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A Long Walk to a Just Energy Transition
The Political Economy of the Restructuring of Eskom: 1985 and Beyond

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WITWATERSRAND,
JOHANNESBURG

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the requirements for the degree of Doctor of Philosophy

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Abstract

This thesis is about the political economy of the restructuring of Eskom from 1985 to 2019. The restructuring of Eskom invites us to explore the relationship between the institution, macroeconomic policymaking and political change. I locate the restructuring of a major state-owned power utility, Eskom, within the context of both global and South African policy adjustments, enabling us to understand and come to some view as to whether the macroeconomic and energy policy shifts that various authors point to internationally and at macro level in South Africa's transition to democracy, also obtain at micro-level.

Moreover, the thesis shows how Eskom's challenges open up opportunities for change: for South Africa, energy transformation means moving away from a system that brought about these complex problems in the first place, that relied heavily on fossil fuels, towards variable renewable energy in a just transition. The thesis contributes to the political economic tradition of South African historiography and complements recent work by Nimrod Zalk (2017), Seeraj Mohamed (2019) and Von Holdt (2019), and extends Bowman's (2020) recent work by looking at the restructuring of Eskom in historical perspective.

The contrast between narrative and reality has been assessed at four levels. First, this thesis considers the extent to which the narrative created by Eskom management as an interest group gave rise to the promise of "electricity for all" through the extension of electricity to black households, both urban and rural, thereby frustrating the restructuring process. Second, how power and class coalesced against the democratic state's attempt to restructure Eskom, turning the power utility into a resource for jobs, revenue, contracts, tenders and licensing that precipitated the energy crisis informing the state's intention to restructure Eskom and transition to a low-carbon economy.

Third, the thesis examines the evolution of the primary legitimation mechanism of the black elite that shaped the intersection of patronage and factionalism, by gaining power in the state and capturing Eskom for rents, leading to a need for its restructuring. Finally, the thesis critically analyses the 2019 Eskom paper, Building an Electricity Supply Industry (ESI) of the Future, with a focus on how a restructured Eskom could contribute to the transition of the South African

economy to a just low-carbon economy – what is termed a just energy transition in the work of many scholars.

Key Words: Eskom, electricity, transition, justice, institutional environment, investment, regulation, privatisation, restructuring, political economy, interest group, state-owned enterprise, South Africa

Declaration

I declare that this thesis is my own unaided work. It is submitted for the degree of Doctor of Philosophy at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination at this or any other university.

Preface and Acknowledgements

This thesis is about the political economy of the restructuring of Eskom from 1985 to 2019. For me, this is very personal. I had witnessed how the Industrial Development Corporation (IDC) had been used by the apartheid government in the industrialisation process of South Africa from a distance, because of racial exclusion.

When Edwin Ritchken of the Department of Public Enterprises (DPE) approached me in 2004 to assist with the modelling of the Eskom and Transnet capital projects, I saw it as an opportunity to contribute to what appeared to be the first democratic South African case of mega-infrastructure state planning and investment.

I had watched the "grand plan" of apartheid (1948-94) and its antecedent from the sidelines. That endeavour had required substantial supremacy by the central agency of the state. The state had fashioned almost every facet of South African life by managing a complex system of separate development, while simultaneously promoting industrialisation. Its plans were ambitious and controversial, its effects long-lasting.

When I responded to the DPE's approach, represented by Edwin Ritchken, I believed that this time, things would be different, with a shift towards Keynesian and post-Keynesian approaches. I was innocent and naive, and matters turned out badly. I decided to share my experiences through a different and wider lens by writing this thesis.

Professor Vishnu Padayachee and Professor Keith Breckenridge encouraged me to write the thesis, perhaps seeing potential. I thank them for the many hours they spent with me discussing the project and attempting to improve the text. Clearly, any shortcomings in this area are mine alone. Above all, their kindness to a mature student is greatly appreciated. If I were to do it again and were to be supervised by professors Padayachee and Breckenridge, I would do it! Professor Jannie Rossouw and Professor Imraan Valodia gave me space to conduct my research and teach, secure in the knowledge that I had support throughout as I wrote this thesis. I would also like to thank Professor Imraan Valodia for the financial support provided in terms of the University of the Witwatersrand Strategy 2022, Diversifying the Academy.

Their support was preceded by that of many others at the University of the Witwatersrand, who defied rules to support black students with potential as early as 1985. Professor Anthony Sher was always on our side as we tried to open the doors of learning to all. The late Professor Harry Zarenda encouraged me to work hard and supported me into the honours programme. By then, I had gone through Marx's economics with Fuad Cassim, who unfortunately fell ill in the early 1990s and could not see me through my honours programme. Professor John Sender and Professor Charles Simkins instilled belief in me, as did many students in my master's class of 1992, such as Clive Pintusewitz. Another student, Michael Bosman who was also my "driver", risked his own life fetching and dropping me off in Soweto at the height of the violence in 1992. I would like to thank them again.

My sister, Florence Nonkululeko Mondi, who adopted me as a son, seeing my potential and making innumerable sacrifices to ensure that I received an education, will forever be in my heart. She was a mother, a father and a sister. I will be forever grateful for her sacrifices.

Eskom is one of the few state-owned entities with a heritage foundation that archives all of its material. This enabled me to revisit some of the historical material detailing what led to the restructuring of Eskom. I thank the former directors and executives of Eskom who gave of their time as well as the former ministers of the last apartheid government for sharing their experiences with me. These include:

- Former governor of the South African Reserve Bank Chris Stals
- Current governor of the South African Reserve Bank Lesetja Kganyago
- Former minister of finance Barend du Plessis
- Former chairman of Eskom Reuel Khoza
- Former chairman of Eskom and minister of environmental affairs and tourism Valli Moosa
- Former CEO of Eskom Thulani Gcabashe
- Former executives and managers of Eskom who did not wish their names to be disclosed

Lastly, to my wife, Dipela Jacoline Mondi, thank you for reading various drafts of this work, and to our son, Vuyo Simphiwe Mondi, may you gain inspiration from this work.

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Glossary of common power generating and transmission terms referred to in the text

Availability

The capacity of the electricity generating plant available for use. Availability is usually expressed as a percentage of maximum generating capacity. The percentage availability may refer to a particular time or it may be the average taken over a period. Eskom's availability is usually measured as:

Capacity hours available x 100
Total capacity hours in a year

Base load station

A power station whose generating costs are low and which is therefore given load by day and night for long periods.

Efficiency

The efficiency of the combined cycle of energy conversion is the ratio between the input of heat from the fuel burnt and the amount of heat in the units of electricity generated. Efficiency is usually expressed as a percentage.

Watt

The basic unit of electrical power

Kilowatt-hour

The unit of electrical energy: one thousand Watts used for one hour (kWh).

Megawatt

One million Watts (MW)
Power station sizes are usually denoted by the MW generated. For instance, Eskom's largest power station generates 3,600 MW.

Load factor

This is the ratio of the energy produced over a given period to the energy that could have been produced at full output over the same period, usually expressed as a percentage. Eskom uses the following formula to calculate the annual station load factor:

$$\frac{\text{kWh sent out} \times 100}{\text{Assigned sent out rating} \times \text{hours in year}}$$

Peak load

The highest demand on the system for electric power during a period

Peak load station

A high production cost power station which is only called upon to operate to assist with meeting an expected peak demand on the system, for example, Eskom's Drakensberg Pumped Storage Station.

Transformer

Apparatus by which the voltage of an alternating current can be raised or lowered

Turbo-generator

A machine to generate electricity driven by a steam turbine

Volt

The electrical unit of potential difference

Turbo-generator

A machine to generate electricity driven by a steam turbine

Kilovolt (kV)

One thousand volts. The unit used to describe Eskom's electricity transmission system, for instance, an l kV line.

Glossary of Abbreviations

AA	Affirmative action
AAC	Anglo American Corporation
Abasa	Association for the Advancement of Black Accountants of Southern Africa
ABSIP	Association of Black Securities and Investment Professionals
Achib	African Cooperative for Hawkers and Informal Businesses
AfD	Agence Francaise de Developpment
AfDB	African Development Bank
AHI	Afrikaanse Handelsinstituut
ANC	African National Congress
ANCYL	African National Congress Youth League
AFS	Annual financial statements
AsgiSA	Accelerated and Shared Growth Initiative for South Africa
BBBEE	Broad-based black economic empowerment
BBC	Black Business Council
BEE	Black economic empowerment
BLA	Black local authorities
BLA	Black Lawyers Association
BLSA	Business Leadership South Africa
BMF	Black Management Forum
BOAD	Banque Ouest Africaine de Développment
BP	British Petroleum
BRICS	Brazil, Russia, India, China and South Africa
BSA	Business South Africa
Busa	Business Unity South Africa
CEO	Chief executive officer
CGE	Computable general equilibrium
CIDA	Canadian International Development Agency
Codesa	Convention for a Democratic South Africa
Cosatu	Congress of South African Trade Unions
CSIR	Council for Scientific and Industrial Research

CSS	Central Statistical Service
CTPI	Comité Technique Permanent de l'Interconnexion
DBSA	Development Bank of Southern Africa
DED	Department of Economic Development
DFI	Direct foreign investment
DME	Department of Minerals and Energy (1994 – 2014)
DMEA	Department of Mineral and Energy Affairs (1980 – 1994)
DMR	Department of Mineral Resources (2014 – 2019)
DMRE	Department of Mineral Resources and Energy (2019 to date)
DoE	Department of Energy (2014 – 2019)
DPE	Department of Public Enterprises
DTI	Department of Trade and Industry
EBITDA	Earnings before interest, tax and depreciation
ECB	Electricity Control Board
EDI	Electricity distribution industry
EDM	Electricidade de Mocambique
EE	Employment equity
EEM	Eskom Energie Manantali
EIB	European Investment Bank
EPWP	Expanded Public Works Programme
ERIC	Education Resources Information Center
ESCOM	Electricity Supply Commission
ESI	Electricity supply industry
EVCOM	Elektrisiteitsvoorsieningskommissie (ESCOM in Afrikaans)
Fabcos	Foundation for African Business and Consumer Services
FADES	Arab Fund for Economic and Social Development
FBC	Fluidised bed combustion
FDI	Foreign direct investment
GDP	Gross domestic product
GEAR	Growth, Employment and Redistribution
GEF	Global Environment Facility
GEIS	General Export Incentive Scheme
GFCF	Gross fixed capital formation
GIBS	Gordon Institute of Business Science

GLM	General linear model
GNU	Government of national unity
GST	General sales tax
HIV	Human immunodeficiency virus
ICT	Information and communications technology
IDB	Islamic Development Bank
IDC	Industrial Development Corporation
IDTT	Industrial Development Task Team
IFAA	Institute for African Alternatives
IFC	International Finance Corporation
I-JEDI	International Jobs and Economic Development Impacts
IMF	International Monetary Fund
IoDSA	Institute of Directors South Africa
IPAP	Industrial Policy Action Plan
IPP	Independent power producer
IRP	Integrated Resource Plan
ISI	Import substitution industrialisation
JSE	Johannesburg Stock Exchange
KFW	Kreditanstalt für Wiederaufbau
LGBTI	Lesbian, gay, bisexual, transgender and intersex
LTMS	Long-term mitigation scenarios
MC	Mountain Communications
MEC	Minerals and energy complex
MERG	Macroeconomic Research Group
MIGA	Multilateral Insurance Guarantee Agency
ML	Machine learning
MOTRACO	Mozambique Transmission Company
MOZAL	Mozambique Aluminium
MPRDA	Minerals and Petroleum Resources Development Act
MTEF	Medium-Term Expenditure Framework
MYPD	Multi-year price determination
NAFCOC	National Federated Chamber of Business and Industries
NDP	National Development Plan
Nedlac	National Economic Development and Labour Council

NEEA	National Energy Efficiency Agency
NEF	National Empowerment Fund
NELF	National Electrification Forum
Nepad	New Partnership for Africa's Development
NER	National Electricity Regulator
Nersa	National Energy Regulator of South Africa
NHI	National Health Insurance
NIPF	National Industrial Policy Framework
NSFAS	National Student Financial Aid Scheme
NUM	National Union of Mineworkers
Numsa	National Union of Metalworkers of South Africa
NP	National Party
OECD	Organisation for Economic Co-operation and Development
OMVS	L'Organisation pour la Mise en Valeur du Fleuve Sénégal
OPEC	Oil and Petroleum Exporting Countries
PEMANDU	Performance management delivery unit
PFMA	Public Finance Management Act
PIC	Public Investment Corporation
POLCON	Political Constraints Index
PP	Public Protector
PPGI	Public-Private Growth Initiative
PPPFA	Preferential Procurement Policy Framework Act
PPA	Power purchase agreement
RDP	Reconstruction and Development Programme
REIPP	Renewable energy independent power producers
RET	Radical economic transformation
RHS	Right-hand side
SAA	South African Airways
SACP	South African Communist Party
SACTWU	South African Clothing and Textile Workers Union
SADC	Southern African Development Community
SADTU	South African Democratic Teachers Union
SANCO	South African National Civic Organisation
SAP	Structural adjustment programme

SAPP	Southern African Power Pool
SARB	South African Reserve Bank
SARS	South African Revenue Services
SATS	South African Transport Services
SCD	Systematic country diagnostic
SEB	Swaziland Electricity Board
SEIAS	Socioeconomic impact assessment system
SIDA	Swedish International Development Agency
SMME	Small, medium and micro enterprise
SNEL	Société Nationale d'Électricité
SOC	State-owned company
SOE	State-owned enterprise
SOGED	The Société de Gestion du Barrage de Diama
SOGEM	Société de Gestion du Barrage de Manantali
SONA	State of the Nation Address
StatsSA	Statistics South Africa
STS	Sociotechnical system
TB	Tuberculosis
TEC	Transitional Executive Council
TVET	Technical and vocational education and training
UDF	United Democratic Front
UNFCCC	United Nations Framework Convention on Climate Change
UK	United Kingdom
US	United States
VAT	Value-added tax
VET	Vocational education and training
VFPC	Victoria Falls Power Company
VRE	Variable renewable energy
WBI	World Bank Institute
YES	Youth Employment Service
ZESA	Zimbabwe Electricity Supply Authority
ZESCO	Zambian Electricity Supply Corporation

CHAPTER ONE: AN INTRODUCTION

1.1 Introduction

In 2004, three years before the African National Congress (ANC) officially declared its government to be committed to building a developmental state, I was approached by Edwin Ritchken, an advisor to the minister of public enterprises, Alec Erwin, to assist in the modelling of the possible impact of the government's infrastructure investment intervention in Eskom, the power utility, and Transnet, the rail utility. I was then the chief economist of the Industrial Development Corporation (IDC) and I was very excited to be part of the project, particularly because the IDC's clients in manufacturing were struggling to compete because of poor and failing infrastructure. It also meant that the IDC would have the first bite of all possible funding opportunities, which was good for entrepreneurs, because they could access low-cost funding by playing the IDC off against private financial institutions, which would enable them to gain spectacular returns on their participation in the Eskom investment programme.

For me, it was very personal. I had witnessed how the IDC had been used by the apartheid government in the industrialisation process of South Africa from a distance, because of racial exclusion. The approach by the Department of Public Enterprises (DPE) presented an opportunity to contribute to what appeared to be the first mega-infrastructure state planning and investment programme by a democratic South Africa. I had watched the "grand plan" of apartheid (1948–94) (Posel, 2011) and its antecedent from the sidelines. That endeavour had required substantial supremacy by the central agency of the state (Posel, 2011). The state had fashioned almost every facet of South African life by managing a complex system of separate development, while simultaneously promoting industrialisation (Sparks, 2012; Posel, 2011; Perkins, Fedderke & Luiz, 2005). Its plans were ambitious and controversial, their effects long-lasting.

Ritchken's approach prompted a belief that this time things would be different in a developmental state, since the ANC government was beginning to define itself as such. I assembled a team consisting of Gerhard Kuhn, who modelled the capital expenditure, Jorge

Maia, Charles Morolo, Xoliswa Mose and Neo Ramakoae (Kuhn et al., 2005). I was innocent and naive, and matters turned out badly.

This thesis is about the political economy of the restructuring of Eskom from 1985 to 2019. Bowman (2020) has examined how the indebtedness of Eskom became a severe macroeconomic risk, making Eskom a precarious nexus for the circulation of public funds and how the cost and unreliability of electricity undermined South Africa's energy-intensive industrial core in the period between 2004 and 2019. The restructuring of Eskom is to ensure that Eskom is efficient and effective in meeting its mandate of electricity security of supply.

The thesis extends Bowman's argument from a historical perspective in the period between 1985 and 2019. History, culture and custom are critical in the understanding of the restructuring of Eskom. I have observed that in the period between 1972 and 1976 international bank lending had become the largest source of foreign investment in South Africa and was largely financing state-owned companies, particularly ESCOM (Gentle, 2009). A record gold price and low cost of international borrowing led to a flush of petrodollars and ESCOM became the largest borrower of medium-term funds abroad, borrowing about R2 billion in 1982 (Gentle, 2009). However, in 1983, ESCOM could not keep the lights on. South Africa experienced rolling blackouts because a severe drought impacted on electricity capacity deployment. This led the National Party (NP) government to appoint in 1983 a commission of inquiry into Eskom, led by mining executive W.J. de Villiers.

The Electricity Supply Commission (ESCOM/EVKOM) was renamed Eskom in 1987 in terms of the Eskom Act 1987 following the recommendations of the De Villiers Commission. ESCOM/EVKOM is used in the thesis in reference to the period before the Act was published.

1.2 Research questions and core contribution

In 1984, the South African government announced the restructuring of Eskom to implement some of the recommendations of the De Villiers Commission which had deliberated between 1983 and 1985. The energy crisis of 1983, the debt standstill of 1985 and the current crisis, which began in 2007, led me to a number of questions relating to the restructuring of Eskom as recommended by the De Villiers Commission. There were further questions about the investment

programme, the impact of which I participated in modelling in 2004, and the increasing levels of indebtedness of the South African government which has led to its debt being downgraded into junk status by some international debt rating agencies. The core research questions that are posed in this study are:

- In the period between 1985 and 2019 Eskom was earmarked for restructuring. Despite various commissions and policies, Eskom has remained a vertically integrated electricity power utility. What explains the difficulties, constraints and challenges that have frustrated Eskom's restructuring?
- The recommendation of the De Villiers Commission formed part of the policy shift from the minerals and energy complex to the adoption of neoliberal policies. Did the ANC adopt neoliberal macroeconomic policies or did it just continue with policies it had inherited?
- What role does power and class play in the restructuring of Eskom?
- Do Eskom's spiralling costs, procurement irregularities and inability to translate increased investment into functional new infrastructure impede investment and strategic procurement to support economic transformation?
- Eskom's challenges open up opportunities for change: for South Africa, energy transformation means moving away from a system that brought about these complex problems in the first place, that relied heavily on fossil fuels, towards variable renewable energy in a just transition. What would South Africa's just energy transition look like?

My interest in understanding the political economy of the restructuring of Eskom since 1985, elite formations, the role of interest groups and veto players, led me to this thesis. An interest group is defined as a group that produces, represents and tries to impose or defend an interest or a cause of a specific section of society in the public space, influencing political powers. I show how South Africa's debt crisis has influenced the evolution of South Africa's macroeconomic policy and the restructuring of Eskom between 1985 and 2019. This extends Bowman's (2020) argument that Eskom's indebtedness became a severe macro-economic risk, making Eskom a precarious nexus for the circulation of public funds, while the cost and unreliability of electricity undermined South Africa's energy-intensive industrial core. I do so through an historical analysis of the restructuring of Eskom by exploring the relationship between Eskom, macroeconomic policymaking and political change between 1985 and 2019.

In this thesis, I explore the relationship between Eskom, its capacity deployment and the political economy. Since macroeconomic policymaking in South Africa and the restructuring of Eskom are cases of change, I explore how the political economy of the restructuring of Eskom has impacted on the behaviour of political actors and interest groups who have veto powers. Political actors, interest groups and the constitutional order have an impact on the restructuring and deployment of infrastructure. Because of their role in passing enabling legislation, approving the national budget and playing an oversight role, they have powers to veto decisions that have been taken by the executive relating to the restructuring or deployment of infrastructure (Henisz & Zelner, 2004). Eskom as a state-owned company (SOC) has historically been directly linked to the macroeconomic and political choices of the day. Attempts have been made throughout Eskom's history to satisfy the demands of particular constituencies, as part of nationalistic interests, the mining and industrial lobby, the labour unions and veto points by Eskom management and in the process have created an incentive for rent seeking and inefficiencies which have led to the decision for its restructuring.

I make the following contribution, in chronological order: **First**, the thesis considers the extent to which the narrative created by Eskom management as an interest group gave rise to the promise of "electricity for all" through the extension of electricity to black households, both urban and rural, thereby frustrating the restructuring process. **Second**, the thesis shows how power and class coalesced against the democratic state's attempt to restructure Eskom, turning the power utility into a resource for jobs, revenue, contracts, tenders and licensing that precipitated the energy crisis informing the state's intention to restructure Eskom and transition to a low-carbon economy.

Third, the thesis examines the evolution of the primary legitimation mechanism of the black elite that shaped the intersection of patronage and factionalism, by gaining power in the state and capturing Eskom for rents, leading to a need for its restructuring. **Finally**, the thesis critically analyses the 2019 Eskom paper, Building an Electricity Supply Industry (ESI) of the Future, with a focus on how a restructured Eskom could contribute to the transition of the South African economy to a just low-carbon economy – what is termed a just energy transition in the work of many scholars.

The thesis fills a gap by offering a political-economic account of the restructuring of Eskom, the vertically integrated state-owned electricity monopoly since 1985. Moreover, the thesis adds to

scholarship by showing how Eskom's debt has had a macroeconomic impact since 1985, and how South Africa finds itself in a similar position today and has had to approach multilateral institutions to stabilise its debt and, at the same time, restructure Eskom towards a just energy transition.

1.3 Motivation

Eskom has been a significant player during times of economic crisis and has been contested by a variety of interest groups that made claims as to how it could be restructured in times of crisis. In this thesis, I show the link between macroeconomic policy and Eskom and how during every macroeconomic crisis such as the 1985 debt standstill and the current debt crisis, the restructuring of Eskom has been placed on the centre stage. Moreover, I show that Eskom has moved from one crisis to the next, but unlike many electricity utilities in the world that were restructured and privatised in the 1990s, Eskom has remained intact as a vertically integrated power supplier because power and class in the state have coalesced and made Eskom a resource for jobs, revenue, contracts, tenders, licensing and capture for patronage and rents.

I conclude with a critical analysis of the 2019 Eskom paper on restructuring and argue that, although South Africa has historically been able to survive economic and financial crises, and thereby has bought time for keeping Eskom as a vertically integrated power utility, this time, things are different and Eskom has to be restructured. The DPE, Department of Mineral Resources and Energy (DMRE) and Eskom should have been much bolder than what the 2019 Eskom paper proposes. My conclusion is informed by the macroeconomic policy constraints that South Africa faces, its commitment to combating climate change and a need to transition towards greener, competitive electricity capacity deployment.

1.4 Context

Before the formation of the Electricity Supply Commission (ESCOM in English, ESKOM in Afrikaans) in 1922, mining houses and municipalities dominated the energy sector. Although the state-owned South African Railways and Harbours generated power, it was for its own consumption in electric locomotives. ESCOM was established to build generation, transmission and distribution infrastructure in order to supply electricity at the lowest possible cost (Ritchken, 2013). The development paradigm underlying the establishment of ESCOM was designed to

counteract the dominance of the mining companies in the economy. (The VFPC was established by Cecil John Rhodes and the shares were held by British financiers and gold mining companies (particularly Consolidated Gold Fields of South Africa) (Ritchken, 2013). According to Ritchken (2013), ESCOM held supply contracts with all the major mining groups on the Rand and reaped large profits from its monopoly. ESCOM's development paradigm was therefore based on two premises (Ritchken, 2013):

- The state is the only stakeholder with an interest in ensuring continuous and as low-cost as possible security of electricity supply to support an industrialisation process and needs to make direct investments in operational capacity to ensure that this is achieved.
- In an emerging economy, it is critical that the state systematically builds national champions with the economies of scale and scope to optimise the national economy as well as compete globally to avoid the economy being "colonised" and controlled, with rents being extracted by international players in strategic areas.

- Eskom has been roundly criticised for the apparent overinvestment in infrastructure during the 1980s build programme. (See Figure 2) The overinvestment was also a result of how managerial incentives were structured. Grove Steyn points out that a key finding of the De Villiers Commission of 1986 was that ESCOM's excessive investment decisions lay with a "distortion in managerial investment incentives."[1] The De Villiers report suggested "that for ESCOM managers, the route of minimum risk involved the avoidance of public and political criticism about the utility's possible inability to supply power… This resulted in 'over insurance' and unnecessary costs which could in turn be automatically recouped by increasing prices". [2]

The consequence of the build programme with minimal economic growth was not just overcapacity, but major price spikes in order to meet the interest and capital repayments associated with the new assets. These spikes were severely exacerbated by a price determination methodology based on historical costs, rather than a methodology that smooths the tariff process, such as a current cost methodology (i.e. a replacement value that indexes the assets against inflation), although both approaches provide the generator with an identical return over the life

[1] Quoted from Steyn G, "Investment and Uncertainty: Historical Experience of Power Investment in South Africa and Its Implications for Current Challenges", Working Paper, 2006, p. 54.
[2] Ibid

of the asset. As part of the fallout associated with the price spikes, the De Villiers Commission of Enquiry was convened. As a result, in 1986, ESCOM became Eskom, was corporatised in 2001, started paying taxes and was run under much more commercial disciplines.

With Eskom's gross debt at R488 billion as at the end of March 2020, a R48 billion increase from the R440 billion of March 2019, the power utility is the single largest contributor to South Africa's looming debt crisis, which was estimated at 80.5% of GDP in the 2020 fiscal year (Budget Review, 2020). As a result, the restructuring of Eskom away from the vertically integrated state monopoly and the introduction of private sector players in the generation of electricity has now become urgent. What will it take for the South Africa government to take a leap to a restructured Eskom and introduction of variable renewable energy? What happens to the coal mining town and the communities during the transition? Will the transition be just and serve the interests of all?

1.5 Data and methodology

In this thesis, I use the mixed methods approach in line with Zalk (2017). I have had access to Eskom documents, government reports, purposive semi-structured interviews, news and industry publications and previously published research. I also made extensive use of Eskom's annual reports, financial statements and a range of other corporate material in piecing together the evolution and restructuring of Eskom. The history of Eskom and bibliographies were consulted. Official corporate material was supplemented with purposive semi-structured interviews, predominantly with current and former directors or executives (Zalk, 2017) of Eskom, South African policymakers and senior ANC officials. The choice of semi-structured interviews was informed by the focus on Eskom. Furthermore, the interviews encouraged informants to provide their own account of the development of the firm, the nature of the capabilities (Zalk, 2017) it developed and the challenges of restructuring it faced between 1985 and 2019.

In some cases, because of my previous role as an executive at the IDC, interviews were not possible. The apparent reason that some potential interviewees agreed to meet seemed to be to try to establish my own level of information before withdrawing permission or providing very little meaningful information themselves. Conversely, my professional positionality may sometimes have assisted in securing interviews, for instance through introductions by industry professionals to potential interviewees.

The overarching methodological approach in the thesis follows that of Zalk (2017) and I would term it "triangulation" across multiple-mixed information, particularly Eskom sources, to check for consistency or inconsistency. The approach to Eskom's narratives was, inter alia, informed heuristically by Froud et al.'s (2006) methodology of contrasting corporate "narratives" with corporate "numbers" (Zalk, 2017). For Froud et al. (2006), corporate management, subject to demands to deliver unrealistically high levels of shareholder returns, have adopted "shareholder value" as an ephemeral narrative to convince shareholders that their strategies will deliver dramatic returns (Zalk, 2017). Detailed interrogation of the "numbers", i.e. actual financial performance and measures of financial sustainability, is used to test management narratives, often revealing mixed financial performance (Zalk, 2017).

1.6 Periodisation of the study

This study covers the 34 years from 1985 to 2019. In 1983 Eskom was exposed to medium-term debt commitments and failed to ensure security of energy supply, leading to the appointment of a commission of inquiry on Eskom called the De Villiers Commission. The uprising by black communities in 1984 led to an economic and political crisis in 1985. Faced with a weak economy, high levels of debt and a political crisis, the NP government began talking about "Talks". As a result, the late apartheid period of 1985 to 1994 was a period of restructuring Eskom, macroeconomic policy and political change. I provide an explanation in this chapter as to why this period is termed as such. The second, early democratic period, in my thesis stretches from 1995 to 2004 and is called a period of macroeconomic policy, continuities and privatisation. The third period stretches from 2005 to 2012 and is called the post-apartheid developmental state. The final period, from 2013 and beyond, is referred to as the period of radical economic transformation. This periodisation was chosen for many important reasons, which are briefly discussed below.

1.6.1 1985 - 1994 – The restructuring of Eskom, macroeconomic policy and political change

Eskom was concerned with the provision of electricity to white (usually urban) areas, where consumers could afford to pay for their own connection to the electricity transmission network. In 1980, a single ministry responsible for energy policy in South Africa was established – the Department of Mineral and Energy Affairs (DMEA). Through the DMEA, the government began

to take a keener interest in Eskom's affairs. The period from 1985 to 1994 was characterised by frantic activity, economically, politically and socially. It was a period characterised by economic and political crises and change, encompassing the debt standstill, violent protests, liberalisation and deregulation, negotiations for a democratic future and the political settlement.

The economic crises included the debt standstill, the deregulation of the South African economy and the implementation of some of the recommendations of the De Villiers Commission of Inquiry into ESCOM, which led to far-reaching institutional changes that greatly influenced the way Eskom approached the electrification of black households from then onward.

It was also a period of economic and political reforms, accompanied by violence, as the political transition leading towards a democratic South Africa unfolded. When P.W. Botha became the leader of the NP, and was appointed prime minister of the republic with a mandate for political and economic reform, he inherited a deeply divided party. To consolidate his position, he centralised and consolidated the structures, procedures and personnel of the party, the government and bureaucracy in terms of his "total onslaught" strategy. Botha had an opportunity to provide a political reform agenda in August 1985, but he argued that he and the NP should not be pushed too far (Botha, 1985), which resulted in an economic meltdown and a debt standstill.

Due to poor health, Botha was replaced by F.W. de Klerk in 1989, and on 2 February 1990, De Klerk unbanned the African National Congress (ANC) and other liberation movements, beginning the process of negotiating a political settlement.

Eskom also proceeded with its "electricity for all" initiative, signalling a shift away from being an institution serving whites only, to one that served all South Africans. In the transition period leading up to the 1994 elections, various institutions emerged, including the National Electrification Forum (NELF). In the latter part of 1994, the NELF reached an agreement with the government for the restructuring of the electricity supply industry (ESI). A new institution – the National Electricity Regulator (NER) – emerged to regulate the industry.

In the months from August to October 1985, an average of 14 South Africa-based companies were placed in liquidation each day (Padayachee, 1989). Padayachee (1989) also shows that between 1981 and 1986, one in six factories shut down completely, representing a drastic diminution in capital stock. The combination of recession, poor profitability and declining

prospects in the medium to long term, resulted in a massive drop in private-sector investment in new productive capacity after 1980 (Mondi, 2006; Gelb, 2006; Mohamed, 2019). Manufacturing output recorded real declines of between 11% and 12% between 1980 and 1985 and employment in manufacturing fell from 1,449,000 in 1981 to 1,326,900 in 1985 (Padayachee, 1989). Registered unemployment (excluding Africans) had been historically low, with a previous post-war peak of 30,927 in 1978, which rose to a seasonally adjusted figure of 62,105 in 1985, i.e. more than double the previous post-war peak (Padayachee, 1989). The decline in manufacturing has informed a growing interpretation of the failure of apartheid industrialisation. A response to the crisis was that liberalisation, deregulation and privatisation of state assets would be a panacea.

1.6.2 1995 - 2004 – Macroeconomic policy, continuity and the restructuring of Eskom

In 1994 there were concerns by business that a black-led government would implement economic policies that emphasised economic growth and redistribution while de-emphasising the risk of inflation and deficit finance, external constraints and the reaction of economic agents to aggressive non-market policies (Gelb, 2006). These fears were informed by past policies of the apartheid regime that had led to higher levels of poverty, unemployment and inequality. However, this period witnessed fiscal consolidation, followed by fiscal expansion from 2001 to 2004 on the back of a commodity super-cycle. In the post-1994 period, Eskom was corporatised and made a tax-paying entity, with the view of liberalising the energy sector as proposed in the 1998 white paper (DME, 1998).

There was a huge pushback by labour unions led by the Congress of South African Trade Unions (Cosatu), the South African Communist Party (SACP) and other civil society organisations that perceived the liberalisation of the energy sector as a prelude to the privatisation of Eskom. They won. Their victory led to a policy shift in 2004 by the Mbeki administration following his re-election for a second term of office. In the State of the Nation Address (SONA) of 2004 Mbeki referred to the first and second economies and emphasised that state-owned enterprises (SOEs) would be the engines of growth and development. In 2005 South Africa began to experience a series of power outages as a result of excess demand and Eskom was mandated to build two additional power plants, Kusile and Medupi. The defining social process in this period is the formation of a new black elite. Other mechanisms in this process were the Preferential Procurement Policy Framework Act (PPPFA) No 5 of 2000, the Mineral and Petroleum

Resources Development Act No 28 of 2002 and the Broad-Based Black Economic Empowerment Act No 53 of 2003.

1.6.3 2005 - 2012 – A post-apartheid South African developmental state

In the 2004 general elections, the ANC won about 66.35% of the vote. The party was buoyed by an economic expansion that averaged about 3% from 1994 to 2004, a considerable improvement on the decade before 1994, when measured by the GDP. The overwhelming support and a robust economy that reached about 5% in 2005 (Treasury, Budget Review, 2005) led to the South African government proclaiming itself a developmental state (Treasury, Budget Review, 2005).

It saw itself playing a bigger role in the economy through an investment-led developmental strategy that included an emphasis on industrial policy. The Department of Trade and Industry (DTI) introduced the National Industrial Policy Framework (NIPF). The NIPF included measures such as the diversification of manufacturing beyond a reliance on traditional commodities and non-tradable services, promoting broad-based and labour-absorbing industrialisation, long-term intensification of South Africa's industrialisation process and movement towards a knowledge economy (Zalk (2017). The NIPF became sectoralised in the form of industrial policy action plans. This signalled a significant shift in macroeconomic policy on the one hand, with the state playing an interventionist role in the economy and, on the other hand, continuity of the minerals and energy complex, with Eskom at the centre of the political economy.

As Eskom was rolling out its investment plans in 2007, it was also coordinating rolling blackouts because of excess demand and the policy inertia between 1985 and 2004, which deferred its restructuring and privatisation. The build programme for the new power stations, Kusile and Medupi, faced a number of challenges ranging across procurement, design and commissioning. The cost overruns became unmanageable and instability at board and executive level unleashed a number of challenges for Eskom during that period.

Although the Mbeki regime had identified SOEs as pillars for infrastructure investment to lower the cost of doing business in South Africa, in 2004 it had gone further, identifying SOEs and state institutions as vehicles for increased black economic participation to transform the South African economy (Bhorat et al., 2017). Within the ANC, unease was being expressed with the way that the party's empowerment policies had disproportionately benefited a few politically

connected individuals. This dissatisfaction and then deputy president Jacob Zuma's "unfair" dismissal in 2005 by President Mbeki led to a showdown at the ANC's 52nd National Conference in December 2007. Jacob Zuma was elected as the president of the ANC, beating the incumbent, Mbeki. In September 2008, a mere eight months before his term as the president of the Republic of South Africa was due to end, Mbeki was ousted (Bhorat et al., 2017). Kgalema Motlanthe was appointed as the state president until the general election of 2009. The ANC won the election and Jacob Zuma became president of South Africa in May 2009.

With an infusion of communist, trade unionist and other grassroots supporters, President Zuma constructed the biggest Cabinet ever in the emerging South African democracy, packed with cadres receptive to his ideas (Bhorat et al., 2017). When he became president of the Republic of South Africa in 2009, Zuma inherited a sound macroeconomic policy environment, which was underpinned by a consistent and transparent policy framework.

President Zuma came into power in the midst of a global economic and financial crisis. Output had fallen by 1.8% in the fourth quarter of 2008 and by a larger-than-expected 6.4% in the first quarter of 2009. The economy lost more than 200,000 jobs in early 2009, and unemployment rose to 23.5% in the first quarter of 2009, from a low of 21.9% in the fourth quarter of 2008.

President Zuma split the DTI into two by forming a new department called the Department of Economic Development (DED), led by Ebrahim Patel, who had recently been the secretary-general of the South African Clothing and Textile Workers Union (SACTWU), an affiliate of Cosatu. The DED was mandated with economic policy and competition. The department introduced the New Growth Path as a macroeconomic framework to complement the industrial policy action plan.

1.6.4 2013 and beyond – Radical economic transformation, economic reforms and the restructuring of Eskom

Dissatisfaction with the progress of black participation in the economy resulted in the formation of a faction of the ANC and for whom the use of SOEs as vehicles for transformation became a rallying point for radical economic transformation in 2012. Whereas the Mbeki regime had in 2004 identified SOEs as pillars for infrastructure investment to lower the costs of doing business in South Africa, the radical economic transformers went further, identifying SOEs and state

institutions as vehicles for increased black economic participation to transform the South African economy so that it would no longer be a stronghold for whites (Bhorat et al., 2017). This was a significant shift in policy making. The state not only used the budget for pro-poor redistribution but went further, to promote black participation in all procurement processes at state department level and at SOEs (Bhorat et al., 2017). Preferential Procurement Regulations, 2011 pertaining to the PPPFA No 5 of 2000, was implemented at speed.

In the months before the ANC's 53rd National Conference, held in Mangaung in December 2012, President Zuma had been involved in a quiet revolution in the structures, procedures and personnel of the ANC, the government and bureaucracy (Bhorat et al., 2017). This quiet revolution reflected Zuma's determination that repurposing the state should be tightly managed and controlled through centralised policymaking and a streamlined administration, reflecting his background as a party intelligence operative and head of long standing (Bhorat et al., 2017).

It was not surprising that at the core of Zuma supporters were those excluded from the South African economy, many of whom lived in informal settlements in the townships and former homelands of the apartheid regime, with limited access to education. Bhorat et al. (2017) argue that they propounded a politics profoundly mistrustful of the formal 'rules of the game', whether of the South African constitution or of the government (Bhorat et al., 2017). Bhorat et al. (2017) further assert that Zuma's supporters rigged formal rules which were perceived as empowering whites and urban elites, and against ordinary people. Zalk (2017) shows how South Africa deindustrialised in the application of the PPPFA in the SOEs' infrastructure build programme on the basis of their black economic empowerment (BEE) status. In the case of Eskom, sub-standard coal was delivered and the maintenance of power stations was postponed. When turbines broke down as a result of this, blackouts resulted (Bhorat et al., 2017).

This round of rolling blackouts prompted President Zuma to establish an Electricity War Room in the Presidency's Department of Planning, Monitoring and Evaluation in 2015. The Electricity War Room was led by Deputy President Cyril Ramaphosa and was formed to find a permanent solution to the ongoing electricity supply disruptions. It was tasked with overseeing the implementation of a five-point plan to address the electricity challenges facing the country and included representatives from the Department of Planning, Monitoring and Evaluation, the National Treasury, the Department of Public Enterprises, the Department of Energy, the Department of Economic Development, the Department of Cooperative Governance and

Traditional Affairs, Government Communication and Information System and Eskom. In addition, the Electricity War Room had access to expertise from the Deputy President's Advisory Team on Electricity. These interventions gave many South Africans a false sense of security and a sense that Eskom was turning the corner.

However, in October 2016, the Public Protector (PP) released findings on an inquiry into alleged improper and unethical conduct by President Zuma and other state functionaries relating to the involvement of the Gupta family in the appointment and removal of ministers and directors of SOEs. Titled State of Capture, the PP's report flagged the improper and possibly corrupt awarding of state contracts and benefits to the Gupta family's businesses (Bhorat et al., 2017). Eskom was central to the PP's findings, which revealed a deterioration of governance and financial mismanagement at the entity. From the release of the PP's report in October 2016 to the 54th ANC National Conference in December 2017, Eskom was unable to release its financial results and was dealing with liquidity and solvency issues (Mondi, 2018). In January 2018, the newly elected president of the ANC and deputy president of South Africa, Cyril Ramaphosa, appointed a new board and a chief executive to resolve the governance issues and financial mismanagement at Eskom (Mondi, 2018).

In 2019, Eskom was in a difficult financial position and struggled to deploy full electricity capacity from Medupi and Kusile. It required more than R100 billion to complete its capacity deployment and improve its capital structure. The South African government responded by injecting about R49 billion into Eskom. Its generated positive operating cash flow of R36.2 billion and government's cash injection enabled Eskom to pay about R31.5 billion towards principal and R39.1 billion towards servicing interest on its debt (Eskom, 2020). In addition to the R49 billion, the South African government has appropriated about R56 billion for Eskom in the 2020/21 financial year to assist in the servicing of the estimated R95 billion interest and capital repayments falling due in the 2020/21 financial year (Budget Review, 2020). In this chapter, I respond to the questions listed below:

- Is Eskom too big to fail?
- Did the political actors have a hand in keeping Eskom as a vertically integrated entity to undertake "white elephant" investment projects?
- Can government financial support lead to a turnaround of Eskom or is it just too late for good money to be invested into a bad project?

- What will the dismantling of Eskom's vertical integration and the creation of three separate entities – generation, transmission and distribution – entail?
- Will such a transition lead to competition in generation, the emergence of a renewables industry and the capacity deployment of renewables?
- Is Eskom just a "white elephant"?

1.7 Details of the study

1.7.1 Chapter 2 – Literature review

Infrastructure plays a critical role in economic growth, employment creation and reducing the cost of doing business, and impacts positively on the lives of people. In this chapter, I present three theoretical approaches to infrastructure and state-owned enterprises (SOEs). I begin with the **theoretical literature** on SOEs and electricity infrastructure with a focus on public choice theory and political economy. The first body of literature overlaps with the political economic literature on interest groups and veto points, despite the difference in emphasis on state versus markets in electricity capacity deployment.

The second body of literature I review focuses on the **macroeconomics** of the economic and political transition of South Africa from 1990. Finally, I focus on **Eskom** and electricity as infrastructure. It is my intention to use the strengths of the political economy to map out an understanding of what a just energy transition in South Africa may entail.

1.7.2 Chapter 3 – The restructuring of Eskom, macroeconomic policy and political change: 1985-1994

In this chapter, I locate the restructuring of Eskom within the global macroeconomic policy changes that emanated from the UK under Margaret Thatcher and in the US under Ronald Reagan. I argue that these developments not only rolled back the welfare state gains of the post-war period but were instrumental in shaping the global political economy that led to the end of the cold war and the dominance of the markets over the state in economic policy.

The South African government, as part of the allied movement, had to respond to these global developments while at the same time addressing the demands of the black majority for freedom and equality in a sluggish economy. I show that the economic and political reforms brought to

the negotiation table various interest groups (Henisz & Zelner, 2004) that led to a compromise, ushering in a political settlement. I show how Eskom's restructuring promised so much, but delivered so little, structurally, as interest groups (Henisz & Zelner, 2004) vetoed its restructuring, thus confirming the thesis that interest groups can introduce veto points that may delay the implementation of critical reforms (Henisz & Zelner, 2004).

I argue that the 1983 National Party government's political reforms and the 1988 economic reforms led to the emergence of a variety of interest groups, for and against these reforms, creating a number of veto points in the reform process (Henisz & Zelner, 2004). I argue that the political transition became a priority for the ANC, at the expense of coherent macroeconomic policy positions and transition management. I show that Eskom's 'electricity for all' management strategy, extending electricity to black urban and rural households, gave the ANC a sense of comfort that Eskom was in good hands. As a result, its restructuring was deferred. The ANC focused on redistribution and the demand side of the economy, without diagnosing the impact of the economic isolation of South Africa and the need for supply-side measures (Mondi, 2006; Gelb, 2006).

1.7.3 Chapter 4 – Macroeconomic policy, continuities and privatisation: 1995-2004

In this chapter, I focus on the political economy of the new democratic government and the ANC's conversion to Washington consensus policies of an open market economy and the privatisation of SOEs (Mondi, 2006; Gelb, 2006). I argue that the Growth Employment and Redistribution (GEAR) macroeconomic framework marked a significant shift in the ANC's history. The ANC's mission was the seizure of political power and the party believed that it could implement its own version of a structural adjustment programme (SAP) and get away with it, since it had secured the high prize, political power. Furthermore, the ANC did not expect that the amendment of the Eskom Act in 1998 in preparation for the privatisation of utility, would touch a nerve with its alliance partners who were critical interest groups, yet Cosatu, for instance, vetoed Eskom's privatisation (Henisz & Zelner, 2004).

The apartheid project is described by Posel (2011) as having an international currency. I argue that, just like the NP, the ANC had an African currency of 'enlightenment', espoused by Thabo Mbeki in his promotion of an African Renaissance (Mbeki, 1998). I show how it fitted Eskom's

strategy, which had been initiated by John Maree and Ian McRae. Eskom was now under black leadership, which had been given space to reimagine Eskom in private hands.

I show how the successes of the implementation of GEAR – particularly fiscal restraint and monetary discipline – gave the ANC leadership breathing space to change its economic and political posture to that of a developmental state (Mondi, 2006; Gelb; 2006). In conclusion, I argue that the ANC's adoption of a developmental state scuppered Eskom's plans for its just transition to a low-carbon entity and a diversified socio-technical system business.

1.7.4 Chapter 5 – The post-apartheid developmental state: 2005 -2012.

In this chapter, I extend the argument I presented in the previous chapter, that the ANC pursues political conquest at the expense of a macroeconomic policy that could address South Africa's triple challenges of poverty, unemployment and inequality. I argue that the ANC's unstable and uncertain macroeconomic policy and its attitude to SOEs such as Eskom, is informed by the soft budget approach, which is a result of the ANC's political structure being contestable and amenable to opportunists who could use their power for personal gain, even if that resulted in the breaking of their oath of office (Public Protector, 2016; Bhorat et al., 2017).

I will start with the ANC policy shift from GEAR to declaring South Africa a developmental state and how the ANC government targeted the commanding heights of the economy in the form of Eskom and Transnet. I will then discuss how the pragmatism of the first 10 years, discussed in the previous chapter, was not sufficient to protect President Mbeki's position, resulting in him being recalled.

1.7.5 Chapter 6 – Radical economic transformation, economic reforms and the restructuring of Eskom: 2013 and beyond

In this chapter, I argue that Jacob Zuma's ascendancy to the highest office in the land provided an opportunity and space to redefine macroeconomic policy through radical economic transformation by using SOEs, state departments and the bureaucracy to achieve transformation (Bhorat et al., 2017). Furthermore, I argue that a quiet revolution in the structures, procedures and personnel of the party, the government and the bureaucracy was the means President Zuma used to consolidate his position (Bhorat et al., 2017).

This quiet revolution reflects Zuma's determination that repurposing the state should be tightly managed and controlled through centralised policymaking and a streamlined administration, reflecting his background as a party intelligence operative and head of long standing (Bhorat et al., 2017). Bhorat et al. (2017) define repurposing state institutions as the organised process of institutionalising the redirection of rents by reconfiguring the way a given state institution is structured, managed and funded; state institutions restructured to consolidate political power, disguising the maximisation of rents (Bhorat et al. 2017).

I then conclude by showing that what was described as radical economic transformation was malfeasance and, as a result, the South African government has no choice but to unbundle Eskom into three entities – generation, transmission and distribution – and introduce competition in generation towards a just energy transition.

1.7.6 Chapter 7 – Conclusion

In this chapter I conclude by showing how the thesis has critically interrogated the link between macroeconomic policy and Eskom through the political economy lens (Mondi, 2006; Gelb, 2006). The thesis has interrogated how, during every macroeconomic crisis, the restructuring of Eskom has taken centre stage. It has also examined the link between the control and ownership of Eskom by the government and the inefficiencies that have resulted in rolling blackouts. Moreover, it has noted that Eskom has moved from one crisis to the next but, unlike many electricity utilities around the world that were restructured and privatised in the 1990s, Eskom has remained intact as a vertically integrated power supplier because of state support and the incentive for political actors to use Eskom as a vehicle to redistribute wealth.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

In the political-economic tradition, the state and societal institutions that shape how political actors define their interests and how that structures their relations of power to other groups is critical. In this chapter, **first**, I review the literature on the political economy of South Africa between 1985 and 2019 from a wider lens through the historiography of Eskom and its contribution to the minerals and energy complex (MEC) of Fine and Rustomjee (1996). I argue that South Africa is undergoing a transition from an era of 'energy opulence' to one of restraint imposed by a series of infrastructural, economic, environmental and physical constraints (Baker, Newell & Phillips, 2014).

Second, I review the role of labour in the political transition of South Africa between 1990 and 1994 and its importance in the restructuring of Eskom. I do this to highlight the significant rise of Cyril Ramaphosa, the current president of the Republic of South Africa and president of the governing ANC, and that of Gwede Mantashe, the minister of mineral resources and energy as well as the current chairman of the ANC. Both were secretaries-general of the National Union of Mineworkers (NUM) in different periods and are today playing a critical role in addressing both the macroeconomic and the energy crises that emanate from Eskom. Moreover, Gwede Mantashe served on the Electricity Council that oversaw the operations of Eskom and is now a critical player in South Africa's energy transition from fossil fuel into a low-carbon economy dominated by variable renewables energy (VRE).

I infuse the political economy of transition and the evolution of the restructuring of Eskom both in the period preceding the democratic settlement and democratic period, undergirding South Africa's transition from an era of 'energy opulence' to one of restraint imposed by infrastructural, economic, environmental and physical constraints. I argue that the political economy of the restructuring of Eskom unconstrained by the market forces associated with ownership and control of private sector firms, has been susceptible to political actors using Eskom to redistribute wealth to salient political constituencies. This vulnerability of Eskom to salient political constituencies provides a platform to review **three theoretical and analytical approaches** to infrastructure and state-owned enterprises (SOEs).

2.2 Historiographies on Eskom

2.2.1 Political economy

Christie (1984) locates the foundation of Eskom and the competitiveness of South Africa's power generation on the material conditions, the social structure and the method of accumulation. The shallow, faultless thickness of seams; the compound; pass laws; and reserves that guaranteed cheap labour for the coal mines and electricity generation and the state provision of cheap electricity for transport, mining and manufacturing embodied the competitiveness of power generation under apartheid (Christie, 1984).

