

Horizon 2020 Societal challenge 5: Climate action, environment, resource efficiency and raw materials

COP21 RIPPLES

COP21: Results and Implications for Pathways and Policies for Low Emissions European Societies

The politics of energy transitions policy in South Africa

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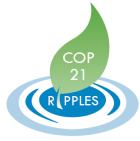
Abstract

Transitions in the South African energy system will be central to South African climate change policy being consistent with Paris Agreement (PA) mitigation policy. Politics plays a substantial role in energy transitions. This paper uses Policy Network Analysis (PNA) to analyse the politics of six successive and sometimes overlapping phases of South African energy policy transitions to explore the potential association between actors operating in types of policy networks and policy outcomes. Empirical narratives of the history of these policy transitions based on existing literature are built and PNA applied to these narratives. These policies are relevant to the political context of transitions in South Africa from a coal-based electricity system to a low-emissions one, a central concern for climate change emissions mitigation policy in South Africa.

In each phase differing forms and configurations of these networks have acted to promote or block transitions. Using evidence and analysis contained in a relatively new and limited peer-reviewed literature on the subject for South Africa, augmented by official documents and grey literature, an emphasis is placed on the current blocked transition and the contest in the state between open inclusive networks and transparent, inclusive policy-programmatic policy, and closed networks and patronage-network based policy.

Over the democratic transition at the end of apartheid in 1994, energy politics opened up. The exclusive politics of an industrial policy elite that had been associated with gross economic exclusion of the majority of South Africans, was challenged by more inclusive politics that yielded ambitious goals of economic inclusion and redress and measures to restructure the electricity generation monopoly.

There has been a resurgence of an exclusive industrial policy elite, with new members linked with patronage politics and alleged corruption and state capture. Closed networks sometime dominate core policy. Nevertheless, a range of new actors has become influential in invigorated inclusive electricity sector politics and small but significant intrusions have been achieved in the electricity generation monopoly. There is a core conflict involving on one side, exclusive politics, appropriation of economic rents by an elite, patronage politics and undermining of new democratic institutions, and on the other side, a public welfare-oriented policy programme and inclusive politics and institutions. Key governance and financial aspects of the electricity generation sub-sector have become destabilized, and are playing central role in national politics. It appears this will be an important dynamic for some time.



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1 Introduction

The context of this research is the Terms of Reference (TOR) of the COP21 RPPLES study Work Package 4 (WP4) - “Linking the international climate regime to the political economy barriers of raising ambition.” The research purpose is understood as being to inform work on international governance of climate change mitigation by providing relevant analysis of political economy features of South African energy system transitions.

Fundamental transformations of energy systems are required to avoid catastrophic climate change. Such transformations are the subject of both international, national and subnational governance systems. Such governance systems span international, national and sub-national levels and are themselves elements of complex socio-technical systems, which also extend within and over these levels. The Paris Agreement builds on and establishes new aspects of international and national governance regimes which aim to support energy system transformations (Oberthür & Lukas Hermwille, Gauri Khandekar, Wolfgang Obergassel, Tim Rayner, Tomas Wyns, Florian Mersmann, Damon Jones, Bianka Kretschmer 2017). International level governance is important, but central features of transitions occur at a national level and understanding these is thus crucial for international governance.

South Africa formally committed to limiting its GHG emissions in 2008 and followed this up in 2011 by publishing a formal, official policy in the *South African Climate Change Response White Paper (CCRWP)* specifying a quantitative benchmark national emissions trajectory and related policies (DEA, 2011). For South Africa to achieve its UNFCCC climate change commitments will require a fundamental transition in its energy system. The techno-economic feasibility of such a transition for some major developing country emitters including South Africa was demonstrated in the Deep Decarbonisation Pathways Project (DDPP) (Altieri et al., 2015), (Waisman, Segafredo, Bataille, Chris, & Williams, 2015), a precursor to the COP21 RPPLES project.

Since then, South Africa acceded to the Paris Agreement and submitted its Nationally Determined Contribution with a mitigation target that aligns with the CCRWP benchmark trajectory. Transition pathways for the South African economy consistent with the Paris Agreement have been modeled and described in detail in a number of studies (Burton et al. 2018); (McCall et al. 2019); (Huxham et al. 2019) and also in other components of the H2020 COP21 RPPLES project, specifically WP2.1 – “Scenario database of existing or updated national decarbonization scenarios for NDC and 2°C/1.5°C.” The main subject of these emissions pathway studies and scenarios is the technology and economics involved in these pathways explored through analysis and modeling of the national energy system and national economy.

