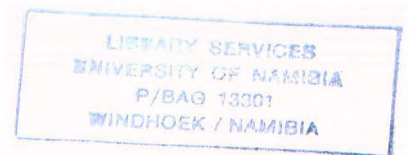


**RESTRUCTURING NAMIBIA'S ELECTRICITY
SUPPLY SYSTEM: ANALYSIS OF SOCIO-
ECONOMIC BENEFITS AND CHALLENGES OF
THE REFORM AGENDA**

**A RESEARCH PAPER SUBMITTED IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF PUBLIC POLICY AND ADMINISTRATION
OF
THE UNIVERSITY OF NAMIBIA AND
THE INSTITUTE OF SOCIAL STUDIES**

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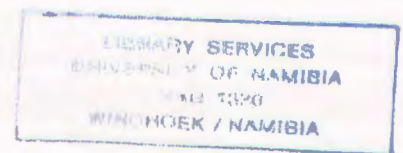
ABSTRACT

The Government of Namibia (GoN) is in the process of reforming the country's electricity sector, to improve its economic, financial and technical efficiency in order for government's policy objectives to be met. Reforms being undertaken include promoting private sector investment into power generation, rationalizing the number of distributors, and transferring the responsibility for distribution in some areas to private operators.

This study examines the restructuring agenda of the Namibian electricity supply system (NESS) and the socio-economic benefits and challenges that accrue from the introduction and implementation of such, from the perspectives of the various stakeholders in the reform initiative.

The study specifically investigates whether there was opposition from some segments of the stakeholders and why that needed to be accommodated if the reform agenda were to be realised.

The study found that political factors are the most important issues that determine the success or failure of the NESS restructuring initiative and as such need to be accommodated throughout the debate on the issue.



Hence the conclusion that the restructuring agenda of the NESS needed to be considered within the overall development platform of the Namibian people and not be undertaken in isolation of other priorities that should be addressed if socio-economic development for all is to assume meaning and become a reality.

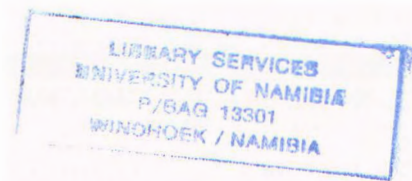


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Finally, thankfulness to the special person in my life, my wife, Teckla Lamekc, who always give me tender care with heart and soul.

DEDICATION

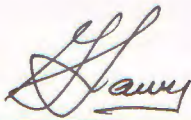
I dedicate this work to my mother, Aina Hangula, for having been a source of inspiration throughout my life. Her selfless attitude and encouragement to be the best I can be, has served me well, and for this, I will always be indebted to her.

DECLARATIONS

I hereby declare that this work, entitled “Restructuring of the Namibian Electricity Supply System (NESS): Analysis of Socio-Economic Benefits and Challenges of the Reform Agenda” is my own independent work except where stated otherwise in the acknowledgements or the text, and that it has not been previously submitted in whole or in part for an award at any institution.

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Signed: _____



Festus Lameck

Date:

30	11	2002
Day	Month	Year

NOMENCLATURE

- A grid** : Refers to a network of transmission lines that interconnects two or more generating units which serves one or more areas.
- Allocative efficiency** : Requires that the market price for a product is equal to the cost of the marginal unit of production.
- Commanding heights** : Refer to the nature of the goods or services that an industry produces. The state needs to control some sectors because they are commanding heights influencing everything else. In order to control them. It is necessary to own them.
- Cross-subsidies** : Price allocation in tariffs whereby one consumption sector pays more than the other sector for the same unit of service. In Tanzania, high voltage power consumption subsidise low voltage consumption.
- Independent Power Producers (IPPs):** Limited liability, investor-owned private power producers who sell the power to an existing utility or directly to wholesalers/distributors or large consumers.

Long run marginal cost (LRMC): Long-term cost of providing an extra unit of electrical energy to the consumer from a least-cost expansion programme.

Tariff : Rates charged for electric capacity and energy by utilities or in various agreements or contracts, e.g. power purchase agreement (PPA).

Vertical integration : Whereby core activities or power generation, transmission, distribution (and sale) of electricity is done by one utility in a country or large market of a country.

Public goods : These are goods which can quite well be supplied in a market manner, but which government choose to supply to some or all the citizens free or below cost.

LIST OF ABBREVIATIONS/ACRONYMS

ALAN	-	Association of Local Authorities of Namibia
AMCON	-	Amalgamated Commercial Holdings
BEE	-	Black Economic Empowerment
BLT	-	Build – Lease – transfer
BOO	-	Build – own – operate
BOOT	-	Build – own – operate – transfer
ECB	-	Electricity Control Board
EGAT	-	Electricity Generating Authority of Thailand
EPC	-	Energy Policy Committee
ESI	-	Electricity Supply Industry
ESS	-	Electricity Supply System
GoN	-	Government of Namibia
ILO	-	International Labour Organisation
ILRIG	-	International Labour Resource and Information Group
IMF	-	International Monetary Fund
IPP	-	Independent Power Producer
kWh	-	Kilowatt hour
MD	-	Average highest “flow rate” of electricity normally measured in a period of half an hour.
MME	-	Ministry of Mines and Energy

MRLGH	-	Ministry of Regional and Local Government and Housing
MUN	-	Mine Workers Union of Namibia
MW	-	Megawatt is the rate of supply of electrical energy in any given point in time
NAMPOWER	-	Namibia Power Corporation
NAMWATER	-	Namibia Water Corporation
NDPI	-	First National Development Plan
NESS	-	Namibia Electricity Supply System
NUNW	-	National Union of Namibian Workers
RED	-	Regional Electrical Distributor
SAD-ELEC	-	Southern Africa Development for Electricity
SB	-	Single Buyer Model
SOE's	-	State-Owned Enterprises
WB	-	World Bank

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CHAPTER 1

INTRODUCTION

1.1 GENERAL BACKGROUND

Following the achievement of independence in 1990, the Government of the Republic of Namibia set out to formulate a policy agenda to guide the social upliftment of its people and the socio-economic development of the nation. The establishment of the Namibian Development Plan (NDP1) in 1995 could be regarded as the most important step towards these goals. The second major initiative is the energy plan, which complements the NDP1 and forms a critical element in the overall development platform.

Nearly all aspects of Namibia's social and economic policy are being re-examined, reformed or created anew. As government set out on a path of growth with redistribution, many economic sectors would require bold, new imaginative thinking. More than most, the energy sector presents a challenge of transforming industries and governance systems in order to pursue new policy goals (MME, 1998).

Having formulated an initial energy programme (within the context of NDP1) the Ministry of Mines and Energy made deliberate a decision to develop a comprehensive and integrated energy policy. In 1996, the Ministry established the Energy Policy Committee (ECP) to drive the policy making process, and this culminated in the drafting of the Energy White paper, which was adopted by the

Cabinet in May 1998 after extensive consultations with various industry stakeholders. The White Paper (MME, 1998:3) described some objectives that contained the broad elements of reform of Namibia's electricity supply system (NESS).

1.1.1 The NESS strategic objectives:

The energy policy goals provide a context for socio-economic development and prosperity of the Namibian people and are intended to guide the government on strategic issues that needed to be addressed if the restructuring of the electricity supply system is to be realized effectively. The strategic objectives as contained in the White Paper are aimed at addressing the following key challenges for the Namibian electricity sector, namely:

- increasing electricity sector efficiency;
- improving access to electricity in a sustainable manner, particularly in rural areas;
- increasing security of supply, while taking into account the risk of stranded investments;
- promotion and development of the sector as a key for investment and growth;
- ensuring environmental and socio-economic sustainability; and
- development of an efficient and appropriate governance framework and structure.

The above are noble ideals, but indications are that the path to implementation of these reform initiatives seems to be permeated with many problems. According to

the Southern Africa Development for Electricity (SAD-ELEC) consultancy report of March 1998, the Namibian electricity supply system faces a number of problems and challenges that necessitate a dramatic shift in the industry's operations. The problems confronting the NESS are various and include:

- The fragmented nature of the NESS, and its effects on the economies of scale;
- Proliferation of a large number of electricity tariffs, which results in customers being treated differently;
- Insufficient customer focus among distributors, leading to sub-optimal quality of supplies and services;
- Lack of skilled staff in many places, with negative implications for efficiency and delivery;

In order to tackle some of these problems, the Government of the Republic of Namibia initiated various reform measures in May 1998, which were subsequently accepted and adopted in 2001. These reform measures were as follows:

- Identification and categorization of existing NESS participants, including NamPower, municipalities and local authorities, central government ministries, and rural suppliers, specifying the ownership, structure and control of the various entities with a view to formulating legal, regulatory and governance mechanisms for the industry;
- Review and analysis of existing electricity pricing methodologies, existing tariff structures, tariff levels to various customer groups and expected future tariff developments to as to devise a uniform tariff regime for the industry. It is envisaged that the electricity tariff structures and prices will be based on

sound economic principles, which will generally reflect long-run marginal costs of supply:

- Promotion of a dialogue with private investors and financiers in order to facilitate economically viable and competitive investments in the electricity sector;
- The Government will encourage co-operation with the Electricity Supply Industry (ESI), the private sector and Namibian educational institutions, to create a sufficiently skilled human resource base;

The above reform initiatives culminated in the promulgation of the Electricity Act 2000, which seeks to promote and allow private sector participation in the electricity section. Among the most important provisions of the Act is the Electricity Control Board (ECB), which is the industry regulator, and which seeks to ensure fair play and a level playing field within the Industry.

1.1.2 Key characteristics of the Namibian Electricity Supply System

The Namibian Electricity market has NamPower as the national generation and transmission monopoly utility, with power being sourced from a combination of NamPower generation and imports from Eskom, the South African power utility. Distribution has been handled by a number of agencies, with each distribution agency having a *de facto* monopoly within a geographic area. In general, customers have not had a choice of supplier. The only exception to this has been the case of large users, who usually have been able to negotiate a direct supply from NamPower.

Circumstances are beginning to change this overall model of the electricity supply system (ESS). The main driving forces for such change are:

- The emergence of independent power producers (IPPs) in Namibia. Examples include plans for a Kudu gas-fired plant, hydro power on the Kunene and a wind farm at Lüderitz.
- Pressure from new mining developments (e.g. Scorpion) to have access to power at rates similar to those offered by Eskom.

In the future, additional pressure is likely to arise from the threats and opportunities posed by the Southern African Power Pool (SAPP) and the emergence of a single Southern African power market. Linked to this are the opportunities for Namibia to play an important role in providing a transmission link between generators to the north and electricity consumers in South Africa.

While it is recognised that Namibia is already adapting to these changing circumstances, it is important to set out some of the routes for the future, and to recommend an approach which is best able to exploit opportunities whilst protecting Namibian interests.

However, it should be stressed that any solution will be evolutionary in nature, and is expected to move to greater levels of competition over time.

1.1.3 The NESS Reform Agenda and Stakeholders reactions

The governments' reform agenda in the energy sector is aimed to guide the social upliftment of the people and promoting economic development of the nation.

The pronouncement of these reform initiatives was embraced fully by some industry stakeholders and viewed with suspicion by other, depending on what interests were at stake. The trade union movement for example, is strongly opposed to any form of utility reforms particularly when these would mean potential job losses to its members.

There seems to be no clear process for discussing the restructuring proposals with the public, academia, industry and civil society.

Lack of institutional capacity on the part of the main role players such as the ECB, MME and NamPower seems to slow down the process as well.

There seems to be a perception by some Local Authorities that these changes are being forced unto them without them having a say in the matter.

Problems also seem likely to arise from government's insistence that regional electricity distributors (REDs) be created.

It is in this light that this study seeks to analyse the socio-economic benefits and challenges that accrue from the introduction and implementation of the reform agenda.

1.2 STATEMENT OF THE PROBLEM

Electricity in Namibia is both an input as well as an important consumable. This makes its supply and access both politically sensitive and controversial. This paper concentrates first on the social and political acceptance of these reforms by looking at the Government expectation and the roles to be played by the various stakeholders within a changing and globalizing environment. It will specifically look at the potential socio-economic benefits and challenges faced by NESS and implications for the reform process within the Namibian context.

