation for industry deregulation. By 1990, the Council directed its Electricity Committee to serve as the commercial "Board Of Directors" of Capital Power and to oversee the streamlining of Capital Power's organisational structure and to monitor efficiency improvement measures that were implemented by its management. The following year, Wellington Electricity Management Limited, was set up by the City Council to manage Capital Power until its incorporation. Under the new management structure, Capital Power was organised into four main business units reporting directly to the Chief Executive:

1) *Network.* This group took charge of managing the operation and development of Capital Power's substations and distribution lines, and the reading and inspection of customer billing meters.

2) *Energy Trading.* This group, which was later transformed into a Corporate Marketing Division, handled the marketing functions of Capital Power catering to the needs of commercial and residential consumers for advice on more economical pricing options and energy conservation.

3) *Power Projects.* This group was responsible for providing contracting, consultancy and project management services to both internal and external clients. Its chief customer was the Network Division. Power Projects had contracts to maintain the lighting facilities of city streets and motorways in Wellington as well as the supply and installation of Uninterruptible Power Supply (UPS) systems, emergency generators and power conditioners.

4) *Corporate Services.* This group took care of financial services and personnel management of Capital Power's three main divisions.

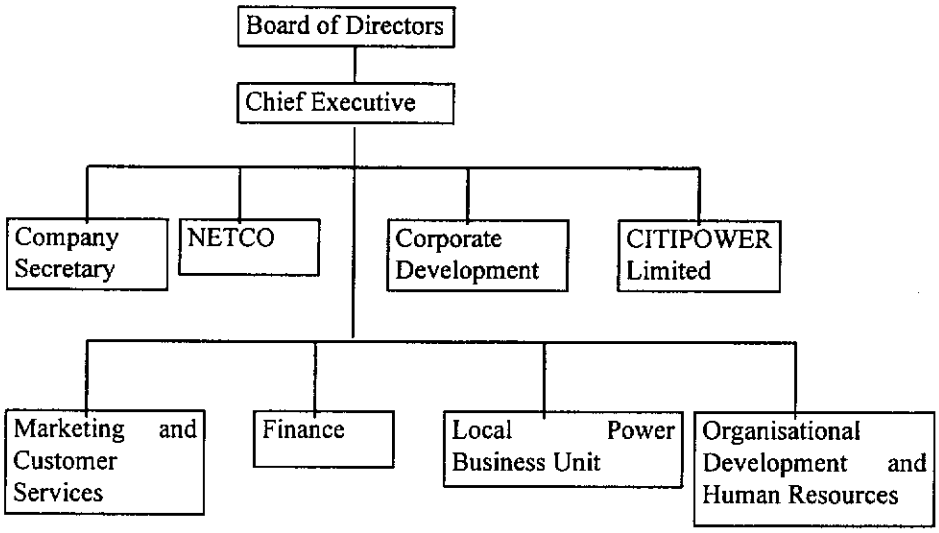
In 1993, the Wellington City Council under its Empowering Act, sold Capital Power for NZ$ 84.4 million to the Wellington Electricity Management Limited so that it could function as an independent energy company. This paved the way for the organisation of its Energy Trading Division as a separate subsidiary, National Energy Trading Company (NETCO). The new subsidiary was formed to take advantage of the changes in the way electricity was bought and sold in New Zealand and to provide better options for major consumers to share in the efficiency gains in generation. NETCO had become the counterpart of the Electricity Market Company (EMCO) in the wholesale electricity market. With the sale of 49 per cent of shares of Capital Power to

TransAlta Corporation of Canada in January 1995, the following organisational changes were implemented:

Figure 9

CAPITAL POWER'S NEW BUSINESS STRUCTURE

(As At 9 February 1996)



Under the corporatised set-up of Capital Power, the following features were added:

a) Energy Trading was organised as a subsidiary company (NETCO) separate from the Corporate Marketing and Customer Services Division. The new thrust toward customer services was highlighted with the hiring of specialist account managers to compose the Sales Team and advise customers on tariff selection and energy conservation measures that could enable them to realise substantial savings in electricity costs. Capital Power exited from appliance trading to have a better business focus.

b) Personnel management, finance and corporate development have been split into three separate groups from the Corporate Services Group. The primary reason for the separation was to enable the Finance Controllership function to take advantage of and be responsible for the development of information technology that would benefit shareholders, managers and customers. The personnel department had to assume a

more responsible and strategic role in business decisions rather than be pre-occupied with paper processing functions. Corporate Development needed to concentrate on short and long-term business planning.

c) Capital Power corporatised the group handling the management and operation of the electricity distribution network of the City of Nelson into a subsidiary, CityPower Limited. City Power Limited operated the network under a ten-year lease management contract. The network was outside Capital Power's franchise area.

d) Manning levels were reduced from the 1988 high of 320 to the 1995 level of 140, resulting in improved productivity with a higher customer per employee ratio of 282 (Capital Power 1995). The previous customer per employee ratio in 1988 was 171.

Under the new ownership structure, the Wellington City Council owned a 51 per cent share and TransNew Zealand Energy Limited (previously TransAlta) had the remainder. Capital Power could now engage in the sale of energy and energy management services to any customer in New Zealand. At the same time, any other distributor could enter Capital Power's traditional market, resulting from the government removal of retail franchises and obligation to supply.

b. Efficiency improvements. Since 1988, Capital Power ventured on bold initiatives to cut costs. First, it downsized the lines unit through natural attrition to match its medium-term maintenance requirements. It organised a job-costing system team to promote cost consciousness in the company. The use of outside contractors was later minimised, although it could be resorted in routine network construction and maintenance works when found economical. It improved its inventory management system and sold surplus assets including real properties and disused staff housing. In its staff reduction program, the organisation involved the unions in the drafting of redundancy agreements. Further reductions were also made on added supply costs that

included operating and maintenance, distribution and administrative expenses. The replacement of a mainframe computer system with stand alone microcomputers also improved financial management and customer services. In 1995, Capital Power decided to buy ECNZ power at spot prices resulting in a saving of NZ$1.3 million (Capital Power 1995).

c. Service improvements. To improve the quality of its services, Capital Power

- purchased a new power system analyser to obtain load profiles of major customers.
- installed a computer-based network monitoring system known as the Supervisory Control and Data Acquisition (SCADA) system.
- installed seismic anchors on critical facilities to strengthen their reliability during earthquakes.
- introduced Total Quality Management (TQM) in 1992 to achieve accreditation to the ISO Quality Standard 9002 by 1995. By 1996, 40 per cent of Capital Power's staff had been trained on TQM with 18 Quality Teams working on solving process bottlenecks and customer problems. Service staff received additional training in multi-skilling and commercial tendering (Capital Power 1994).
- introduced a 24-hour fault service by Service Express Teams under the Power Projects Group, which attended to an average of 20 service calls per day.
- developed a Customer Information System (CIS) to improve response time and customer relations.
- introduced handheld-computer meter-reading devices in 1993 to improve the accuracy of its meter readings and billing. Correspondingly, collection by direct debit was able to cover 20 per cent of customer accounts (Capital Power 1994).

- conducted random customer satisfaction surveys to obtain feedback for continuing service improvement.

By 1995, seventy-five per cent of Capital Power's distribution network was underground, 95 per cent of substations were fully enclosed and its distribution system had 99.98 per cent availability.

In the arena of public relations, Capital Power increased its visibility in the sponsorship of sports, arts and special events and participated in several community projects and exhibitions. It also launched a campaign to promote electricity as an energy-efficient alternative to gas (Capital Power 1994).

In the wake of deregulation, Capital Power also initiated a number of changes in its pricing policies. These included the separation of network (line) from energy charges. Network or line charges were based on reasonable rate of return on investment (ROI) to achieve the optimised deprival values (ODVs) of network assets (Capital Power 1994). Another was the removal of cross-subsidies between commercial and residential users. Each type of user had the option to choose appropriate rate of tariff based on individual needs and circumstance. Capital Power did not want a repetition of its 1991 credit of 0.22 cent per kilowatthour to its residential customers after ECNZ declared an average of 1.1 cent per kilowatthour price decrease that the former subsequently passed on non-residential consumers.

To expand its business, NETCO had finalised the "use of system agreement" with BPOil New Zealand Limited. CitiPower had entered the old franchise area of Tasman Energy. Under an agreement with ECNZ, Capital Power had been commissioned to operate the wind turbine project at Polhill Trig, Wellington to feed power into its network (Capital Power 1993). In 1996, the Wellington City Council was considering selling part of its 51 per cent share in Capital Power or merging with

Energy Direct to increase the value of its share or attain economies of scale in its operation.

1.3 Evaluation of Top Management's Change Efforts in KSF Areas. Results of operations in 1995 indicated the following immediate results:

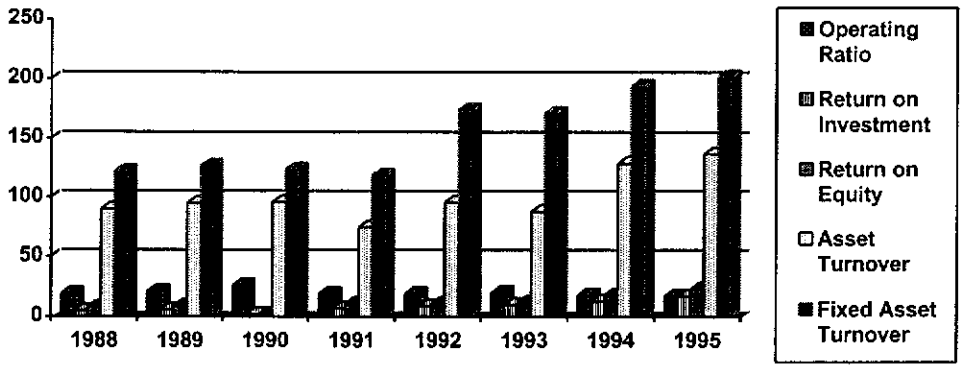
a) improved employee productivity in 1995 in terms of increased sales and customers per worker of eight gigawatthours and 282 customers, respectively, compared to 1988 figures of three gigawatthours and 171 customers. Quite significantly, Capital Power was able to achieve personnel productivity gains of 16 per cent per annum due mainly to the 12 per cent annual manpower reduction and the four per cent growth in electricity consumption (Appendices 32 and 33). Similarly, its organisation and manpower improved in shape and size (Appendices 34 and 35). The span of control of managers and executives with lower level staff had been reduced to a manageable ratio of 9:15 in 1995 from the previous ratio of 1:50 in 1988 (Appendices 36 and 37).

b) operating expenses per NZ$ 100 of sales were maintained from between NZ $ 19-20 during its recovery period despite inflationary trends and slow growth in power demand (Appendices 20 and 21). Prior to its recovery period, Capital Power had high operating ratios. Its seven per cent annual sales growth during the same period was attributable to four per cent yearly growth in power consumption and the three per cent annual average increase in its selling price (Appendices 22 and 23). This meant that Capital Power earned by not transferring the efficiency gains of ECNZ, as a wholesaler, to end-users. This happened during a period when Capital Power's service became unreliable due to power interruptions (Appendices 26 and 27). Its technical efficiency or load utilisation also deteriorated by an average of less than one per cent per annum from 69 per cent in 1988 down to 65 per cent in 1995 (Appendices 30 and 31).

c) return on investment (ROI) correspondingly was at a record high of 17 per cent in 1995, compared with only five per cent seven years earlier. Return on equity (ROE) was also at an organisational high of 23 per cent in 1995 (Figure 10).

Figure 10

Capital Power's Results of Operations:1988 to 1995 (In Per Cent)



d) 1995 asset turnover was also the highest ever recorded in the organisation based on a turnover total and fixed assets used in operations of 137 and 202 per cent, respectively. Judging from its income statements and balance sheets, Capital Power was the only power utility in these case studies that was able to improve both its liquidity and profitability quite significantly as a result of its turnaround management (See Appendices 8 to 11). From a precarious financial position that continually improved during its period of recovery, Capital Power had been forecasted to achieve a safe and healthy financial performance during the later part of the nineties (Appendices 38 and 39). This forecast has been the result of applying the predictive function of Altman's z-score method.

Respondents were generally supportive of the changes undertaken by management during these years and were optimistic about the organisation's future. They saw improvements in new systems and procedures, skills and capabilities of managers and staff, positive work values, leadership and management control.

However, there was no recognition that these changes were part of an overall strategy for corporate recovery. Among the 27 key success factors, respondents rated the company poorly in six areas as process research, purchasing, generation mix, government support, teamwork and thermal efficiency. Capital Power rated highly in terms of location of facilities, system maintenance and reliability, customer concentration and outage rate. The underlying reasons for its poor performance were attributed to inadequate funds allocated for process research, delays in purchasing, no control over the choice of plants to operate and the fact that the TQM training had not been successful. Its excellent achievements were attibuted partly to the organisation's compact location and well-placed investments in system maintenance.

For the Chief Executive of Capital Power, the key success factors in its turnaround were attention to cost reduction, customer relations, improvement in technology and a policy of sustainable development and energy efficiency. In early 1996, an advisory committee on social responsibility composed of representatives of customers, local and national governments, management and shareholders was organised. Nevertheless, as Figure 7 reveals, Capital Power failed to transfer its efficiency gains to consumers in terms of lower electricity prices.

5.2 **Philippine Case Studies**

a. **National Power Corporation (NPC)**

1. *Characteristics of Respondents*

This case study of the National Power Corporation (NPC) in the Philippines covered a survey of 56 respondents, 40 of whom were managers and executives. This sample represented six per cent of the 696 managers and executives of the corporation in 1993 (NPC, 1993). NPC then had a total of 14,560 employees. In addition, NPC had seven major suppliers of fuel oil, coal and geothermal steam. It had also over a

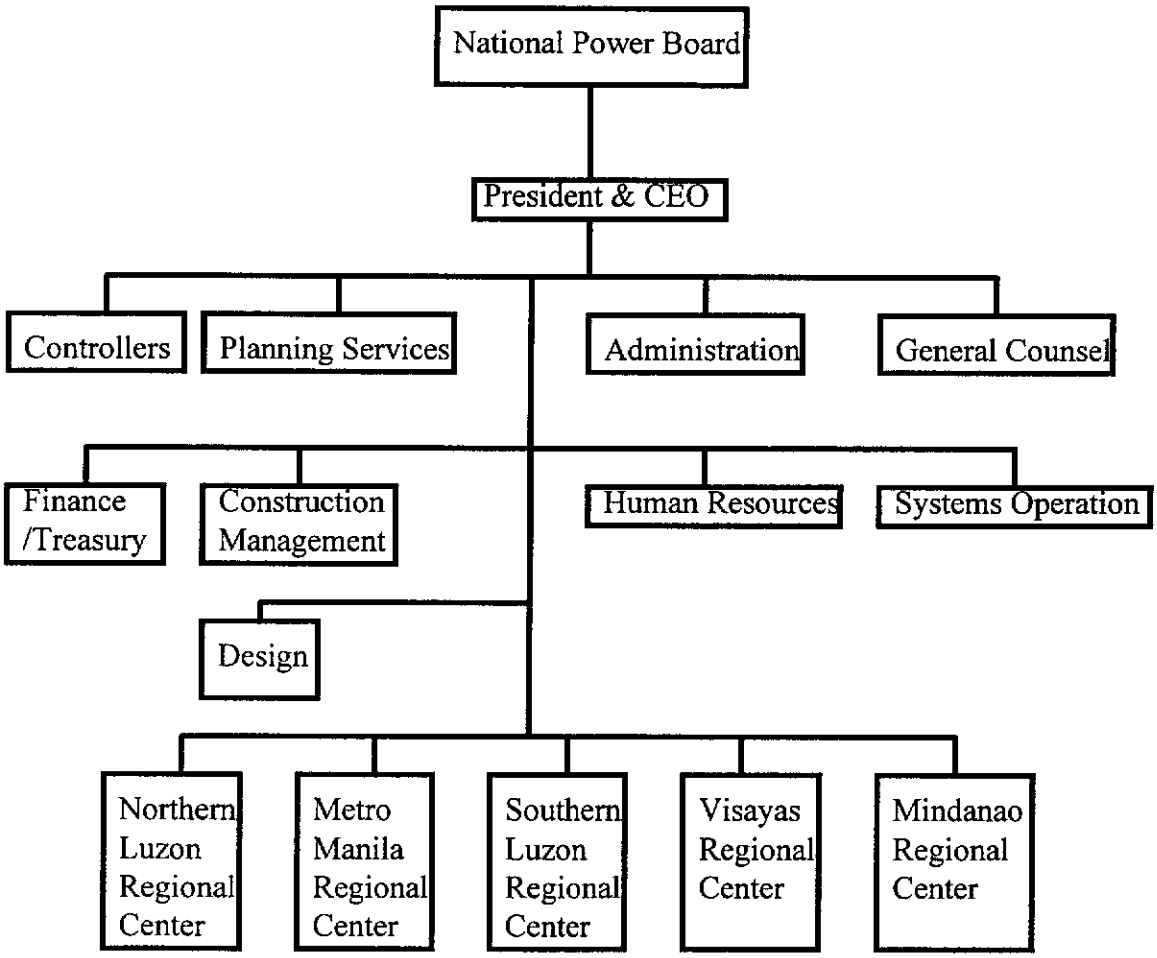
thousand accredited suppliers of materials, supplies and equipment. It had five local creditor banks and over 400 foreign creditor banks, and supplied bulk power to 256 private power distributors, electric cooperatives and directly connected industrial customers.

For the purpose of this study, 21 additional respondents representing NPC's external public were interviewed. A separate set of questionnaires was administered to these transactional stakeholders, comprising NPC's major power distributors, fuel and material suppliers, representatives of regulatory agencies, power end-users, contractors, members of project-affected communities and industrial customers. This group of respondents had an average of 17 years contact with NPC. They were mostly privately employed professionals, government employees and business owners. The majority of them had been regularly transacting business with NPC at least once every month and were, therefore, presumed to be familiar with its operations.

1.1 Respondents' Positions in the Company. The research, which was carried out through face-to-face interviews and self-administered questionnaires, reached the upper and well-informed echelon of the NPC hierarchy. About 71 per cent (n = 40) of those interviewed were managers and top executives of the corporation. Two respondents were Vice-Presidents for Administration and Finance. Twenty-five per cent (n = 14) were supervisory personnel while the rest (four per cent) were professional/ technical, and rank and file personnel (Table 4). The organisational structure of NPC in 1993 is shown in Figure 11.

Figure 11

1993 NPC Table of Organisation



The 1993 organisational structure of NPC was an improvement from the previous years in that it abolished the three positions of Senior Vice-President, which meant that the 14 Vice-Presidents now reported directly to the Office of the President and CEO. The organisation had become even more centralised. This was because of the respondents' perception that the new President & CEO would like to be in control of the situation then.

Table 4. ***Respondents' Positions in the Company***

POSITION LEVEL	NUMBER OF RESPONDENTS	PER CENT DISTRIBUTION
Manager/Executive	40	71.42
Supervisor	14	25.00
Professional/ Technical	1	1.79
Rank and File	1	1.79
TOTAL	56	100.00

1.2 Age of Respondents. Table 5 shows that most respondents were middle-aged professionals. This particular age group represents a younger rather than the average age of the NPC population (estimated at 45 years old in 1993). This is because the computed median age of this particular group of respondents is 43 years old.

Table 5. ***Age of Respondents***

AGE GROUP	NUMBER OF RESPONDENTS	PER CENT DISTRIBUTION
30 - 34	3	5.36
35 - 39	7	12.50
40 - 44	22	39.28
45 - 49	14	25.00
50 - 54	5	8.93
55 - 59	3	5.36
60 Years & Older	2	3.57
All Ages	56	100.00

1.3 Gender of Respondents. The NPC workforce were predominantly male as commonly observed in an engineering or utility company. The 46 male respondents accounted for 82 per cent of the total (Table 6).

Table 6. ***Gender of Respondents***

GENDER	NUMBER OF RESPONDENTS	PER CENT DISTRIBUTION
Male	46	82.14
Female	10	17.86
Both Genders	56	100.00

1.4 Marital Status of Respondents. Some 89 per cent of respondents were married (Table 7). Only six respondents or 11 per cent were single.

Table 7. ***Marital Status of Respondents***

MARITAL STATUS	NUMBER OF RESPONDENTS	PER CENT DISTRIBUTION
Married	50	89.28
Single	6	10.71
TOTAL	56	100.00

1.5 Work Station of Respondents. As shown in Table 8, the survey reached Northern and Southern Philippines. A great plurality of respondents was from the NPC Head Office, Northern Luzon, Visayas, Metro Manila, Mindanao and Southern Luzon regions, in that order.

Table 8. ***Work Station of Respondents***

WORK STATION	NUMBER OF RESPONDENTS	PER CENT DISTRIBUTION
Head Office	22	39.28
Northern Luzon	14	25.00
Metro Manila	5	8.93
Southern Luzon	3	5.36
Visayas	7	12.50
Mindanao	5	8.93
TOTAL	56	100.00

1.6 Educational Attainment of Respondents. The majority (60 %) of respondents were college degree holders (Table 9), while nearly 40 % had completed masteral degrees.

Table 9. ***Educational Attainment of Respondents***

EDUCATIONAL ATTAINMENT	NUMBER OF RESPONDENTS	PER CENT DISTRIBUTION
College Degree Holders	34	60.71
Master's Degree Holders	22	39.29
TOTAL	56	100.00

1.7 Respondents' Length of Service in the Company. To ensure that the survey covered respondents who were familiar with the operations and problems of the company during the early nineties, only respondents with a minimum of five years service with the company were included. As a result, survey respondents had an average length of service of 17 years (Table 10).

Table 10. Respondents' Length of Service in the Company

LENGTH OF SERVICE	NUMBER OF RESPONDENTS	PER CENT DISTRIBUTION
5 - 9 Years	4	7.14
10 - 14 Years	11	19.64
15 - 19 Years	25	44.64
20 - 24 Years	12	21.43
25 - 29 Years	1	1.79
30 - 34 Years	2	3.57
35 Years or More	1	1.79
TOTAL	56	100.00

2. *Summary of Findings*

There are three distinct time periods of interest in this study. The first is 1991 when the financial situation of NPC was reported as turning from bad

to worse. The second is 1992 when the CEO was replaced to stem the worsening company situation. Significantly, 1992 was the year of turnaround for NPC. The third is in 1993 when the newly elected President of the Philippines appointed a new Board Chairman and CEO for NPC.

2.1 Problems Encountered by NPC in 1991. Many respondents observed that the major problems faced by NPC in 1991 were low employee productivity, continual power outages, failing financial performance and organisational instability (Table 11). These problems were considered as very serious by 73 per cent of respondents (n = 41) and 25 per cent as serious. Only one or two per cent assessed these problems as minor or not serious (Table 12).