Despite the work done on techno-economic feasibility and acknowledgment of the seriousness of the climate change crisis, progress in implementation of the South African CCRWP has been much slower than envisaged in the CCRWP, and the rate and modes of progress indicate severe challenges with implementation of the policies specified in the CCRWP document (Trollip & Boule, 2017).



Energy emissions in 2015 were 429 907 tonnes CO₂e which is 79.5% of the total gross emissions for South Africa (Department of Environmental Affairs (DEA) 2019:x). This is the latest year for which official statistics are available.

It is acknowledged that globally “current energy systems are simply unsustainable on all accounts of social, economic, and environmental criteria” (Grubler 2012:202). With some 80% of South African emissions attributed to energy, the role of energy suppliers and users is central in South African mitigation policy. This is a core theme of this paper. Specifically the paper studies the role of the incumbent “complex” of large energy producers and energy intensive industries in the energy transition. Baker, Newell and Philips (2014:813) in their groundbreaking paper on *The Political Economy of Energy Transitions* in South Africa conclude with three themes: [1] “*the power of incumbents organised around deeply entwined and overlapping networks of economic and political power enshrined within the Minerals-Energy Complex*”; [2] “*...historical trajectories and lock-in,*” and [3] “*...how international donors and development banks and global carbon and energy finance have impacted upon the balance of social and political forces shaping South Africa’s energy future.*” An additional final point relates to “*The ‘nature’ of the country’s economic base and the close ties between political and economic elites [that] narrows opportunities for change.*”

This paper will be picking up on these themes with a specific and narrower focus on the politics of energy transitions, specifically implementation of policy in the electricity sector, building on a main finding from Baker, Burton, Godinho and Trollip’s (2015) paper, namely that “*Decarbonisation goes far beyond what is technologically or even economically feasible*” and that “*political factors*” are a key consideration. Understanding these political factors is essential to designing and supporting governance that addresses the challenges that the close ties between political elites and the elites that rely on economic and financial resources connected to GHG emissions from the electricity sector.

The paper proceeds as follows. First a research framework is presented within which a narrowed and refined objective of the research and research question are presented. This is a substantial component in the paper in line with the project proposal which states that: “given the recent development of climate policy in developing countries, a key aim will be to develop a structured research framework grounded in relevant academic disciplines...” (IDDRI 2016). Secondly, empirically based narratives of particular South African energy policy transitions are presented and the interpretation of Policy Network Analysis (PNA) developed in the research framework is applied to them. Lastly, conclusions are drawn. This includes a summary of the analysis in PNA terms and remarks on the results within the context of international

governance, especially the context of the COP21 RPPLES overall WP4¹ - “Linking the international climate regime to the political economy barriers of raising ambition.”

2 Conceptual framework

2.1 International literature on sustainability transitions

There is a burgeoning sustainability transitions literature. From the beginning of references to sustainability transitions from around the mid 1980’s until the mid 2000’s there were typically a handful of articles in the peer reviewed literature annually but this has been increasing rapidly at a rate that could be called explosive, producing something of a deluge of articles, see Figure 1.