The problem facing the NESS reforms seems to be the actual speed of implementation, which has been perceived by various role players to be too fast and that the policy decisions on restructuring are perceived to have been taken under pressure and without full examination of the issues, such as the political and institutional capacities of the lead institutions and role players. The government's decision to open up the energy sector for private sector participation seems to be ill-received by the unions, who see such a move as a prelude to full privatisation of a sector that is working in the best interest of the Namibian people. There seems to be a general absence of a monitoring mechanisms of the process of implementation against intended objectives, so as to ensure that on – course corrections can be applied. A relevant administrative sub-system should have been organized and equipped to deal with such a function. The government's extensive use of external consultants is criticized as draining the fiscus, without any tangible benefits being experienced by the majority of the key stakeholders in the reform process.

Thus the study will analyse the difficulties and problems that faced the reform process, particularly since the enactment of the Act, which seem to impede the implementation thereof.

Finally, the paper will study how the related government institutions have responded and managed the identified impediments and obstacles to reforms. This would give an indication as to what type of organizational structures should emerge to give meaning to the stated goals as envisaged by the government in initiating the reform process.

1.3 RESEARCH QUESTIONS

Given the above scenario, this study seeks to examine the roles, responses and performance of various actors within the NESS restructuring process. In particular, it will explore answers to the following questions as a way of assessing the NESS process and how it adjusts and restructures to the ongoing public debate:

The Key Questions

- (i) What are the socio-economic benefits of the reform process from the perspective of the various stakeholders? For example, has there been opposition from the trade union movement and in what form?
- (ii) What have been the main challenges faced by the government in implementing the reforms?

- (iii) Which individuals, institutions or sectors were most influential in shaping the government's White Paper and the Electricity Act, which led to the adoption of the NESS reform agenda?
- (iv) Has there been opposition from local authorities, and what was their reaction to the formation of Regional Electricity Distributors (REDs)?
- (v) How has the government responded to these diverse reactions in order to reduce their impact on the NESS restructuring process?

1.4 OBJECTIVES OF THE STUDY

The study contributes to the NESS restructuring debate by analysing the socio-economic challenges and benefits of these reforms, as well as the roles of the various stakeholders in the realisation of the reform objectives.

The study critically analyses and evaluates the effectiveness of the restructuring model as embraced by government, as well as also assess the institutional capacity of the main role players in effecting the reform agenda.

These are all critical factors that not only determine the failure or success of the reform initiatives, but also indicate the socio-political acceptability of such reforms.

1.5 HYPOTHESIS

This study is based on a descriptive analysis of the NESS reform and is not meant to be a hypothesis testing research. The study therefore intends to focus primarily on

the social, political and institutional dimensions of the restructuring exercise. Nevertheless, the following implicit hypotheses inform the study:

- (i) Restructuring is a complex policy process, which requires adequate institutional capacity in the principal agencies tasked with the implementation process. Weakness in it or absence of it can hamper the process and lead to distortions in realising the restructuring objectives;
- (ii) Failure to recognise and acknowledge the social and political environment that informs the restructuring agenda can lead to problems during implementation.

1.6 DATA, METHODOLOGY AND LIMITATIONS

The study was entirely based on descriptive analysis and secondary information. Literature survey is the basic source of information for the study. The research will draw experiences from published works and grey materials on the topic of energy restructuring and draw comparisons with the Namibian situation. In particular, the ISS library served as important source of research literature. Official Government documents, World Bank papers, as well as transcripts from the Net also were utilized. This study will draw on the experiences of knowledgeable persons in the industry by discussing various research issues with role-players, particularly from the following institutions: NamPower, Electricity Control Board, Ministry of Mines and Energy, Ministry of Regional, Local Government and Housing and Local authorities.

The phenomenon of SOE restructuring is relatively new in Namibia, and in particular, the NESS restructuring is still in its infancy stage. Therefore, the

information on empirical evidence is limited. Further research on the topic would fill the gap and complement the findings of this paper.

The lack of financial resources precludes extensive travelling to undertake field visits and data collection, particularly in rural centres. Time constraints did not allow the undertaking of an in-depth and exhaustive research project. Therefore, a realistic view of the time frame has been observed and the paper strictly confined its academic investigation to the prescribed time period.

CHAPTER 2

LITERATURE REVIEW AND ANALYTICAL FRAMEWORK

2.1 INTRODUCTION

The NESS restructuring debate covers many broader aspects about the role of the state in the national economy. Some of those aspects may not be of great significant to this study, hence the focus of the debate is on the arguments that are related to efficiency of service and provision, the benefits and challenges facing the NESS, as well as the political, economic, social and institutional factors that can enhance or impede the process.

The study adopted an interactive approach in analysing how the NESS is implementing the reform in line with the model developed by Grindle and Thomas (1990). They look at both bureaucratic and public arenas in determining the core activities for reform and the pace of the reform agenda itself. The premise of the interactive approach is that stakeholders in the implementation process are treated on "equity basis". In essence, this means that all stakeholders are given due respect and weighting in participation in key reform decisions, irrespective of their social class or economic status. This approach is important for both success and failure in implementation, as it also considers intermediate and unanticipated outcomes of policy reforms.

Most importantly, this approach provides some useful tools for anticipating reactions to change, considering the prospects for sustaining a reform through the

implementation stage, as well as assess whether the resources to implement it actually exist or needs to be supplemented. Central to this argument is the contention that the characteristics of the particular reforms determine the type of conflict and opposition that surround their implementation.

This approach is preferred in many developing countries, including Namibia, as it provides the tools to analyse the dynamic tensions that characterise the NESS restructuring and suggests ways in which analysis can be applied in reform situations to improve prospects for implementation and sustaining transformation initiatives.

On the other hand, the linear approach, as explained by Grindle et al (1990) is not very popular in developing countries and is not highly recommended, although it is an approach that seems to be implicit in many proposals accompanying international loans and international consultancies for reform. According to this view, policy-makers decide on a reform agenda, but then divorce themselves from its implementation, by leaving it entirely in the hands of the implementing organisations to implement, whether successfully or unsuccessfully. This linear approach does not suit the analysis of the NESS reform in Namibia where, in some instances, the outcome of the reform initiatives is determined by societal reactions to efforts to change existing conditions among groups and interests that are most affected by the reform.

When positing that decision-makers and implementers may inevitably face opposition in their attempt to pursue reform initiatives, Grindle et al (1990:125), also

support this view. Consequently, it is crucial to consider feasibility in terms of support and opposition to change, and what stakes and government support they have in pursuit of reform, as well as the political and the bureaucratic resources needed to support such initiatives.

It thus stands to reason that the environmental context, agenda setting circumstances and policy characteristics influence the perceptions and concerns of the policy makers, as well as shape the nature and scope of conflict surrounding efforts to introduce change.

The framework adopted in this paper is principally analytic, and should be seen as an effort to map out a process and to identify the critical factors that influence the outcome of the reform initiatives. Grindle et al (1990) validate the above by stating that the framework can also help generate principles of action for reform leadership and can serve as a guide to what is actionable and what is possible. Further it could be seen as potentially a map of the parameters of policy space and the actions that can meaningfully be undertaken to expand the societal and bureaucratic tolerance for change. The framework also suggests the relationships among factors affecting the outcome of policy reform that can also be critical substance in strategic thinking about introducing and sustaining initiatives for change. Hence its importance as an instrument for analysing how reform initiatives could be introduced, supported and implemented.

Nevertheless, considerable theorization and literature on restructuring, and specifically on privatisation of SOEs has come about, particularly since the Reagan

and Thatcher era. Most of this literature relates to the philosophy of proper locus of state intervention, and as stated earlier, comments mostly on the experience of industrialized nations and is still unsynthesized. It could thus safely be said that such literature was primarily advanced by Western scholars and mostly economists have commented on these issues.

2.2 ELECTRICITY SECTOR RESTRUCTURING: CONCEPTUAL FRAMEWORK

Governments of both developed and developing countries of the World have begin to actively embrace the concept of restructuring over the past two decades, particularly in the form of privatising state owned enterprises (SOE's). Prior to the 1980's very little was heard about privatisation (Dinavo 1995:1). In recent years, more than 100 countries worldwide have embarked on projects to privatise or restructure state owned enterprises. Restructuring and privatisation are now widely seen as important instruments of government policy for creating appropriate conditions for economic growth and for redefining the role of the state. These processes also have significant employment and social implications (ILO 1999:2).

Dinavo pointed out that the concept of privatisation is a very sensitive one due to its economic, financial, technical, social and especially its political ramifications. Politics plays the most important role in deciding whether or not to privatise. The Government does not only have to find potential buyers, but also has to convince its people that privatisation of state-owned enterprises is in the interest of the nation as a whole (Dinavo 1995:1). In some cases governments get rid of enterprises, which are

perceived to be a burden to the taxpayers. On the other hand, there is sometimes public pressure on government to maintain the custodianship of the national assets.

Criticisms against state intervention have been used to push for the privatisation of the ESI in both developed and developing countries alike. However, the need for privatisation has been pushed more strongly in the case of developing countries, where fiscal imbalances are a constant constraint on public expenditures on electricity. Much of government expenditure is used for debt repayment in developing countries due to their high external debt. Neither can government borrow from domestic sources, since capital markets are relatively underdeveloped in developing countries. Thus, it has been argued that without private participation, state-owned enterprises simply cannot finance the necessary investment to adequately supply electricity.

However, the little empirical research available on privatisation in developing countries has highlighted the issue of lack of local entrepreneurial capabilities, and inability of government bureaucracies to monitor privatised industries. Thus, although at present, majority of governments in developing countries are undertaking privatisation policies under duress from external funding agencies such as the World Bank (WB) and International Monetary Fund (IMF) or of their own will, there is still no systematic, operational knowledge about how to go about successfully implementing privatisation policies. Many governments have been facing stiff political opposition to privatisation policies (Turkey, Pakistan, India and Nigeria) and many governments have been forced to sell state assets at very low prices, such

as the privatisation of copper mines in Zambia. Social consequences of large scale privatisation by way of displacement of large number of workers, rapid increase in prices of privatised enterprises, etc. have also been reported in many countries (Mexico, Argentina). It is in this general context, that the study will comment on some of the main concepts and issues in the NESS restructuring process.

2.3 THE PRIVATIZATION DEBATE

Privatisation has been used as an 'umbrella term' to cover a broad range of mechanisms applied in market economics. Savas as quoted by Hodge (2000:14) regards it as having "come to symbolize a new way of looking at society's needs and a rethinking of the role of the government in fulfilling them". Also as "the act of reducing the role of the government or increasing the role of the private sector in an activity or in the ownership of assets". Privatisation is therefore a policy movement invented from political origins and objectives.

The privatisation debate spectrum is broad and includes *proponents*, *moderates*, *sceptics* and *opponents* to privatisation (Hebdon & Gunn 1995). In this debate the issues brought towards privatisation are the safeguarding of costs, quality standards in privatised firms or the pursuit of social objectives such as the provision of subsidized goods or services to certain sectors of the community (White & Kelegama 1994).

The fundamental argument of the *proponents* of privatisation is that the markets, competition and private ownership are essential for an efficient economy. This is

based on the neo-classical economics and Adam Smith's concept of the 'invisible hand' of which the 'belief is that the free market will determine the most economically efficient service delivery' (*ibid*:19). They consider it "as a technical, straightforward matter that involves the selection of an appropriate mode and has one single objective: efficiency" (Lee 1997:141). On this basis, it is believed that the currently state-owned-enterprises will be run more efficiently in private hands, on the belief that the ownership change will give the necessary commitment and accountability through profits and other incentives. That is one of the main theoretical argument is favour of privatisation (White & Kelegama 1994). The second argument is that it will relieve the government of the fiscal burden imposed by state enterprise. This argument is closely related to the same efficiency matter, because a private firm will not takeover an enterprise unless it believes that profits can be made.

However, proponents of privatisation fail to address how the needs of the weakest, marginalized and the poor are supposed to be addressed. They may not have the means to access the required services. Some service providers operate in a monopolistic environment and profit-making does not guarantee that profits will be invested in labour intensive programmes, or create more jobs. Instead, profits may be declared and paid as dividends, or invested offshore.

Opponents express 'no' to privatisation and question the means used by the private sector to achieve efficiency. "Opponents raise concern about the loss of public jobs with benefits, their impact on the local economy and on women and minorities who

have found career tracks in the public sector” and also fear “widespread corruption leading to public distrust of the democratic process” (*ibid*). The main concern here is the distributional implications of privatisation – who gains and who is worse off?