Table 11. ***Problems Encountered by NPC in 1991***

MULTIPLE RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Low employee productivity	36	20.93
Unabated power outages	35	20.35
Failing financial performance	32	18.60
Organisational instability	27	15.70
Inadequate corporate planning	26	15.12
Power pilferages	14	8.14
Graft and corruption	2	1.16
TOTAL	172	100.00

NPC's financial problems worsened in 1990 when it lost P 65 million. By the following year the loss had escalated to P 3 billion. As a result of inadequate counterpart funds for availing foreign capital for capacity additions that could have replaced the mothballed nuclear power plant, severe power

shortages affected the entire country. At the same time, NPC faced a number of legal actions arising from tax claims by local governments on real property taxes and by the Bureau of Internal Revenue on the oil levy. Its petition for power rate adjustments was also opposed in the Supreme Court. Pilferages of power, transmission line parts and fuel continued unabated. Sizable quantities of aluminum transmission cables and tower parts were stolen and fabricated into magwheel tire rims in the underground market. As if these were not enough, the country was devastated by typhoons and other natural calamities, toppling NPC's transmission lines. The $ 7 million dollar scam was earlier discovered and investigated by the Senate Blue Ribbon Committee. The scam happened due to inadequate security measures in dealing with the agent handling the exchange of dollars in the black market for servicing its foreign-denominated loans. This confluence of events, not just the power crisis, shocked the entire nation. Its financial ratios in 1990 and 1991 were all negative. Likewise, NPC was not able to achieve its rates of return covenant with the World Bank.

When selected transactional stakeholders of NPC were queried, they identified bureaucratic procedures and poor power service as the major problems that confronted the company in 1991. Only a few were aware of the problem of corruption and its adverse financial consequences for NPC at that time. The company had built-in customer services tools in Public Affairs Department but even this had proven ineffective in the barrage of public criticisms against NPC.

Table 12. **Assessment of the Gravity of Problems in 1991**

RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Very Serious	41	73.21
Serious	14	25.00
Minor but needing solutions	1	1.79
TOTAL	56	100.00

2.2 Causes of Decline Problems in 1991. A great number of employee-respondents attributed NPC's decline problems to shortsightedness of management , high capital and operating costs plus the adverse effects of inadequate financial control, a negative work environment and the personal inadequacy of the CEO. The costs of servicing the loan on the mothballed first Philippine Nuclear Power Plant (PNPP-1) Project amounting to US $ 300,000 per day and its preservation into pristine condition had been determined as prohibitive for NPC. However, this problem was remedied by the National Power Board in its earlier request for the National Government to assume the payment of PNPP-1 preservation expenses and loans that was approved by the President of the Philippines similar to the bailing out of the Philippine National Bank. Other causes, such as the frequent board-management conflicts and government inaction on key projects, were also mentioned (Table 13). A key respondent from the Finance group hastened to add that financial losses in 1991 were due to increased fuel expenses to run the power plants, peso depreciation, and inflation. Power rates were simply unable to catch up with these costs, she indicated in her internal report.

Table 13. ***Causes of Decline Problems in 1991***

MULTIPLE RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Delay in the execution of major projects	41	18.06
Poor Management	31	13.66
Shortsightedness of management	27	11.89
High capital and operating costs	21	9.26
Negative work environment	20	8.81
Inadequate financial control	19	8.38
Personal inadequacy of the CEO	18	7.93
Inability of the organisation to adopt	9	3.96
Board - management conflicts	9	3.96
Overreaction of management to the crisis	7	3.09
Bad luck	5	2.20
Government inaction on key projects	5	2.20
High interest expense	4	1.76
Overconfidence of management	4	1.76
Conservatism of management	3	1.32
Innovating too much too soon	3	1.32
Inability to adjust power rate	1	0.44
TOTAL	227	100.00

Other NPC stakeholders believed that these problems in 1991 were the results of poor management and too much politics between the board and

management. Substantial numbers of them also attributed the problems to incompetence and low morale of personnel.

2.3 Effects of Problems on Company Performance in 1991. Being a public service corporation, a great plurality of respondents (35 per cent) bewailed bad effects on the company's public image (Table 14). Twenty-nine per cent of respondents were aware of the large financial loss by NPC in 1991. The high employee attrition was attributed by 20 per cent of respondents to the low salary and morale of NPC employees whose performance had been frequently lambasted in the mass media. Here, Table 14 shows the effects of NPC's decline problems to its operating performance and to its customers.

Table 14. ***Effects of Problems on Company Performance in 1991***

MULTIPLE RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Bad public image of the company	50	35.46
Large financial loss	41	29.08
High employee turnover	28	19.86
Low return on assets	22	15.60
TOTAL	141	100.00

To many other stakeholders, these problems adversely affected them in terms of high cost of electricity and delayed or foregone investment opportunities. Others blamed these problems as having contributed to their low return on capital and business losses from their transactions with NPC.

2.4 Top Management Response to the Problems in 1992. This section describes both internal respondents' and external stakeholders'assessment of the speed, adequacy, consistency and spontaneity of top management response

to NPC's problems. Each response dimension is rated from 1 (very positive) to 5 (very negative). When asked about the speed of response or responsiveness of new management in 1992, fifty-eight per cent rated its responsiveness as ranging from moderate to very fast but about 59 per cent thought that the adequacy of response was below expectations. (Table 15). On whether or not the response was consistent and deliberate, respondents seemed ambivalent. Ninety per cent of external stakeholders expressed mixed feelings about how top NPC management handled their requests. Only 53 per cent were satisfied with the response of management and the rest were disappointed.

Table 15. **Top Management Response to the Problems in 1992**

RESPONSE	1	2	3	4	5	TOTAL
a.Responsiveness	Very Fast	Fast	Moderate	Slow	Very Slow	
Frequency	5	15	12	17	6	55
Per Cent Dist.	9.09	27.27	21.82	30.91	10.91	100.00
b. Adequacy	Very Adequate	Adequate	Inadequate	Very Inadequate		
Frequency	2	21	27	6		56
Per Cent Dist.	3.57	37.50	48.21	10.72		100.00
c. Consistency	Very Consistent	Consistent	Inconsistent	Very Inconsistent		
Frequency	1	26	23	3		53
Per Cent Dist.	1.89	49.06	43.40	5.65		100.00
d. Spontaneity	Very Spontaneous	Spontaneous	Adamant	Very Adamant		
Frequency	5	22	25	1		53
Per Cent Dist.	9.43	41.51	47.17	1.89		100.00

2.5 Top Management Solutions to Problems in 1992. Respondents identified the reorganisation, replacement of the CEO, public image improvement program and hiring freeze as the measures implemented by the top management in 1992 to solve the problems (Table 16). The reduction of cost and capital expenditures and the rescheduling of debt repayments were also cited. The majority of respondents (67 per cent) supported these actions of management (Table 17).

Table 16. **Top Management Solutions to Problems in 1992**

MULTIPLE RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Reorganised	42	14.05
Replaced the CEO	33	11.04
Conducted public image improvement programs	29	9.70
Stopped hiring of additional personnel	28	9.36
Rescheduled debt repayments	20	6.69
Reduced cost and capital expenditures	19	6.35
Stepped up collection efforts	15	5.02
Injected additional funds	15	5.02
Reorientated personnel on new work expectations	15	5.02
Formed strategic alliances with other energy firms	14	4.68
Retrenched and cutback	13	4.35
Implemented management development programs	12	4.01
Designed and operationalised new systems and procedures	10	3.34
Sold non-performing assets	10	3.34
Designed/implemented strategic information planning and control systems	8	2.68
Implemented performance-based reward system	8	2.68
Implemented capacity addition through Build-Operate-Transfer (BOT) Scheme	5	1.67
Sought government support for New Pay Plan	3	1.00
TOTAL	299	100.00

Table 17. **Opinion on Management Action in 1992**

RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Strongly agree with action	14	25.46
Agree	23	41.82
Neutral	4	7.27
Strongly disagree with action	14	25.55
TOTAL	55	100.00

2.6 Desired Actions on Company Problems in 1991. Hypothetical questions were asked on prefered management styles in problem solving to obtain the congruity of views in solving company problems in 1991. When asked about their approaches in solving company problems in 1991, many respondents (28 per cent) favoured the participative approach of seeking everybody's support in solving such problems (Table 18). The desirability of the participative approach was indicated by an additional 23 per cent of respondents who cited the importance of understanding and satisfying the needs of employees to motivate them to perform better. The success of these management styles, however, could have been measured either by their results on financial indicators, through employee opinion surveys or by developing evaluation criteria specific to NPC. Few respondents favored the use of existing management ratios, consumer satisfaction indices, the setting of operational standards and the undertaking of independent outside assessment (Table 19).

Table 18. ***Desired Actions on Company Problems in 1991***

MULTIPLE RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Seek everybody's support in solving them	24	27.59
Understand and satisfy the needs of employees	20	22.99
Get everybody's opinion on these matters	11	12.64
Treat problems on a case-to-case basis	10	11.49
Obtain external assistance	9	10.34
Strike an acceptable trade-off among interest groups	7	8.05
All of the above	5	5.75
Do away with political intervention	1	1.15
TOTAL	87	100.00

Table 19. **Measurement of Effectiveness/Success of Strategy**

MULTIPLE RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Through financial indicators	37	40.22
By getting employee opinions on the matter	19	20.65
Develop own evaluation criteria	19	20.65
Use existing management ratios	9	9.78
Set operational standards	4	4.36
Customer/consumer satisfaction index	3	3.26
Independent outside assessment	1	1.09
TOTAL	92	100.00

2.7 Rating of 1991 Company Image based on Performance Factors.

Respondents were asked to rate the 1991 public image of NPC in terms of nine performance factors. The rating by respondents was generally negative based on weighted averages of these factors. NPC's poor image was attributed mainly to its inadequate power service, poor community relations, poor quality management, unreliable service and financial difficulties (Table 20). These generally negative assessments focused particularly on the CEO, NPC's responsiveness to change, environmental sensitivity and customer relations. Likewise, NPC received a generally poor rating from its stakeholders particularly in terms of the quality of its management and leadership as well as in the adequacy of service. At the time of the survey, NPC had no documented Total Quality Management philosophy except corporate statements regarding quality control in engineering works and quality assurance in operations. Quality management was operationalised in three functional areas of engineering, operations and training.

Other stakeholders were more sympathetic to NPC than the employees. In their opinion, NPC had performed its social and environmental responsibilities quite fairly well. External stakeholders were satisfied with NPC's good customer relations due to the politeness of its personnel.

Table 20. **Contributory Factors to NPC's Poor Company Image in 1991**

PERFORMANCE FACTORS Assigned Weights	VERY POOR (- 2)	POOR (-1)	AVERAGE (0)	GOOD (1)	EXCEL-LENT (2)	TOTAL
a. Adequacy of Service	15	27	9	1	0	
Wtd. Average	- 30	- 27	0	1	0	-56
b. Community Relations	18	21	18	1	0	
Wtd. Average	-36	-21	0	1	0	-56
c. Quality of Management Team	15	27	9	5	0	
Wtd. Average	- 30	-27	0	5	0	-52
d. Reliability of Service	11	31	11	2	0	
Wtd. Average	-22	- 31	0	2	0	- 51
e. Financial Soundness	13	26	15	2	0	
Wtd. Average	- 26	- 26	0	2	0	- 50
f. Opinion of the CEO	10	22	19	4	0	
Wtd. Average	-20	-22	0	4	0	- 38
g. Ability to adopt to change	8	17	21	10	0	
Wtd. Average	-16	-17	0	10	0	- 23
h. Environmental Responsibility	5	15	31	5	0	
Wtd. Average	-10	-15	0	5	0	- 20
i.Understanding of Customer Needs	5	12	23	13	2	
Wtd. Average	- 10	-12	0	13	4	- 5

2.8 Impact of Government/Public Pressures on Management Response to Company Problems in 1991. Respondents had a generally positive view of government and public pressures on management to solve company problems in 1991. Only 40 per cent believed that these were either disruptive or very disruptive (Table 21).

Table 21. ***Impact of Government/Public Pressures on Management Response to Company Problems in 1991***

RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Very Helpful	13	23.64
Helpful	20	36.36
Disruptive	17	30.91
Very Disruptive	5	9.09
TOTAL	55	100.00

2.9 Company Situation in 1992 as Compared to the Previous Years. Fifty -two per cent of respondents felt that the company situation in 1992 was worse than in previous years. The rest, however, had seen some improvements (Table 22). This confirmed the finding that although NPC had a positive net income of P4 billion in 1992, the financial situation remained worrisome.This sour picture of the company was not seen by the external public -- 67 per cent of those interviewed saw the improvement in the NPC situation in 1992. The positive financial picture in 1992 as revealed by the NPC Annual Report was substantially due to proceeds of the "debt buy back scheme" where a number of delinquent NPC customers had been allowed to buy NPC debt instruments

from the designated agent of creditor banks at huge discounts to be able to pay their outstanding accounts with NPC.

Table 22. **Company Situation in 1992 as Compared to Previous Years**

RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Very Significant Improvement	3	5.36
Improved	24	42.86
Worsened	22	39.28
Very Worse	7	12.50
TOTAL	56	100.00

2.10 Recommended Approach to the 1992 Corporate Recovery Efforts. When asked about the approach that the company could have taken in 1992, such approaches as improving employee working conditions and the sale of non-performing assets were more popular than approaches like cost and staff reduction, reorganisation and the injection of additional funds as revealed by 40 per cent of respondents (Table 23). Preference for the five approaches, however, have been indicated by almost all (95 per cent) respondents. A few others would like to seek presidential intervention, improving power availability and reliability, privatising NPC, and weeding out undesirable personnel as a necessary precondition to corporate recovery.

When asked on the opportunity of the company to effect and sustain its turnaround, a big majority (94 per cent) believed that it has a big chance. Only six per cent said that it has little chance to recover from decline (Table 24).

From the standpoint of other NPC stakeholders, only a third would like to give it a chance to reform itself. Only a few saw the need for improving its internal capability to implement and improve the quality of its leadership.

Table 23. **Recommended Approach to the 1992 Corporate Recovery Efforts**

MULTIPLE RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
By improving employee working conditions	30	22.39
By selling non-performing assets	24	17.91
By cost and staff reduction	22	16.42
By reorganisation	21	15.67
By injecting additional funds	18	13.43
All of the above	13	9.70
Presidential intervention	2	1.49
By improving power availability/reliability	2	1.49
By weeding out undesirables	1	0.75
Privatise NPC	1	0.75
TOTAL	134	100.00

Table 24. **Chance of the Company to Effect and Sustain its Turnaround**

RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Big Chance	53	94.64
Little Chance	3	5.36
TOTAL	56	100.00

The NPC management in 1992 and 1993 instituted a corporate reform program that included the decentralisation process, cost reduction, efficiency improvement, streamlining of the organisation, disciplining of erring personnel and public image building program as part of an overall strategy to effect a turnaround in its operations. There was a manpower reduction of about four per cent, approximating the natural attrition rate, which was achieved at the expense of decentralisation. Head office personnel, comprising 30 per cent of the organisational workforce in 1990, increased to 37 per cent in 1993. This was, however, reduced to 27 per cent in 1995. There was mass promotion as a result of the upgrading of positions to higher salary levels to assuage the low morale of personnel caused by the 1989 Salary Standardisation Law. The 1989 Salary Standardisation demoralised NPC employees as it pegged salaries for such a long period until the rest of the government personnel could catch up with NPC pay levels. The number of direct operations personnel decreased at an annual rate of eight per cent whereas support staff personnel increased by two per cent yearly between 1990 and 1995. This resulted in the reduction of managerial span of control from a ratio of 54:1 subordinates per manager in 1988 to only 22:1 subordinates per manager in 1995. The reduction of managerial span of control was also the result of the general upgrading of positions. To borrow the statement of Stuart Slatter (1987,p16):

" Organisation structures with large head-office bureaucracies are likely to be inefficient and cost ineffective".

2.11 Assessment of Changes Instituted in 1992. Respondents indicated that management failed to undertake "frame-breaking" changes in the NPC organisation (Table 25). Though many respondents observed management effort in effecting a decentralised, lean and mean organisation, no significant change was observed by way of new systems and procedures, skills development, management control and better lines of communication between management and staff. Moreover, negative work values that necessitated an authoritative style of management were observed that partly explained the exodus of capable but demoralised staff from NPC in 1992. Respondents were at a loss as to the nature and extent of the crisis though they (73 per cent) perceived that there was indeed a crisis. The NPC top management either had no known workable strategy to deal with the crisis or did not announce to the employee ranks that what they were doing then was in pursuance of such a strategy. This apprehension was expressed by respondents who sensed the crisis and were willing to do something about it. Despite management's failure to undertake frame-breaking changes, the same percentage of respondents (73 per cent) believed that the 12 "frame-breaking" factors have been considered in recovery planning (Table 26).

Table 25. **Assessment of Changes in the Aspects of 1992 NPC Organisation**

ASPECT	(1)	(2)	(3)	(4)	TOTAL
a. Structure	More top-heavy & centralised	Lean and Mean	Decentralised	No Change	
Frequency	26	7	20	4	57
Per Cent Dist.	45.61	12.28	35.09	7.02	100.00
b. Systems	New systems have been introduced	Little or minimal changes	No Change		
Frequency	16	36	3		55
Per Cent Dist.	29.09	65.45	5.46		100.00
c. Skills/ Capability of Managers and Personnel	Very Significant Improvement	Improved	No Improvement		
Frequency	4	20	29		53
Per Cent Dist.	7.55	37.74	54.71		100.00
d. Shared Values/Culture	Positive	Negative			
Frequency	26	32			58
Per Cent Dist.	44.83	55.17			100.00
e. Staff	Hired more capable staff	Demoralised staff left the company			
Frequency	11	47			58
Per Cent Dist.	18.97	81.03			100.00
f. Strategy	Relevant	Not Workable	Do not know		
Frequency	20	22	11		53
Per Cent Dist.	37.74	41.51	20.75		100.00
g. Managerial Style	Inspirational Leadership Style	Authoritative Style of Mgt.	Incompatible Style		
Frequency	11	29	22		62
Per Cent Dist.	17.74	46.77	35.49		100.00
h. Management Control	Adequate	Inadequate	None at all		
Frequency	21	36	0		57
Per Cent Dist.	36.84	63.16	0		100.00
i. Chance or Opportunity	Anticipated and Used	Not Considered			
Frequency	20	34			54
Per Cent Dist.	37.04	62.96			100.00
j. Communica-tion	Open lines	Limited access	Closed		
Frequency	15	38	4		57
Per Cent Dist.	26.32	66.67	7.01		100.00
k. Crisis Points	Identified and Monitored	Unknown			
Frequency	40	15			55
Per Cent Dist.	72.73	27.27			100.00
l. Causes and Commitments	Known	Unknown			
Frequency	37	15			52
Per Cent Dist.	71.15	28.85			100.00

Table 26. *Whether or Not 12 Elements of Performance Environment Have Been Considered in Recovery Planning*

RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Yes	41	73.21
No	14	25.00
Do Not Know	1	1.79
TOTAL	56	100.00

2.12. Evaluation of the 1993 NPC Management's Change Efforts in relation to Key Success Factors. In all 27 key success factors, the top management team that replaced the 1992 company officials received high marks from respondents (Table 27). What brought about this generally good rating on the efforts of the new management in 1993 were based on perceptions of the reversal of the company's poor public image, service improvement, the improvement of personnel skills, operating performance of power plants and transmission systems, support of government, operations management, managerial skills and reliability. This good rating was supported by other stakeholders. It is only in purchasing, customer financing, process research, quality control system, internal operating procedures, cost effectiveness and efficiency that the new NPC management in 1993 had poor marks.

Table 27. **Evaluation of Present Management's Change Efforts as Indicated by Weighted Averages of Key Success Factors**

KEY SUCCESS FACTORS	VERY POOR (- 2)	POOR (-1)	AVERAGE (0)	GOOD (1)	EXCEL-LENT (2)	TOTAL
1. Image	0	0	9	37	11	
Wtd. Average	0	0	0	37	22	59
2. Service	0	1	9	35	11	
Wtd. Average	0	-1	0	35	22	56
3. Technical Knowledge of Personnel	0	0	13	32	10	
Wtd. Average	0	0	0	32	20	52
4. System	0	2	12	33	8	

Maintenance and Reliability						
Wtd. Average	0	-2	0	33	16	47
5. Power Plant Capacity	0	2	11	35	5	
Wtd. Average	0	-2	0	35	10	43
6. Government Support	0	5	12	26	10	
Wtd. Average	0	-5	0	26	20	41
7. Operations Management	0	5	12	31	6	
Wtd. Average	0 3	-5	0	31	12	38
8. Managerial Skills	0	4	19	26	7	
Wtd. Average	0	-4	0	26	14	36
9. Outage Rate	0	1	22	26	5	
Wtd. Average	0	-1	0	26	10	35
10. Teamwork	0	6	14	26	7	
Wtd. Average	0	- 6	0	26	14	34
11. Public Relations Skills	0	2	23	26	5	
Wtd. Average	0	-2	0	26	10	34
12. Social Responsibility	0	6	18	24	7	
Wtd. Average	0	-6	0	24	14	32
13. Employee Relations	1	3	18	29	4	
Wtd. Average	-2	-3	0	29	8	32
14. Generation Mix	0	4	22	23	6	
Wtd. Average	0	-4	0	23	12	31
15. Distribution	0	3	21	25	4	
Wtd. Average	0	-3	0	25	8	30
16. Location of Facilities	1	2	21	28	2	
Wtd. Average	-2	-2	0	28	4	28
17.Personnel Integrity	0	5	20	27	3	
Wtd. Average	0	-5	0	27	6	28
18. Thermal Efficiency	0	3	22	25	2	
Wtd. Average	0	-3	0	25	4	26
19. Customer Concentration	0	3	25	22	3	
Wtd. Average	0	-3	0	22	6	25
20. Research and Engineering Capability	1	8	20	22	4	
Wtd. Average	-2	-8	0	22	8	20
21. State -of-the-Art Technology	0	5	28	22	1	
Wtd. Average	0	-5	0	22	2	19
22. Cost Effectiveness /Efficiency	1	10	18	25	3	
Wtd. Average	-2	-10	0	25	6	19
23. Internal Operating Procedures	2	9	18	25	2	
Wtd. Average	-4	-9	0	25	4	16
24. Quality Control System	0	5	30	18	1	
Wtd. Average	0	-5	0	18	2	15
25. Process Research	1	8	28	16	2	
Wtd. Average	-2	-8	0	16	4	10
26. Customer Financing	3	5	25	21	0	
Wtd. Average	-6	-5	0	21	0	10
27. Purchasing	10	20	17	12	0	
Wtd. Average	-20	-20	0	12	0	-28

NPC reported a yearly average increase in sales of 12 per cent during its recovery period. Operating expenses increased by an average of eight per cent (Appendices 12 and 13). This explains the four per cent reduction in operating expenses over sales (Appendices 20 and 21). On the other hand, NPC's liabilities had been increasing two per cent faster than the increase in its assets. This was an improvement from the period of corporate decline (1987-1991) when liabilities grew by three per cent faster than assets. Management's attempt at improving its balance sheet position in the first half of the nineties yielded a threefold increase in NPC's net worth (Appendices 14 and 15). However, its problem of inadequate working capital that began during the 1990 crisis remained worrisome. This was the reason NPC was placed at the tail-end of the comparative ranking among utilities using Altman's z-score method (Appendices 38 and 39).

An analysis of electricity cost and selling price demonstrates NPC was able to increase its wholesale price much faster than the cost of sales during its recovery period. As a result, its profit margin improved by as much as 35 per cent per annum (Appendices 24 and 25). In terms of power reliability, improvement during the recovery period was higher at 15 per cent as compared to the 13.5 per cent yearly average during all of the seven-year period beginning 1988 (Appendices 26 and 27). NPC was also able to reduce its system loss quite considerably during its recovery as compared to its period of decline (Appendices 28 and 29). Likewise, it was able to reverse the decline in technical efficiency by improving its load factor by one per cent per annum between 1991 and 1995. The prior period (1988 to 1991) saw an annual average decline in load factor of about two per cent (Appendices 30 and 31).