Clarke (1987) provides the historical foundation of SOEs such as Eskom and Iscor, reinforcing the basic thrust of the Christie (1978) argument that states and markets can mutually cooperate and co-exist in capitalist development, debunking the view that state intervention was likely to stifle the healthy impetus of the private sector. Clarke (1987) convincingly shows how mining was a kind of model for work organisation and the racial structure of the workforce in big operations in South African enterprise more generally.

Veck (2000) has shown the implementation of Eskom's programmes of electrifying white-owned commercial farms on South Africa's borders and black households, schools and clinics in the period from 1980 to 1995. Steyn (2001; 2006) explains the dangers of investing under uncertainty. He argues that Eskom over-invested in electricity capacity deployment in the 1970s and 1980s as a result of how managerial incentives were structured. This was also pointed out by the De Villiers (1984) report, which suggested "that, for Eskom managers, the route of minimum risk involved the avoidance of public and political criticism about the utility's possible inability to supply power. This resulted in 'over insurance' and unnecessary costs, which could, in turn, be automatically recouped by increasing prices". However, Steyn (2006) focuses on moral hazard as a result of providing wrong incentives to management with very little focus on the political economy of energy and the relationship between Eskom, the state and society.

Eberhard (2003) has written extensively on power sector reform in Africa with a specific focus on Eskom. He argues that the drivers for electricity sector reform internationally in the 1990s were the desire to improve investment and operational efficiencies, to raise capital from new

private sources. This was to unlock the value of existing assets to reduce government debt and, finally, to be fashionable, that is "they felt the need to follow the wave of reform that is now so powerfully sweeping through nearly all power sectors around the world" (p. 15).

Eberhard (2005) shows how the power sector reform in South Africa represents an interesting case where the "standard model" of unbundling, competition and privatisation was seriously considered, but later rejected. He does this by showing how the South African government initially decided to unbundle the dominant state utility, Eskom, and commissioned consultants to design an electricity market with a power exchange complemented by a market for bilateral contracts and financial hedges. Eberhard (2005) argues that it was also envisaged that part of Eskom would be sold and that the private sector would be responsible for new investments in generation capacity. However, none of the reforms were adopted and the government reaffirmed the lead role of Eskom in further development of the sector (Eberhard, 2005). Marquard, (2006) has focused on the history and political economy of energy policy and the role of state-owned companies in economic development.

McDonald (2009) has noted that before the end of apartheid in 1993 only 36% of the population was connected to the electric grid, with inequality of access defined by race. While Eskom's unprecedented expansion programme between 1994 and 2000 saw 2.4 million houses connected to the grid (McDonald 2009, p.15), one-third of the country's population are still without access to electricity, particularly in rural areas. As a result, millions of low-income houses do not have enough regular income to buy electricity, even if they are grid-connected and account for no more than 5% of national electricity consumption (McDonald 2009 p.16). Furthermore, electricity is an integral part of all capitalist activity and we can best understand the inequities of its availability and affordability by looking at the market dynamics within which it operates, argues McDonald (2009). Observing that electricity is not the only factor to be observed when studying capitalism on the African continent, McDonald (2009) concludes that, given the electricity-intensive nature of the region's economies and massive plans for electricity expansion, it is essential to investigate how electricity fits into the larger dynamic of capitalist accumulation and crisis in Africa.

Gentle (2009) argues that financial returns have trumped the real needs of the population in the post-apartheid period because capital needs an expanded electricity infrastructure to realise high levels of economic growth. However, Gentle (2009), argues that, to date, the character of the

growth has been such that it is incapable of absorbing labour to reduce unemployment. Gentle (2009) therefore concludes that the case for a single, vertically integrated, state-owned utility remains, especially when there is a necessity to clear infrastructure backlogs for the poor and to provide a sustainable and cheap service. Moodie (2010) focuses on the labour movement, its role on the shop floor, at industry level and in the community at large.

Jaglin and Dubresson (2016) argue that, through its founding father, Hendrik van der Bijl, Eskom was able to embody a perfect symbiosis between state body and private company. Van der Bijl managed to protect ESCOM against not only the pressures from Parliament (Conradie & Messerschmidt, 2000), but those emanating from the government, by stressing the legitimacy of the technical knowhow, vision and action of its engineers (Jaglin & Dubresson, 2016, p.16). Furthermore, such autonomy did not necessarily mean that there was a separation of technology and politics. Instead, it was characterised by the engineers' practice of controlled techno-politics and the deliberate use of knowledge and technical choices to promote a socio-political vision aligned with that of the government – an approach that led to the establishment of a genuine organisational model (Jaglin & Dubresson, 2016, p.16).

Bowman (2020) argues that the inter-connected operational, financial and governance crises afflicting Eskom emerged in the context of African National Congress initiatives to turn Eskom and other key parastatals into instruments of an envisaged South African developmental state, through increased investment and strategic procurement to support economic transformation goals. Instead, Eskom's spiralling costs, procurement irregularities and inability to translate increased investment into functional new infrastructure meant it impeded these goals. Its indebtedness became a severe macroeconomic risk, making Eskom a precarious nexus for the circulation of public funds, while the cost and unreliability of electricity has undermined South Africa's energy-intensive industrial core (Bowman, 2020).

The Eskom Research Reference Group, (2020) argues that the trade unions' opposition to the restructuring of Eskom is not simply about protecting jobs in coal, or about preserving Eskom as it currently operates, but support for a move towards both clean energy and economy-wide decarbonisation. However, the current unbundling plus IPPs approach to restructuring (read privatisation) will achieve neither because it threatens to seriously compromise the country's energy sovereignty by making it dependent on technologies and supply chains that are almost

invariably situated in Asia and Europe (Eskom Research Reference Group, 2020). Instead, it proposes a restructured Eskom constructed around three components:

1. Build a New Eskom, fully public and serving the people.
2. Securing a democratic and just energy transition.
3. Working towards socially owned renewable energy.

By arguing that the Eskom crisis is only attributable to corruption, mismanagement and poor decisions, the Electricity Reference Group (2020) is being ahistorical and ignoring the fact that Eskom had historically imposed macroeconomic risk to the fiscus due to its external debt and over-investment in electricity capacity generation had led to the appointment of the De Villiers Commission. In the post-apartheid period Eskom became a critical institution for the creation of a black elite and was repurposed by a coalition of trade unions, politicians and black business for private rents, as it will be shown in chapter 6.

2.2.2 Techno-politics

Jaglin and Dubresson (2016) observe that, internally at Eskom, the inherited techno-political regime has been affected by the disruption externally imposed by the ANC's radical transformation of the economy (ANC, 2014), which led to the departure of technically and professionally competent executives, the loss of skills and difficulty in filling positions. Thus, the former techno-political competence was marked by distinct competence, which has now been lost. The collapse of the management structure and shared leadership role of executives as well as that of the Department of Public Enterprises (DPE) – through measures such as cadre deployment – has considerably reduced the strategic capacity and techno-political influence of the engineers. The state has not demonstrated its own capacity or willingness to promote efficient techno-politics within the power and energy sector, Jaglin and Dubresson (2016) conclude.

In the articulation of Eskom as a techno-political organisation as suggested above by Jaglin and Dubresson (2016), scholars in anthropology, geography, science and technology studies have interpreted how infrastructures mediate exchange over distance, bringing different people, objects, and spaces into interaction and forming the base on which to operate modern economic and social systems (Graham & Marvin, 1996, 2001; Lefebvre, 1991). Graham and Marvin (1996, 2001) have written a series of influential works examining how new systems of

telecommunications are reconfiguring urban space and how infrastructures bundle together water, energy, people and streets into a series of networked infrastructures that define modern life.

Larkin (2013) emphasises the formation of what Hughes (1987, 1993) terms large-scale technical systems, the massive infrastructural networks that have come to organise everyday life. Hughes (1987, 1993) and those following in his wake (Hecht, 2011; Edwards et al., 2009; Jackson et al., 2007; Edwards, 2003, 1997; Bowker & Star, 2000; Bijker, 1997; Star & Ruhleder, 1996; Yates, 1993; and Bijker et al., 1987) argue that infrastructures such as electricity typically begin as a series of small, independent technologies with widely varying technical standards. They become infrastructures when one technological system comes to dominate over the others. For example, a light bulb in this conception becomes an infrastructure since it is an amalgam of technical, administrative and financial techniques.

2.2.3 Just energy transition

Baker, Newell & Phillips (2014) explore the political economy of energy transition in South Africa. They argue that an economic model based around a powerful 'minerals-energy complex' that has previously been able to provide domestic and foreign capital with cheap and plentiful coal-generated electricity is no longer economically nor environmentally sustainable. Another legacy of apartheid has been South Africa's 'special purchasing agreements' – long-term agreements with energy-intensive users conceived as a response to sanctions against foreign investors in the apartheid regime (Baker, Newell & Phillips, 2014). Meeting these challenges will involve difficult trade-offs about how to manage conflicting pressures in a way which protects jobs, assists socio-economic development and addresses the economic disadvantage of the historically marginalised population (Baker, Newell & Phillips, 2014).

Following on Baker, Newell & Phillips (2014) on trade-offs about managing conflicting pressures, Healy & Barry (2017) as cited by Duma (2019), have written about politicising energy justice and the mix of people, organisations and language that makes this possible. They speak to the involvement of labour in their articulation of a 'just transition' as well as the divestment movement (Healy & Barry, 2017, p.453). This view on divestment is shared by Mangat, Dalby & Patterson (2018). The divestment discourse takes several shapes (Duma, 2019). The mainstream

part appears palatable and popular and features in popular publications such as the *New York Times*. Mangat et al. (2018), articulate it as "stranded assets and unburnable carbon".

Another strand, which is less popular, evokes the language of war and/or morality (Mangat et al., 2018, p.194). For South Africa, the article invokes the anti-apartheid struggle and a narrative around divestment as an example that the fossil fuel divestment campaign can emulate (Mangat et al., 2018, p.195). The intention is to speak to investors with the message that investing in carbon is a bad investment in the long term, given the decreasing, and sometimes prohibited, investment into carbon infrastructure by governments and universities in the face of higher investment in renewable energy technology and infrastructure (Mangat et al., 2018, p.198).

The argument that has been made by Ireland & Burton (2018) as to the financial and ecological risk faced by governments and companies, forms part of the narrative of stranded assets and unburnable carbon (Duma, 2019). Additionally, it is interesting to note how energy justice can be interpreted. South Africa is a county which, given its history, should be very aware of the politics of justice. Jaglin & Dubresson (2016), speak to the redistributive function of Eskom in the democratic era, with the aim of transitioning the utility from serving a small minority to serving all citizens and businesses. Thus, it could be argued that the restructuring agenda of Eskom is, in many ways, energy justice (Duma, 2019). This is advanced by the actions of unions that, in protecting jobs, are suspicious as to whether renewables can deliver a more equitable society, given that renewable energy plants hire fewer people and operate in a decentralised way – in opposition to the infrastructure needed for organised labour to operate.

2.2.4 Trade unions

Mitchell (2011) argues that, when the production of energy shifted to oil from the Middle East, the transformation provided opportunities to weaken, both in the West and the Middle East, the forms of carbon-based political mobilisation on which the emergence of industrial democracy had depended (Duma, 2019). Exploring the properties of oil, the networks along which it flowed, and the connections established between flows of energy, finance and other objects, provided a way of understanding how the relations among these different elements and forces were constructed (Mitchell, 2011). The forms of democracy that emerged in leading industrialised countries by the middle decades of the 20th century were enabled and shaped by the extraordinary concentrations of energy obtained from the world's limited stores of hydrocarbons

and the socio-technical arrangements required for extracting and distributing that energy. At the centre of the democratic project in Europe was a militant threat by trade unions to corporatist democratic politics (Duma, 2019).

Trade unions contributed to the struggle against apartheid uniting South Africans under the umbrella of the United Democratic Front (UDF) (Duma, 2019). The trade unions' role was reinforced by the implementation of the recommendations of the Wiehahn and Riekert commissions in the 1980s that led to the recognition of unionised workers in independent unions. This brought trade unions to the centre of the political economy (Moodie, 2010; Twala & Kompi, 2012; Duma, 2019). Under the slogan 'One industry, one union' the Congress of South African Trade Unions (Cosatu) was formed in 1985. Both the National Union of Metalworkers of South Africa (Numsa) and the National Union of Mineworkers (NUM) formed the backbone of Cosatu (Beresford, 2012; Moodie, 2010; Duma, 2019).

Translating Mitchell's (2011) analysis presented above and the influence of trade unions is now reflected in the current government led by President Cyril Ramaphosa in which trade unionists and political leaders wear multiple hats in the tripartite alliance of Cosatu-ANC-SACP (Twala & Kombi, 2012). Leaders such as President Ramaphosa, Gwede Mantashe and Kgalema Motlanthe were all secretaries-general of the NUM who would later become secretaries-general and chairmen of the ANC and occupy leadership positions in the government (Duma, 2019). While their rise within the ANC cannot be attributed to the NUM and Cosatu alone, it does indicate that the NUM continues to exert influence in the alliance and that NUM credentials play favourably within the succession politics of the ANC (Duma, 2019), its macroeconomic policy stance and the just transition, the foundation of which has been laid by the president (Ramaphosa, 2019).

Furthermore, Gwede Mantashe, the current minister of mineral resources and energy, is a former member of the Eskom Electricity Council from 1993, during the political transition to democracy, until 1997, a year before the 1998 White Paper on Energy Policy which recommended the restructuring of Eskom. He is a significant player in the restructuring of Eskom and a champion of the Integrated Resource Plan 2019 and South Africa's transition to an inclusive, sustainable and just transition to a low-carbon economy.

2.2.5 Summary

In the discussion above I have reviewed the literature on the political economy of energy, particularly the historiography on Eskom and how a series of small, independent technologies with widely varying technical standards, become infrastructures when one technological system comes to dominate over the others (socio-technical system), driven by techno-politics of energy. Finally, I have also reviewed the literature on the role of trade unions, particularly the role of the NUM in the political economy of South Africa, the significance of its past leadership in reshaping the political economy of South Africa and the energy transition from fossil fuels to a low-carbon economy.

However, the political economy literature's focus on history, sociology and the political economy of institutions has been criticised for not focusing on the individual. The public choice school emphasises the individual and how an individual can exercise choice in politics and economics. It also allows us to understand how corruption, patronage, lobbying and kickbacks emerge, particularly in state-owned entities. In the next section, I review the public choice literature on State-Owned Entities (SOEs) to show how it explains better certain social processes in the analysis of the political economy of the restructuring of Eskom.

2.3 Public choice literature

For the purpose of the discussion on public choice literature and its relevance to Eskom, I have split the public choice literature into two groups: the inefficiency of SOEs, and interest groups and veto points. Interest groups and veto points cut across various theoretical schools, as discussed below.

2.3.1 Inefficiency of SOEs

The discussion on the inefficiency of SOEs takes **three approaches**. **First,** the public choice literature (Mueller, 1976) argues that SOEs invest inefficiently relative to their private sector counterparts. Unconstrained by the market forces associated with ownership and control of private sector firms, political actors use SOEs to redistribute wealth to salient political constituencies (Henisz & Zelner, 2004). Therefore, in the case of South Africa, public choice scholars would argue that political actors, such as the NP from 1948 to 1994 and the ANC from

1994 to date, have directed SOEs to undertake investment projects that provide targeted economic benefits to their constituencies, even when the aggregate economic benefits of such projects, such as increased output or service quality, do not cover the economic (opportunity) costs borne by the broader polity (Henisz & Zelner, 2004).

Dyck (2001), Megginson & Netter (2000) and Vining & Boardman (1989) have emphasised the problem of inefficient resource allocation by considering both underinvestment and overinvestment in infrastructure by SOEs. On the one hand, public sector enterprises are viewed as being unable to raise sufficient funds to expand or even maintain the existing asset base. On the other hand, political actors seeking to curry favour with their constituents are argued to employ public sector enterprises, such as Eskom, to build infrastructure projects of dubious economic necessity, but the construction of which benefits politically salient constituencies in the form of new jobs and associated multiplier effects in targeted sub-economies (Bertero & Rondi, 2000; Garrett & Lange, 1995; Karp & Perloff, 1989; and Shleifer & Vishny, 1994). For example, they would prioritise the interests of certain stakeholders (such as trade unions or black business elites) at the expense of the firm's efficiency.

The proposed solution to both underinvestment and overinvestment in infrastructure is similar in spirit to that urged in the case of private sector investment distortions: to create institutional arrangements that reduce the extent to which political actors are able to impose their preferences on SOE investment patterns. However, Steyn (2001, 2006) shows that, in the case of Eskom, it was not the political actors that imposed preferences on SOE investment patterns, but the managerial incentives and uncertainty of the political-economic environment that led to inefficient overinvestment in capacity.

Second, the Agency Theory (Arrow, 1970; Ross, 1973) points to the separation of ownership and control as the main source of the relative poorer performance of public firms. Thus, it is argued that managers in privately owned enterprises face stronger incentives to drive out waste and maximise internal efficiency. Conversely, the owners of public enterprises have a weaker ability to monitor the behaviour of managers. Managers in private companies are more disciplined by a number of external control mechanisms (e.g. the market for managers). There is some truth in that argument when institutions are insular and management has power to make investment decisions in SOEs outside the political process. One of the reasons for the

appointment of the De Villiers Commission by P.W. Botha was to discipline Eskom, which was perceived to be too powerful, independent and unaccountable to political actors (Veck, 2000).

The **third** stream of thought is suggested by the property rights theorists (Barzel, 1997; Demsetz, 1974; and Alchian, 1965), who argue that managers in public firms do not suffer the economic consequences of their decisions, which reduces their incentives to reduce economic waste and maximise profitability. By contrast, the threats of bankruptcy and takeover prevent the managers of private firms from seeking only their own advantage. In this respect, the presence of soft-budget constraints shields public enterprises from bankruptcy, since any possible gap between income and expenditure is balanced by the government (Kornai, 1980).

Public choice theorists recommend the transfer of assets from the state to the private sector as a panacea for removing inefficiencies inherent in public ownership, which arguably reduces distortions and improves incentives. However, Christie's work (1978) has shown that, in South Africa, states and markets have mutually cooperated and coexisted in capitalist development. Although the two paradigms of state and private sector (markets) of the governance of the energy sectors can be complementary, there is consensus among policymakers that access to electricity is an essential ingredient for industrial development, which is considered a fundamental driver of economic growth.

However, despite the theoretical arguments on the inefficiencies of SOEs, the empirical record of privatisation is mixed. The studies of the property rights theorists focus on the analysis of financial and operating indicators, typically profitability, labour productivity, sales, investment, debt, employment and dividends. The subsequent widely cited studies by D'Souza & Megginson (2002), La Porta & Lopez-de-Salines (1999) and Dewenter & Malatesta (1997) follow the same approach and generally find evidence that privatisation is associated with gains in firms' profitability and labour productivity, while delivering mixed results for other measures of performance.

The conventional argument that SOEs are inefficient compared with privately owned enterprises (POEs) is sustained by the very well-established economic literature that we have discussed above (Belloc, 2012). A large part of the empirical studies on the comparative performance of SOEs focuses on utilities, most often in non-competitive markets, where firms have a natural or special monopoly (typically, electricity and water utilities), or where there is a regulated duopoly

(often this has been the case of airlines and railroads), or where output cannot be priced by competitive forces (e.g. health-related services) (Belloc, 2012). Notwithstanding a few exceptions, most available studies show that SOEs are less efficient than POEs, efficiency commonly being measured by short-term performance indicators such as returns on assets, returns on sales and net income (Vining & Boardman, 1989). These studies, however, ignore the power struggles between trade unions and management in firms that shape and influence outcomes. That requires a deeper analysis of the firm as a site of struggle and its success being determined by the balance of forces in it. A higher performing SOE could have very stringent labour laws and poor conditions of employment.

The public choice theory of free flow of goods that constitutes a laissez-faire economy on an infrastructural base that organises both market and society, has been challenged by scholars who draw on science and technology studies to trace out the material operation of technologies and the ways in which this materiality has consequences for political processes (Bennett, 2010; Callon, 1998; Latour, 2007; Mitchell 2011). Infrastructures, in this work, are interesting because they reveal forms of political rationality that underlie technological projects and which give rise to an "apparatus of governmentality" (Foucault 2010, p.70).

2.3.2 Interest groups and veto points

A substantial body of literature in political science and economics, which is collectively referred to as the interest-group politics literature, emphasises how distributional conflicts among interest groups affect policy outcomes (See, for example, Rogowski, 1989; Denzau & Munger, 1986; Wilson, 1984; Peltzman, 1976; Stigler, 1971; and Olson, 1965). The emergence of these groups on the political scene and their increasing power to interfere in the decisions of the public powers, challenging hierarchies of the constituted power, has been attracting the attention of researchers of state actions and public policies more strongly since the 1990s (Guliherme de Aragao, Yamashita, de Freitas Dourado & de Morais, 2018).

Consistent with the literature on SOEs, this perspective views political actors as maximising political support (Henisz & Zelner, 2004). A lack of political will is always alleged, with a mix of resignation and revolt, when public projects and actions of great utility or even social necessity are not able to get on the government agenda. However, behind this frustration, hides a

poor comprehension of public-decision process behaviour. It is extremely complex and is "a continuum of decision-making moments" (Guliherme de Aragao et al., 2018, p.60).

Another strand of the interest-group literature relates to the activities of interest groups generically as "lobbying", which refers to actions such as transferring resources to policy-makers (whether in the form of campaign contributions or bribes) or transferring information (Van Winden, 2004). Buying influence reflects the actions, often legal and sometimes illegal, by which interest groups may attempt to get decision-makers (whether politicians or bureaucrats) to listen to their needs and, hopefully, act accordingly (Van Winden, 2004). Lobbying for influence consists of the various actions, often legal, but sometimes illegal, by which interest groups attempt to transfer information to politicians and bureaucrats about issues (such as voters' preferences, the impact of particular agency or legislative proposals, etc.) that may affect decision-makers' political and bureaucratic calculus (Van Winden, 2004; Spiller & Liao, 2006).

The judicial process is also harnessed by interest groups. They use the judicial process to change the arena where the game is played, away from the legislative and administrative processes. Litigation may be pursued against a particular policy or its implementation depending, naturally, on the nature of the case, but also on the more general environment in which the interest group operates. I show that polities where legislatures have an important policy-making role will tend to develop more transparent and direct-interest group activity. Polities where policy-making is centralised in the cabinet or the party in power, though, will tend to reserve interest group access to key decision-making politicians (Spiller & Liao, 2006). The trade-off between campaign contributions, lobbying and litigation is also affected by the nature of the institutional environment. Litigation loses its power in unified systems, limiting successful interest group activities to direct lobbying and buying. In decentralised polities, the full extent of complementarities between direct and indirect lobbying, buying and litigation becomes apparent (Spiller & Liao, 2006).

Eskom's role in industrial policy as the supplier of electricity at the lowest cost possible has been well-presented by Fine and Rustomjee (1996). Even in post-apartheid South Africa, Eskom used its reserve margin to attract aluminium smelters such as Alusaf (now called BHP), thus promoting exports and cementing the interests of an industrial interest group (Henisz & Zelner, 2004). As a group in the MEC, the industrial consumers were better able to overcome the collective-action problems impeding the political organisation of the broader, more loosely knit

group of electricity consumers that incur net costs from Eskom's electricity deployment projects. Therefore, industrial and mining consumers in the MEC exerted greater pressure on Eskom and the government to exercise discipline in deploying new generation capacity. Industrial and mining consumers of electricity receive a relatively small share of the benefits of white elephant projects, but bear significant costs through taxes and higher prices, as the same populist motives that lead politicians to use SOEs as a vehicle for employment often lead them to create pricing cross-subsidies from industrial to non-industrial consumers (Henisz & Zelner, 2004).

This does not imply that industrial consumers cannot be proponents of government-sponsored inefficiencies in areas other than state-owned electricity. For a broader perspective on the destructive potential of industrial lobbying, see Rajan & Zingales (2004). Industrial and mining consumers represent a more stable source of demand than do residential consumers and are consequently less costly to serve. Thus, higher industrial and mining rates are prima facie evidence of cross-subsidisation, and even lower industrial and mining rates may reflect cross-subsidisation, if they do not fully reflect cost differentials.

Interest-group politics alone do not determine policy outcomes; rather, the formal institutional structures of the policy-making process "condition the extent to which politicians have the capacity and/or the incentive to act on their short-run electoral goals (Broz & Frieden, 2001, p.334). To the extent that the preferences of the actors with veto power differ, institutional structures with more veto points limit the range of feasible policy choices. As a result, "the potential for policy change decreases with the number of veto players, the lack of congruence/dissimilarity of policy positions among veto players and the cohesion/similarity of policy positions among the constituent units of each veto player of these players" (Henisz & Zelner, 2004, p.14).

According to this logic, veto points therefore have the effect of moderating the response of political actors to interest-group pressures. Broz & Frieden (2001) highlight that, in the construction of a policy regime, veto points may be associated with greater "logrolling" and politically motivated deviations from efficiency criteria. In the South African context, however, the regulatory regime (the National Electricity Regulator of South Africa) and the operations of the electricity sector are already in place; thus, the effect of veto players occurs at the level of policy (the constitutional requirements that inform a process of broader stakeholder consultation

and parliamentary hearings constitute veto points) and not the policy regime (Kastner & Rector, 2003; Broz & Frieden, 2001; Hallerberg & Basinger, 1998).

The literature on electoral rules and institutional influences on political corruption (Kunicova & Rose-Ackerman, 2003) suggests that electoral institutions may affect the partisan structure and nature of competition among political actors, and therefore the extent to which such actors promote personal policies, as opposed to more nationalistic or party-centred ones (Rogowski & Kayser, 2003; Wallack, Gaviria, Panizza, & Stein, 2003; Carey & Shugart, 1995; and Myerson 1993). This does not apply in the South African electoral system, because the electorate votes for a party rather than an individual. However, as discussed further on, it is possible for a powerful individual to affect the type of benefits that political actors deliver through such rules' effect on party discipline.

For example, a powerful individual may be in the executive and have influence on the legislature not to veto decisions that undermine a constitutional order (Ames, 1995; Carey & Shugart 1995). For example, President Zuma was able to survive eight votes of no confidence in the South African Parliament despite a Constitutional Court ruling that Parliament had to censure him after he had lied under oath and the finding that he had benefited unfairly from the "security upgrades" to his Nkandla homestead (Economic Freedom Fighters v The Speaker of the National Assembly and Others; The Democratic Alliance v Speaker of the National Assembly and Others [2016] ZACC 11, 2016). In the same case, the Constitutional Court also held that the president's failure to comply with the remedial action taken against him by the Public Protector was a violation of his duty under section 181(3) of the Constitution to assist and protect the office of the Public Protector to maintain its independence, impartiality, dignity and effectiveness. It also held that the failure of the National Assembly to hold the president accountable and ensure that he complied with the remedial action taken against him similarly violated their constitutional duty under section 181(3), as well as their general duty to scrutinise and oversee executive action (Economic Freedom Fighters v The Speaker of the National Assembly and Others; The Democratic Alliance v Speaker of the National Assembly and Others [2016] ZACC 11, 2016).

Although my research warrants consideration in the current context, these studies ultimately imply an indeterminate relationship between electoral institutions and white elephant deployment. As Kunicova & Rose-Ackerman (2003) emphasise, systems that promote broad-

based, politically motivated public spending, both legal and illegal, tend not to promote geographically targeted, politically motivated public spending, and vice-versa.

2.3.3 Summary

I have reviewed the three strands of the public choice literature on SOEs. These are the inefficiency of SOEs, the Agency Theory and the property rights theorists. I showed the significance of each theoretical approach. The thesis pursues the political economy approach to highlight the social processes that have bred a new black elite through the mechanisms of black economic empowerment. It follows Von Holdt's (2019) argument that the formation of a black elite was an outcome of black economic empowerment policies which were developed by the state in partnership with mining houses, and which have contributed to the disenfranchisement of black rural communities. The black elite is composed of individuals who use the mechanism of black economic empowerment with the state as well as SOEs such as Eskom. Their behaviour and how they relate to Eskom is best exposed through the public choice literature, particularly the literature on rent seeking. The tension between the political economy and the public choice literature has been selected to show in line with Bowman (2020) the inter-connected operational, financial, and governance crises afflicting Eskom that emerged in the context of African National Congress initiatives to turn Eskom and other key parastatals into instruments of an envisaged South African developmental state, through increased investment and strategic procurement to support economic transformation goals.

Today Eskom's indebtedness has become a severe macro-economic risk, making the power utility a precarious nexus for the circulation of public funds, while the cost and unreliability of electricity has undermined South Africa's energy-intensive industrial core. In the next chapter, using the political-economic approach, I discuss the economic and political crisis of South Africa that began just before 1985, its impact on Eskom, and the compromise that ushered in a new democratic order in 1994. I will provide a platform to complement Zalk's (2017) political-economy critique in the South African context by extending some of the work of earlier scholars and show that continuities that started with the reforms of the 1980s were adopted by the ANC in the democratic transition between 1985 and 1994.

CHAPTER 3: THE RESTRUCTURING OF ESKOM, MACROECONOMIC POLICY AND POLITICAL CHANGE: 1985-1994

"The supply of electricity to the nation is a major factor in economic growth. We, as a component of the Engineering Group of Eskom, have developed a high degree of expertise in various aspects of power industry related technology…We are keen to share our experience with others…In particular the development of low-cost reticulation, stand-alone generation and new materials technologies is essential in realising Eskom's Vision of Electricity for ALL".[3]

3.1 Introduction

Padayachee (1989) posits that the nature and character of a country's location within, and relations with, the world economy may change back and forth over time, from being, say, supportive of a particular form of growth and development, to being detrimental to such growth by promoting vulnerability and underdevelopment. The form of support could change in fundamental ways; so too could the nature of "dependency". A country's trade, technology and financial relations may, under certain circumstances, constrain national economic strategy. Under different circumstances, these links may offer opportunities that may advance the potential of national economic and political strategies (Padayachee, 1989). These changes are themselves deeply rooted in crises and changes in the international financial and monetary system and in the accumulation strategies and institutional and political structures of individual nation states Padayachee (1989)

In this chapter, I locate the restructuring of Eskom within the South African and global macroeconomic policy changes that emanated from the UK under Margaret Thatcher and the US under Ronald Reagan. I argue that these developments not only rolled back the welfare and developmental state gains of the post-war period, but were instrumental in shaping the global political economy that led to the end of the cold war and the dominance of the markets over the state in economic policy. Moreover, it also influenced and shaped the debates on the economy of

[3] Blackbeard, John, Foreword, Power Industry Technology Trends Proceedings Vol. 2 E-I90, Eskom College, 21-23 May 1990.

a democratic South Africa, particularly the notion that the state should not interfere and public assets are better off in private hands since they are inefficient under state control.

In the 1980s, the South African government, as part of the Western, US-led allied movement, had to respond to these global developments while at the same time addressing the demands of the black majority for freedom and equality in a sluggish economy. I argue that the economic and political reforms brought to the negotiation table various interest groups which led to a political settlement. I show how the proposed recommendations by the De Villiers Commission to restructure Eskom promised so much, but delivered so little, structurally, as interest groups vetoed the utility's restructuring. I argue that the National Party government's economic and political reforms led to the emergence of a variety of interest groups, for and against these reforms, creating a number of veto points in the reform process. Moreover, the political transition became a priority for the ANC and its alliance partners, at the expense of developing a coherent macroeconomic policy position and transition management. I show how the ANC focused on redistribution and the demand side of the economy, without diagnosing the impact of the economic isolation of South Africa and the need for supply-side measures (Gelb, 2006).

3.2 Globalisation and neoliberalism

In 1979, Margaret Thatcher became prime minister of the United Kingdom on a ticket promising a new direction for economic policy. Her goal was to reverse the UK's long-term difficulties of slow economic growth, low productivity and high inflation. She called for lower taxes, less government intervention and lower growth of the money supply to reduce inflation (Meyer, 1982). Her view that inflation was a monetary phenomenon was drawn from Milton Friedman's monetarist view, which is still in favour among some monetarists (Friedman, 1956). It signalled a major policy shift from Keynesian policies, which had dominated the post-war period. The monetarist approach includes interventions such as reducing money supply, the privatisation of SOEs and globalisation as a package. It morphed over time to become what is commonly known today as neoliberal policies. The Thatcher approach was simultaneously adopted by Ronald Reagan in 1980, when he was elected as the president of the US, and it soon became a panacea for economic development. Not surprisingly, in view of the US (and UK) dominance of the post-war Bretton Woods institutions, such policies were adopted and championed globally by both the International Monetary Fund (IMF) and the World Bank.

3.3 Structural adjustment programmes (SAPs)

In the 1980s, the great majority of sub-Saharan countries had budget and balance of payments deficits, low economic growth and worsening poverty levels, which required fundamental policy reforms. The IMF and the World Bank designed structural adjustment programmes (SAPs) as part of the assistance programmes given to these countries. Both the IMF and the World Bank emphasised that faulty policies adopted by African governments, particularly in the past, were at the base of Africa's persistent economic crises. The IMF applied a monetary approach to balance of payment problems in an attempt to restore macroeconomic stabilisation and the World Bank tackled the distortions in the price formation processes of goods and services, which had resulted in unproductive allocations of the available resources. The IMF and World Bank structural adjustment programmes of the 1980s, as described by Beneria (1999), entailed:

- First, a common starting point was the exchange rate adjustment, beginning with currency devaluation in order to deal with normally overvalued currencies. This led to an automatic increase in the price of imports, followed by that of domestic prices and inflationary trends.
- Second, drastic cuts in government spending were used, not only to reduce deficits in the public sector, but also to shift resources and economic activity from the public to the private sector. They were used to decrease aggregate demand in order to stem inflation. The cuts reduced or eliminated government services and subsidies, such as in education, health and other sectors that contribute to the social wage, particularly of low-income groups. Another aspect of the reduction of the government's role in the economy was the process of privatisation of public firms. Although privatisation could serve the important function of reducing the domestic deficit and eliminating inefficient and even corrupt activities in the public sector, it also played a significant role in the imposition of the market over welfare and human development criteria in the functioning of the economy.
- Third, SAPs were used to stimulate deep economic restructuring through market deregulation, including the deregulation of the labour and capital markets. This, in turn, created strong pressures to restructure production, which led to the introduction of new technologies, the reorganisation of labour processes and an emphasis on efficiency and "modernisation".
- Fourth, this process was reinforced by trade liberalisation and the easing of rules regulating foreign investment, increasing the degree of globalisation of the economy and emphasising the production of tradables over non-tradables (Mohamed, 2019; Zalk, 2017). This reinforced

the need to strive for more efficient production to make it possible to compete in international markets and reverse the external debt problem.

In summary, orthodox SAPs represented deep economic and social changes amounting to: a) increasing productivity levels, albeit at lower real wages, at least during the initial stages; b) eliminating waste and inefficiency while "rationalising" the economy according to the signals dictated by an expanding market; c) achieving a higher degree of openness to foreign competition and integration in the global economy through trade and financial liberalisation; d) altering economic and social relations and shifting the distribution of resources, rights and privileges towards social groups benefiting from the market; e) responding to the needs and interests of international capital and powerful global and domestic interests, including the large financial institutions, transnational corporations and international organisations such as the World Bank and the IMF; and f) reaching the final objective of returning to acceptable levels of economic growth and stability (Beneria, 1999).

The approach of the World Bank and the IMF was discredited following the success of eight East Asian economies (Amsden, 1989; Wade, 1990)[4]. The high-performing East Asian economies' success included ingredients of the Washington Consensus such as:

- Sound development policy;
- Sound and stable macroeconomic management;
- Efficient frameworks for private investment, such as policies to increase the integrity of the banking system and to make it more accessible to non-traditional savers in order to raise the levels of financial savings;
- Education policies that focused on primary and secondary schools, which generated rapid increases in labour force skills;
- Agricultural policies focused on productivity that did not tax the rural economy excessively;
- Price distortions and openness to foreign ideas and technology.

However, their major success was located in government intervention through multiple channels to foster development, and in some cases the development of specific industries (World Bank, 1993). Policy interventions took many forms:

[4]Hong Kong, the Republic of Korea, Singapore, Taiwan, China, Indonesia, Malaysia and Thailand.

- Targeting and subsidising credit to selected industries;
- Keeping deposit rates low and maintaining ceilings on borrowing rates to increase profits and retained earnings;
- Protecting domestic import substitutes, subsidising declining industries;
- Establishing and financially supporting government banks;
- Making public investments in applied research;
- Establishing firm- and industry-specific export targets;
- Developing export marketing institutions;
- Sharing information widely between the public and private sectors.

The success of the highly performing East Asian (HPEA) countries led to augmentation of the Washington Consensus, which then got referred to as the Augmented Washington Consensus.

3.4 Economic reforms and political change

South Africa's international financial integration ensured that South Africa could not insulate itself from the global policy shifts. The De Kock Commission on Monetary Policy in South Africa recommended in 1984 that, in order to achieve price stability, South Africa had to exert better control over money creation and total spending, with full acceptance of the implications for interest rates and exchange rates (De Kock Commission, 1978). This was the first signal of a shift away from what Freund (2019, 2013) calls the apartheid developmental state towards market liberalisation, in line with what was happening the world over. The South African economy shrank by 0.5% in 1985 as a result of the negative impact of capital flight and the decline in consumer and domestic confidence (SARB, 1987) following the August 1985 Rubicon Speech by President Botha, in which he failed to commit to a plan for democratic change (Botha, 1985). Table 3.1 shows the impact of the economic slowdown when the GDP growth rate at factor prices of 5% in 1984 experienced a dramatic drop to -0.5% in 1985 (SARB, 1987).

The governor of the South African Reserve Bank (SARB), Gerhard de Kock, after whom the De Kock Commission was named, pointed out in September 1987 that the performance of the economy between 1984 and 1986 was poor, to say the least (SARB, 1987). Real economic growth slowed down, imports were compressed by as much as 30%, unemployment increased, the quarterly rate of inflation increased from 12.8% in the fourth quarter of 1984 to 26% in the

first quarter of 1986, real disposable income per head fell by an average of 5.6%, and real private consumption fell by an average of 4.2% in 1985 and 1986 (Padayachee, 1989). These realities required a new approach to macroeconomic policy and management. It was expected that the recommendations of the various commissions[5] of inquiry would then be implemented as a package deal. At the opening of Parliament in February 1988, President P.W. Botha announced an economic package that would move South Africa onto a new trajectory, using the experiences of both the UK and the US.

Table 3.1: Percentage change in real output

	1983	**1984**	**1985**
Primary sectors	-6,0	4,5	3,5
Agriculture	-27,0	13,5	15,0
Mining	0,5	2,5	0,5
Non-primary sectors	-1,0	5,0	-2,0
Manufacturing	-6,5	3,0	-5,5
Construction	-5,5	1,0	-4,0
Commerce	3,5	10,0	-5,0
General government services	5,0	4,0	-
Other services	-	6,0	0,5
GDP at factor income	**-2,5**	**5,0**	**-0,5**
GDP at market prices	**-2,5**	**5,0**	**-1,0**

Source: South African Reserve Bank

On 5 February 1988, President Botha outlined a new economic policy for South Africa. Botha's economic policy emanated from the De Kock Commission, the Wiehahn Commission and the Riekert Commission, which argued for deregulation, liberalisation and economic reforms (Innes, 1988). Botha faced huge challenges, since economic policy solutions were crafted through the lens of a history of macroeconomic successes and failures based on the economic exclusion of black people. Politicians are not necessarily the shrewd operators envisioned by standard risk preference models. Instead, they are often restless, passionate people who are motivated by their

[5] The Riekert, Wiehahn, De Kock and De Villiers Commissions.

"animal spirits". Rather than judge all historical events uniformly, decision-makers often placed greater weight on some historical experiences than others. After years of poor economic performance, political isolation and sanctions, Botha had lived experiences. The political, social and economic trauma that preceded his 1988 economic package had cast a long shadow over apartheid elite decision-making. Having experienced severe crises, Botha gave a high weighting to risk-averse policies that promised to avoid repeating past shocks.

Macroeconomic paradigms are often a product of historical legacies. By the 1980s, there were broadly two rival schools of macroeconomic thought, Keynesianism and post-Keynesianism on the one hand, and monetarism and the new classical economics on the other. More recently "new consensus macroeconomics, new neo-classical economics, neo-Keynesianism and RBC theory" have been added to the mix. Each of these schools of thought has its roots in a different crisis history. Hence, they offer competing governance solutions. The Keynesian school and its post-Keynesian variations argue that the state has a critical role in economic development. This is because, in their view, capitalism was intrinsically unstable and susceptible to both minor and major dislocations and crisis, threatening (according to Keynes himself) the very foundations of (western civilisation) (Keynes, 1971). For example, in a period of low GDP growth, the state can play a countercyclical role by increasing government expenditure to increase aggregate demand or output.

However, the monetarist school and new classical economics assert that the market allocates efficiently and, in the case of low economic growth, they would recommend lower interest rates and a reduction of corporate and personal income taxes. Whereas Keynesians and post-Keynesians would promote SOEs such as Eskom as a commanding height of the economy, the monetarists and new classical economists would privatise since, fundamentally, they perceive markets to be efficient allocators of resources. The Keynesians and post-Keynesians, and the monetarists and new classical economists, present different governance paradigms in relation to SOEs.

By 1988, at policy level, the monetarists and the new classical economists appeared to have won the battle. This was shown by the pressures exerted on state-owned firms such as Sasol, Iscor, SA Post and Telecommunications, South African Transport Services (SATS) and Eskom, and the conglomerates of the private sector, to match companies elsewhere in the world that were undergoing changes, including privatisation and unbundling, as stakeholders demanded value for

their investments. At firm level, workers were being allocated shares, were participating in bonus schemes and were being seen as part of the company, with the introduction of values and visions at company level. The recommendations of the commissions mirrored these developments, aligning the interests of employers, workers and shareholders, including in the state-owned companies. The benefits of the market and individualism were being emphasised, whereas the state was seen as value-destructive. Keynesianism and the MEC were being ditched in favour of new approaches to economic management. In 1984, the De Kock Commission and the implementation of its recommendations put monetarism at the centre of macroeconomic policy in South Africa.

P.W. Botha and his National Party colleagues were already on their way to Damascus but at their own pace. Botha articulated the pace and speed of reforms by quoting an Afrikaner poet, C.J. Langenhoven, in his 1985 Rubicon Speech (Botha, 1985).

> "If we are in front, we can wait for time. If we are behind, it does not wait for us."[6]

Botha went on to support his perspective by arguing that, "…we have advanced very far through modernising our labour laws, the creation of a Development Bank for Southern Africa, as well as a Corporation for the Development of Small Business Activities. We already co-operate in various ways through multi-national ministerial committees, meeting from time to time and working positively in the interest of South Africa as a whole" (Botha, 1985). Hence, when he announced a major economic package in 1988, signalling a major policy change towards monetarism, it was based on the subtle and gradual reforms that preceded it.

The powerful and painful collective memories of the economic trauma of the 1980s required pragmatism. Botha's pragmatism took the form of appointing technocrats with specialised training in economics who promised to improve governance and avoid repeating past crises. Chris Stals was Botha's and the NP regime's chosen one and he was appointed as the governor of the South African Reserve Bank (SARB) on 8 August 1989. Before his appointment to the SARB, Chris Stals was a director general in the Department of Finance and sat on various boards of companies owned by the state, such as Eskom and Armscor. He served as a director at Armscor in the implementation of the military-industrial complex when P.W. Botha was the

[6]https://omalley.nelsonmandela.org/omalley/index.php/site/q/03lv01538/04lv01600/05lv01638/06lv01639.htm

minister of defence. Botha appointed him to the board of Eskom and later as the governor of the SARB after the sudden death of governor Gerhard de Kock in 1989. Stals understood the depth of the economic crisis and the limitations of the MEC as a result of the various roles he had occupied. He was the man to effect institutional changes away from the MEC, which had elements of Keynesianism and had defined South Africa's economic development towards monetarism. Having sharpened the tools for economic change, Botha presented an economic package on 5 February 1988. It included:

- Government expenditure, including both current and capital expenditure, was to be drastically cut. This would be achieved through a one-year salary and wage freeze for all public sector employees. However, "normal incremental adjustments and specific professional adjustments" would be allowed. Botha also appealed to the private sector to exercise wage restraint.
- There would also be a "drastic reduction" in the creation of new civil service jobs. The standard of existing public services may be lowered and the prices of such services increased. All capital expenditure in the public sector would from now on be closely monitored and would require cabinet approval.
- The government was to embark upon a major privatisation programme. This would include the privatisation of the state's assets in the following public companies and areas: Eskom; South African Transport Services (SATS); Post and Telecommunications; Iscor; Foskor; the Mossel Bay gas project; several functions of the Atomic Energy Corporation; and several of the shareholdings held by the Industrial Development Corporation (IDC) in other companies.
- Sections of the national road network arc were to be privatised. Private companies were to take over some roads and charge users a toll for travelling on them.
- The government was to introduce further deregulation measures. Food-handling regulations, as well as those governing trading hours and licences, were to be revised. Legal prescriptions governing trading rights and business premises for black businesses were also to be revised, but such businesses would remain confined within their "own areas".
- General sales tax (GST) was to be abolished and replaced by value-added tax (VAT).

The first three items listed were aimed at helping the government to overcome its fiscal crisis. Innes (1988) noted that: "The seriousness of the fiscal crisis should not be underestimated. In reality the state (is) technically insolvent." The source of the crisis was that state revenue was no

longer adequate to cover both the state's capital spending (on investments) and its current spending (on goods and services). However, the fact that the state was running a budget deficit did not, in itself, create a crisis. What turned this into a crisis was that the state's options for correcting the deficit were seriously limited. Under normal circumstances, the state might have sought to correct the imbalance by raising taxes, which would bring in more revenue (Innes, 1988).

By freezing public sector salaries and wages, the Botha regime hoped to save approximately R2.5 billion. By not creating new civil service jobs and cutting back on the provision of public services, the state could save more money. Privatisation of state assets would save the state considerable capital expenditure, since the financing of these corporations would become the responsibility of the private sector, argued the state. And, from Botha's perspective, privatisation added the advantage of bringing in huge amounts of revenue. The total assets of the biggest public corporations that Botha identified for privatisation were valued as follows: Eskom – R31 billion; SATS – Rl9 billion; Post and Telecommunications – R8 billion; Iscor – R5 billion; the Mossel Bay gas project – R5 billion; and the IDC – R3 billion. The state thus had the potential to make a grand total of R71 billion by selling off these assets alone (Innes, 1988). For the private sector, Botha's economic package met many of its major demands. These included: waging war against inflation by slashing public expenditure and attacking the position of public sector employees who were perceived as highly privileged; embracing free-market principles more vigorously; and reorganising the tax system. But, perhaps, what pleased the business sector most about Botha's package was that it represented a clear shift in government policy away from defending sections of the white working class against capitalist intervention. This was in line with the UK and US approach to economic reforms, putting the economy in private sector hands, with the state creating an enabling environment.

Botha and his NP colleagues believed that the economy could be rescued by a market-friendly set of economic policies. This rested on a narrative that apartheid had undermined the productive potential of the economy through far-reaching interventions in markets and therefore liberalisation was essential. Liberalisation would incentivise broad-based investment in skills and productive capacity, and real economic transformation would be achieved. If one were to use a measure of the impact of Botha's economic package, one could turn to the English-language press as cited by Innes (1988), which was overflowing with excitement. In the press, the English-language business community was salivating at the prospect of acquiring the country's jewels at

a steal. This suggested that Botha had correctly targeted his potential market. According to Innes (1988), South Africa had expected to see the government increasingly cast off the mantle of racial social democracy in favour of the full-blooded free market capitalist approach that the English-language business community had long been calling for. There was an outcry from both black and white trade unions against the gross injustice involved in freezing wages while leaving prices untouched (Innes, 1988). The public sector wage freeze, according to the director general of finance, Chris Stals, was never intended to bring down inflation, but rather to "enforce fiscal discipline" (i.e. curb state spending). The only sure way of cutting R2 billion off the government's total spending bill, said an unidentified state official as quoted by Innes, "is not to grant salary increases to public servants" (1988).

The use of fiscal and monetary discipline was significant to the political settlement, as were the methods of achieving it, as it will be shown in the next chapter. For example, a lack of imagination was shown in cutting government spending. Contributors to fiscal discipline in the 1988 economic package included the withdrawal of the South African army from Angola; ending South Africa's military occupation and administrative control of Namibia; ending conscription, which reduced defence expenditure on personnel; withdrawing troops from the townships; even ending the absurd triplication of government services that the tricameral system entailed, not to mention the even more absurd replication of services through the homelands structures.

Chris Stals expressed the triumph of monetarism over Keynesianism well when delivering his first governor's address at the annual general meeting of shareholders of the SARB on 29 August 1989. Among other things, he stated that "through a disciplined monetary and fiscal policy approach … it will be possible to reduce the rate of inflation in South Africa over the next few years. The Reserve Bank commits itself to supporting the government in a concerted effort to achieve this outcome". Focusing monetary policy on containing inflation was an important feature of the entire 10 years in which he was governor, and continues to date under the ANC government, embedding continuities that have been supportive of South Africa's economic development.

Innes' (1988) observation that Botha's package represented a clear shift in government policy away from defending sections of the white working class against capitalist intervention is telling. The NP government was on its way to becoming the party of white big business because of its focus on the restructuring of state-owned enterprises, including retrenchments, in order to raise

funds for the fiscus. Eskom was asked by the minister of minerals and energy, Dawie Steyn, to investigate the possibility and the implications of the restructuring of Eskom. Eskom welcomed its planned privatisation by the government in its 1988 annual financial statements (AFS). The chairman reported that Eskom had completed an in-depth investigation and a preliminary report was prepared examining how Eskom could best be privatised, should the decision be made to proceed down that road. Because electricity supply is both complex and in the national interest, Eskom's possible privatisation needed to be addressed in terms of what was in the best long-term interest of the country, consumers, employees and potential investors, argued the chairman (Eskom, 1985-2005).

Before the 1988 Botha economic reforms, Eskom had undergone some restructuring following the recommendations of the De Villiers Commission, which were implemented in 1985. The De Villiers Commission noted the following Eskom issues: 1) Eskom's massive debt situation This was of concern to the government because the foreign portion of the debt was underwritten by the government. Eskom's domestic debt was secured by Eskom's assets. 2) Eskom's massive generation expansion programme, which resulted in unwanted (excess) generating capacity in the 1980s. This expansion programme had been put in place at great cost in a depressed economy. 3) The very high tariff increases levied by Eskom since 1980 to pay for this partly unnecessary expansion programme, which had an adverse impact on the South African economy and 4) Eskom's seeming inability to manage its power stations efficiently. There was, in addition, as a result of the points made above, widespread consumer dissatisfaction with Eskom, particularly in the manufacturing and mining sectors of the South African economy (Veck 2000, p.96; Eskom annual report 1985, p.8).