Moderates believe that government should maintain its role as a manager and the regulator within a competitive market, while *sceptics* are generally opposed. Their main concern goes beyond economic efficiency and deals with the merits of privatisation as a political or economic policy. They emphasize the question of how the production and distribution of service delivery can be assessed in terms of accountability to the public.

However, there are also strong *proponents*, on the basis of empirical studies, for the view that ownership makes no difference to efficiency, as also equally for the view that in like situations, private sector firms perform better than public sector firms.

This view is supported by Paul Cook and Collin Patrick (1988:19) who pointed out that the key factor determining the efficiency of an enterprise is not whether it is publicly or privately owned, but how it is managed. In theory, they argue, it is possible to create the kinds of incentives that will maximize efficiency under any type of ownership.

From the political market theory perspective as propounded by Nayar (1980:11), the public sector leads itself especially to political manipulation. The government firm is seen as a flexible instrument of economic intervention in the hands of politicians

while it is at the same time hidden from the direct glare of public scrutiny. Politicians are likely to interfere in the business affairs of government enterprises, using them as a resource in support of mobilization and coalition building and, thus diminishing their economic efficiency. Sukka (1994:12) also lend support to the above view when stating that state enterprises tend to use their available pot in a way that favours concentrated private interests – be their consumers, employees or suppliers, while they do not tend to benefit diffuse interests. Thus, privatisation of public sector enterprises would be opposed by beneficiary groups with concentrated interests and power – such as labour, managers and bureaucrats.

2.4 THE ARGUMENT OF COMPETITION

Gaebler and Osborne (1992:76) assert that there is no truth in the assumption that business is always more efficient than government. The important distinction is not public versus private, it is monopoly versus competition.

Dinavo (1995:6) argues that where there is competition, you get better results, more cost-consciousness, and superior service delivery. Monopoly in the private sector protects inefficiency and inhibits change too. Competition drives everyone to embrace innovation and strive for excellence. This however, does not mean endorsing cutthroat competition at the expense of public interest. Ravi Ramamurti and Raymond Vernon (1991:75) pointed out that privatisation alone without the introduction of competition, may simply transform a public monopoly into a private monopoly. The privatised firm may pursue profits more vigorously, but that pursuit, if it takes the form of increased prices, could worsen allocative efficiency.

However, it could also be said that privatisation tends to promote productive efficiency, competition, and allocative efficiency. Although, in many cases, private ownership will not achieve allocative efficiency – either the industry which is inevitably characterized by monopoly or else there are non-commercial objectives, such as external benefits, which implies that some outputs should be produced even if they fail to cover their costs.

The incentive to productive efficiency comes from the requirement on private firms to achieve profits – to stay in business in competitive product markets, to avert the threat of takeover from the “market for corporate control”. If, however, there is little competition in the product market, if the risk of bankruptcy is slight, and if the risk of takeover is also minimal, the pressures of the market affect a private sector manager no more than his public sector counterpart. It is the interaction of ownership and competition that promotes efficiency. Thompson et al (1986:19).

Many of the problems associated with state enterprises arise not from the fact that they are publicly owned, rather, they reflect an absence of market discipline. Therefore, by exposing public monopolies to competition – which provides the incentive to seek both productive and allocative efficiency – significant efficiency gains are likely to result. Privatisation of state enterprises will not succeed in making them more efficient unless it is accompanied by economic and financial liberalization so that market forces are allowed to influence enterprise behaviour.

Utilities such as electricity, telecommunications, and the transport system are natural monopolies by virtue of their large sunk costs. The prospects for competition in these enterprises are limited. At the same time, externalities and social benefits are high. In the case of the private sector, an additional requirement is the presence of a regulatory body to safeguard consumer interests.

2.5 POLITICAL AND INSTITUTIONAL FACTORS AFFECTING THE IMPLEMENTATION OF THE RESTRUCTURING OF THE ELECTRICITY SUPPLY SYSTEM

Restructuring the electricity sector, involving as it does a redrawing of the public/private boundary, is an inherently political and institutional process. It should therefore be no surprise to find political and institutional factors playing an important role in the restructuring program.

2.5.1 The Political Factors

Restructuring decisions in principle are political in nature. The decision to embark for example on a privatisation program is based much on political factors. It is of the highest importance that the government analyse closely the political impediments to privatising and the ways by which these impediments may be eliminated, or at least minimized, in planning a privatisation strategy.

Any decision to restructure a state-owned enterprise involves a degree of risk for a government. The problem lies in reducing the risk to a politically acceptable level

while still leaving the government in a position to achieve a successful restructuring program.

It could be said that the degree of political risk deriving from the decision to restructure or privatise is directly related to the type of regime under which the country is governed. The more groups or individuals whose interests may be threatened by privatising, the greater the risk. Although it may be possible to alleviate the fears of many of these interested parties, there will always remain those who refuse to accept the concept of privatisation out of ideological conviction. It is doubtful that rational persuasion will change their position or eliminate their opposition; the government may have to take the calculated risk that its appeal for reforms or restructuring will never be accepted.

A one-party system government, of the type previously found in Africa, faces increased risk in divesting state-owned enterprises even if it does not have a political opposition to cope with. Political order in one party states often depends on the ability of the head of the government to have discretionary use of public revenues for political purposes.

The highest level of risk comes in a multiparty democratic system in which the governing party may put its political existence at stake if its reform program is not a demonstrable success. The greater the degree to which the government depends on popular choice, the more attention that has to be paid to detailed planning and public education before the reform agenda can become a reality. Also measures need to be

taken to assure the public at large and political opponents that public assets are being sold at reasonable prices.

2.5.2 Institutional factors in SOE reform

As SOE restructuring in the developing countries has gained momentum it has become increasingly apparent that critical barriers to successful reform exist in the lack of suitable institutions and institutional capabilities to manage the privatising process effectively. Even with the best political will, the transfer of public organizations to private hands is difficult, given the necessity of deciding which companies to privatise, the process to be used, the prices to be sought, and the buyers to choose. Beyond these hurdles, there frequently remain impediments that require changes in constitutional, legislative, and regulatory codes to make reform more feasible. Barriers exist also in institutional capabilities in legal, accounting, and financial systems.

Often the new buyers of state enterprises lay down economic and financial conditions such as cancellation of previous debts, grant of preferential treatment with regard to taxation, imports, etc. Without adequate experience and capacity to deal with these issues in national interest, often the government may end up agreeing to many conditions, which reduce substantively economic and financial benefits of reforms. Normally bureaucratic agencies do not have adequate experience in this area. Sometimes this problem can be solved by engaging external consultants, but such consultants may cost a lot of money and if they are from outside the country, they may not be familiar with local political and institutional constraints. Experience

of especially privatisation in some of the developing countries supports this observation. For instance, the privatisation strategy in Turkey has been rather controversial for both supporters and opponents of the program. One of the most important objections stem mere from the heavy reliance on foreign advisors, firmly believing that Turkey had the internal capability to undertake more of the work itself at a fraction of the cost. Resentment of foreign experts led to subtle ways of non-cooperation within some ministries. Even members of the Cabinet opposed the involvement of foreign experts. (Riflei 1993:33).

2.6 REGULATORY CONCERNS

“In the move from a government monopoly to a more competitive system, enforceable contracts are required to balance the interests of various parties in specific projects and to provide the stability needed for long-term investment. Also required are comprehensive, transparent and non-discriminatory rules of the game” (WB 1994:52). Therefore, establishment of a regulatory framework has been considered as a *sine quo non* for successful infrastructure privatisation. “Regulation requires detailed knowledge and continual monitoring of the activity concerned. The regulation menu includes problem identification, fact finding, rule-making and enforcement” (*ibid*). Since infrastructure sectors are highly influenced by technological, ideological changes and economic conditions, “regulators need to be able to shift course in order to anticipate or respond to changing conditions in the industry” (*ibid*).

There are many forms of regulation i.e. economic, technical, safety, environmental. Especially, economic regulation, which is mostly applied for infrastructure, includes the objectives of promotion of efficiency, satisfaction of demand by promoting investments, protection of consumers and users against monopolistic abuses, promotion of competition, prevention of discrimination and protection of investors against opportunistic government action (Estache 1995:17).

Thus, while playing an important part in creating an enabling environment to all the actors in the area, the regulator is expected to play a role to balance the economic, financial and socio-political objective of all involved parties.

The above clearly serves to demonstrate that the road to reform is paved with many obstacles that need to be overcome if success is to be achieved.

2.7 CHAPTER CONCLUSION

In the context of the above theoretical framework and argument, this research will review the restructuring debate by analysing the NESS itself in terms of the progress made, stakeholder analysis and the process itself. This is with a view to identify shortcomings and recommend possible remedial steps.

CHAPTER 3

REVIEW OF THE RESTRUCTURING DEBATE

3.1 INTRODUCTION

Electricity supply throughout the world is undergoing a revolution. This is being caused mainly, but not solely, by electricity utilities having to meet new pressures resulting from global markets and governments opening up their countries to foreign investors to help fund power sector expansion and development. As a result, utilities are having to see themselves as business, and act accordingly. Namibia is not immune from these forces, and will have to move broadly in line with developments taking place in the rest of the world, while also ensuring that the industry evolution meets Namibia's special requirement.

Namibia's main purpose in reforming its electricity sector is to improve its economic, financial and technical efficiency in order to address the government's policy objectives for the ESI. This is to be achieved by restructuring and encouraging private investment into the sector. An important component of ensuring that the reforms contemplated are successfully implemented, has been the establishment of a regulatory authority. This authority, known as the ECB, will oversee the liberalisation process and have responsibility for regulating the NESS in future.

In the exposition below, an attempt is made to explain the various phases involved in the NESS restructuring process. In addition, the restructuring model as adopted by the Namibian government will be discussed, together with its pros and cons. This is with a view to give an objective overview of the NESS reform agenda and the roles played and envisaged for the various stakeholders.

3.2 PHASES OF THE NAMIBIAN ELECTRICITY SUPPLY SYSTEM

To understand how restructuring can work in the electricity sector, it is necessary to refer to a decomposition of the NESS. It can be decomposed into four phases, namely:

1. the generation phase,
2. the transmission phase,
3. the distribution phase, and
4. the final supply phase.

The electricity generation phase in Namibia involves the transformation of crude energy sources to sophisticated electric power. It produces electric power using coal, diesel, hydro power (falling water), renewable fuels, wind, and so on.

The electricity transmission phase involves the transmission of massive electricity produced in the generation phase to the distribution phase. Consequently, it must be equipped with high voltage transport wires. The transmission phase is also responsible for maintaining the suitable voltage and frequency, and to prevent the system from breaking down.

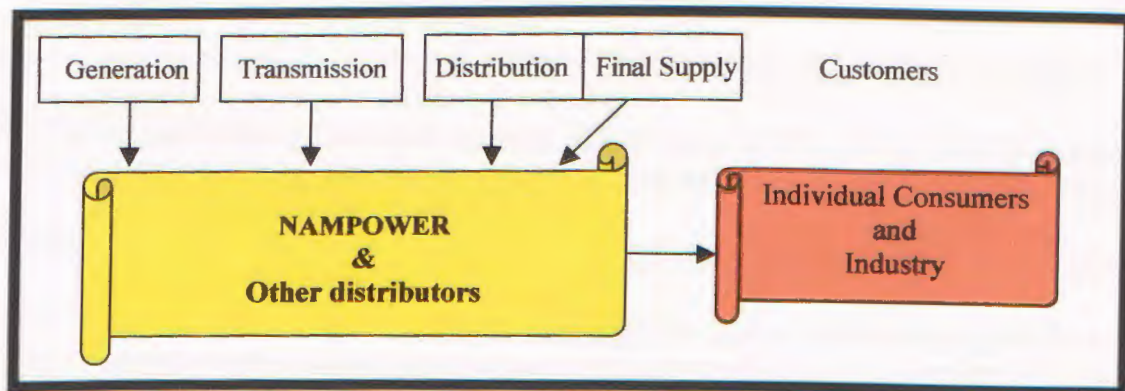
The distribution phase involves low voltage transport of the electricity. It transports the electricity from the transmission phase to end-users.

The final supply phase of NESS is responsible for the sale of electricity to the end-users, including metering, billing, and marketing. The distribution phase and final supply phase are often treated as a single industry due to the lesser importance of the final supply phase in terms of cost share in the entire NESS.