NPC had not been successful in bringing about the right size of its workforce such that its productivity only increased by four per cent per annum during its recovery

period (Appendices 32 and 33). No significant organisational improvement was achieved during recovery in terms of the number of support personnel to direct operations personnel (Appendices 34 and 35). In 1993, the new NPC management commissioned a study of the NPC organisation while assuring the rank and file that there would be no lay-offs. A moratorium on new hiring and organisational changes had been declared pending the results of this study. The recovery period saw an increase in the number of managers and executives from 353 to 670 that improved the manageability of lower level staff to 22 subordinates per manager in 1995 from a high of 41 subordinates per manager in 1991 (Appendices 36 and 37).

2.13. Major Threats Confronting NPC at Present. Other stakeholders saw that NPC was facing serious threats from interferring politicians, inefficient power plants, lack of government and public support and the exodus of trained and experienced personnel. Eighteen per cent pointed to the resurging threats to reduce foreign capitalisation of projects and of graft and corruption, among others (Table 28).

Table 28. *Major Threats Confronting NPC at Present*

MULTIPLE RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Political Interference	15	27.27
Inefficient Power Plants	12	21.82
Lack of Government and Public Support	9	16.36
Exodus of Trained and Experienced Personnel	9	16.36
Reduction in Foreign Capitalisation of Projects	4	7.27
Excess/Overcapacity of Power Plants	2	3.64
Privatisation Moves	2	3.64
Graft and Corruption	2	3.64
TOTAL	55	100.00

2.14. Suggested Countermeasures to NPC Threats. Most respondents agreed on the need to carry out efficiency and operational improvement, personnel productivity and reorientation as well as system reliability improvement programs to counter these threats. Quite many also agreed on cost reduction measures. Only a few saw the need for a moral recovery program (Table 29).

Table 29. **Suggested Countermeasures to NPC Threats**

MULTIPLE RESPONSE	FREQUENCY	PER CENT DISTRIBUTION
Efficiency and operational improvement	16	29.09
Personnel productivity/reorientation	15	27.27
Improve system reliability	14	25.46
Cost reduction	9	16.36
Discipline erring personnel	1	1.82
TOTAL	55	100.00

2. SAN FERNANDO ELECTRIC LIGHT AND POWER COMPANY

a. Background Information

The San Fernando Electric Light and Power Company (SFELAPCO) was organised as a private power distribution utility in 1927 or some nine years before the National Power Corporation (NPC) was even created, running its own generating units servicing the Central Business District of the Municipality of San Fernando, Pampanga in the Philippines. It was originally a family-owned business enterprise of the Lazatin family (who has large sugarlands and is one of the major stockholders of the Pampanga Sugar Development Company [PASUDECO]) until it became a public company through an initial public offering (IPO) in the eighties. PASUDECO became its majority shareowner.

In order to be able to service the entire municipality and save on generating costs, it decided in the sixties to buy wholesale power from the National Power Corporation and retail power to its more than 28,000 residential, commercial and industrial customers located in its exclusive franchise area of San Fernando. Today, it is one of the 16 private and municipal power distributors in the Philippines.

The case of SFELAPCO was unique in the sense that it was a public company with a strong family business history. It had only become public with the participation of family friends and acquaintances of the owner. The management and operation of SFELAPCO had reached the stage of transfer of power with the original founding father owner becoming the President and the son appointed as the General Manager. Although there was a new President in the person of the new majority shareholder, the son retained his post and the father continued to hold office as a sitting board member. In essence, SFELAPCO as a public company retained the characteristics of a small family business. The father's secretary maintained the payroll and undertook the Personnel

Manager's functions. The son's brother-in-law became the Finance Manager-Controller. The Company Secretary became the Office Manager and head of the Administration Department. This made the position of General Manager redundant but the latter could not be terminated. His family still owned a large minority share and had become valuable to the company from years of helping his father with the business. The father was no longer the majority owner but he was the founder and still influential. At the flick of his finger, he could be the majority owner and become the President again. He and SFELAPCO were one. His son had acquired the skills to run the company on his own and was already respected by employees who were greatly indebted.

For the purpose of this case study, this researcher contacted the General Manager of SFELAPCO and its key officers for interviews on the problems and strategies of said power firm. Interviews were conducted in 1994, 1995 and 1996. Unlike in the interview of NPC stakeholders, the interviews on SFELAPCO were generally unstructured. Contacted were the General Manager, Office Manager, Chief Company Engineer, Finance Manager, Personnel Officer, a number of employees, customers, creditors and suppliers. The results of interviews were supplemented by secondary financial data and follow-up talks with a number of respondents.

b. Analysis of Data

1. Characteristics of Respondents

For a company that had long passed its golden years, its five key management personnel were relatively new employees and young of age. They had been working for the company for less than 16 years and were in their early forties. They were all married and educated, mostly with business degrees and only one was a professional

electrical engineer. All five had secured their positions via an association with the original family owners.

2. Summary of Findings

2.1 Problems Encountered in 1991. The principal problems of SFELAPCO were high operating and capital costs, system losses of close to 30 per cent due to power pilferages, low collection efficiency, poor organisational and personnel systems, and low manpower productivity. There had been frequent board-management conflicts due to lack of appreciation of management's proposed capital investments for expansion and upgrading of the power distribution system.

2.2 Effects of Problems on Company Performance. These problems, which were aggravated by large financial losses since 1988, caused industrial conflicts with the union asking for better working conditions. It then had to pay the cost of maintaining industrial peace. Because of its large current liabilities, it suffered negative working capital during most of the eight-year period ending 1995. This situation was temporarily eased in 1992 with the infusion of additional funds by stockholders (Table 30). This was, however, not adequate to pay the increasing costs of operation and system expansion with electricity sales projected to double between 1990 to 1995. The difference had to be met by short-term borrowings. The result was a decline in overall financial performance. Profitability as expressed in net income had been low. Yet, its management granted huge dividends to stockholders and big bonuses to employees. Also contributing to its high indebtedness and gearing ratio was the acquisition of new vehicles and line hardwares through short-term borrowings. As a result, between 1988 and 1995, total assets increased more than twice as much as the growth in sales.

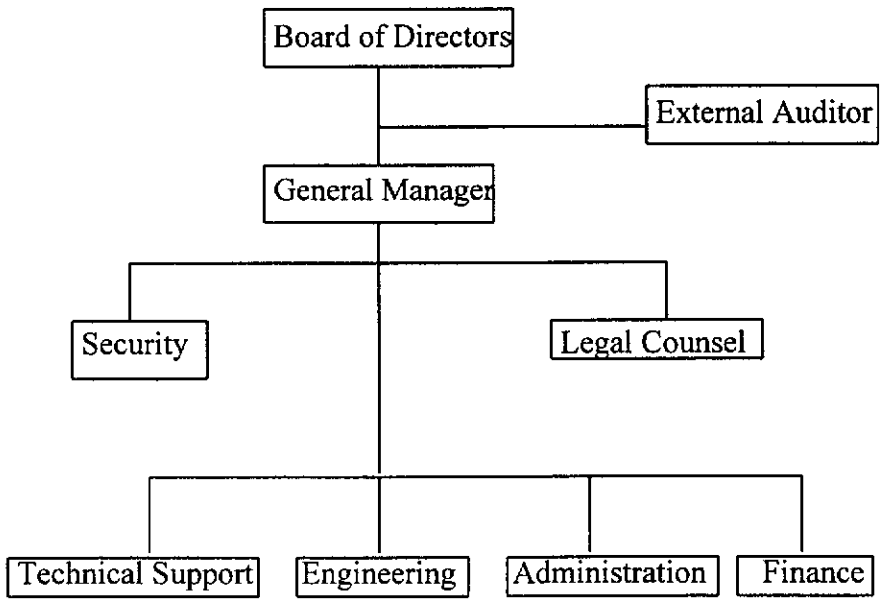
2.3 Top Management Response. The results of operation in 1991 became the turning point for SFELAPCO's top management to do something about the company's

decline problems. A full-time Finance Manager, who was the brother-in-law of the General Manager, was hired in March 1991 and given effective control over the day-to-day financial transactions, particularly disbursements, to improve the balance sheet position of the company. The Finance Manager, with the assistance of the company Legal Counsel, stepped up collection efforts and initiated a crackdown on pilferers of electricity. Top management streamlined the company organisation with the help of a consultant, freezed the hiring of new personnel, computerised its billing system, rationalised the employee pay plan and started a cost reduction program. It also made arrangements with the Manila Electric Company (MERALCO), the largest private power distribution company in the country, for the training of its line maintenance personnel in 1992. These measures were designed to get the necessary resources and expertise to improve the company performance over the long haul.

The organisational structure of SFELAPCO was modified in August 1992 as shown in Figure 12.

Figure 12

1992 SFELAPCO ORGANISATION



The only significant change was the realignment of the emergency line crew from the Engineering Department to the Administration Department. This was to enable the Administration Department to better respond to customers' requests for assistance in case of line troubles.

2.4 Company Situation in 1992 as Compared to the Previous Years. Bottomline financial figures indicated that anticipated improvements in company performance did not materialize. The cost reduction program simply could not get off the ground because current expenditures in both operating and maintenance jobs exceeded revenue. The inability of the stockholders who were represented in the Board to infuse additional capital stocks forced management to resort to short-term borrowings. As a result, SFELAPCO suffered net losses in 1992 that continued the following year (Appendices 16 and 17).

2.5 Recommended Approach to the 1992 Recovery Efforts. The company was not able to generate enough internal revenue from sales because of its poor collection performance and big system loss from power pilferers. Respondents felt the need to resolve board-management differences on how to run the company and to eliminate other personal and business interests from interfering with management decisions on procurement, hiring of personnel and some legal actions. The general impression obtained from these interviews was that management had been stifled -- prevented from undertaking honest-to-goodness change for fear that the board would assume certain management responsibilities once company performance was back on track again.

2.6 Assessment of Changes in the Frame-Breaking Aspects. Though there have been perceptible efforts to achieve a turnaround just as in the case of the National Power Corporation, SFELAPCO respondents believed that the needed "frame-breaking" changes in company organisation had still not been completed. Strategy

implementation had been hamstrung by the conflicts among the key players, i.e. the management, the stockholders as represented in the Board, the employees and the customers. There had been no attempt to explain to one and all what was going on and the need for a turnaround. As defined by Stuart Slatter(1987), the need for a turnaround is the existence of a loss situation or a severe decline in profit of 80 per cent or more in a single year. According to a number of informants, the measures undertaken did not lead to their desired outcomes due to lack of communication and consensus on the problems at hand. Top management could have performed better in such aspects as the improvement of shared values or culture, staff motivation, participative management style and communication so as to complete the "frame-breaking" changes that would start the turnaround effort.

2.7 Evaluation of the 1993 SFELAPCO Management's Change Efforts on Key Success Factors. It should be stated here that the income statements and balance sheets of SFELAPCO as contained in Appendices 16 to 19 had been the subject of a legal action by SFELAPCO against the Bureau of Internal Revenue (BIR), a government office whose function was to collect taxes from income earners based on accurate financial records and receipts. The tax office found SFELAPCO to have erred in recording its expenses and in the valuation of assets and other accounting treatments for the years 1992 and 1993. SFELAPCO claimed that it did not erroneously declare its pre-tax net loss in 1992 and 1993.

There had been no change in the management leadership in 1993. The general evaluation was that management did not perform effectively in a great number of KSF areas such as the quality control system on its projects and procurements, cost effectiveness or efficiency, personnel integrity, managerial skills and teamwork. On the other hand, the company was able to improve its public image due to service

improvements resulting from the purchase of new maintenance vehicles and equipment, customer relations, system maintenance and reliability. Knowing these weaknesses and strengths, the SFELAPCO management could have started, completed and sustained its recovery efforts.

During its recovery period, its cost-cutting measures had not been effective. Its operating expenses over sales increased from an average of 18 per cent per year from 1988 to 1991 to an average of 26 per cent per year from 1991 to 1995 (Appendices 20 and 21).

SFELAPCO's selling price of electricity to end-users increased by ten per cent per year while increases by NPC, its power supplier, were only at nine per cent since 1988 (Appendices 22 and 23). Its gross income consisted of electricity sales, royalties, penalties and fees of customers. Electricity sales increased by an annual average rate of 16 per cent during its recovery period (Appendices 16 and 17). Factoring the ten per cent annual price increase, SFELAPCO's effective sales growth per year was only six per cent. Thus, it could be said that the doubling of its electricity sales from 1991 to 1995 was more the result of price increases than the growth in electricity demand in its franchise area.

The power reliability of SFELAPCO had substantially improved from its 1988 crisis level of almost three hours per interruption to the 1995 one-hour duration per interruption (Appendices 26 and 27). System loss, though still quite high at 21 per cent, was a big improvement over the 32 per cent level in 1988 (Appendices 28 and 29).

Its capital productivity, expressed in terms of load factor, improved by almost half a per cent per year since 1988, overshadowing the declining trend faced by Capital Power (Appendices 30 and 31). The load factor of both utilities stood at 65 per cent in 1995. Despite the two per cent annual increase in its manpower, SFELAPCO managed

to improve its manpower productivity by a little over four per cent per annum (Appendices 32 and 33).

There had also been improvements in the ratio of support to direct operations personnel (Appendices 34 an 35). Little, however, was achieved by way of improving managerial control over personnel as there had been no increase in the number of managers and executives nor any decrease in the number of lower level staff (Appendices 36 and 37). The resulting complacency of field personnel caused job delays and poor worksmanship, respondents reported.

SFELAPCO's ascent to a safe financial position in 1991 was not sustained as it faced the problem of inadequate working capital brought about by the need to fund day-to-day operations through short-term borrowings (Appendices 18 to 21). Applying Altman's z-score method of predicting financial performance, SFELAPCO would likely experience difficulties in surpassing the precarious z-score level of 1.8 even by the end of this century (This is explained and illustrated in Appendices 38 and 39).

2.8 Major Threats Confronting SFELAPCO at Present. SFELAPCO stakeholders thought that the company faced serious challenges and some remaining vulnerabilities that might come from the greater privatisation of the electricity industry. As shown in Appendix 40, SFELAPCO still faced many problems and difficulties that served to impede the sustainability of its turnaround management. These included its poor collection performance, high operating and capital expenditures, slow growth in manpower productivity, lack of capital funds and lack of teamwork, among others. Stakeholders stressed that management needed to shed its family business orientation and show more responsiveness to the greater interest of shareowners as a public company. They also believed that transactions should be conducted above board and more transparently.

Exclusive franchises such as that of SFELAPCO faced the risk of being removed by the government in the name of greater competition and efficiency. Based on this scenario, there would be a challenge for small electric cooperatives and private power distributors to consolidate into a regional utility as big as MERALCO to attain greater economies of scale. However, there would be an opportunity for SFELAPCO to be a shareholder of such a transmission company if the government decides to have an initial public offering (IPO) since this would be a wise investment for system users. Likewise, more capital funds would be needed for system and service expansion.

2.9 Suggested Countermeasures to SFELAPCO Threats. Most internal respondents mentioned the need for horizontal and vertical integration, suggesting that the company should re-commence power generation and seek partnerships with suppliers and manufacturers of power transformers, distribution poles and other line hardwares; as well as with electrical appliance and service providers, including building contractors for technology sharing, exclusive licensing and joint projects. These countermeasures called for a "wing-expanded utility", that was not focused solely on power distribution, plus cost reduction and market diversification so that SFELAPCO could survive the threat of franchise removal and the pressure of competition and staggering increases in costs. An improved programming and budgeting system on a monthly basis was also recommended to put an extra rein on costs. Contracting out minor works proved to be a good cost-cutting measure.

Table 30. Selected Financial Indicators of SFELAPCO : 1988 to 1995

(In Million Pesos)

INDICATORS	1988	1989	1990	1991	1992	1993	1994	1995
TOTAL ASSETS	66.35	76.29	97.44	125.22	351.29	348.3	337.74	350.62
Current Assets	36.53	39.49	49.32	50.00	52.71	55.98	55.66	70.07
Quick Assets	36.48	39.45	48.87	49.84	52.12	54.58	54.27	68.32
TOTAL LIABILITIES	60.96	58.35	75.58	87.49	78.82	78.88	79.27	74.98
Current Liabilities	47.51	44.44	44.46	61.76	69.16	34.81	52.79	74.98
STOCKHOLDERS' EQUITY	5.39	17.94	21.91	37.73	272.48	269.42	258.47	275.64
Working Capital	(10.98)	(4.94)	4.86	(11.76)	(16.45)	(21.17)	2.87	(4.91)
Retained Earnings	(18.08)	5.88	10.14	27.90	21.00	18.27	38.53	63.65
SALES	114.50	134.16	174.13	231.31	274.50	294.15	338.34	363.19
NET INCOME (LOSS)	(1.41)	12.14	9.07	15.87	(2.58)	(2.87)	14.51	24.50
PRE-TAX EARNINGS	(1.41)	12.14	9.07	15.87	(2.58)	(2.87)	14.51	24.50

SOURCE: San Fernando Electric Light and Power Company, 1996

In line with the suggestion of Levin and Travas (cited in Wheelen & Hunger 1989,p391) to use return on current assets as the better measure of corporate productivity than return on total assets, computation of this ratio indicated an erratic trend of negative four per cent in 1988 improving to 32 per cent in 1991, deteriorating again to negative five per cent in 1993, and increasing to a high of 35 per cent in 1995. On the other hand, the current asset turnover or the ratio of sales to the value of current assets revealed a consistent improvement from 313 per cent in 1988 to 518 per cent in 1995. This only meant that implementation of consistent accounting policies and procedures on an annual basis needed to be undertaken so that financial data in Table 30 could be made credible to regulatory and tax agencies including stockholders and consumers.

Chapter Six

Summary and Conclusion

6.1 Introduction

This study examined four electric utilities (i.e. three government-owned enterprises and one private company) in New Zealand and the Philippines. While these utilities differed in certain respects, particularly the markets they served, they nevertheless shared common goals of corporate recovery. These utilities faced the daunting tasks of turning around a dismal situation while responding to demands and pressures from their internal and external environments.

Decline problems and their causal factors had been identified, as well as corresponding turnaround strategies.

Table 31. Decline Problems and Turnaround Strategies

DECLINE PROBLEMS	CAUSAL FACTORS	STRATEGIES
1. Financial losses/Low profitability	Non-commercial pricing, cross-subsidies, lack of business focus and inadequate financial control	Commercialisation, asset sale, debt reduction and re-scheduling
2. Inadequate/ Negative working capital	Lack of equity, high gearing or excessive borrowing	Strategic alliances and improvement of international credit rating
3. Poor customer service	Project delays and poor management	Change management, business process re-engineering, TQM and competitive benchmarking
4. Low productivity	Skills gap, overstaffing, inadequate motivation to perform and low capital utilisation	Manpower reduction, training and performance contracting
5. Adverse working environment	Government and union interference, internal politics and other external pressures	Restructuring, deregulation, performance incentive contracting, image building, improvement of KSFs and renewal factors
6. Inefficiencies	Excessive expenditures and bureaucratic procedures	Cost reduction, efficiency improvement, privatisation and competition

These findings revealed that each of the four utilities had been successful to some degree in their turnaround efforts but only Capital Power Limited of New Zealand was able to sustain its recovery. It also classified the utility firms according to the success with which they had managed their recovery efforts (Appendices 38 and 39). This classification was based on the improvement in their financial performance as influenced by cost-cutting initiatives, managerial and operational controls and organisational changes.

They had undergone strategic changes in response to their decline problems. A number of changes in key success factors (KSFs) worked for the recovery of these firms. Positive changes were observed in such KSF areas as management control and skills, public relations and image, employee productivity and integrity, technical efficiency and service improvements, cost reduction and financial returns. However, other KSFs such as quality control systems, teamwork, employee relations, purchasing, R & D capability and process research needed further improvements. Changes in such renewal or "frame-breaking" factors as systems and procedures, organisational structures, staffing and stakeholder support were found to have worked to the advantage of these utilities. The need to further improve organisational culture, work values, strategy and communication emerged in this study.

6.2 Findings about the Research Problem and Hypotheses

In these studies, the principal research problem was to identify causal factors for the corporate decline and recovery of electric utilities in New Zealand and the Philippines. The fundamental problems faced by utilities in these comparative case studies had certain commonalities and differences. Three of the four firms - the National Power Corporation in the Philippines, the Electricity Corporation and

Capital Power Limited in New Zealand - had encountered decline problems typical among regulated public utilities. These problems were lack of management autonomy, financial control, low employee productivity, overstaffing, bureaucratic organisation and inefficiencies leading to profit decline, if not a net loss situation. Attempts to turn the situation around were handicapped by the regulatory environment and the inadequate use of strategic management processes. For too long, the management of these utilities thought that their primary objective was to satisfy the expectations of their government and political sponsors for adequate supply of power to end-consumers. This led the organisations to exist with no real measure of their performance other than their ability to carry out their mission within the peso or dollar allocation received from the government. NPC, ECNZ and Capital Power had been constrained from making real profits and raising the price for their services as these moves were socially and politically resisted.

The managers of these firms had no real motivation to perform other than to keep their jobs and play it by the rules. Their corporate mission to serve was, however, displaced by the divergent demands of their various public. These were suppliers, creditors, customers, politicians, contractors, consultants, environmental activists, employees and other stakeholders. Because of these pressures, their mission to satisfy everybody had satisfied nobody, so to speak. Efficiency efforts in these utilities were more concerned with performing optimally within limited resources. Since these utilities were not able to achieve significant profits, surplus funds were used to expand or improve their services. Their management tended to think of new activities and more staff to justify a large budget. Board membership in these organisations was on the basis of position in government and the ability to work with politicians and not on managerial experience. This was the case of the

National Power Corporation before its decline. Such being the case, there had been much internal politics in NPC's management and operation. During the height of the NPC crisis, middle-managers complained that the Board interfered in operational matters such as hiring and purchasing and ignored their task of determining strategies and policies. Constraints in the operation of these utilities had been complicated by the inherent difficulty in decentralising decision-making because of certain regulatory procedures and requirements. Thus, low-level managers in these utilities had to wait until higher management could approve or decide.

Discipline was also difficult to enforce in the case of NPC because the best that it could do to suspected wrongdoers was to give them no assignment. If they were lucky, they could even become members of the new management team.

Performance appraisal in these firms were politicised. Standards of performance tended to emphasize form over substance and confused looking good and keeping busy with actual performance. Because the usual problem of these utilities was lack of investment funds, they needed to get a good credit rating, locally and internationally. One strategy was to get cash-rich partners from the private sector in project implementation.

It was the particular experience in New Zealand that the only way to attain profit and sustainability was to deregulate and privatise under an environment of neutrality, transparency and concern for the end-consumers. This social concern was relatively difficult but attained by ECNZ because of statutory requirements and easy but not achieved by a commercially orientated Capital Power whose market share had diminished.

In a family business environment such as in SFELAPCO, managerial decision and control had often been intuitive and regarded as personal. Thus, the General Manager did not have effective control of say, disbursement schedules and bill collection as these were compromised by kinship considerations. A number of disbursements were advanced and collection was delayed upon request of relatives and friends. The appointment of a Finance Manager, who is not a professional accountant but because he was a brother-in-law, restrained the effectiveness of financial control.