The commission concluded that Eskom was a virtual monopoly, acting as a supplier and forecaster of future electricity demand as well as the planner of future electricity requirements, and, in addition, Eskom was the largest capital investor in any industry in South Africa. The commission also pointed out that:

> The magnitude of Eskom's capital requirements accentuates the necessity for accurate load forecasts, but the responsibility for this task rests solely with Eskom. This is an unsatisfactory state of affairs, as Eskom will have to bear the blame for either an inadequate supply of electricity or for an excessive capacity (De Villiers Commission, 1985, p.14).

The commission made the following recommendations:

- A two-tier control structure should replace the existing Eskom management structure.

  The first tier was to be a board of control composed of officials from various government departments and major electricity consumers. The board of control, which, after a decision by the government, would be called the Electricity Council, was a stakeholder board composed of interest groups for overseeing Eskom's management policies and strategies. The Electricity Council was to be financed by means of a levy on the sale of electricity, (White Paper on Energy Policy, 1985, p.19). The second tier was to be an internal Eskom management board to supervise the day-to-day running of Eskom's business.

  This recommended structure was to provide a new mechanism aimed at encouraging the involvement of both government and major electricity consumers, the stakeholders, in Eskom's affairs. The Electricity Council would take responsibility for determining policy and strategy, including future growth rate estimation, Eskom's generation expansion programme as well as the effect such a programme would have on electricity tariff levels. With shareholders participating in expansion programme formulation and determining the effect of this programme on tariff levels, it would seem unlikely that programmes to electrify black households in South Africa would be sanctioned. This was because such a programme would in all probability require cross-subsidisation. Such cross-subsidisation would hardly come from the government, because of the political milieu in the country, with the government fighting an electoral rear-guard action with the Conservative Party (CP). Likewise, cross-subsidisation would not readily come from large electricity consumers, such as the mining and manufacturing sectors. This was because stakeholder representatives for these sectors on the Electricity Council would be reluctant to sanction increases in their own electricity tariff levels and thereby make themselves less competitive.

- Eskom should assume a leading role in the conservation of energy, thus preventing electricity prices from rising too rapidly and preventing Eskom from making excessive capital demands on the South African economy.

  This recommendation also made the electrification of black households in South Africa problematic, since such initiatives would undoubtedly require large capital inputs. Returns

from such projects would probably be small, particularly in the early years, and, as noted above, a degree of cross-subsidisation would also be required, which would drive up tariff levels in key sectors of the economy, such as mining and manufacturing. The consequences of this recommendation therefore echoed those of the previous recommendation in limiting electrification programmes.

- The concept of different undertakings in Eskom was to be discarded and tariff structures were to be modified so that a) The unit cost of transmitting electricity to an agreed reference point was to be determined and the cost of distribution calculated from that point to the actual consumer connection, and b) Tariffs for individual groups of consumers should be built up from mean pooled costs.

  This was a very important recommendation, both for the electrification of white-owned commercial farms and for black urban and rural areas. The recommendation essentially meant that tariffs should be nationalised and no inter-sectoral cross-subsidisation would be allowed, hence the electrification of farms and black households could not be subsidised by other types of electricity consumers and each electrification project would ideally have to be financially viable in its own right. Furthermore, the costs of supplying electricity to farms would be charged to the point of power delivery and not the nearest reference point. The significance of this last point will be made clear in the following chapter. The fact that the electrification of black areas could not be cross-subsidised by other electricity consumers effectively curtailed such electrification in the period from 1985 to 1990. In any event, for the reasons given in a) above, the government was politically constrained from cross-subsidising the electrification of black households and industry would probably object if called upon to do so.

- Eskom should in future discard the principle of operating at neither a profit nor a loss in favour of a “sound assets and income structure”, i.e., Eskom should now be managed along “business lines”. This recommendation was perhaps the most profound insofar as the electrification of black households was concerned. It was probably made with the privatisation of Eskom in mind. It meant that the electrification of black households would have to be looked upon in business terms and a return on the investment would be required, i.e., sound business principles would henceforth dominate Eskom’s management practices.

> Such a requirement would undoubtedly, at the very least, serve to curtail the electrification of black households in South Africa.

The commission went on to make a very important statement, which heralded an era of greater government involvement in Eskom's affairs than before. It said that, while Eskom was fundamentally directed towards providing an abundant supply of electricity and should have a share and play a role in the determination, application and implementation of the country's energy and electricity policies, the corporation should, however, act within the framework of the priorities and/or limitations of the government's development strategy (De Villiers Commission, 1985, p.14). The De Villiers Commission had assumed a political administration that worked in the interest of the country and somehow overlooked the fact that SOEs can be used to generate quasi rents and to build electricity capacity that results in white elephants. White elephants are newly built generation plants that are troublesome and difficult to commission or maintain, such as Kusile and Medupi in South Africa.

This recommendation on following government priorities continued at Eskom following the 1994 political transition. However, in the absence of the implementation of the development strategy since, Eskom has pursued its own interest at its expense and that of the country. This is explored in detail in the next chapters.

3.5 The restructuring of Eskom

The Electricity Act was amended in April 1985 to permit the replacement of the Electricity Supply Commission by a new control and management structure, incorporated in the Electricity Council and a management board, as per the recommendations of the De Villiers Commission. The Electricity Council was appointed in May 1985 and was chaired by John Maree, who had served on various SOE boards that were accountable to then minister of defence, P.W. Botha, before he was appointed as prime minister and, later, state president. The Electricity Council was a non-executive body. Its members were drawn from organisations representing major electricity consumers, the government and electricity suppliers. Members were appointed for their constituents' representation, specialist knowledge and skills. It was a process of institutionalising interest groups with a vested interest in the electricity supply industry (ESI) and had the potential to veto decisions that were against their interest. The council was responsible for policy, the setting of objectives, planning and control. It also appointed the management board.

The Electricity Council had 17 members led by the chairman, John Maree. They were P.J. Botes (Association of Municipal Electricity Undertakings of South Africa, city electrical and mechanical engineer, Roodepoort), Richard T. Castle (independent expert, stockbroker and director of companies), Dr J.W.L. de Villiers (independent expert, chairman, Atomic Energy Corporation), A.B. Dickman (Association of Chambers of Commerce of South Africa, senior economic consultant, Anglo American Corporation of South Africa Limited), Professor I.J. Lambrechts (Afrikaanse Handelsinstituut, professor of business economics, University of Stellenbosch), F.J. Malan (South African Agricultural Union, farmer), Dr D.C. Neethling (Department of Mineral and Energy Affairs, chief director (energy)). Dr R.A.P. Fockema (South African Federated Chamber of Industries, deputy chairman and executive director, Gypsum Industries Limited), B.J. Groenewald (South African Transport Services, deputy general manager, technical, planning and harbours), J.F.W. Haak (independent expert, attorney and businessman), Professor D. Konar (independent expert, associate professor of accountancy, University of Durban-Westville), G.Y. Nisbet (Chamber of Mines, executive director, Johannesburg Consolidated Investment Company (JCI) Limited). R.B. Savage (South African Federation of Steel and Engineering Industries, chief executive officer, electronics and engineering division, Barlow Rand Limited), Dr C.L. Stals (Department of Finance director general), R.C. Webb (independent expert, director of companies) and L.C. McRae (ESCOM, senior general manager and chairman of management board). The council met monthly. One of the council's first tasks was to appoint the management board, which was responsible for the day-to-day management of ESCOM. Ian McRae was the chief executive of the management board.

ESCOM also developed a new corporate structure, which took effect in January 1986. ESCOM was divided into 52 strategic business units, each with its own support services. Greater responsibility, authority and accountability were delegated to these units and the lines of communication to top management were shortened. ESCOM's new, decentralised structure was designed to promote efficiency and closer contact with customers. Countrywide, the corporation was divided into strategic business units, each of which, typically, had between 1,000 and 2,000 employees. They were self-contained business operations, with responsibility for the cost-effective management of the output or services required by ESCOM and also responsible and accountable for the effective management of its resources, assets and cash flow. Strategic business units reported to their respective general managers through divisional managers based at

ESCOM's head office. Service functions, which were not strategic business units, were treated as overheads to the organisation as a whole. The introduction of the new structure created insecurity among some staff members, although there was general support for the efficiency and improvement in service to customers. In order to run ESCOM more efficiently, steps were taken to reduce costs and to improve the utilisation of the assets under its control. Internal financial control, improved budgeting, and management information systems were introduced. ESCOM also proposed to change its financial reporting from fund accounting to conventional business reporting.

John Maree notes the challenges that had faced ESCOM in the 1985 annual report:

> The past few years have been difficult for ESCOM. lt has had to contend with mounting criticism of its financial and operations management and of its relations with customers. The corporation's image had suffered and it was largely forgotten what a fine technical organisation ESCOM is and what a great service it renders to our country. It is our firm intent to rebuild the good name of ESCOM, but we know full well that, to do so, we will have to render a superior service. The achievements of an organisation are no more than the sum total of the achievements of its people. It is imperative that each one of us here at ESCOM achieves a high standard of performance. This is what we are striving for (Eskom, 1995).

The most difficult task facing the management board concerned excess labour. The labour force needed to be reduced by 10% – a figure agreed on after extensive consultations throughout ESCOM when it became clear that productivity and cost considerations required a concerted effort to establish a leaner organisation. By offering generous early pensions and benefits to older employees and putting a bar on recruitment, employee numbers were significantly reduced. Later in the year, it became clear that the emerging excess of generating capacity would necessitate further staff reductions and, after consultations with the trade unions and employees, favourable separation packages for 3 600 people were negotiated (ESCOM annual report, 1986).

Eskom led in transformation even before it became legislated after 1994. In 1986, ESCOM accepted the challenge of developing skills and affirmative action, in preparation for a new political order. In the 1986 annual report, the chairman of the Electricity Council, John Maree accepts that the white population alone will not be able to meet ESCOM's skills requirements

and South African business should urgently accept the need for a massive and sustained commitment to the education and training of black entrants to the workforce, on the one hand, and the training and upliftment of employees already in the system, on the other. In 1986, black managers comprised less than 3% of the management corps. John Maree committed ESCOM to a ten-fold increase over the next decade to enable it to function efficiently.

The restructuring of ESCOM in 1986 also led to the creation of a customer-centric SOE. ESCOM allowed a greater degree of flexibility on tariff structures, quality of supply, plant maintenance and improved power systems. It established 61 district management offices for customer interaction. Furthermore, ESCOM introduced a demand-side management programme as part of an integrated marketing approach for its product, looking not only at the efficient and cost-effective supply of electricity, but also at the efficient and cost-effective use of electricity. The De Villiers Commission had also recommended energy conservation. ESCOM started a programme to educate customers and encourage them in the wise and efficient use of electricity by undertaking a customer survey among all categories of customers in order to identify specific needs and gaps in ESCOM's service. The results confirmed that there was a general need for expert advice on electricity use and application.

After many years during which South Africa and some of its SOEs, such as ESCOM, had seen themselves as African with western currency, in 1987, along with changing its name, Eskom shifted its focus from its existing market towards its potential for future growth. Eskom highlighted its electricity relations with Namibia, Zimbabwe and Mozambique through the electricity trade exchange among the three countries. However, it became obvious to the Eskom leadership that they could not champion their African-ness without meeting domestic demand, particularly from black South African households. In Eskom's 1987 annual report, the entity articulated its broader vision for Southern Africa by arguing that economic development could solve many of the problems facing the region. Its stated belief was that electricity had a key role to play in the transformation of the continent as expressed in this statement:

> Electricity supply is capital intensive and few countries have the funds or the expertise to upgrade their present, often inadequate, supply systems. Eskom has the expertise and the capacity to supply much of the electricity required for further economic development in these countries. Once they are able to expand their own electricity infrastructures, they can export electricity to South Africa by exploiting abundant and relatively inexpensive

> hydro resources, as at Cahora Bassa in Mozambique. In this way, cooperation between countries in Southern Africa on energy affairs, similar to that found in Europe, can be established (Eskom annual report, 1987, p.3).

Eskom attempted to broaden its footprint in the southern African region. With only 40% of the South African population of 35 million people having access to electricity, Eskom's chief executive, Ian McRae, announced a scheme aimed at assisting local authorities to speed up the electrification of at least 60 townships, which would bring electricity to an additional three million people by 1992. Eskom proposed to halve installation costs by simplifying the technical specifications, which were too elaborate for the needs of the developing part of the country's population, without compromising safety standards. Ian McRae's ambition roved beyond South African borders, as he noted that the gap between the electricity haves and have-nots in southern Africa was even greater than in South Africa. Out of a total population of nearly 80 million, it was doubtful whether 18 million, less than 25%, had access to electricity. This presented an expansion opportunity for Eskom.

In 1987, the Eskom Act was introduced. The Act scrapped section 6(4) of the 1922 Electricity Act which specified that electricity should be supplied "in the public interest" and that the Commission's operations should be carried out "neither at a profit or loss". This specification was replaced by the wording: "to provide the system by which the electricity needs of the consumer may be satisfied in the most cost effective manner subject to resource constraints and the national interest" (Gentle, 2009, p.50). There was also a name change from ESCOM to Eskom, as well as the introduction of new accounting policies and practices.

ESCOM had used the fund accounting convention and did not depreciate its fixed assets, but instead amortised the loans used to finance them. The amortisation of local loans was achieved on a sinking fund basis through the Redemption Fund. Contributions from tariff income were credited to the fund and these ensured that sufficient finance was available for the redemption of local loans. Separate provision was made for the repayment of foreign loans which had become substantial by the 1980s. In addition to the Redemption Fund, a Capital Development Fund and a Reserve Fund provided further internal financing. Amounts subject to a limit in terms of the Electricity Act could be credited annually to these funds. The Capital Development Fund was used to finance part of ESCOM's capital expansion and the replacement of assets taken out of

service. In respect of the latter, it provided for the difference between historical cost depreciation as implied by the Redemption Fund operation and replacement cost depreciation.

The Reserve Fund was used to finance expenditure for the betterment of plants, exceptional repairs or emergencies. It was also used, to a limited extent, for self-insurance purposes, thereby reducing expenditure on insurance premiums. The money in these three funds was invested either in ESCOM stock or in other prescribed investments, and the interest earned provided additional sources of finance.

Buoyed by a record gold price and the low cost of international borrowing resulting from flush petrodollars, ESCOM had become the biggest borrower of medium-term funds abroad, with that year's borrowing alone being close to R2 billion (Gentle, 2009). In 1983 the country received a negative International Monetary Fund (IMF) report, and in 1985 declared a moratorium on debt repayment. SOEs' debt became an albatross around the neck of the apartheid regime catalysing political change and economic reforms.

The fund accounting convention was abandoned before the implementation of the De Villiers Commission recommendations in the presentation of its financial statements, in favour of depreciation accounting. Eskom established study groups to prepare detailed reports and recommendations in preparation for its privatisation as per the De Villiers Commission recommendations. These groups comprised Eskom executives and consultants from the private sector and covered areas including legal and human resources issues, options regarding the structure of the privatised Eskom and the implications that privatisation could have for financing and tariffs. Eskom saw inflation and the dominant role of the public sector in the total economy as the two factors which would influence the future economic growth of South Africa. Moreover, Eskom welcomed State President P.W. Botha's economic package to deregulate the economy, privatise state and semi-state corporations, increase productivity and reduce the inflation rate.

As Botha was announcing his economic package, which included privatisation, Eskom was developing a plan for deploying its excess capacity, which was available for distribution. Excess capacity had started building up after the second world war and continued to do so until the late 1980s. In 1988, about 61% of Eskom's electricity was sold directly to mines, industry, commerce, rural and domestic customers and the railway system. The rest was supplied to municipalities and neighbouring countries, which resold the electricity to end users in their areas.

Eskom expected electricity demand to grow at between 4% and 5% per year until at least the turn of the century. Much of this growth was to come from the electrification of black towns and rural areas, and from the rapidly expanding informal economy.

Eskom had been anticipating changes for some time following the De Villiers Commission report and had focused on reducing costs and improving productivity. In the 1986 Eskom annual financial statements, the chairman is reported to have said that Eskom was firmly on the path to establishing an efficient, well-managed business as per the recommendations of the De Villiers Commission, with a clear emphasis on becoming a meritocracy rather than a bureaucracy (Eskom, 1970-2002).

In response to a request by the minister of mineral and energy affairs and public enterprises, Danie Steyn, a study on the privatisation of Eskom was submitted to him on the likely financial consequences if Eskom were to become a taxable entity (Eskom, 1970-2002). However, nothing came of it, as political events overtook the decision. On 2 February 1990, President F.W. de Klerk announced the release of all political prisoners including Nelson Mandela, and the unbanning of the ANC, the South African Communist Party (SACP) and the PAC, and the lifting of the state of emergency.

In its 1990 annual financial statements, Eskom states that it supports a new, democratic, outward-looking South Africa. The goals of bringing affordable electricity to all and joining a sub-Saharan interconnected grid were closer to becoming reality. Eskom was feeling the winds of change. Apartheid had buttered Eskom's slice on the one side and it believed it could have it buttered on the other side if it got its act together to play the politics of transition. Eskom's leadership understood that the perceived Keynesian or dirigiste leaning of the ANC would oppose any attempts to privatise Eskom as per the mandate given to John Maree to implement the recommendations of the De Villiers Commission.

The ANC's economic positions, which were brought to the public in 1990, following an economic debate, contained a critical statement on SOEs (cited by Veck, 2000, p.197).

> "Public corporations operating in such areas as electricity supply all provide major inputs to development through an infrastructural base. A future government will need to transform the public sector into a vehicle for development."

This statement confirmed that the commanding heights of the economy were critical to the ANC. However, arguably, development for the ANC meant universal access to basic services, which were denied to the majority of South Africans. The ANC's approach appeared to be loaded by a view that there were sufficient state resources to effect universalism. The ANC/Cosatu Proposals for an Economy Beyond Apartheid also released the following statement (cited by Veck, 2000, p.197): The transformation of the economy will require a viable state sector. Nationalisation would be an essential part of the reconstruction programme of such a state.

This statement by the ANC/Cosatu alliance was in contrast to the proposed National Party reforms that had been articulated by Botha in 1988 and was void of a realistic appreciation of the depth of the economic problem that South Africa was experiencing. In 1989, the ANC had released a document authored by Laurence Harris titled The Mixed Economy of a Democratic South Africa which he presented at a colloquium held in Switzerland. In the paper, Harris (1989) posits that two points underlie this discussion of the mixed economy:

> The first is that the existing system is a 'mixed economy oriented toward capitalism' (I) and it could be argued that the ANC's strategy is to build a 'mixed economy oriented toward socialism'. But the existing mixed economy is not simply oriented toward capitalism. It is oriented toward the special African form of capitalism which is based on apartheid, and the ANC's aim is to construct a mixed economy which overturns the economic basis and effects of apartheid. That aim will involve root and branch changes and will involve economic restructuring on a scale comparable to the post-war restructuring of Europe (Harris, 1989). The second is that South Africa's future economy cannot be considered from the point of view of its internal effects and dynamic alone, for South Africa cannot escape the influence of the world economy or its position in the southern African region. (Harris, 1989, p.1)

Harris (1989) indicated the Keynesian roots of the ANC and its leaning towards using the commanding heights of the economy to achieve a better life for all. However, the ANC also showed a lack of appreciation of how serious the economic crisis was that had forced the apartheid regime to negotiate a democratic order. Had the apartheid regime had enough financial resources, given its military strength at the time, it is debatable as to how long they would have held on. It had no international allies who supported the apartheid project (Posel, 2011) and the

domestic business community was calling for changes due to labour militancy and lost production as a result of community uprisings, which prevented workers from getting to work as a result of spatial apartheid. This will become clearer when I discuss the economic policy of the democratic government.

Eskom's business strategy to electrify black townships and rural areas also enjoyed favour with the NP leadership. Veck (2000) argues that De Klerk's leaning on Eskom to electrify black households sealed the deal for the corporation and indicated that De Klerk was preparing South Africa for an eventual political takeover by the ANC. Was the political takeover inevitable or was he just doing what was just and right, given the failed apartheid project? Believing in a mixed economy as articulated by Harris (1989) above was one thing, but practically navigating different interest groups that had other ideas was another. The ANC department of economic policy (DEP) under the leadership of Trevor Manuel was to play a critical role in articulating the ANC economic position and its approach to Eskom and electrification.

One of Trevor Manuel's interventions was at a national meeting on the electrification of black households, which the ANC had organised. The national meeting on electrification was funded by the Swedish International Development Cooperation Agency (Sida) and took place at the University of Cape Town in February 1992 and was chaired by Ketso Gordhan, as cited by Veck (2000). The ANC, led by Trevor Manuel, who was a keynote speaker, was able to articulate its position. Veck (2000) observes that also in the meeting were representatives of the ANC's DEP, regional executives of the South African Communist Party, representatives of regional development forums, civic organisations, trades unions, local government, municipal electrical engineers, Eskom, the South African Chamber of Business, the Development Bank of Southern Africa, academics from various universities, electrical contractors, representatives of the Association of Consulting Engineers and certain service organisations such as the Farm Workers Research and Resource Project (Veck, 2000). Each of these interest groups had an agenda and required a lot of convincing if a settlement was to be achieved.

However, the government was not represented at the meeting, prompting Trevor Manuel to say in his keynote address, as cited by Veck (2000, p.198):

> In a letter addressed to me, the minister of mineral and energy Affairs, George Bartlett, said: As indicated by the director general, Dr P.J. Hugo, the department of mineral and

> energy affairs is currently undertaking an investigation into appropriate structures for electricity distribution in South Africa. These investigations initiated by the National Energy Council in 1991, are not yet complete. The director general is therefore not in a position to attend.

Manuel was clearly worried that the government was restructuring the electricity supply industry without consultation with the ANC, which by now held a different position regarding the future of SOEs. He went on to say: "We will identify the weakness from our own perspective; we will serve them up on terms favourable to ourselves; then we will inform you; and if the ANC manages to get into power, then there will be nothing left to restructure" (Veck, 2000, p.198).

The ANC believed that the restructuring of the electricity supply industry was a political programme to undermine a democratic government. In the minds of the ANC, as articulated by Trevor Manuel above, the electrification of black households was of a higher priority than the development of a low-cost, efficient and competitive economy. In fact, the ANC saw the unfolding process led by Eskom and the NP as an unjust transition and, by not pushing through the recommendations of the De Villiers Commission, postponed a key decision of restructuring Eskom into three separate businesses, each with its own governance, financial independence and within its own regulatory regime. The postponement of the dissolution of the vertically integrated state monopoly power utility, Eskom into three businesses, namely, generation, transmission and distribution haunts South Africa today (This is explored further in chapters 5 and 6).

It is well documented that Eskom had always been controlled and used systematically to the advantage of the white minority at the expense of the majority. With respect to electricity supply, Trevor Manuel reiterated that it had served mining and industry and the well-being of the majority of South Africans had never featured in its planning. Furthermore, that electricity had been used to disempower the majority, and that Eskom had sufficient generating capacity to supply everyone in South Africa with electricity without having to build one further power station, but that 70% of the people in South Africa did not have access to electricity, which amounted to about 27 million people (Veck, 2000). The ANC, through Trevor Manuel, was beginning to accept the MEC as articulated by Fine & Rustomjee (1996) and really did not appear to have ideas at this stage for a new, inclusive, rapidly growing economy. Arguably, this

explains why the South African economy has been path-dependent and has been caught in the middle-income trap (Bhorat, Cassim & Hirsch, 2014).

Three principle issues were debated at the ANC's national meeting on electrification:

- The restructuring of the electricity supply industry (ESI);
- The capacity to plan and implement electrification projects; and
- The problems of financing electrification initiatives.

The fragmentation of the electricity supply industry was identified as a major cause of the failure to make electricity available and affordable to all the people of South Africa, even taking into account the government's reform initiatives. This has continued and will be discussed in detail in chapter 6. In 1992, Paul Theron of the Science and Technology Group of the ANC placed the blame for the status quo on "the policies of racial segregation and separate development pursued by successive white minority governments in South Africa (and) the formation of a number of quasi-independent homeland states in the 70s and the establishment of a parallel system of black local authorities in urban areas in the 1980s" (Theron, 1992, p.12-13).

According to Dingley (1990) of the University of Cape Town, who dealt with "Institutional Frameworks for the Electricity Supply Industry" at the ANC national meeting, the highly fragmented ESI had three major drawbacks: inefficiency, electricity tariff differentials between black and white consumers and the inhibition of the flow of resources needed to supply the 30 million people who, in 1992, did not have access to electricity. Dingley (1990) also made the very important point that the South African ESI had been designed in the 1920s to meet the needs of that time and even when stripped of "its apartheid debris" he questioned whether the ESI in its current form possessed the right structure to take South Africa into the future, (Theron, 1992, p.21). Veck (2000) noted that other speakers had also identified the fragmented structure of the ESI in South Africa as a major problem curtailing the electrification programme and there was agreement that some kind of rationalisation was called for. Debate centred on what form this rationalisation should take and the timeframe for undertaking a rationalisation process to avoid delays in the electrification programme (Veck, 2000).

Ketso Gordhan, who chaired the ANC national meeting, said in his summary of this topic that, the resources were available to electrify black households and that the meeting had shown that

the key "constraint to planning and implementing a national electrification initiative was the lack of political will" (Theron, 1992, p.203; Veck 2000, p.201). Gordhan's advice to the meeting on how to overcome this shortcoming was ominous; he said that if regulation failed, then mass action should be used. The financing of electrification initiatives, would, according to Theron, cost about R800 million per annum (1992 Rands) (Theron, 1992, p.17) or 1% of the government's annual public works budget. Like other members of the ANC present at the meeting, Theron advocated the involvement of others beside the central government in financing the programme to electrify black households in South Africa. He cited Eskom's positive net income from 1981 to 1990 and the capital resources accumulated by Eskom as a source of electrification funding (Theron, 1992, p.205). The Cape Town meeting led to institutional changes.

3.6 Institutional changes and electrification – The National Electrification Forum (NELF) and the establishment of the National Electricity Regulator (NER)

The NELF was charged with recommending ways to accelerate the electrification of black households in South Africa and was representative of all stakeholders in the South African ESI, consisting of members from the ranks of government (national, provincial and local) political parties, businesses, electricity consumers, trade unions, civic associations and, of course, Eskom. Despite the criticisms of Eskom voiced at the ANC's meeting on electrification, Ian McRae was appointed chairman of the NELF. This appointment rather demonstrated the importance of Eskom in the electrification process (Veck, 2000). All the NELF documentation has been archived and is housed at the National Electricity Regulator of South Africa in Johannesburg.

The structure of the NELF was as follows:

- A plenary in which about 75 stakeholder groups were represented and which was responsible for ratifying decisions taken by the NELF and for providing strategic input to working groups established to undertake research on particular issues of importance to the electrification programme;
- A management committee consisting of the key stakeholders, which was responsible for the overall management of the NELF and served as a decision-making body; and
- The working groups themselves. These groups were charged with making recommendations to the management committee, (NELF, 1994 (a)).

The various working groups investigated the following issues:

- The restructuring and regulation of the ESI;
- Financial issues affecting the restructuring of the ESI, including the question of electricity charges between Eskom and municipalities:
- Human resources issues arising from the restructuring of the ESI; and
- The end use of energy and environmental issues.

The restructuring of the fragmented ESI was an overriding consideration of the NELF (Dingley, 1990) since unless this issue could be resolved, it would become difficult to put in place an efficient co-ordinated electrification programme. Without a coordinated approach to the problem, disparate attempts at electrification would result. The link between the structure of the ESI and regulation was of critical importance in relation to a particular industrial structure. Factors such as the ownership of the entities within the ESI and the economic power (e.g. monopoly) that they would possess would be important. Additionally, the question of whether competition could be allowed within the ESI and how this would affect the electrification programme, would have to be answered. Such issues would have an influence on the nature and extent of the regulatory framework that it was hoped would be established. Furthermore, any regulatory framework that was established would have to be flexible and yet robust, if it was to be successful in the changing political and economic milieu of South Africa.

The recommendations of the restructuring and regulation working group were completed in 1994. They are discussed below:

3.6.1 Recommendations on the restructuring of the ESI

3.6.1.1 The ESI should remain under public ownership

Although it was recommended that the ESI should remain under public ownership, it was also recommended that the state should not be directly involved in the supply of electricity. This meant that the appropriate legal form of supply could be either parastatals (incorporated

in terms of legislation) or local government electricity departments. This decision was made on the following grounds:

- Privatising the ESI was not politically acceptable;
- Eskom was now considered to be providing an acceptable service;
- Private electricity utilities would not readily undertake an electrification programme with the same enthusiasm as a public utility, i.e., Eskom;
- The privatisation of Eskom, or parts of Eskom, would result in increases in the price of electricity. There were, it was considered, many reasons for this, including the duplication of assets. A privatised entity would also be liable for income tax and it would, of course, have to pay dividends to its shareholders. All these issues would militate against a national electrification programme; and
- Privatisation would not necessarily bring the significant gains in efficiency necessary to offset the probable increase in the price of electricity, because it was considered that Eskom was now well managed, technically sound and financially healthy.

3.6.1.2 The ESI should remain under stakeholder control

The view here was that the ESI should be supervised by councils appointed by stakeholders. Such councils should include representation from central government, local government, electricity consumers and trade unions.

3.6.1.3 Competition within the ESI was not possible, nor was it desirable

It was considered that there would be minimal economic benefit in allowing competition within the ESI (particularly insofar as the generation of electricity was concerned), taking account of Eskom's excess generating capacity. Competition, like privatisation, would act as a limiting influence on a national electrification programme.

3.6.1.4 An appropriate governance framework should be put in place for the ESI

This was decided upon because the NELF concluded that the lack of a proper governance framework for the ESI in the past had contributed materially to its unsatisfactory

performance, particularly with regard to the electrification of black households in South Africa. The NELF did not, however, finalise its proposals on the governance issue.

3.6.1.5 There should only be one electricity supplier per local government area

This decision was made because many of the problems concerning electricity supply that had beset South Africa, including the problems attached to the electrification of black households, had been occasioned by having several different electricity suppliers supplying power within one economically-tied area, for example, Johannesburg and Greater Soweto. Where a new local government council (formed by the consolidation of previously separate "white" and "black" towns) applied to supply electricity directly, it would henceforth have to supply the new area in total. An applicant would no longer be able to elect to continue to supply white consumers only and request Eskom to provide electricity to "black" areas. Where the new council was not able to effectively supply the whole area, Eskom would take over the supply of both "white" and "black" areas. This would alleviate some of Eskom's problems concerning access of supply to some areas in the country.

3.6.1.6 Acknowledgement of the rights of local governments

Central to the NELF's work was the acknowledgement of the key role that local government would in future play in the provision of services, particularly the supply of electricity to black households. The NELF was also aware of how important the contribution of electricity tariffs was to local government finance. In fact, without the financial contribution from electricity, most local governments would not be able to provide other services. The NELF accordingly confirmed the following:

- The supply of electricity within the areas of local government should be under its control, although this would not mean that local governments would have to provide that electricity;
- Local government would be entitled to receive some financial compensation from the supply of electricity within its area, subject to national norms; and
- Local governments would have to approve the electrification programme for bringing power to black households within their jurisdiction and ensure that the electrification

programme was integrated into plans for the provision of other services. There was recognition that the ESI needed to be nationally controlled and coordinated. This decision revolved around the fact that electricity was vital to economic prosperity and social upliftment, and therefore the provision of electricity at the lowest possible cost was critical in achieving these aims.

3.7 Recommendations on the regulation of the ESI

With respect to the regulation of the ESI, the Electricity Control Board established in terms of the original Electricity Act was supposed to have acted as a regulator of electricity supply in South Africa since 1922. Because of the dominant position of Eskom in the South African ESI, the Electricity Control Board (ECB) had, according to the NELF, little influence on the ESI, hence it was ineffective as a regulatory body (NELF (a), 1994, p.26). The NELF considered the purpose of regulation to have three dimensions: economic regulation, legal regulation and social regulation. Specifically, the purpose of economic regulation was to:

- Ensure that the regulated entity carried out its business in an efficient and effective manner;
- Ensure that the regulated entity did not exercise discrimination among the different classes of consumers in its electricity tariffs; and
- Ensure that the regulated entity achieved similar financial returns to those that would be achieved by a similar entity subject to market forces.

The purpose of legal regulation was to ensure that the laws governing electricity supply in South Africa were not broken, for example, with regard to such items as safety regulations and land expropriation for public purposes, such as the building of a power station. With regard to social regulation, this would ensure that the regulated entity met social objectives, principal amongst these being the electrification of black households in South Africa, (NELF (b), 1994).

These, then, were the minimum regulatory requirements for the ESI as the NELF saw them. As a consequence of these requirements, the NELF recommended placing the “whole ESI under the oversight of a national regulator”, (NELF (a), 1994, p.26). Legislation could then be prepared to either put in place a new regulatory authority i.e., a national electricity regulator (NER) or to amend the Electricity Act to give greater powers to the Electricity Control Board. In the event, the first option was chosen.

3.8 The restructuring of Eskom

In 1991, Eskom was restructured. This restructuring "was designed to support the electrification programme and accelerate harmonisation with the country's changing socio-political climate", (Eskom annual report 1991, p.8). The mood among Eskom's executive with regard to the electrification of black households at the time of the restructuring process was summed up in a statement made in Eskom in Perspective (1991, p.16), which stated that "every household has a need for energy (as cited by Veck, 2000). Electricity is the cheapest source of energy, outstripping coal, gas, paraffin and candles. Also, the customer has to invest time and money into bringing the latter forms of energy into his home. The question is no longer whether the poor can afford to have electricity. The question is: can the poor afford not to have electricity?"

Four line functions were created in the restructuring: generation, transmission, sales and customer services, as well as, and of the utmost importance to Eskom's electrification programme, a marketing and electrification group under an executive director, A.J. Morgan, who was to become Eskom's chief executive officer after Dr McRae retired in 1994. Within this group, a national electrification planning division was established. Finance, human resources and technology (engineering) became staff functions. The restructuring exercise was to take place over several years and be refined in the process. To make Eskom's task of electrifying black households in South Africa easier, the corporation's 12 distribution regions were reduced to five: Bloemfontein, Cape Town, Durban, Johannesburg and Pretoria. This reorganisation seemingly concentrated on Eskom's public sector role, unlike the reorganisation of 1985, when the private sector role was emphasised, with the possibility of privatising Eskom being an important consideration in the way the corporation was restructured at that time.

Eskom also committed itself in the discussions on the RDP to electrify more than 1,700,000 households by the year 2000.

3.8.1 Generating plant requirements

In 1990, Eskom reported having 4,686 MW of excess generating capacity available, (Eskom annual report, 1990). In actual terms, this amounted to over 9 x 500 MW generating sets or 1.5 Kriel power stations, Kriel being the first of Eskom's "new generation" superpower stations to be completed. This excess generating capacity could be used for supplying electricity to black

households in South Africa without a new power station being built. The generating plant brought into service in 1990 included the final turbine-generator set at Letaba power station, thus bringing to completion another major power station in Eskom's massive generation expansion programme, which the corporation had embarked on in the mid-70s.

In the years between 1990 and 1995, the generating plant on order by Eskom began to diminish as new power stations were brought forward to completion. By 1993, only the Majuba power station was still to be completed. In 1994, Eskom decommissioned six of its older, smaller power stations. Even after this decommissioning programme, Eskom was left with some 2,720 MW of excess generation capacity. In 1995, the only plant on order by Eskom was for the Majuba power station, situated at Volksrust, (Eskom annual report, 1995). Majuba was the last of the power stations ordered by Eskom under the corporation's massive generation expansion programme of the late 70s, 80s and 90s to serve a demand for electricity that ironically materialised only in part.

3.9 Summary

In this chapter, I have discussed how, under different circumstances, international links may offer opportunities which may advance the potential of national economic and political strategies. I have shown how the international links changed during a deeply rooted crisis as a result of changes in the international financial and monetary system and in the accumulation strategies and institutional and political structures of individual nation states, which imposed constraints and resulted in institutional changes.

The NP's failed apartheid project forced the government of the day to adopt market-friendly policies and proposed the privatisation of key SOEs. I discussed the implementation of the De Villiers Commission's recommendations, with their customer-centric focus and plans to extend Eskom's market domestically and in southern Africa. Botha's economic package, which focused on deregulation and privatisation to reduce the state's role in the economy, was also presented.

However, the political transition seems to have overtaken all these plans. I discussed how, in a political transition, social processes lead to new interest groups emerging and making claims on the transition process. Business entered into an implicit bargain with the ANC (Zalk, 2017). For business, the "hands off the economy" approach of the ANC would provide an opportunity to unbundle and create value for shareholders, including by going offshore (Zalk, 2017; Mohamed,

2019). The ANC's Keynesian and dirigiste approach, which espoused state ownership of the commanding heights of the economy, postponed the implementation of the De Villiers Commission's recommendations and the ANC found itself in agreement with the NP and Eskom leadership in promoting the electrification of townships and black rural areas, including those in the homelands. The ANC believed that business would play its part by investing and creating employment opportunities (Zalk, 2017). However, the ANC was in for a shock as will be discussed in chapter 4.

In the next chapter, I focus on the political economy of a new democratic dispensation in South Africa and the restructuring of Eskom, Part 2.

CHAPTER 4: MACROECONOMC POLICY, CONTINUITIES AND THE RESTRUCTURING OF ESKOM: 1995-2003

Eskom is particularly well-placed to provide developmental infrastructure on the continent that will help change both the reality and perception of the African condition. We are dedicated to contributing to Africa's economic recovery; we are committed to bringing light and enlightenment to our beloved continent (Eskom, annual report, 2002, p. 24).

4.1 Introduction

In this chapter, I focus on the political economy of the new democratic government and the ANC's Damascene conversion to Washington consensus policies of an open market economy and, crucially for my account, the restructuring of Eskom. I argue that the 1996 Growth, Employment and Redistribution (GEAR) macroeconomic framework was a significant shift from the ANC's former philosophy. The ANC's mission had been the seizure of political power and the ANC believed that it could implement its own version of a structural adjustment programme (SAP) and get away with it, since it had secured the high prize, political power. Further, I argue that the ANC did not expect that the 1998 white paper on energy, presented in preparation for Eskom's privatisation, would touch the nerve of its alliance partners, such as the SACP, Cosatu and the South African National Civic Organisation (SANCO). These interest groups effectively vetoed Eskom's restructuring.

Furthermore, if the apartheid project, as described by Posel (2011), had an international currency, the ANC had its own project, particularly under Thabo Mbeki. Theirs had an African currency of "enlightenment", espoused by Mbeki and termed the African Renaissance (Mbeki, 1998). I show how the African Renaissance was aligned to Eskom's strategy, which had been initiated by John Maree and sustained by Ian McRae. Now it continued under a black leadership given space to reimagine Eskom in private hands, particularly the historically disadvantaged South Africans whom the ANC had identified as a necessary ally in deracialising South Africa's white-controlled economy.

In conclusion, I argue that the ANC's adoption of a developmental state approach scuppered Eskom's plans to implement a just transition to a low-carbon entity and a diversified sociotechnical system business.

4.2 The ANC's Damascene moment

Following the release of political prisoners, including Nelson Mandela, debate over economic policy for "the new South Africa" took place in various workshops, conferences, seminars and publications, organised by different organisations inside and outside South Africa (Gelb, 2006; Mondi, 2006)). In these gatherings contemporary versions of the Washington Consensus, often by representatives of Bretton Woods institutions, were presented (Gelb, 2006; Mondi, 2006). This view is tested by Padayachee and Fine (2018) with reference to the 1993 IMF Compensatory and Contingency Financing Facility (CCFF) of US$850 million that was extended to the Transitional Executive Council (TEC), but was not drawn down by the ANC-led government after 1994, despite popular perceptions to this effect. Padayachee and Fine (2018) do not doubt that the IMF and World Bank would have used moral suasion to argue against any sort of socialist or communist model for a post-apartheid economy (that was, after all, to be expected), since both institutions had already become very active in South Africa in the early 1990s after a long absence. The authors argue that the role of the IMF loan in the policy shift is at most symbolic, not causal. Arguably, moral suasion and nudging inevitably led to influencing the resulting policy specifics, however marginally (Padayachee & Fine, 2018).

The Institute for African Alternatives (IFAA)[7] played a critical role in pushing back against the Washington Consensus during the transition because the harsh policies imposed by the Bretton Woods institutions and poor governance in many African countries had resulted in a decline in living standards and quality of life for many (Turok, 1990). It organised workshops and demonstrations to highlight the plight of many African countries that had suffered as a result of

[7]The IFAA was founded in London in 1986 by radical political economists Prof. Ben Turok (SA), Prof. Abdoulaye Bathily (Senegal), Prof. Shepherd Nzombe (Zimbabwe), Prof. Mahomed Suleiman (Sudan), Prof. Bade Onimode (Nigeria) and Prof. Haroub Othman (Tanzania).The IFAA had centres in six African countries and the institute cooperated with the United Nations Economic Commission for Africa and the Organisation of African Unity (OAU). Prof. Turok re-established the IFAA on his return to South Africa from exile, first in Johannesburg and later in Cape Town, where he served as member of parliament until he retired in 2014.

the IMF and the World Bank's structural adjustment programmes (SAPs). The relaxation of exchange controls, which led to the abolishing of the two-tier exchange rate, resulted in foreign banks establishing branches since legislation had been passed that deregulated the Johannesburg Stock Exchange (JSE) by opening it to foreign security dealers (Gelb, 2006; Mondi, 2006). These were seen by the IFAA as part of the implementation of the SAP. Both Moody's and Standard and Poor's included South Africa in 1994 in their ratings following the government's floating of a US$750 million international bond issue (Gelb, 2006; Mondi, 2006). Kasrils (2013)[8] argues that the loan had strings attached. However, Padayachee and Fine (2018) show that a key feature of the CCFF was that it carried minimal or no conditionalities. Thus the story of 'conditionality' is a mythological and widely held view in popular discourse, without any evidence, according to Padayachee and Fine (2018). Therefore, Kasrils' (2013) view that the CCFF precluded a radical economic agenda, which the ANC leadership considered a necessary evil to keep negotiations on track and take delivery of the promised land, is not supported by evidence as presented by Padayachee and Fine (2018). Kasrils' (2013) further explanation that doubt had come to reign supreme in the ANC is persuasive:

> We believed, wrongly, there was no other option; that we had to be cautious, since by 1991, our once powerful ally, the Soviet Union, bankrupted by the arms race, had collapsed. Inexcusably, we had lost faith in the ability of our own revolutionary masses to overcome all obstacles. Whatever the threats to isolate a radicalising South Africa, the world could not have done without our vast reserves of minerals. To lose our nerve was not necessary or inevitable. The ANC leadership needed to remain determined, united and free of corruption – and, above all, to hold on to its revolutionary will. Instead, we chickened out. The ANC leadership needed to remain true to its commitment of serving the people. This would have given it the hegemony it required not only over the entrenched capitalist class but over emergent elitists, many of whom would seek wealth through black economic empowerment, corrupt practices and selling political influence.

In 1994, the ANC leadership did not have a macroeconomic blueprint to implement, even though the organisation had commissioned one of its research think tanks, the Macroeconomic Research Group (MERG), to produce one. The ANC rejected the recommendations of its own think tank (chaired by the head of its own department of economic policy), to the disappointment of many

[8] https://www.theguardian.com/commentisfree/2013/jun/24/anc-faustian-pact-mandela-fatal-error.

academics who had played a critical role in the anti-apartheid movement and the liberation struggle (Padayachee & van Niekerk, 2019). The ANC had, in the late 1980s, started developing its economic ideas from the 1990 Harare Minute into the Reconstruction and Development Programme (RDP). The MERG was led by Vella Pillay and included researchers and authors such as Ben Fine, Laurence Harris, Vishnu Padayachee, John Sender, Jonathan Michie, Gerry Helleiner, John Loxley, Benn Ndulu, Alice Amsden, Diane Elson and about 80 other local and international economists and social scientists. Although a lot of concrete ideas had come out of these documents, nothing was owned and adopted by the ANC. Bill Freund (2013) and Terreblanche, (2015) emphasised that the role of South African business and, in particular, the regular meetings at the Anglo American Corporation (AAC) Brenthurst Library between the doyen of South African business, Harry Oppenheimer, and Nelson Mandela, might have played a role in this. Freund (2013) stressed the complementary role of the series of corporate scenarios: One from Old Mutual/Nedcor, a second from Sanlam, and the Mont Fleur bird flight simulations of August 1992 (cited by Michie & Padayachee, 2018). Then, there was the role of the Consultative Business Forum (CBF), an interest group set up by liberal and progressive local business leaders, whose aim was to engage the ANC on the economy (Michie & Padayachee, 2018).

These interactions and the ANC's reluctance, as described by Kasrils above, to force business to an economic compromise, side by side with the political compromise, lend support to the view that the ANC's ultimate prize was political power. Thabo Mbeki, Tito Mboweni, Zav Rustomjee and Alec Erwin, to name but a few, were economists trained by the ANC, SACP and Cosatu with vast experience across many areas, but, for some reason, they all got entangled in the war position and movement within the ANC and its allies, as well as the presence of Mandela. Arguably, they all got caught up in doing their jobs. For example, Zav Rustomjee (of Fine & Rustomjee, 1996) knuckled down to deal with the abuse of various incentives in the Department of Trade and Industry under the leadership of Trevor Manuel and later Alec Erwin. This focus on the job, the restructuring of the state and the political economy of transition, as told by Kasrils, overshadowed the debate and development of an economic plan. This lends itself to the argument that, once the ANC had its hand on the big prize of political power, macroeconomic policy and economic management became a sideshow which was expected to be resolved by the incumbent ANC presidential deployee.

The failure to take advice from economic experts such as the MERG lends credence to the perspective that the ANC's ultimate goal was the seizure of political power rather than resolving the economic injustices that are reflected in South Africa's high levels of poverty, unemployment and inequality. The dearth of economic knowledge and love of political power in the current ANC is no better articulated than by Nomvula Mokonyane, a senior leader of the party who put her case in popular, clear and understandable language, to great applause from those in attendance at a political rally held in Ekurhuleni, east of Johannesburg:

> Save South Africa and any other person, even *nase mingcwabeni* (at funerals), people never said a thing. *Fakiyani ingane ye*ANC (when it is the ANC), then people start talking about *ukuthi cha! iRandi lizowa* (that the rand will fall). *Be liphantsi, maliwe, sizolicosha* (the rand has been low, let it continue falling, we will pick it up) (Madia, 2017).

Jonathan Michie and Vishnu Padayachee, who were both MERG team members, remember how the ANC government chose to ignore the MERG recommendations for progressive economic policies and instead followed the advice of the Washington Consensus institutions (Michie & Padayachee, 2018). This resulted in huge economic and social inequalities largely remaining intact – and also lay behind the global move towards 'capitalism unleashed', the 2007-2008 international financial crisis, the subsequent global recession of 2009 and what, for many, has proved to be a lost decade of low growth, continued inequality and insecurity (Michie & Padayachee, 2018). The ANC had recognised that the resumption and sustainability of economic growth depended on increased exports and capital inflows, as well as on improving investment ratios and industrial productivity. The ANC made an implicit bargain with (white) big business and the latter was expected to reciprocate by supporting the de-racialisation of (private) economic power (Habib, 2013; Hirsch, 2005; Terreblanche, 2002; Marais, 1998; Bond, 1996). Zalk (2017) shows that business failed to come to the party and instead took money outside South Africa by internationalising their businesses.

Although the ANC adopted the GEAR macroeconomic framework, which had all the features of the Washington Consensus recipe of fiscal and monetary discipline and a fiscal deficit target of 3% of GDP, the ANC government was reluctant to extend itself by borrowing from the World Bank, despite its own interest and effort in funding infrastructure for inclusion (Mondi, 2006; Gelb, 2006). These were the very same policies that the NP had adopted in 1988, as presented by

P.W. Botha at the opening of parliament, as discussed in the previous chapter. This embedded continuities in macroeconomic policymaking. The World Bank became active in South Africa in the early 1990s, promoting dialogue among various stakeholders and carrying out analysis in support of transformation. The last loan from the World Bank had been an amount of US$20 million to Eskom in 1966, although Padayachee (1989) noted that South Africa's financial relationship with the Bretton Woods institutions had continued during apartheid, with the US and the UK as its loud supporters in the IMF credit committee. After 1994, the South African government was reluctant to take out any loan and allowed the World Bank to pilot its evolving role as the 'knowledge bank' (World Bank, 1999). That meant that the World Bank would expand the scope and effectiveness of its knowledge activities by extending efforts to bring international expertise to bear on South Africa's development problems. The World Bank, at the back of its mind, seemed to believe that South Africa would mess up and thereby open a window for it to lend. In the future, depending on the government's preferences, there may be further gains from drawing more on the Bank's project experience, since lending may at times be the best way to gain access to certain areas of the Bank's experience (World Bank, 1999).

In addition to financial and technical support through a number of different channels, the World Bank had begun small but limited project lending, leading to the Industrial Competitiveness and Job Creation Project (for US$46 million in 1997), and the Cape Peninsula Biodiversity Conservation Project (grant of US$12.3 million in 1998), which was prepared and financed under the auspices of the Global Environment Facility (GEF). The World Bank also helped prepare projects (in small-scale enterprise finance and rural development), which were then implemented with concessional finance through foreign countries with bilateral agreements or with the South African government's own resources. The International Finance Corporation (IFC) had approved 20 investments totalling US$87 million, many of which were designed to promote the advancement of entrepreneurs from historically disadvantaged groups. The Multilateral Insurance Guarantee Agency (MIGA) had issued guarantees for three investments into South Africa totalling US$13 million, and had applications pending for more than US$200 million in additional projects. The World Bank Institute (WBI), (formerly the Economic Development Institute), was active in South Africa following the World Bank's 1991 re-engagement, providing training and workshops both inside the country and internationally for hundreds of South African and regional participants. The bank would get its opportunity to lend large sums when the South African economy faced power outages in 2007. This is discussed in the following chapter.

A surge in private investment in non-traditional tradable sectors was predicted and was expected to drive rapid employment and export growth. Black participation in ownership and control would be fostered through a combination of the transfer of stakes in restructured conglomerates and the facilitation of new entrants (Mondi, 2006; Gelb, 2006). Policy and institutional design favoured the deepening of Anglo American-style capital markets and the liberalisation of various product and factor markets (Chabane, Goldstein & Roberts, 2006). Average manufacturing tariffs fell from 28% in 1990 to 23% in 1994 and to 8% by 2006 (Zalk, 2014). The tariff structure led to the lowering of protection levels from 1990 to 1999 as a result of trade liberalisation. Moreover, the number of tariff lines shrunk from 12,500 to 2,463, with positive tariffs.