Traditionally, all four phases were considered to be naturally monopolistic, such that competition in each phase was not considered to be beneficial. These traditional phases of the NESS is shown schematically in figure 1 below.

In addition, the various transmission and distribution networks of NESS is attached as Chart 1, which illustrates the line capacities in the country. These lines supply power to townships, substations, private institutions and industries, regions as well as the farming communities.

FIGURE 1: TRADITIONAL PHASES OF NESS



Source: Own elaboration

CHART 1 :

MAP OF THE NAMIBIAN DISTRIBUTION AND TRANSMISSION POWER

GRID SHOWING VARIOUS kv LINES (11 kv – 400 kv)

3.3 THE STRUCTURE OF THE NESS

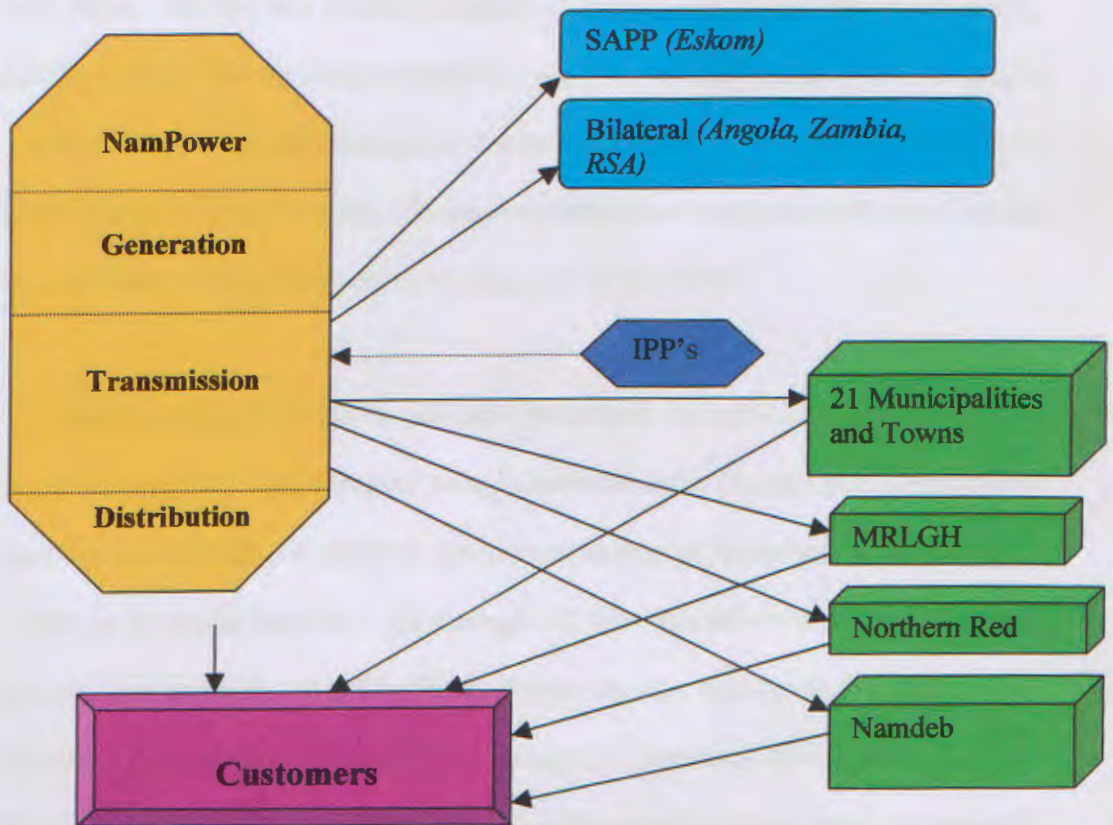
Among the four phases of the NESS, the generation and distribution phases as well as the final supply phase have recently acquired the attention for the possibility of competition, and thus there is a possibility of efficiency increase through privatisation with competition. The transmission phase is still considered naturally monopolistic and regarded as the national backbone of the Namibian economic infrastructure for which the government is reluctant to privatisation. The reasons for the possibility for and advantage of competition in the electricity sector will be explained in the next chapter.

The structure and ownership of the NESS in Namibian remained relatively stable until quite recently. NamPower, the state-owned vertically integrated utility, is responsible for the generation of electricity, the operation of the national transmission system and the wholesale transfer of electricity to redistributors.

These redistributors include various local authorities, which sell electricity to customers within their local authority areas, and a government ministry, the Ministry of Regional and Local Government and Housing (MRLGH), which supplies electricity, in some rural areas. NamPower distributes electricity directly to a limited number of end-users (customers), such as the bigger mines and commercial farmers, and is also responsible for the importation of electricity into Namibia from neighbouring countries through bilateral contracts, and the exportation of power from Namibia through the Southern Africa Power Pool (SAPP). There is also an agreement whereby Eskom of South Africa supplies electricity to a mining customer

within Namibia (Namdeb), but the customer is billed directly by NamPower. Independent Power Producers will also be allowed to sell and wheel power through the NamPower transmission network. For a schematic presentation of the above see figure 2.

Figure 2: Structure of the Namibian NESS



Source: Adopted from SAD-ELEC Report to the MME (1998:8)

Prior to the establishment of the ECB, there was no independent regulation of the NESS. Prices charged by NamPower were subject to political oversight by the Ministry of Mines and Energy (MME) while the (democratically elected) local

authorities ultimately determined the prices to be charged for electricity supplied by their local distributors, subject to the approval of the MRLGH. Government also approved prices charged by the said Ministry in the areas that they supply. Regulation of service standards, health, safety and environmental matters were also the responsibility of government. A large degree of 'self-regulation' accordingly took place, and this has served the national interest, and consumers of electricity, relatively well. Where mining companies supplied to third parties (for example, to employees in mining towns such as Tsumeb and Arandis) the supply usually took place at greatly reduced prices. In these circumstances, regulation of prices has not been considered by government to be necessary or desirable.

The Government of Namibia is presently promoting the participation of the private sector in the NESS. Initiatives are being taken both in the generation and distribution parts of the industry, to involve the private sector in financing, investment and operation of power systems. An example of these initiatives was the decision by government (through the MRLGH) to contract out the management of distributing electricity in the northern region of the country to a private company called Northern Electricity. The terms of this franchise agreement stipulated that regulation of profits (of the private company) is necessary. Such regulation was the responsibility of an Evaluation and Monitoring Committee (EMC) with representatives from the MME and the MRLGH. The EMC has since been superseded by the ECB when the latter was established.

Further examples include the proposed development of a gas-fired combined cycle plant at Oranjemund with private sector participants. Once it is completed, this will be the first independent power producer (IPP) in Namibia. Consideration is also being given to hydropower development with private sector financing and participation at either Baynes or Epupa on the Kunene River bordering Angola. Namibia is also a key player in the Southern Africa Power Pool (SAPP) and NamPower is a signatory to the Inter Utility Memorandum of Understanding and the Agreement between Operating Members. Although Namibia imports a large proportion of its current electricity needs from Eskom (68% of demand in 1997/98 was met from this source), the planned generation developments being pursued would, if realised, make Namibia a net-exporter of power within five years. Ongoing regional initiatives to link South Africa with Inga hydropower (in the Democratic Republic of the Congo) through Namibia and Angola underscore the future importance of Namibia as a key player in the region. The possibility also therefore exists of wholesale competition through SAPP, and Namibia has to prepare itself for the development of a competitive regional market.

Of particular concern to the government of Namibia is the current structure and functioning of the distribution sector of the NESS. This sector is fragmented and is operating inefficiently in many respects. A large (national) electrification programme also has to be undertaken which requires that the most efficient distribution industry is in place to allow electrification to occur as quickly and as cost effectively as possible. The Government of Namibia has commissioned a study by SAD-ELEC to make recommendations on the restructuring of the NESS, with

particular focus on the distribution sector. The initial phases of the study have been completed, with the recommendation that the existing distributors should gradually be rationalised into a small number of regional distributors, although with local authorities continuing to play an important part in the distribution of electricity in some areas.

The Government of Namibia has proactively taken various policies and legislative steps to put in place an adequate framework for the NESS. In doing so, it has acknowledged that:

- The structure of the industry will change as new entrants enter the market and competition becomes a reality;
- New challenges will arise from the regional developments taking place and particularly the possibilities for a competitive regional market;
- Private sector involvement requires a different type of regulatory response as government gives up the control it is able to exercise over existing suppliers; and
- The present system of light 'self-regulation' has to give way to a different type of regulation better suited to the changing environment.

These initiatives have been accelerated with the promulgation of the Electricity Act, Act 2 of 2001. An important part of this Act is the establishment of the ECB, which will be given powers to regulate the NESS through a licensing process. This regulatory authority, separate from government is envisaged to play a very important role in ensuring that the NESS evolves in a planned, co-ordinated and sensible way.

Only in this way will the industry continue to be the engine for growth, development and prosperity in Namibia, to the benefit of all the people of Namibia and the region in general.

An important part of the new ECB's work will be the economic regulation of electricity generators, transmitters, distributors and suppliers, and particularly the regulation of the price at which they sell electricity to their customers. It will of course also have to regulate other activities of suppliers, such as service standards, quality of supply, and health and safety matters, but regulation of tariffs and prices will remain one of the ECB's most important functions.

3.3.1 Reasons for Economic Regulation of the NESS in Namibia

Based on the discussion above, the establishment of an independent regulatory authority, the ECB, seems to be the correct decision when at least considering the following reasons:

- Most, if not all, the utilities electricity will at least initially be *monopoly suppliers*. Regulation will therefore be necessary to limit the opportunity for abuse.
- Although not strong initially, there will be a *component of private sector involvement* in the industry, which will require regulation to protect the interests of customers.
- Over time, it is likely that the role of the private sector will increase as developments are increasingly funded by investors and the government may also decide to privatise some of its electricity assets. Establishing the ECB,

and building capacity, will allow this liberalisation to take place under the guidance of a *competent regulatory authority*. This is a key component of the industry, which investors will want to see in place in future when they make their investment decisions. A stable regulatory regime is crucial to a favourable assessment of risk for investors. It is important to get the ECB right and up and running to gain regulatory experience before further wide ranging changes are contemplated.

- An experienced regulatory authority will be in a position to advise government on issues around further industry restructuring and provide government with independent advice and guidance. The ECB's separateness from government will 'shield' government from having to be directly involved in all aspects of the industry, particularly when tough choices have to be made. This will assist in '*depoliticising*' the NESS and will also allow for regulatory decisions to be taken on technical grounds and not political grounds.
- The ECB will be in a position to establish a *database* to start collecting (accurate) information on the industry, which is a necessary component of taking sensible decisions on future restructuring options and opportunities.
- Establishing a *proper framework for price regulation* in electricity will assist the government in transposing lessons learnt and experience gained to other industries or sectors e.g. water, gas and telecommunications.
- The ECB can commence with the regulation of electricity prices and the imposition of a national tariff system (to ensure fairness and equity between customers), relatively quickly, with decided *advantages for the NESS and customers*.