The financial problem of SFELAPCO stemmed from the difficulty of its executives to convince the Board on certain projects and procurement. For one thing, the Board wanted all expenses to result in profit. When this could not be assured, the management of SFELAPCO resorted to short-term borrowings that were high interest bearing. Financial statements were prepared for regulatory and tax agencies like the Energy Regulatory Board and the Bureau of Internal Revenue. Thus, they usually revealed only half the story. They were prepared by an external accountant/auditor to satisfy government requirements. Since balance sheets and income statements were not what they seemed, the financial ratios of SFELAPCO could not be relied upon. Errors of omission or commission in the accounting treatment of assets and liabilities were prevalent. Discrepancies in financial reporting as claimed by the tax agency have been the subject of a legal challenge. Thus, the return on current assets as suggested by Levin and Travas to have a better measure of corporate productivity was applied (cited in Wheelen & Hunger 1989,p391).

For all of the case study firms, the inherent problem of financial squeeze due to rising operating and capital costs hampered their turnaround strategies. While it

was also necessary to consider cost reduction, the latter should not be compromised with the need to improve employee motivation to work that was deemed critical in the turnaround effort as exemplified by NPC, ECNZ and Capital Power. The improvement of power service by technical or operational means required huge investment. The expected returns from these investments were readily quantifiable and could deter the emergence of complications in the management aspect of the organisation. However, exemplary management leadership and broad stakeholder support were assurances of success for the turnaround efforts.

Taken together, these comparative case studies lent some evidence to support the following hypotheses:

1. Electric utilities in New Zealand and the Philippines face common problems such that short-term approaches to turn their situation around can be similarly applied.

2. In a turnaround situation, financial recovery is usually accompanied by marked improvements in key success and "frame-breaking" factors.

3. In a less vertically integrated power industry such as in New Zealand and the Philippines, electricity distributors by virtue of their being at the receiving end of the power business and their not being exposed to high generation costs are in better positions to recover from decline than power generators.

4. Due to the regulatory environment that restrains electric utilities from price adjustments, from achieving commercial level of profitability and operating independently, management and operation of these utilities have become ineffective and inefficient such that the removal of these regulatory pressures will set into motion key success and renewal factors necessary for corporate recovery.

The above hypotheses had been the critical talking points in discussing the problems of electric utilities in these case studies.

6.3 Reflections on Methodology

A simple approach to management research such as that applied in these case studies had produced quite large and comprehensive results. The analytical framework proved useful. The logical link between qualitative and quantitative methods of analysis had been established to be able to state with conviction that financial results of operations were reflective of the way these utilities had been organised and managed though they could be manipulated by remedial accounting methods.

Difficulties had been experienced in using the structured approach in applying the analytical model and paradigm in this study. The significant thing about this model is that it covered a bigger ground for investigation than originally planned. Data interpretation and report writing had been focused, particularly with the unstructured approach, to keep the level of analytical details within the boundary of the analytical model and paradigm developed in Chapters 2 and 3.

A more thorough application of a number of methods enumerated in Chapter Three had been minimised in favor of analysing more hard data gathered during company visits. Results of this study indicate that the model can only have limited application to less vertically integrated electricity supply industries in the Asia/Pacific region. Thus, adoption of the model on a regional scale needs to be done with caution.

6.4 Conclusions about the Research Problem

There is a need for electric utilities in New Zealand and the Philippines if not in Asia/Pacific to consolidate and share their experiences and lessons from corporate

decline so that each can learn from one another. The sets of factors would likely be different depending on their degree of susceptibility. Their peculiarities and strategies specific to their decline problems must be noted and classified according to decline stages and circumstances. Certain commonalities and differences in the mixture of strategies and proper timing and duration of implementation must be determined. Corporate decline and its indicators, if promptly recognised, could be nipped in the bud, so to speak. Thus, short-term turnaround strategies could be established for electric utilities. Some of these measures may also be applicable to decline problems of electric utilities in Thailand or in other countries with similar industry structures (Table 31).

To reiterate the conclusions reached in these studies, the following could be stated:

1. There had been a commonality of problems and approaches for regulated electric utilities in New Zealand and the Philippines.

2. Country and industry peculiarities did exist due to differences in regulatory environments and market relationships.

3. Turnaround efforts of these utilities were successful to the extent that they were able to improve their short-term financial performance, management and operating systems.

4. Sustainable or long-term recovery in the electricity business was made difficult by the inability of firms to improve on other key success and frame-breaking factors.

6.5 Policy Implications

The move to further corporatise and privatise electric utilities in the Asia/Pacific region may be an effective way to make them more efficient and

competitive but this could not eliminate the need for turnaround strategies if expected improvements seemed remote. The importance of identifying "key success"and "frame-breaking" factors for sustainable corporate recovery must not be undermined. Bringing down the cost of electric service to the final consumers is the best measure of success. Though necessary, it can not be achieved through changes in utility ownership and industry structure alone. Corporate recovery efforts could be achieved by gains in such "key success factors" in the operational aspects of the organisation as purchasing, research and engineering capability, process research, cost effectiveness and efficiency plus teamwork. Such frame-breaking factors as revealed in these studies as the operationalisation of better system and procedures, development of employee skills, greater management control, better communication and interpersonal relations, inculcation of positive work values through a participative management style, among others, were very important in sustaining the turnaround effort. The comparative case study provided these lessons.

Government and family-owned electric utilities that are privatising or divesting through initial public offerings (IPOs) should undergo a change management or re-orientation program to better prepare their management and staff for new ways of conducting business and winning investor confidence.

As a matter of public policy, greater market reforms and vertical integration in the electricity sector must be instituted by the respective governments of New Zealand and the Philippines to ensure fair competition and power pricing regimes. These utilities should explore ways to introduce effectively Total Quality Management (TQM) in their management and operating systems for greater efficiency and service improvement. Experiences of NPC and Capital Power indicated that TQM should go beyond training and manualising systems and

procedures. Commitment to TQM principles by employees on a day-to-day basis is crucial to the success of any enterprise. In this manner, the competitiveness of these utilities would be promoted. There could be no substitute for better and tighter management of these firms during their critical times to ensure their sustainable recovery. Strategic alliances with best performing firms, just as Capital Power formed with TransAlta of Canada, can further assure success. Honest-to-goodness culture change among management and staff of these firms is necessary to better prepare them for challenges that would surely come their way. In order to ensure sustainable corporate recovery and competitive performance through productivity and efficiency gains, " lean and mean" organisational structures for electric utilities must be designed and implemented. All power utilities must improve their capability for strategic thinking in an environment of competition and uncertainty. This is to empower them to manage, operate and compete as world-class performers.

6.6 Limitations

The more in-depth and thorough application of analytical methods mentioned in Chapter Three was constrained. It was due to the fact that this study attempted to do all possible methods of analysis that sacrificed a number of methodological applications such as the "SWOT"and discriminant analysis (Appendices 38 to 40). Likewise, the study took the unstructured rather than the structured approach in the application of the model in three of the four cases. The critiquing aspect of the case analysis had been tempered by ethical assurances of confidentiality in the handling of information provided by respondents. Along the way and before the field trip to New Zealand, the design of questionnaires was modified to suit respondents of a different and unfamiliar culture and environment.

This, again, was done in view of ethical considerations. But it was resorted to improve the conduct of data gathering and obtain better field results.

6.7 Further Research

There were ideas from interviews with a number of respondents that much of the success of the recovery effort of electric utilities depended on higher thermal efficiencies of thermal power plants, fuller utilisation of other base-load plants and higher system reliability. This is because much of the cost recovered came from the results of utility operation. This issue needs to be investigated in both their engineering and management contexts. The inner dynamics of strategy formulation and implementation involving the various stakeholders must also be considered.

The best regulatory environment for the privatisation of electric utilities is also a contentious issue that needs further research. Governments have to choose between market and non-market alternatives in pursuing electricity supply functions. Each of these alternatives has imperfections and inherent shortcomings. In the final analysis, it must suit country conditions.

The experiences of the four electric utilities related in these studies provided useful lessons for similarly-situated firms as they represented the type of firms in which decline problems usually arise. Designing a more simple, vertically integrated and competitive structure for the electricity supply industry by governments may provide renewed dynamism to the electricity supply industry and remedy the declining performance of electric utilities.

Another fertile area for research is *competitive benchmarking* for electric utilities. This is simply a compilation of the world's best electric utilities and power plant performance. Such performance is recorded on a fixed number and set of factors to serve as standards for comparing the performance of electric utilities and

power plants worldwide. Deriving mathematical formulas for computing the cost and benefit of improving each of these performance indicators on a per kilowatthour basis, similar to the Altman's z-score method, is another intellectual exercise that deserves time and effort.

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Appendix 1

DEFINITION OF KEY SUCCESS FACTORS

Key Success Factors	Definitions
1. Image	- goodwill, prestige, reputation or positive image created by the organisation to its stakeholders.
2. Technical knowledge of personnel	- the competence of personnel to apply the different methods used in power generation to meet customer needs and target construction schedules for engineering projects.
3. Public relations skills	- ability to relate or respond courteously to various clients, i.e. media or external public/customers.
4. Research and engineering capability	- ability to devise new ways to improve operating efficiency, project design and execution.
5. Service	- adequacy and reliability of power service and ability to respond to customer demands.
6. Process research	- in-house capability to change the way power is generated.
7. Customer financing	-services offered to customers to increase their purchasing power and offer credit terms at reasonable interest rates.
8. Distribution	- economical, timely and adequate distribution of power to customers.

9. Location of facilities	- near the source of raw materials, customers and manpower.
10. Quality Control system	- an assurance of quality in its procurements, power generation and project execution.
11. Operations management	- work is carefully managed to reduce cost.
12. Purchasing	- ability to purchase critical spare parts at cheaper costs and in time and quality needed.
13. Employee relations	- no or minimal work disruption or wastage due to management-employee conflicts.
14. State-of-the-Art technology	- use up-to-date/efficient equipment.
15. Cost effectiveness and efficiency	- ability to generate, transmit and distribute power at competitive rates to customers due to low operating costs and large system spread.
16. Power plant capacity	- sizes of power plants are optimum to derive the benefit of economies of scale and reliable output as demanded by customers.
17. System maintenance and reliability	- minimal power interruptions due to plant or equipment breakdown.
18. Generation mix	- a wide variety of indigeneous and cheap sources of energy beneficial to both power producers and users.
19. Customer concentration	- within desirable level that guarantees efficient service with minimal system loss and administrative costs.

20. Social responsibility	- displays good community involvement in areas of operation.
21. Internal operating procedures	- show responsive or no red tape in the delivery of its service to its customers and employees.
22. Government support	- receives budget and political support for projects needed to improve the system and its services.
23. Personnel integrity	- employees are credible and honest in performing their jobs.
24. Managerial skills	- top management particularly the CEO has leadership skills and ability to motivate personnel.
25. Teamwork	- workforce exhibits cooperation on the job to achieve corporate tasks and objectives.
26. Thermal Efficiency or Heat Rate	- is the thermal energy content of the output over the thermal energy content of the input times 100.
27. Outage Rate	- is the actual duration of forced and scheduled power interruptions in a given year over the total number of hours in a given year (or 8,760 hours) times 100.

Appendix 2 - Sample Interview Instrument

March 11, 1996

Dear Sir/Madam:

I am Gerardo R. Joson, *an employee of the National Power Corporation in the Philippines and presently taking up a business course at the Curtin University Business School in Perth, Western Australia. I am currently doing a survey of electric utilities in New Zealand through mailed questionnaires to document their experiences in overcoming corporate problems and examine the efficacy of their strategies that are needed in the design of a strategic management model for the Asia and the Pacific region. You have been selected for this survey because your involvement in the electricity sector of New Zealand in the past five (5) years will surely provide valuable inputs to this research undertaking. I have prepared an interview questionnaire that you are requested to answer as completely as you can. The data gathered from this interview will be used for academic purposes only. Please take note of the time reference of each question as it may refer to past company situations.*

Your cooperation in accurately answering this questionnaire will be highly appreciated. Please accomplish said questionnaire in one sitting to reflect your straightforward response.

Your response will be kept in strict confidence. I can assure you of your anonymity as this questionnaire will not be made available to anyone other than myself and my research supervisor.

I shall appreciate your time and cooperation in filling up this questionnaire and wish you success in your present and future endeavors.

With my warmest regards. Thank you.

Sincerely yours,

GERARDO R. JOSON

TURNAROUND STRATEGIES: Key Factors for Corporate Recovery in the Electricity Industry of New Zealand and the Philippines

A. MAIN INQUIRY

1. *Please rank the problems that the Electricity Corporation of New Zealand encountered in 1991 according to gravity, where 1 is the most serious and 5 the least serious problem.*

PROBLEMS	RANK
1 - low profitability	[ ]
2 - inefficient operation	[ ]
3 - asset underutilisation	[ ]
4 - top heavy organisation	[ ]

5 - others [ ], please specify _____

2. *Please indicate the causes of the problems as ranked in Question 1?*

PROBLEM RANKED AS

1. _____
2. _____
3. _____
4. _____
5. _____

CAUSES

1 - poor management
2 - inadequate financial control
3 - high capital & operating costs
4 - delay in the execution of major projects
5 - high interest expense
6 - conservatism of management
7 - innovating too much too soon
8 - shortsightedness of management
9 - overconfidence of management
10 - overreaction of management to the crisis
11 - personal inadequacy of the CEO
12 - inability of the organisation to adopt
13 - bad luck
14 - negative work environment
15 - board-management conflicts
16 - others [ ], please specify_____

3. How did the problems (responding to Question 1) affect your company performance ? Please check as many numbers as you may find applicable.

large financial loss..... [1]
low return on assets..... [2]
high employee turnover ..... [3]
bad public image of the company..... [4]
others ..... [5]
please specify _____

4. What is your evaluation of the management response to these problems in 1992 ? Please check the number corresponding to your evaluation.

DIMENSION	E V A L U A T I O N Very Poor	Poor	Average	Good	Excellent
a) responsiveness	1	2	3	4	5
b) adequacy	1	2	3	4	5
c) consistency	1	2	3	4	5
d) spontaneity	1	2	3	4	5

5. What was the response of your top management to solve these problems ? Please check the numbers corresponding to your answers.

reduced cost and capital expenditures	01
sold non-performing assets	02
stepped-up collection efforts	03
rescheduled debt repayments	04
injected additional funds	05
stopped hiring of new personnel	06
re-oriented personnel on new work expectations	07
retrenched and cutback	08
replaced the Chief Executive Officer	09
implemented management development programs	10
designed and implemented strategic information, planning and control systems	11
re-organised	12
corporatised/privatised the company	13
implemented performance-based reward system	14
conducted public image improvement programs	15
formed strategic alliances with other energy firms	16
others	17

please specify _____

6. If you were given the opportunity to decide on this action by your company's management or consulted on the matter, how would you have responded ? Please check the number corresponding to your answer.

strongly agree with action	1
agree	2
neutral	3
strongly disagree with action.	4

7. If you have disagreed, how would you have addressed the 1991 problems of your company ? Please check the numbers corresponding to your answers.

get everybody's opinions on these matters	1
seek everybody's support in solving them	2
strike an acceptable trade-off among interest groups	3
treat the problems on a case-to-case basis	4
obtain external assistance	5

understand and satisfy the needs of employees ..... [6]
all of the above ..... [7]
other approach ..... [8]
please specify _____

8. How would you measure the effectiveness or success of the management or your own approach ? Please check the numbers corresponding to your answers.

through financial indicators..... [1]
by getting employee opinions on the matter... [2]
develop own evaluation criteria..... [3]
use existing management ratios..... [4]
others ..... [5]
please specify _____

9. How would you rate your company image in 1991 relative to the following factors ? Please check the appropriate number.

FACTOR	RATING Very Poor	Poor	Average	Good	Excellent
a) quality of management team	1	2	3	4	5
b) adequacy of service	1	2	3	4	5
c) reliability of service	1	2	3	4	5
d) financial soundness	1	2	3	4	5
e) community relations	1	2	3	4	5
f) environmental responsibility	1	2	3	4	5
g) opinion of the CEO	1	2	3	4	5
h) ability to adopt to change	1	2	3	4	5
i) understanding of customer needs	1	2	3	4	5

10. How did government/public pressures affect your top management response to its decline problems ? Please check the appropriate number.

very helpful..... [1]
helpful..... [2]
disruptive..... [3]
very disruptive..... [4]

11. How would you describe the situation in 1992 in comparison with the previous years ? Please check the appropriate number.

very significant improvement. [1]
improved..... [2]
worsened..... [3]
very worse..... [4]

12. If you were the Chief Executive of your company in 1992, how would you have effected a corporate turnaround ? Check as many numbers as you may find applicable.

by cost and staff reduction..... [1]

by reorganisation..... 2
by improving employee working conditions 3
by selling non-performing assets..... 4
by injecting additional funds..... 5
all of the above..... 6
others 7
please specify _____

13. Considering your present company situation, do you think it can still effect and sustain its turnaround efforts ? Please check the appropriate number.

big chance..... 1
little chance..... 2
hopeless..... 3
Please state the basis of your opinion_____
_____

14. How would you assess changes in the following aspects of your organisation in 1992 ? Please check the appropriate number.

a) **Structure**

became more top-heavy and highly centralised..... 1
became lean and mean..... 2
became decentralised..... 3
others..... 4
please specify _____

b) **Systems**

new systems and procedures have been designed
and operationalised..... 1
little or minimal changes have been observed..... 2
no change has been set in place..... 3

c) **Skills/Capability of Managers and Personnel**

very significant improvement..... 1
improved..... 2
no improvement..... 3

d) **Shared Values / Culture**

generally positive work attitude has been observed..... 1
generally negative work behaviors have been observed. 2

e) **Staff**

more capable and well-motivated personnel
have been hired..... 1
capable but demoralised staff left the company..... 2

f) **Strategy**

relevant and effective in addressing decline problems..... 1
not workable considering company situation..... 2
do not know..... 3

g) **Managerial Style**

management shows leadership qualities
that inspire people to perform better 1
management asserts power and authority to get the jobs done..... 2
management style is incompatible with the people and the tasks at hand 3

h) **Management Control**

adequate..... [1]
inadequate..... [2]
none at all..... [3]

i) **Chance or Opportunity**

anticipated and used to advantage. [1]
not taken into account in planning. [2]

j) **Communication**

open lines of communication between management and employees [1]
employees have limited access..... [2]
closed communication. ..... [3]

k) **Crisis Points**

identified and monitored..... [1]
unknown..... [2]

l) **Causes and Commitments**

responsible officials and personnel are aware
of the problems and are commited to address them..... [1]
unknown to concerned personnel..... [2]

15. Do you think that the above twelve (12) elements of company performance environment have been considered in the planning of its recovery efforts ?

Yes..... [1]
No..... [2]

16. Using the scale of 1 (very poor) to 5 (excellent), do you see any significant efforts undertaken by the present management on the following 27 factors as defined in Appendix 1 to sustain your company profitability ?

Please check the number corresponding to your rating.

Key Success Factor	Very Poor	Poor	Average	Good	Excellent
1. Image	[1]	[2]	[3]	[4]	[5]
2. Technical Knowledge of Personnel	[1]	[2]	[3]	[4]	[5]
3. Public Relations Skills	[1]	[2]	[3]	[4]	[5]
4. Research and Engineering Capability	[1]	[2]	[3]	[4]	[5]
5. Service	[1]	[2]	[3]	[4]	[5]
6. Process Research	[1]	[2]	[3]	[4]	[5]
7. Customer Financing	[1]	[2]	[3]	[4]	[5]
8. Distribution	[1]	[2]	[3]	[4]	[5]
9. Location of Facilities	[1]	[2]	[3]	[4]	[5]
10. Quality Control System	[1]	[2]	[3]	[4]	[5]
11. Operations Management	[1]	[2]	[3]	[4]	[5]
12. Purchasing	[1]	[2]	[3]	[4]	[5]
13. Employee Relations	[1]	[2]	[3]	[4]	[5]
14. State-of-the-Art Technology	[1]	[2]	[3]	[4]	[5]
15. Cost effectiveness and Efficiency	[1]	[2]	[3]	[4]	[5]

16. Power Plant Capacity	1	2	3	4	5
17. System Maintenance and Reliability	1	2	3	4	5
18. Generation Mix	1	2	3	4	5
19. Customer Concentration	1	2	3	4	5
20. Social Responsibility	1	2	3	4	5
21. Internal Operating Procedures	1	2	3	4	5
22. Government Support	1	2	3	4	5
23. Personnel Integrity	1	2	3	4	5
24. Managerial Skills	1	2	3	4	5
25. Teamwork	1	2	3	4	5
26. Thermal Efficiency	1	2	3	4	5
27. Outage Rate	1	2	3	4	5

B. PERSONAL QUERIES (Please check the appropriate number)

1. **Position Level in the Company**

Manager/Executive.....	1
Supervisor	2
Professional/Technical.	3
Rank and File.....	4

2. ***Age on Last Birthday***

20 to 24 years old.....	1
25 to 29 years old.....	2
30 to 34 years old.....	3
35 to 39 years old.....	4
40 to 44 years old.....	5
45 to 49 years old.....	6
50 to 54 years old.....	7
55 to 59 years old.....	8
60 years and older.....	9

3. ***Gender***

Male.....	1
Female.....	2

4. ***Marital Status***

Single.....	1
Married.....	2
Widowed/Separated...	3

5. ***Functional Group***

Administration....	1
Operations.....	2
Engineering.....	3
Technical Services	4
Human Resources.	5
Finance.....	6

Corporate Planning [7]

6. ***Highest Educational Attainment***

Primary School..... [1]
Secondary/Vocational School.. [2]
Honours..... [3]
Grad. Dip/Post-grad Dip [4]
Master's degree..... [5]
Ph. D..... [6]

7. ***Length of Service in the Company***

5 to 9 years..... [1]
10 to 14 years..... [2]
15 to 19 years..... [3]
20 to 24 years..... [4]
25 to 29 years..... [5]
30 to 34 years..... [6]
35 years and more..... [7]

END OF INQUIRY

Please check if you have not skipped any question and kindly return the questionnaire soonest to the address below.

GERARDO R. JOSON
Utility Management Department
National Power Corporation
Diliman, Quezon City
Philippines

Thank you very much for your time and cooperation .

Appendix 3 - Sample Questionnaire

TURNAROUND STRATEGIES: Key Factors For Corporate Recovery in the Electricity Industry of New Zealand and the Philippines

This questionnaire is designed to evaluate the problems and strategies of the Electricity Corporation of New Zealand in the beginning of the nineties. The results of this study will be presented as part of the research project of this student with the above title. Please state your answer or check the number corresponding to your answer to each question. Your anonymity is assured. Likewise, all information provided in this questionnaire shall be kept confidential and used for academic purposes only.