Financial liberalisation was also taking place in parallel with the trade liberalisation discussed above. The SARB used its still largely intact power, with the support of President F.W. de Klerk (see Rossouw & Padayachee, forthcoming 2020), to enshrine its own independence in the SA Constitution, using the German Bundesbank as a model in its arguments for lower inflation (Padayachee & Van Niekerk, 2019; Mondi, 2006; Gelb, 2006). Padayachee & Van Niekerk (2019) show how the independence of the SARB became acceptable to ANC negotiators who were anxious to build credibility with international and domestic investors.

Fiscal deficit had increased from 1.4% of GDP in 1991 to 7.3% in 1993 (and government debt from 29% of GDP in 1990/1 to 48% in 1994/5) as the old regime increased politically-related expenditure, raising salaries and pension pay-outs for its white public service support base while it still had the power to do so, raising welfare expenditure for blacks in an effort to buy votes in the forthcoming democratic election, and raising police spending in response to growing political violence (Mondi, 2006; Gelb, 2006). The weak financial position of the South African government seems to have caused concern to the business sector, particularly Anglo American Corporation (AAC). Michie & Padayachee (2018) shared an interview they had conducted with the former chief economist of AAC, Professor Gavin Keeton, who was one of those at AAC tasked with providing briefing notes for the ANC (Nelson Mandela) and AAC (Ernest Oppenheimer), in which it was confirmed that the ANC actually wanted a very conservative fiscal policy (Michie & Padayachee, 2018) “They do not want this sort of expenditure type thing which people were looking to the capital market to fund” (cited by Michie & Padayachee, 2018, p.2).

Derek Keys' appointment as the minister of finance in 1993 came as a surprise and he did not disappoint those that had appointed him (when he introduced deficit targeting). Derek Keys came from the private sector. South Africa now had a monetarist governor of the SARB, Chris Stals, and a fiscal deficit-targeting minister of finance, well-aligned to the Washington Consensus hegemony (Mondi, 2006; Gelb, 2006). Both were asked by President Mandela to stay on in their portfolios when the ANC-led government of national unity (GNU) was formed in 1994. In an interview I conducted with Chris Stals on 1 August 2018, he shared with me how happy he was when President Mandela personally paid him a visit at the offices of the SARB and asked him to serve (Stals, 2018). Despite the depth of economic capacity within the ANC, particularly among the academics and activists of the SACP and Cosatu, President Mandela had decided to go outside his organisation and its allies. Whether or not President Mandela believed that these two appointments would implement progressive policies and a monetary policy stance that would address South Africa's economic problems of exclusion and high levels of poverty, unemployment and inequality, remains an unanswered question. Sceptically, one may also ask if it may have indicated a sense of pride in having achieved the big prize of political power, or have been an admission of a lack of economic competence and capability among the ANC political elite. Either way, this should have served as a warning signal for the ANC outside government as well as its allies in SANCO, Cosatu and the SACP. Maybe they were all intoxicated by the joy of liberation, little knowing that governments and governance require sharp ears and vigilant eyes.

When Derek Keys' successor, Chris Liebenburg, resigned in 1996, a black ANC politician without any economic training, Trevor Manuel, was appointed as the finance minister for the first time in South African history (Kantor, 2004). This occurred with little fanfare, even after his first public engagement, at which he questioned the role of "amorphous markets". He was punished by the financial markets in comparison to his predecessors. On average, the trade-weighted real exchange rate appreciated by 1.3% per annum on average between 1990 and April 1996. Since then, it has depreciated by an average 3.2% per annum (Kantor, 2004). Perhaps more importantly, the real rand was much less volatile in the preceding five-year period, with an SD of 3.4% per annum compared with the 11.75% SD of the real exchange rate recorded between April 1996 and September 2003 (Kantor, 2004). In 1996, the labour movement was explicitly excluded from the process leading to the GEAR policy (Roberts, 1996). The ANC government believed that the government would play its part by investing and creating employment opportunities (Zalk, 2017). For business, the "hands off the economy" approach of the ANC provided an

opportunity to unbundle and create value for shareholders, including by going offshore (Zalk, 2017; Mohamed, 2019).

4.3 The restructuring of Eskom

This financial and fiscal discipline impacted negatively on Eskom's capital projects capability between 1994 and 2004 and prevented the utility from investing in qualitatively new capacity until 2004. The availability of surplus power supply has historically been essential to propelling South Africa's energy-intensive economy. Cheap and accessible electricity for industry was an industrial policy instrument to promote industrialisation and competitiveness. Electricity consumption increased by about 40% between 1994 and 2006 as a result of a 50% increase in real GDP, South Africa's mass electrification expansion programme, rapid urbanisation and industrial growth. Residential consumption of electricity – 20% of total consumption – grew by 50% as access to electricity multiplied and rising income levels and urbanisation saw greater use of electricity in people's lives (World Bank Group, 2010).

The strong growth in electricity demand unfortunately was not matched on the supply side. No new greenfield generation capacity in either the private or the public sector had come onstream between 2001 and 2006. Peak demand caught up rapidly with the country's generation capacity, and in late 2007, Eskom's reserve margins fell to dangerously low levels, leading to an electricity crisis with attendant large economic losses. Electricity shortfalls in South Africa also hinder the economic development of the region, which depends on South Africa for its electricity supply. Several of South Africa's neighbours, including Botswana, Lesotho, Namibia, Swaziland and Zimbabwe, have long depended on Eskom-generated electricity supply (World Bank Group, 2010).

Eventually, in 2004, in recognition that the obligation to ensure security of supply practically still lay with Eskom, a compromise (and not particularly coherent) arrangement was reached where Eskom and the regulator agreed that Eskom would be allowed to incur costs for new build on the basis that this would be ring-fenced and could be transferred to an independent developer at any stage in the new build process. However, later in the year, a cabinet decision was made that Eskom would be the government's champion in the energy sector, that Eskom would be responsible for 70% of all future new builds and that no existing generating facilities would be privatised. On this basis, (arguably at least four years too late), Eskom commenced on an

aggressive new build programme involving (among a range of other investments) the construction of two 4,800 MW coal power stations.

Once the ANC had got its prize of becoming the democratically elected government in 1994, new social processes emerged. The defining social process in post-apartheid South Africa was the formation of a new black elite (Von Holdt, 2019). Other mechanisms in this process included the prioritisation of the participation of black people in the formal economy and ownership through black economic empowerment (BEE), employment equity (EE) and affirmative action (AA) in the period between 1994 and 2003. In 1995, the GNU led by the ANC amended the Electricity Act and engaged the Electricity Council on the future structure and governance of Eskom and whether it should be a tax-paying or a dividend-paying entity (Eskom, 1996). The government had also made a decision about the restructuring of state assets and privatisation of Eskom and the Electricity Council and Eskom's management had spent time with the Department of Public Enterprises looking at different options (Eskom, 1996). Eskom was only critical to the ANC in so far as the electrification of black urban and rural areas as well as the proceeds that could emanate from Eskom from tax, dividends and even privatisation, were concerned. Marquard (2006) argues that the ANC was able to extend Eskom's electrification programme beyond what they had planned and include a clause of their agreement into the RDP section on energy. The ANC government was satisfied that Eskom and the supply of electricity were being addressed through the expansion of the "electricity for all" programme. Moreover, in 1995, South Africa had a 30% reserve margin. As a result of all this, Eskom was a sideshow in the early years of South African democracy. For the period between 1994 and 2000, the big thing for Eskom was:

- Reduction of the tariff by 15% so as to become the world's lowest-cost producer of electricity.
- Electrifying an additional 1,750,000 homes, improving the lives of 11 million South Africans.
    - Changing its staff profile – 50% of management, professional and supervisory staff should be black South Africans.
- Educating, training and upgrading sufficient numbers of people to meet Eskom's future managerial, technical and other professional staff needs, inter-alia by:
    - having on average 370 black trainees and bursary recipients complete their training annually;

- enabling all Eskom employees to become literate.

Another agreement which had come out of the NELF was the transformation of this apartheid institution to be more accountable to the people and the formation of new institutional arrangements that would also cater for the electrification programme that had been agreed upon. Christie (1984) has argued that the ticket for a major industrialisation drive in South Africa had to be electrification. In 1992, Trevor Manuel articulated the ANC position on Eskom and the move towards the electrification of black and rural households, as discussed in the previous chapter. The ANC position on Eskom did not appear to be changing the Fine & Rustomjee (1996) economic development model and, at the same time, it was unclear whether the electrification of the black townships and rural areas was a shift towards basic needs. In the absence of a clear development model, the ANC appeared to favour households that had low incomes due to apartheid exclusion and exploitation, rather than to follow the lead of Eskom founders, Hendrik van de Bijl and Jan van Eck, whose preoccupation was structural change of the South African economy by using Eskom as an engine for economic development by charging the lowest price possible to industry and commerce. The ANC's preoccupation with the electrification of black urban and rural households supports the argument that it did not know what to do with Eskom for economic development because the party had no development strategy.

In 1994, after the democratic elections, the Electricity Act of 1987 was amended by the GNU to allow for the institutionalisation of the National Electricity Regulator (NER). Not much happened with regard to Eskom thereafter, as the ANC's focus was on achieving the electrification of 1,750,000 homes. However, an embedded Eskom management that had a history of autonomy and experience in determining its destiny, defined its end state by restructuring Eskom the way it saw fit, as long as it met the electrification targets agreed upon in the RDP process before the democratic elections of 1994. It did this by positioning Eskom as a global business with African ambitions. In 1995, the NER issued three separate electricity supply licences in terms of the Eskom Act of 1987 to Eskom's generation, transmission and distribution businesses. Each licence included specific terms and conditions of supply, which had to be met. A requirement of the supply licence was the separation of financial reporting for each licence, in line with the recommendations of the De Villiers Commission. With effect from 1 January 1996, Eskom implemented a financial framework that affected the licence terms and conditions.

4.4 GEAR and Eskom

In 1996, the GNU adopted the GEAR macroeconomic framework, which is discussed below. The adoption of GEAR by the GNU confirmed that privatisation was now part of ANC economic policy. This dovetailed with the ongoing implementation of the recommendations of the De Villiers Commission at Eskom, which had started in 1986. GEAR also won the support of elements of the black economic empowerment movement, as it aimed to privatise "into the hands of black business leaders a portion of the SOE" (Eberhard, 2007, p.246). In addition, large industrial/mining electricity users were also strongly in support of the policy despite resistance from the trade union federation, Cosatu, which opposed privatisation and argued for the "maintenance of a vertically integrated, public owned utility that should be used as an agent of government" (Eberhard, 2007, p.247). Cosatu, as part of the ANC tripartite alliance, was beginning to exercise its veto power to exert influence on the macroeconomic framework and the role of state-owned enterprises in the economy. This is discussed in the next chapter, which deals with the ANC adopting the developmental state paradigm.

The Eskom leadership had expected that the South African electricity supply industry would be restructured in line with what was happening in the rest of the world. They were ahead of their time when on 1 January 1996 they implemented what was called an "experimental wholesale power pool", modelled on the United Kingdom's wholesale market. The proposed model in 1996 resembles what is suggested by the Eskom paper of 2019, which is discussed in detail in chapter 6. The 1996 wholesale model market could have been a suitable starting point when introducing non-Eskom generation into the mix, but events subsequently overtook the exercise (Eberhard, 2007).

Because of the implicit bargain with business (Zalk, 2017) and power struggles within the ANC and its alliance partners, indecisiveness by policymakers reigned as a result of the embedded weaknesses in the ANC's economic management and vetoing of the implementation of structural changes by its alliance partners in the trade union movement, led by Cosatu. A class struggle between the state and the rest of its alliance partners in Cosatu, SACP and SANCO had ensued. Eskom, which had served the interest of the mining sector in the MEC, found itself not only engaged in a power struggle with its customers but also its own employees, management and unionised workers. The institutionalisation of interest groups in the ESI had started with the Electricity Council that was first chaired by John Maree. For example, in 1989 Danie Steyn

capitulated to the Eskom management and left the vertically integrated structure intact while retrenching thousands of workers. The power struggle at Eskom represents a much bigger struggle for access and control of resources in the South African political economy. Von Holdt (2019) defines social processes that led to the formation of a black elite and their role, in coalition with chiefs and mining firms, in the dispossession of rural land. For trade unions it was in their class interest to resist the restructuring of Eskom. In chapter 6 I show how the interests of the black elite and trade unions overlapped in keeping Eskom in state hands, albeit for different reasons, for rents in the case of the black elite and for the security of supply and jobs in the case of trade unions.

In 1996, when a successor to John Maree was being sought, Reuel Khoza was introduced to then minister of public enterprises Stella Sigcau as a possible candidate. According to the Eskom Heritage website (https://www.eskom.co.za/sites/heritage/Pages/Biographics/Reuel-Khoza.aspx), Khoza's first association with Eskom had been in 1986 when he was invited to attend one of the utility's Top 30 meetings, and thereafter being retained as a consultant. "At the time, Khoza was a prominent businessman and chairman of a well-known pharmaceutical company as well as of an investment company…He also held seats on the boards of about half-a-dozen other companies. When approached about the possibility of joining Eskom, he was intrigued by the possibility this held for practising what he had always been preaching in terms of business, management and leadership. Yet he was not keen to take on a full-time responsibility because of all his other commitments. A non-executive chairman role, as defined by John Maree, was therefore an added attraction." Dr Reuel Khoza[9] replaced John Maree as chairman of the Electricity Council in March 1997, becoming the Council's first black chairman until the incorporation of Eskom. In July 2002, Dr Khoza became the first chairman of an incorporated Eskom.

In 1998, the Department of Minerals and Energy (DME) released a white paper on energy (DME, 1998). Its objectives were to bring about 30% of new generation capacity from the private sector and thus reduce Eskom's share of existing generation capacity to 70% by

[9] Dr Reuel Khoza is currently the chairman of Dzana Investments (Pty) Ltd and AKA Capital (Pty) Ltd, a former chairman of Nedbank Group Limited and Globeleq, and a director of several companies. He has chaired the boards of such corporations as Eskom Holdings and GlaxoSmithKline South Africa and served as a director of JSE Limited, IBM South Africa, Liberty Life Group, Standard Bank Group, Nampak Limited and Old Mutual plc. He has been involved in the formulation of the King Codes on Corporate Governance in King II, King III and King IV, serving as Mervyn King's deputy in the last two instances.

prohibiting it from investing in new generation capacity. The transmission network (together with the system operator) was first to be corporatised and then placed in a separate state-owned company (a so-called independent system and market operator) (Eberhard 2003), a hybrid presented in the 2019 Eskom paper discussed in chapter 6, which could then "impartially" manage the market. Until the state-owned company was established, policy dictated that no new investment in generating capacity would be allowed. Eberhard (2007) further reports that these major drivers for adopting an industry restructuring programme were not "experienced strongly" in South Africa. Indeed, in a presentation, Eberhard (2007) stated that "corporatised, commercially run, state-owned Eskom has been able to access private capital and has delivered low prices, reliable supply and increased access" (cited in Ritchken, 2014, p.29).

The De Villiers Commission's recommendations were presented in the context of the NP discarding the developmentalism of the apartheid project by adopting free market policies of deregulation, liberalisation and privatisation. However, it was not clear why the ANC was so attracted to the unbundling and privatisation of Eskom, given its economic positions articulated by Harris (1989), focusing on a mixed economy, as was discussed above. In 1994 South Africa's debt as a percentage of GDP was 48.6%, the budget deficit was 6.8% and there was a fragmented large bureaucracy, from the homelands to the national and provincial governments of the apartheid project. The ANC's Damascene moment had more to do with this reality of inheriting a bankrupt state and a bloated bureaucracy than an ideological shift to the right-wing policies of neoliberalism, as argued by many authors (Habib, 2013; Marais, 2011; McDonald, 2009; Terreblanche, 2002 and Bond, 1996). This can be explained by the government taking additional responsibilities, such as removing oversight of the system from Eskom and establishing a "neutral" environment in which the private sector could invest.

The 1998 energy white paper mirrored the standard or ideal model that was being followed internationally: "vertical and horizontal unbundling in order to separate out the potentially competitive components of the industry (generation and retail supply) from the natural monopoly components (transmission and distributions wires), the introduction of competition through new private players, non-discriminatory, open access to transmission and independent regulation" (Eberhard, 2007, p.246). A ministerial workshop on electricity supply industry reform was held in Midrand from 3 to 5 April 2002 (Eberhard, 2007). At the workshop as cited by Eberhard (2007), the minister of minerals and energy stated that the government's main objectives of reform were to:

- increase economic efficiency in investment decisions and operations to keep costs and prices as low as possible;
- maximise financial and economic returns to government from the ESI;
- increase the opportunity for black economic empowerment; and
- protect public benefits such as widened access to the poor, energy efficiency ongoing R & D and environmental sustainability (Mlambo-Ngcuka, 2000).

Ritchken (2013) argues that, when compared with the macroeconomic policy framework debates discussed earlier, the conduct of the DME and DPE and their reliance on external experts, both domestic and foreign, dwarfed the RDP processes and the expertise that was at hand to choose a different path for South Africa. The attitude of the DME and DPE informs what was a growing voice of dissent emanating from the government, which was critical of business and the pace of transformation and the empowerment of black people, argues Ritchken (2013). There were views that the state should legislate black economic empowerment so that business could be held accountable. Also, black professionals and black business saw opportunities in unbundling and privatising SOEs, thus sowing the seeds of black business imbedding itself in government, thereby creating an interest group that would hold significant veto power, particularly on energy reforms towards a just energy transition. Eberhard (2007) concurs that there were discernible pressures for an accelerated process of black economic empowerment, including calls for the state to divest generation assets into private ownership. The effect of this reform driver was to reinforce the need to restructure the industry so that privatisation did not simply create a private monopoly, but would be accompanied by moves to achieve a more competitive electricity industry structure (Eberhard, 2007). Eskom had already embarked on a different strategy following the 1998 energy white paper. Its strategy was to diversify, focusing not only on electricity, but also leveraging its core competencies into energy and related services, such as gas, telecommunications and information technology.

4.5 Reuel Khoza at Eskom

Dr Reuel Khoza had joined the Eskom board as its chairman in March 1997 with a mandate to prepare Eskom for restructuring. Eskom was already in discussions on its future with a variety of stakeholders through the Electricity Restructuring Interdepartmental Committee (ERIC). The key recommendations of ERIC were that the entire electricity industry should move to cost-reflective tariffs, with separate transparent taxes to fund electrification and other local government

services, and that the distribution industry should be consolidated into a limited number of independent, financially viable regional distributors. ERIC also recommended the formation of a transformation task team to manage the transformation process (Eskom, annual report, 1970-2015). Reuel Khoza harboured African ambitions that complemented Thabo Mbeki's African Renaissance vision. In the 1997 Eskom AFS, Reuel Khoza said:

> Africa is delicately poised, from where it can descend into chaos or push forward into what has been referred to as the African renaissance. This reawakening will not happen on rhetoric alone. We have to plan, create initiatives, set things in motion and change more than mere structures and formalities. We must address the changes that need to be made from within. All of this must be reinforced by business and large technical organisations such as Eskom, which must lead by example, instil a rewarding work ethic and demonstrate that the achievement of excellence is possible.

Khoza's (2011, 2005, 2005a, 2004, 2004a) writings about African-ness and his promotion of ethical leadership based on ubuntu and Mbeki's African Renaissance, converged into a partnership of vision and implementation. These two South Africans had a vision to develop South Africa and Africa and play a role in the world political economy. The two presented ideas that were outside the embedded Washington Consensus policies that were driven by the treasury (Padayachee, 2018). The African Renaissance and the Africa Rising narratives positioned African commodity exporting countries successfully on the back of rapid Chinese growth between 2001 and 2007. The growth acceleration was a consequence of stronger policy frameworks in many African countries, including their embrace of more open trade. The New Partnership for Africa's Development (Nepad), a pan-African strategic framework in which President Thabo Mbeki, President Olusegun Obasanjo of Nigeria and President Abdelaziz Bouteflika of Algeria collaborated for the socio-economic development of the continent, was officially adopted by the AU in 2002 as the primary mechanism to coordinate the pace and impact of Africa's development in the 21st century. Its primary objectives included the provision of a new mechanism, spearheaded by African leaders, to:

- eradicate poverty;
- place African countries, both individually and collectively, on a path of sustainable growth and development;
- halt the marginalisation of Africa in the globalisation process;
- accelerate the empowerment of women; and

- fully integrate Africa into the global economy.

South Africa was seen to be punching above its weight. For example, in 2005 at the Gleneagles G8 Summit, in alliance with the British Labour Party led by Tony Blair, President Mbeki and his African colleagues were able to get an agreement that resulted in the writing off of multilateral debt for the world's poorest countries. This was preceded by the formation of the Commission for Africa by Tony Blair in 2004, which prepared a document titled Our Common Interest that served as an input to the Gleneagles Summit. The Commission for Africa had 17 members, nine of whom came from Africa. Trevor Manuel, who was South Africa's minister of finance, was one of the commissioners. African leaders were encouraged by the democratisation wave taking place on the continent, which was backed by the commodity super-cycle, which resulted in higher levels of consumption and improvements in the quality of African lives. Africa was a darling of the world. Reuel Khoza was determined to see Eskom playing the African and global game.

Were Smuts and Van Der Bijl reawakening in the form of Mbeki and Khoza? In an interview I conducted as part of the research for this thesis on the 26 February 2019, Khoza told me that his chairmanship and role at Eskom was aligned with that of the government. Mbeki's vision and Eskom's had to be aligned (Khoza, 2019). Mbeki also gave Khoza and Eskom autonomy to implement Eskom's diversification agenda by contributing to the African Renaissance vision. Khoza was a man on a mission. He was no Hendrik van der Bijl, but he was determined to change the fortunes of Eskom and the African continent in a global economy.

In the 1998 Eskom financial statements, Khoza called on Eskom's leadership to continue to operate at world-class levels, to be well-positioned to respond rapidly in a constantly changing environment, and to act as a catalyst for economic growth in South Africa in a globalising world. He was fierce in pushing Eskom to give direction in then Deputy President Thabo Mbeki's vision of the African Renaissance. Eskom's vision was changed to reflect its African roots and its global competitiveness. For Khoza, the Eskom vision for Africa was linked to the new century. In his words, "…when it began, we say, as marking the dawn of a new African personality, in line with the president's declaration of this new era as the African century. Eskom continues to embrace the President's notion of the African Renaissance. We align ourselves with the view that Africa has the potential to become an economic success story because of the natural

wealth and intellectual capital she possesses. All that is required is for us to harness and galvanise our collective energies for growth and development" (Eskom, 2000).

Khoza's African-ness was expressed in his belief in African possibilities. Khoza believed that Africa had to begin to play its role and work in partnership with its counterparts to improve economic conditions for all of Africa's citizens (Eskom, 2001, p.18). Moreover, Eskom believed that "it is now possible for Africa to determine its future and become:

- An Africa more excited by its future than by its past.
- An Africa whose scope for growth is limited only by its imagination.
- An Africa that has successfully translated its concepts of humanity and communal relations into vibrant cooperative models of governmental, institutional and individual relations.
- An Africa whose intellectuals are nurtured by indigenous founding principles and insatiable enquiry.
- An Africa that redefines the term "emergent" from one of condescension and derision to one of economic, political and cultural vibrancy and technological prowess.

If the apartheid project (Posel, 2011) was South African and Western, Eskom in 1998 wanted to be South African and African by aligning itself with Thabo Mbeki's African Renaissance (Mbeki, 1998) project. Thabo Mbeki was deputy president of the country during that period. In 1999, he became democratic South Africa's second president. In his words:

> The conviction therefore that our past tells us that the time for Africa's Renaissance has come, is fundamental to the very conceptualisation of this Renaissance and the answer to the question: Whence this confidence? Unless we are able to answer the question – Who were we? we will not be able to answer the question – What shall we be? This complex exercise, which can be stated in simple terms, links the past to the future and speaks to the interconnection between an empowering process of restoration and the consequences or the response to the acquisition of that newly restored power to create something new (Mbeki, 1998).

Khoza, flanked by two Eskom staff, Andrew Monyane and Jan de Beer, visited a number of African countries with a view to promoting sustainable, long-term commercial initiatives in line with Eskom's vision. By meeting with top utility and government officials, Eskom's

management team wanted to establish strong links and build the foundations for future commercial ventures. Eskom's technical expertise and financial strength, combined with its unique African knowledge and experience, made it a logical choice for joint business ventures and partnerships in many countries on the continent. Notably, the success of the African Renaissance depended on the development of the region and its people, which, in turn, depended on Eskom's performance as an efficient and effective organisation that could provide the basis for South Africa's economic growth.

Khoza understood that Africa's success is intertwined with the quality and values of its leadership. According to Khoza, Africa requires leadership (Eskom, annual report, 2001, p.18):

- "whose defining features are probity, humility, integrity, compassion and humanity;
- that demonstrates competence, tenacity and a sense of efficacy;
- that practises introspection and self-renewal;
- that strongly believes that the locus of control for Africa's future, is within Africa herself:
- that does not consume seed capital, but invests for the generations to come; and above all else
- that is visionary."

Eskom's first diversification success came in the form of the acquisition of a 70% stake in Telecom Lesotho as part of a consortium called Mountain Communications (MC).

The MC consortium was Econet Wireless International, owned by the Zimbabwean entrepreneur, Strive Masiyiwa, Eskom Enterprises and Mauritius Telecom. Its bid resulted in a five-year exclusivity to provide telecommunications services throughout Lesotho. The consortium operated the fixed-line, satellite and Internet services, as well as the second competitive national GSM cellular network. According to Vusi Ngubeni, executive director for Eskom Enterprises: telecommunications:

> The advanced technologies and skills sets that MC brings will ensure that the requisite infrastructure is in place to bolster business on a global scale. We are proud of this partnership; it is indeed a milestone in line with the tenets of the African Renaissance. (News24.com, 2000)

Eskom's next venture was in hydro-electricity in West Africa, in the Manantali hydropower project. The Senegal River Basin was estimated to have a hydropower potential of 1,200 MW, of which only 200 MW had been developed. The Senegal River Basin is managed by L'Organisation pour la Mise en Valeur du Fleuve Sénégal (OMVS), an organisational grouping composed of Guinea, Mali, Mauritania and Senegal. Guinea had an estimated potential of 6,000 MW in the basin, which could generate around 26 TWh per year of electricity at relatively low cost (AfDB, Energy and Power Infrastructure to Facilitate Regional Integration in the ECOWAS Region, 2011) as cited in AfDB (2013).

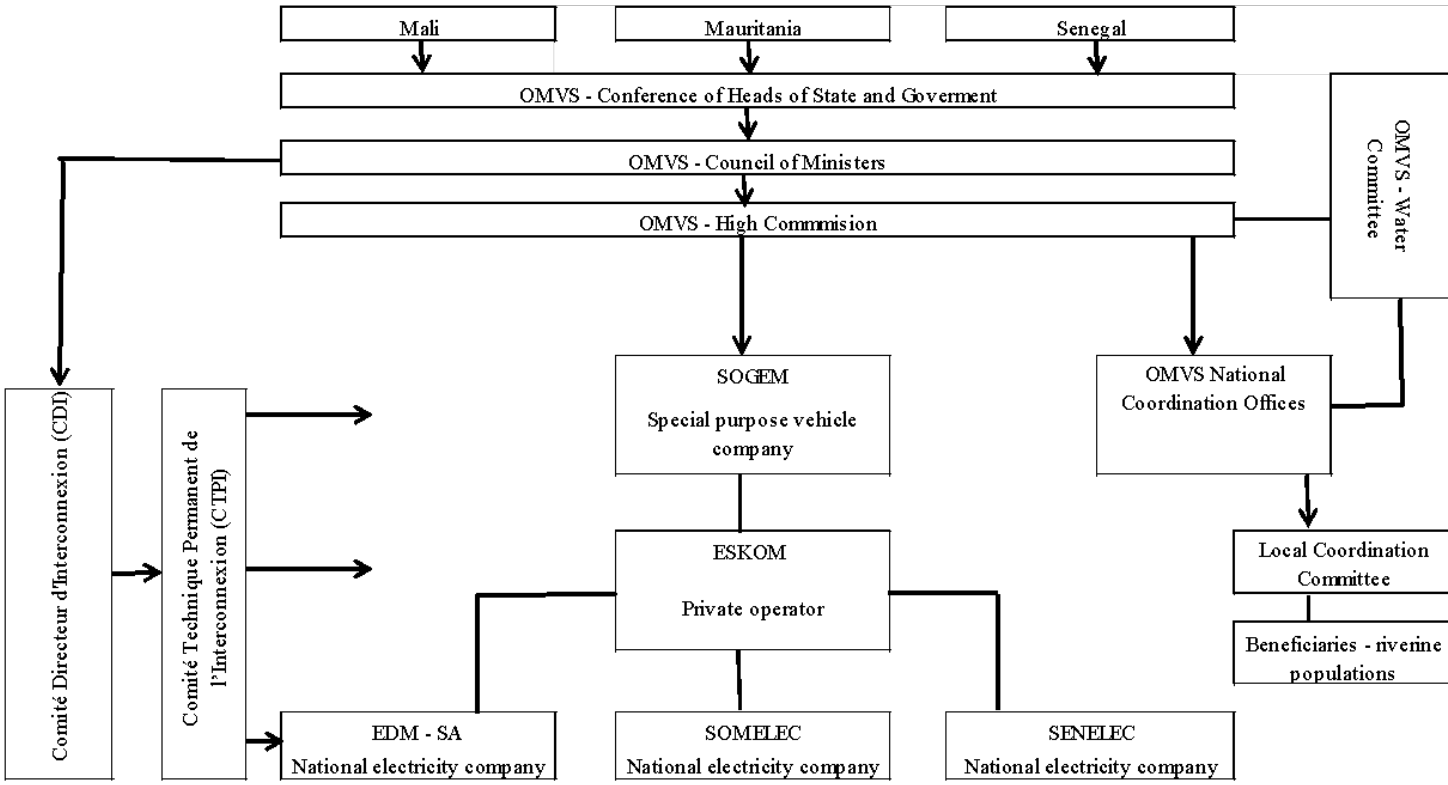
The Manantali hydropower project involved cross-border cooperation among the three governments of Senegal, Mali and Mauritania under the aegis of the OMVS. It established a unique sub-regional power system including a 200 MW hydroelectric plant at the foot of the Manantali Dam and a 1,000 kilometre-long system of 225 kV transmission lines and substations to distribute the electricity produced to the main load centres in Mali, Mauritania and Senegal, both operated in real time by a central load dispatching system located at Manantali (AfDB, 2013).

The original project was initiated in 1970, although construction works started in 1981 and were completed in 1987, with significant contribution from the AfDB. In parallel, a second dam was built at Diama, close to the Atlantic Ocean, to prevent the intrusion of saltwater into the lower delta and to create favourable conditions for irrigated agriculture. The original project was planned to include a hydroelectric plant, but its construction was not pursued at that time because of insufficient financing, disagreement on the route of the transmission lines, the outbreak of a conflict between Mauritania and Senegal between 1988 and 1989, and the low quotation of petroleum (AfDB, 2013).

Finally, in 1996, an agreement was reached and several donors offered loans to finance the construction of the hydropower plant and transmission facilities. Total project cost was estimated at 209.9 billion CFA franc at appraisal. The project was a major multi-donor initiative that included 10 major donors: the French Development Agency (AfD), the World Bank, Kreditanstalt für Wiederaufbau (KfW, Germany), the Canadian International Development Agency (CIDA), the European Union, the European Investment Bank (EIB), the Islamic Development Bank (IDB), the African Development Bank (AfDB), the Arab Fund for Economic

and Social Development (FADES), the West African Development Bank (BOAD) and other small financers (AfDB, 2013). AfDB's contribution to the project, which was directed to finance the construction of the western transmission lines, amounted to nearly 9% of the project (AfDB, 2013).

Figure 4.1:The organogram of the Manantali Hydropower Project



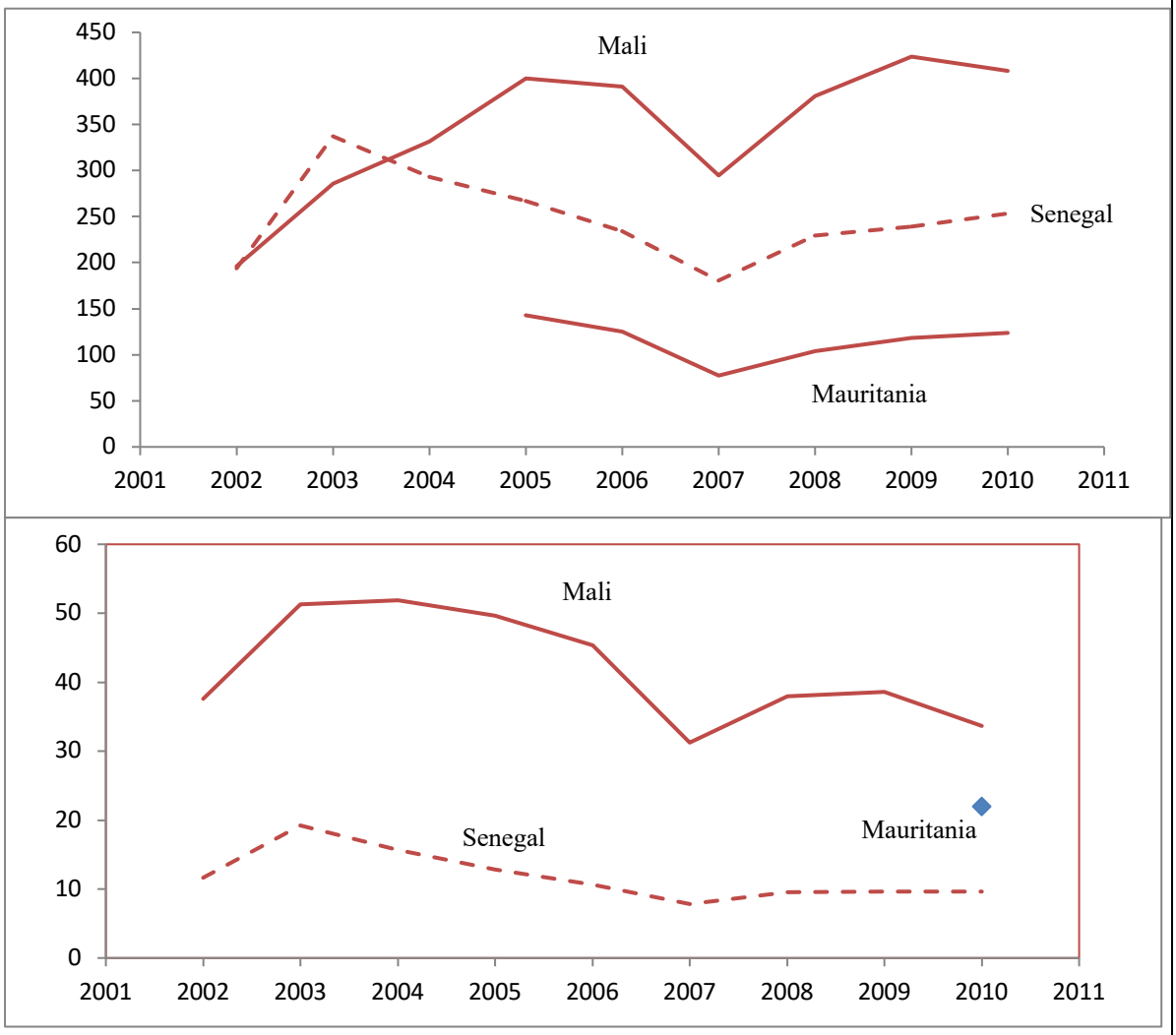
Source: (AfDB, 2013, p.5).

Upon donor request, the Société de Gestion du Barrage de Manantali (SOGEM) was created by the OMVS to be the asset owner and operator of Manantali. The Société de Gestion du Barrage de Diama (SOGED), a sister organisation to SOGEM, was also established to manage the Diama Dam and collect irrigation fees. In turn, SOGEM contracted Eskom Energie Manantali (EEM), a subsidiary of Eskom, to manage the hydropower station and the associated infrastructure. The Comité Technique Permanent de l'Interconnexion (CTPI), made up of representatives from SOGEM; EEM and the three national electricity companies, was responsible for defining rules and procedures for power generation. Its activities were guided by the Comité Directeur de l'Interconnexion (CDI), composed of senior staff from the three above-mentioned bodies.

Capacity building was an important criterion for the selection of Eskom. All the parties noted the high degree of competence and dedication of the technical staff Eskom posted at Manantali. Most staff benefited from training programmes and technological transfer from Eskom's expatriate personnel.

Figure 4.2a: GWH and Figure 4.2b: Percentage

Contribution of Manantali to the three countries' energy production



Source: AfDB (2013, p. 10). Calculation from data provided by the national electricity companies.

Khoza and Thulani Gcabashe, who joined Eskom as deputy chief executive in 1999 and became its chief executive in 2001 when Eskom corporatised, both agree that the Manantali project was one of the most successful projects in the diversification strategy of Eskom. Eskom was also able to install fibre-optic lines along the transmission line, which connected the OMVS countries to the Atlantic fibre network, enabling these countries to digitise.

Gcabashe became the chairman of Eskom Enterprise in 1999 and, in an interview I conducted with him in writing this thesis on 28 February 2019, told me that it was a training and testing ground for him to prove why he should succeed Allen Morgan, who was facing retirement in 2001. Following the corporatisation of Eskom, the government appointed a new board of directors in 2002. It was chaired by Khoza. Both the Electricity Council and the management board ceased to exist. The new board of Eskom had 15 members, including the chairman. It consisted of:

- Frans Baleni, a member of the National Union of Mineworkers and a South African;
- L.G. Josefsson, a Swedish national and president and CEO of Vattenfall AB, one of Europe's largest producers and retailers of electricity and heat;
- W.E. Lucas-Bull, CEO of FirstRand, a South African;
- V.M. Rowjee, trustee of the Thabo Mbeki Development Trust for People with Disabilities, a South African;
- S.V. Zilwa, CEO of Nkonki Pierce, a South African;
- A.J. Morgan, former CEO of Eskom, a South African;
- M.P. Makwana, Group CEO of Saatchi & Saatchi, a South African;
- S.A. Mpambani, a senior lecturer at the University of Transkei, a South African;
- S. N. Funde, executive chairman of Kemilinks International, a South African;
- T.N. Msomi, the shareholder representative and the chief director of the Department of Public Enterprises, a South African;
- J.R.D. Modise, chief operating officer of Johnnic Holdings, a South African;
- Dr B.M. Count, CEO of Innogy, a British national;
- Dr W. Kok, CFO at Eskom, a South African; and
- Thulani Gcabashe, CEO of Eskom, a South African.

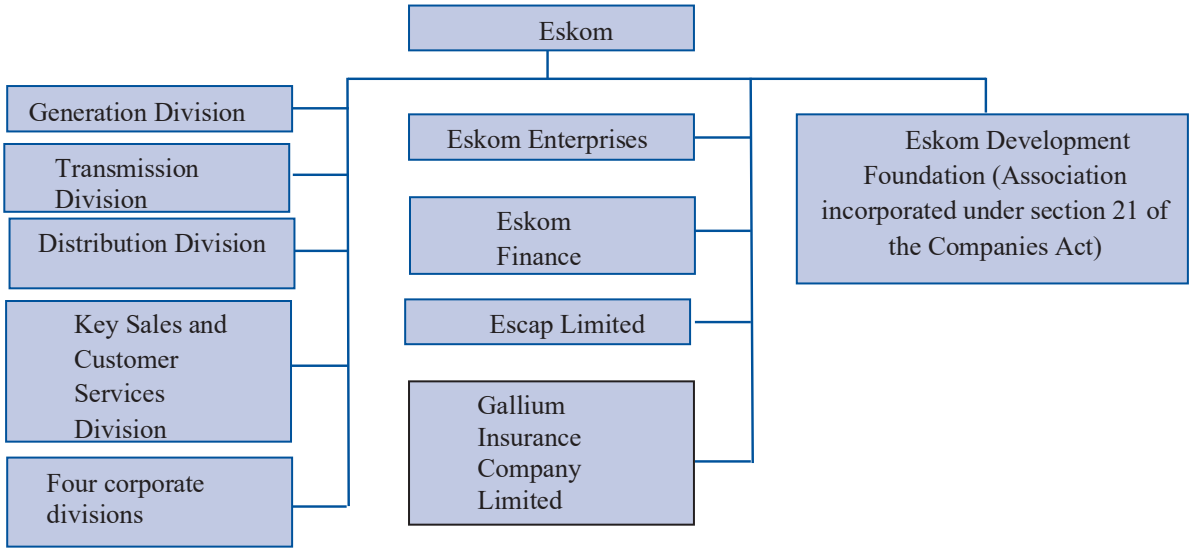
The Gcabashe and Khoza team had all the makings of a development coalition last seen under the apartheid developmental state of the 1940s, when Smuts, Van Der Bijl and Van Eck played a pivotal role in South Africa's industrialisation (Freund, 2013). In the new millennium, South Africa had Mbeki, Khoza and Gcabashe. Khoza and Gcabashe believed that Eskom could act as a catalyst for the regeneration of Africa through its initiatives.

Eskom developed a new strategy that would allow it to search for economic opportunities in South Africa, Africa and the world. The South African infrastructural base was a vital link in the developmental chain for those African countries with which Eskom would do business, which were regarded as the foundation for greater global involvement. The investment strategy was designed to achieve Eskom's strategic intent, including selective investments in diversified markets, products and services. Given the trends in the global energy sector during the period, Eskom decided to re-evaluate its investment targets for diversification of markets, products and services in order to be in line with international best practice. Subsequently, Eskom developed an investment strategy with associated targets and exposure limits for business areas, industries and geographical locations. This was Eskom's strategy for transitioning into a different entity rather than that of Smuts and Van Der Bijl, and towards a low-carbon African economy. While managing the coal-powered generation fleet in preparation for privatisation, Eskom was planning on diversifying into hydro, wind, solar and nuclear in the form of the pebble-bed modular reactors. At the same time, its transmission network and internal capability allowed Eskom to diversify into information technology and telecommunication. Eskom was transitioning.

Scholars in science and technology studies and geography have analysed how infrastructures mediate exchange over distance, bringing different people, objects and spaces into interaction and forming the base on which to operate modern economic and social systems (Graham 1996, 2001; Lefebvre 1991, as cited by Larkin, 2013). Graham (1996) has also written a series of influential works examining how new systems of telecommunications are reconfiguring urban space and how infrastructures bundle together water, energy, people and streets into a series of networked infrastructures that define modern life (Graham, 2001). Eskom's sociotechnical system led to a revised business model, reflecting the strategic thrust and the changing environment in which it operated and capturing a set of principles that Eskom needed to embrace to focus on its activities and resources. The revised business model required refocused objectives, measures and targets. In line with the revised business model, the investment strategy focused Eskom's investments on its core competencies in advance of large generation projects in

South Africa and southern Africa and network capacity expansion projects in Africa. Khoza had encountered speed bumps in the rest of Africa, as a result of a concern and fear that doing business with an SOE (Eskom) could be perceived as re-colonisation by South Africa. As a result, Eskom was restructured between regulated and unregulated business, as depicted in Figure 4.1 below. Eskom Enterprises was established to pursue Eskom's diversification strategy and to transition, under the chairmanship of Gcabashe, into becoming the trading arm on the African continent and around the globe.

Figure 4.3:Corporate structure of Eskom in 2001



Source: Eskom 2001

Figure 4.1 above shows Eskom's corporate structure in 2001. By 2001, Eskom had already unbundled its business into about eight divisions related to its core electricity deployment business, in line with the 1998 white paper on energy.

Eskom went to Uganda, East Africa and got into a partnership with a local company, Umeme. This partnership owns a 20-year concession to operate and maintain government assets in generation and distribution that was awarded in 2003. Eskom manages generation at Nalubaale and Kiira, while Umeme is in charge of distribution. The transmission part is owned by the state.

An IDC-driven aluminium investment project in Maputo, Mozambique, in partnership with BHP (formerly BHP Billiton), was powered by Eskom in a tripartite agreement. MOTRACO, a joint

venture company comprising Electricidade de Mozambique (EDM), the Swaziland Electricity Board (SEB) and Eskom, was formed for the construction, ownership and operation of a 400 kV line that supplied electricity to MOZAL.

Eskom also entered into a buy-and-bank agreement with the Zambian Electricity Supply Corporation (ZESCO) and SNEL, an electricity utility in the Democratic Republic of Congo (DRC) to trade electricity at different times of the day. Funds flowing from this venture were used for the refurbishment of the badly damaged electrical infrastructure in the DRC.

Providing consulting and engineering services in Africa either directly or through its subsidiary companies, Eskom secured contract work in the electricity sectors in Congo, Zanzibar, Namibia, Kenya, Botswana, the DRC, Mozambique, Uganda and Zambia, as well as in Indonesia and Thailand.

The groundwork done by Eskom in Africa, the Middle East, the Far East and South America promised the possibility of a transition to low-carbon energy by Eskom through the delivery of a substantial number of development projects in future. The Zimbabwe Electricity Supply Authority (ZESA) had been Eskom's good trading partner since 1996.

With Eskom having pursued a diversification strategy and aligned itself with Nepad and the African Renaissance, there was discord in the boardroom which might have emanated from the politicians, who could have their own differences, particularly between the DPE and the DME. This view is explained by the speed and efficiency with which the DME had attempted to introduce the power sector reforms presented in the 1998 white paper on energy. Moreover, the country had committed itself to various climate change commitments to reduce its carbon footprint by pursuing a low-carbon growth pathway by signing various national and international declarations. The major actions included the ratification of the United Nations Framework Convention on Climate Change (UNFCCC) in August 1997, and accession to the Kyoto Protocol in July 2002. Arguably, the DME was committed to power sector reforms that included the privatisation of parts of the vertically integrated state-owned company, Eskom, and a just energy transition.

Khoza (2019) and Gcabashe (2019) say that the new board wanted management to focus on the regulated business of Eskom, instead of its privatisation. That meant that Eskom's transition

towards a diversified, low-carbon, regional and global entity was to be deferred. However, Eskom could not just unplug itself, given the resources that had already been invested. The last straw came in the form of a Cabinet decision aligning itself with the views of the board, instructing Eskom to completely withdraw from its diversification efforts, which was delivered in 2003 (Ritchken, 2013).

In the interviews with both Khoza (Khoza, 2019) and Gcabashe (Gcabashe, 2019) on 26 and 28 February 2019 respectively, I asked whether Thabo Mbeki was at the Cabinet meeting and therefore had changed his agenda on Africa. They could not confirm. However, a source suggested that the Cabinet meeting was chaired by Jacob Zuma, who was the deputy president at the time, because Mbeki was travelling. It appeared as though many black business groups were positioning themselves for the privatised assets of Eskom and the voice that empowerment and transformation was only benefiting a few was getting louder.

This decision marked the beginning of the destruction of the capability, efficiency and effectiveness of Eskom. The power utility started prioritising transformation and empowerment to satisfy a variety of interest groups, particularly those linked to the ANC, the state and black business, as discussed in the next chapter. We may never know how the Mbeki, Khoza and Gcabashe vision would have changed Africa had it had the support of the ANC and its allies. The transition has remained incomplete, as the walk towards a just transition keeps getting longer.

In 2003 global economic growth gathered momentum from the second half of the year, with the United States growing briskly alongside a particularly strong acceleration of activity in China, India and elsewhere in Asia. The recovery in global economic activity contributed to the commodity price boom in the latter part of 2003 and into 2004.

In the first half of 2004, growth in South Africa's real GDP picked up decisively to an annualised rate of more than 3%. Lower interest rates, a growth-supportive fiscal policy stance and higher international prices for export commodities raised business as well as consumer confidence and were translated into higher real output. All the main economic sectors recorded increases in output in the first half of 2004. Platinum production continued along a strong upward trajectory. In manufacturing, the increases in production were mainly a response to the strength of the domestic market, since export volumes were subdued. Real value added in the construction sector also rose briskly, consistent with buoyant demand for buildings and structures. Transport,

storage and communication services displayed the strongest growth among the tertiary sectors (SARB, 2004).

At the political level, the ANC government had stabilised the debt, introduced a safety net in the form of the social wage, and Thabo Mbeki was referring to his government as a developmental state for which the commanding heights of the economy were the cornerstone of its infrastructure investment. This is discussed in the next chapter.

4.6 Summary

In this chapter, I have shown how the new democratic government and the ANC had a Damascene experience. Further, I have discussed how the ANC did not expect that the amendment of the Eskom Act in 1995 and the white paper on Eskom of 1998, in preparation for the privatisation of Eskom, would touch the nerve of its alliance partners, who defended their position of preserving jobs by keeping Eskom as a vertically integrated state monopoly company. It is in the class interest of trade unions such as Cosatu's affiliates to resist privatisation of key states assets.

I have also shown how the apartheid project, as described by Posel (2011), had African and western currency under the ANC, as espoused by Thabo Mbeki in the African Renaissance. I discussed how the ANC electrification project was aligned with the Eskom strategy that had been started by John Maree and Ian McRae and had continued under the black leadership of Khoza and Gcabashe, who were given space to reimagine Eskom in private hands.

I have discussed how Eskom under the leadership of Khoza and Gcabashe used the space provided by a lack of decisive leadership by policymakers in Eskom's transition to a just energy transition, by developing a strategy that would allow it to search for economic opportunities in South Africa, Africa and the world, using its South African infrastructural base. Eskom achieved a significant market presence in telecoms and the energy sector in West and East Africa, and as far east as Indonesia. Khoza and Gcabashe appeared to have understood the importance of diversification by expanding Eskom's footprint to the rest of Africa, the Middle East, the Far East and South America, which was pregnant with the possibility of a transition to low carbon through the delivery of a substantial number of development projects in future in the ICT, renewable energy and nuclear (in the form of the pebble-bed modular reactors) fields. The

ANC's adoption of a developmental state posture scuppered Eskom's plans of a just transition to a low-carbon entity and a diversified sociotechnical system business.

I then concluded that the developmental state paradigm of Thabo Mbeki meant that the state-owned companies were to hold the commanding heights of the economy and would be used by the state for black economic empowerment (BEE) and infrastructure investment, to catalyse private sector investment, and to lower the cost of doing business, thereby improving competitiveness. Power and class were coalesced against the democratic state's attempt to restructure Eskom. In the next chapter I discuss how the developmental state paradigm suddenly turned into Eskom becoming a resource for jobs, revenue, contracts, tenders and licensing, laid a foundation that would eventually precipitate an energy crisis and inform the intention by the state to restructure Eskom and transition to a low-carbon economy.