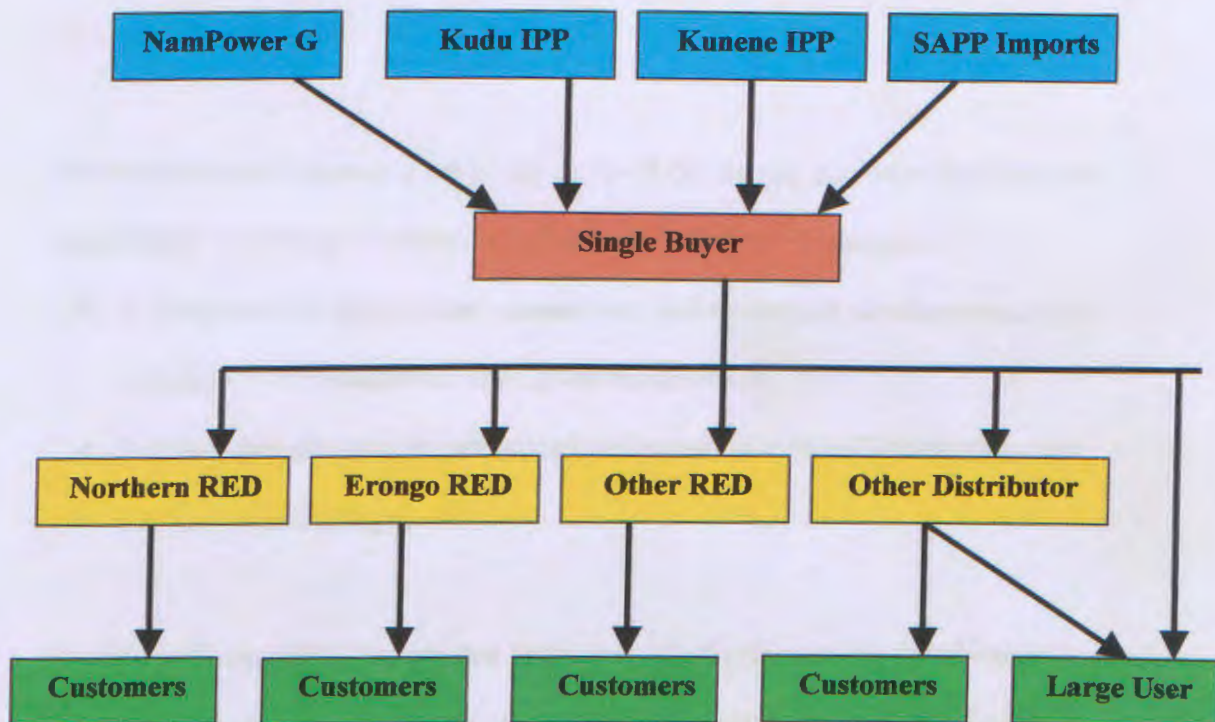
Of course the main reason for establishing a regulatory authority is to make the ESI more efficient and ensure that it meets government's policies and objectives for the sector. Proper regulation of the industry in Namibia clearly has the potential for improvements in efficiency, which will result in cost reflective electricity prices and a better quality of supply and service. This is reason enough to establish such an authority. In addition to this, the ECB will be able to play a role in ensuring that other government objectives are met. A good example of this is the role it could play in electrification, in terms of establishing electrification targets for each licensee, monitoring progress on electrification programmes and administering the allocation of electrification funding.

Having provided the perspective in terms of the current structure and thinking in the NESS restructuring process, the scene has now been set to view and analyse the restructuring model that was adopted by the Government of Namibia. This is with view to analyse its relevance to the Namibian context.

3.4 THE NAMIBIAN MODEL FOR REFORM: THE SINGLE BUYER (SB)

The restructuring study from SAD-ELEC consultants that was accepted and ratified by Government of Namibia has recommended the adoption of the 'single buyer' model for the introduction of efficiency and competition in NESS. NamPower, it was decided, will be the instrument to realize the single buyer function (SAD-ELEC 1998:8). An illustrative presentation of the single buyer function is elaborated on in figure 3 below.

Figure 3: Single Buyer Model



Source: Own elaboration

This model has been in use especially in South East Asian countries such as Indonesia and particularly in Thailand, it has been the preferred model with the privatisation of the Electricity Generating Authority of Thailand (EGAT) (Dhiratayakinant 1989:12).

A single buyer model of the electricity industry is usually associated with the desire to attract private sector interest in new investments. Where demand growth is relatively high and local or public financing options limited, there is a need to turn to international sources for financing. This usually takes the form of independent

power producer (IPP) projects, financed by some equity leveraged with commercial and concessionary loans.

Private sector participation in the power sector of developing countries has increased significantly over the past decade. Key features of this development are:

- A dominance of privatisation transactions and Greenfield developments, with less activity in management and operations contracts;
- A higher concentration in generation than in transmission and distribution; and
- Different regional approaches.

The World Bank (1998) reports that 56 percent of all private sector involvement in electricity sector in developing countries has been targeted at Greenfield developments, with some US\$73 billion being invested in 286 projects from 1990 – 1997. The majority of this has been invested in East Asia and the Pacific, which accounts for 57% of the total. In Latin America, private sector investment has primarily been evident in privatisation transactions.

3.4.1 In summary, the key elements of the recommended SB model are:

- Generators (including Independent Power Producers) sell power to the SB and export power using the national transmission system, with regulated principles for third-party access.
- All distributors and (eligible) large users buy from the SB.
- Eligible large users have the right to choose between the SB or a local distributor.

- When in the broader national and economic interest, the ECB may waive the SB's right to supply in favour of IPP/imports.
- Embedded generation (in a licensed distribution area) need not sell to the SB.

3.4.1.1 Large electricity users

The overall SB structure, as summarised above allows for large electricity users to choose to be supplied by the Singe Buyer instead of the local electricity distribution company. In practice this means that these customers can opt to be supplied directly by NamPower (being the SB).

Table 1 below shows the only distributors supplying customers with a notified maximum demand larger than 1 MW.

Table 1 : Approximate number of customers with MD>1 MW by Supplier

	1 – 5 MW	5 – 10 MW	> 10 MW
Nampower	13	3	1
Windhoek	<10	-	-
Walvis Bay	11	-	-
Otjiwarongo	1	-	-
Okahandja	1	-	-

Source: Own elaboration

For the purposes of defining which large users would have the right to choose their supplier, large users are defined as those customers with a notified maximum demand greater than 5 MW at a single supply point. Today, this would limit the number of customers to four (plus a further two borderline cases) that are presently supplied by NamPower. These four accounted for approximately 18% of NamPower's system demand during 1998/99.

NamPower will obviously continue to supply customers that are outside the geographical distribution area of a local authority or regional distributor – independent of such customers' notified demand.

Implementation of this policy may in the future require NamPower access to another entity's distribution lines. This arises where NamPower does not own the distribution lines to the customer. Under these circumstances, the Electricity Control Board will have to ensure that the local distribution company offers fair and reasonable tariffs for the wheeling of power across its network. These rates should reflect the full costs of providing the service, and will probably be based on average distribution costs within the utility. It is recommended that the Electricity Control Board treat these cases on a case-by-case basis, rather than developing a rigid set of rules for price setting.

Where the SB waives its right to supply, a large user can sign a supply contract with another supplier, under the condition that they pay the full cost of transmission

and/or administration services. An example of this situation is the current supply to Namdeb, which is sourced from South Africa.

3.4.2 The following issues are important to the successful implementation of the SB model in Namibia:

- Successful development of Independent Power Producer projects;
- Full accounting separation (or even corporatisation) of NamPower's activities related to generation, transmission and distribution of electricity;
- NamPower transmission will act as the SB, properly ring-fenced (possibly established as a separate grid company);
- Third-party access to transmission (and distribution, networks) must be guaranteed at transparent terms determined and monitored by the ECB;
- The ECB will regulate transmission prices and monitor bulk power sales agreements to ensure full transparency and equitable treatment of all parties;
- Subject to ECB approval and requirements, NamPower and distributors may have an equity stake in other generators.

3.4.3 It is envisaged that the recommended SB model in Namibia will evolve towards a more competitive electricity market with greater customer choice in the future, although depending on developments in South and Southern Africa.

International experience suggests that the SB model is a transitional state towards a greater degree of competition, usually moving towards wholesale competition. However, the SB model is the recommended model for electricity market reform in the medium term.

3.4.4 Popularity of the single-buyer model

The popularity of the single-buyer model is due to a number of technical, economic, and institutional factors:

- Electricity supply has to match demand second by second, requiring the balancing of differences between the planned and actual output of individual generators and between the planned and actual loads of individual distributors. By giving the entity responsible for real-time dispatch the exclusive right to buy electricity from generators and sell it to distributors, the single-buyer model greatly facilitates this balancing.
- Network electricity flows follow the laws of physics with no regard for contractual arrangements – a major problem for market models with multiple buyers and sellers. The single-buyer model solves this problem without requiring a regime for third-party access to transmission, which can be costly and institutionally demanding to establish.
- The single-buyer model preserves a key role for the MME in decisions on investments in generation capacity, and for the state-owned Electricity Company in the sector's day-to-day financial affairs – and thus tends to be favoured by these influential players.

- The single-buyer model helps to maintain a unified wholesale electricity price, simplifying price regulation.
- The single-buyer model makes it possible to shield financiers of generation projects from market risk and retail-level regulatory risk, reducing financing costs or making the investment commercially bankable.
- The single-buyer model appeals to the populist instincts of politicians reluctant to support the state's complete withdrawal from electricity trading

3.4.5 Possible disadvantages of the SB model

As previously stated, the single-buyer model should be seen as a transitional arrangement before the conditions for a competitive wholesale market are satisfied.

The single-buyer model could potentially have major disadvantages, particularly in countries with weak or corrupt government and low payment discipline due to among other, the following reasons:

- First, decisions about adding generation capacity are made by government officials who do not have to bear the financial consequences of their actions. In countries where investors found government assurances attractive (such as Hungary, Indonesia, Pakistan and Thailand) there has been an upward bias in the generation capacity procured under both the single-buyer and the IPP models. The apparent reason: government officials found it difficult to resist powerful interest groups pushing for state-guaranteed capacity expansion (Dhiratayakinant 1989:28).

- Second, power purchase agreements create a contingent liability for the government, which is expected to step in if the state-owned Transmission Company is unable to honour its obligation to the generator. This expectation is often formalized in a guarantee agreement. Unless managed carefully, these implicit or explicit contingent liabilities could undermine the government's creditworthiness and, ultimately, macroeconomic stability. The cash-based budgeting typically used in developing countries sometimes or often hide the fiscal exposure associated with guarantees, creating perverse incentives that distort the government's decision making (*ibid:29*). Air Namibia is a classic example of such a situation. This parastatal company is draining the governments resources that could have been redeployed to other much needed projects as the government is always bailing it out of financial crisis created due to mismanagement by its administrators.
- Third, the single-buyer model responds poorly when electricity demand falls short of projections (such as in a macroeconomic crisis). Ideally, electricity prices would fall, stimulating demand, and revenue losses would be allocated to private financiers, best equipped to manage market risks. Under the single-buyer model, however, wholesale electricity prices rise because take-or-pay quotas (or fixed capacity charges) must be spread over a shrinking volume of electricity purchases. When these high prices cannot be passed on to final consumers, taxpayers must bear the losses.
- Fourth, the single-buyer model may hamper the development of cross-border electricity trade by leaving it to the single-buyer, particularly if the state owned company does not have a strong profit motive. This could become a major

disadvantage when neighbouring countries adopt a less restrictive market model.

- Fifth, the single-buyer model could weaken the incentives for distributors to collect payments from customers. The state-owned single-buyer may often be reluctant to take politically unpopular action against a delinquent distributor, and its aggregation of cash proceeds from distributors may allow it to spread the shortfall caused by a poorly performing distributor among all generators. When distributors see that paying and non-paying distributors are treated alike, their motivation for cutting off non-paying customers may weaken.
- Sixth, it is a considerate opinion that the single-buyer model makes it so easy for government to intervene in the dispatch of generators and the allocation of cash proceeds among them that few will be able to resist the temptation. In Poland and Ukraine, for example, pressure groups formed by coal miners have obtained special treatment for coal-fired power plants. In countries with high-level corruption an equally important concern is the temptation to divert cash to illegal purposes, such as funding political campaigns.
- Finally, the single-buyer model may increase the likelihood that, under pressure from vested interests, the government could indefinitely delay the next step toward fully liberalised electricity markets.

Maybe the above-sketched scenario could be contained if a switch could be made to a multiple market model that would allow generators to sell electricity directly to distributors and large consumers, as ultimately envisaged for Namibia in the long-term.

Generators that fail to get paid by their contractual partners could reduce their output and look for more reliable buyers. The ability of the government to intervene in the payment chain from consumers to generators will be greatly diminished. Decisions about constructing new capacity – and the associated market risk – could be left to private investors.

3.5 INCREASING PRIVATE PARTICIPATION THROUGH INDEPENDENT POWER PRODUCERS (IPPs) IN NESS

The following recommendations have been made with regard to private sector participation in NESS and adopted by the Government of Namibia.

- Private participation should be pursued through competitive tendering, not ‘negotiated’ deals;
- Particular emphasis should be given to include companies owned by previously disadvantaged communities (Black Economic Empowerment companies);
- Mechanisms to ensure regulatory oversight of private participation in monopoly elements of the NESS will be implemented.