A. PERSONAL QUERIES

1. In what capacity have you known the Electricity Corporation of New Zealand?_____

2. How many years have you known ElectriCorp in that capacity? Please check the number that corresponds to your answer.

5 - 9 years.....	1
10 - 14 years.....	2
15 - 19 years.....	3
20 - 24 years.....	4
25 - 29 years.....	5
30 years and above.....	6

3. Your Usual Occupation (Please check the appropriate number)

Business Owner	1
Privately Employed Professional.....	2
Government Employee.....	3
Industrial Worker.....	4
Agricultural Worker.....	5
Others.....	6

please specify _____

4. How frequent do you transact business with the ElectriCorp? Please check the appropriate number.

Once a month.....	1
Quarterly.....	2
Twice a year.....	3
Once a year.....	4
Very seldom.....	5

B. MAIN INQUIRY

1. What do you think were the problems of the ElectriCorp in 1991?

1.1_____

1.2_____

1.3 _____
1.4 _____
1.5 _____

2. **What do you think were the causes of these problems?**
   2.1 _____
   2.2 _____
   2.3 _____
   2.4 _____
   2.5 _____

3. **How did these problems affect the operation or your transaction with ElectriCorp?**

   _____

_____

4. **Have you had an opportunity to refer your problems with ElectriCorp management? Please check.**

Yes.....	1
No.....	2

5. **If yes, how would you describe its response?**

very poor.....	1
poor.....	2
good/fair.....	3
effective.....	4
excellent.....	5

6. **How would you rate the performance or service of ElectriCorp in 1991 relative to the following factors? Please check.**

Factor	RATING				
	Very Poor	Poor	Average	Good	Excellent
a.) quality of mgt./ leadership	1	2	3	4	5
b.) adequacy of service	1	2	3	4	5
c.) integrity of transactions	1	2	3	4	5
d.) social responsibility	1	2	3	4	5
e.) politeness of personnel	1	2	3	4	5
f.) environmental friendliness	1	2	3	4	5
g.) understanding of customer needs	1	2	3	4	5

7. **How would you compare the situation in ElectriCorp in 1992 with the previous years? Please check the appropriate number.**

very worse..... [1]
worsened..... [2]
improved..... [3]
very significant improvement.... [4]

8. If your advice is solicited in solving the problems of ElectriCorp in 1992, what would you suggest? Please check applicable numbers.

restructure ElectriCorp..... [1]
privatize ElectriCorp..... [2]
give it a chance to reform itself..... [3]
others..... [4]
please specify _____

9. Using a scale of 1 (very poor) to 5 (excellent), how would you assess the efforts of the present ElectriCorp management in improving organizational performance in the following factors? Please check the appropriate scale.

Factor	Very Poor	Poor	Average	Good	Excellent
1. Public Image	1	2	3	4	5
2. Competence of Personnel	1	2	3	4	5
3. Integrity of Personnel	1	2	3	4	5
4. Adequacy of service	1	2	3	4	5
5. Politeness of Personnel	1	2	3	4	5
6. Distribution	1	2	3	4	5
7. Location of Facilities	1	2	3	4	5
8. Purchasing	1	2	3	4	5
9. Efficiency of Service	1	2	3	4	5
10. Reliability of Service	1	2	3	4	5
11. Social Responsibility	1	2	3	4	5
12. Transparency of Procedures & Transactions	1	2	3	4	5

10. What do you think are the major threats confronting ElectriCorp today? Please check the appropriate numbers.

privatization moves..... [1]
political interference..... [2]
exodus of well -trained and experienced personnel..... [3]
reduction in foreign capitalization of projects..... [4]
excess/over capacity of power plants..... [5]
inefficient power plants..... [6]
lack of government/public support..... [7]
Others..... .. [8]
please specify _____

11. What would you suggest for ElectriCorp to be able to counter these threats? Please check the appropriate numbers.

efficiency and operational improvement..... [1]
cost reduction..... [2]
improve system reliability..... [3]
personnel productivity/reorientation..... [4]

Others ..... [5]
please specify _____

END OF INQUIRY

Please send accomplished questionnaire
to the address below :

GERARDO R. JOSON
Utility Management Department
NPC-OBC, Diliman, Quezon City
Philippines
Tel. Nos. 921-41-91 / 924-53-32

THANK YOU FOR YOUR TIME AND COOPERATION

APPENDIX 4

ECNZ INCOME STATEMENTS

1987-1995

(In Million NZ Dollars)

YEAR	1987	1988	1989	1990	1991	1992	1993	1994	1995
Electricity Sales	1210	1317	1434	1513	1584	1589	1543	2101	1400
Cost of Electricity Sales	275	332	514	496	466	395	325	642	458
Gross Income	935	985	920	1017	1118	1194	1218	1459	942
Operating Expenses	253	287	112	121	274	358	468	339	272
Operating Income	682	698	808	896	844	836	750	1120	670
Interest Expenses	327	475	414	391	162	130	36	446	153
Income Before Taxes	355	223	394	505	682	706	714	674	517
Taxes	48	82	62	166	173	257	384	178	131
Net Income	307	141	332	339	509	449	330	496	386
Retained Earnings	0	9	0	144	225	0	0	521	5

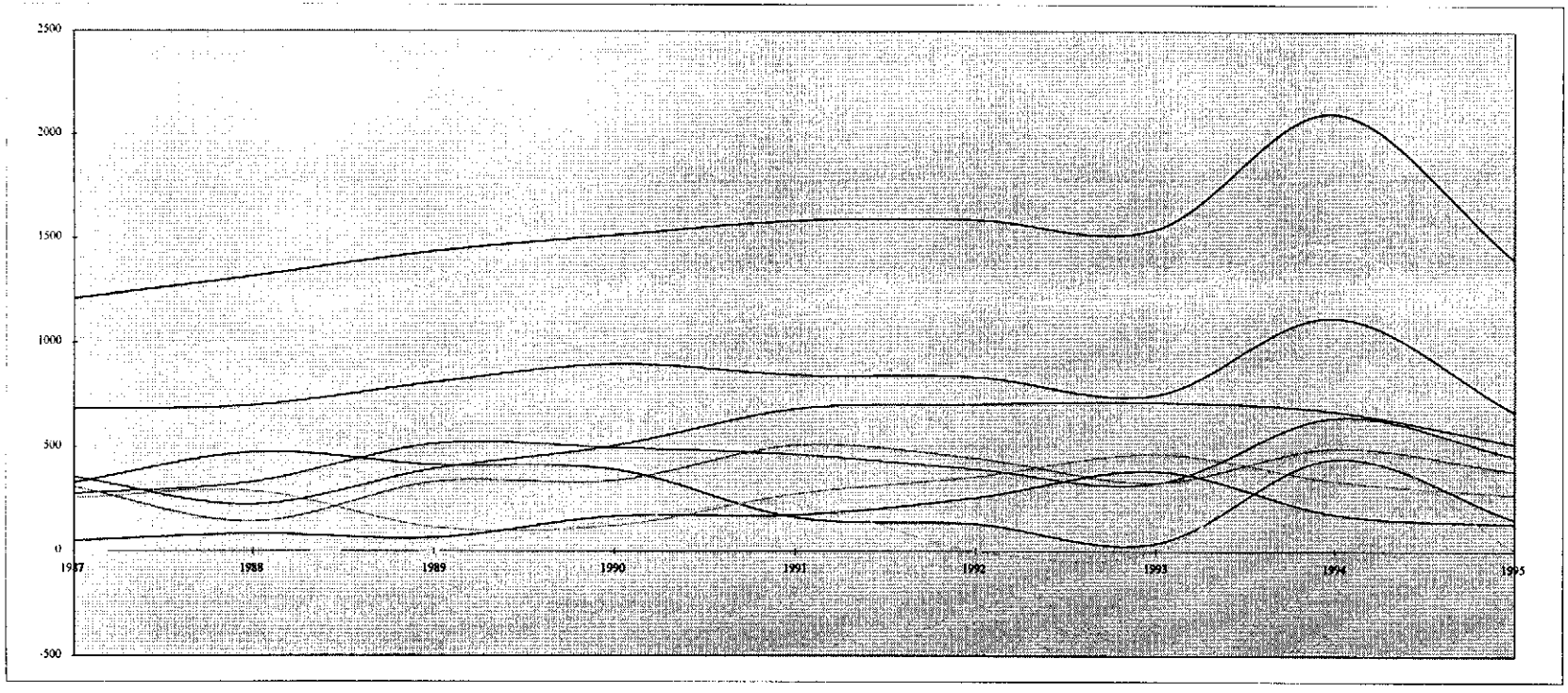
Source: Electricity Corporation of New Zealand, Wellington, New Zealand, 1996

APPENDIX 5

ECNZ INCOME STATEMENTS

1987-1995

(In Million NZ Dollars)



APPENDIX 6

ECNZ BALANCE SHEETS

1987-1995

(In Million NZ Dollars)

YEAR	1987	1988	1989	1990	1991	1992	1993	1994	1995
ASSETS	6425	6847	7311	7101	7431	8444	7821	7604	4494
- Current Assets	425	572	804	387	747	1494	615	476	327
- Fixed Assets	6000	6275	6507	6714	6684	6950	7206	7128	4167
LIABILITIES	3125	3679	4509	3386	4307	3660	3135	3552	1717
- Current Liabilities	125	434	1132	1355	1457	170	164	2739	622
-Long-Term Debt	3000	3245	3377	2031	2850	3490	2971	813	1095
NET WORTH	3300	3168	2802	3715	3124	4784	4686	4052	2777

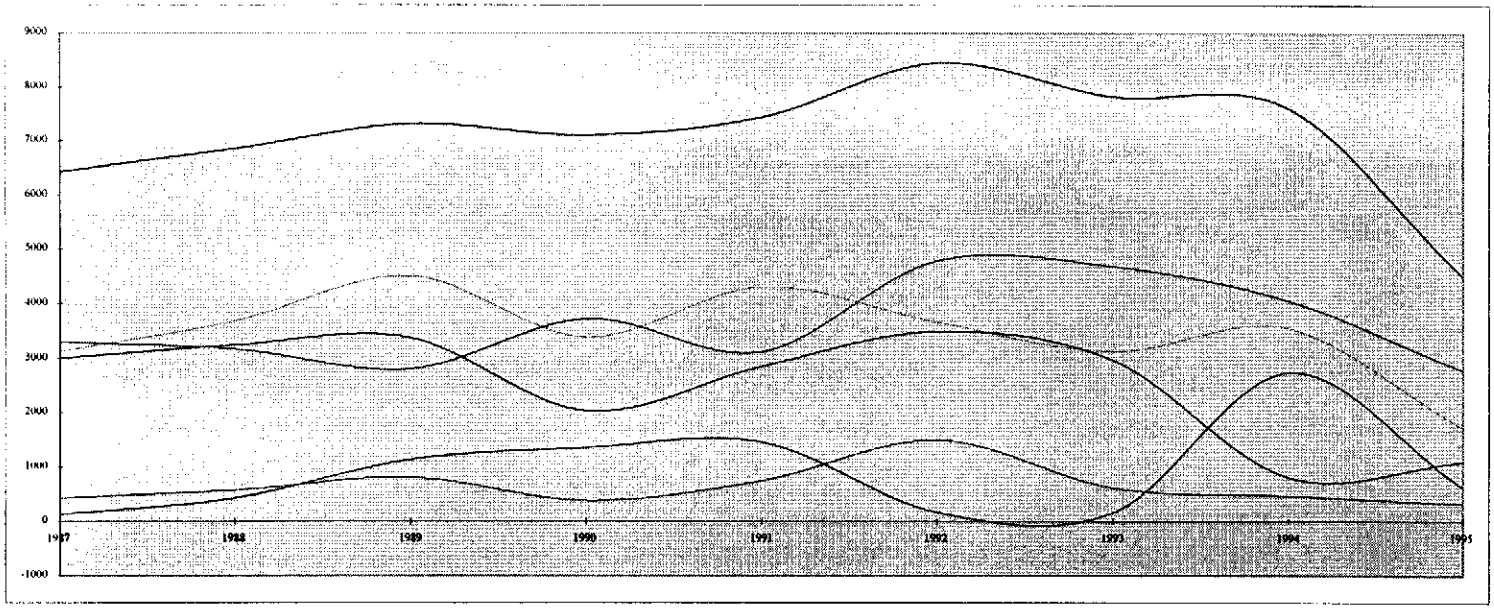
Source: Electricity Corporation of New Zealand, Wellington, New Zealand, 1996

APPENDIX 7

ECNZ BALANCE SHEETS

1987-1995

(In Million NZ Dollars)



APPENDIX 8

CAPITAL POWER INCOME STATEMENTS

1988-1995

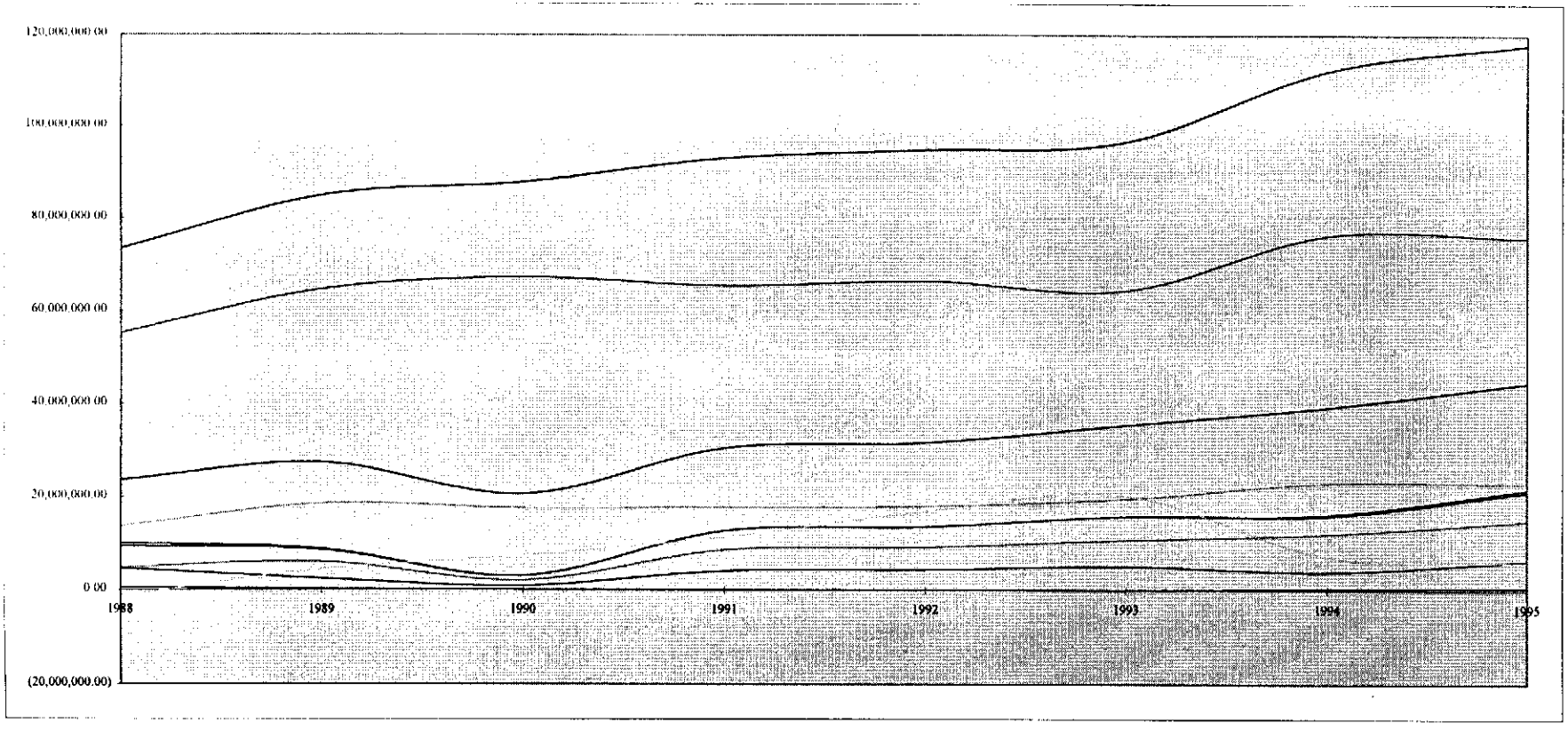
(In NZ Dollars)

YEAR	1988	1989	1990	1991	1992	1993	1994	1995
Electricity Sales	73,372,271.00	84,993,474.00	87,856,653.00	92,928,176.00	94,799,207.00	96,582,177.00	112,073,000.00	117,770,000.00
Cost Of Electricity Sales	55,284,170.00	64,678,980.00	67,203,380.00	65,412,612.00	66,412,804.00	64,424,108.00	76,249,000.00	75,752,000.00
Gross Income	23,656,855.00	27,440,271.00	20,653,273.00	30,462,347.00	31,663,989.00	35,446,047.00	39,244,000.00	44,511,000.00
Operating Expenses	13,686,555.00	18,579,980.00	17,562,748.00	17,781,807.00	18,042,188.00	19,621,879.00	23,016,000.00	22,923,000.00
Operating Income	9,970,300.00	8,860,291.00	3,090,528.00	12,680,540.00	13,621,801.00	15,824,168.00	16,228,000.00	21,588,000.00
Interest Expenses	576,498.00	285,759.00	80,888.00	52,731.00	48,974.00	26,485.00	343,000.00	521,000.00
Income Before Taxes	9,393,802.00	8,574,532.00	3,009,640.00	12,627,809.00	13,572,827.00	15,797,683.00	15,885,000.00	21,067,000.00
Taxes	4,598,709.00	2,468,818.00	916,373.00	4,057,272.00	4,366,223.00	5,083,301.00	3,882,000.00	6,249,000.00
Net Income	4,795,093.00	6,105,714.00	2,093,267.00	8,570,537.00	9,206,604.00	10,714,382.00	12,003,000.00	14,818,000.00
Retained Earnings	(1,325,099.00)	4,473,280.00	7,359,873.00	11,303,550.00	16,821,887.00	20,195,399.00	7,095,000.00	5,955,000.00

Source: Capital Power Ltd., Wellington, New Zealand, 1996

APPENDIX 9

CAPITAL POWER INCOME STATEMENTS
1988 - 1995
(In NZ Dollars)



APPENDIX 10

CAPITAL POWER BALANCE SHEETS

1988-1995

(In NZ Dollars)

YEAR	1988	1989	1990	1991	1992	1993	1994	1995
ASSETS	79,779,066.00	85,767,528.00	100,528,344.00	111,060,974.00	81,704,796.00	90,945,457.00	86,746,000.00	86,019,000.00
- Current Assets	19,618,028.00	18,937,870.00	27,913,392.00	32,804,537.00	27,385,701.00	34,549,006.00	28,837,000.00	27,582,000.00
- Fixed Assets	60,161,038.00	66,829,658.00	72,614,952.00	78,256,437.00	54,319,095.00	56,396,451.00	57,909,000.00	58,437,000.00
LIABILITIES	23,034,202.00	16,693,421.00	19,872,936.00	21,982,103.00	15,084,914.00	20,952,063.00	22,651,000.00	21,756,000.00
- Current Liablities	19,688,848.00	15,572,033.00	18,331,736.00	20,438,643.00	13,735,888.00	19,687,080.00	21,138,000.00	19,864,000.00
- Long-Term Debt	3,345,354.00	1,121,388.00	1,541,200.00	1,543,460.00	1,349,026.00	1,264,983.00	1,513,000.00	1,892,000.00
NET WORTH	56,744,864.00	69,074,107.00	80,655,408.00	89,078,871.00	66,619,882.00	69,993,394.00	64,095,000.00	64,263,000.00

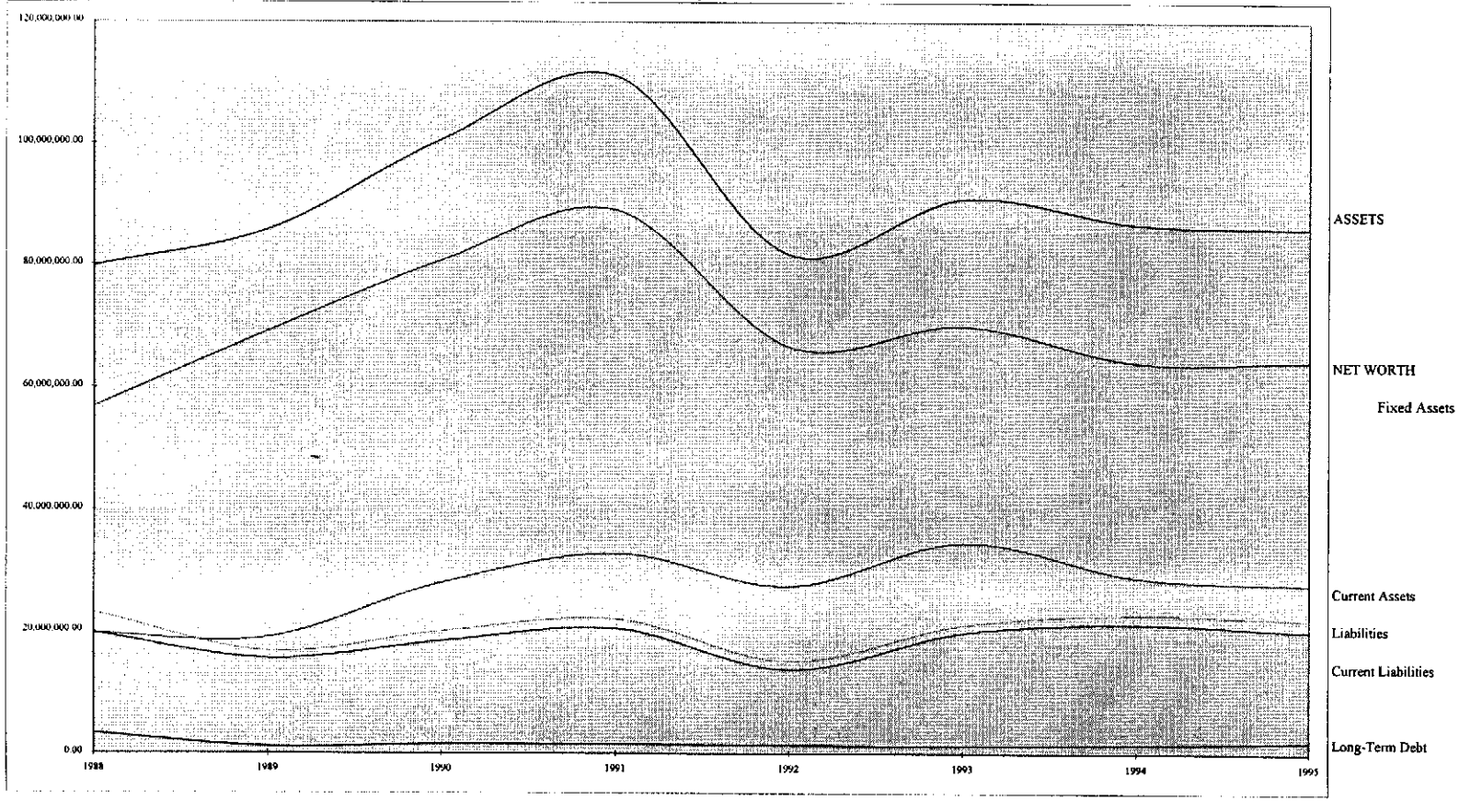
Source: Capital Power Ltd.,Wellington, New Zealand, 1996

APPENDIX 11

CAPITAL POWER BALANCE SHEETS

1988-1995

(In NZ Dollars)



APPENDIX 12

NPC INCOME STATEMENTS

1987-1995

(In Million Pesos)