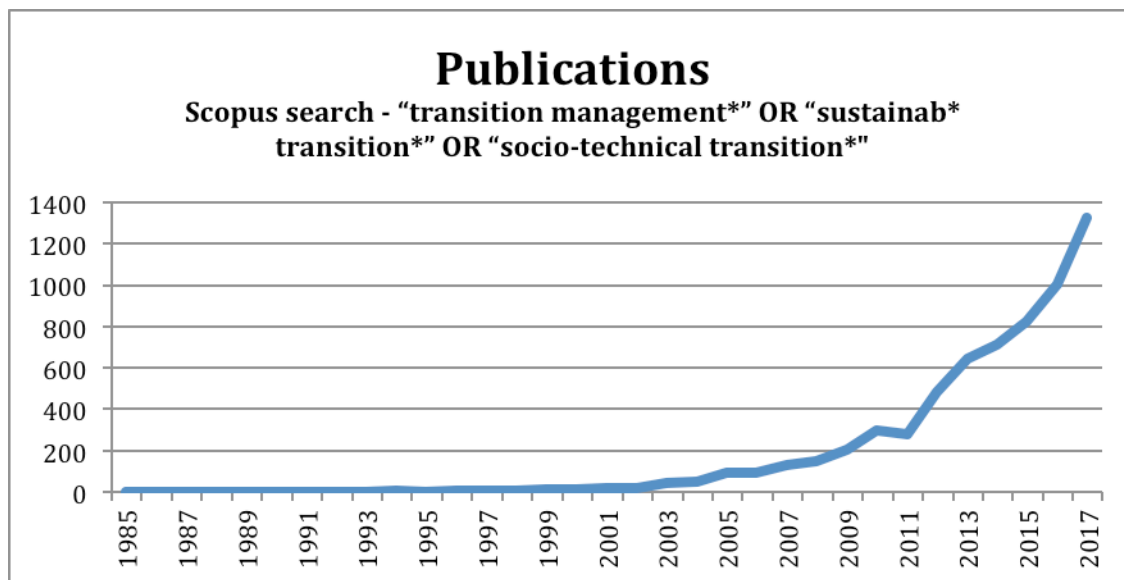


Figure 1 – Publications related to sustainability transitions in the peer-reviewed literature.

The author repeated Fischer & Newig’s Scopus search on “transition management*” OR “sustainab* transition*” OR “socio-technical transition*” (Fischer & Newig 2016).

¹ The results of this paper have been incorporated into the COP21 RPPLES WP4.4 formal deliverable, namely project report D4.4 – “Overcoming political economy constraints in major emerging economies and the role of international governance.”



This is evidenced in an increasingly large number of books² and articles conducting reviews and analyses involving foundational works (e.g. Grin 2010)³, collections of articles (e.g. Brauch et al. 2016)⁴, frameworks for analysis (Geels 2017)⁵, meta-theoretical frameworks (Cherp et al. 2018); typologies (e.g. Grin, 2010), meta-analyses (e.g. Arranz 2017), governance methods (e.g. Burke & Stephens 2017), (e.g. Verbong and Loorbach 2012; (Rotmans et al. 2009) typologies of actors (Fischer & Newig 2016) and proposals for explanatory transitions theory (Svensson and Nikoleris) and “bridging analytical approaches” (Geels, 2016). These studies reference and argue for the relevance and utility of an increasing number of academic disciplines, concepts, trends (e.g. Araujo 2014; Sovacool 2016), theories (e.g. Schumpeter 1948), ontologies (e.g. Geels 2010) areas of study (Sovacool 2014; Meadowcroft 2011) and frameworks (e.g. Moe 2007; Geels 2002).

Despite this large body of research, (Cherp et al. 2018:175) find that owing to the complexity of transitions, a single theory of transition is not currently possible, and may never be. (Geels et al. 2016:576) agree, and refine this line of thought, finding that “full integration of economic modeling and socio-technical transitions approaches is not feasible, because of foundational differences in philosophies of science and ontological assumptions.”

One potentially relevant approach is provided by Espen Moe’s (2009, 2011) framework which had been applied to a number of transitions and found that for these transitions: “states must prevent vested interests from blocking structural change” (Moe, 2010:1730). Some of the transitions Moe studied involved vested interests blocking industry transitions central to countries’ economic prosperity with the result that national economies had declined when vested interests prevailed, while in other transitions the state had actively taken the vested interests on and overcome them, the structural change had gone ahead, and the national economy prospered. This appears most relevant to South African energy politics and its electricity restructuring. Moe’s framework uses a combination of established theories from Joseph Schumpeter (Schumpeter 1947) and Mancur Olson (Olson 1982). Application of this framework to South African challenges in implementing energy policy transitions could be fruitful. (Baker 2016) in her study of South African transitions refers to Moe’s (2009, 2010) conclusions about the state’s power and vested interests but does not conduct an analysis using his framework.

² Some other key ones to consider for this list Lachman, 2013 (A survey and review of approaches to study transitions); Geels, 2007 (Typology of sociotechnical transition pathways)

³ A 418pp book titled ‘Transitions to sustainable development: new directions in the study of long term transformative change’.