The primary vehicle through which private entrepreneurs could enter the market, especially in the generation phase is through IPPs, on which the Government of Namibia has legislated as follows in a nutshell:

- IPP developers will be encouraged to supply the Namibian market and export power to customers outside the country;
- NamPower is not to be excluded from participating in IPP developments, particularly where it can add value;

- The ECB/competition authorities will monitor IPP developments and power purchase agreements to ensure that any NamPower participation in IPPs is not to the detriment of Namibian consumers;
- The SB will procure power generated by IPPs, NamPower generation and imports at the lowest possible cost to meet overall system demand; and
- Local generators will have preference over imported power when accessing the market, although not at prices higher than the full economic avoided cost of imported power.

Namibia as yet does not have functional IPPs, although the aborted Kudu-gas development initiative could have provided invaluable lessons on such a venture.

As Yokoi (1985:65) also posits that, to date, the introduction of Independent Power Producers (IPPs) is the most popular method of introducing foreign private financial resources into the generation phase of the ESI in developing countries. IPPs are private firms that build and operate the electricity generation facilities, and the electricity they produce is sold to the state owned electricity supplier of the host country. Contractual arrangements between the IPPs and SOEs have been commonly done under the so-called Build-Operate-Own (BOO) or Build-Operate-Transfer (BOT) schemes through tendering.

IPPs often use "project finance," or "limited-resource finance" to finance the project. In this method of financing, banks and bondholders who lend to the project can

expect repayment of their investment only through the revenues generated by the project itself.

In other words, debt repayment is done only through electricity sales, and neither the IPPs nor the government are obligated to compensate project lenders out of their own resources (*ibid:66*).

Thus, for the Namibian government, IPP development may be a welcome opportunity to be provided with a free electricity generating facility without potentially incurring debt on either its balance sheet or government accounts.

The following table illustrates certain characteristics of different forms of private sector participation that may be considered as part of the proposed restructuring of the Namibian NESS.

Table 2: Different forms of possible private sector participation

	Service and Management Contracts	Lease	Concession and BOO/BOOT	Full Privatisation
Management Expertise	✓	✓	✓	✓
Tariff discipline		✓	✓	✓
Access to capital			✓	✓
Capital market linkages			✓	✓
Potential capital revenues				✓

Source: Own elaboration

- **Service and Management Contracts**

Here a private firm manages the enterprise. Efficiency gains come from cost reductions, and better management. The private company commits no investment capital. The government or local authority usually collects tariffs and remunerates the private company for undertaking the services. The private company assumes no market risk.

- **Lease**

With a lease the private company operates and maintains the electricity utility at its own commercial risk. The income of the private company is derived directly from tariffs, and the private company absorbs the market risk. The private company usually has no obligation to invest in infrastructure. In this model, the private company has powerful incentives to ensure that tariffs are collected and operating costs are minimised.

- **Concession**

Here the private operator manages the infrastructure at its own commercial risk. The private company also usually accepts the investment obligation (rehabilitation and new capital investment). In this way government is able to tap into private investment but it does not relinquish ownership. However, it is necessary to offer long-term concessions for this to be attractive to the private sector.

3.6 CHAPTER CONCLUSION

This chapter provided an overview of the rationale, phases and trends of the NESS restructuring agenda. It also discussed the motivation for government's decision to introduce private participants, particularly through IPP development in the generation sector. Because there is no functioning IPP at present, it is difficult to gauge the efficiency of the recommendation in practice. Privatisation in the distribution sector, although not discussed, may successfully increase electricity supply, and reduce the burden on government expenditure on the NESS.

CHAPTER 4

BENEFITS AND CHALLENGES OF THE NESS REFORM AGENDA

4.1 INTRODUCTION

The provision of electricity is a sine qua non in modern society. Among all the energy resources, “its versatility, flexibility, adaptability and amend ability to control are unmatched” (Kim and Smith 1997:5). Since its discovery, electricity has pervaded human life more and more. It has become vital not only as an input to the production process, but also as end-product that is consumed by households. (Makamura 2000:4). Adequate electricity supply has thus become an indispensable service for the economy to grow. As a matter of fact, all the countries that experienced rapid industrialization and economic growth in the last two decades successfully met the growing demand for electricity. This is especially the case with the Tiger economies of East and South East Asia.

This chapter focuses on electricity as a key need that must be fulfilled in order for development to reach the majority of the Namibian people. It should be stated that the provision of electricity should not be done in isolation, but should be located within the overall development platform and needs of the country, and has to be completed by the provision of clean and potable water, health, roads and other essential services. As previously stated, the provision of electricity is both an economic and political issue – and the provision of such a service presupposes fundamental changes away from the way it was provided during the apartheid era.

The democratisation of the Namibian society also ought to be reflected in the democratisation and restructuring of NESS. Therefore, no democratic society can afford to leave technical decisions in the hands of technocrats only, since the nature of electricity as a public good, affect the quality of life of large numbers of people in Namibia. Hence a coherent and democratic approach to the development and restructuring of NESS is required.

Moreover, the distribution and pricing of Namibia's electricity or for that matter energy resources may raise serious social equity issues. For example, past and present unemployment, under-employment, covert discrimination, and economic hardships caused by inflation, may limit the incomes of the poor, ethnic minorities such as the San people, the elderly, and the handicapped. As a result, these groups, too a large extend, suffer inferior access to electricity and energy resources in general. It is also an undisputable fact that electricity and other energy prices grow more rapidly than the incomes for these socially disadvantaged groups. Governments' policies with regard to the NESS restructuring agenda are therefore key determinants of the electricity and general energy futures of the poor. Whether social equity considerations will be experienced, as a fundamental principle in the national restructuring of energy policy will thus largely depend on the nature of governmental intervention.

With the above as background, the scene is now set to analyse the benefits and challenges facing the NESS reform agenda, starting from the perspectives of the various role players and important stakeholders in the reform process. This is with

view to clarify the questions of who was instrumental in influencing the reform agenda, who in principle resisted the reform initiatives, as well as analysing the risks and potential rewards that could accrue from successful implementation of the reform initiative.

Indications are that although the ideals that form the core of the restructuring agenda are noble, the path to implementation may be permeated with many obstacles, which ought to be overcome in order to ensure successful implementation.

4.2 PERCEPTIONS ON NESS RESTRUCTURING BY VARIOUS STAKEHOLDERS

The NESS restructuring initiative has been perceived and received differently by various stakeholders, institutions and constituencies as elucidated below:

4.2.1 The Ministry of Mines and Energy (MME)

Electricity matters at a national level are the responsibility of the Ministry of Mines and Energy, whose main objectives are to optimise, regulate (now outsourced to the Electricity Control Board) and facilitate the development of generation, supply and distribution of electricity, and to investigate and promote the use of alternative energy sources.

In 1997, Cabinet instructed the Ministry of Mines and Energy to launch an in-depth investigation into the NESS. The agreed objective was to make recommendations on possible future structures, which would enable the NESS to continue to be the engine

for economic growth, development and prosperity in Namibia in an effective and efficient manner. The White Paper on Energy Policy, approved by Cabinet in 1998, gave further guidance to the restructuring exercise.

The MME was thus instrumental in keeping the reform momentum going which led to the promulgation of the Electricity Act in July 2000. Subsequently, the Electricity Control Board (ECB), the industry regulator was established.

In spearheading the restructuring initiative, MME defined the key objectives for Namibia in contemplating the most appropriate electricity market structure for the country as follows:

- Source power supplies for Namibian consumers in the most cost-effective manner, including the optimum utilisation of local generating assets;
- Ensure a reliable supply of power that promotes Namibian growth and development;
- Increase diversity of supply and promote the use of local energy resources; and
- Encourage private sector participation – both from local Namibian and foreign investors, operators and service providers.

Most importantly, it was hoped that successful implementation of the reform agenda would cease the financial burden off the state fiscus in terms of reduced subsidies to the sector and bailing out poor performing parastatal companies in other spheres other than electricity supply markets.

The Government of Namibia, through the NESS reform agenda, wants to reduce its historical direct intervention in the provision of infrastructure services. However, the responsibility of government still can be seen unchanged in the provision of services to rural areas and also ensuring the environment for the private sector to perform well while preventing consumers being victimised.

However, in many developing Countries electricity tariffs could be increased due to the withdrawal of government subsidies and also because of private sector tariff changes. These could make access to service less affordable and the Government of Namibia is well advised to make a careful analysis of such a situation. In a related but different sector, after the privatisation of Buenos Aires water supply the connection fee went up and communities continued to reduce water consumption of formal sources until they were granted a five year period to pay off the fee. However, to compensate for that, the private provider has simply increased the price of water. The Argentinean government became the loser due to the negative results of the financial restructuring over the former government owned entity's liabilities. Government had to take over the state entity's debt (Abdala 1996:74). This is in one way contradictory to the objective of reducing the government role in providing services that could better be provided by the private sector.

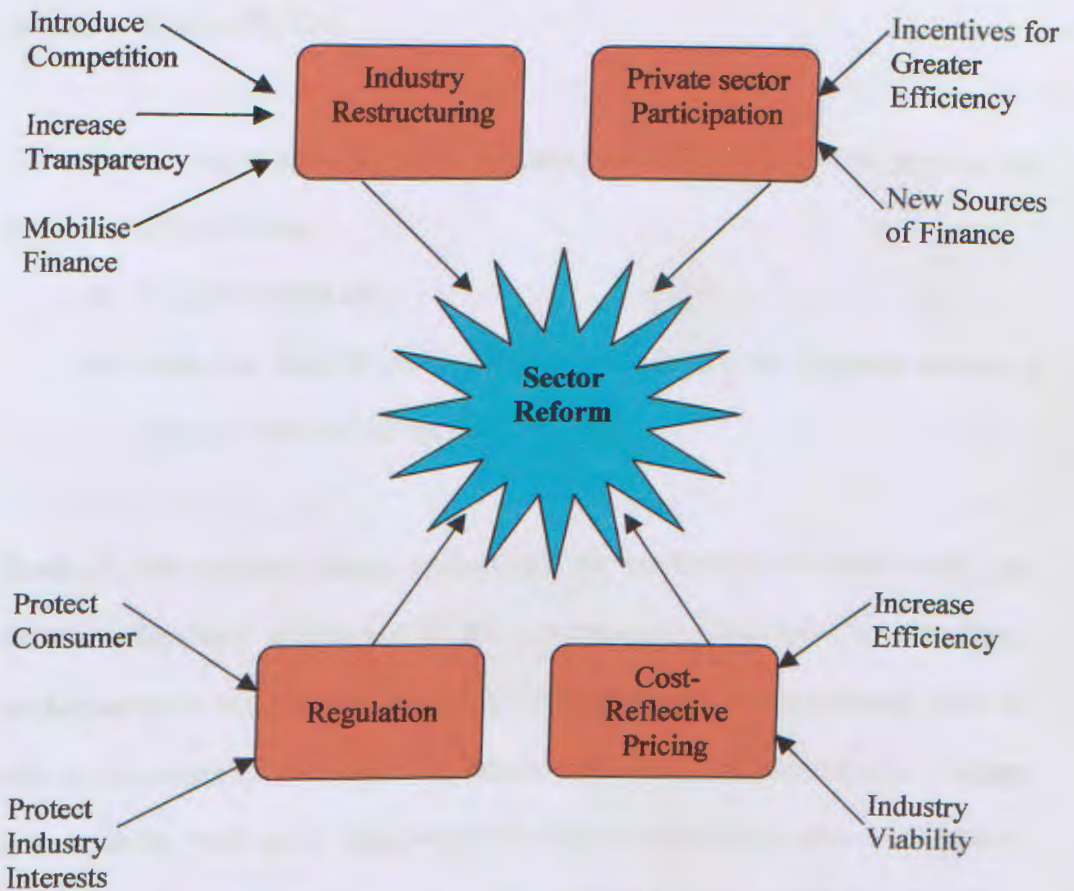
4.2.2 The Electricity Control Board (ECB)

It seems clear that the future structure of NESS will, in large part, result from the degree of competition which develops in the industry and the regulatory system imposed on it through regulation by the ECB. Theoretically, regulation is expected

to deal with and negotiate many potential pitfalls while ensuring service quality, safety, environment protection, service obligations and the rights to network access etc (WB 1994). One commonly known goal of a regulator has been fostering industry development and investment (Sappington 1996:85). "Using command-and-control regulation, the regulator can mandate the adoption of operating equipment and techniques that have proved successful" (*ibid*).