CHAPTER 5: A POST-APARTHEID SOUTH AFRICAN DEVELOPMENTAL STATE: 2005-2012

> *When Eskom said to the government: 'We think we must invest more in terms of electricity generation', we said no, but all you will be doing is just to build excess capacity…We said not now, later. We were wrong. Eskom was right. We were wrong. (Thabo Mbeki as cited in the Independent Online, 2007)*

5.1 Introduction

In this chapter, I argue that the Mbeki-led ANC, buoyed by overwhelming support from the electorate following the 2004 general election, shifted its policy into a developmental state able to drive an inclusive economic development agenda, driven by a mega-investment drive through SOEs and development finance institutions. The shift in macroeconomic policy by the ANC was supported by positive gains from conservative macroeconomic management in the first decade of democracy, fiscal discipline, as well as the resurgence of robust domestic and global economic growth, driven by the commodity super cycle.

I show that the ANC's significant policy shift did not appease some of its members, including its Youth League (ANCYL), nor its allies in Cosatu and the SACP, who argued that there had been significant macroeconomic failures, since the state had privatised some assets, such as the information, technology and communication monopoly, Telkom, as well as outsourced key services in state departments and public amenities. Institutions and the distribution of power were incompatible and, as a result, powerful groups in Cosatu, ANCYL and SACP were not getting an acceptable distribution of benefits from Mbeki's government. This became a platform for dissent and contestation for Thabo Mbeki's political opponents in the period leading up to the ANC's 52nd national elective conference, held in Polokwane in 2007. They strove to change it.

I argue that at that conference, a new political settlement that set the context for a new institutional order and other policies of de-racialising the South African economy emerged. A

political settlement is a combination of power and institutions that are mutually compatible and also sustainable in terms of economic and political viability (Khan, 2011). Jacob Zuma was elected as the party's president, to champion the developmental state approach and radically transform the South African economy.

Bowman (2020) has shown how the Eskom crises emerged in the context of African National Congress initiatives to turn Eskom and other key parastatals into instruments of an envisaged South African developmental state, through increased investment and strategic procurement to support economic transformation goals. Instead, Eskom's spiralling costs, procurement irregularities and inability to translate increased investment into functional new infrastructure, meant it impeded these goals. Its indebtedness became a severe macro-economic risk, making Eskom a precarious nexus for the circulation of public funds, while the cost and unreliability of electricity continued to undermine South Africa's energy-intensive industrial core (Bowman, 2020).

I argue that Eskom became a platform for contestation (power struggle) and distribution of rents by various interest groups during the energy crisis. Moreover, what seemed to be the first stage of building a capable state for the effective implementation of a developmental state that was to be a custodian by regulating and providing protection and policing, became entangled in the class divisions of the governing ANC, as Cosatu, SACP and ANCYL had coalesced with a faction of the ANC for a new political settlement. The Mbeki developmental state vision was repurposed by the winning coalition in Polokwane led by Jacob Zuma, his network (Cosatu, ANCYL and SACP) and the emergence of patron-client relations which undermined processes, resulting in asymmetry of information, and developing a climate for impunity and rent seeking.

5.2 A developmental state in South Africa

In 2007, at the ANC's national policy conference, the ANC officially declared its government to be a developmental state in the resolutions that came out of the commission on economic transformation (ANC, 2007):

> A South African developmental state, whilst learning from the experiences of others, must be built on the solid foundation of South African realities. Whilst engaging private capital strategically, our government must be rooted amongst the people and buttressed

> by a mass-based democratic liberation movement. Whilst determining a clear and consistent path forward, it must also seek to build consensus on a democratic basis that builds national unity. Whilst acting effectively to promote growth, efficiency and productivity, it must be equally effective in addressing the social conditions of the masses of our people and realising economic progress for the poor (ANC, 2007).

The ANC had gone further in stating its position on SOEs since in the same commission on economic transformation resolved:

"State owned enterprises and development finance institutions:

- Commissions affirmed the strategic role that SOEs have to play in a developmental state, but further discussions are required around the exact nature of that strategic role.
- The ANC must play a stronger role in monitoring the response of SOEs to the needs of economic transformation and social development.
- Towns dependent on SOE activities should be consulted prior to restructuring.
- Ensure that DFIs do not reproduce urban bias.
- Commissions proposed the establishment of a State Bank to fast track development and that we establish a bank to provide start-up capital to small and micro enterprises and co-operatives.
- Retain and expand state ownership of strategic assets in sectors of the economy that are critical for the success of our economic transformation agenda, such as mining, steel, energy, ICT and land."

The ANC believed that SOEs had a strategic role under a developmental state and that the government should define that role (ANC, 2007). However, the shift in economic policy started in earnest with the resolutions adopted at the Growth and Development Summit between the government, business and labour in June 2003. The resolutions were given additional impetus by President Mbeki's speech at the opening of parliament in Cape Town on 21 May 2004 when he introduced the conceptual metaphor of the 'first economy-second economy' divide and stated the government's determination to fight the scourge of unemployment, underdevelopment and poverty. He argued that the major state policy response to ameliorate the effects of this divide rested on three pillars:

- encouraging the growth and development of the first economy, increasing its possibility to create jobs;
- implementing programmes to address the challenges of the second economy; and
- building a social security net to meet the objective of poverty alleviation (Mbeki, State of the Nation Address (SONA), 2004).

The significance of GEAR was that it privileged the attainment of macroeconomic policy objectives, reducing the state's fiscal deficit and the inflation rate, at the expense of other important elements of earlier, more social-democratic ANC policies, particularly those elements that were premised on coordinated market policies, a developmental state and strategies that prioritised the provision of basic needs. This led to a significant growth in disenchantment and political dissent within the ruling party, and between the ruling party and its alliance partners in this period, largely because of GEAR's failure to create a significant number of jobs, and to reduce poverty and inequality. In 2004 the South African economy was in an upswing as a result of the commodity super-cycle and strong government fiscal position. This gave Mbeki an opportunity to close the policy rift and appeal to critics by going back to historical economic positions of a mixed economy where the state controls the commanding heights of the economy.

Table 5.1 below shows that the GDP growth rate had improved from 2.3% in 1994 to 3.7% in 2004, and in a much bigger economy than that of 1994 (Treasury, 2005). Total debt as a percentage of GDP shrank dramatically from 48.6% in 1994 to 35.7% in 2004. The budget deficit as a percentage of the GDP improved from 6.8% in 1994 to 2.3% in 2004, providing a space for expansionary fiscal policy (Treasury, 2005). Finally, the deficit on the current account as a percentage of GDP widened from 0.5% in 1994 to 3.2% in 2004, supported by robust capital inflows on the capital account of the balance of payments because of the growing integration of South Africa into the rest of the world economy (Treasury, 2005).

Table 5.1: Macroeconomic variables

Year	**1994**	**2004**
Deficit as a percentage of GDP	-6,8%	-2,3%
GDP growth rate	2,3%	3,7%
Debt as a percentage of GDP	48,6%	35,7%

% Current account/GDP	-,5%	-3,2%

Source: SARB (2004) and National Treasury Budget Review 2005

Moreover, since 1994, South Africa's credit ratings had improved steadily, reflecting progress in macroeconomic reform and economic conditions. South Africa was assigned an investment grade rating of Baa3 by Moody's Investors Service in 1994, while Fitch Ratings and Standard & Poor's assigned a speculative rating of BB. Sovereign ratings measure the risk of a country defaulting on its foreign currency debt service obligations (Treasury, 2005). Relevant factors in determining a rating include the ability of the economy to generate foreign currency, the magnitude of short-term debt, total debt stock, and the level of international reserves as well as the ratio of external debt to current account receipts.

By 2005, South Africa had been upgraded by all three rating agencies to an investment grade (Moody's Investors Service Baa1, Fitch Ratings and Standard & Poor's BBB). In addition, the improved macroeconomic environment indicated in Table 5.1 above and the ability of South Africa to fund its entire borrowing requirement from the domestic market, if necessary, bolstered the country's position in international capital markets.

In Mbeki's second term of office following his SONA, the government released a comprehensive basket of socio-economic policies aimed at meeting the requirements of these three pillars. These included: functioning more effectively as a developmental state; building stronger linkages between the formal and informal economies; increasing infrastructural investment; targeting key economic sectors; promoting broad-based black economic empowerment (BBBEE); encouraging labour-intensive production methods; promoting the Expanded Public Works Programme (EPWP); and building a stronger social safety net for the poor. However, the achievement of all of these policy goals depended on stronger state steering and more effective cross-departmental coordination, what Evans (1995) refers to as embedded autonomy.

Evans (1995) introduced the notion of embedded autonomy and comparative institutions to explain the role of a developmental state. States in this framework undertook four roles: custodian, demiurge, midwife and husbandry. As a custodian, the state regulates, protects and polices. As a demiurge, the state is involved directly in production activities. The state supports entrepreneurs in risk-taking by providing credit as well as reducing uncertainty in the market. It

acts as a midwife by ensuring careful use of credit to promote entrepreneurial activity by the private sector. Finally, the state in its husbandry role cultivates, nurtures and prods entrepreneurship activities that have been supported by the midwife role.

In the second half of 2004, the South African economy accelerated above 5%, propelling GDP to an annual growth rate of 3.7% (Treasury, Budget Review, 2005). Positive growth was experienced in all sectors of the economy in 2004, with wholesale and retail trade, transport and communications, finance and business services and manufacturing, being the main contributors to growth. The Labour Force Survey indicated that 419,000 jobs were created between March 2003 and March 2004. The three Surveys of Employment and Earnings in the first three quarters of 2004 also indicated a rising trend in the economy's capacity to absorb labour. The production and employment numbers signalled a structural improvement in the overall performance of the economy, however, it was not enough to make a major dent in unemployment.

In response to the poor labour absorptiveness of the economy, the state introduced the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) in 2006 (Mlambo-Ngcuka, 2006). Its main purpose was to identify the major bottlenecks to attaining a 6% growth rate by 2010. Six such binding constraints were identified:

- **The volatility and level of the currency:** In spite of major improvements in the administration of fiscal and monetary policy, currency volatility deters investors in tradable goods and services outside of the commodity sector.
- **The cost, efficiency and capacity of the national logistics system:** Backlogs in infrastructure and investment and, in some cases, market structures that do not encourage competition, make the price of moving goods and conveying services over significant distances higher than it should be. Deficiencies in logistics are keenly felt, with considerable concentration of production inland, located at some distance from the major global markets.
- **The shortage of suitably skilled labour:** The most difficult aspects of the legacy of apartheid, in terms of transformation, arise from its deliberately inferior system of education and irrational patterns of population settlement. In a period of growth, it is evident that South Africa lacks sufficient skilled professionals, managers and artisans, and that the uneven quality of education remains a contributory factor. In addition, the wage costs of labour are pushed up by the fact that many live a great distance from their places of work.

- **Barriers to entry, limits to competition and limited new investment opportunities**: The South African economy remains relatively concentrated, especially in upstream production sectors such as iron and steel, paper and chemicals and inputs such as telecommunications and energy. In some cases, market structure negatively influences the possibilities of downstream production or service industry development. Competition law and industrial policies need to be strengthened to counteract these factors.
- **The regulatory environment and the burden on small and medium businesses**. The mediocre performance of the small, medium and micro-business sector in terms of contribution to GDP and employment partly arises from the sub-optimal regulatory environment. Regulation unnecessarily hampers the development of small businesses in specific sectoral regulatory environments, such as the administration of tax; the planning system (including environmental impact assessments); and municipal regulation.

- **Deficiencies in state organisation, capacity and leadership.** Certain weaknesses in the way the government is organised, in the capacity of key institutions, including some of those providing economic services, and insufficiently decisive leadership in policy development and implementation, all constrain the country's growth potential (PCAS, 2006, p.3-4).

The government identified a number of strategies to counter these constraints. The strategies included infrastructure programmes, sector investment strategies, skills and education initiatives, second economy interventions and the improvement of public administration (PCAS, 2006, p.3-4). The government had already begun to ramp up public sector investment. At one point, it fell below 4% of GDP, but it rose to above 6%. In order to eliminate the backlog that had emerged in public infrastructure, public sector investment was planned to rise to around 8% of GDP (PCAS, 2006, p.5).

However, to carry out effectively all the roles of a developmental state as defined by Evans (1995) and the binding constraints mentioned above in the AsgiSA, depended on embedded autonomy. Evans (1995) refers to "the state's ability to provide institutionalised channels for the continual negotiation and renegotiation of goals and policies" (Evans, 1995, p.59). Embedded autonomy required a strong relationship between the ANC government and society, commitment to developmental goals and a bureaucratic state with the ability to attain the set AsgiSA goals. In addition the ANC's developmental state required a strong and efficient bureaucracy that

guaranteed the delivery of services by providing adequate support to the private sector in order to attain developmental goals.

In 2004, three years before the ANC officially declared its government to be a developmental state, I had been approached by Edwin Ritchken, an advisor to the minister of public enterprises, Alec Erwin, to assist in modelling the possible impact of the government's infrastructure investment drive. I believed that the approach by Ritchken marked a significant shift in macroeconomic policy towards Keynesian and post-Keynesian approaches where the state played a critical role in economic development as a regulator, a facilitator and financier through development finance institutions. High risk projects that impact on employment, social infrastructure and human well-being were last seen in the interventionist developmental state of the apartheid government between 1948 and the 1980s (Freund, 2019) and the democratic government was in a position to deploy capital and alleviate unemployment, reduce poverty and inequality. The apartheid state intervened in the market and invested in the development of the Afrikaners who caught up with the rest of the South African whites through racial laws that excluded black people.

I assembled a team composed of Gerhard Kuhn, the IDC econometrician, Jorge Maia, the Team Leader, and three senior researchers, Xoliswa Mose, Charles Morolo and Neo Ramakoae. I believed that the state as a demiurge was getting involved directly in production activities, ensuring security of energy supply through Eskom and a seamless logistic network for goods and services through Transnet.

Kuhn, Maia, Mondi, Mose, Morolo and Ramakoae (2005) observed that, after 1980, fixed investment by public corporations was declining on an ongoing basis, with their share of overall investment declining from 25% in 1980 to 10% by 2004. This adverse trend not only impacted negatively on the efficiency of service delivery by state-owned enterprises (SOEs), but also contributed to the downscaling or even the demise of industrial activity in specific sectors of the domestic economy that supplied capital equipment, components and materials consumed by SOEs in their investment programmes. The trend in SOE investment expenditure was set to be reversed in coming years, particularly through the massive R134 billion capital expenditure programmes of Eskom and Transnet planned for the next five to seven years, in South Africa's energy and transport infrastructure respectively. This was to be the largest infrastructure development programme in many years, providing a major stimulus for industrial development

in the country. This capital expenditure became even more significant considering that total fixed investment in the country amounted to R226 billion in 2004, with public corporations contributing just over R24 billion (Kuhn et al., 2005).

Kuhn et al., (2005) used the IDC economic impact model, which is based on the supply and use tables (converted into an input-output model), for the impact assessment of the Eskom capital expenditure programme. An input-output model depicts economic relationships between different components of an economy by identifying monetary flows (expenditures, receipts) between various units. These models normally focus on inter-industry relationships on a detailed sectoral basis, whereas a macro-econometric model emphasises relationships between macroeconomic aggregates, as depicted in the national accounts of a country.

At the macro-level, Kuhn et al., (2005) concluded that the total capital investment associated with the programmes announced by Eskom and Transnet should fuel economic growth by adding an estimated R90.3 billion to overall GDP between 2005 and 2010. The average annual contribution to GDP over the five-year period was estimated to be equivalent to 1.3% of national GDP (in 2004 terms). This was a significant impact, taking into consideration the high demand for imported goods. Nonetheless, the estimated R53 billion in direct import requirements (pertaining largely to machinery and equipment such as transformers, turbines, metering panels as well as locomotives and other transport equipment) provided reason for concern (Kuhn et al., 2005). Furthermore, due to the relatively high import propensity of South African industry, additional imports in the region of R22.3 billion were likely to be required by local industries in order to accommodate the increased demand for domestic goods and services. This was expected to translate into a net impact on the current account of the balance of payments of more than R75.2 billion in additional import demand over the next five years (Kuhn et al., 2005). The SOE capital expenditure programme was estimated to create 55,200 sustainable jobs over the next five years, approximately 33,000 of which were expected to be in the construction sector. However, the latter were regarded as temporary jobs that were unlikely to be sustained upon completion of the Eskom and Transnet capital expenditure programmes. The impact analysis also indicated that the cost per job opportunity was extremely high, at just over R2.4 million per additional job (Kuhn, et al., 2005).

5.3 Infrastructure investment as an engine of development

South Africa was regarded as one of the cheapest electricity producers in the world, with Eskom, the state-owned electricity utility, dominating electricity generation, transmission and distribution. With a generating capacity of 39,810 MW (out of a total nominal generating capacity of 42,011 MW), Eskom was ranked 11th in world terms, while its 206 TWh in generated sales afforded the state-owned utility seventh position in global rankings (Eskom Annual Report 2005). Around 90% of the electricity produced was derived from South Africa's abundant coal resources. Anticipated strong demand for electricity in the 1940s and 1950s led to large investments in regions where there were substantial supplies of coal, including parts of what is today Mpumalanga. These massive investments continued until the 1980s, resulting in excess generating capacity that made it possible for Eskom to continue providing electricity at a relatively low cost without having to invest in new capacity for more than 20 years.

Eskom aimed to deploy about 5,300 MW, increasing its generating capacity to about 41,500 MW. Eskom wanted to provide security of supply by recommissioning mothballed power stations such as Camden, Komati and Grootvlei during the deployment of new capacity. In addition to new generation capacity deployment, Eskom planned to increase transmission capacity in many areas of the country, including Johannesburg, Bloemfontein, Richards Bay and the Cape Peninsula, as well as supply lines to Coega (Budget Review, 2005).

Both the Eskom and Transnet investment programmes and AsgiSA assumed continuity of existing institutions in affecting the economic impact that the country so much required. During apartheid, Eskom was part of an ecosystem that included suppliers of generators, transformers and turbines (such as Siemens and Dorbyl) as well as intensive users of electricity (such as ArcelorMittal (Iscor), Highveld Steel and Vanadium, Sasol, Anglo American and the municipalities) (Kraak, 2007). Other key elements of the ecosystem included research and development and education and training institutions such as the technical and vocational education and training (TVET) colleges and universities, particularly the universities of the Witwatersrand and Cape Town. Universities, TVET colleges and the Council for Scientific and Industrial Research (CSIR) are major sources of scientific advances and human capital formation (Kraak, 2007). This dynamic network incorporated the very important process of institutional learning. Such learning took place at all levels, from the individual through to the firm and the organisation (Eskom), on to inter-firm and inter-organisational learning, and on through to the

whole system – the learning economy. This learning process had a clearly interactive and collective dimension (Archibugi & Michie, 1998).

The Mbeki government assumed an able and capable state with all the features of Evans' developmental state. There was also dependence in relation to the path that had been taken under the apartheid government that the historical dynamic once a path is chosen, it would not change because the processes had become institutionalised and had reinforced over time. However, Eskom had stopped electricity capacity deployment between 1995 and 2005 and had lost some of its capability in building power stations (Ritchken, 2013). This was exacerbated by the demands of climate change, which prescribed low carbon-emitting technologies. Eskom needed to catch up fast if it was to deliver additional capacity on time. Catching up is inherently a dynamic process. Because sectors differ and the elements of a sectoral system are more or less closely connected, it follows that their change over time often results in sector-specific co-evolutionary processes. This process of sectoral catching up involves the actors, knowledge base and institutions of the sector, and the operative government policies and programmes (Kraak, 2007).

As argued in the previous chapter, the ANC had been concerned with the bigger prize of political power and the building of a public administration in line with the SA constitution. Economic development and a strategy for growth were left to the private sector, with the state playing only an enabling role. Zalk (2017, p.3) reflects much better than I have done on the post-apartheid economy when he argues that,

> Unguided by national strategies and performance requirements, industrial restructuring was undertaken by the conglomerates themselves in concert with increasingly influential institutional investors. This process resulted in widespread destruction of engineering industrial capabilities; the foreclosure of opportunities to develop globally competitive engineering firms; underinvestment and ultimately crisis in the steel sector; and weakened manufacturing linkages and multipliers with the rest of the economy. Furthermore, efforts since 2007 to mobilise industrial policy at scale to promote diversification from heavy industry have been impeded by these lost opportunities and the political economy conditions that spawned them.

As the ANC-led government of Mbeki adopted AsgiSA, the department of trade and industry (DTI) was developing a national industrial policy framework (NIPF), which was adopted by Cabinet in July 2007 (Zalk, 2014). This was a very strong signal of a government policy shift to

nurture industry and intervene in the market to address rigidities. As late as 2005, the Developmental Electricity Pricing Programme (DEPP) was introduced, marketing low electricity tariffs for a minimum of seven years in order to attract foreign investment. It was supposed to have a provision that cost savings should be passed on to local fabricators, but this proved impossible to enforce. The huge, new industrial development zone at Coega, near Port Elizabeth, advertised electricity at very favourable rates to attract industrial investment (CDC, 2004; cited in Winkler & Marquand, 2009). Even with capacity running out, agreements were being reached in 2007 with Alcan for an aluminium smelter at Coega, reportedly at an electricity price of around US$0.02/kWh or R0.14, compared with average prices of R0.18 for other industrial users and R0.45 for households (Black & Roberts, 2009). In addition, the smelter investment was in line for investment allowances of R3.3 billion and a tax forfeit in excess of R600 million (Burton, 2011). The severe constraints on South Africa's generation capacity led to plans for the smelter investment being cancelled in late 2009. Pricing policy also favoured industrial users ahead of households, who effectively cross-subsidised the manufacturing and mining sectors. While it is the norm that industry users pay less because bulk supply is cheaper to provide, the differentials in South Africa have been particularly large, with consumers paying as much as three times the price of industrial and mining bulk customers. Uncoordinated and faced with opposition from Cosatu, ANCYL and SACP, a culture of mistrust had developed with Mbeki seen as a symbol of GEAR despite the policy shift at a vision of building a developmental state. Without the four pillars of Evans, Mbeki's developmental state had seeds of self-destruction in them.

In December 2007, the ANC rank and file turned against its leadership at the ANC's 52nd national elective conference held in Polokwane. It was to be expected. A year earlier, the Cosatu leadership had argued that the ANC was drifting towards dictatorship. "Dictatorship never announces its arrival," Zwelinzima Vavi, the general secretary of Cosatu, told a media briefing in Cape Town:

> It won't, like drum majorettes, beat drums and parade down the street to announce it has arrived. The main concern of the National Executive Committee centres on signs that we may be drifting toward dictatorship. This appears in the use of state institutions … in narrow factional fights. We see it in the use of sections of the media to assassinate the character of individuals through off-the-record briefings and the leaking of sensitive information in the hands of those charged to investigate crimes (Engelbrecht, 2006).

As early as 2002, the SACP's Jeremy Cronin worried about the "Zanufication of the ANC". It was a term he used to refer to the "bureaucratisation of the struggle" (cited by Chipkin, 2009). This perspective informed the way that commentators and numerous ANC members viewed the events at the party's 52nd national elective conference that culminated in the election of Jacob Zuma as the ANC president.

Gumede (2008) argues that the centralisation of ANC policy within the presidency, combined with the centralisation of government policy within the presidency, was one of the main reasons for the marginalisation of ordinary ANC members and citizens from policy- and decision-making within the ANC. Since 1999, Gumede (2008) contends, the restructured presidency took on an increasingly dominant role in the policy-making process in post-apartheid South Africa. Mbeki's style as president, seen by his strategists and himself as that of a chief executive officer, had significant implications for policy-making and for opening up policy-making to the democratic process. As CEO, Mbeki tightly controlled the policy-making processes in the cabinet, the government and the ANC. Mbeki specifically transformed the ANC presidency and the country's presidency into a 'political centre' that co-ordinated, steered, implemented and monitored all policy (Gumede, 2008, p.44). At the beginning of 2008, the ANC had a new president, Jacob Zuma and Thabo Mbeki was still the South African president.

However, Gevisser (2007) paints a completely different picture from Cosatu's and Gumede's (2008) narrative. Gevisser (2007) argues that Mbeki is a man of self-reliance, and that GEAR was a means to self-reliance rather than capitulation to old colonial masters. At the core of the programme was the fear of the begging-bowl; of "giving up South Africa's limited sovereignty to the IMF and/or the World Bank as a result of a financial crisis" (Gevisser, 2007, p.693).

5.4 Eskom in the developmental state

The ANC-led government had shown its commitment to changing gear towards an interventionist state-led economic development programme. In 2005, Khoza's term as the chairman of Eskom came to end. In the 2005 AFS, Khoza was poetic and prophetic in his language as he envisaged a perfect storm. He stated:

- Unlike other major institutions, Eskom did not operate under a regime of crippling debt or unsustainable government subsidies;
- Eskom was a well-run company at the time of his appointment. To quote him: "The mixed blessings of an incoming chairman did therefore not include the simple role of a Messiah to a struggling company. The truth is, it would not be easy to take a well-run company to higher levels of achievement. This was my wonderful misfortune. After a short period of reflection, however, I came to the conclusion that the challenges that Eskom would face in the future would be far bigger than those we had already tackled."

Khoza's words were reiterated in an interview with him on 26 February 2019. Khoza (2019) said that, in the engagements between him and the shareholder, a business successor had been suggested to the minister of public enterprises, Alec Erwin, but he declined to reveal the name of the suggested business successor. However, a politician and former minister of environmental affairs and tourism in Mbeki's first term from 1999 to 2004, Valli Moosa, got the nod to lead Eskom's new build programme. Eskom was preparing to spend about R150 billion to build the Kusile and Medupi power stations.

The appointment raised some eyebrows among some of Eskom's customers who had by now been familiar with the appointment of a business chairman at Eskom since the implementation of the De Villiers Commission's recommendations. John Maree came from the financial services sector whereas Dr Reuel Khoza came from a diversified consulting background. In one of the interviews I conducted for this thesis, it was alleged off the record, that Valli Moosa had raised a question about how much time Khoza had spent at Eskom, to which the answer was that he was there two days per week. Moosa met the response with shock, according to the informant. Moosa detested spending time at the entity as he did not want to be seen as an executive chairman, which he confirmed in an interview I had with him on 4 April 2019. This could be perceived to indicate that a man was appointed who probably was not prepared for the job at hand or had little knowledge of the responsibility he was assuming. However, Moosa disagreed in the interview and argued that the time he spent at Eskom was sufficient to fulfil his fiduciary duties (Moosa, 2019).

Moosa's appointment symbolised Mbeki's attempts to implement his version of a developmental state in South Africa. The chairman and the CEO of Eskom left within a few months of each other. These changes in an organisation of the two top leaders during a significant deployment of

new generation capacity and a transitioning macroeconomic policy could trigger instability. Since Gcabashe's term was coming to an end in November 2007, Moosa allowed him to vacate the position earlier, at the end of April 2007, to allow the CEO-designate to assume his position earlier. In May 2007, Jacob Maroga assumed the position and Moosa gave Gcabashe some assignments in which he was to act on behalf of Eskom on the African continent for the period until the end of his contract.

In Mbeki's second term of office following his SONA as discussed above, the government's comprehensive basket of socio-economic policies included a functioning and effective developmental state; building stronger linkages between the formal and informal economies; increasing infrastructural investment; targeting key economic sectors; and promoting broad-based black economic empowerment (BBBEE), amongst others. Whereas BBBEE had initially focussed on the private sector, the deployment of capacity by SOEs such as Eskom could also play a role in their procurement of capital goods and services from historically disadvantaged South Africans.

The promotion of broad-based black economic empowerment (BBBEE) was part of Mbeki's vision of a developmental state that was assumed to be able, capable, interventionist, nurturing and disciplining. Eskom had in fact led the process of economic empowerment much earlier, without any glitches. For example, Eskom's procurement spend from black business had increased from R201 million in 1997 to more than R10 billion in 2005. In March 2004, Eskom had signed a memorandum of understanding (MOU) with a black business association, the National African Federated Chamber of Commerce and Industry (Nafcoc). The MOU outlined a cooperation framework for BEE and business unity (Clemence, Njobeni, 2004 cited in Shangase, 2007). Gcabashe and Nafcoc president Patrice Motsepe signed the memorandum, which committed the two organisations to promoting business development and opportunities for small, medium and black-owned enterprises. In line with the memorandum, Eskom, as well as other business organisations, would provide Nafcoc with information on their procurement database.

One of Eskom's remarkable achievements was the sourcing of coal supplies from Eyesizwe, a black-owned coal mining company led by Sipho Nkosi. When Kumba Resources Limited unbundled in 2006, Kumba's coal assets merged with Eyesizwe to form Exxaro Resources Limited. Arguably, the combination of procurement from black suppliers, the deployment of new electricity capacity and a politician, Valli Moosa, as chairman, was mixing up a volatile Molotov

cocktail. The increase in procurement from black businesses was becoming a source of competition among black entrepreneurs, which led to various businesspeople aligning themselves with different factions of the ANC, which were coming out of the closet as the party's 52nd national elective conference in December 2007 loomed. The perceived concentration of power by Thabo Mbeki, and the lack of democracy in the ANC had combined to create a political coalition of the wounded, whose only prize was the ousting of Mbeki and the implementation of radical economic transformation (RET).

Lodge (2009) observes that it was only from the 2005 National General Council that delegates at ANC meetings began openly challenging leadership over policy. However, he explains, within the SACP, signals of really determined opposition had been evident from 2002. At the SACP's 11th national conference – at which Thabo Mbeki failed to attend, sending Mosiuoa Lekota in his place – delegates sang '*Makuliwe! Mbeki akafuni sithethathethane'* ('Let us fight because Mbeki does not want us to talk') and in Central Committee elections two cabinet ministers, Jeff Radebe and Essop Pahad, lost their seats (Lodge, 2009). The party also established a Young Communist League (YCL), a body that would play a key role in the next five years in swinging ANC Youth League branches leftwards and behind Jacob Zuma (Lodge, 2009).

5.5 Political parties in business

Following Mbeki's defeat in Polokwane, a new political settlement was emerging with power to distribute and allocate resources. Some in the ANC saw an opportunity to participate in the Eskom and Transnet build programmes and also in the procurement of supplies by government departments, because they had seen Mbeki-aligned black business entrepreneurs such as Saki Macozoma and others benefiting as a result of their relationship with President Mbeki. Patron-client exchanges are a set of transactions which overlap with both rent seeking and corruption. Patron-client relationships are repeated relationships of exchange between specific patrons and their clients. A number of features distinguish patron-client exchanges from other types of exchange. First, such exchanges are usually personalised. They involve an identifiable patron and identifiable clients (Khan, 2000). The first sign that rent seeking was becoming embedded in the South African polity involved the ANC's Chancellor House and Japanese electricity equipment supplier, Hitachi, becoming involved in the Eskom build programme. The term rent is used to describe incomes which are above normal and include not just monopoly profits, but also

subsidies and transfers organised through the political mechanism, illegal transfers organised by private mafias and short-term super profits made by innovators before competitors imitate their innovations (Khan, 2000). Some rents are legal while others can be illegal. Initially at Eskom a techno-political regime appeared to be in the making. For Hecht (1998), techno-political regimes have particular characteristics: "These regimes, grounded here in institutions, consist of linked sets of people, engineering and industrial practices, technological artifacts, political programmes and institutional ideologies, which act together to govern technological development and pursue techno-politics" (p.16).

The ANC launched its first investment arm in 1992. As part of the transition to democracy, and in preparation for registering and functioning as a political party, the ANC set up the Batho Batho Trust with Nelson Mandela, Walter Sisulu and Tokyo Sexwale as trustees. The trust established Thebe Investments. Thebe took over the ANC's financially troubled Movement Marketing Enterprises, which then had the franchise to sell Nelson Mandela T-shirts and other ANC memorabilia, and soon became the ANC's investment arm. In 2006, Batho Batho rejected the suggestion by Mendi Msimang, the ANC treasurer-general, that the proceeds of its sales be used to pay off ANC debts of around R100 million, and insisted rather that "the ANC's request for funding would be adjudicated like that of any other applicant" (Jolobe, 2010). Set up by the ANC, in the interests of the ANC, Batho Batho no longer answered to its master's call (Jolobe, 2010).

Jolobe (2010) posits that Chancellor House Holdings is a true success story and has enabled the ANC to achieve a sound financial position. The Chancellor House investment portfolio was reported to have a market value in excess of R1.75 billion in 2007, making the ANC one of the wealthiest political parties in the world. In 2007, the Chancellor House Trust was the sole shareholder of Chancellor House Holdings, whose subsidiaries included Chancellor House Mineral Resources Investments, Chancellor House Energy Resources and Chancellor House Marine Investments. The Chancellor House Trust deed specified no beneficiaries, but the trustees were its chairperson, Popo Molefe, the CEO of Lereko Investments and Salukazi Dakile-Hlongwane, an executive director of Nozala Investments. Valli Moosa chaired Lereko Investments and it was therefore not surprising that, as soon as he became the chairman of Eskom, Chancellor House would be given an opportunity at Eskom. The state and SOEs were getting into bed with the ANC and black business in what was eventually to become the capture of the South African constitutional state by private interests.

Jolobe (2010) describes the events that led to Chancellor House contracting with Eskom. Chancellor House was a 25% shareholder in Hitachi Power Africa, the local subsidiary of Babcock-Hitachi Europe. Tenders for the boiler works were received from Alstom S&E, Steinmüller Africa consortium (the Alstom Steinmüller Consortium) and from Hitachi Power Africa and Hitachi Power Europe in consortium (the Hitachi Consortium). Alstom had a historical relationship with Eskom because about 80% of the Eskom fleet ran on Alstom turbines. Alstom and many other French companies such as Areva (nuclear) were integrated into the South African Military Industrial Complex (MIC) under the minister of defence, P.W. Botha, in the 1960s and 1970s. Alstom had been part of various energy-generation capacity deployment for Eskom and their relationship and dominance at Eskom was well-known and also a critical pillar of the electricity supply industry. That put them at a huge advantage in any new capacity build programme, as they were agile and able to switch their apartheid-era loyalties to the new black executives and engineers at Eskom, creating new alliances and coalitions, while rents continued because of historical embeddedness and the continuities that have defined South Africa's democracy and its macroeconomic foundations.

In the evaluation of a bid for boilers, the Alstom Steinmüller Consortium's tenders ranked first overall. In August 2007, Eskom accepted the Alstom Steinmüller Consortium tender, but subject to certain conditions, i.e. technical and commercial issues that had a bearing on the scope of the works that would have had an impact on the price that was tendered. These conditions became a thorny issue between Eskom and the consortium, to the extent that the consortium rejected Eskom's proposed mechanisms to deal with the outstanding issues. As the matter could not be resolved, Eskom decided to approach the other tenderer, the Hitachi Consortium, which subsequently resubmitted its tender "to a comparative evaluation against that of the Alstom Steinmüller Consortium's and emerged as the preferred tender", as cited by Jolobe (2010). After approval by the Eskom board of directors, the contract was concluded at the end of October 2007.

However, the former advisor to the minister of public enterprises, Edwin Ritchken, disputed this version in an interview with him on 4 March 2019. Ritchken (2019) was asked to evaluate the net economic benefit to South Africa of the two bids. He says the Alstom Steinmüller Consortium's bid was financially stronger than the Hitachi Consortium's, but included about 10% local content. However, the Hitachi bid included more than 30% local content, but was

financially expensive. He recommended Hitachi, which was awarded the contract by Eskom. The emphasis on local content which resulted in a higher price than what had been offered by competitors, was growth-enhancing through the backward linkages to other local suppliers to Eskom. Khan (2000) interprets the rents to the Hitachi Consortium as growth-enhancing rents which are different from corruption. In an interview, Ritchken told me that, while there was a link between Hitachi and the ANC's Chancellor House, his decision was not influenced by that, but by the local content of the bid. On the subject of the association between the chairman of Eskom, Valli Moosa, who was also chairman of Lereko Investments, and the CEO of Lereko Investments, Popo Molefe, Ritchken was satisfied with the process. However, Popo Molefe was also, at the time, a trustee of the trust that owned the entire share capital of Chancellor House.

AmaBhungane, the investigative journalism institution, did a comparison of the rents (AmaBhungane Reporters, 2010). It showed the following:

Hitachi Power Africa's calculation :

- Total contract value – R38,5 billion
- Local content value @ 60% – R23,1 billion
- Profit @ 1-3% – R231-million – R693 million
- Chancellor's dividend @ 25% and post-tax – R50 million

AmaBhungane's calculation (Amabhungane Reporters, 2010)

- Total contract value (2007) – R38,5 billion
- Local content value @ 60% R23,1 billion
- Profit @ 1-8% – R231-million – R1,8 billion
- Chancellor's share @ 25% – R58-million – R462-million
- Chancellor's dividend post-tax – R38-million – R302-million
- Escalated @ 20% (2010) – R45-million – R363-million

The AmaBhungane (2010) estimate shows massive quasi-rents, which raises question about whether rents were growth-enhancing or corruption. The size of the rents from the Eskom contract became a matter of public interest in 2010, when it became clearer that Eskom would require massive tariff hikes to fund its capital projects. The ANC's conflict of interest – it formally opposed the tariff hikes, but stood to benefit from them through Chancellor House – became a matter of national debate. Cosatu general secretary Zwelinzima Vavi expressed

rhetorical disbelief that the ANC had put itself in such a position. According to the *Mail & Guardian* newspaper, Vavi had noted:

> The problem with this is that the ANC will not be able to ward off genuine concerns that it might have decided to accept the extraordinarily high tariffs imposed on the poor and industry because it stands to benefit. If it is true that the ANC company has invested in Eskom, then God help us all (*Mail & Guardian*, 2010).

But the political complexity thrown up by party business interests was highlighted by the response of ANC secretary-general Gwede Mantashe who was also the chairman of the South African Communist Party and a close ally of Vavi, at an ANC-Cosatu bilateral meeting where Mantashe launched a blistering counter-attack, accusing Cosatu of taking part in a "malicious debate" and adopting "a populist stance" (*Mail & Guardian*, 2010).

Valli Moosa only served for three years and in the interview he granted me, he stated that he thought he had served South Africa and Eskom well. Although the Hitachi transaction still leaves a bitter taste in the mouths of many, he believes that the Deloitte process showed that the transaction took place at arm's length (Moosa, 2019). His term ended in 2008 and he was replaced by Bobby Godsell on 1 July 2008. Eskom was changing its leaders with rapid speed. The first chairman of an incorporated Eskom, Reuel Khoza, left in 2005 and Valli Moosa in 2008. An organisation involved in the deployment of new generation capacity would have ensured stability in leadership until commissioning. However, the new political settlement from Polokwane in December 2007 meant that new players had to exercise power and redefine the distribution of influence leading to institutional and organisational change.

Bobby Godsell returned from retirement in 2008 and became the non-executive chairman of the Eskom board in July 2008. He had joined as an executive director of Anglo American in 1991 and served at the South African Chamber of Mines, first as a vice-president and later as its president. He was also chairman of the World Gold Council from 2001 to 2002. Bobby Godsell was appointed CEO of the gold and uranium division of Anglo American in July 1995 and CEO of AngloGold in April 1998. As CEO, he oversaw, alongside Sam Jonah, the merger of AngloGold and the Ashanti Goldfields Corporation announced on 26 April 2004, to form AngloGold Ashanti. Godsell retired from his position as CEO of AngloGold Ashanti on 30 September 2007 and was replaced by Mark Cutifani.

Bobby Godsell resigned on 9 November 2009, following a breach of corporate governance principles. He was the third chairman to leave Eskom in four years. The Presidency had attempted to intervene in a bid for the reinstatement by former Eskom CEO Jacob Maroga, who had resigned during a board meeting. According to Godsell, Maroga had offered to resign as chief executive in October 2009 (*Mail & Guardian*, 2009). Although Maroga denied this, the then minister of public enterprises, Barbara Hogan, would confirm Godsell's version at the Judicial Commission of Inquiry into Allegations of State Capture (Zondo Commission), as discussed further below. The intervention by the Presidency indicates an emergence of a patron-client relationship between the president of the Republic of South Africa and government institutions and individuals in his network as it will be shown below.

Since 2005, Eskom had been struggling to build an additional 17,000 MW of generation capacity while facing a funding crisis that had led to maintenance backlogs and delays (Eskom, 2011, p.61). These challenges also open up opportunities for change: for South Africa, energy transformation means moving away from a system that brought about these complex problems in the first place. The government used a two-pronged approach in its response to electricity capacity deployment, which a priori appeared to be justifiable because of the frequent blackouts in 2007/8:

- Assigning the highest priority in the near term to improving generation capacity; and
- Adopting strategies to accelerate energy efficiency, investing in clean energy, and pursuing regulatory and economic instruments to stabilise greenhouse gas emissions over the medium term, and eventually reduce emissions over the long-term, as envisaged in the long-term mitigation scenarios (LTMSs). The LTMSs recommended five priority climate change mitigation options for South Africa: industrial energy efficiency, renewable energy, nuclear power, a modal shift in passenger transport and improved vehicle efficiency (World Bank Group, 2010).

Firstly, the country had committed itself to various climate change commitments to reduce its carbon footprint by pursuing a low-carbon growth pathway by signing various national and international declarations. The major actions include:

- Ratification of the United Nations Framework Convention on Climate Change (UNFCCC) in August 1997 and accession to the Kyoto Protocol in July 2002;

- Adoption of a National Climate Change Response Strategy (2004), which outlined a broad range of principles and policy measures for mitigation and adaptation to climate change;
- Issuance of the Electricity Regulations for Energy Efficiency;
- Issuance of pending regulatory standards for ambient air quality and emissions of specified air pollutants from coal-fired power plants. These provisions are supported by a robust and mandatory system for public disclosure and pro-active stakeholder consultation with respect to environmental and social impacts;
- Adoption of a National Energy Efficiency Strategy (2006), which set an ambitious national target for energy efficiency improvement of 12% by the year 2015. In April 2006, a National Energy Efficiency Agency (NEEA) was established with the mandate to promote energy conservation; and
- Adoption of a 2005 white paper on renewable energy and setting a target for achieving 4% of electricity demand (about 10,000 GWh) from renewable sources by 2013. (World Bank Group, 2010)

South Africa's near-term policy response focused on four areas:

- Increasing supply capacity by bringing on new short-term, high-cost capacity; re-commissioning old plants that had been taken out of service; and financing an aggressive new build programme for Eskom, with significant addition to generation capacity;
- Improving Eskom's operating practices to increase supply-side reliability;
- Accelerating an energy efficiency programme targeting low-cost high-impact interventions, including solar water heaters, compact fluorescent lamps (CFLs) and demand-side management options; and
- Designing a legal and regulatory framework to attract private sector investment in generation, with a focus on renewable energy.

The policy response reflected the fact that coal would continue to be a major, low-cost input to power generation during the next 10 – 15 years. Coal is abundantly available in South Africa for large-scale power generation, especially considering the scale of the country's unmet energy needs, which were estimated to be 12,000 MW between 2007 and 2015. South Africa was the world's fifth largest producer of coal and the extraction costs of this high-quality and low-sulphur coal were low. Moreover, there were no feasible near-term regional alternatives in the sub-region to meet the demand in South Africa.

At the Copenhagen climate change summit in December 2009, President Jacob Zuma pledged to reduce the country's greenhouse gas emissions by 34% by 2020 and 44% by 2025. He claimed that his pledge was consistent with the LTMSs endorsed by the cabinet in 2008. Why would Zuma make such a pledge when Eskom was struggling to deploy new generation capacity? Zuma's overzealousness to cut emissions at such a rapid pace was informed by the procurement and building of Russian 9 GW nuclear plants. However, this was not divulged during that period.

South Africa is the largest source of greenhouse gas emissions in Africa and, in contrast to other developing countries with relatively low GDPs and high rates of poverty, the country's per capita emissions are high, comparable even to those of many EU countries, including the UK and Germany, and four to five times higher than those of Brazil or India (Baker, Newell, & Phillips, 2014). Eskom is the country's and the continent's largest greenhouse gas emitter. Yet, even as the pledge target was being agreed in Copenhagen, South Africa was facing a crisis of electricity generation which had resulted in rolling blackouts and mine closures across the country in 2008, with threats of further blackouts beyond 2012.

There continued to be a severe shortage of generation capacity in SADC. Nine of the 12 countries in the Southern African Power Pool (SAPP) had been experiencing energy shortages, caused primarily by the shortfall in South Africa's generation capacity. Although renewable generation capacity existed within the SAPP, it could not be mobilised in the near term and certainly not soon enough to mitigate the impending power crisis in South Africa. Moreover, the current generation requirement was larger than the combined undeveloped hydro generation potential of Zambia and Mozambique, countries with the most feasible sources of regional supply in the near term, and much larger than all generation projects deemed feasible within SAPP over the medium term (World Bank Group, 2010).

Narrow margins between the supply and demand of electricity had led the country's monopolistic utility, Eskom, to enter into costly buyback agreements, in which high-intensity industrial energy users were paid to scale down production so as not to use electricity. For example, Merafe Resources advised its shareholders on 12 December 2012 that the Xstrata-Merafe chrome venture had agreed to participate in Eskom's electricity buy-back programme and, as a result, would be temporarily closing five of its 20 furnaces at various plants in the group from 1 January 2013 until 31 March 2013. In return, Eskom bought back the energy not

consumed by these furnaces. The ferrochrome production loss to the venture was estimated to be 100,000 tonnes (Resources, 2012).

Industry's dependence on cheap coal for electricity generation was no longer sustainable. Meanwhile, the Energy Intensive User Group of Southern Africa (EIUG), whose 36 members included some of the world's largest resource and mining conglomerates, which also held a monopoly over the country's coal production, consumed around 44% of the country's electricity and represented the largest emitters of greenhouse gases. These companies included BHP Billiton, Anglo American, Xstrata (acquired by Glencore which then sold its 23% stake in Xstrata to Lonmin) and the coal-to-liquid-fuels pioneer, Sasol. As a result of these buy-backs, Eskom was experiencing liquidity challenges. The government provided financial support to Eskom's capital expansion by injecting R60 billion as a shareholder loan and providing a R176 billion guarantee facility (R150 billion unused in the 2008 financial year) (Eskom, 2009). The rest of the funding came from external debt and revenue.

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- Improving Eskom's operating practices to increase supply-side reliability;
- Accelerating an energy efficiency programme targeting low-cost high-impact interventions, including solar water heaters, compact fluorescent lamps (CFLs) and demand-side management options; and
- Designing a legal and regulatory framework to attract private-sector investment in generation, with a focus on renewable energy (World Bank Group, 2010).

The Kusile and Medupi power plants were developed by Eskom using the best proven technologies to minimise carbon emissions. The two power plants are the first in Africa to use the more efficient "supercritical" design. In addition, Kusile was designed to be CCS-space ready. In addition to using the supercritical design, these power stations would be the largest dry-cooled power stations in the world, reflecting concerns over water scarcity in South Africa. Supercritical power stations, according to engineers, involve a complicated design and had never been constructed on the scale of Kusile and Medupi. Supercritical coal plants differ from traditional coal power plants because the water running through them works as a supercritical

fluid, meaning it is neither liquid nor gas. This occurs when water reaches its critical point under high pressures and temperatures, specifically at 22 MPa and 374ºC. New technologies generally have teething problems and get perfected over a period of time. Because of such problems, if the costs were not managed effectively, the use of new technologies would result in white elephants, as it did in the case of Kusile and Medupi.

As described in the Electricity Regulation Act 4 of 2006 [(1)] and regulations in the Electricity Regulations for New Generation Capacity published in 2009 [(2)], the Department of Energy, the system operator (Eskom) and National Energy Regulator of South Africa (Nersa) are responsible for the development, publication and updating of the national level long-term electricity sector plan known as the integrated resource plan (IRP), which includes:

- Adoption of the planning assumptions;
- Determination of the electricity load forecast;
- Modelling and scenario planning based on planning assumptions;
- Determination of a base plan derived from a least-cost generation investment requirement;
- Risk adjustment of the base plan, which shall be based on:
  - The most probable scenarios;
  - Government policy objectives for a diverse generation mix, including renewable and alternative energies, demand side management and energy efficiency; and
- Approval and gazetting of the integrated resource plan.

5.6 Integrated resource plan for a just energy transition

Although not explicit above, due to the broad implications of the IRP for various stakeholders, consultation on the IRP usually takes place via various engagement cycles (including public consultations). As part of the IRP update process, the Department of Energy engages in a multi-stage stakeholder engagement process (including public engagements) to ensure all affected stakeholders are consulted, including national and local government, business, organised labour and civil society.

The IRP is a living plan that is expected to be updated periodically in order to ensure future generation capacity investments are made on an informed basis, considering the latest trends and developments both locally and internationally in supply-technology costs, demand forecasts for

electricity and existing generation fleet performance and lifetime. The primary result from the IRP is the identification of the generation capacity required (per technology) and the requisite timing in the long term, based on a set of input assumptions and pre-defined constraints. The primary responsibility for energy policy objectives and priorities resides with the Department of Energy, but the department is guided by policy priorities from other national departments.

Following this process, the IRP is approved by the minister of energy and gazetted in the Government Gazette. The minister then makes determinations, informed by the gazetted IRP, on the generation capacity to be procured.

In March 2011 following an extensive process of consultation on the 2010–2030 IRP (DOE, 2011), the policymakers released the policy-adjusted IRP for implementation. This document included:

- The requirement for a feasibility study on the potential capacity identified in the IRP, in terms of the new generation regulation, to provide input to the ministerial determination between Eskom build and procurement from independent power producers (IPPs). The feasibility study had to be undertaken as soon as the IRP was promulgated to give impetus to the decision.
- Coal fluidised-bed combustion (FBC) units would be built, operated and owned by IPPs. There was a need to firmly commit to the private sector, in a timely manner, to ensure that the expected capacity would be met. From a central planning perspective, an alternative would be required to replace the capacity by 2019, should it not materialise.