⁴ This 1013pp book, for example is a compilation of 42 articles, most of them directly concerned with sustainability transitions, an indication of the ‘vast’ literature that has been developing.

⁵ Frank Geels’ framework is possibly one of the most cited frameworks used for transition analyses, but still lacks explanatory credibility.



For the purposes of this study, namely gaining insights into socio-political dimensions of transitions which are relevant to international climate change governance, in the face of the large number of most-often inconclusive attempts to find causal links in transitions in the transitions literature, a key challenge is to follow a research path that does not become entangled in what is becoming an often confused and confusing disarray of increasing complexity.

2.2 South African literature

There have been a number of socio-technical transitions and political economy analyses (Baker and Burton 2018); (Baker 2017; 2015); (Baker, Newell & Philips 2014). Political processes since 2006 have provided important additional evidence. Baker (2012) mentions the relevance of Moe's (2009, 2010) framework, especially "energy giants influencing politics"(2013:138), the capability of the state in "dealing with these vested interests" (2013:140). Baker et al. (2014) provide a rich empirical account but little by way of political science theory-based explanation. Froestad et al. (2017) provide a detailed empirical narrative. Their contributions to theorising include applying concepts of constitutive regulation (Shearing, 1993) and low-level policing (Brodeur, 1983) but do not directly address primary issues of moral hazard, rent-seeking, clientelism and RET⁶-patronage networks.

There have been some applications of specific social-science theories such as discourse coalitions (Rennkamp et al. 2017); (Rennkamp & Bhuyan 2017) to research exploring competing networks in South African energy politics. These are useful for identifying coalitions and analysing their interests and relationships. This is crucial information and more similar work would be beneficial.

2.3 South African empirical evidence on actual mitigation achieved is limited

Empirical evidence related to the politics of implementing mitigation policy in South Africa is limited. There is a growing body of empirical material comprising policy statements, policy documents, policy frameworks and even legislation and regulations, and commentary on these policies and instruments. But empirical evidence on actions involved in implementing these climate policies, as mitigation measures⁷, and the impact of these mitigation measures on actually influencing behaviour that

⁶ 'RET' refers to radical economic transformation, a term much used in South African political discourse and which we define in more detail later

⁷ **Working definitions of mitigation policy and mitigation measure.** There are no agreed universal definitions for the terms 'mitigation policy' and 'policy measure' but clarity and distinguishing them is critical for our analysis. So we adopt as working definitions for the purposes of this report, within the context of climate change mitigation, the definitions of 'measure' and 'policy' found in the IPCC literature as follows (IPCC, 2016a). **'Mitigation measure'**: "In climate policy, measures are technologies, processes, and practices that contribute to mitigation, for example renewable energy technologies, waste minimization processes and public transport commuting practices. WGIII" (IPCC, 2016a). **'Mitigation policy'**: "Policies are a course of action taken and/or mandated by a government, e.g. to enhance mitigation. Examples of policies aimed at



substantially mitigates emissions, is sparse. This could be because there has been little implementation of mitigation measures, or that impacts of these measures have been large inconsequential to date, or that there has been substantial impact but little evidence linking the policies to these impacts⁸. The author has been involved for the past twenty-five years in energy policy development and subsequent attempts at implementing the policy and then with mitigation policy development and subsequent attempts at implementation of this policy. During his involvement a large overlap in patterns of implementation has been observed which motivates much of the research in this paper. This pattern involves announcements of ambitious policies, together with official policy documents at the highest levels, followed by severe difficulties in implementation. This is a fundamental focus of the case study: exploring the political dimensions of policy in the absence of evidence of implementation, or where evidence can be found of difficulties in implementation.

2.4 The research framework developed for the study

2.4.1 The politics of implementation of transitions

Energy systems need to undergo fundamental transitions to avert risks of catastrophic climate change (Pachauri & Meyer, 2014: 55, 81). Pathways for these transitions have been described in techno-economic terms. The basic techno-economics and sectoral transformations are well described and understood⁹ and are presented as results from Task 2.1 and WP3 as inputs to Work package (WP) 4 in COP21 RIPPLES. Deliverable WP4.1, “*Key concepts, core challenges and governance functions of international climate governance*” speaks of “transition in the transformative sense” of fundamental transformations of economies including deep change of sectors including energy. But, energy systems are embedded in social systems and many complex social aspects of energy transition pathways are poorly understood. Since the advent of systematic studies of policy implementation more than forty years ago there has been acknowledgment of the difficulties involved in the complex processes of altering social behaviour (Sabatier & Mazmanian 1979:481). This social behaviour includes the political aspects of governance.