Therefore, a strong legal and regulatory framework is needed to ensure that private investment and involvement serves public needs and interests. Creating an independent regulatory authority, the ECB was thus a key element of the NESS reform agenda. The worst elements of both the private and public sectors must be avoided through regulation. The rationale for the reform of the electricity sector is schematically presented in figure 4.

Figure 4: Components of the electricity sector reform



Source: Adapted from World Bank Annual Report, September 1999

At present the Government of Namibia has no experience in regulatory facilitation in the electricity sector and is being helped by SAD-ELEC consultants to put up industry rules. The formation of the regulator has to depend on the future pattern of ownership and management of that. Lessons can be drawn from Chile. Chile formed an independent electricity regulator insulated from laws; tariffs were set at long-run marginal costs of a hypothetical efficient company to assure profitability

and were protected with formulas drawn out in the law to remove political manipulation; low and middle income consumers are protected by a 'means-targeted subsidy' (Shirley, 2000:24).

The cost covering and the net profit payment of an electricity service provider are comprised of two sources:

- (i) from the market and
- (ii) from any kind of public subsidy provided as an incentive induce a strategic behaviour to the firm.

However, this incentive based mechanisms do not become effective when one considers the fiscal constraints of the government. Therefore, the regulatory mechanism tends to get limited by the incentive constraint. For instance in Chile, in order to encourage private electricity distributors and private transmission company to invest in the rural sector, the government had to invest a large amount of money. Therefore, it is important to use other mechanisms to enforce private firms to follow those obligations.

Nevertheless, it is anticipated that, given enough time to adapt to its role and learning from the experience of the "first movers" in regulatory reform, the ECB will become an important instrument in ensuring fair play in the Namibian electricity supply system.

4.2.3 The Labour Movement

The trade union movement under the umbrella body of the National Union of Namibian Workers (NUNW), and its affiliate in the energy sector the Mineworkers Union of Namibia (MUN), are on record as not supporting the overall restructuring policy of state owned enterprises (SOEs). They argue that the current proposals for restructuring the NESS are idiosyncratic: they meddle with the parts of the sector that works very well by international standards, while leaving fundamental problems of e.g. unemployment and poverty alleviation unsolved. Labour's concerns seems to be that they see the proposals as driven by an ideological commitment to establish a market for electricity, and which treats electricity as a commodity rather than as a basic need. It is further of the opinion that the restructuring is not based on hard evidence, but rather on a faith in the efficacy of the market. They thus feel that the free market approach to restructuring runs contrary to the government's stated aim of servicing the poor. Therefore, social equity issues should be related to peoples energy needs.

The MUN's vision for the electricity sector derives from our history, which saw access to energy shaped by class, race and gender. The apartheid state centred electricity provision on the mines and refineries, which are extraordinarily capital and energy intensive, and on white communities. It provided little electricity in black townships, and virtually none in the rural areas of the "homelands".

This history is reflected in the fact that in 1988, 40 per cent of Namibia household – and probably only around less than a quarter of African families – had access to

electricity, according to a household survey done by NamPower, then SWAWEK. After independence, electricity is still not adequate and has reached less than half of African households, especially in rural areas. Moreover, many of the new connections only permitted lighting, not cooking. Together with the cost of appliances, this explains the much higher use of electricity for light than for heat in rural Namibia.

In an interview held on 22nd October 2002, Mr. Risto Kapenda the President of NUNW, asserted that if NamPower is forced to compete with private producers, it will find it difficult to, or impossible to deliver on its social obligations, claiming that the way to maximise profits is to supply companies and the rich, not to extend electrification. Even if the government funds electrification, the union movement fears that it will no longer be part of NamPower's duties to ensure adequate services and affordability for the poor. Accordingly, the question becomes why the union should support NESS restructuring when the present system appears to be delivering well.

Ranga Haikali and Steve Rukoro (interview: 2002/09/25), Secretaries General of the National Union of Namibian Workers (NUNW) and the Public Service Union of Namibia (PSUN), raised their concerns regarding the tendencies among the commercialised entities, including Namwater, to increase prices of goods and services drastically, with the sole purpose of financing the extravagant perks of the executive management of those institutions. They criticized the annual 20 per cent increase in the water charges by Namwater for the next five-year period, because

water loss became too expensive for ordinary Namibians. They fear that the same fate may befall the impending restructuring of the NESS.

Privatisation, especially the contracting out of public service provision, often means the disintegration of bargaining units. That can mean a loss of members of trade unions and the lack of protection for employees (Murray 2000:19). In some instances workers who are transferred to new undertakings may find themselves no longer represented by a trade union and are therefore no longer covered by previous collective agreements. At a recent meeting (22 – 23 October 2002) on Black Economic Empowerment (BEE), Mr. Peter Naholo, the Acting Secretary General of NUNW, reiterated that the workers are ‘extremely’ apprehensive of the impact of privatisation on their lives. He postulated that there was overwhelming empirical evidence that millions of jobs have been lost as a direct result of privatisation.

He cited Zambia where, he said, 92 000 jobs were lost by 1994 and 150 000 by 1996 as a direct result of privatisation and public sector restructuring. He said the United Kingdom lost 163 000 local government jobs between 1939 and 1993 as a result of the contracting-out of services. He said in Vietnam 1.5 million workers were retrenched from state enterprises over a five-year period of privatisation. “In Argentina, fellow unionists estimate some 200 000 jobs were lost through a privatisation programme”, he said. Naholo said in Poland a government survey of 130 companies privatised a couple of years ago found that employment fell by an average of 15% in the first year and 25% in the second year.

“In Namibia about 400 jobs were lost in the year 2000 as a direct result of divestiture which took place at Amcom. Similarly, at Air Namibia, a number of jobs are under threat as a result of privation of the national airline”. Naholo said: “The point must be made that workers who lose their jobs as a result of privatisation are inevitably retrenched into unemployment. Namibia currently has an unemployment rate of 35%, where will we be in the year 2010?” was his concluding remarks in a speech that sounded like a warning to government to proceed slowly with the restructuring exercise.

4.2.4 NamPower

NamPower welcomes the restructuring initiatives, but the company noted that, if it is forced to compete with the private producers, it may find it difficult or impossible to deliver on its currently imposed social obligations as these may conflict with profitability.

The realisation that grid electrification is the long-term solution and a more reliable system but requires substantial capital outlay, makes public ownership of the grid system necessary, as is the present case with NamPower being the grid owner. A private sector will simply not undertake such a massive project especially because returns to investments can only be expected over the life of the investments and not at the outset – that is the short to medium term. In addition, as the likelihood of a sub-continental grid increases – there is less space for the private ownership of the project. Therefore, most debates stressing the usefulness of privatisation may not be relevant in the electricity supply industry. For example, privatisation would not

necessarily introduce competition, since electricity supply at present is a natural monopoly utility and may not promote the electrification of low-income areas.

“Only a publicly owned supply system with access to concessionary finance and wide political acceptability would be able to undertake large scale electrification initiatives in the low income areas. These must be undertaken if the legacy of the racial discrimination in access to services perpetuated under apartheid is to be overcome (Theron, Eberhard & Dingley 1991:20).

NamPower at present is the only player that can fulfil such a massive task of large capital outlay and investment in electrification projects due to its healthy balance sheet. This does, not however, suggest that only the state or NamPower can play a meaningful role in accelerated electrification programmes.

4.2.5 Household Consumers, the Public and Civil Society

There seems to be no clear process for discussing the restructuring proposals with the public, industry and civil society. This seems to have caused major uncertainties especially for both industrial and household consumers as well as for workers in electricity, thus diminishing support from these segments of the society. In fact, institutions within civil society can monitor the performance of a publicly owned supply industry. The role of ‘external’ regulator need not only be played by the ECB. The state cannot be the only agent of development but must involve legitimate institutions within civil society as well – a lesson learnt by the experiences in Eastern Europe. By owning the ‘commanding heights’ only, the state has a narrower range

of tasks and is able to perform better. This limit in the function of the state could create space for a vibrant civil society.

4.2.6 The Environmental Lobby

The environmental groups have very much opposed the governments' initiative of campaigning for private capital to build the much needed Epupa hydro-electric scheme, citing environmental damage and disturbance of a fragile eco-system of the affected area. The Epupa scheme fitted well in the governments' plan to diversify and restructure its economy and industry for the socio-economic development of the Namibian people – an effort being frustrated by the environmentalists.

For the majority of black Namibians whose lives and operations are dictated by the struggle for survival, environmental considerations will be regarded with indifference. The next few years will see an increasing demand for electricity. Therefore, it is likely that the current methods of electricity generation – that is hydro-power and coal fired power stations – will persist in the next ten to fifteen years of the post-independent era. Mass environmental literacy can only be achieved once political literacy and democratisation of Namibian society has reached an advanced stage.

4.2.7 Local Authorities and REDs

There seems to be a perception by some local authorities that these changes are imposed on them by government, although the Local Authority Act that established them clearly stipulates that they are independent policy making entities in their own

right. A small number of members of the Association of Local Authorities of Namibia (ALAN) have expressed cautious support for the restructuring of NESS, particularly the creation of the REDs, due to the perception that they may benefit from the possible economies of sale envisaged for possible REDs.

Many local authorities distribute electricity to end customers, making profits and surpluses are generally transferred to municipal accounts, where they are used as subsidy for other services. They fear that restructuring and especially privatisation could erode their financial reliability. If the proceeds from privatisation are received by the municipality, then it could be invested elsewhere thereby realising further returns. However, if the proceeds accrue to another party, such as the central government treasury, then the municipality will have lost a significant source of income. In the circumstances, municipalities will have to raise property rates substantially. In addition, privatised distribution authorities would not have access to capital, which was subsidised, by the state.

The most significant effect of privatisation on municipal electricity department could be the higher tariffs for all categories of customers. This could occur as a result of higher tax liabilities to the various structures of government and higher capital costs. Due to the lack of state subsidized capital, privatised distribution authorities would be compelled to raise their own equity and loan capital to finance accelerated electrification programmes. Thus privatisation would not result in electrical infrastructural development in especially the black townships and rural areas. Since the growth in electricity consumption can only be expected in the long term,

immediate financial returns are not envisaged. Therefore, viability of accelerated electrification programmes is a function of capital loans on very favourable terms, and if such loans are not available then widespread electricity provision may be halted.

It is thus argued by many municipalities in Namibia that the privatisation of electricity distribution authorities in the urban areas is an unsound policy initiative.

Problems also seem likely to arise from government's insistence that regional electricity distributors be created. This fear is borne of the fact that, given the huge geographic inequalities left by apartheid, rural REDs especially may face lower incomes, high cost and less access to skills. This may be the reason why some affluent local councils seem to be dragging their feet in implementing the reform agenda. However, the Northern RED is well on its way of being finalized. The various municipalities in the North have come together to form a distribution company, called Nored, to spearhead the initiative and every player in the restructuring process is awaiting the outcome of such a move, before whole heartedly plunging in the business of REDs formation.

4.2.8 Consultants

A group of Consultants led by SAD-ELEC (Pty). Ltd, who has been appointed by the MME to undertake the NESS restructuring study, was very instrumental in the shaping of the reform agenda. They assisted MME to compile a set of recommendation, which were submitted to Cabinet. These recommendations have

been approved by Government of Namibia and have thus set the scene for the implementation of the NESS reform agenda by the various stakeholders.

Having given an exposition on the role played by the various stakeholders in the NESS restructuring process, the study now analyses the benefits and challenges that are perceived to accrue from the restructuring initiative, starting with the challenges as a point of departure.

4.3 POTENTIAL CHALLENGES THAT COULD EMANATE FROM THE NESS RESTRUCTURING PROCESS

There are many challenges as there are opportunities that need to be managed if the NESS restructuring agenda were to be realized successfully. Inter alia, the following could be paramount and need consideration.

4.3.1 Risks from Political Parties

Namibia has an effective and institutionalised opposition party and the NESS restructuring program may become a convenient and effective weapon with which to attack the party in power. Opposition to NESS restructuring from within the ruling party itself may come from factions seeking to embarrass the leadership for reasons having little to do with the restructuring issue, as in case of Mrs. Thatcher in England when advocating the privatisation of British electrical utilities.

Privatisation of state enterprises often result in large scale displacement of staff, hiking of prices of outputs, change of technology, product mix, all of which have

strong political repercussions. A threat may arise from a groundswell of public resistance to NESS restructuring created by the opposition. Political opponents may seek to exploit public ignorance of the meaning of reform to their advantage before the government is ready to make public its case for NESS Reform.