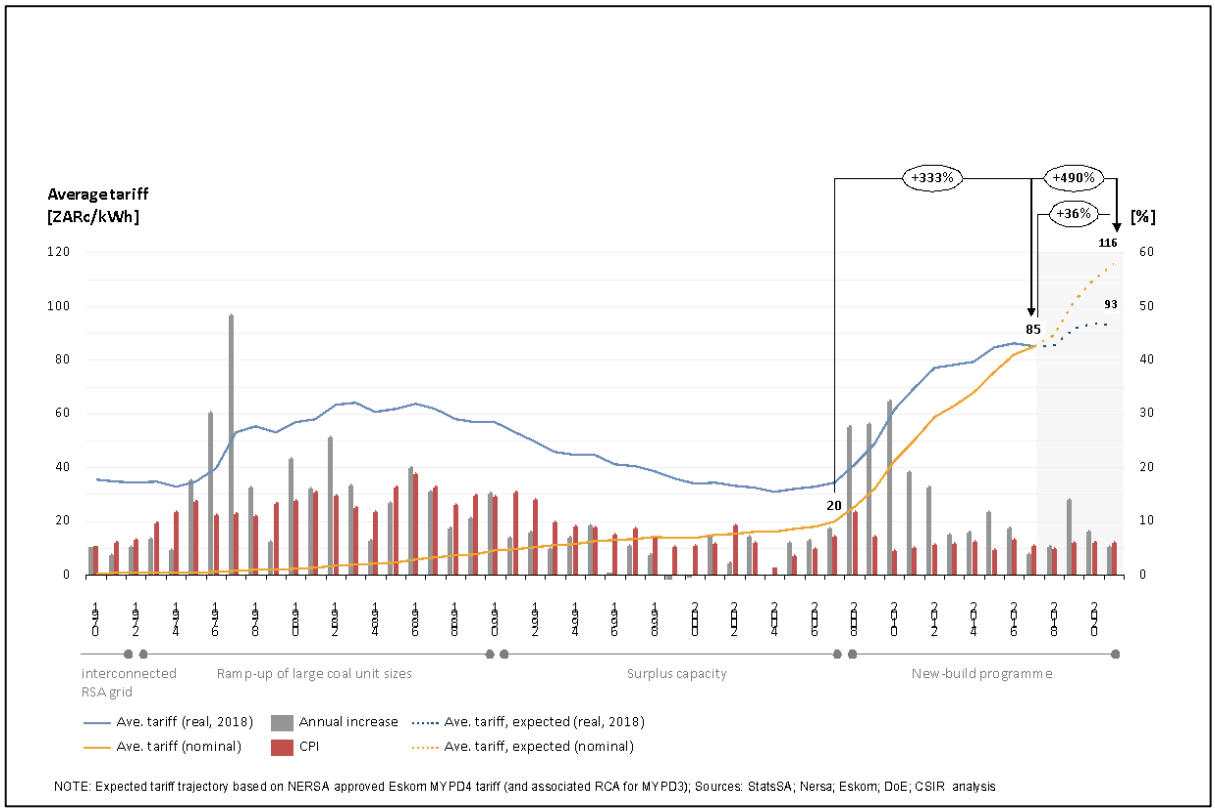
This strategy was influenced by lenders, including the World Bank and the African Development Bank, which required that Kusile and Medupi be the last coal-fired power units in South Africa. The role of the lenders is discussed further below. The South African government saw an opportunity to discard the old and clean the environment, while also achieving the goal of black participation in generation through IPPs, and acquiring additional electricity capacity. I should mention that this all occurred in a bold attempt to create a developmental state in South Africa. This can be seen in the Department of Energy's strategic plan for 2011/12 to 2015/16, where it sets out its strategic overview and detailed plans for delivering on the government's commitments on energy.

The IRP for 2010–2030 (the IRP 2010) was published on 6 May 2011 in Government Gazette No. 34263 (DOE, 2011). In December 2012, the minister of energy announced determinations in terms of section 34 of the Electricity Regulation Act 4 of 2006, regarding the expansion of electricity generation capacity by IPPs. Such determinations included additional base-load generation capacity of 7,761 MW, 2,500 MW of which would be energy from coal, for connection to the grid between 2014 and 2024.

5.7 Financing "white elephants" – Kusile and Medupi?

In the 2009 financial year, ending in March 2009, Eskom's financial performance was severely impacted by the increase in the cost of primary energy (mainly coal). Eskom recorded an operating loss of R3.195 million (Eskom Annual Report, 2009), following an operating profit of R3.215 million in the 2008 financial year (Eskom Annual Report, 2008). During August 2008, Moody's downgraded Eskom's credit rating by three notches. This was mainly attributed to the deterioration of its stand-alone credit profile due to the capital investment programme and the negative impact of the tariff increase, which was lower than requested. On 10 June 2009, Fitch Ratings upgraded the Eskom national long-term rating from negative to stable. The 2008 financial year was the last year of the first multi-year price determination (MYPD) agreement with Nersa. Eskom faced significant financial challenges during the year due to the capital expansion programme (R385 billion over the five-year period up to March 2013) and increased operating and primary energy costs. On 20 December 2007, Nersa had awarded an electricity price increase of 14.2% for 2008 and announced a further increase of 13.3% on 18 June 2008. This resulted in an average annual increase of 27.5% (well below the 60% that Eskom had requested). As a result, Eskom had to look for external sources of funding. Figure 5.1 shows the average tariff increases of Eskom from 1970 to 2017 (CSIR, 2018).

Figure 5.1: Eskom average increases (Source: CSIR)



Development finance institutions (DFIs) were on hand to assist with the required funding package and to de-risk Eskom's funding plan. One of the eager DFIs was the World Bank. Following many years of technical and capacity support, the World Bank believed that South Africa would open a window of opportunity for it to lend. That time had arrived and it was not going to be left out of the deal. Its biggest dilemma was justifying funding a coal-fired power station. Not even the Chancellor House and Hitachi transactions and the warning lights flashing in relation to the wave of populism and entitlement that had been seen at the ANC's 52nd national elective conference could persuade the World Bank to give the funding of the Eskom build programme a miss. The World Bank had accumulated a lot of experience over its life, witnessing coups, debt defaults and the renegotiation of funding terms. Perhaps, at the back of the minds of some of its staff was the idea that developing countries were corrupt, but needed to be funded anyway, because they were all the same (Stiglitz, 2016). The greatest economic costs of white elephant policies are generally those stemming from new plants producing superfluous output or output that could have been more cheaply generated by improving the yield of existing capacity. Under the circumstances, we shall never know whether or not this was the case here.

Eskom embarked on an estimated US$50 billion investment programme to meet the supply-demand gap. It included two 4,800 MW coal-fired power plants, Kusile and Medupi. Supercritical and carbon capture and storage (CCS) space-ready coal-fired projects in South Africa constituted the best feasible domestic generation potential to cover the supply-demand gap. The Kusile and Medupi power plants were developed by Eskom using the best proven technologies to minimise carbon emissions. New technologies generally have teething problems and get perfected over a period of time. Because of such problems, if the costs were not managed effectively, white elephants could result.

5.8 The patron-client relationship at Eskom

The appointment of Jacob Zuma as the president of South Africa signalled a new political settlement, which had to be compatible and sustainable because institutions, both formal and informal, had to achieve the minimum levels of economic performance and political stability that were required for the de-racialisation of the South African economy. The new political settlement allows us to show that there were limits to the types of institutions that could survive in particular contexts, and that substantial differences in institutional performance were both to be expected and to be the subjected to rigorous analysis.

Under Zuma's first term that began in 2009 there was an intensification of redistributive projects in line with the expectation of the constituency that had propelled him to the ANC presidency in 2007. Many were rewarded through an expansion of the number of ministers and deputy ministers from 50 under Mbeki to 73 under Zuma. Mbeki had built systems of administration and passed various legislations to ensure accountability and transparency as expected by the SA constitution. Khan (2000) has extended the phenomenon of patron-client exchanges. Patron-client relationships are repeated relationships of exchange between specific patrons and their clients. A number of features distinguish patron-client exchanges from other types of exchange. First, such exchanges are usually personalised. They involve an identifiable patron and identifiable clients. While there is always some freedom of entry and exit, entry and exit from patron-client networks is considerably less frequent compared to normal market transactions (Khan, 2000). Secondly, the exchange is between two distinct types of agents, distinguished either by status, power or other characteristics (Khan, 2000). Typically, the superior member is called the patron and the inferior member the client. Nevertheless, the power or status of the

patron can vary across a broad range, and these differences may be important for understanding the types of exchanges taking place within different patron-client networks.

Eskom and Transnet were rolling out infrastructure as part of the infrastructure investment programme. Procurement was shockproofed, unless it was manipulated through a corrupt system, the seeds of which were being planted as early as 2008, when the Eskom board became unstable, as three new board chairman were appointed in the space of four years. During her testimony before the commission on state capture chaired by Deputy Chief Justice Raymond Zondo, the former minister of public enterprises, Barbara Hogan (Hogan, 2018) detailed how Zuma had tried to reverse the resignation of Maroga after the Eskom board's decision to accept his resignation. Hogan told the commission about how she subsequently met with Maroga to resolve the matter and coordinate his "dignified exit" from the power utility. Hogan said she did not want to interfere with the board's decision. According to Hogan, during a four-and-a-half-hour meeting with Maroga, he had asked her to exercise her authority by reconfirming his position as the chief executive of Eskom (Hogan, 2018).

This was the first time in the democratic era that a sitting president micro-managed an SOE. Not even when Koeberg Nuclear Power Station Unit 1 had to be shut down as a result of alleged sabotage did President Mbeki get involved with the risk of energy supply, except by asking for support from France's President Jacques Chirac for the spare parts to be delivered timeously from Electricite de France to avoid power interruptions, according to Alec Erwin (Pressly, 2016). Constitutionally, a president would be involved in such matters should the security of the country be under threat. One cannot help but wonder what motivated President Zuma to intervene in an operational matter, ignoring the advice of Minister Hogan. Arguably, patron-client relationship was emerging and state-owned enterprises were become a vehicle for de-racialising the South African economy. Zuma was becoming a patron and the rest of his network, clients. Hogan (2018) told the state capture inquiry that her deputy, Enoch Godongwana, had told her before she was fired that there were rumours of her dismissal at ANC headquarters, Luthuli House. In October 2010, she received a call summoning her to an urgent meeting with President Zuma and then ANC secretary-general, Gwede Mantashe, at the president's official residence in Pretoria. According to Hogan (2018):

"I knew then that I was going to be dismissed...the president never really called me to an urgent meeting."

Hogan (2018) said that she was told by Zuma that the ANC's national executive committee had decided to "redeploy" her to Finland as an ambassador. She said she told the president she could not ask her partner, Ahmed Kathrada, who had spent 26 years in jail, to leave "his country, family and friends" and come live with her in Finland for five years. She said she did not ask for reasons for her dismissal because the president had the prerogative to dismiss her (Hogan, 2018).

Malusi Gigaba was appointed minister of public enterprises on 1 November 2010, replacing Barbara Hogan. Following the resignation of Bobby Godsell, Mpho Makwana was appointed as acting chairman of the Eskom board, with executive powers, in the absence of a CEO, following the resignation of Jacob Maroga. Although this marked the beginning of a process that would break down governance structures and undermine the sustainability of Eskom, the Eskom board remained independent, with a variety of skills. It included Zee Cele, Jacob Modise, Wendy Lucas-Bull, Uhuru Zikalala, John Mirenge (Rwandan), Lars Josefsson (Swedish), Hee-beom Lee (South Korean), Daniel Dube, Dr Boni Mehlomakulu, Dr Bernie Fanaroff and Paul O'Flaherty (who joined as CFO in January 2010). Brian Dames was appointed as the CEO in June 2010.

In 2011, Malusi Gigaba exercised power when he restructured SOEs to ensure compliance with the wishes of President Zuma, the patron, unlike Barbara Hogan (Bhorat et al., 2017). Gigaba unsuccessfully attempted to get a DTI official, Iqbal Sharma, appointed as the Transnet board's chairperson in 2011. Brian Molefe was appointed as the Transnet CEO in the same year (Bhorat et al., 2017) in a process riddled with loopholes, according to the *Mail & Guardian* (Sole & McKune, 2011). The loopholes were based on the discrepancy of advertising the position of CEO on 26 January with a closing date of 1 February. The appointment of Molefe on 16 February 2011 raised a few eyebrows on the speed and efficiency of the process after nine people out of 63 applications received, were interviewed in such a short space of time. The *Mail & Guardian* questioned the process saying that:

> "A senior executive with knowledge of Transnet board operations said the applications had to be vetted and interviews for busy executives and board members arranged. 'Molefe's appointment was miraculously quick', the executive said" (Sole & McKune, 2011).

At Eskom, Gigaba appointed Zola Tsotsi as the chairperson after Mpho Makwana retired, having served as a director for three terms and acted as interim chief executive (Bhorat et al., 2017). The following members were appointed during the 2012 financial year: Queendy Gungubele, Neo Lesela, Bajabulile Luthuli, Chwayita Mabude, Yasmin Masithela, Collin Matjila, Mafika Mkwanazi, Phenyane Sedibe and Lily Zondo. The following board members retired during the year: Zee Cele, Daniel Dube, Lars Josefsson, Hee-beom Lee, Wendy Lucas-Bull, John Mirenge, Jacob Modise and Uhuru Zikalala (Eskom, 2012). The exodus of directors was an indication that something wrong was taking place at Eskom. More concerning was the high board turnover during the period of South Africa's highest post-apartheid capital spend (Bhorat et al., 2017).

The minister of public enterprises, Gigaba, having successfully restructured various SOE boards, shifted his focus to the Public Finance Management Act (PFMA). The PFMA provides for discretion under certain conditions with about R846 billion in public investment programmes for transforming the economy (Bhorat et al., 2017) at stake. Bhorat et al. (2017) observe that the loophole was the waving of budget and expenditure plans in parliament, allowing for discretion and hiding from public scrutiny (Bhorat et al., 2017). The battle to transform the economy had shifted away from the economy itself to the state and, in particular, to control over government procurement budgets.

Of the R846 billion about R200 billion was capital spending by SOEs whose boards had been restructured by Gigaba. Transnet and Eskom formed two-thirds of the more than R200 billion in SOE spending to leverage in the interests of black economic empowerment during 2010/11 (DTI, 2011). That was about R144 billion or 17% of the government's total procurement budget (Bhorat et al., 2017). Steps were taken in 2009 to align this framework with the BBBEE codes and particularly to bring the SOEs under the auspices of the BBBEE codes (Zalk, 2014). The DTI is a member of the advisory council established in terms of the Broad-Based Black Economic Empowerment (BBBEE) Act and acted as the secretariat to this council during the period.

What President Zuma and his cabinet were doing was slowly emerging as a developmental agenda to decisively deal with the problems of poverty, unemployment and inequality, having disrupted various departments such as the DTI and, to an extent the National Treasury, by amending the Procurement Act, now referred to as the Preferential Procurement Act (Bhorat et al., 2017). Zuma needed to build networks outside government to strengthen his commitment to

economic transformation, and he targeted black business. Before discussing how Zuma got to them, it is important to understand the fragmentation of the South African business groupings (Mondi, 2017).

In 2003, Business South Africa (BSA), representing established (mainly white) business, and the Black Business Council (BBC), representing most of the black business groupings, merged to form Business Unity South Africa (Busa), a business advocacy and lobby group. A black billionaire, Patrice Motsepe, who was introduced earlier above, was elected as its president. Sectoral business organisations such as the South African Chamber of Business and Industry; the National Federated Chamber of Business and Industry (Nafcoc), a black business organisation; and the Afrikaanse Handelsinstituut (AHI), an organisation representing Afrikaner business interests; were affiliates of Busa but kept their shape and identity. However, the BBC was absorbed into Busa operating structures in an attempt to drive the transformation of the South African economy.

In July 2011, the Black Management Forum (BMF) withdrew from Busa following a board meeting on 25 June. The organisation cited "the fundamentally flawed structure of Busa where black business voice is permanently outnumbered and suppressed" (Mondi, 2017). However, Spicer (2016) argues that this was not the case. Rather, the appointment of a new CEO of Busa, Nomaxabiso Majokweni, triggered a walkout from Busa on the part of many of the professional associations representing black business. Nomaxabiso Majokweni is a black woman, and in interviews with some of the players during the period concerned, it emerged that the BMF had no issue with her and the CEO position but with the chairman appointment. The chairman, Futhi Mtoba, also a black woman, came from Business Leadership South Africa (BLSA). According to Manyi, the BMF was concerned by big business' control of Busa given its poor record on transformation. Instead of debating, persuading and reaching a compromise within Busa, the BMF saw an opportunity to break ranks, arguing that transformation was "low on the list" in the organisation (Spicer, 2016).

After the BMF's departure, Busa responded by issuing the following statement (Mondi, 2017):

> It therefore remains incorrect and unfortunate that allegations are made that Busa represents white business interests and that, by implication, it is riding roughshod over black business interests. Busa continues with its work and is currently collaborating

closely with the government and other social partners in rolling out economic transformation interventions such as the New Growth Path and the National Development Plan.

However, at the Black Business Summit held from 6 to 7 September 2011 and attended by the IT Forum, ABSIP, Abasa, the BMF, the BLA, Fabcos, Nafcoc, the Black Business Executive Circle, the National Black Business Caucus, the South African Black Technical and Allied Careers Organisation, the National Society of Black Engineers South Africa, the South African Women Entrepreneurs' Network, South African Women in Construction, and Women in Food and Hospitality, a resolution was passed suspending the BBC's participation at Busa.

The BBC was re-launched on 1 March 2012 and is currently an umbrella organisation divided into two – a business division and a professional division. The business division is composed of Nafcoc, African Cooperative for Hawkers and Informal Business (Achib) and the Foundation for African Business and Consumer Services (Fabcos). The professional division consists of the Black Lawyers Association (BLA), the Association for the Advancement of Black Accountants of Southern Africa (Abasa), the Black Management Forum (BMF) and the Association of Black Securities and Investment Professionals (ABSIP).

5.9 The black elite and radical economic transformation

The BMF, which championed black economic empowerment even under apartheid, is the cornerstone of the BBC and has been since the dawn of South Africa's democracy. Its leaders have played a dual role as leaders of the BMF and BBC simultaneously. Having the same person at the head of both organisations has had a huge negative impact on the BMF, particularly under Mzwanele "Jimmy" Manyi, who became very close to President Zuma during his leadership of both institutions. In 2010, former BMF leaders including the late Lot Ndlovu asked Manyi to step down after he had proposed changes to the organisation's constitution that would result in the president's term of office being extended from three to five years. Manyi had also wanted the position of executive president to be created in order to strengthen the president's executive powers and diminish the role of the managing director. Manyi resigned as the president of the BMF and devoted his time to bringing the BBC closer to Zuma. However, that kick-started a series of institutional changes within business.

The BBC intended to engage Busa on a range of policy, structural and constitutional issues; and the summit recommended a steering committee led by the presidents of national organisations (Spicer, 2016). The summit recommended a re-launch of the Black Business Council, and that it should focus on economic transformation, including building a new community of black entrepreneurs; promoting access to venture capital for black businesses; job creation; the development and promotion of small, medium and micro-enterprises (SMMEs), for which it would lobby for the creation of a small and black business ministry; the establishment of an infrastructure investment commission; and the establishment of a commission to deal with land reform (Mabhele, 2011).

However, at the summit, President Zuma argued that "the unity of the business sector is paramount in ensuring the achievement of the transformation goals. As government, we need a unified and united business voice to work with" (*Mail & Guardian* Staff Reporter, 2011). Spicer (2016) argues that by providing R7-million financial support by the DTI exclusively to black organisations, the state had cemented its position. Zuma showed himself to be particularly eager to woo black business, giving prominence to organisations affiliated to the BBC particularly on South Africa's international relations Spicer (2016).

When the Black Business Council was re-launched in March 2012, its mandate was to support historically disadvantaged people and to help them to become involved in business. The first president of the re-launched BBC, Sandile Zungu, articulated its mission as follows:

> "The objective is to make sure that black people are, first and foremost, the beneficiaries of our efforts."

Zuma now had forged unity across political, economic and business interest groups towards radical economic transformation, which is discussed in the following chapter.

5.10 Summary

In this chapter, I have discussed how, in 2004, the ANC experienced another Damascene conversion, this time towards Keynesian and post-Keynesian economic policies. The transformation was articulated in both AsgiSA and the national industrial policy framework, with

implementation plans referred to as the industrial policy action plans. In an attempt to reduce the cost of doing business in South Africa, the South African government invested in infrastructure through SOEs, which held the commanding heights of the economy. The SOEs were also seen as vehicles for black economic empowerment. By 2005, a strong consensus had emerged across the government on what was required to promote growth and development. The central tenets of this consensus included:

- As suggested above, microeconomic reform now constituted the new orthodoxy of government economic policy.
- A commitment by the government to halve unemployment by 2014. A resolution first adopted at the Growth and Development Summit in June 2003, it had now become the government's top economic and political priority.
- A stronger emphasis was being placed on industrial policy as a key government lever to target particular niche areas and economic sectors that were likely to contribute to economic growth and increased job creation in future.

The government was now also determined to get education and skills development more effectively aligned to its wider social and economic objectives. The prioritisation of this issue across the government represented a major gain – it was the first time that a large collective of government departments recognised education and training as a critical precondition for success in all of the government's other socio-economic programmes. The deputy president at the time, Phumzile Mlambo-Ngcuka, pointed out that a failure to improve education and training would constitute a "fatal constraint" on the ability of the economy to grow over the next decade" (Mlambo-Ngcuka, 2006).

However, because of dissatisfaction with President Mbeki's style of leadership and unhappiness about the pace of black participation in the economy, a number of ANC leaders and black business elites rallied around Jacob Zuma, voicing their dissatisfaction at the ANC's 52nd national elective conference, which led to Thabo Mbeki's ousting.

In 2009, Jacob Zuma was appointed president of South Africa. With the help of an infusion of communist, trade unionist and grassroots supporters, President Zuma constructed the biggest Cabinet in the history of South Africa's emerging democracy, full of cadres receptive to his ideas. A quiet revolution in the structures, procedures and personnel of the ANC, the government and bureaucracy took place under President Zuma as he consolidated his position. Eskom spend

was targeted, but had to be preceded by changes at board level and a change of CEO, installing people aligned with the Zuma programme. In the next chapter I discuss the implementation of Zuma's radical economic transformation at Eskom and how that has led to Eskom failing to keep the lights on because it can neither generate enough electricity nor service its short-term liabilities, due to liquidity constraints.

CHAPTER 6: RADICAL ECONOMIC TRANSFORMATION: 2013 AND BEYOND

6.1 Introduction

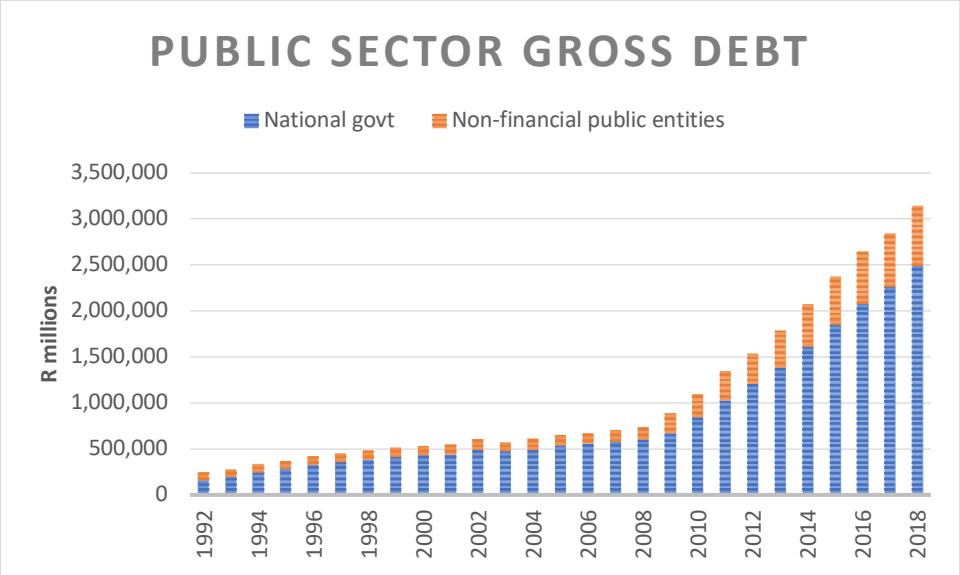
Bowman (2020) has shown how Eskom's indebtedness became a severe macroeconomic risk, making the power utility a precarious nexus for the circulation of public funds, while the cost and unreliability of electricity has undermined South Africa's energy-intensive industrial core. Intertwined with these were multiple high-profile corruption scandals associated with the 'state-capture' controversies of the latter stages of Jacob Zuma's presidency (Bowman). In this chapter, I extend Bowman's argument through an analysis of South Africa's macroeconomic variables and show that South Africa was living beyond its means. I extend Bowmans (2020) argument of state capture and contend that Zuma's radical economic transformation was a political and economic project aimed at rent seeking. This is because the social processes that resulted in the formation of the black elite through the mechanism of black economic empowerment and preferential procurement, gave rise to a pervasive informal political-economic system. The pervasive informal political-economic system referred to by Zuma as radical economic transformation required the breaking down of key institutions and acting outside the SA constitution in order to succeed. The breaking down of key institutions and acting outside the SA constitution in order to succeed is corruption. Corruption is usually defined as the transgression of formal rules governing the allocation of public resources by officials in response to offers of financial gain or political support (Khan, 2010). I show this at micro-level, at an SOE, by revealing how Eskom was hollowed out until it could no longer keep the lights on. I argue that Eskom's weak financial position leaves policymakers no choice but to complete the restructuring that had started in 1985, as per the recommendations of the De Villiers Commission. I conclude by recommending how Eskom can be restructured to save itself by transitioning into a low-carbon entity through a just and fair process.

6.2 South Africa's debt crisis

Including the borrowings of non-financial public entities (a category that includes the major SOEs), public debt now exceeds R3 trillion, up from R830 billion in 2009 and R210 billion in 1992 (see Figure 6.1) (CDE, 2019). Expressed as a percentage of GDP (see Figure 6.2), debt

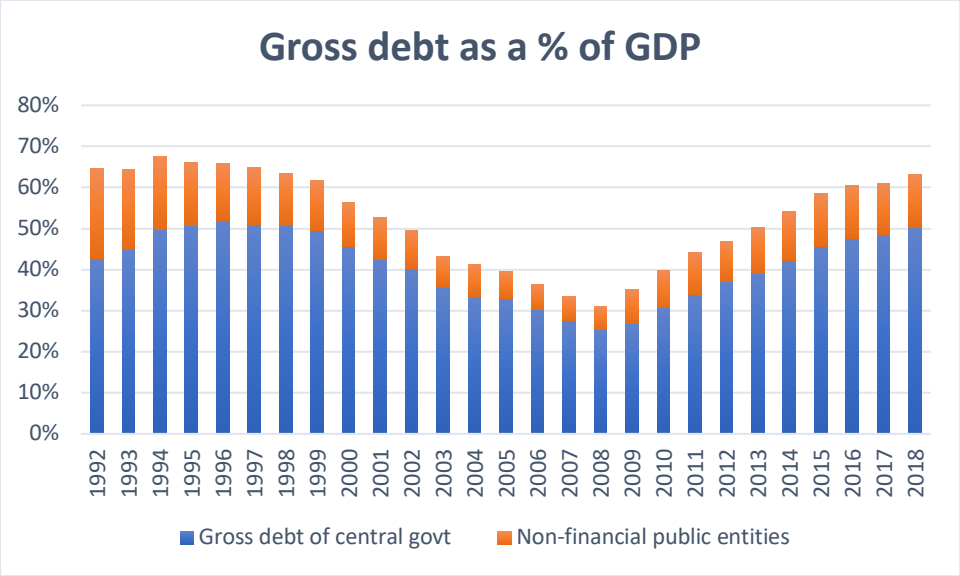
already exceeds 60%, is back at the highest levels recorded at the end of apartheid and shows little sign of slowing its upward trajectory (CDE, 2019).

Figure 6.1: Public sector debt (1992 to 2018



Source: Author (SARB database)

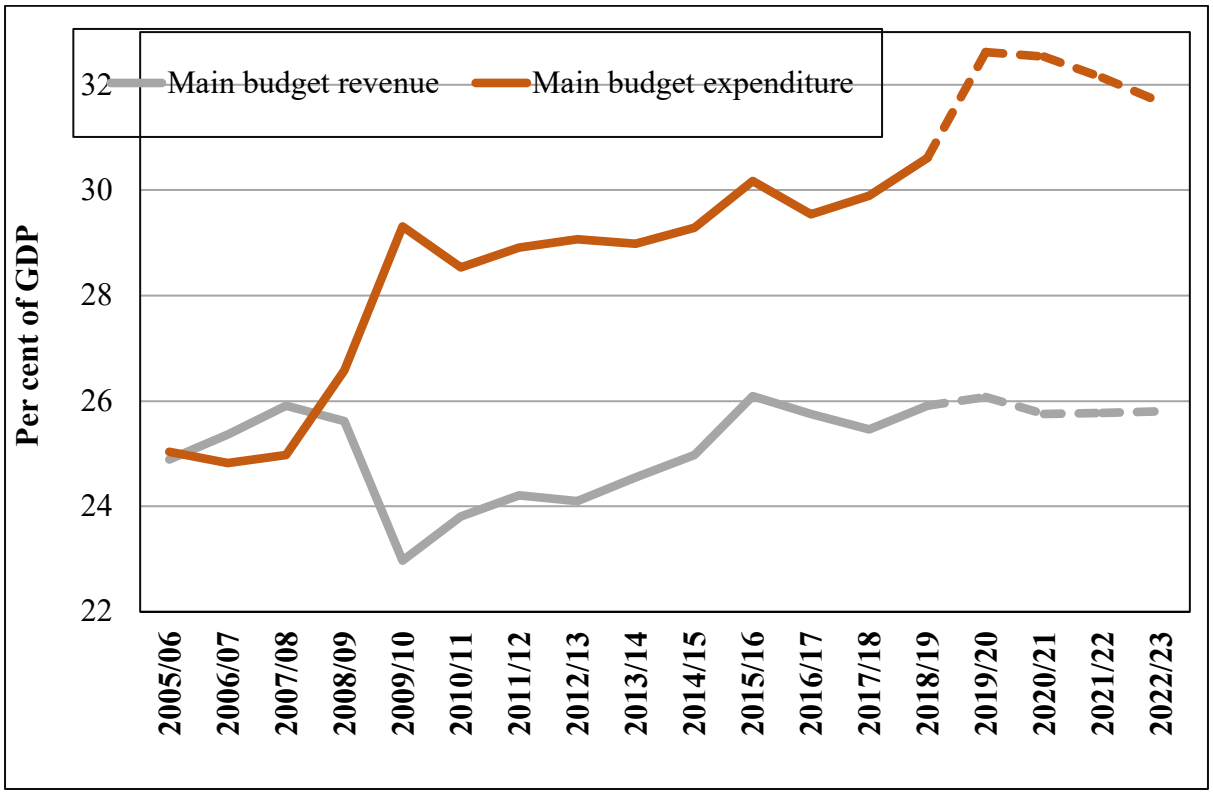
Figure 6.2: Public debt as a percentage of GDP (1992 to 2018)



Source: Author (SARB database)

There are two proximate causes for the explosion in public debt. The first is the gap between revenue and spending on the government's budget, which emerged in 2009 when President Zuma began his first term of office and which has not been closed in the intervening years. In effect, a sharp decline in tax revenues in the immediate aftermath of the global financial crisis was not accompanied by a decline in spending, and neither has the gap between revenue and spending that opened up after the global financial crisis ever been closed (Figure 6.3).

Figure 6.3: Revenue and expenditure of national government



Source: National Treasury

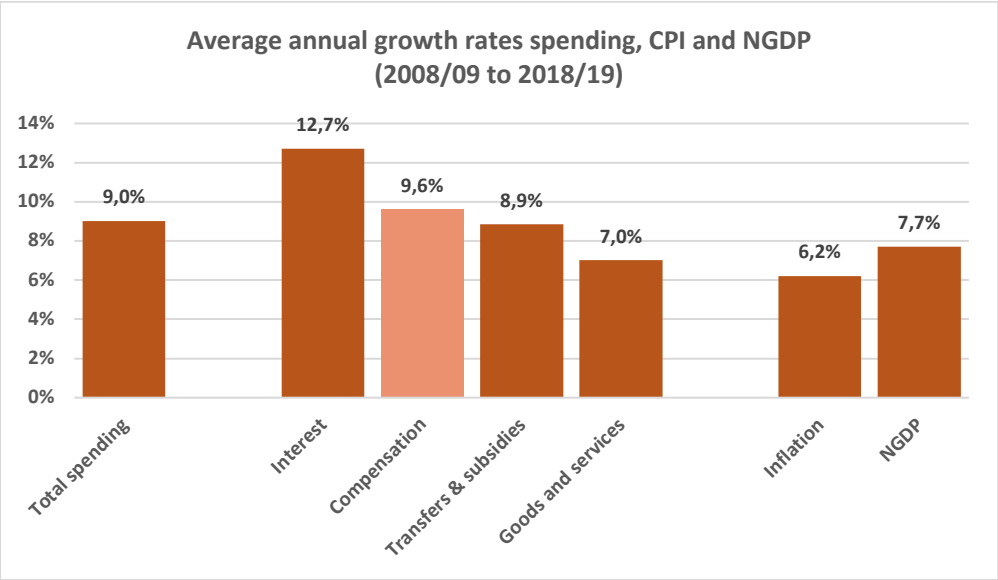
There are a number of reasons for the failure to close the gap between revenues and expenditures. The most important is that, while it was completely appropriate for government to loosen fiscal policy in the face of the global downturn, the "stimulus" that was implemented then was premised on the assumption that the economy would quickly return to the rapid growth that had characterised the previous decade (CDE, 2019). Higher, faster-growing spending became a structural feature of the budget. In particular, even as the downturn struck, the public service grew rapidly and structural changes to the level of compensation of public servants were implemented, leading to a large increase in average compensation (CDE, 2019).

Given the fact that economic growth has never returned to the levels achieved in the five years prior to the 2008 crisis, it is now obvious that a much more appropriate response to the shock would have been a large, *temporary* stimulus, preferably focused on delivering productivity-enhancing infrastructure. However, a temporary, infrastructure-focused stimulus of this kind did not happen, for two reasons (CDE, 2019):

- It was assumed that the economy would quickly return to growth of 4% a year and more, which would render the planned increase in public sector compensation spending affordable.
- South Africa was already engaged in a programme of infrastructure spending that was exceptionally large by historic standards. Vast spending was being rolled out in the run-up to the 2010 World Cup (stadia, airport upgrading, the Gautrain, and bus rapid transit systems), and Eskom was commissioning two enormous power stations. Infrastructure spending, in other words, was already elevated, and it is doubtful that the public sector had the capacity to spend much more with reasonable efficiency. Indeed, as time has shown, much of the infrastructure commissioned in this period (especially by Eskom and Transnet) would be delivered exceptionally inefficiently, with huge implications contributing to the challenges South Africa currently faces.

The ultimate reason that any thought of a temporary fiscal stimulus could not be entertained in 2009 was because the state described itself as a developmental state and had adopted Keynesian and post-Keynesian approaches to economic management. In the face of rising unemployment and inequality, it is not surprising that significant changes in the structure of public service pay were implemented while the public service also began to grow. This is one of the key drivers of overall spending growth since 2009, with the only category of spending that has grown more quickly being debt costs. Both have grown more quickly than the economy as a whole and much more quickly than inflation (Figure 6.4). As a result, debt costs and compensation spending became the principal drivers of rapidly growing public spending, with debt costs growing at a rate five percentage points faster than the growth in nominal GDP, and public service compensation growing at a rate two percentage points faster than the economy (CDE, 2019).

Figure 6.4: Average annual growth rates of spending, prices NGDP



Source: Author (National Treasury)

The large gap between revenues and spending was not a temporary feature but has become a structural consequence of an expenditure trajectory that has never adjusted to the fact that the economy was growing too slowly to generate the revenues needed to fund the government's spending commitments. The extent of public sector borrowing needs, as well as what was needed in the short-term, was summarised in the 2019 Budget Review, which showed that, in the seven years between 2015/16 and 2021/22, the government was expected to borrow R2.2 trillion (see Table 6.1). Of this, R1.5 trillion was for the financing of national and provincial government, and nearly R650 billion was for the SOEs. Overall, total borrowings averaged a fraction less than R1 billion a day, every day over the seven years.

Table 6.1: Public sector borrowing requirement (2015/16 to 2021/22) in billions of rand

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Seven-year total
Main budget	168.4	167.6	208.6	224.5	255.2	264.4	267.6	**1 556.28**
Social security funds	-10.1	-8.2	-9.4	-10.3	-8.0	-5.4	-5.1	**(56.46)**
Provinces	-0.6	2.5	-0.7	0.9	-1.0	-1.6	-2.1	**(2.57)**
Public entities	-7.6	-5.0	-8.4	-4.7	-3.6	-5.0	-8.0	**(42.45)**
RDP Fund	1.0	0.2	0.3	-0.2	0.1	0.1	0.1	**1.48**
Consol. Government	**151.0**	**157.0**	**190.3**	**210.2**	**242.7**	**252.6**	**252.4**	**1 456.28**
Local authorities	8.0	8.4	13.6	16.2	16.1	16.0	16.0	**94.35**
State-owned companies	120.5	88.5	99.4	103.7	74.7	73.8	75.8	**636.35**
Borrowing requirement	**279.5**	**254.0**	**303.3**	**330.1**	**333.5**	**342.3**	**344.2**	**2 186.98**

Source: 2019 Budget Review

The accumulation of debt was driven by slow growth. It is obvious from the above that slow economic growth is a critical variable in this story: had growth returned to pre-crisis levels, revenues would have been higher, necessitating less borrowing, and rendering the increase in spending more affordable. Faster growth would have meant a larger economy and a correspondingly lower ratio of debt to GDP. This was the context of the implementation of radical economic transformation, which my discussion below shows to be a political rent-seeking project on the part of its proponents.

6.3 Radical economic transformation defined

According to Zuma, radical economic transformation means:

> A fundamental change in the structure, systems, institutions and patterns of ownership, management and control of the economy in favour of all South

> Africans – especially the poor, the majority of whom are African and female – as defined by the governing party (Zuma, 2017).

The minister of public enterprises, Malusi Gigaba, having succeeded in reshuffling both the Eskom and Transnet boards, was now ready to expand his influence to professional bodies (Bhorat et al., 2017). Addressing the Black Management Forum (cited by Bhorat et al., 2017), Gigaba told the audience that: "As government, we are committed to the creation of a new generation of black industrialists who are 'creators', 'producers', 'strategists' and 'decision-makers'." He added, "This is more than just an economic imperative but a **moral requirement** [emphasis added]", concluding that "a strong black industrial class is a prerequisite for robust entrepreneurship and innovation in Africa at large."

In 2014, the deputy minister of trade and industry, Mzwandile Masina, announced that the department would seek to create 100 black industrialists over the next three years. Bhorat et al. (2017) citing Masina:

> Over the next five years, a host of working opportunities will become available to South Africans. For example, a new generation of black industrialists will be driving the re-industrialisation of our economy. Local procurement and increased domestic production will be at the heart of efforts to transform our economy and will be buoyed by a government undertaking to buy 75% of goods and services from South African producers.

In other words, radical economic transformation referred to an ambitious project, not simply to create black-owned small- and medium-sized enterprises, but to control the commanding heights of the economy (Bhorat et al., 2017). The DTI went ahead with its response to the low levels of black participation in the manufacturing sector through the introduction of a black industrialist programme that has sought to promote black ownership and active management in the sector (Department of Trade and Industry, 2015). The IDC, followed suit, announced an allocation of R23 billion to support black industrialists. However, there has been significant contestation over what constitutes a black industrialist, with a strong push in some quarters to include intermediation activities that add little value, and sometimes overwhelmingly embody imports (Zalk, 2017).

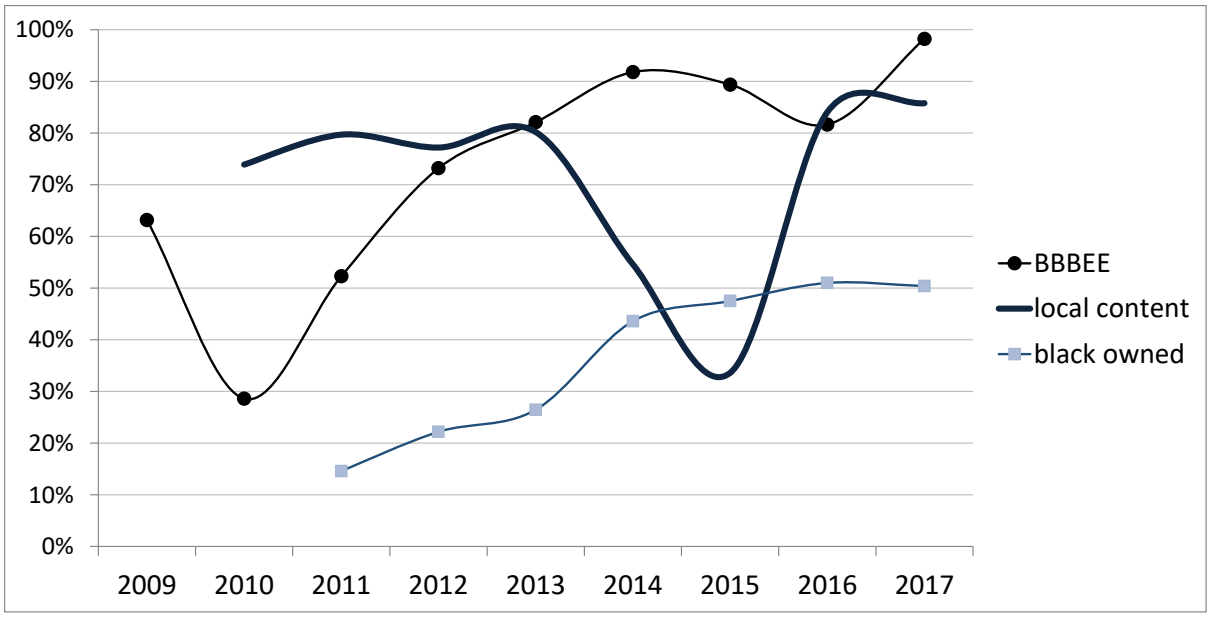
6.4 Radical economic transformation at Eskom

Radical economic transformation as defined by Zuma (2017) was a fundamental change in the structure, systems, institutions and patterns of ownership, management and control of the economy in favour of all South Africans – especially the poor, the majority of whom are African and female. Zuma's articulation of radical economic transformation is persuasive because of South Africa's high levels of unemployment and poverty, the domination of the formal economic sectors by established white business and corporations where opportunities are few, the demand is high and competition is fierce. In this context, the state and state-owned entities are the location for jobs, revenue, contracts, tenders and licensing and obvious resources in the formation of a new elite. However, this also brings the challenges of unproductive activities in the political economy. These are typically "political" activities which seek to protect, maintain or change rent-generating rights (Khan, 2000).

In chapter 5, I have shown how Eskom experienced a revolving door syndrome at the chairman and CEO levels. Paul O'Flaherty who was the finance director at the time, left his post at the conclusion of Eskom's annual general meeting on 10 July 2013. Caroline Henry (senior general manager: treasury) was, in the interim, appointed as acting chief financial officer. On 14 January 2014, Tsholofelo Molefe, formerly the group executive: group customer services, was appointed as the finance director. Brian Dames, the chief executive, resigned on 31 March 2014. Within a few months Eskom had lost both the CEO and the CFO. Collin Matjila, an independent non-executive director, was appointed interim chief executive, effective on 1 April 2014, while the recruitment process for a new chief executive was under way (Bhorat et al., 2017).

In December 2014, Lynne Brown became the minister of public enterprises after Malusi Gigaba was moved to home affairs. Brown restructured the Eskom board again and Brian Molefe was appointed as the CEO in April 2015 (Public Protector, 2016). The period between December 2014 and the end of the 2017 financial year saw an increased spend by Eskom on black entrepreneurs. Eskom claimed that procurement from BBBEE firms accounted for 98% of measured procurement (essentially, excluding imports). Zuma's radical economic transformation was working. Eskom also claimed 86% local content on measured procurement, but that, by definition, excludes imports. Figure 6.5 shows the share of Eskom's measured procurement from BBBEE, black-owned and local producers. Most of Eskom's measured procurement consisted of primary energy – coal and renewables, and services (Eskom SOC Ltd, 2017).

Figure 6.5: Share of Eskom measured from BBBEE, black-owned and local producers[10]



Source: Eskom annual reports, relevant years

Lynne Brown's Eskom board had links to the Gupta family, according to the Public Protector (2016). The Gupta family is an Indian-born family with business interests in South Africa, that got extremely wealthy due to close ties to Jacob Zuma. The family migrated from the Indian state of Uttar Pradesh to South Africa in 1993 to establish Sahara Computers. The most notable members of the family are the brothers Ajay, Atul and Rajesh 'Tony', as well as nephews, Varun and US-based Ashish and Amol. The Gupta family owns a business empire spanning computer equipment, the media and mining. In 2016, Atul Gupta became the seventh-wealthiest person in South Africa, with an estimated net worth of R10.7 billion based on JSE-listed holdings. Bhorat et al. (2017) cites the Gupta-linked appointees to the Eskom board as including: Nazia Carrim, the wife of Muhammed Sikander Noor Hussain, a family member of Salim Essa; Romeo Kumalo, a director alongside Essa at Ujiri Technologies; Mark Pamensky, a former director of the Guptas' Oakbay Resources and Exploration; Kuben Moodley, a special advisor to the minister of environmental affairs; Devapushum Viroshini, Kuben Moodley's partner; Mosebenzi Zwane, a director of one of Pamensky's companies; Mariam Cassim, who used to work at Sahara Computers; and Dr Ben Ngubane, who was also a director with Salim Essa at Gade Oil and Gas

[10] Source: TIPS, An Initial review of State-Owned Companies, Volume 1, March 2018, Pretoria, Pg.17.

and the board chair of the South African Broadcasting Corporation. The last-mentioned had overseen controversial deals between the broadcaster and ANN7, the Guptas' television station (Bhorat et al., 2017).

The repeated relationships of exchange between the Gupta family and various individuals represents what Khan (2000) refers to as a relationship between a patron and its clients. The Gupta family represents a patron. Khan (2000) distinguishes two types of patron-client exchanges. First, such exchanges are usually personalised, involving an identifiable patron and identifiable clients. While there is always some freedom of entry and exit, entry and exit from patron-client networks is considerably less frequent compared to normal market transactions. Secondly, the exchange is between two distinct types of agents, distinguished either by status, power or other characteristics. Typically, the superior member is called the patron and the inferior member the client. Nevertheless, the power or status of the patron can vary across a broad range, and these differences may be important for understanding the types of exchanges taking place within different patron-client networks (Khan, 2000, p.12).

The Eskom board was a network of interrelated parties all linked to Salim Essa and the Gupta family network. This allowed them to renegotiate some of the utility's coal-supply contracts including the Glencore/Exxaro-owned Optimum Coal Mine. Optimum Coal Mine was contracted to deliver 5.5 million tons of coal a year to the Hendrina power station at a price of R161 per ton (Dentons, 2017) which was at low end of what Eskom paid, as cited by Bhorat et al. (2017), since most prices were in the range of R200-R400 per ton. Glencore's business model until then had been to use revenues from coal exports to effectively subsidise the cost of locally-delivered coal (Dentons, 2017).

In 2013, Optimum/Glencore invoked the hardship clause to access an additional R115 per ton to make Optimum Coal Mine viable since it was losing about R100 million per month. The decision was referred to CEO Brian Molefe, and in June 2015, Molefe refused any deal with Glencore, resulting in Optimum Coal Mine going into business rescue on 31 July 2015. Optimum Coal Mine was sold to Tegeta, an Oakbay Investments subsidiary. The R2.15 billion that Tegeta had agreed to pay for the purchase was due on 14 April 2016. However, three days before this deadline, Tegeta was still short of R659 million. A forensic audit report conducted by Fundudzi Forensic Services and commissioned by National Treasury in 2018 would expose the events leading to Tegeta completing this sale. On 11 April 2016 Tegeta and Eskom officials

represented by senior general manager of fuel sourcing Ayanda Nteta, head of generation Matshela Koko, head of legal Suzanne Daniels, acting head of procurement Edwin Mabelane and head of primary energy Vusi Mboweni were in discussions about the R659 million. These discussions resulted in a Special Board Tender Committee (SBTC) teleconference which was scheduled and took place at 21:00, with the sole purpose of approving a R659 million prepayment to Tegeta by Eskom (Fundudzi Forensic Services, 2018). Of importance was that President Zuma's son, Duduzane Zuma, owned about 28.5% of Tegeta (Public Protector, 2016).

Although the behaviour of Eskom's executives could have amounted to abuse of their position of authority, it arguably reflects the frustration with the pace of transformation and redistribution of wealth to historically disadvantaged South Africans. Bhorat, et al. (2017) argues that South Africa was experiencing two transitions simultaneously. First, a transition from traditional black economic empowerment (BEE), which was premised on the possibility of reforming the white-dominated economy (now depicted as white monopoly capital), to radical economic transformation, which was driven by transactors disguised as a black capitalist class not dependent on white monopoly capital. Second, the transition from acceptance of the constitutional settlement and the 'rules of the game' to a repurposing of state institutions that is achieved, in part, by breaking the rules (Bhorat, et al., 2017). Breaking the rules is corruption overlapping with rent seeking.

Eskom epitomises the rejection of processes of transparency, accountability and constitutionalism which informed the 1996 Constitution of the Republic of South Africa. The slow pace of the de-racialisation of the economy resulted in the ANC identifying SOEs and preferential procurement as a vehicle for radical economic transformation (ANC, 2014). As discussed above, radical economic transformation bankrupted Eskom, too big to fail, but a shadow of its former self. The collapse of the management structure and the shared leadership roles that executives held at the Department of Public Enterprises (and the ANC, through cadre deployment) had considerably reduced the power and influence of engineers at Eskom.

Jaglin and Dubresson (2016) observe that the inherited techno-political regime was disrupted by the transformation of the economy, the departure of technical and professional competence, the loss of skills and difficulty in filling positions. Eskom had been marked by distinct techno-political competence, but this had diminished. The state did not demonstrate significant capacity to promote efficient techno-politics in the power and energy sector.

Jaglin and Dubresson (2016) argue that, through its founding father, Hendrik van der Bijl, Eskom had been able to embody a perfect symbiosis between a state body and a private company. Van Der Bijl managed to protect ESCOM against not only the pressures from parliament (Conradie & Messerschmidt, 2000), but also those emanating from the government, by stressing the legitimacy of the technical know-how, vision and action of the commission's engineers (Jaglin & Dubresson, 2016, p.16). "Moreover, such autonomy did not necessarily mean that there was a separation of technology and politics. Instead it was characterised by the engineers' practice of controlled techno-politics, the deliberate use of knowledge and technical choices to promote a socio-political vision aligned with that of government, an approach that led to the establishment of a genuine organisational model" (Jaglin & Dubresson, 2016, p.16).