Policies to ‘implement’ these pathways often don’t take account of many of these complexities and are specified in over-simplistic techno-economic terms where policy instruments are often limited to state-procurement, pricing of energy, top-down regulations or unspecified infrastructure and innovation

mitigation are support mechanisms for renewable energy, carbon or energy taxes, and fuel efficiency standards for automobiles, WGIII” (IPCC, 2016a).

⁸ So far, the only substantial evidence identified of direct impact of GHG emissions policy on GHG emissions has been the application of the South African Copenhagen commitment to the IRP2010-2030, which is detailed later in the paper.

⁹ This was already the case from the results of the Deep Decarbonization Pathways Project



policies (Bruckner et al. 2014:564). The challenges related to implementation have become increasingly evident in the failure to implement GHG mitigation policies (UNEP 2017), (Adger et al. 2010:547).

Some aspects of the complexities of the interactions between politics, economics, and technology and society have begun to be addressed using concepts including creative destruction, technological paradigms, path dependence, lock-in, socio-technical systems, technology innovation systems, policy networks, political economy studies and a variety of areas of political science. The study of transitions has burgeoned over the past decade or so. Articles on the subject of sustainability transitions have increased from less than five each year in the peer-reviewed literature until 2004 to over 314 a year currently (see figure 1 above). However, despite this increased effort there appears to be near agreement that “systematic understanding of national energy transition remains elusive’ (Cherp et al. 2018). (Cherp et al. 2017:175). Complex system innovations and politics are core issues (Bergek et al. 2008), (Meadowcroft 2011).

The very broad range of study areas and issues involved in transitions implies that for practical reasons it was necessary to narrow the focus of COP21 RIPPLES WP4.4 further from “analysis of the policy and domestic political economy issues related to implementation ...”

(Meadowcroft, 2011:73) argues that more needs to be done to understand the politics of sustainability transitions when he states that:

“So far, sustainability researchers have focused largely on policy: what it is and what it could/should be. ... there must be thousands of academic articles on the design of climate policies and instruments. However, much less attention is devoted to the political circumstances that make the adoption of such policies likely. But behind policy there is always politics, and getting the politics right appears to be a prerequisite to getting the policies right.”

...and when he explains that:

“...from the outset, sustainable development was understood as a political project; because the operation of social institutions does not spontaneously generate a sustainable development trajectory. ... Most importantly, intervention disrupts established entitlements¹⁰ “ (Meadowcroft 2011:72).

Thus the COP21 RIPPLES WP4.4 analysis narrows its focus further to the **politics of implementation of transitions**.

¹⁰ Emphasis added – this observation confirms much of what has been observed in initial research on T4.4 and informs much of the design of the T4.4 research.



2.5 Policy Network Analysis (PNA)

The term ‘politics’ can be widely interpreted, even within the narrowed context described above. With regard to designing the research focus on politics for WP4.4, we adopt the notion from the Oxford Handbook of Political Networks (Victor, Alexander H. Montgomery, et al. 2017) which states that: “Politics is about relationships”. The research framework thus guides the study in the direction of exploring how particularly relevant/interesting relationships between actors are involved in the implementation of policies related to transitions in energy systems in the case study countries. Accordingly, the basic objects of the study are the relationships between political, economic and institutional actors involved in carrying out, promoting and/or resisting transitions.

Rhodes’ Policy Network¹¹ analysis (PNA) is the primary conceptual framework chosen to guide the country case study analysis. It has been used extensively and has an associated large literature (Raab & Kenis 2007:187); (Rhodes 2017). It is situated in the relational paradigm, one of the major social science innovations in past decades (Victor, 2017), (Rhodes 2017a:37), (Raab & Kenis 2007:189). There is a vast literature on network analysis in the social sciences in general. The relational paradigm is fundamentally different from the methodological individualism paradigm which was dominant in public policy analysis for the second half of last century and which informs much of the techno-economic pathway analysis. Methodological individualism underpins economic thinking. Relational thinking does not supplant methodological individualism but has become an important complement with explanatory value, particularly in the political dimension of policy analysis.