Opposition parties may object to NESS reform for a variety of reasons. One of their accusations may be that of selling assets owned by the people at less than popularly perceived value, thereby creating a loss to the taxpayer. In fact, the market value of SOEs is almost invariably less than the amount of government investment in them. The opposition party may also reap political capital from the charge that assets are being sold to political cronies or through questioning the credibility of those handing the sale by accusing them of bribery and corruption.

Sometimes political parties may not differ on whether restructuring is needed or not, but on whether the particular form chosen for reform is the right one, whether pricing of assets is objective and whether that has been fair and effective in dealing with issues such as redeployment or compensation to surplus workers, concessions made to new owners of public assets, etc. In general, utility reforms could be a major social and political change and as such attracts attention of important political actors. It is also an important arena for bargaining and coalition forming. Influential actors including trade union leadership may agree on reform depending upon compensation, side payments and other alternatives open. NESS restructuring is essentially a political decision, though based on initial economic and financial analysis. Hence,

its understanding, as well as solutions of problems therein may require political insights and skills.

4.3.2 Interest Groups

Interest groups are another important political factor, no matter how tightly political power is controlled. Even in the military governments, factions within the military itself may become interest groups. In democratic regimes, interest groups both within and outside of the ruling party play a significant role in maintenance of government support. The NESS restructuring agenda presents an opportunity for interest groups to exert a variety of pressures on the government, since its implementation may ultimately affect broad strata of society. The greater the degree to which the government is dependent on support of special interest groups, such as organized labour, the greater the threat of group opposition to the maintenance of power. In case of an enterprise like NamPower, relevant interest groups will be employees, industries that use energy extensively in their production, and consumers especially rural consumers who have got subsidized energy supply.

4.3.3 Opposition from Government Officials

Opposition from within the bureaucracy could become a critical impediment in NESS restructuring planning. Bureaucratic opposition can be particularly risky and difficult to overcome, since it is often clandestine, as opposed to the opposition of the more vocal interest groups in the public sector. The bureaucracy can derail a carefully planned strategy, discourage potential buyers, and create public suspicion of the government's intentions through a combination of losing files, scheduling

endless meetings, and procrastinating in issuing directives. These bureaucratic delays has caused a lot of dissatisfaction to many stakeholders in the NESS restructuring agenda and has strained the relationship, particularly between NamPower and MME.

4.3.4 Challenge posed by Labour

Labour is a special interest group with substantial political strength in Namibia. Labour views the NESS restructuring as a potential threat for a government operated social security system; not only loss of jobs but also of pensions may be at stake in such an exercise. If the government receives labour support, and union leaders choose to use their muscle to oppose NESS reform, the degree of political risk grows.

It has become evident that in many developing countries fear of opposition by labour leaders and the rank and file of trade unions is a major deterrent to more rapid progress in the restructuring of electricity utility efforts. The prospect that political unrest arising from unemployment may be a consequence of divestment has led many governments to approach utilities reform very cautiously and has deterred some from embarking on it at all. For example, in Malaysia, the government got the assurance from new owners of state enterprises that for the first five years, there will be no retrenchment or as in Italy where new management agreed to involve trade union leadership in all decisions affecting staff.

Any regime contemplating privatisation must take the legitimate concerns of labour into account at every stage in the progress. The government should be prepared to meet with labour leaders at an early point in discussion of the SOEs to be targeted for privatisation, both to listen to labour's position and to reassure workers that their concerns are being taken seriously. Early demonstration by the government of the intention to make special efforts to avoid loss of jobs will reduce antagonism to privatisation, particularly if it is accompanied by a well-planned educational campaign on the proposed methods of sale of the SOEs (Cowan 1990:38).

4.3.5 Lack of Institutional Capacity

As NESS restructuring progresses, it is becoming increasingly apparent that critical barriers to successful implementation exist due to lack of suitable institutions and institutional capacities and capabilities to manage the process effectively and efficiently.

Between the various role-players in NESS such as NamPower, MME, ECB and MRLGH there are frequently impediments that require changes in constitutional, legislative, and regulatory codes to make industry restructuring more feasible. Barriers exist also in institutional capabilities in legal, accounting, and financial systems in all institutions involved. These has led to an endless stream of energy consultants that are draining the national fiscus and NamPower in terms of consultation fees.

4.3.5 Lack of a National Electricity Pricing Framework

An impediment to increased efficiency is the lack of a national electricity pricing framework. End-user prices vary considerably throughout the country, and between urban and rural areas. Considerable subsidies and cross-subsidies exist. Present pricing structures and levels do not reflect the cost of supply to various customer groups and areas. This is not conducive to efficient resource allocation, demand side management and rationale use of energy.

Prices are also not market-related and are in many instances, non-transparent at the level of bulk supply and retail sales. Future price developments are uncertain, particularly at the retail level, thereby hampering economic and social development, as well as much needed investments in the electricity sector.

4.3.6 Funding of Rural Electrification

While provision of electricity to community centres and villages in rural areas is a priority goal of the government, increased rural access to electricity is hampered by a lack of financial and skilled human resources, a lack of role clarity in the public sector and the electricity distribution industry, and limited knowledge about rural household income and energy use patterns. As a result, rural electrification is predominately driven by socio-political factors.

Criteria, methodologies and prioritisation processes for rural electrification need to be improved, including the targeting of social institutions such as schools and clinics, and cross-subsidies to poor rural households. Electrification planning lacks proper

co-ordination with other initiatives aimed at improving service provision in rural areas. This hampers efficient project implementation, and creates doubt about the sustainability of electrification programmes and the NESS restructuring agenda is faced with this serious challenge.

4.3.7 Promoting Investments in the Electricity Sector

The electricity sector faces considerable financing needs related to necessary system expansion and upgrading, development of new Namibian generating source including renewable energy, and continuation of the rural electrification programme. It is unlikely that the required financial resources can be mobilised from public sources. Private sector involvement may therefore be required in the form, for instance, of Independent Power Producers (IPPs), Build-Operate-Transfer (BOT) schemes, and management contracts. Such involvement is only likely to materialise if confidence among investors and financiers is created. (White Paper 1998:21).

The Challenges facing the NESS restructuring agenda are many and cannot be exhausted through the means of this study, and neither is it the intention of this paper to do so. Therefore, it will be opportune now to assess some of the potential benefits that could accrue from successful implementation of the NESS reform agenda.

4.4 POTENTIAL BENEFITS OF THE NESS REFORM PROCESS

There are many potential benefits that could come about if the NESS reform initiative is implemented successfully. Among others, the following are paramount:

4.4.1 Economic Empowerment in the Electricity Sector

If properly managed and regulated, Namibia's electricity sector could become a driving force in the country's economic development. Potential developments at Kudu, major expansion of the bulk transmission system, the possible introduction of competition and the growth of an independent power industry all bear out this potential. It is critical that Namibia take advantage of current opportunities to encourage participation of Namibians (and in particular black Namibians) in the economic structure of the electricity industry. Options for encouraging economic empowerment may include the explicit consideration of empowerment targets in the licensing of independent power projects and granting of distribution franchises, among other considerations. This can have positive consequences for employment creation and poverty alleviation in the country.

4.4.2 Protecting Electricity End-users and Licensees

Electricity end-users in Namibia sometimes experience problems with insufficient quality and reliability of supply and irrational electricity pricing. Presently there are insufficient institutional structures to which end-users can address their complaints and concerns.

The establishment of the Electricity Control Board is in line with the Cabinet's decision in 1995 (No. 5/21.02.95/001) to establish public utilities commissioned to safeguard public and state interests regarding services rendered by utilities. The MME is responsible for the creation of the Electricity Board and will monitor its operations to ensure that adequate customer protection is in place. This process has

been achieved with the promulgation of the Electricity Act of 2001, which also provided for the establishment of the ECB, the industry regulator.

4.4.3 Creation of an Electrification Fund

It is fact that large-scale rural electrification projects are not financially viable in Namibia due to their low returns on capital invested. Through NESS restructuring, the Government of Namibia is envisaging to introduce an electrification levy specifically to be used to cover such projects. Such a dedicated capital base could contribute to an accelerated electrification programme, particularly servicing the neglected groups in the rural areas.

4.4.4 Private Sector Participation

The NESS restructuring initiative's ultimate objective is to open up the electricity supply market to competition via new entrants into the market and IPPs. The private entrepreneurs could infuse much needed capital in the economy, thus alleviating the burden on the national fiscus to pursue other equally important social programme. Moreover, it is hoped that the introduction of competition could lead to customer choice in terms of having a say in how service delivery is delivered to the consumer.

4.4.5 Review of the Tariff Regime

The NESS reforms is envisaged to bring about a review of existing pricing methodologies, tariff structures and levels as to devise a uniform tariff regime for the industry. It is envisaged that the tariff structures and prices will be based on sound economic principles, which will generally reflect long run marginal costs of supply.

4.5 CHAPTER CONCLUSION

In light of the above it could be said that the institutional configuration and economic transactions of a restructured NESS presents major challenges and benefits or opportunities for market participants, government and particularly the ECB. This chapter indicated that political factors are an important ingredient in any restructuring exercise and the various stakeholders need to be cognisant of such if the restructuring agenda were to be realized effectively.

CHAPTER 5

CONCLUSIONS: GOVERNMENT MANAGEMENT OF ELECTRICITY SECTOR REFORMS

It could be said that along the NESS restructuring agenda in Namibia, political factors seem to play the most significant part in the design, implementation and envisaged success. Institutional aspects are also important and relevant to the determination of the overall profile of the NESS reform agenda. It should also be acknowledged that various groups – amongst the most important ones the Cabinet, ECB, NamPower, SAD-ELEC, political parties, MME, Labour, etc. who are involved in the process – have affected the decision-making for the reform agenda.

Nevertheless there has been considerable objections to the NESS restructuring initiative from various interest groups due to what they perceived as lack of focus, and at times, the inability of the MME to take a commanding lead in reconciling the various stakeholders interests.

Policy development with regard to NESS reforms has been gradual, thus avoiding a big bang approach, such as had happened in some countries such as Chile and Bangladesh and states like California where power crises had brought the electricity supply industry in turmoil and caused many consumers to loose faith in the process. The invitation of the private sector to play a role in power generation through the

establishment of IPPs will lessen the burden on the national fiscus and introduce efficiency, competition and choice for customers and consumers alike.

It is very early to predict what the economic consequences of the NESS reform agenda could be in terms of employment creation and Black economic empowerment. It is hoped that with a possible infusion of private capital in the electricity supply sector, employment may indeed increase in the long run.

Despite the promise of and emphasis on access to secure, adequate and cheap electricity, access to electricity for the majority of especially disadvantaged Namibians in the urban squatter areas and rural areas are still waiting to benefit from the restructuring initiative.

Although the ECB, the industry regulator is now in place, the necessary integrated planning methodology has not been developed fully. Electrification is still often carried out in isolation and not as part of an integrated infrastructural strategy. Practically, it is the power utility NamPower that is still setting the pace in Namibia. Ideally, the national electrification programmes need to be developed and be made a priority of government.

The fact that the ECB is answerable to the MME means that, while in general the government wish the NESS role-players to conduct business on viable commercial lines, political interference is a strong possibility. Political consideration will constraint the attempt of utilities to charge market tariffs as tariff approval will be subject to Ministerial consent. Reviews of the cost structures and future investment

requirements of utilities usually reveal the need to implement tariff increases in real terms to sustain future developments.

Powers of regulatory control should be divorced from government to ensure fair competition and enforcement of market rules. Government's role is to get the overall balance right between social concerns and macro-economic realities, and to create a political environment that will mobilize investment capital from domestic as well as foreign sources. (World Bank 1993a).

The general consensus seems to favour a reduction in the government involvement in power production. Thus the way forward for NESS reform in Namibia should be a gradual and continuous electricity sector transformation involving private sector participation as it brings new skills, technology and management technique, all aiming at more efficient operation and management of the process.

Finally, Namibia should learn from the experiences of the first movers. There is a wealth of international and regional experience in the restructuring and privatisation of SOE's and particularly the electricity sector, and this should also be employed and explored to guide Namibia's NESS restructuring initiatives. This does, however, not mean to apply successful reform models blindly, but should be adapted to suit Namibia's peculiar circumstances and history.

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