The events described above had far-reaching effects. Eskom's multi-year price determination application of 2012 assumed that the first unit of Medupi would be operational in December 2013. Eskom only announced in April 2013 that this would not be the case, which contributed to the crisis and made the entire logic of Eskom's funding application, and the associated regulatory allocation, questionable (Ritchken, 2013). The application further assumed that the first unit of Kusile would be operational by December 2014 and that all of Ingula would be available by March 2015 (i.e. about 3,900 MW available by the end of the 2014/15 financial year). The application also assumed an 82% level of energy availability, which deteriorated to about 76%. The regulator, in turn, correctly based its decisions on Eskom's flawed application.

In 2015, the government established an electricity war room in the presidency's Department of Planning, Monitoring and Evaluation to address ongoing electricity supply disruptions. The electricity war room was led by then deputy president, Cyril Ramaphosa, and was tasked with overseeing the implementation of a five-point plan to address the electricity challenges facing the country. The electricity war room included representatives from the Department of Planning, Monitoring and Evaluation, the National Treasury, the Department of Public Enterprises, the Department of Energy, the Department of Economic Development, the Department of Co-operative Governance and Traditional Affairs, Government Communication and Information System and Eskom. In addition, the electricity war room had access to expertise from the deputy president's advisory team on electricity.

The five-point plan was aimed at addressing the strain the electricity system faced (and still faces). It covered:

- Immediate measures (improve maintenance and operational practices). The interventions that Eskom will undertake to ensure that planned maintenance schedules are adhered to, partial load losses are reduced, and operational practices are improved;
- Cogeneration. Harnessing the cogeneration opportunity through the extension of existing contracts with the private sector;
- Gas for power generation and additional sources of supply. Accelerating the programme for the substitution of diesel with gas to fire up the diesel power plants;
- Other independent power producers (IPPs). Launching a coal-independent power programme; and
- Demand-side management. Managing demand through specific interventions in residential dwellings, public and commercial buildings and municipalities by retrofitting energy-efficient technologies.

Central to these interventions was the need for a coherent short-, medium-, and long-term plan for the financial sustainability of Eskom, built on evidence-based options formulation and scenario planning. However, Eskom had liquidity and sustainability issues (Mondi, 2018). The independent auditors gave a qualified opinion for the financial year ended 31 March 2017. SizweNtsalubaGobodo, the auditors of Eskom noted that section 55(2) (b) (i) of the Public Finance Management Act (PFMA) required the entity to disclose in a note to the consolidated and separate financial statements particulars of all irregular expenditure that had occurred during the financial year (Mondi, 2018). However, the auditors noted that Eskom did not have an adequate system for identifying and recognising all irregular expenditure and there were no satisfactory alternative procedures it could perform to obtain reasonable assurance that all irregular expenditure had been properly recorded (Mondi, 2018). Consequently, SizweNtsalubaGobodo were unable to determine whether any adjustment was necessary to the balance of irregular expenditure, stated as R2.996 million. As a result, they concluded that there was irregular expenditure of R2.996 million. Of major concern was the role of Eskom's Audit and Risk Committee. The committee did not respond to the irregular expenditure as presented by independent auditors. Nevertheless, the committee stated in 2017 that "the committee is of the opinion, based on the information and explanations provided by management and the assurance of the forensic department (Mondi, 2018) that:

- The expertise, resources and experience of the finance function under the leadership of the chief financial of officer are adequate;
- The system and process of risk management and compliance processes are adequate;
- The internal accounting controls are adequate to ensure that the financial records may be relied upon for preparing the financial statements and accountability for assets and liabilities is maintained;
- The internal audit charter approved by the committee was adhered to;
- The expertise, resources and experience of the assurance and forensic department are adequate;
- The assurance and forensic department, under the leadership of the senior general manager, assurance and forensic, are operated effectively;
- The information contained in the integrated report and related information on the Eskom website is reliable and does not contradict the information in the annual financial statements;
- Eskom and the group have access to adequate resources and facilities to be able to continue their operations for the foreseeable future, supporting the going-concern assumption; and
- It is satisfied with the audit quality of the external audit as well as the independence and objectivity of the external auditors, having considered the matters set out in section 94(8) of the Companies Act."

In addition, the committee stated that it was:

> "satisfied, notwithstanding the aspects considered in relation to the annual financial statements, that nothing significant has come to the attention of the committee to indicate any material breakdown in the functioning of the controls, procedures and systems during the year under review and that the controls are still appropriate to ensure compliance with the requirements of the Companies Act, the PFMA and IFRS" (Mondi, 2018; Bhorat et al., 2017).

By contrast, the independent auditors concluded that effective steps were not taken to prevent irregular expenditure as required by the PFMA and effective steps were not taken to prevent fruitless and wasteful expenditure amounting to R547 million, in contravention of the PFMA. Neither the committee nor the board appeared to be concerned about irregular expenditure

totalling R2.996 million or the fruitless and wasteful expenditure amounting to R547 million (Bhorat et al., 2017).

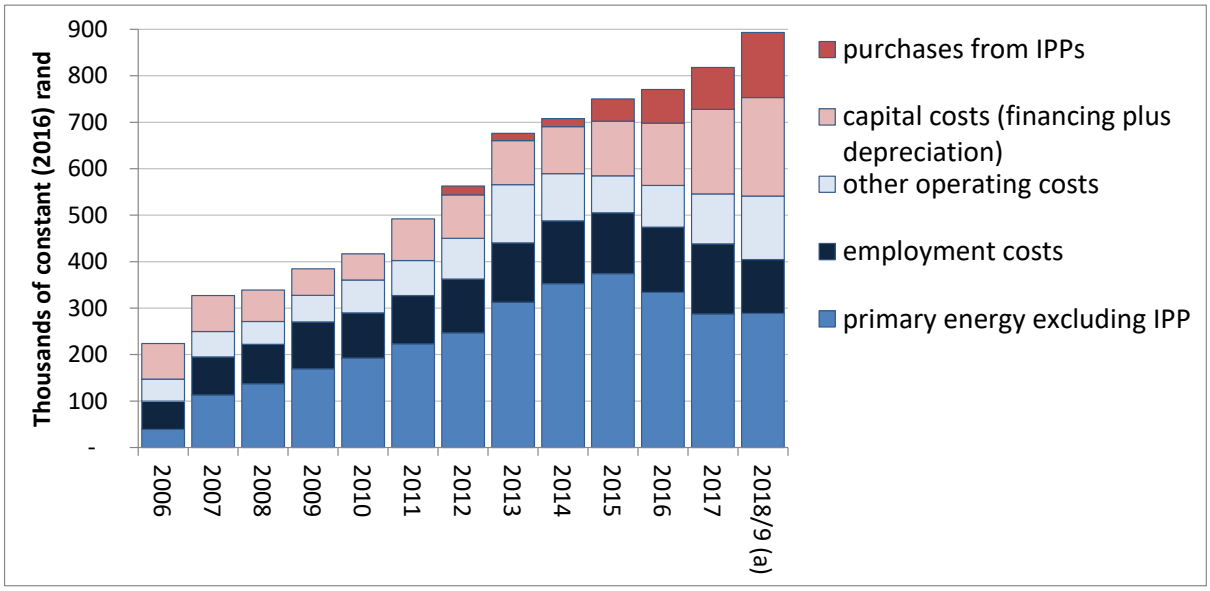
At the end of December 2017, South Africa was on the brink of an economic and financial crisis. Eskom had failed to release its interim financial results, which were due on 30 September 2017, and lenders were not willing to extend credit or roll over maturing loans (Mondi, 2017). In January 2018, the deputy president, Cyril Ramaphosa[11], following his assumption of the presidency of the governing ANC at its 54th national elective conference held in Johannesburg in December 2017, was tasked with the resolution of Eskom's probability of default because of its fragile liquidity position and an inability to service existing debt.

What made lenders to be unwilling to extend credit to Eskom, which led to ratings agencies down-grading Eskom? What did they know that left the South African government and Eskom in the dark and prompted their failure to take the necessary steps to rectify Eskom's financial position? In order to understand Eskom's financial position, it is important to go inside the Eskom financials for the period between 2006 and 2018 to understand the evolution of Eskom's financial deterioration.

Eskom is best examined through the analysis of its financial statements, since, in the period before 2006, Eskom was in a healthy financial position and had sufficient reserves to meet any sudden demand for electricity. That changed in early 2006, when demand exceeded the electricity supply, resulting in blackouts. It is therefore important to investigate and analyse the interventions that Eskom embarked on in the period between 2006 and 2018. A desktop analysis shows that the main cost drivers for this SOE were capital costs, followed by purchases of renewable energy.

[11] Following his appointment as the president of the governing African National Congress (ANC) at its 54thnational elective conference, held at Nasrec, in Johannesburg, in December 2017, Cyril Ramaphosa was expected to assume the presidency of the Republic of South Africa, which was effected in February 2018, after horse-trading with the incumbent, Jacob Zuma.

Figure 6.6: Eskom cost drivers in constant (2016) rand

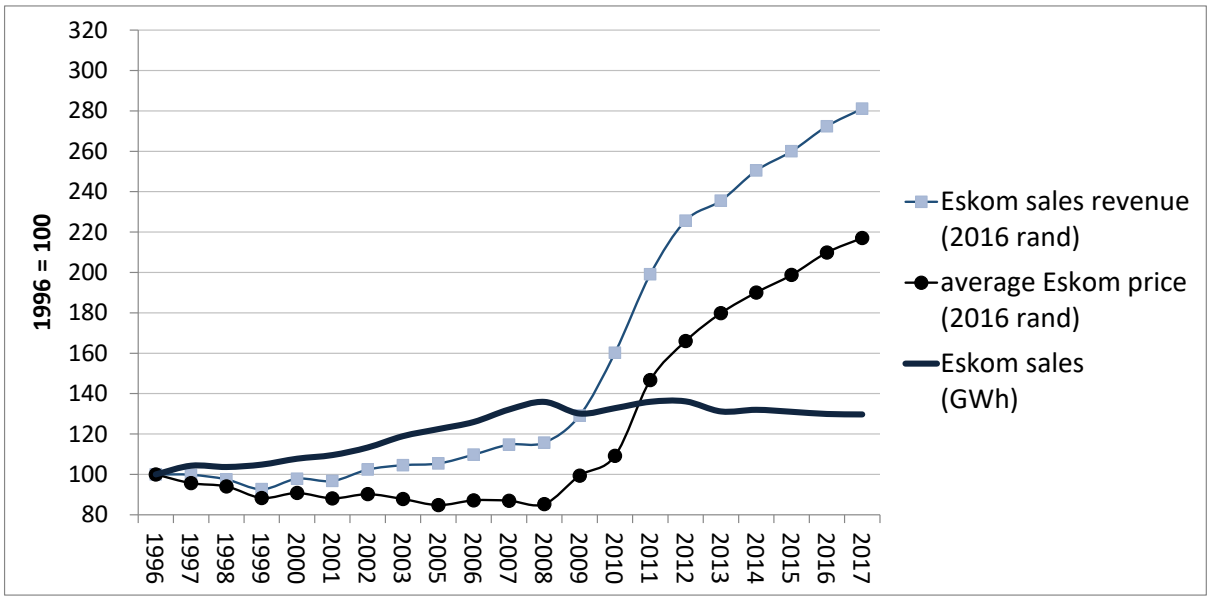


Source: Eskom annual reports, relevant years.

Figure 6.6 above shows how these costs have risen steeply since 2013, despite stagnant sales in volume terms (CDE, 2019). Stagnant sales volumes are a symptom of a decline in demand for Eskom's products. Demand shrank from 2008, even as Eskom's prices and revenues rose steeply. In large part, the decline in demand reflected a move toward less electricity-intensive technologies and lines; downsizing at the aluminium, steel and ferro-alloys refineries with the end of the metals boom; and increasing supply from the renewable energy independent producers programme (REIPPP) (TIPS, 2018).

The decline in Eskom sales largely reflected trends in the mining value chain. As gold mining declined, it was replaced by less energy-intensive production of iron ore, coal and platinum. The share of the mines and refineries in Eskom's total sales consequently dropped from half to just over a third between 1998 and 2018 (TIPS, 2018), as shown in Figure 6.7 below.

Figure 6.7: Indices of Eskom's average tariff and sales revenue in constant (2016) rand (deflated with CPI) and sales in GWh (1996=100)

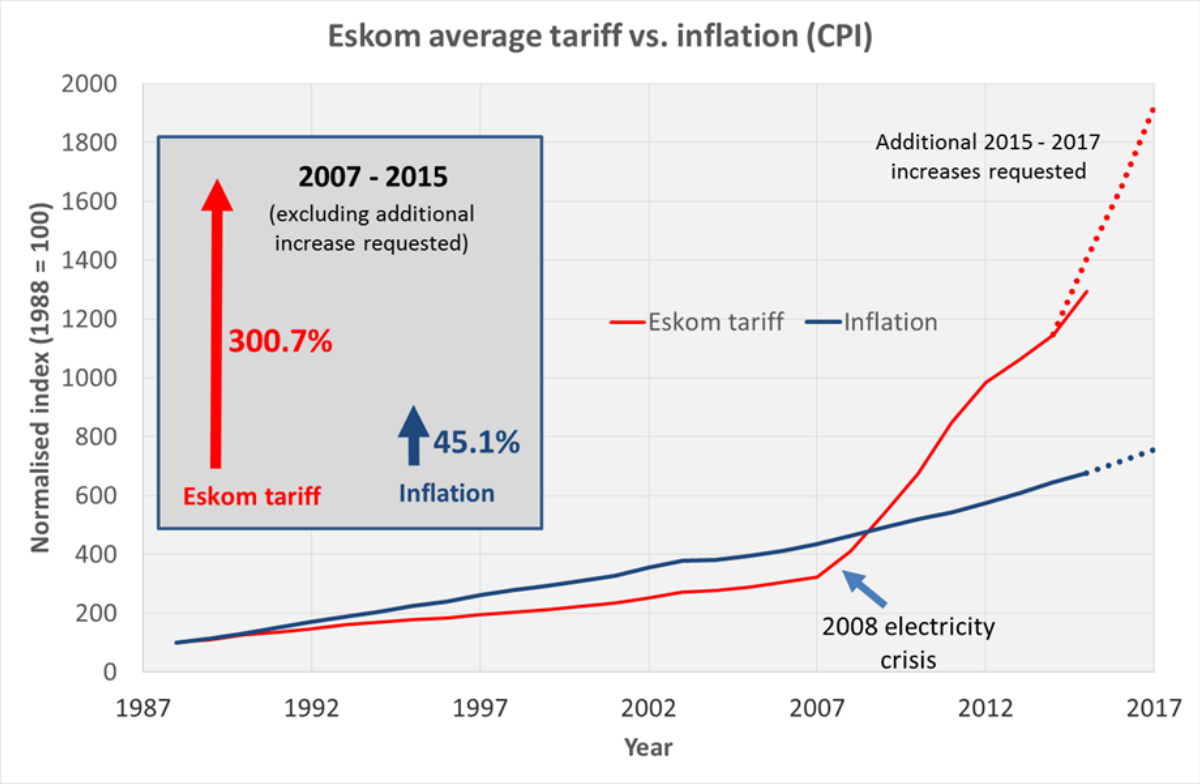


Source: Eskom annual reports, relevant years.

The increase in Eskom's sales resulted from steep tariff increases between 2008 and 2015, as shown in Figure 6.8 below. In the period from 1988 up to the 2008 electricity crisis, electricity tariff increases did not keep pace with inflation (TIPS, 2018). This was partly due to government policy to keep electricity tariffs as low as possible for poor communities, but also due to Eskom having an oversupply of electricity (in the 1990s) and not investing in new capacity (in the 2000s) (TIPS, 2018). Between 1988 and 2007, electricity tariffs increased by 223%, while inflation over this period was 335% (TIPS, 2018). From the 2008 electricity crisis onwards, there is a clear and sharp inflection point for electricity tariffs in South Africa. From 2007 to 2015, electricity tariffs increased by 300%, whereas inflation over this period was 45%. Thus electricity tariffs tripled in eight years (TIPS, 2018; Moolman, 2017).

The National Electricity Regulator of South Africa (Nersa) approved an increase of 9.4% for 2016/17 and one of 2.2% for 2017/18. In a letter dated 2 March 2018, addressed to Eskom CEO Phakamani Hadebe, Chris Forlee, the chief executive of Nersa, approved an increase of 5.23% for the 2018/19 financial year.

Figure 6.8: Eskom average tariff vs inflation (CPI)



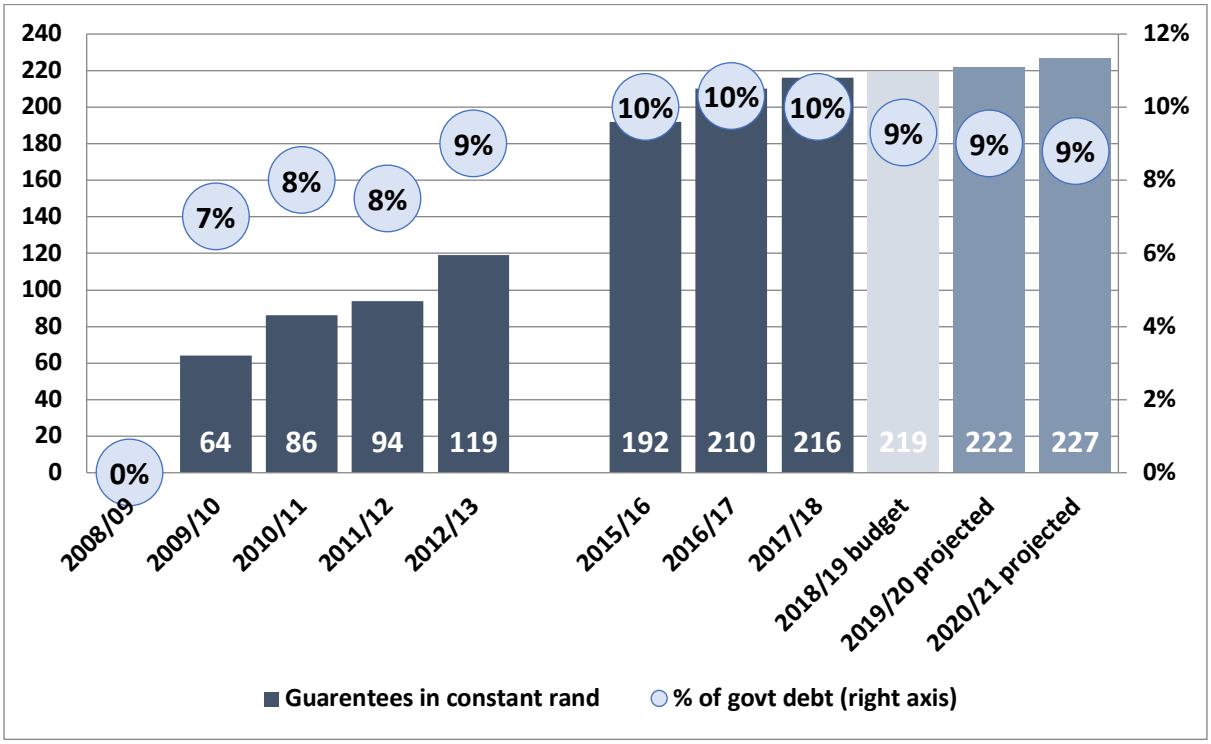
Source: Moolman (2017).

Eskom's illiquidity had led to the downgrade of its credit rating by ratings agency Moody's, from B1 to Ba3, and concerns on the part of the banks, financial institutions and lenders in respect of its going concern status, as a result of its apparent inability to meet loan capital and interest repayments from operating income for the months ahead. The liquidity crisis resulted from domestic financial institutions refusing to provide short-term facilities to Eskom because of the perceived poor leadership and governance of the previous Eskom chairperson, board and executive management, which had been exposed by the media as a result of a series of leaks referred to as the GuptaLeaks (Bhorat et al., 2017).

The ratings downgrades led to increased lenders' requirements for government guarantees of Eskom's debt. By 31 March 2018, R240.5 billion of the government guarantees had been utilised, as shown in Figure 6.9 below, relating to loans and bond issuances, both foreign and local (TIPS, 2018). Of the total facility of R350 billion, 79% had been committed, 17% was under negotiation and only 4% remained available for future funding. Investors generally rely on

the resolution of governance-related issues and associated investigations before any firm commitments on funding can be made.

Figure 6.9: Treasury guarantees of Eskom debt, in billions of constant (2016) rand as a percentage of total net government debt



Source: Eskom (2018)

Furthermore, investors required stability in executive management. As shown in Table 6.2 below, the ratings downgrades resulted from the deep concerns of ratings agencies regarding governance and leadership at Eskom, and they were closely monitoring leadership stability and improvements in governance. Any further downgrades would exacerbate the prevailing situation, putting Eskom's funding plan at risk (Eskom, 2018). Standard & Poor's (S&P) was concerned about the viability of Eskom and needed reassurances and action by the government that it would stand behind Eskom. Their statement reflected their concerns:

> The negative outlook reflects that on the sovereign and our view of uncertainty regarding the government's commitment and ability to provide timely support to Eskom for any funding shortfalls, which could be exacerbated if the outcome of the ongoing legal battle against Eskom and Nersa results in tariff growth remaining muted beyond March 31,

2018."…"But the reality is that Eskom is under pressure and they are requiring more support from the government … more than what the government had actually budgeted for. It is hurting Eskom for now, but it could eventually hurt the government's balance sheet (Creamer, 2017).

Table 6.2: Summary of Eskom's credit rating: March 2018[12]

Rating	Standard & Poor's	Moody's	Fitch
Foreign currency	B- t- CCC+	Ba3 to B1	_
Local currency	B- to CCC+	Ba3 to B1	BB+ TO BB-
Stand-alone	ccc+ to ccc_	b3 to cca1	B- to ccc
Outlook	Negative	Negative	Ratings Watch Negative
Last rating action	Downgrade	Downgrade	Downgrade
Last action date	27 February 2018	28 March 2018	31 January 2018

Source: Eskom SOC (2018, p.76)

Eskom's financial position and that of South Africa had deteriorated tremendously in comparison with their positions in the mid-1980s. For example, in 1985, the story from South African authorities in government and the private sector was different. Eskom was in a strong financial position and the country could access international finance despite the sanctions that were imposed on it. Padayachee (1989), reflecting on the apartheid regime's official sentiment in 1985, prior the Rubicon speech, says:

> Both the South African apartheid state and private sector for long prided themselves on the country's exceptionally high credit rating in international financial markets. Especially at the time (c1979-1985) when Latin American and East European countries were constantly on the verge of default or desperately seeking debt relief, South Africa's debt servicing record was a source of pride in official circles. And despite the fact that the South African state, especially in the early to mid-1970s, and the private sector, especially after the second oil-price hike (1979), increased their international borrowing from the banks of the United States of America, United Kingdom, Federal Republic of

[12] See Appendix 1 for the description of the rating scale by the various ratings agencies.

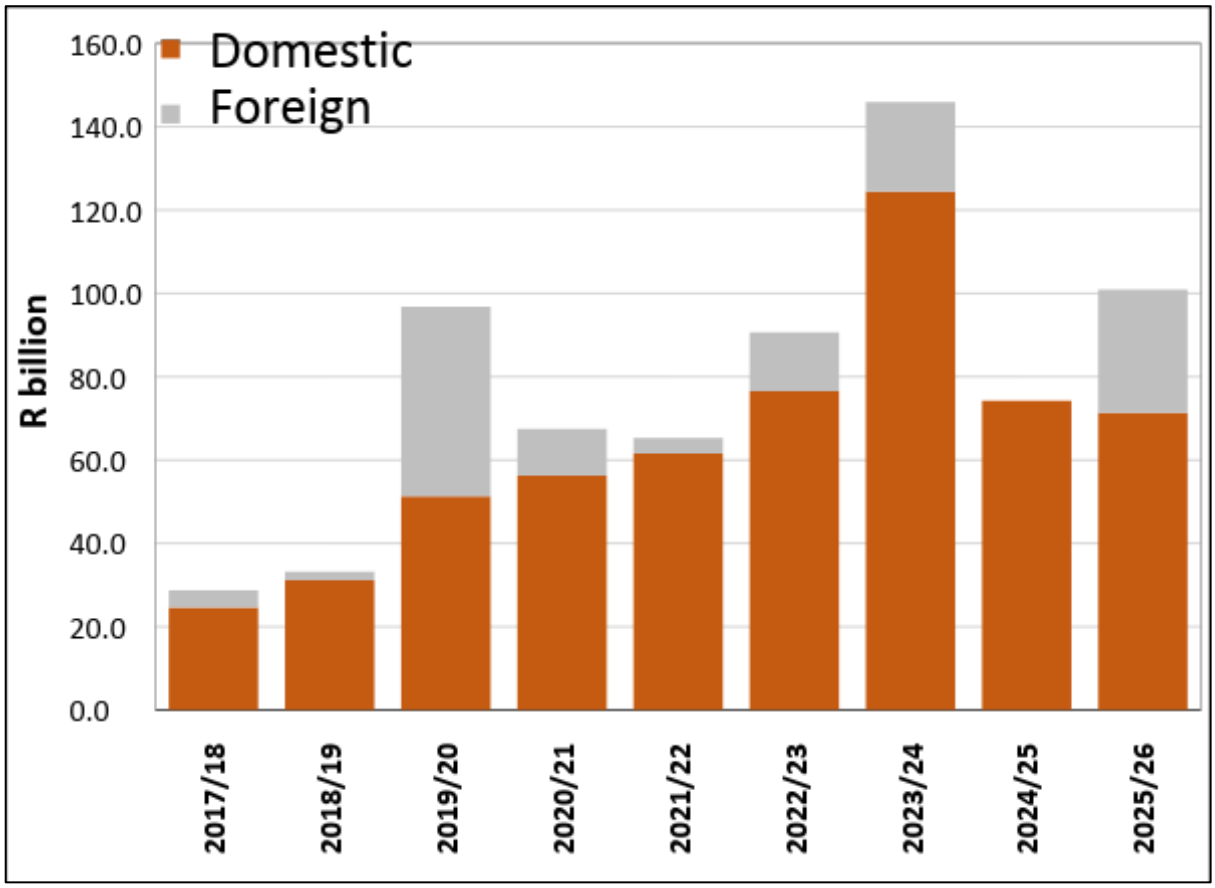
> Germany, and Switzerland in the main, there did not appear to be any reason to panic. In comparison to the problems of other debtors, South Africa's debt appeared inconsequential. Talk of debt crises and of possible rescheduling seemed almost laughable (Padayachee, 1989, p.251).

Gone were the good old days described by Padayachee (1989) above when the minister of finance, Malusi Gigaba, presented the 2018/9 budget on 21 February 2018. In his reflection on the budget, he expressed thanks for the continued support of financial institutions, particularly those that were buying and holding government debt, despite two sovereign credit rating downgrades during 2017 and his perceived lack of credibility in financial markets as a result of his alleged role in state capture and the manner of his appointment to President Zuma's eighth cabinet in March 2017.[13]

In the 2018 budget presented by Gigaba, net debt was expected to increase from R2.28 trillion in 2017/18, or 48.6% of GDP, to R3.03 trillion, or 52.2% of GDP in 2020/21 (Mondi, 2018). The National Treasury expected that net debt would stabilise at 53.2% in 2023/24 (National Treasury, 2018). However, debt-service costs had increased to an estimated R163.2 billion in 2017/18, or 3.5% of GDP, and were projected to increase to R213.9 billion, or 3.7% of GDP, in 2020/21 (National Treasury, 2018). Deep and liquid domestic capital markets were expected to remain the government's main source of borrowing, according to Gigaba. Figure 6.10 shows the split between domestic and international holders of South African government securities. What is encouraging is the well-structured term of government instruments, with an emphasis on longer-dated loans. Eskom, independent power producers and the Road Accident Fund account for the majority of the government's contingent liabilities (National Treasury, 2018, p. 81).

[13] See Bhorat et al. (2017)

Figure 6.10: South African government bonds



Source: (National Treasury, 2018)

The weak financial position of the country meant that the restoration of Eskom's and South Africa's credibility with lenders became a priority, because of the cross-default to all government and private sector external loans were Eskom to fail (Mondi, 2018). It required stronger and credible action from the government. On the eve of his departure to the annual World Economic Forum meetings in Davos, Ramaphosa, then still the deputy president, intervened on 20 January 2018 by reshuffling the Eskom board and appointing then Telkom chairman, Jabu Mabuza, as the new chairman and Phakamani Hadebe[14] as the acting CEO of Eskom (Mondi, 2018). On 30 January 2018, Eskom released its interim financial results, which revealed a decline in all

[14]He is the chief executive officer (CEO) of the corporate and investment bank (CIB) at Barclays Africa, where he led the CIB client strategy for Africa. Hadebe was seconded by the minister of finance, Pravin Gordhan, to the CEO position of the Land and Agricultural Bank in 2008. He succeeded in turning around that state-owned enterprise, enabling it to operate profitably, and left in 2013. Between 2003 and 2008, he spent most of his career at the National Treasury of South Africa. Within the National Treasury, he served as the head of the assets and liabilities division

financial metrics compared with those of the same period for the previous financial year, with sales revenue declining by 2% to R95.5bn, operating costs remaining flat at R66.7bn, net cash generated from operations declining by 30% to R22bn, net finance costs increasing by 53% to R10bn, and net profit after tax declining by 34% to R6.3bn (Mondi, 2018).

The Public Investment Corporation (PIC) advanced a R5 billion bridging facility to the power utility for one month in January 2018 to strengthen Eskom's liquidity position after the sharp decline of R9 billion, compared with the previous period. Eskom's precarious position has forced it to seek further funding, despite its current debt of R360 billion and gearing ratio (debt-to-equity ratio) of more than 70% (Mondi, 2018). The utility was also battling dwindling sales volumes in addition to growing municipal arrear debt. External auditors issued an unqualified review conclusion with an emphasis on matters regarding Eskom's going concern position.

On 30 January 2018, Eskom presented its interim financial results as at 30 September 2017. Eskom reported a net profit after tax of R6 billion (Sept. 2016: R10 billion), with higher depreciation and net finance cost due to new build units coming online. EBITDA of R30 billion (Sept. 2016: R32 billion) was as a result of the 2.2% tariff increase and declining sales, which were offset by cost containment measures (Mondi, 2018). However, the net cash from operations of R22 billion was R10 billion lower than it had been in the previous period, due to lower profit and increases in municipal arrear debt. Liquid assets of R9 billion declined drastically from R30 billion in the previous period (Mondi, 2018).

On 14 December 2018, President Ramaphosa appointed an eight-member team to assist Eskom in identifying "operational, structural and financial challenges", and it was expected to submit recommendations on how to solve Eskom's woes by the end of January 2019. The task team consisted of Anton Eberhard, emeritus professor at the University of Cape Town's Graduate School of Business, former Eskom CEO Brian Dames, group head of energy and carbon at Goldfields, Tsakani Mthombeni, electric engineer Sy Gourrah, Grové Steyn, managing director of energy and infrastructure economics advisory firm Meridian Economics, former unionist, Frans Baleni (a former Eskom board member), Sir Mick Davis (former CEO of Xstrata and a former executive director of Eskom, having started working there in the latter half of the 1980s and continued into the early 1990s) and Busisiwe Vilakazi, a researcher with the CSIR.

President Ramaphosa believes that Eskom is too big to fail and, during his State of the Nation Address on 7 February 2019, South Africans expected a far-reaching announcement on the restructuring of Eskom (Ramaphosa, 2019). Based on the recommendations of the task team, he only told South Africans that Eskom was to be restructured into three entities – generation, transmission and distribution – under a holding company, Eskom Holdings Limited (Ramaphosa, 2019). Ramaphosa believes that the lesson for South Africa is clear. For growth, South Africa needs a reliable and sustainable supply of electricity. During the State of the Nation Address on 20 June 2019, President Ramaphosa reiterated Eskom's serious financial, operational and structural problems, and also reiterated that Eskom had sufficient cash to meet its obligations until the end of October 2019. Furthermore, any default by Eskom on its loans could cause a cross-default on its remaining debt, impacting on the already constrained fiscus. South Africa's debt-to-GDP ratio at the time was estimated at 60% (meaning that, for every rand, 60 cents goes toward servicing the debt and repayment of capital). In response to the Eskom financial crisis, President Ramaphosa announced the tabling of a special appropriation bill on an urgent basis to allocate a significant portion of the R230 billion in fiscal support over the next 10 years that Eskom had requested, as presented by the minister of finance, Tito Mboweni, on 23 July 2019.

Danie Steyn, minister of mineral and energy affairs under President Botha, was tasked with the implementation of Botha's economic reforms in restructuring and privatising Eskom. Steyn, who was an engineer by profession, agreed with Eskom engineers that the utility should remain as it was in 1989 and deferred the much needed restructuring of Eskom which remains elusive to this day. The DME followed the same path carved by Steyn when it failed to implement the 1998 white paper on energy to dismantle the vertically integrated model of Eskom in 2001. In 2003 a decision was made that Eskom should focus on its key market and exit markets outside South Africa. By 2019 Eskom had become too important because it was too vital to the economy to be allowed to fail, argued President Ramaphosa (2019). He added that Eskom was our collective responsibility as a nation and everyone should ensure that it is supported. President Ramaphosa conceded, in line with the recommendations of both the Eskom Sustainability Task Team and the Technical Review Team, that Eskom should deploy its most skilled and experienced personnel to where they are needed most. Ramaphosa showed his hand when Freeman Nomvalo was appointed as the chief restructuring officer (CRO). Nomvalo had worked for many years for the National Treasury, as the state general accountant and later as the chief executive of the State Information and Technology Agency (SITA) before going private. He later joined the South African Institute of Chartered Accountants (SAICA) as its chief executive. This signalled that the

president may not necessarily have his way in deciding the future of Eskom because, beyond finance, Eskom has operational challenges.

The tabling of the IRP 2019, on Friday, 20 October 2019, by the minister of mineral resources and energy, Gwede Mantashe, signalled the government's commitment to anchoring Eskom as a dominant player in the generation of electricity from coal fired power stations. Beyond Medupi and Kusile, Mantashe reiterated the significance of coal in electricity generation in South Africa in the foreseeable future (DMRE, 2019). The minister did not acknowledge the level of indebtedness of Eskom of R450 billion nor its failure to generate sufficient cash flows to service the debt and its consequent reliance on cash injections from the National Treasury to meet its financial obligations. Furthermore because of the design life of the existing coal fleet and the abundance of coal resources, new investments would be needed to be made in more efficient coal technologies (high-efficiency, low-emission (HELE) technology, including supercritical and ultra-supercritical power plants with carbon capture, use and storage (CCUS)) to comply with climate and environmental requirements, a condition precedent set by the Organisation for Economic Cooperation and Development and the financial institutions that funded the Kusile and Medupi coal power plants (DMRE, 2019).

Table 6.3 below shows South Africa's energy mix as proposed by the IRP 2019. It shows that the pace and scale of new capacity developments required up to 2030 has been curtailed, compared with what was proposed in the IRP 2010. The IRP 2010 is discussed further below to show its potential and to emphasise the differences from IRP 2019. Moreover, the ministerial determinations for capacity beyond Bid Window 4 (27 signed projects) issued under IRP 2010 are being reviewed and revised in line with the new projected system requirements for the period ending in 2030. Table 6.3 shows that South Africa carries a huge energy risk between 2019 and 2022, as the country is putting its hopes on both Kusile and Medupi and battery storage technology as a mitigant during this period. The significant change in the energy mix, as shown in Table 6.3 post-2030, indicates the sensitivity of the results to the input assumptions. The DMRE has committed itself to an in-depth analysis of the assumptions and the economic implications of the electricity infrastructure development path chosen post-2030 to mitigate the potential risks.

Table 6.3: Integrated Resource Plan(IRP) 2019

Recommended Plan IRP 2019	Coal		Nuclear	Hydro	Storage	PV		Wind	CSP	Gas & Diesel	Other*
Current Base	37149		1860	2100	2912	1474		1980	300	3830	499
2019	2155	-2373						244	300		***
2020	1433	-557				114		300			
2021	1433	-1403				300		818			
2022	711	-844			513	400	1000	1600			
2023	750	-555				1000		1600			500
2024			1860					1600		1000	500
2025						1000		1600			500
2026		-1219						1600			500
2027	750	-847						1600		2000	500
2028		-475				1000		1600			500
2029		-1694			1575	1000		1600			500
2030		-1050		2500		1000		1600			500
TOTAL INSTALLED CAPACITY by 2030 (MW)	33364		1860	4600	5000	8288		17742	600	6380	
% Total Installed Capacity (% of MW)	43		2.36	5.84	6.35	10.52		22.53	0.76	8.1	
% Annual Energy Contribution (% of MWh)	58.8		4.5	8.4	1.2	6.3		17.8	0.6	1.3	

* Distributed Generation, CoGen, Biomass, Landfill

Source: DMRE

** Allocation to the extent of the short-term capacity and energy gap

No sooner had the minister of mineral resources and energy presented the IRP 2019, than the minister of finance was on hand in Parliament on 23 October 2019 to table a special appropriation bill requesting Parliament to approve an amount of R59 billion appropriated out of the National Revenue Fund. The Department of Public Enterprises requested R26 billion for the 2019/2020 financial year; and R33 billion for the 2020/2021 financial year. The bill was tabled to assist Eskom to meet its financial obligations. The minister's request to Parliament was done in the context of increasing the national government debt as a ratio of GDP, which has increased by more than 30% in the past 10 years and, including the Eskom support, could be approaching 80% by the end of March 2028.

In his request for the approval of the bill, the minister of finance reiterated that Eskom's problems went beyond the financial and included operational and corporate governance weaknesses. He stated:

> And if we are to reduce a complex problem to the lowest common denominator – being the financial problem – we are not solving the problem. We must appoint the correct

board of directors, a competent management team and be in a position to hold everyone accountable for the operations (Mboweni, 2019).

Therefore, a world-class CEO and board with both operational experience and financial expertise were required to halt the continuing failure of Eskom to keep the lights on. However, it came as a surprise on 18 November 2019 when André de Ruyter was appointed as the new CEO of Eskom given his failure to improve the performance of Nampak during his tenure as CEO. Nampak's share price had fallen by 84% in the five years preceding De Ruyter's departure for Eskom, with the market value dropping from R29 billion in 2014 to R5 billion on 19 November 2019.

Nevertheless, the ministers of mineral resources and energy, finance and public enterprises appeared to be well coordinated in their attempt to win South Africans' hearts and minds in resolving the energy crisis because, on 28 October 2019, the minister of public enterprises, Pravin Gordhan, presented the 'Roadmap for Eskom in a Reformed Electricity Supply Industry'.

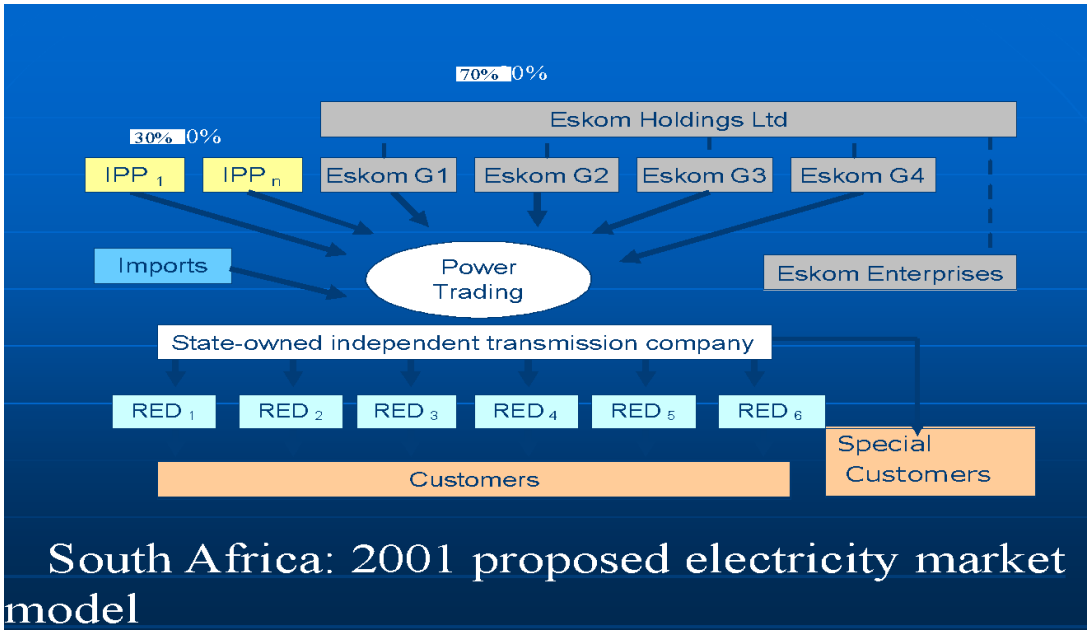
The document appears to include some of the solutions espoused in the 1998 white paper on energy. In the 1998 white paper on energy, as discussed in chapter 4 above, the main objective was the restructuring of the vertically integrated Eskom, as shown in Figure 6.11 below. It envisaged the eventual privatisation of clustered generation assets to bring in both black economic empowerment and private sector players. To recap, in May 2001, the Cabinet had approved the proposal for the reform of the ESI through a "managed liberalisation" process. The elements of this are summarised thus by Eberhard (2003):

- **Structure of the generation industry**. Eskom was expected to retain no less than 70% of the existing electricity generation market, with privatisation of the remainder, with the initial aim of transferring at least 10% to black economic ownership no later than 2003;
- **Vertical unbundling**. To ensure non-discriminatory and open access to the transmission lines, a separate state-owned transmission company would be established, independent of the generation and retail businesses, with ring-fenced transmission system operation and market operation functions. Initially, this transmission company would be a subsidiary of Eskom Holdings and would be established as a separate state-owned transmission company before any new investments were made in generation capacity;
- **Market structure.** Over time, a multi-market model electricity market framework would ensure that transactions between electricity generators, traders, and power purchasers could

take place on a variety of platforms, including bilateral contracts, a power exchange and a balancing mechanism. The market design should facilitate both physical and financial hedging. A transparent and independent governance mechanism would be developed for the power exchange; and

- **Regulation**: A regulatory framework would be put in place that ensured the participation of IPPs and the diversification of primary energy sources.

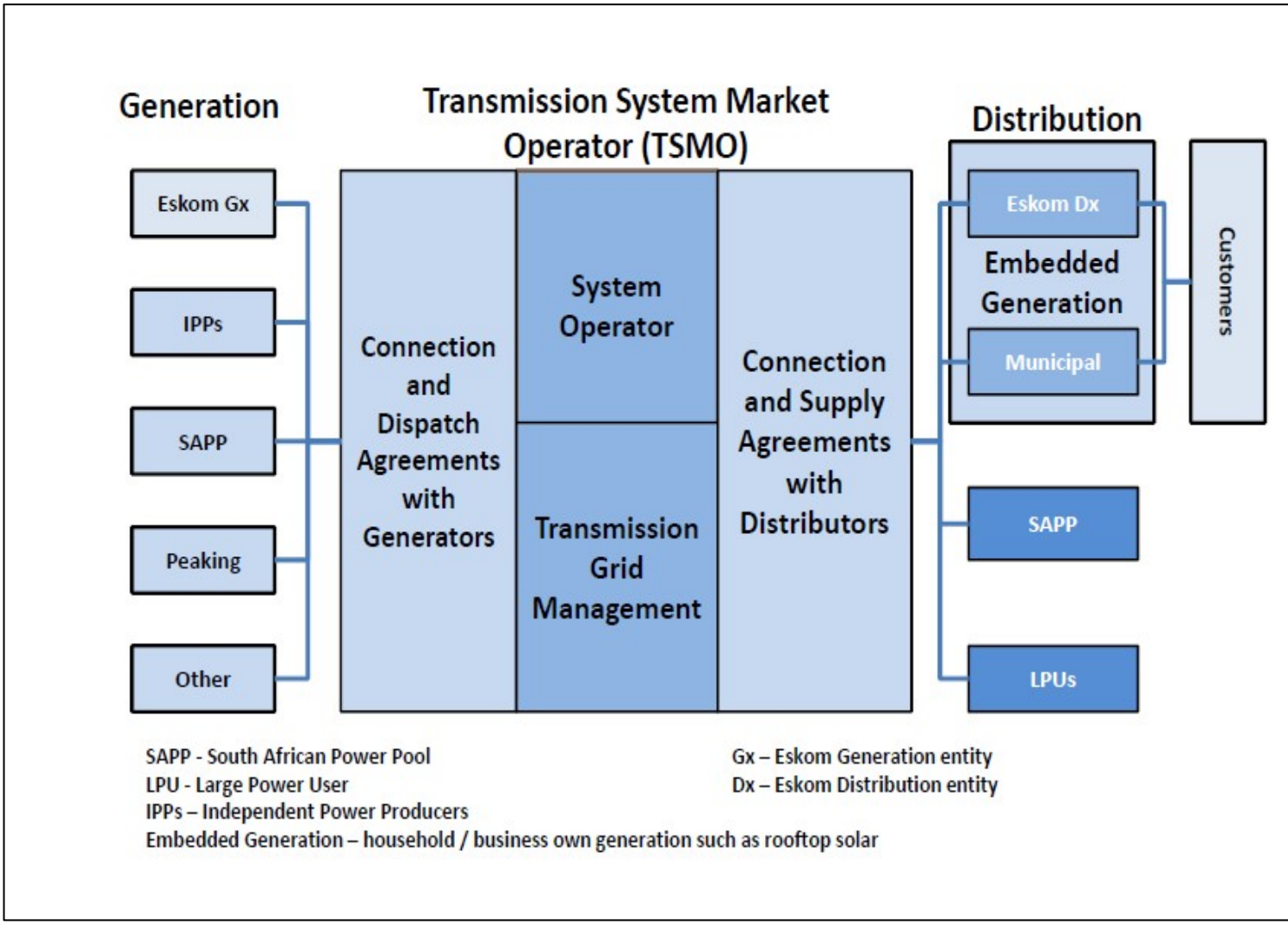
Figure 6.11: South Africa 2001: Proposed electricity market model



Source: Eberhard (2003)

The restructuring proposed in the Roadmap for a Reformed Eskom is in line with the 1998 white paper on energy and is intended to restructure Eskom into separate generation and transmission entities and to enable the establishment of independent distributors. The roadmap envisages a restructuring into separate subsidiaries under Eskom Holdings, as announced by President Ramaphosa in 2019.

Figure 6.12: Reformed electricity supply industry



SAPP – South African Power Pool LPU - Large Power User
IPPs – Independent power producers
LGU – Large power users

Figure 6.12 shows the reformed electricity supply industry (ESI), with the three Eskom subsidiaries: generation transmission and distribution. The transmission subsidiary is renamed the transmission systems market operator (TSMO) and is expected to play a similar role to the one envisaged in the 1998 white paper on energy discussed in chapter 4. The TSMO procures energy from different generation operators and mixes and sells to the distributor at least cost. It is hoped that this holding company structure will allow Eskom subsidiaries' management to focus on improving efficiencies, create greater transparency around performance, provide greater

protection against corruption and rent-seeking, and thus give lenders more visibility of the component parts of the sector, resulting in more investor comfort (DPE, 2019).

Although the Eskom roadmap for a restructured Eskom bears some similarities to the 1998 white paper on energy, it is silent on the subject of privatisation highlighting the growing influence of trade unions in policymaking, particularly that of President Ramaphosa and Gwede Mantashe whose constituency is well represented by the National Union of Mineworkers at Eskom. Both the IRP 2019 and the Roadmap for a Reformed Eskom provide a blueprint for South Africa's energy mix and the centrality of Eskom in generation. However, both fail to provide the financial detail on how a company struggling to generate sufficient cash flows will suddenly receive a windfall enabling it to service its debt, nor do they go into possible sources of such a windfall given South Africa's weak economy, with its potential GDP growth of 1%, according to the SARB.

Moreover, although the debt and power purchase agreements (PPAs) will be moved to the transmission company, the roadmap fails to look at innovative financing, such as the mobilisation of climate finance. This indicates that there are a number of veto players opposed to a total solution that could include climate finance and a commitment to variable renewable energy (VRE) in the near term and the privatisation of some of the generation assets, particularly Medupi and Kusile, which, when commissioned, could have a much longer lifespan than Eskom's other generation assets and thus be attractive to private sector players.

This also leads me to ask questions about Eskom's commitment towards reducing its debt servicing costs by accessing the Green Climate Fund (GCF). The GCF is a unique global platform to respond to climate change by investing in low-emission and climate-resilient development. It was established to limit or reduce greenhouse gas (GHG) emissions in developing countries, and to help vulnerable societies adapt to the unavoidable impacts of climate change. Given the urgency and seriousness of this challenge, the fund is mandated to make an ambitious contribution to the united global response to climate change.

The Eskom sustainability task team appointed by President Ramaphosa on 14 December 2018 was tasked to report its recommendation at the end of January 2019. The Eskom sustainability task team reviewed the board's turnaround strategy including the impact on tariffs and the industry, as well as the feasibility of solutions on the future role of the power utility. Accessing

the GCF and the in-principle agreement on the feasibility of restructuring Eskom's massive debt does not appear to have gained traction as both the DPE and DMRE were working in parallel on the Eskom Roadmap and IRP 2019 respectively. It appears as though President Ramaphosa and Gwede Mantashe see state ownership and Eskom as central to a state-managed just energy transition.

The IRP and the Eskom Roadmap and the IRP 2019 have offered some certainty regarding the future energy mix of South Africa and a reformed Eskom. However, the lack of financial detail, rising debt in the sovereign and the failure to deal with how South Africa will take itself out of its levels of indebtedness (approaching a debt to GDP ratio of 80% by 2028) is of concern. In the absence of an economic growth strategy, a contracting economy makes IRP 2019 a riskier plan. The Eskom Roadmap and the sovereign's ability to service its debt while faced with rising unemployment at 30 percent, poverty and widening inequality, means a just energy transition will be a site of struggle.

The National Union of Metalworkers of South Africa (Numsa) has rejected the restructuring of Eskom and threatened to mobilise the working class against what it sees as the first phase of privatisation, leading to massive job shedding and higher energy costs for the consumer. Moreover, Numsa is not alone in its opposition to the restructuring of Eskom to achieve a just transition to a low-carbon economy in South Africa. In partnership with Transform RSA, Numsa portrays increasing VRE as detrimental to the working class of Mpumalanga and the country as a whole and, in 2018, they interdicted the minister of public enterprises from signing off the IPP programme, arguing that it would lead to the closure of coal-fired power plants and the suffering of about 30,000 working class families because of job losses. Moreover, the IPP roll-out will raise the cost of electricity dramatically, because the power produced by the IPPs would cost much more than coal-fired electricity – a misrepresentation of facts by the NUM and its allies (Strambo, Burton & Etteridge, 2019). Life after Coal and the CER have been conducting research in Mpumalanga, exposing the coal subsidies as well as the negative externalities of coal mining, including damage to road and rural infrastructure, water quality and the serious health problems experienced by the residents of the province (Strambo, Burton & Etteridge, 2019; Burton, 2011).