Rhodes’ PNA focuses on how political actors interact in a typology of networks. The type of these networks can be placed on a spectrum according to key features. Towards one end of the spectrum, **Issue Network**¹²-type networks are more open, transparent and inclusive and are empirically associated with development and implementation of policies involving transitions that promote greater public welfare. They “...constantly communicate criticisms of policy and generate ideas for new policy initiatives” (Hecl, 1978, cited in Rhodes, 2006: 428). Towards the other end, **Policy Community-type networks** are more closed, opaque and exclusive.

¹¹ We capitalize the three terms we use of for three key concepts, namely Policy Network, Policy Community and Issue Network

¹² These are specific definitions that have been used a large literature. See (Rhodes 2006) – Policy Network analysis has been developed since (at least) the late 1970’s when Hecl (1978) coined the term Issue Networks in this context. There is a large theoretical literature which much fruitful application. There has been little usage so far in the context of the emerging economies studied in this research (for e.g. Marquard, 2006, Bake, 2014) so the current research is still aimed at building foundations.



A key characteristic is that Policy Community-type networks deliberately exclude many political actors (Rhodes, 2006:427). They are arranged specifically to act in the interests of their members¹³. This creates concerns of negative public welfare effects. “The basic interaction in Policy Community-type networks is one involving bargaining between members with resources” (Rhodes, 2006:428). They are empirically often associated with frustrating more transparently and inclusively developed policies explicitly orientated to achieve specified public welfare goals. Additionally, the exclusive, closed features of Policy Community-type networks are facilitative for patronage relationships and abuses of power that further undermine policies promoting public welfare. They are thus more prone to be associated with abuse of power, corruption and general maladministration of policies seeking to promote constitutionality, rule of law and public welfare. Given the public-welfare nature of mitigation policies and that they are directed at production of public goods, and given that this might impact negatively on status quo/private goods, a study of political actors’ activities with relationships tending to Policy Community-type relationships is relevant to understanding the politics of mitigation policy.

2.5.1 A very detailed note on Network analysis - the relational paradigm vs. the methodological individualism paradigm for political analysis

The overarching objectives of the COP21 RIPPLES WP4.4 analyses are to identify and develop an understanding of the relevant features of national policy processes to inform international governance of emissions mitigation policies. International governance in COP21 RIPPLES WP4 “*entails the setting of rules and standards and the provision of support at the international level. It can be pursued by various actors, including state governments, (associations of) non-state actors (both business/firms and civil society actors), local authorities (cities, municipalities and regions) and others*” (Oberthür et al. 2017:11).

The analysis recognises the importance of networks of actors, state, non-state, institutional, informal, governmental (at all levels and inter- and intra governmental), non-governmental and civil-society. The focus of PNA is explicitly not on the dominant economic paradigm, which relies on theories involving why actors act as they do because of their attributes (such as utility maximising individual actors or collectives) but on analysis of relationships between actors and how features of these relationships impact on social outcomes and hence policy outcomes. Hence, network analysis focuses on attributes of patterns of social relations between actors, not attributes of the actors themselves.

PNA is situated in a relational paradigm. But it exists in a policy-analysis world historically dominated by economic thinking situated in a methodological individualism paradigm.

The methodological individualism paradigm was the dominant paradigm in political science in the second half of the 20th century. It is “*largely borrowed from economics*” (Victor et al. 2017:24) and remains highly influential and possibly still dominant in public policy analysis today. This became evident in a number of comments in reviews of drafts of this report. In many cases it appeared that the comments

¹³ See also in (Rhodes, 2006).

could be attributed either to applying the default methodological individualism thinking or to lack of familiarity or practice with relational thinking. It was impractical or inappropriate to address each comment at its point in the text so a more general introduction to specific relevant features of relational thinking applied to PNA is provided in this introduction.

A typical question in reviews, probably stimulated by default methodological individualism thinking, took the form of enquiring how the motivation, or the interest of an actor was used in the analysis even though pains had been taken to specify the object of study being the relationship between actors (relational thinking) not the attributes of the actor, their motivation, interests etc., (methodological individualism thinking). Thus the defining features of relational thinking are explicitly emphasised and elaborated here to assist with avoiding economistic thinking as the default: **Network analysis focuses on patterns of social relations, not attributes of actors.**

The academic discipline Policy Network analysis (PNA) is relatively new. Figure 1 shows that it began taking off in the 1980s and only really led to substantial amounts of research publications by the first decade of the 21st century.