YEAR	1987	1988	1989	1990	1991	1992	1993	1994	1995
Gross Income	17476	19811	20610	25779	32364	37645	40490	50530	52462
Operating Expenses	12779	14226	15311	21660	29787	30567	33825	38443	40913
Operating Income	4697	5585	5299	4119	2577	7078	6665	12087	11549
Interest Expenses	4426	4471	4386	4648	5435	5209	4794	6977	7350
Net Income	975	1671	1661	-65	-2930	4118	1365	7460	3927
Retained Earnings	2000	1300	4454	5528	2619	-3586	-868	8565	3957

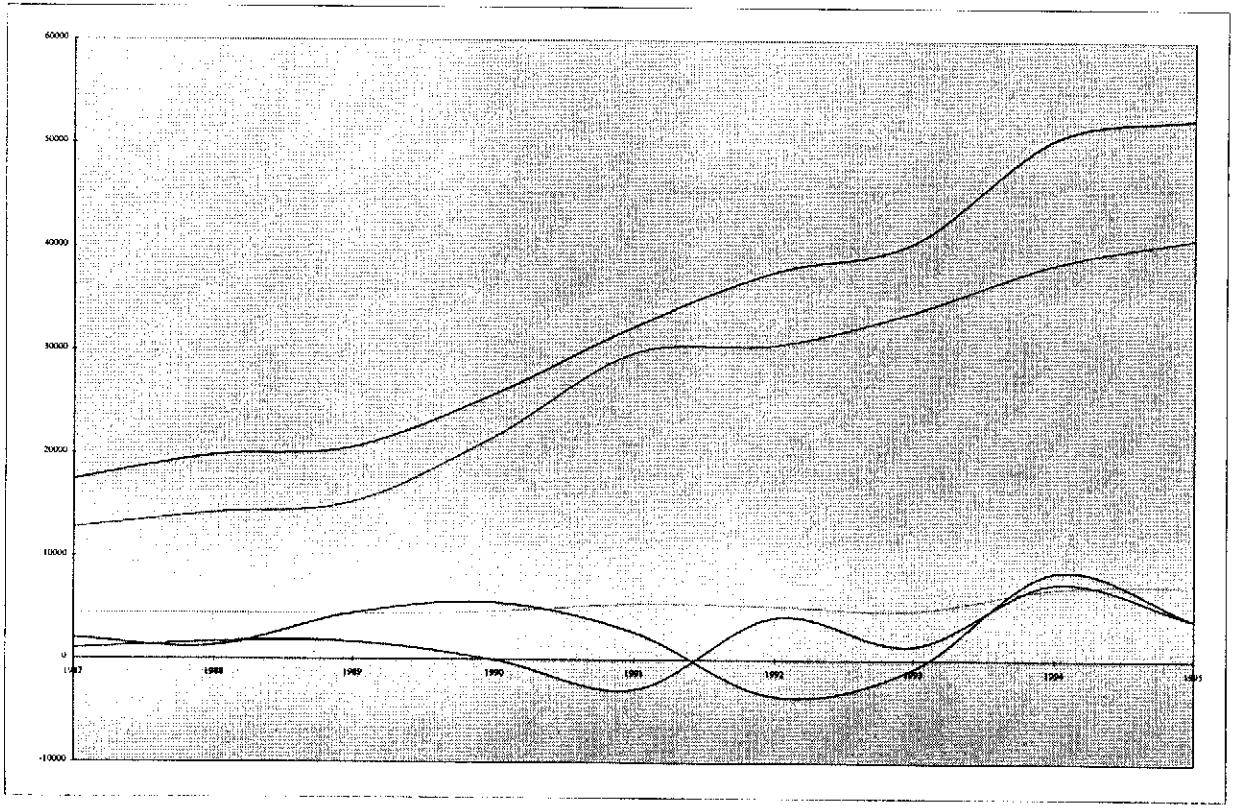
Source: National Power Corporation, Quezon City, Philippines, 1996

APPENDIX 13

NPC INCOME STATEMENTS

1987-1995

(In Million Pesos)



APPENDIX 14

NPC BALANCE SHEETS

1987-1995

(In Million Pesos)

YEAR	1987	1988	1989	1990	1991	1992	1993	1994	1995
ASSETS	139935	133733	136976	160460	170634	203154	245375	289173	351162
- Current Assets	12002	10089	13839	14633	15169	19033	25635	27769	29276
- Fixed Assets	70035	69069	65660	78144	86476	104725	135160	169330	184656
LIABILITIES	68176	63259	65014	89896	94025	98662	132977	146476	206389
- Current Liabilities	11031	10520	12274	20788	21778	31356	36973	42726	54161
-Long-Term Debt	57145	52739	52740	69108	72247	67306	96004	103750	152228
NET WORTH	40159	35628	34700	34225	35004	69976	112398	142697	105098

Source: National Power Corporation, Quezon City, Philippines, 1996

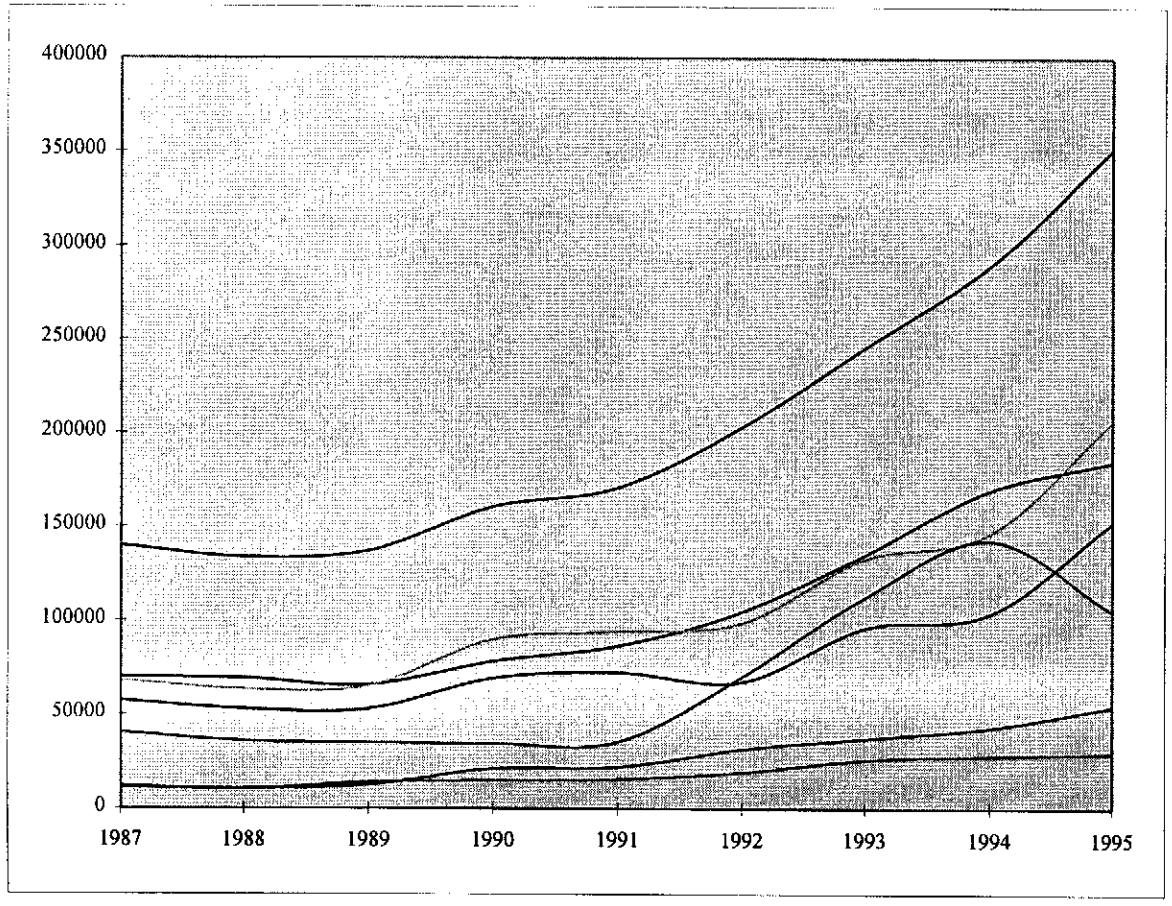
Note: Details may not add up to totals due to exclusion of defered debits and credits, contingent assets and surplus, investments and other assets and accrued liabilities.

APPENDIX 15

NPC BALANCE SHEETS

1987 - 1995

(In Million Pesos)



APPENDIX 16

SFELAPCO INCOME STATEMENTS

1988-1995

(In Million Pesos)

YEAR	1988	1989	1990	1991	1992	1993	1994	1995
Electricity Sales *	114.50	134.16	174.13	231.31	274.50	294.15	338.34	363.19
Cost of Electric Sales	82.44	95.25	128.09	159.98	184.73	207.55	224.86	241.61
Gross Income	32.06	38.91	46.04	71.33	89.77	86.60	113.48	121.58
Operating Expenses	24.68	17.63	29.72	43.82	80.16	76.36	85.37	85.62
Operating Income	7.38	21.28	16.32	27.51	9.61	10.24	28.11	35.96
Interest Expenses	6.24	6.10	3.72	7.20	7.26	7.52	6.88	4.42
Income Before Taxes	1.14	15.18	12.60	20.31	2.35	2.72	21.23	31.54
Taxes	2.55	3.04	3.53	4.44	4.93	5.59	6.72	7.04
Net Income	(1.41)	12.14	9.07	15.87	(2.58)	(2.87)	14.51	24.50
Retained Earnings	(18.08)	5.88	10.14	27.90	30.65	18.27	38.53	63.65

Source: San Fernando Electric Light and Power Company, Pampanga, Philippines, 1996

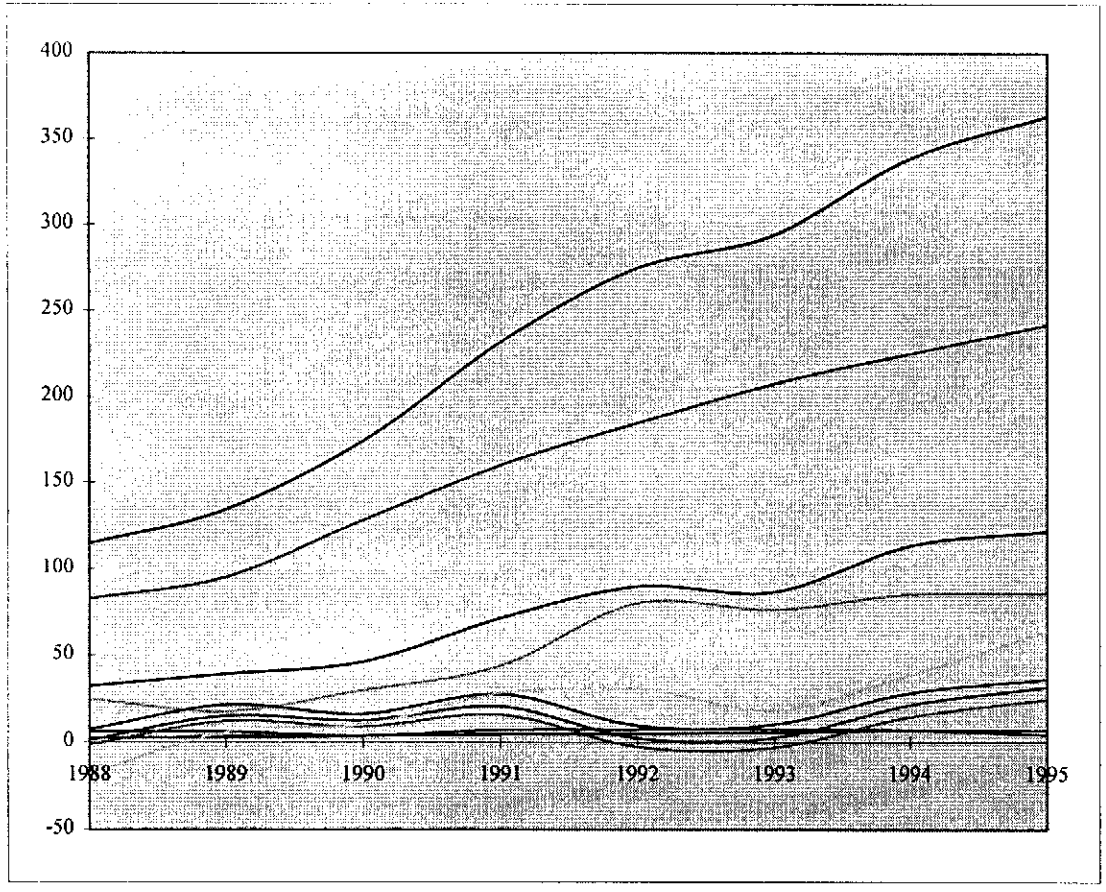
* ***Includes Other Income***

APPENDIX 17

SFELAPCO INCOME STATEMENTS

1988 - 1995

(In Million Pesos)



APPENDIX 18

SFELAPCO BALANCE SHEETS

1988-1995

(In Million Pesos)

YEAR	1988	1989	1990	1991	1992	1993	1994	1995
ASSETS	66.35	76.29	97.44	125.22	351.29	348.30	337.74	350.62
- Current Assets	36.53	39.49	49.32	50.00	52.71	55.98	55.66	70.07
- Fixed Assets	29.82	36.80	48.12	75.22	298.58	292.32	282.08	280.55
LIABILITIES	60.96	58.35	75.58	87.49	78.82	78.88	79.27	74.98
- Current Liabilities	47.51	44.44	44.46	61.76	69.16	34.81	52.79	74.98
- Long-Term Debt	13.45	13.91	31.12	25.73	9.66	44.07	26.48	0.00
NET WORTH	5.39	17.94	21.86	37.73	272.47	269.42	258.47	275.64

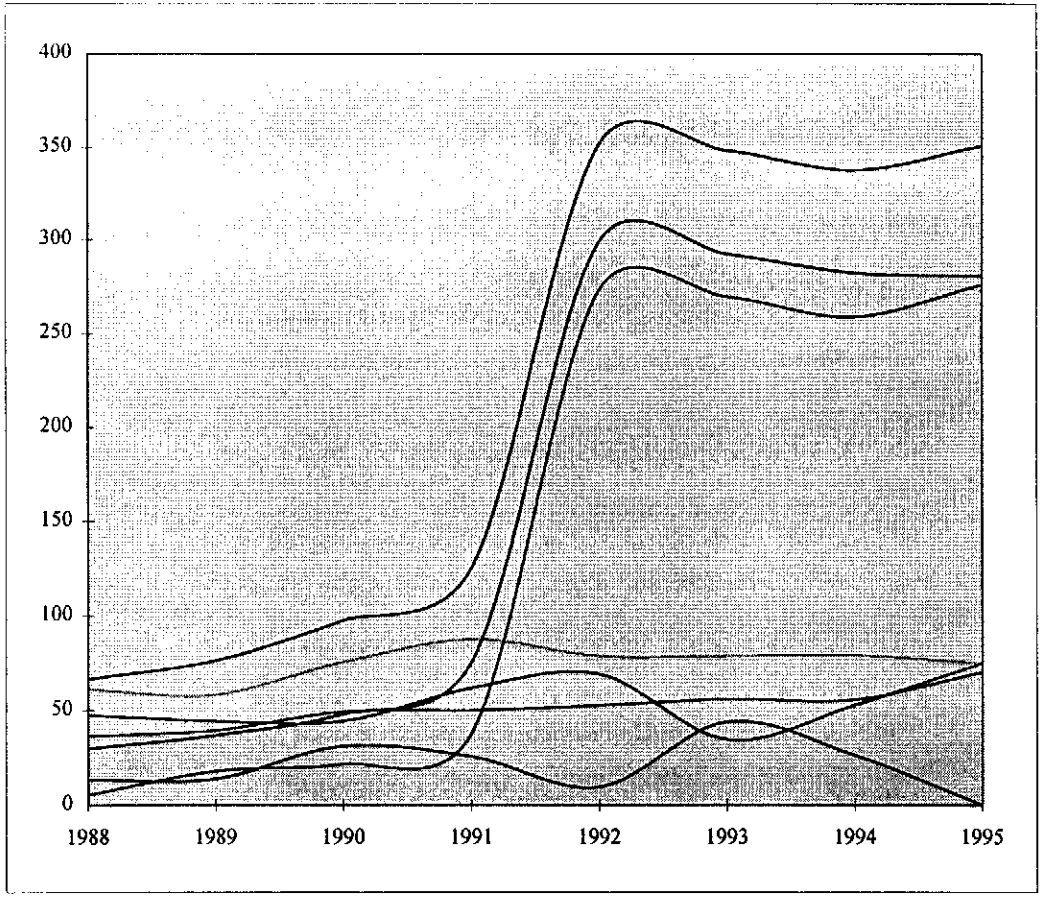
Source : San Fernando Electric Light and Power Company, Pampanga, Philippines, 1996

APPENDIX 19

SFELAPCO BALANCE SHEETS

1988 - 1995

(In Million Pesos)



APPENDIX 20

OPERATING EXPENSES OVER SALES OF FOUR (4) POWER UTILITIES RESULTING FROM TURNAROUND MANAGEMENT

1987-1995
(In Percent)

YEAR	ECNZ	Capital Power	NPC *	SFELAPCO
1987	21.00	0.00	73.00	0.00
1988	22.00	19.00	72.00	22.00
1989	8.00	22.00	74.00	13.00
1990	8.00	20.00	84.00	17.00
1991	17.00	19.00	92.00	19.00
1992	22.00	19.00	81.00	29.00
1993	30.00	20.00	84.00	26.00
1994	16.00	20.00	76.00	25.00
1995	19.00	19.00	78.00	24.00
Ave. Annual % Change	-1.25	0.00	0.83	1.24

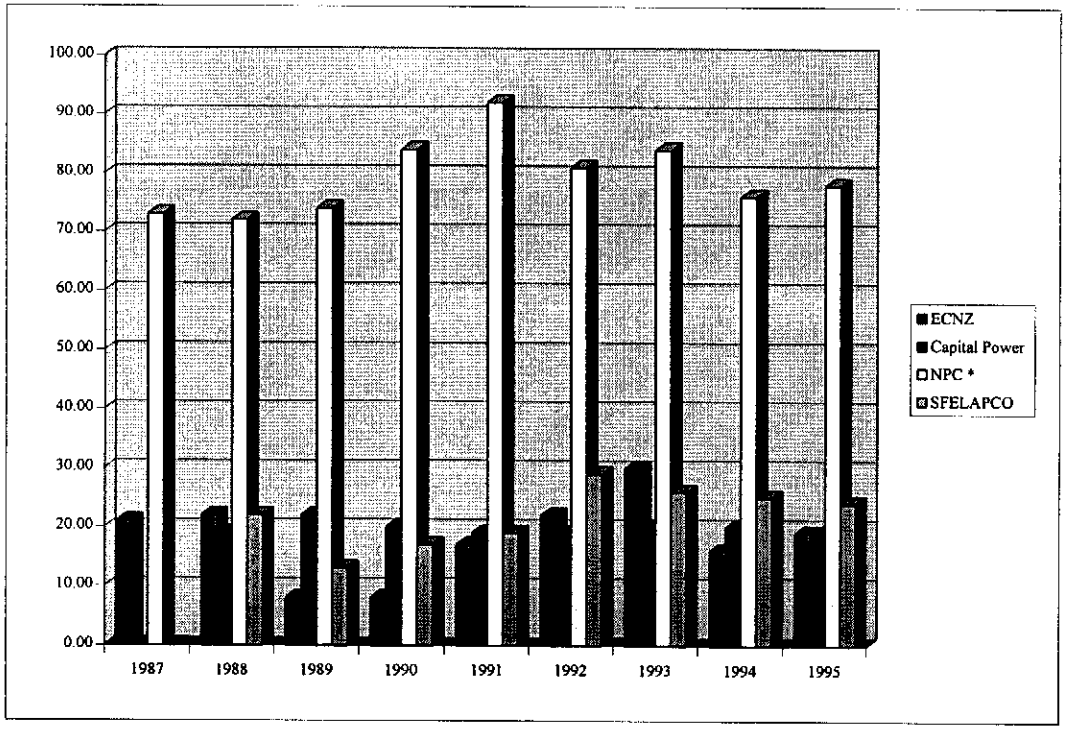
Source: ECNZ and Capital Power Ltd., New Zealand and NPC and SFELAPCO, Philippines, 1996

* Operating Expenses include Cost of Electricity Sales

APPENDIX 21

OPERATING EXPENSES OVER SALES OF FOUR (4) POWER UTILITIES RESULTING FROM TURNAROUND MANAGEMENT

1987-1995
(In Percent)



APPENDIX 22

CUSTOMER PERFORMANCE OF FOUR (4) POWER UTILITIES IN TERMS OF AVERAGE SELLING PRICE PER KILOWATTHOUR

1988 - 1995

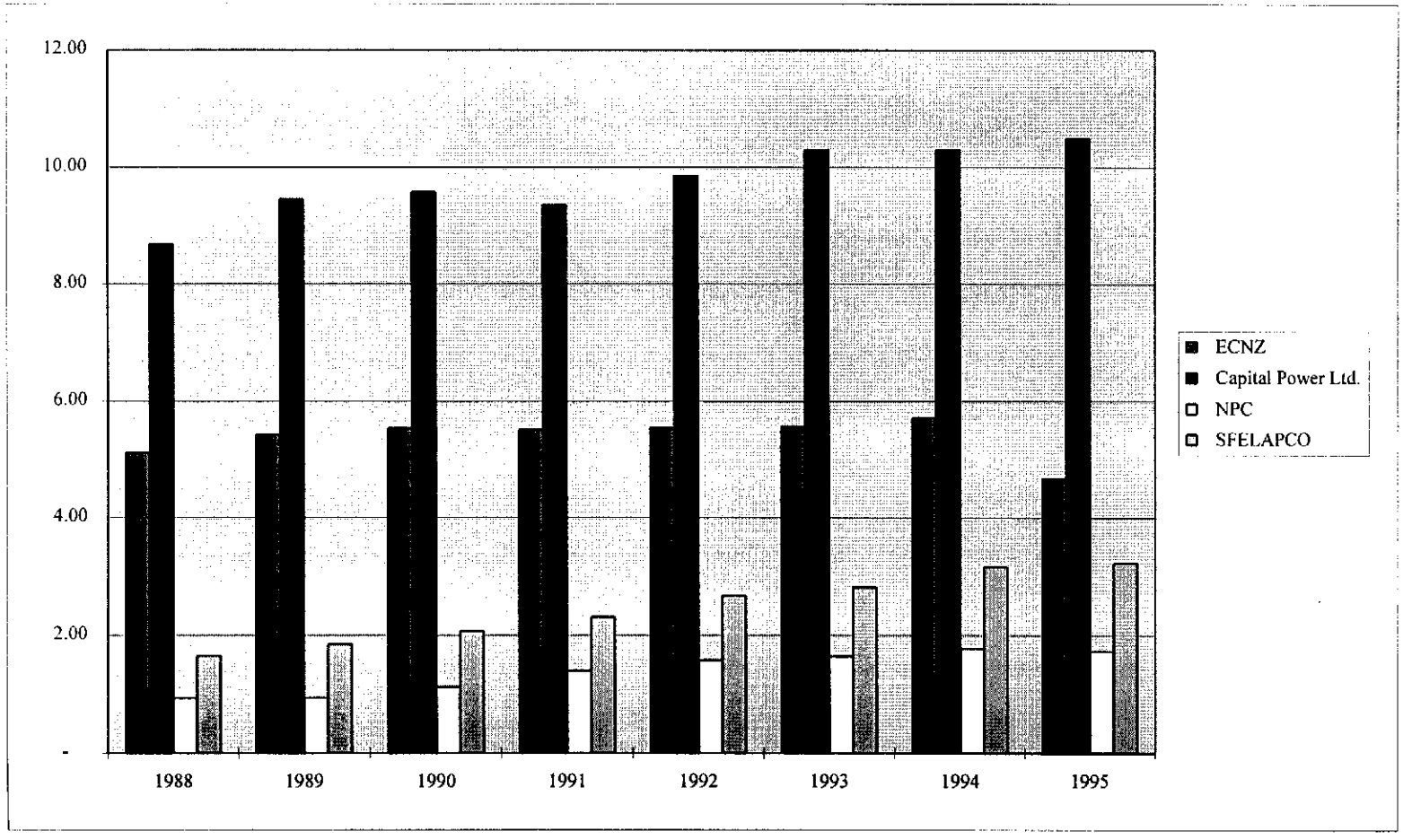
YEAR	1988	1989	1990	1991	1992	1993	1994	1995	Annual % Change
NEW ZEALAND (In NZ Cents Per Kilowatthour)									
ECNZ	5.11	5.42	5.53	5.51	5.54	5.56	5.71	4.67	(1.29)
Capital Power Ltd.	8.68	9.45	9.57	9.35	9.85	10.30	10.30	10.50	2.72
PHILIPPINES (In Peso Per Kilowatthour)									
NPC	0.9354	0.9381	1.1263	1.3955	1.5768	1.6385	1.7717	1.7282	8.77
SFELAPCO	1.65	1.85	2.07	2.31	2.68	2.82	3.17	3.23	9.60