This thesis has shown throughout how great plans on the restructuring of the South African ESI have come and gone. The indecision by Danie Steyn in 1989, the DME and the Mbeki

government in 2001 and the institutionalisation of veto players are South Africa's biggest challenges. The untangling of vested interests requires a visionary and decisive leadership, which has been lacking in South Africa's energy sector for many years. Eskom has been undergoing endless restructurings, from those prompted by the De Villiers Commission recommendations to those proposed in the IRP 2019 and the Eskom Roadmap. It is difficult to come to a conclusion that Eskom will be free at last, efficient, debtless and with strong governance and accountability. For now, I can safely say that it is going to be a long walk to the restructuring of Eskom and a just transition to a low-carbon economy, which is discussed below.

6.5 Towards a just energy transition

The New Growth Path (DED, 2011) and the NDP (National Planning Commission, 2011) commit South Africa to sustainable economic growth, setting a course for climate resilience and low-carbon development. The National Treasury (2019) recommends a least-cost option for electricity capacity deployment and the creation of an independent transmission company, to be created from the unbundling of Eskom, buying electricity transparently from independent power producers. Moreover, the National Treasury (2019) calls for the introduction of regulations that enable households and firms to sell any electricity that they generate.

In the Eskom roadmap (DPE, 2019), the DPE suggests that the government, together with labour and civil society, is in the process of formulating an appropriate pro-poor "just transformation" strategy and process. They have established a joint working group to develop an operational plan for the just transition. Eskom is committed to and will actively participate in this process, which will guide its investments and reform process according to the Eskom roadmap (DPE, 2019).

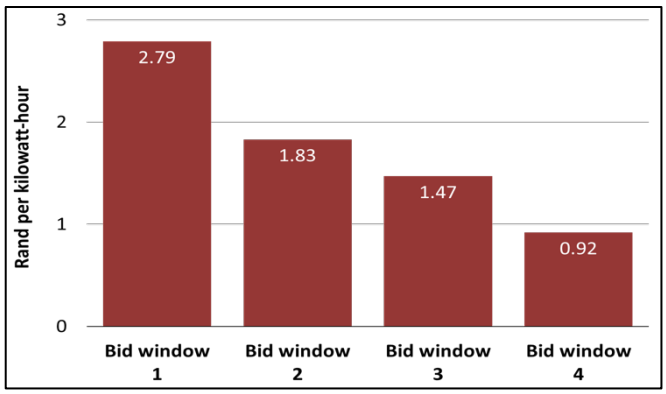
There are also various policies that support low-carbon growth, such as the 2011 National Climate Change Response Policy (DEA, 2011), which outlines the government's plan for adaptation and mitigation, and the draft National Adaptation Plan (DEA, 2015), which provides a strategy to develop interventions to increase resilience across key economic sectors to reduce the economy's greenhouse gas emissions by 2030. The government's low-carbon initiatives include flagship programmes for energy efficiency and renewable energy, and carbon capture and storage. The carbon tax on fuel, which was introduced on 1 April 2019, seeks to motivate households and businesses to reduce fuel use and improve operational efficiency, to promote the use of low-carbon fuels, and to drive green growth and economic diversification (DEA, 2015).

The slow and fractious transition of South Africa's power sector provides an example of a need to build development coalitions, policy certainty and economic change. The Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) has delivered more than 6,400 megawatts of the 2020 target (7,000 megawatts), spurring more than R200 billion in private-sector investment, including close to R50 billion in foreign investment.

In 2017, however, Eskom, South Africa's state-owned power company and sole buyer of power, stopped signing new power purchase agreements with independent producers, as discussed in chapter 5, which caused investor uncertainty about the future of clean energy development, and the government's commitment to encouraging private-sector participation in the energy sector (World Bank, 2018). This action was taken by the government despite the growing evidence that variable renewable energy (VRE) prices were getting cheaper and becoming the least-cost option for electricity capacity deployment.

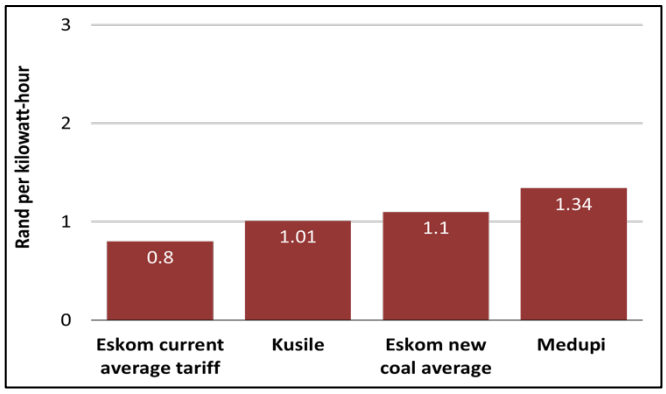
Figures 6.13 and 6.14 show the impact of policy decisions in the form of a comparison between the costs per kWh of the variable renewable energy (VRE) by independent power producers and Eskom's coal-fired plants. Although the VRE plants are price competitive, price is not the only factor in policy decisions, particularly in societies that have a history of exclusion of key sectors of society and where infrastructure provision was politicised, such as South Africa. Moreover, VRE does not yet meet all the requirements to ensure that the transmission system is stable. A team from Meridian Economics is modelling infrastructure technology investment requirements to mitigate any transmission volatility due to variability that could arise should South Africa choose the least-cost option.

Figure 6.13: REIPPP bid windows (Rands per kilowatt-hour)



Source: The Budget Review 2019

Figure 6.14: Comparison of the costs of coal-fired power generation (Rands per kilowatt-hour)



Source: The Budget Review 2019

Before the IRP 2019 was gazetted, the most recent approved and gazetted version of the IRP was the IRP 2010–2030. An update to the IRP 2010–2030 was published in 2013 but was never approved or gazetted. The input assumptions and base case of a further updated revision of the IRP (the draft IRP 2016) were published by the Department of Energy for comment in October 2016. This revision included updated input assumptions, including demand forecasts, existing plant performance, supply technology costs, decommissioning schedules and capacity that was newly commissioned/under construction as well as preferred bidder power generation capacity. The time horizon for the draft IRP 2016 was 2050. Some preliminary results were also shared in the form of a proposed base case and two other selected scenarios (CSIR, 2018).

In 2018, following the draft IRP 2018 update process, building on the draft IRP 2016 and comments received, the Department of Energy requested inputs from the public. Similar to its previous submission, the CSIR's contribution would lead to a better understanding and improvement on the draft IRP 2018.

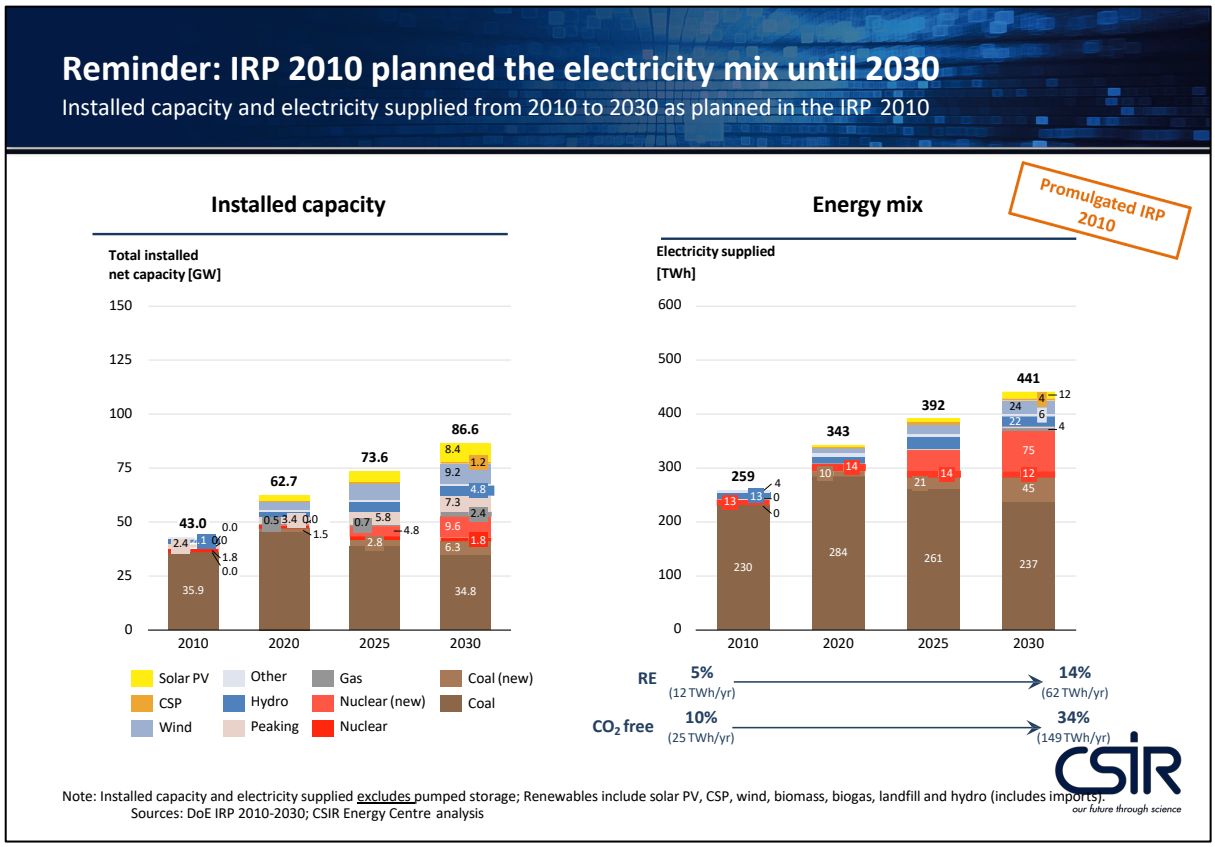
The installed capacity and energy mix of the recommended plan from the draft IRP 2018 is shown in Figure 6.18. Coal has a maximum electricity deployment capacity of 1 GW to be deployed by 2023; photovoltaic (PV), 0.7 GW by 2025; Wind, 0.2 GW by 2025; and OCCG, 2.3 GW by 2026. The recommended plan stops at 2030 and does not extend to the time horizon of the other scenarios considered (2050). The primary reason for this, as cited by the Department of Energy, is increased levels of uncertainty beyond 2030 in a number of dimensions, including adjustments for the inclusion of new-build coal and imported hydro pre-2030. The recommended plan maintains new-build constraints on solar PV and wind while including policy adjustments for the inclusion of new-build coal and imported hydro pre-2030. A new category is also included – embedded generation – which is most likely to be dominated by solar PV, with an allowance for 200 MW per year until 2030 (CSIR, 2018).

Table 6.4 below shows the procurement programme bid window summary and emphasises the government's commitment to the plans and programmes that have been agreed to encourage the shift towards a low-carbon economy. In developing an understanding of how a least-cost option could be the dominant factor in a just transition, I have used the IRP 2018, which is based on the IRP 2010 introduced in chapter 5 and schematically presented in Figure 6.15 below. I lean heavily on the work produced by the CSIR (CSIR, 2018) to show the possibilities of a just transition.

Table 6.4: Renewable Energy Independent Power Producers

Procurement Programme bid window summary					
	Bid window	**Total number of projects**	**Total MW allocation**	**Number of projects in commercial operation**	**Total MW grid-connected**
	1	28	1425	28	1415
	2	19	1040	19	1033
	3	17	1452	16	1428
	3.5	2	200	–	–
	4	26	2205	–	–
	Small (1S2)	10	49	–	–
	Small (2S2)	10	50	–	–
	Total	**112**	**6422**	**63**	**3876**
Source: Independent Power Producer Office					

Figure 6.15: IRP 2010 planned electricity mix until 2030



Source: CSIR

In its response to the Department of Energy's invitation for public comment to the IRP 2018, the CSIR used the International Jobs and Economic Development Impacts (I-JEDI) model, a freely available economic tool, to understand economic changes (with a jobs focus, at this stage) for a range of technologies, including wind, solar, coal and natural gas, after adjusting for South African conditions (CSIR, 2018). In its submission the CSIR adopts a scientific methodology and provides seven scenarios that offer South Africa the optimal solution in all areas – jobs, technology, water, environment and costs. Table 6.5 shows the seven scenarios that have been analysed by the CSIR (CSIR, 2018). The draft IRP 2018 scenario establishes solid principles:

- Least-cost is confirmed as a combination of PV, wind and flexible capacity, to be deployed as coal decommissions. This combination also exhibits the lowest CO_2 emissions and water usage by 2050.

- Technology new-build limits (PV, wind) mean post-2030 deployment is constrained, with new-build coal and gas replacing it (assuming less restrictive CO_2 constraints).
- A higher natural gas (NG) price means less NG usage (notable capacity for system adequacy) and increased new-build coal.
- More strict CO_2 emissions (carbon budget) with renewable energy (RE) new-build limits means less new-build coal and the deployment of nuclear energy instead.
- Higher NG price and stricter CO_2 emissions (carbon budget) with RE new-build limits means less NG and coal, with increased nuclear energy instead.
- A higher or lower demand forecast means the same mix of new-build PV, wind and the same need for flexibility, just earlier or later.

Table 6.5: The CSIR's seven scenarios

A range of scenarios have been assessed as part of the Draft IRP 2018 with key parameter changes

Parameter	IRP1	IRP2	IRP3	IRP4	IRP5	IRP6	IRP7
Demand forecast	Median	Hi	Median	Lower	Median	Median	Median
CO_2 mitigation	PPD	PPD	PPD	PPD	PPD	CB	CB
Annual new-build limit (RE)	-	Yes	Yes	Yes	Yes	Yes	Yes
Fuel prices	Const.	Const.	Const.	Const.	Market	Const.	Market.
Tx collector station costs	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Const. - Constant, Market - Natural gas linked to IEA expected market price
PPD - Peak Plateau Decline, CB - Carbon Budget

CSIR
our future through science

Source: CSIR

These scenarios were well received by climate change activists, who saw an opportunity to transition to a low-carbon economy. Costs and deployment times were seen as a huge advantage

for the VRE over coal or gas. However, enthusiasm has been curtailed by the recent publication of the IRP 2019, on which further work still needs to be done to test its practicability. Time did not permit me to explore the IRP 2019 in detail, as I have done with the earlier IRPs discussed above. All of the IRP processes lack the same success factor: they fail to tackle the broader South African problem of exclusion based on class, race and access to information and knowledge. It is against this background that I believe that South Africa is ready for a new political settlement. South African courts cannot be the only site of struggle towards a just energy transition. The struggle for inclusion requires broader coalitions, cooperation and teamwork towards a just transition, informed by a new political settlement.

6.6 A new political settlement for inclusion in a just transition

A new political settlement for industrialisation in a low-carbon economy must speak to and mobilise key black constituencies, including industrial trades unions, through effective skills upgrading and investment, and productive black entrepreneurs, through opening up of economic opportunities. The settlement should speak to their aspirations, especially in urban areas, where the majority now live and where industrial agglomerations are built. It must reach and sustain a shared and binding commitment which, through shared growth and investment, will lead to a reversal of the growing inequality in wealth and access to economic opportunities. The settlement needs agreement around the expectations for large firms, rewarding long-term domestic fixed investment, innovation and dynamic competitive rivalry with effective government policies regarding infrastructure, procurement, skills development, technology and opening regional and international markets. It must be captured in a national agenda, which is designed and delivered locally, where people have a strong sense of identity and a stake in the outcomes.

From a historical perspective, energy infrastructure has been at the centre of injustices against the black majority and was an intervention by Afrikaners in a political economy dominated by foreign-owned mining companies (Clark, 1987). In the period between 1985 and 2019, Eskom has experienced various restructuring proposals, including a political transition from a white-dominated government to a black-led government and a focus on extending electricity supply to black areas and thus becoming part of "democracy's infrastructure" (Von Schnitzler, 2017). Von Schnitzler (2017) uses the term "democracy's infrastructure" (p.8) as a metaphor for the diverse ways in which democracy is grounded in and stabilised by seemingly apolitical technical means

and an ethnographic object of investigation – socio-technical assemblages made up of pipes, wires, and meters; the ethical regimes and techno-political calculations through which they operate; and the modes of politics they enable and afford.

Exploring democracy from the perspective of its infrastructures enables the reframing of the conventional story and periodisation of South Africa's transition. In turn, this infrastructural perspective by Von Schnitzler (2017) opens up conceptual space for a more expansive theory and vision of what it means to act politically in the post-colony and beyond (Mbembe, 2001). Borrowing from anthropologists, science and technology studies (STS) and ecology, I discuss below what a just transition for Eskom should look like. I define the concept of a just energy transition from the perspective of a restructured Eskom and an IRP 2019 that introduces other forms of electricity capacity deployment beyond fossil fuels. Just like the struggle against apartheid, I argue that a just energy transition will require a broader alliance of interest groups with a shared vision of the future to act politically (Mbembe, 2001) for a labour-absorptive sustainable economy away from the MEC of Fine & Rustomjee (1996). Although this is just the beginning of a long walk to a just energy transition, I propose how a new industry could be developed as South Africa takes its long walk to a just transition. Business has rushed in, as it did in the political transition, with its proposals on what it can bring to the table in pursuit of a just transition.

6.7 Business in transition

Business has reorganised itself and has embraced President Ramaphosa with an enthusiasm reminiscent of the 1990–94 negotiations on economic policy that led to the implicit agreement between government and business after the historic 1994 democratic elections. That relationship did not produce favourable outcomes for South Africa, as argued by Zalk (2016) and Chabane, Goldstein & Roberts (2006), who pointed out that business did not come to the party, but internationalised instead. A 2018 World Bank study based on consumption expenditure data shows that South Africa is one of the most unequal countries in the world, and that inequality has increased since the end of apartheid in 1994 (World Bank, 2018). Analysis of the distribution of consumption expenditure per capita in the recent Living Conditions Survey 2014/15 found that the country had a Gini coefficient of 0.63 in 2015, the highest in the world and an increase since 1994. Further analysis of consumption expenditure trends provides evidence that the

consumption expenditure of the very poor – those in the bottom 10% – grew at a slower pace than the consumption expenditure of the rest of the population between 2006 and 2015.

South Africa also lags behind its peers on the inclusiveness of consumption growth. Inclusiveness, in this case, is examined by comparing the rate of consumption growth for the bottom 40% of the population with that of comparable countries as well as that of sub-Saharan Africa and the world. The result: the bottom 40% had consumption growth of 3.5% between 2006 and 2011, with a deceleration of 1.4% for the period between 2011 and 2015. This does not compare well with the median for the world (3.9%) or, in the later period, with that for sub-Saharan Africa. Three out of four of South Africa's BRICS partners (Brazil, Russia and China) fare better than South Africa in terms of inclusiveness of growth.

This confirms the unjust nature of the transition from apartheid to democracy. The president's relationship with business has been bolstered by the strengthening relationship between the presidency and big business. A business team convened by Nick Binedell of the Gordon Institute of Business Studies (Gibs) at the University of Pretoria, Roelf Meyer[15], a chief negotiator on behalf of the NP in the transition to democracy, and Dr Johan van Zyl of Toyota, has championed the business-led 'thuma mina' (send me) campaign (PPGI, 2018). The conveners have formed an umbrella body referred to as the Public-Private Growth Initiative (PPGI) with 19 economic sectors in their fold. The PPGI has developed a short paper on how South Africa can achieve 5% GDP growth over the next five years, from growth plans presented by CEOs and chairpersons from the 19 sectors to the government. The percentage growth projected in the different sectors varies between 3% and 5%, subject to circumstances relevant to the specific sectors, but the summary projection of achieving 5% contribution to the GDP is also based on the expected multiplier impact on associated businesses, which cannot accurately be quantified at this stage (PPGI, 2018). As examples:

- Given a targeted GDP growth of 1% to 3% p.a. over five years, increased investment in infrastructure through the construction sector to increase its contribution to 4.9% of GDP (current level of 3.49%) will increase the national infrastructure stock, which, in turn, drives GDP per capita growth. Empirically, this is shown to equate to 1% of GDP per capita growth

[15] Roelf Meyer and President Ramaphosa were key negotiators in the Codesa negotiations and the Constitutional Assembly that led to the adoption of the constitution of the Republic of South Africa in 1996.

per infrastructure stock growth in the range of 2.5% to 10%, which range is dependent on factors such as the type of and localised need for the infrastructure constructed.

- The ICT sector's potential impact on increased GDP is at best understated. The expressed vision and projections of leaders of this sector should be recognised and supported as an essential pillar to grow the RSA economy to its fullest potential.
- The chemical sector in South Africa contributes about 3% to GDP and 23% to the total manufacturing gross value-add that occurs in South Africa. While the sector is not a massive creator of direct jobs, given that chemical plants are highly automated and capital intensive, it has strong multiplier effects on both employment (of 12 times) and on GDP (5.5 times), as recorded in 2017. Inhibitors related to the sector strategy 2035 must, however, be removed to unlock the full value in this sector.
- Private health contributes 1.28% to GDP (R55.5 billion in spend, currently) and has a multiplier impact on the GDP of 1.23. The mere 1.28% it contributes to GDP does not reflect the enormous impact it has on the well-being of SA society as a whole.
- The same would apply in the case of the pharmaceutical industry.
- The growth and contribution of particular sectors, such as agriculture and tourism, have an exponential impact on the value-added contribution to GDP of other sectors that cannot be quantified accurately at this stage, but should be recognised.

The PPGI proposals get very seductive to a politician seeking to bring hope after 24 years of economic mismanagement by the ANC, by promising employment. Private business entities represented in the 19 participating sectors project the employment of a vast number of new people over the next five years. This is based on predicted GDP growth in the country of between 1% and 3% p.a. This can be realised, especially with increased demand for local goods, through a stable labour environment and with other relevant inhibiting factors removed. Sectors are committed in their employment plans to meet the minimum employment targets across gender, race and the youth (PPGI, 2018). However, the PPGI highlights constraints and challenges in the investment climate that could undermine the achievement of the ambitious employment-rich growth rates. These require a mind-set change on cohesion and coordination between the public and private sector; an improved macro investment climate to attract investments waiting to be made in specific projects; reliable, competitively priced electricity; a solution to the lack of expert technocrats in critical areas to deal with the government sector and SOEs; addressing work permit processes that are not conducive to importing scarce skills, and

addressing the absence of e-visas, which are a barrier to entry; addressing the lack of capacity in municipalities; and overcoming resistance to involving the private sector.

In aggregate, projected investment from a select number of the 19 sectors amounts to in excess of R500 billion over the next four to five years, if the relevant inhibiting factors are removed and a high-growth path is pursued in the economy (PPGI, 2018). Can business go beyond the promises highlighted above and what is its understanding of a just transition in the energy sector?

6.8 A just transition for South Africa

South Africa is deeply divided across race, interest groups, coalitions and geographic communities. It will take long to develop a unified understanding of what a just transition means, just as the struggle for freedom and justice took long. President Ramaphosa, at the Job Summit hosted by Nedlac on 4 – 5 October 2018 in Johannesburg, announced the formation of a presidential climate change coordinating commission. It was only on 9 September 2020 that Cabinet approved the establishment of a Presidential Climate Change Coordinating Commission which would coordinate the just transition of South Africa to a low-carbon and climate-resilient economy and society by 2050. The structure of the commission will comprise members of government, social partners, civil society as well as experts from academia and research institutions. Moreover, in South Africa, resistance to profound change is strong and entrenched, as I have shown in this thesis, in spite of a number of progressive developments aimed at encouraging a greater share of renewable generation in South Africa's electricity mix as a means of enhancing energy security (Baker, Newell & Phillips, 2014). This is so even though the government has been taking its immediate cues from a series of threats (such as the electricity supply-side crisis, in which blackouts cost the economy USD7.1 billion (1.4% of GNP) in 2007/08 (Swilling & Annecke, 2012, p.227) and despite opportunities for South Africa to position itself as the renewable energy capital of Africa.

The South African economy remains heavily dependent on energy intensive resource extraction industries that are lobbying hard against increased production costs from measures such as the carbon tax and some of which still benefit from contracts that tied the state to the provision of cheap energy. Moreover, Eskom is owed more than R20 billion by South Africa's municipalities, according to the minister of public enterprises, Pravin Gordhan. This amount has been steadily increasing. As at end of July 2020, the overdue debt owed to Eskom by municipalities stood at R31.1 billion.

A growing economy requires energy and the energy mix should be in the interest of all, not only to reduce environmental degradation, but also to include those who live in poverty, unemployed, in an unequal society.

The Eskom Roadmap provides the pillars of South Africa's just transition process. They include:

- The creation of an *inclusive* economy based on the cheapest energy available that attracts the largest amount of investment and creates jobs on scale.
- Protecting and growing jobs, particularly in the downstream value chain, on the back of low-cost energy. The reform process will provide retraining and bridging opportunities for Eskom, power station and coal sector workers. This will be supported by a massive energy-related industrialisation programme (centred around Mpumalanga) with very high export potential, especially into Africa.
- Enabling energy access and security to all South Africans, particularly poor and vulnerable communities.
- Following current trends by constructing a decentralised energy grid infrastructure in South Africa's small towns (such as Upington, De Aar and Alice), which will have a positive impact on spatial inequality.
- Providing a social safety net for those who are not able to transition to these new opportunities.

However, the South African government process negates the inputs of many stakeholders that have been at the forefront of defining what a just transition for South Africa would be like. These organisations, which are community-based and are active in Mpumalanga because of the negative externalities of coal mining and carbon emissions from Eskom's coal-fired power plants, include Earthlife Africa, groundWork, Life After Coal and the Energy Research Centre. South Africa's just transition should be about justice – a fair and equitable transformation of the energy sector to a low-carbon economy using a variety of energy sources in the energy mix, from renewables, through hydrogen, battery storage, waste and nuclear to thermal energy. I am, however, mindful of the challenges of conceptualising justice within the climate change, energy and environmental (CEE) scholar communities, since a transition means a different thing to each scholarship. There are three distinct research areas, each with their own version of "justice scholarship". These are energy justice, environmental justice and climate justice. How is a society to build a development coalition on a "just transition" based on a shared meaning and outcome?

Von Schnitzler (2017), in a description of a 2004 protest in Diepsloot (a densely populated township north of Johannesburg), argues that the "protest challenged not merely a particular

policy or a specific local councillor; more fundamentally, it challenged the dominant imaginary of South Africa's liberal democracy, in which the political domain is clearly delimited, where violence is the prerogative of the state, in which citizens have 'channels' of communication, and where a thriving public sphere provides the location for deliberation and debate" (p.2). A just transition therefore cannot be solely the prerogative of the state, business, unions, professionals and interest groups, but it should accommodate everyone in a process. Perhaps the process that resulted in the Reconstruction and Development Programme (RDP) comes close to what a process leading to a just transition should entail.

The Reconstruction and Development Programme (RDP) document was the end of one process and the beginning of another. The document was the result of many months of consultation within the ANC, its alliance partners and other mass organisations in wider civil society. The RDP went through six drafts, incorporating numerous comments and proposals arising from the Conference on Reconstruction and Strategy in January 1994. In the process, there was much public comment – both favourable and critical – which made very valuable contributions and led to rethinking of earlier recommendations. This RDP process was long, but created convergence on what needed to be done.

However, today there are limitations to an extensive consultative process such as the RDP process because of external events that could impact on a just transition. South Africa' economy is in a recession, declining by 16.4% in the second quarter of 2020, an annualised GDP growth rate decline of about 51%, amid a health crisis and constraints on domestic demand and limited government spending. The state coffers are in a worse position than they were in 1994, when the debt-to-GDP ratio was at about 60%. Unlike in 1994, when the dominant global economic paradigm was pro-markets and governments were advised by the IMF and the World Bank to sell SOEs, as discussed in chapter 4, this time is different. The failure of structural adjustment programmes (SAPs) and austerity has widened inequality in the world, prompting people to migrate to greener pastures in search of a better life. This means that, in the restructuring of Eskom, President Ramaphosa has space to do the just thing, unbundling Eskom into three entities, generation, transmission and distribution (Ramaphosa, 2019).

In the restructuring of Eskom and the IRP 2019 to develop a just transition framework, South Africa can lean on the philosophical approach of Ubuntu. Ubuntu signifies a relational culture and worldview that values human dignity as realised through communal relationships in the

context of social harmony (Khoza, 2004a; Metz, 2011 and Padayachee, 2013). Humans are viewed as a part of society, which in turn exists within the biosphere and the cosmos, implying responsibility to others and care for the integrity of the natural world (Chuwa, 2014; Khoza 2004a). The ultimate moral obligation is to achieve complete personhood and obtain Ubuntu by increasingly entering into community with others, meaning that personal maturity and humanity is measured by the quality of one's relationship to other human beings (Khoza 2004a, Metz, 2011; Chuwa, 2014). While upholding basic human rights, Ubuntu is understood as communitarian because of its 'other-oriented' worldview, which is also expressed by the phrase *cognatus sum, ergo sumus* (I am known, therefore we are) or through the maxim "a person is a person through other persons" (Chuwa, 2014).

Ubuntu views justice as an element of care for and responsibility to the other. The achievement of societal common good and maximisation of the quantity and quality of human life validate Ubuntu (Chuwa, 2014). Integrating the Ubuntu philosophical approach with energy justice could position South Africa as a shining example of how other countries can transition from a carbon-intensive economy to a low-carbon one. Sovacoola, Burke, Baker, Kotikalapudi & Wlokas (2017) proposed the 10 commandments of energy justice (See Table 6.6).

Sovacoola et al. (2017) introduced the concept of a performative principle of justice in energy transitions. They argue that the performative principle of justice invokes a sense of duty or "political obligation" on a citizen or group of citizens to influence the political order to pursue energy justice. Sovacoola et al. (2017) argue that activism to influence the political order may include strikes, boycotts and mass action similar to the one last seen in the anti-apartheid struggle. Muttitt (2016) goes further by calling for civil obedience as mooted by Lemons & Brown (2011), which includes occupying or shutting down fossil-fuel infrastructure projects.

Strambo, Burton & Etteridge (2019) have done some fieldwork in Mpumalanga to test the views of the community and build coalitions for a just transition. They conducted fieldwork because discussions about South Africa moving away from coal have so far remained technical and have tended to focus on the macro level. They observed that some workshop participants highlighted that when managing a transition, the main concerns at the national level will differ from those at the local level. According to Strambo et al. (2019) bridging these two perspectives is essential for navigating coal transitions, and workshop participants emphasised the role of municipalities and local actors in defining and implementing just transitions. This, however, must take place in

a context where local authorities already struggle to mitigate the impacts of coal mining. Indeed, past cases of mining transitions have shown that coordination between the various levels of government and the involvement of local communities, mining companies and trade unions is essential (Caldecott, Sartor, & Spencer, 2017). In South Africa, there are obstacles to coordination. Local governments may struggle most to find the right capacities, including financial resources that will be needed, particularly since mining municipalities often struggle with providing infrastructure and services and managing urban development (Marais, McKenzie, Deacon, Van Rooyen & Cloete, 2018). State fragmentation, lack of transparency and central authorities' disregard towards subnational government priorities were also mentioned by interviewees as barriers to transition policy design and implementation.

Drawing from Ubuntu and Mandela, South Africa should actively and deliberately resist projects that are unjust and oppressive and that violate all or a majority of the energy justice principles proposed by Sovacoola et al. (2017) as shown in Table 6.5. The performative principle of justice invokes a sense of duty or "political obligation" on a citizen or group of citizens to ensure the adherence of political authorities to these broad principles of energy justice (Sovacoola et al, 2017). These duties or acts of resistance vary according to the scale of violations and include strategies and tools like legal action, popular education, political lobbying, public demonstrations, digital campaigns or a combination of these. According to Strambo et al. (2019) interviewees drawn from local and provincial governments and from the business sector emphasised that local authorities were unaware of the upcoming challenges associated with moving away from coal and were ill-prepared to face them. This reality requires active citizens, marches to Eskom, the DPE, DMRE, digital campaigns and civil disobedience, demanding urgent action from policymakers to inform and educate the broader South African community. Failure to do so would invoke my fear that South Africa, through its IRP 2019 and the Eskom Roadmap, may be at the beginning of an unnecessarily long walk to a just transition.

Table 6.6: Ten Commandments of energy justice

No.	Principle	Description
1	Availability	South Africans deserve sufficient energy resources of high quality (suitable to meet their end uses).
2	Affordability	All people, including the poor, should pay no more than 10% of their income for energy services.
3	Due process	South Africa should respect due process and human rights in their production and use of energy.
4	Transparency and accountability	All people should have access to high quality information about energy and the environment and fair, transparent, and accountable
		forms of energy decision-making.
5	Sustainability	Energy resources should be depleted with consideration for savings, community development, and precaution.
6	Intrageneration al equity	All people have a right to fairly access energy services.
7	Intergeneration al equity	Future generations have a right to enjoy a good life undisturbed by the damage our energy systems inflict on the world today.
8	Responsibility	All actors have a responsibility to protect the natural environment and minimise energy-related environmental threats.
9	Resistance	Energy injustices must be actively, deliberately opposed.
10	Intersectionality	Expanding the idea of recognitional justice to encapsulate new and evolving identities in modern societies, as well as acknowledging
		how the realisation of energy justice is linked to other forms of justice e.g. socio-economic, political and environmental.

Source: Sovacoola, Burke, Baker, Kotikalapudi & Wlokas (2017, p.687)

6.9 Theorising a just transition

In a March 2015 speech at Harvard University, Peter Thiel, an entrepreneur-inventor and innovation investor, argued that humanity needs more technological breakthroughs to deal with enduring global challenges such as climate change, hunger, pandemics and war (Pfotenhauer & Juhl, 2017, pp.68). Thiel went on to argue for state-driven innovation, with grand visions such as going to the moon (Pfotenhauer & Juhl, 2017). Not to be outdone, Mazzucato (2013) argued for a "mission-oriented state" that takes responsibility for boldly leading the way with a clear and courageous vision and creates the preconditions for innovation by actively shaping markets rather than cheering tamely on the sidelines and intervening only to fix markets when they fail (Mazzucato, 2013). Pfotenhauer & Juhl (2017) find both the state-driven innovation with grand vision of Thiel and mission-oriented state of Mazzucato problematic, since there is no consideration of whether the large-scale disruption of socio-economic stability in order to reap a profit in the daring unilateral lonesome style of a Schumpeterian entrepreneur, is politically desirable – let alone what it would mean for the state to fail as entrepreneurs frequently do (Pfotenhauer & Juhl, 2017, p.70).

The above discussion prompts a number of questions in the just energy transition of South Africa for Thiel's and Mazzucato's vision-oriented state as well as for members of the Public Private Growth Initiative (PPGI), who have been courting President Ramaphosa, and also for the Life After Coal and Centre for Environmental Rights (CER) activists, who see the courts as arbiters. For one, why does the absence of a political state matter? The framing of political issues is never self-evident or purely objective, but a political act of inclusion and exclusion has been a fixture in discursive and argumentative policy analysis for several decades (Pfotenhauer & Juhl, 2017).

The selective framing of a just energy transition and the technology innovation that it brings towards a low-carbon economy is accompanied by foreign direct investment and facilitation, rather than governance and justice, leading to a considerable bias in the way a just transition is theorised. Pogue (2006) and Jasanoff (2004), on research collaborations and co-production in STSs, have emphasised that the ways in which we know and represent the world (both nature and society) are inseparable from the ways in which we choose to live in it. Consequently, the history of innovation and technological change can be interpreted as one of systematic exclusion of the political state and the constituency it serves in favour of a purified technocratic understanding of what a just energy transition is, who it is for, and who needs to be involved.

Paradoxically, the energy transition in South Africa is being heralded as a way to disrupt society and change the world to achieve a better life for all, under the pretence that the disruption has nothing to do with the political and social aspects of the state. It does!

6.10 Summary

In this chapter, I have discussed the trajectory of SA's economy since the global financial crisis and highlighted the low rate of economic growth and the vast increase in public debt. If economic growth had been higher, more tax would have been collected and there would have been much less need to borrow in order to fund the gap between revenues and spending. In addition, faster growth would have meant that the economy was larger, so the ratio of debt to GDP would have been lower.

Slow growth, in other words, is a key driver of the rapid build-up of public debt. But, given the weight of the debt and the rapidity of its increase, lines of causality now work the other way, too: the precarious state of public finances is one of the reasons for the deterioration in South Africa's growth performance and is also the reason it is likely to continue to deteriorate until there is a substantial improvement in the country's fiscal position.

By itself, however, fiscal consolidation is unlikely to close the gap between revenues and spending unless and until the economy grows more quickly and the SOEs, such as Eskom, are restructured.

I also discussed the conditions that led to the collapse of governance at both board and executive level at Eskom and the destruction of capability in the SOEs. Eskom became a primary vehicle for radical economic transformation, a process of using SOEs as vehicles for private wealth accumulation and rent seeking in the name of the 'people' (Bhorat et al., 2017). Exploring the political economy of the restructuring of Eskom enabled me to understand the behaviour of political actors, interest groups and their influence on restructuring and electricity capacity deployment. They have this influence because of their role in passing enabling legislation, approving the national budget and playing an oversight role, which grants them powers to veto decisions that have been taken by the executive relating to the restructuring or deployment of infrastructure. Having presented a narrative of the political economy of the restructuring of

Eskom from the practical implementation of the recommendations of the De Villiers Commission to the 2019 Eskom Roadmap, beginning in chapter 3 of this thesis and continuing through to chapter 6, I have shown that what public choice theorists have argued about the existence of veto actors and their ability to dis-incentivise the deployment of white elephants cannot be generalised. I have shown in this thesis that individuals (Jacob Zuma), patronage networks and institutional capture can indeed deploy white elephants by circumventing the institutions of the political order.

CHAPTER 7 - CONCLUSIONS

7.1 Introduction

The foregoing four chapters have traced the contemporary history of the restructuring of Eskom in the period, 1985 – 2019. The theme running through the four chapters is encapsulated in the four arguments presented in chapter 1:

First, the extent to which the narrative created by Eskom management as an interest group gave rise to the promise of "electricity for all" through the extension of electricity to black households, both urban and rural, thereby frustrating the restructuring process. **Second**, how power and class coalesced against the democratic state's attempt to restructure Eskom, turning the power utility into a resource for jobs, revenue, contracts, tenders and licensing that precipitated the energy crisis informing the state's intention to restructure Eskom and transition to a low-carbon economy. **Third**, the evolution of the primary legitimation mechanism of the black elite that shaped the intersection of patronage and factionalism, by gaining power in the state and capturing Eskom for rents, leading to a need for its restructuring. **Finally**, how the 2019 Eskom paper, Building an Electricity Supply Industry (ESI) of the Future, with a focus on a restructured Eskom, could contribute to the transition of the South African economy to a just low-carbon economy – what is termed a just energy transition in the work of many scholars.

Each of these themes will be considered in seriatim.

7.2 The four themes of the thesis

With reference to the first theme, the 1985 debt standstill led to President P.W. Botha outlining a new economic policy for South Africa which emanated from the De Kock Commission, the Wiehahn Commission and the Riekert Commission. The commissions argued for deregulation, liberalisation and economic reforms. Eskom was going to be privatised together with other state-owned enterprises. However, the narrative created by Eskom management as an interest group gave rise to the promise of "electricity for all" through the extension of electricity to black households, both urban and rural, thereby frustrating the restructuring process. The mood among Eskom's executive with regard to the electrification of black households at the time of the

restructuring process, was summed up in a statement made in Eskom in Perspective (1991, p.16), which stated that "every household has a need for energy" (as cited by Veck, 2000).

Furthermore, the ANC was aligned with the Eskom executives in the electrification of black household and politicised the electrification process. For example, Khetso Gordhan, who chaired the ANC national meeting, said in his summary of this topic that the resources were available to electrify black households and that the key "constraint to planning and implementing a national electrification initiative was the lack of political will" (Theron, 1992, p.203; Veck, 2000, p.201). The decision to electrify black households was never quantified nor who would carry the cost burden of its rollout. It was assumed that since Eskom had shown positive net income from 1981 to 1990 and had accumulated capital resources, the power utility could afford it. Politics seemed to have triumphed as Eskom was expected to carry the burden alone. There were also institutional changes that led to the formation of the National Electrification Forum.

With respect to the **second** theme, the ANC leadership's failure to embrace the recommendations of the Macroeconomic Research Group (MERG) was seen as an acceptance and extension of the inherited National Party neoliberal policies which were encapsulated in the Growth, Employment and Redistribution (GEAR) macroeconomic strategy. The 1998 Energy Policy White Paper prescribed the restructuring of Eskom into three separate entities and privatisation as its end state. Both the macroeconomic policy, GEAR, and the proposed restructuring of Eskom, were rejected by the ANC tripartite alliance partners. At the same time the post-apartheid social process of black economic empowerment and the formation of the black elite, in the face of fierce competition with established white business and corporations, meant that opportunities were few. Both the black elite and the ANC tripartite alliance had something in common – their reliance on the state and state-owned enterprises. As a result, power and class coalesced against the democratic state's attempt to restructure Eskom and turned the power utility into a resource for jobs, revenue, contracts, tenders and licensing, and thus deferred its restructuring.

Third, South Africa's GDP growth rate had improved from 2.3% in 1994 to 3.7% in 2004, and in a much bigger economy than that of 1994 (Treasury, 2005). Total debt as a percentage of GDP shrank dramatically from 48.6% in 1994 to 35.7% in 2004. The budget deficit as a percentage of the GDP improved from 6.8% in 1994 to 2.3% in 2004, providing a space for expansionary fiscal policy (Treasury, 2005). Finally, the deficit on the current account as a percentage of GDP widened from 0.5% in 1994 to 3.2% in 2004, supported by robust capital inflows on the capital

account of the balance of payments because of the growing integration of South Africa into the rest of the world economy (Treasury, 2005). The significance of GEAR was that it privileged the attainment of macroeconomic policy objectives reducing the state's fiscal deficit and the inflation rate, at the expense of other important elements of earlier, more social-democratic ANC policies. This led to a significant growth in disenchantment and political dissent within the governing party and between the ruling party and its alliance partners, largely because of GEAR's failure to create a significant number of jobs and to reduce poverty and inequality. Whereas black economic empowerment (BEE) had initially focussed on the private sector, the deployment of new generation capacity by Eskom allowed for black entrepreneurs to participate in the procurement of capital goods and services. Eskom signed a memorandum of understanding with the National Federated Chamber of Commerce and Industry, a black business organisation, whose impact saw Eskom procurement from back businesses rising from R201 million in 1997 to over R10 billion in March 2005. The governing ANC was not to be left out, and through its company, Chancellor House, formed a consortium with the Japanese electricity equipment supplier, Hitachi, and participated in the Eskom build programme. The evolution of the primary legitimation mechanism of the black elite shaped the intersection of patronage and factionalism by gaining power in the state, and capturing Eskom for rents, leading to a need for its restructuring.

Finally, how operational, financial and governance crises afflicting Eskom, emerged in the context of African National Congress initiatives to turn Eskom to an instrument of an envisaged South African developmental state, through increased investment and strategic procurement to support economic transformation goals. Instead, Eskom's spiralling costs, procurement irregularities and inability to translate increased investment into functional new infrastructure, meant it impeded these goals. Eskom's indebtedness has become a severe macro-economic risk, and has to be restructured in line with the 2019 Eskom paper, Building an Electricity Supply Industry (ESI) of the Future, and contribute to South Africa's energy transition – what is termed a just energy transition in the work of many scholars.

7.3 Limitations of the thesis

The limitations of the thesis lie in the absence of a costing for the various options for electricity capacity deployment and a forecast of the timing of its deployment. The thesis also stops short of recommending remedies for the undermining of process and the creation of asymmetries of

information with the ultimate aim of capturing institutions for private gain. Furthermore, since the past nine years are still contemporary, it is possible to enhance the last section of the thesis, on radical economic transformation, particularly following the recommendations of various commissions of inquiry such as the Judicial Commission of Inquiry into Allegations of State Capture (Zondo Commission).

7.4 Postscript

The South Africa government tabled a Supplementary Budget in June 2020 in response to the health and economic crisis, as it approached a fiscal crisis. The Covid-19 fiscal package allocated about R500 billion in economic relief. It included R190 billion in main budget spending – of which R145 billion was allocated immediately – to protect lives and support livelihoods, R70 billion in tax policy measures and a R200 billion loan guarantee scheme to support short-term economic activity (National Treasury, 2020). In addition, the Reserve Bank reduced interest rates and provided additional support to the bond market, and eased financial-sector regulations in order to support the flow of credit to households and businesses, and commercial banks have introduced temporary payment holidays. About 18 million South Africans received temporary Covid-19 grants which, along with other interventions for vulnerable households, was estimated at about R41 billion.

However, even during the health, economic and financial crisis, Eskom could not keep the lights on. The DPE believed that the operational, financial and governance crises that had afflicted Eskom were because of embedded patron-client relations at Eskom which have been a source for jobs, revenue, contracts and tenders in the formation of the new black elite. The DPE believed that the appointment of the first white CEO since Allen Morgan retired in 2000 and passed the reins to Thulani Gcabashe, would enable Eskom to confront its challenges. André de Ruyter assumed the position of CEO in January 2020. This appears to be a radical shift by the ANC whose social processes in the post-apartheid period have been the formation of a black elite that has relied on the state and SOEs for jobs and contracts.

De Ruyter has inherited a utility on a death spiral, faced with operational and structural inefficiencies, lacking transparency in a changing energy landscape. Eskom's energy availability factor (EAF) was below 70% during the 2019 and 2020 financial years. The South African economy is facing load shedding, an opportunity cost for Eskom since it loses revenue while it

faces increased costs as it supplements its power generation with other sources that include diesel. Moreover, its environmental challenges are enormous because of its fossil-fuel bias in generation.

Eskom's operational expenses increased by more than 30% in the last five years, reaching R151 billion in the 2019 financial year, as a result of large increases in employee and coal costs, and procurement costs that are well above market norms. The impact has been felt on the bottom line as sales volumes of electricity have been declining by 1% per year, whereas tariffs were not cost reflective, with about R38 billion in receivables outstanding. But the biggest albatross is an unsustainable debt level that is estimated at R450 billion. Moreover, Eskom is unable to service debt from its own earnings before interest and depreciation (EBITDA) and must borrow to service its debt.

De Ruyter has taken the bull by the horns, developing effective plans towards operational stability by driving activities to improve the income statement. He has also moved Eskom towards its restructuring, with divisionalisation as a first step. According to Eskom spokesperson Sikonathi Mantshantsha, the utility now has three "separate" divisions – generation, transmission and distribution – each with its own board (Mantshantsha, 2020). The divisional boards are staffed by Eskom employees and there are no outsiders currently. Only when the divisions become autonomous legal entities will Eskom get non-executive directors on the divisional boards (Mantshantsha, 2020). Currently the divisions are led by the managing directors of the operations with Group CEO De Ruyter chairing all the divisional boards. The generation division is led by Rhulani Mathebula while Monde Bala heads the distribution division and Segomoco Scheppers, the distribution division.

Eskom believes that at a significantly reduced debt balance of R200 billion, a closing cash balance of R30 billion and EBITDA margin of 35%, its financial modelling shows that it can achieve independent financial sustainability. The restructuring of Eskom's debt has attracted attention to some of its lenders. For example, the Public Investment Corporation (PIC) which has a R92 billion exposure at Eskom, has hinted at a swap of debt for equity. It would mean that the PIC would forgo interest payments which are paid quarterly for an uncertain dividend receipt which is dependent on profitability and free cash flows. Such a decision would require the Government Employees Pension Fund (GEPF) to agree to the swap by taking a huge bet on

Eskom's return to profitability in a shrinking market which is in transition because of climate change.

For De Ruyter and Eskom, the restructuring that was announced in 1984 following the De Villiers Commission of Inquiry, means the divisionalisation of Eskom which they have now done. In an interview with Chris Yelland, an energy expert, De Ruyter sees the 8,000 to 10,000 MW that would be retired over the next 10 years as an opportunity for investors (Yelland, 2020). He sees the monopoly position of Eskom as a strength to green financers since it can guarantee access for green energy to the electricity grid and reduce the 34 million tonnes of CO_2per annum, which is about 15% of our overall CO_2 emissions (Yelland, 2020). Moreover as a state-owned enterprise, it means that the sovereign can guarantee and provide security for the transformation of Eskom into a greener entity – not simply a financial guarantee, but a performance guarantee that Eskom will actually do what it commits to doing by virtue of the government being the sole shareholder (Yelland, 2020).

The Department of Public Enterprises which is the shareholder, has recently opposed a bill sponsored by the official opposition, the Democratic Alliance (DA) through MP Natasha Mazzone, which proposed an independent, privately owned Independent Electricity Management Operator (IEMO) (Republic of South Africa, 2019). The bill proposed the following:

- The establishment of a private company, the Independent Electricity Management Operator (IEMO) (Pty) Ltd;
- IEMO will not be an SOE, but also not an ordinary private company since:
    - ✓ Safeguard – Shareholding is limited and the state may not own shares
    - ✓ Number and price of shares are set;
- Function as a public/private partnership, similar to the Reserve Bank;
- Rationale with this structure is to ensure an operator that will be representative of both private sector interests and those of government;
- Allowing metropolitan municipalities to purchase electricity directly from electricity generators in certain circumstances.

This proposed bill was rejected by the DPE which supports the objectives of the safe, secure and efficient operation of the interconnected power system, as well as the financial viability and effective management of trades, as proposed in the Roadmap for Eskom in a Reformed Electricity Supply Industry. The DPE's view is supported by the Electricity Research Group

(2020) which has proposed a restructuring of Eskom that is fully publicly owned and serving the people, and a democratic and just energy transition that works towards socially owned renewable energy.

7.5 Concluding Note

Despite the fact that South Africa faces energy insecurity and has experienced rolling power outages during a period of low demand, South Africa's economic recovery will be long and painful. This is because the absence of energy security means investors are unwilling to invest in an environment of energy security uncertainty and, as a result, jobs and government revenue are sacrificed because of the slow pace of restructuring the energy path. As South Africa deploys more variable renewable energy, energy costs will decline over time, new investors will be attracted and, as a result, unemployment will be reduced, as will poverty and inequality. Moreover, CO_2 emissions will drop as South Africa reduces its carbon footprint for a better climate and a new world.

However, the transition remains contestable with all interest groups showing why their point of view is better than that of others. In the middle of the debate, agitation and lobbying, there is no disagreement that a low-carbon economy is good since it can provide green jobs and feed many as weather patterns improve. The question is: when? The transition to a clean energy path has to be just, equal and be accessible to all. South Africa is in the middle of a triple crisis – health, economic and financial. This puts the restructuring of Eskom at the back of priorities, making the road to a just transition very long.

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