Source : ECNZ and Capital Power Ltd., New Zealand and NPC and SFELAPCO, Philippines, 1996

APPENDIX 23

CUSTOMER PERFORMANCE OF FOUR (4) POWER UTILITIES IN TERMS OF AVERAGE SELLING PRICE PER KILOWATTHOUR

1988 - 1995



APPENDIX 24

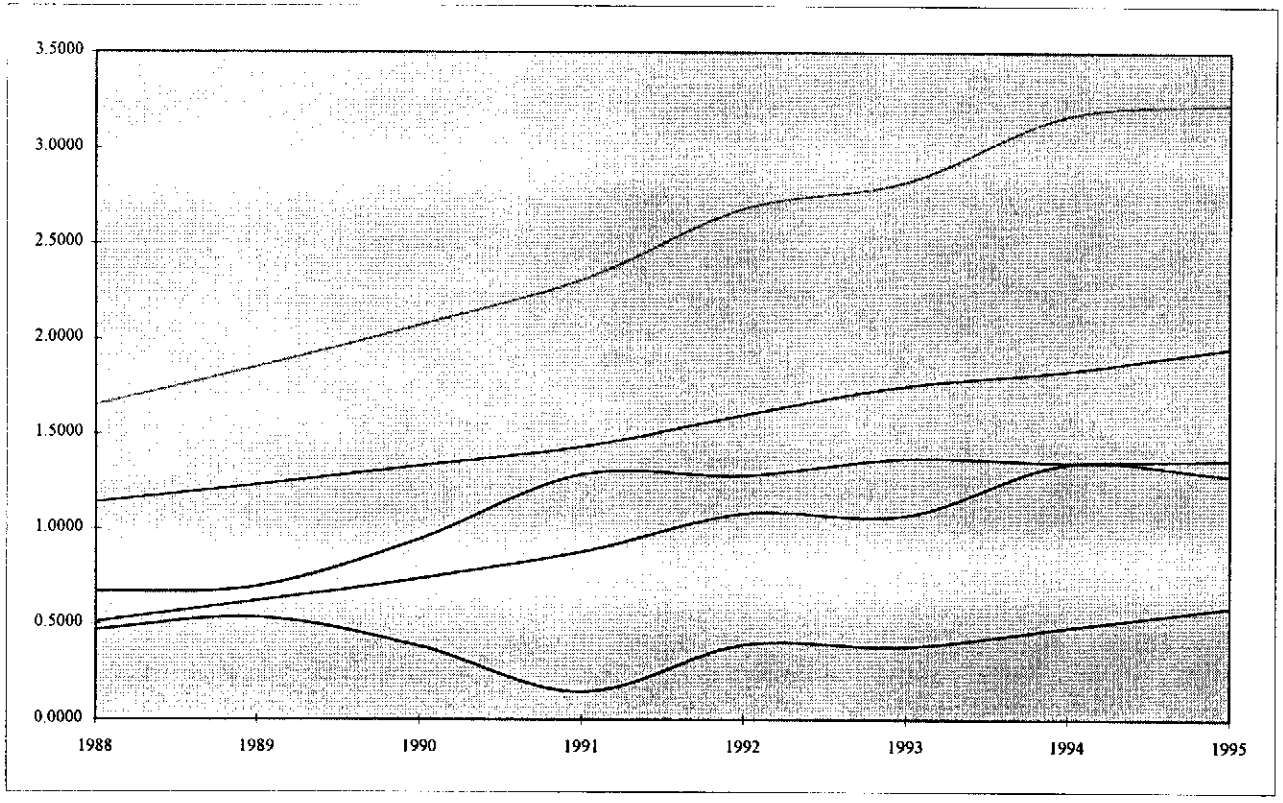
ANALYSIS OF ELECTRICITY PRICE CHANGES IN TWO (2) PHILIPPINE POWER UTILITIES RESULTING FROM TURNAROUND MANAGEMENT 1988-1995 (In Pesos Per Kilowatthour)

YEAR	1988	1989	1990	1991	1992	1993	1994	1995	Average Annual Increase
NPC Cost of Power Service	0.6717	0.6969	0.9463	1.2844	1.2803	1.3688	1.3479	1.3630	10.11%
NPC Selling Rate	1.1400	1.2300	1.3300	1.4300	1.6000	1.7500	1.8300	1.9500	7.67%
NPC Spread (Profit Margin)	0.4683	0.5331	0.3837	0.1456	0.3917	0.3812	0.4821	0.5870	3.23%
SFELAPCO Selling Rate	1.6500	1.8500	2.0700	2.3100	2.6800	2.8200	3.1700	3.2300	9.60%
SFELAPCO Operating Revenue	0.5100	0.6200	0.7400	0.8800	1.0800	1.0700	1.3400	1.2800	13.14%

Source: National Power Corporation and San Fernando Electric Light and Power Company, Philippines, 1996

APPENDIX 25

ANALYSIS OF ELECTRICITY PRICE CHANGES IN TWO (2) PHILIPPINE POWER UTILITIES RESULTING FROM TURNAROUND MANAGEMENT
1988-1995
(In Pesos Per Kilowatthour)



APPENDIX 26

COMPARISON OF POWER RELIABILITIES OF FOUR (4) POWER UTILITIES IN NEW ZEALAND AND THE PHILIPPINES IN TERMS OF AVERAGE DURATION PER INTERRUPTION

(In System Minutes)
1988 to 1995

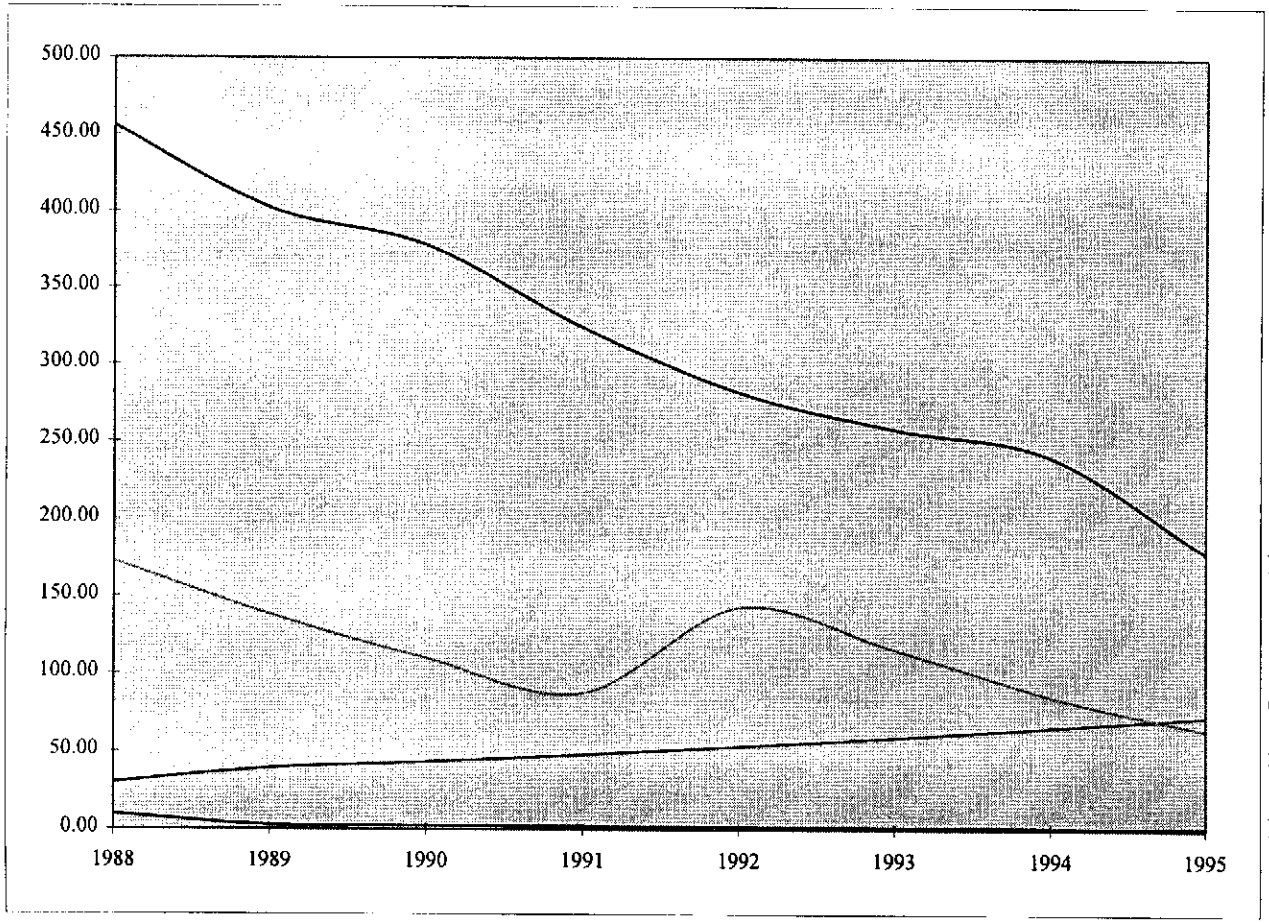
YEAR	1988	1989	1990	1991	1992	1993	1994	1995	% Improvement
NEW ZEALAND									
ECNZ	9.60	2.50	2.20	1.94	1.70	1.50	1.32	1.16	30.00
Capital Power	30.00	39.00	43.29	48.05	53.34	59.20	65.72	72.95	-13.00
PHILIPPINES									
NPC	456.00	402.00	378.00	324.00	282.00	258.00	240.00	178.80	13.50
SFELAPCO	172.80	138.00	109.80	87.60	142.80	115.80	85.80	64.20	14.14

Source: ECNZ and Capital Power Ltd., New Zealand and NPC and SFELAPCO, Philippines, 1996

APPENDIX 27

COMPARISON OF POWER RELIABILITIES OF FOUR (4) POWER UTILITIES IN NEW ZEALAND AND THE PHILIPPINES IN TERMS OF AVERAGE DURATION PER INTERRUPTION

(In System Minutes)
1988 to 1995



APPENDIX 28

SYSTEM LOSS REDUCTION TRENDS IN NPC AND SFELAPCO RESULTING FROM THEIR TURNAROUND MANAGEMENT EFFORTS 1988 to 1995

(In Percent)

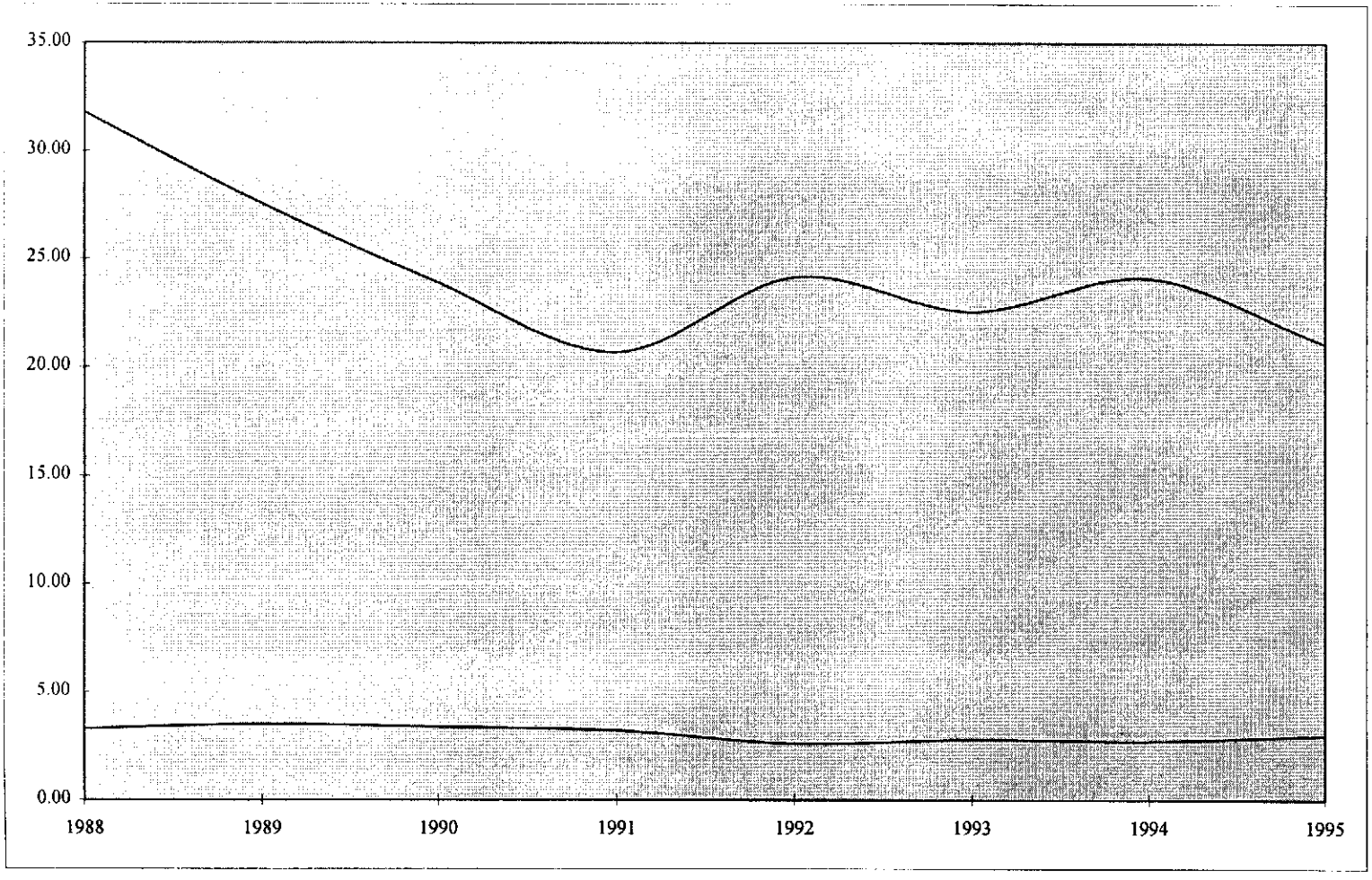
YEAR	1988	1989	1990	1991	1992	1993	1994	1995	Annual Percentage Reduction
Nat'l Power Corp.	3.29	3.50	3.36	3.20	2.60	2.80	2.73	2.98	1.41
SFELAPCO	31.80	27.54	23.86	20.67	24.12	22.56	24.08	21.06	5.89

Source: NPC and SFELAPCO, Philippines, 1996

APPENDIX 29

SYSTEM LOSS REDUCTION TRENDS IN
NPC AND SFELAPCO
RESULTING FROM THEIR TURNAROUND MANAGEMENT EFFORTS
1988 to 1995

(In Percent)



APPENDIX 30

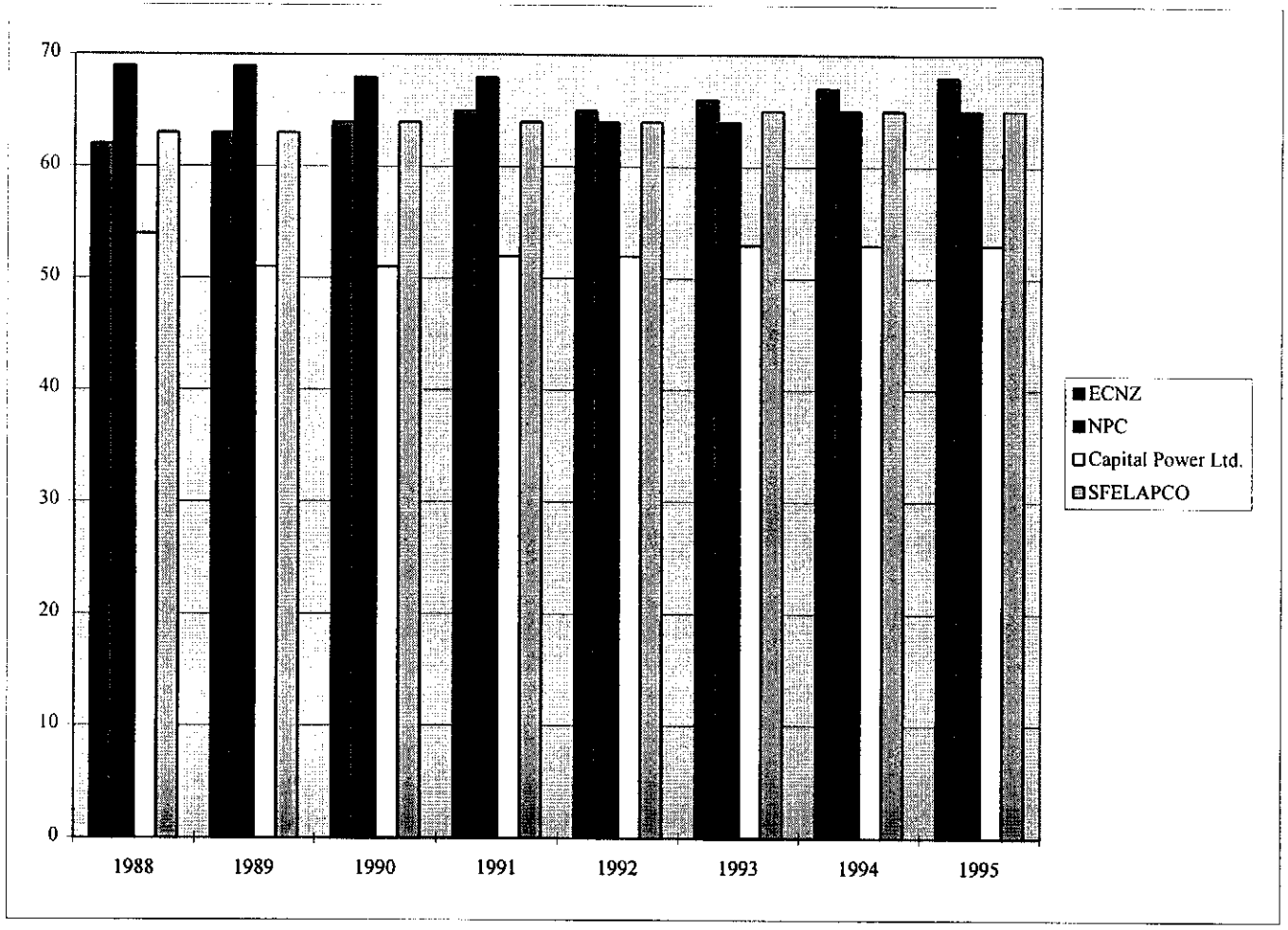
RESULTS OF TECHNICAL EFFICIENCY MEASURES OF FOUR (4) POWER UTILITIES IN TERMS OF LOAD FACTOR IMPROVEMENTS 1988 - 1995

YEAR	1988	1989	1990	1991	1992	1993	1994	1995	Annual % Change
ECNZ	62	63	64	65	65	66	67	68	1.32
NPC	69	69	68	68	64	64	65	65	(0.85)
Capital Power Ltd.	54	51	51	52	52	53	53	53	(0.27)
SFELAPCO	63	63	64	64	64	65	65	65	0.45

Source: ECNZ and Capital Power Ltd., New Zealand and NPC and SFELAPCO, Philippines, 1996

APPENDIX 31

RESULTS OF TECHNICAL EFFICIENCY MEASURES OF FOUR (4) POWER UTILITIES IN TERMS OF LOAD FACTOR IMPROVEMENTS 1988 - 1995



APPENDIX 32

MANPOWER AND PRODUCTIVITY CHANGES OF FOUR (4) POWER UTILITIES IN NEW ZEALAND AND THE PHILIPPINES RESULTING FROM TURNAROUND MANAGEMENT 1987 to 1995

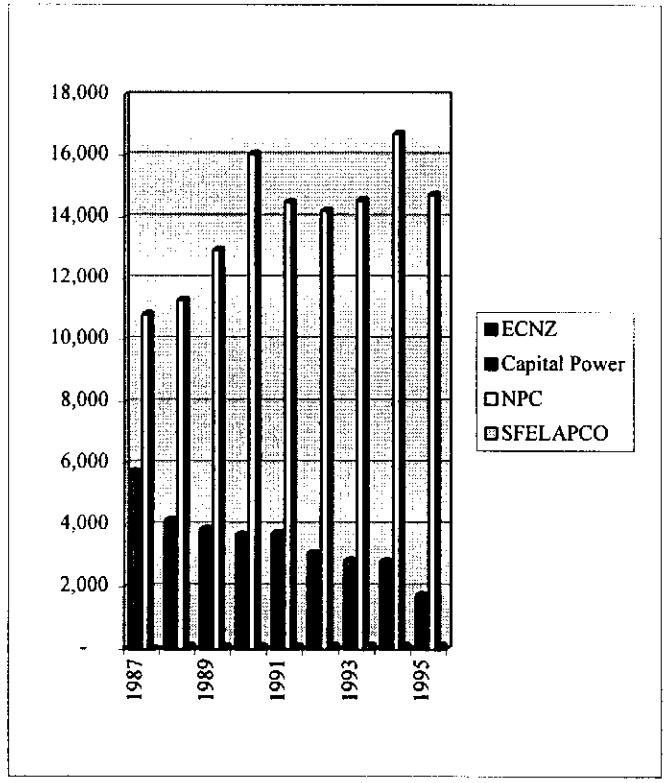
	MANPOWER LEVELS				OUTPUT PER WORKER (MWH)			
YEAR	ECNZ	Capital Power	NPC	SFELAPCO	ECNZ	Capital Power	NPC	SFELAPCO
1987	5,739	-	10,819	-	4,460.00	-	1,941.00	-
1988	4,154	320	11,294	99	5,280.00	2,640.00	2,032.00	0.62
1989	3,876	282	12,954	95	6,640.00	3,188.00	1,696.00	0.72
1990	3,690	250	16,056	101	7,240.00	3,672.00	1,426.00	0.84
1991	3,730	293	14,490	97	7,480.00	3,276.00	1,755.00	0.98
1992	3,096	277	14,208	109	9,260.00	3,390.00	1,799.00	0.81
1993	2,861	245	14,560	118	9,700.00	3,771.00	1,704.00	0.78
1994	2,835	216	16,715	107	12,980.00	5,009.00	1,720.00	0.95
1995	1,740	140	14,742	116	17,240.00	8,000.00	2,100.00	0.84
Ave. Annual % Change	(14.92)	(11.81)	3.87	2.26	16.90	15.84	0.98	4.44

Source: ECNZ and Capital Power Ltd., New Zealand and NPC and SFELAPCO, Philippines, 1996

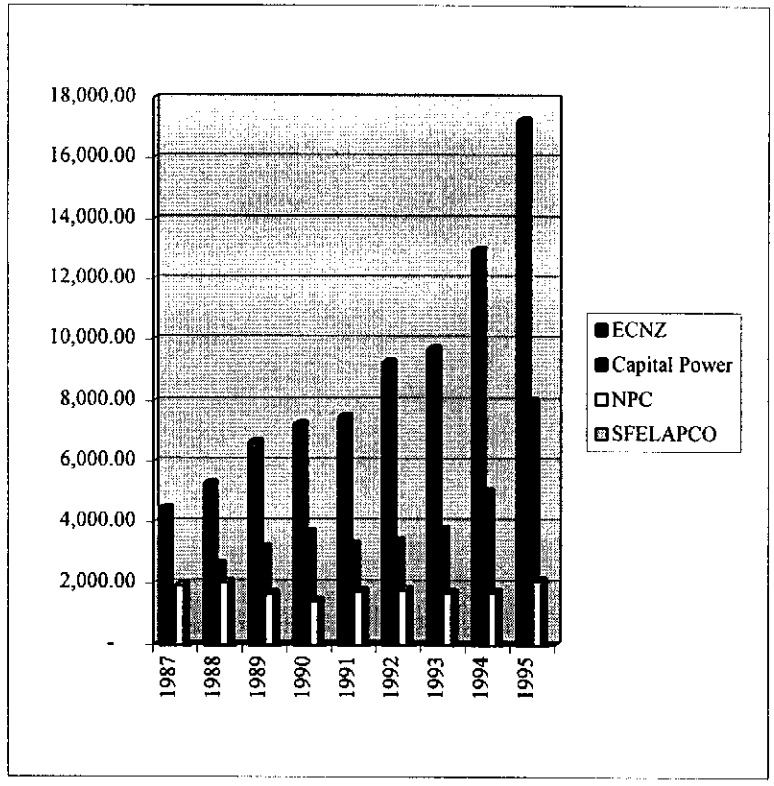
APPENDIX 33

MANPOWER AND PRODUCTIVITY CHANGES OF FOUR (4) POWER UTILITIES IN NEW ZEALAND AND THE PHILIPPINES RESULTING FROM TURNAROUND MANAGEMENT 1987 to 1995

MANPOWER LEVELS



OUTPUT PER WORKER (MWH)



APPENDIX 34

ORGANIZATIONAL IMPROVEMENTS RESULTING FROM TURNAROUND MANAGEMENT OF FOUR (4) POWER UTILITIES

(As Indicated by the Number of Support Personnel for every 10 Direct Operations Personnel)

1988 - 1995

YEAR	1988	1989	1990	1991	1992	1993	1994	1995
NEW ZEALAND								
ECNZ	4	3	3	2	2	2	2	2
Capital Power Ltd.	5	4	4	4	4	4	3	3
PHILIPPINES								
NPC	4	5	5	7	6	6	6	7
SFELAPCO	9	9	9	8	8	8	7	7

Source : ECNZ and Capital Power Ltd., New Zealand and NPC and SFELAPCO, Philippines, 1996

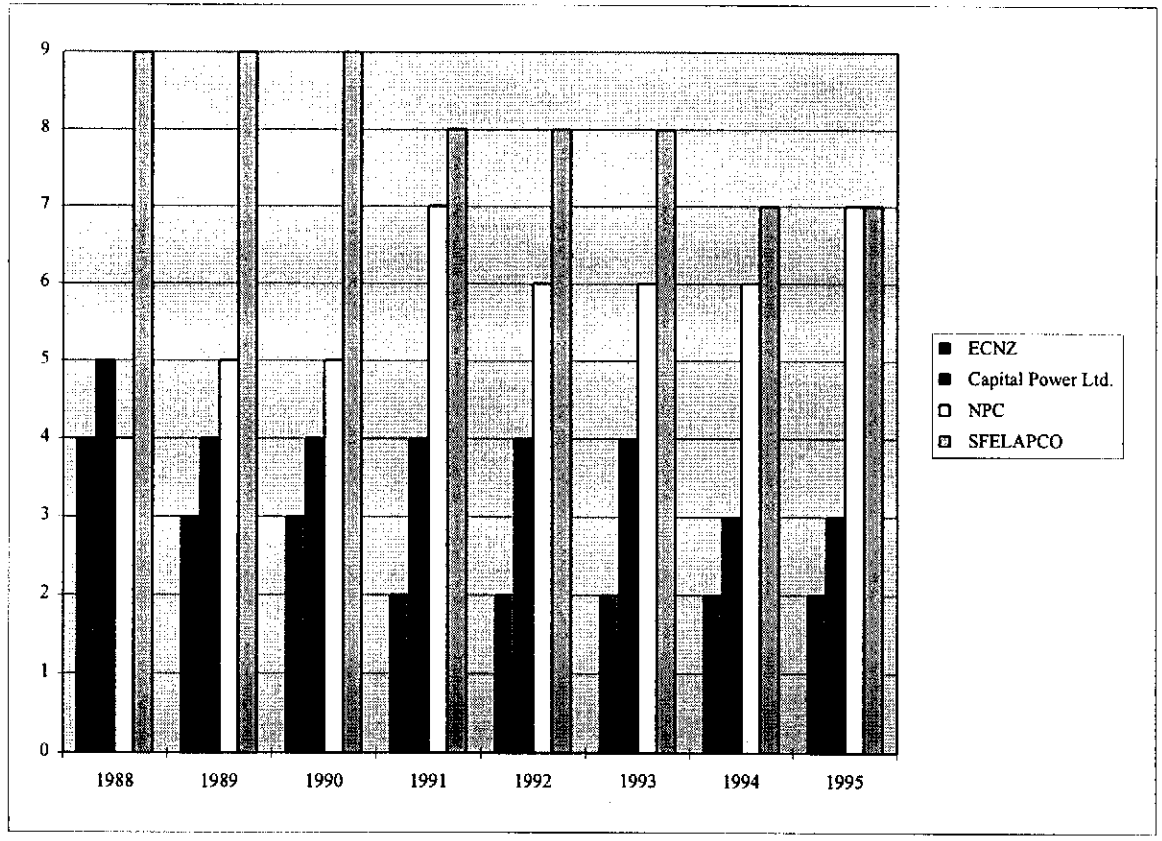
APPENDIX 35

ORGANIZATIONAL IMPROVEMENTS RESULTING FROM

TURNAROUND MANAGEMENT OF FOUR (4) POWER UTILITIES

(As Indicated by the Number of Support Personnel for every 10 Direct Operations Personnel)

1988 - 1995



APPENDIX 36

MANAGERIAL CONTROL IN FOUR (4) POWER UTILITIES RESULTING FROM THEIR TURNAROUND MANAGEMENT

(As Indicated by the Number of Lower Level Staff to Managers and Executives)

1988 - 1995

YEAR	1988	1989	1990	1991	1992	1993	1994	1995
NEW ZEALAND								
ECNZ	295	196	130	108	104	101	98	95
Capital Power Ltd.	50	46	42	39	35	32	20	15
PHILIPPINES								
NPC	54	47	42	41	17	18	20	22
SFELAPCO	24	22	23	18	21	23	20	22

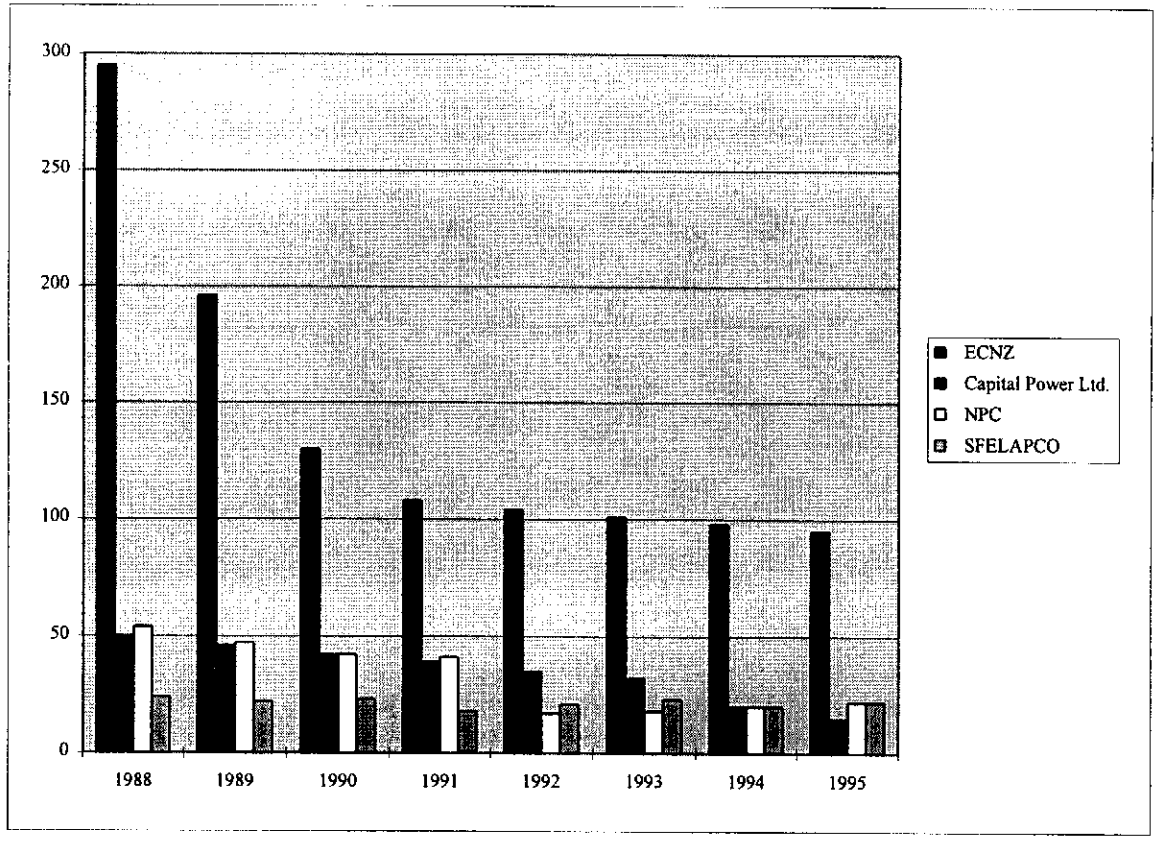
Source : ECNZ and Capital Power Ltd., New Zealand and NPC and SFELAPCO, Philippines, 1996

APPENDIX 37

MANAGERIAL CONTROL IN FOUR (4) POWER UTILITIES RESULTING FROM THEIR TURNAROUND MANAGEMENT

(As Indicated by the Number of Lower Level Staff to Managers and Executives)

1988 - 1995



APPENDIX 38

ACTUAL AND FORECASTED PERFORMANCE RANKING OF FOUR (4) POWER UTILITIES USING ALTMAN'S Z-SCORE METHOD

RANK	UTILITY	ACTUAL Z-SCORES				FORECASTED Z-SCORES					
		1987	1991	1995	AVERAGE	1996	1997	1998	1999	2000	AVERAGE
1.	CAPITAL POWER LTD.	1.3493	1.4718	2.3847	1.7353	2.5486	2.7760	3.0460	3.3053	3.5471	3.0446
2.	SFELAPCO	(0.0174)	2.9064	1.6798	1.5229	1.5310	1.4442	1.3499	1.2792	1.2047	1.3618
3.	ECNZ	0.7255	0.4808	0.6905	0.6323	0.7824	0.8512	0.9208	0.9930	1.0677	0.9230
4.	NPC	0.3068	0.0050	0.2047	0.1722	0.2430	0.2667	0.2825	0.2932	0.3006	0.2772

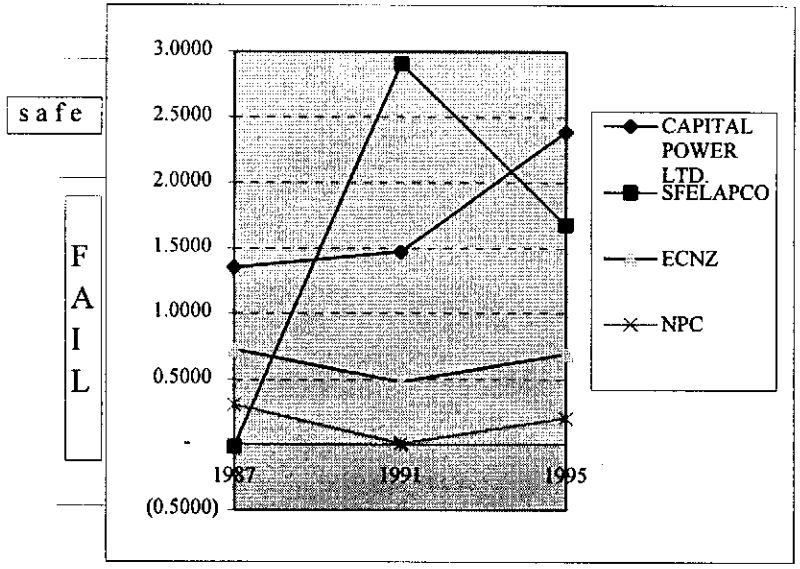
Source : ECNZ and Capital Power Ltd., New Zealand and NPC and SFELAPCO, Philippines, 1996

Note : The computation of Z-scores using Altman's multipliers was limited to the combined effect of four (4) financial ratios instead of five (5) because of data non-availability on the market values of equity for public utilities. The multiplier for the missing ratio (0.6) was pro-rated with the other multipliers to remove its effect on the total Z-score of 7.5. The four (4) financial ratios were, thus, assigned the following multipliers after this adjustment: (X1) Working Capital / Assets, 1.3; (X2) Retained Earnings / Assets, 1.5; (X3) Earnings Before Interest and Taxes / Assets, 3.6; and (X4) Sales / Assets, 1.1. The Z-score results indicated that Capital Power Limited was the best performer among the four utilities as it would be able to hurdle the precarious level of below 1.8 to a forecasted healthy level of 3 by 1998. The prognosis for the three (3) other utilities (SFELAPCO, ECNZ and NPC) was dim since they would experience financial difficulties if their problem on inadequate working capital would remain until the end of the century.

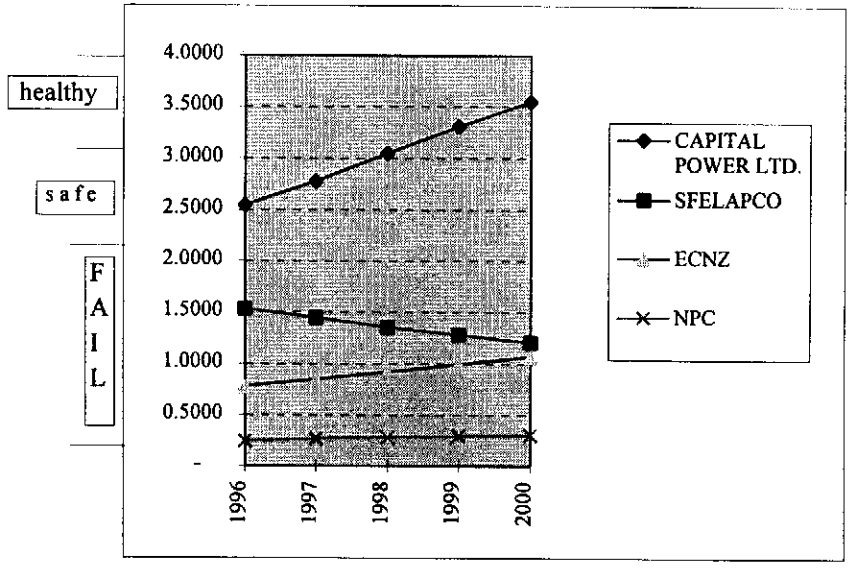
APPENDIX 39

ACTUAL AND FORECASTED PERFORMANCE RANKING OF FOUR (4) POWER UTILITIES USING ALTMAN'S Z-SCORE METHOD

ACTUAL Z-SCORES



FORECASTED Z-SCORES



Reference: Bibeault, Donald B. (1982) "Corporate Turnaround", 1st Ed., Mc Graw-Hill, Inc., New York

APPENDIX 40

STRENGTHS AND REMAINING VULNERABILITIES OF FOUR (4) POWER UTILITIES RESULTING FROM THEIR TURNAROUND MANAGEMENT EFFORTS AS OF JULY 1996

UTILITY		STRENGTHS		REMAINING VULNERABILITIES
ECNZ	1.	*Strong leadership*	1.	*Loss of market share*
	2.	*Competitive pricing*	2.	*Public resistance to commercial pricing policies*
	3.	*Improved manpower and capital productivity*	3.	*Increased funding requirements of capital projects*
	4.	*Rise in current liquidity and profitability*	4.	*Political / Union pressures on management decisions*
	5.	*Increasing asset turnover*	5.	*Public issues management*
	6.	*Greater decentralization*		
	7.	*Improved managerial control*		
NPC	1.	*Positive support of government*	1.	*Inadequate systems and procedures*
	2.	*Improved power reliability*	2.	*Lack of teamwork and sense of urgency*
	3.	*Improved generation mix*	3.	*Decline in capital and labor productivity*
	4.	*Improved social responsibility*	4.	*Slow asset turnover*
			5.	*Over centralization*
			6.	*Resistance to competition / privatization*
			7.	*Slow purchasing tainted with corruption*
			8.	*Lack of TQM awareness and skills*
			9.	*High interest expense due to huge borrowings*
			10.	*OPEX increasing faster than sales*
			11.	*Inadequate working capital*

UTILITY		STRENGTHS		REMAINING VULNERABILITIES
CAPITAL POWER LTD.	1.	*High Profitability (ROE)*	1.	*Inability to implement competitive pricing despite decreased purchase power*
	2.	*Increasing asset turnover*	2.	*Declining power reliability*
	3.	*Improved manpower productivity*	3.	*Procurement problems*
	4.	*Organizational improvements*	4.	*Problems in teamwork*
	5.	*Improved manpower and staff capability*	5.	*Loss of market share*
	6.	*Inspirational and assertive leadership*		
SFELAPCO	1.	*Improved capital productivity (loadfactor)*	1.	*Deteriorating financial performance due to poor collection efficiency*
	2.	*Improved customer performance*	2.	*High operating and capital expenditures*
	3.	*Tighter management*	3.	*Slow growth in manpower productivity*
	4.	*Improved system maintenance and reliability*	4.	*System loss still higher than allowable levels despite six (6) percent annual average reduction*
			5.	*Personal /Kinship pressure to decision making*
			6.	*Lack of quality control in projects and procurement*
			7.	*Lack of capital funds*
			8.	*Board-management conflicts*
			9.	*Lack of teamwork / positive work values*
			10.	*Threat of competition with franchise removal*

Appendix 41

NOTES ON FINANCIAL RATIOS

I. TESTS OF SHORT-TERM SOLVENCY/LIQUIDITY		
FINANCIAL RATIOS	FORMULAS	SIGNIFICANCE
1. Current Ratio =	Current Assets Current Liabilities	Solvency to meet current obligation from current assets; measures adequacy of working capital.
2. Acid Test/Quick/ Liquidity Ratio =	Quick Assets Current Liabilities	Tells the capacity of the business to meet a financial crisis.
3. Working Capital =	Current Assets - Current Liabilities	Indicates the relative liquidity of total assets and funds available to finance day-to-day operations.
4. Receivable Turnover =	Net Credit Sales Average Net Receivables	Tests the efficiency of collection
Average Collection Period of Receivables =	365 days Receivable Turnover	Tells the age of receivables
5. Working Capital Turnover =	Net Sales Inventory Turnover	Indicates adequacy and activity of working capital.
6. Payable Turnover =	Net Purchases Average Accounts Payable	Tells the efficiency of the company to meet trade payable.
II. RATIOS ON LONG-TERM FINANCIAL STABILITY/LEVERAGE		
1. Debt to Asset Ratio =	Total Liabilities Total Assets	Tells proportion of assets provided by creditor and extent of trading on equity.
2. Fixed Assets to Long-Term Liabilities =	Fixed Assets Long-Term Liabilities	Shows extent of resource use from long-term debt.
3. Plant Turnover =	Fixed Assets Total Assets	Indicates possible over-expansion of plant and equipment.
4. Debt to Equity (Gearing) Ratio =	Total Liabilities Stockholders' Equity	Measures the capability of the company to service its long-term debts vis-a-vis the resources put up by its owners and creditors; its reciprocal is is the proprietary ratio.
5. Long-Term Debt to	Long-Term Liabilities	Measures company

Capital Structure =	Stockholders' Equity	capability not only to service its debt but also to provide for capital expenditures out of its working capital.
6. *Current Liabilities to Equity* =	Current Liabilities / Stockholders' Equity	
III. RATIOS INDICATIVE OF INCOME POSITION		
1. *Profit Margin* =	Net Income / Net Sales	Indicates net profitability of each sale.
2. *Assets Turnover* =	Net Sales / Total Assets	Measures sales performance and efficiency of resource utilisation.
Fixed Assets Turnover =	Net Sales / Fixed Assets	
3. *Gross Profit Ratio* =	Gross Profit / Net Sales	Measures the margin per sale that will absorb operating expenses.
4. *Operating Ratio* =	Cost of Sales + OPEX / Net Sales	Reflects the margin per sale that will absorb costs and expenses and tells the company not to spend beyond its means.
5. *Rate of Return on Assets* =	Net Income / Total Assets / Assets Turnover x Profit Margin	Measures return on resources employed.
6. *Rate of Return on Average Current Assets*=	Net Income / Average Current assets	Shows profitability of current assets invested.
7. *Rate of Return per Turnover of Current Assets* =	Rate of Return on Average Current Assets / Current Assets Turnover / Inventory	Shows profitability of each turnover of current assets.
IV. PROFITABILITY RATIOS		
1. *Return on Investment*=	Net Profit after Taxes / Total Assets	Measures profit on sales; similar to Du Pont formula.
2. *Return on Equity* =	Net Profit after Taxes / Stockholders' Equity	Shows profitability of funds invested.
3. *Price Earnings Ratio* =	Price of Ordinary Share / Earnings per Share	Assesses the value of stocks issued by the company.
4. *Du Pont Formula* =	Sales x Net Profit afterTaxes / Total Assets Sales	Measures profit on sales.

SOURCE: Smith, N. S. (1977) FITZGERALD'S ANALYSIS AND INTERPRETATION OF FINANCIAL STATEMENTS, 5th ed., Butterworths, Perth, Western Australia