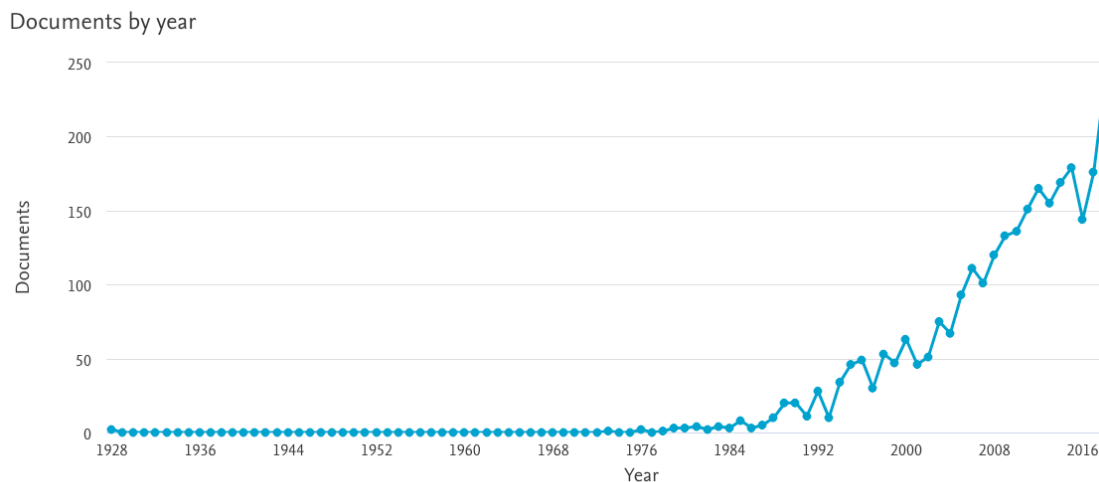


Figure 2 – Publications related to Policy Network analysis (PNA) in the peer-reviewed literature.
Scopus Search TITLE-ABS-KEY ("policy community") OR TITLE-ABS-KEY ("policy network") =2970 documents

A shift to relational thinking involves a fundamental change from attempts to explain political phenomena using concepts about the attributes of actors, to an approach involving concepts used to analyse the attributes of relationships between actors. When conducting PNA, care needs to be taken to



avoid slipping into well-worn tracks of explanation, ingrained by many decades of the dominance of methodological individualism that seek to use attributes of actors¹⁴ to explain social outcomes.

The country case study research does not intend to argue for greater explanatory power of the relational paradigm. However, it does explicitly choose the relational paradigm as the underpinning of its theoretical framework. This is firstly because the analysis aligns with the view that *“politics is about relationships”* and secondly because many important aspects of relationships using theories based in the methodological individualism paradigm can only provide incomplete and insufficient explanations (Victor et al. 2017:2).

Given the ongoing influence of economic and methodological individualism analyses in public policy analysis, attempts to understand network analysis from inside these paradigms is antithetical to our aims in our choice of network analysis. We adopt the views of (Emirbayer & Goodwin 1994:1414) when they say that: *“The point of departure for network analysis is what we shall call the anti-categorical imperative. This imperative rejects all attempts to explain human behaviour or social processes solely in terms of the categorical attributes of actors, whether individual or collective. Network analysis, as Barry Wellman puts it, rejects explanations of social behaviour as the result of individuals' common possession of attributes and norms rather than as the result of their involvement in structured social relations”* (Wellman 1983, p. 165).¹⁵

2.5.2 Rhodes Policy Network definitions

In the extensive literature related to Policy Network analysis¹⁵ different researchers use different terms for the same (or very similar) concepts. For example Miller and Demir, in their book chapter titled *“Policy Community-type networks”* use the term ‘policy community’ in the same way as Rhodes¹⁶ uses the term ‘policy network’ in his book chapter titled *“Policy Networks - The Historical Moment Introduction: The ubiquity of Networks”* (Miller & Demir 2006); (Rhodes 2017b).

Rhodes, in a memoir on the development of policy network analysis remembers that: *“...we argued over definitions and typologies. The issues that divided us seemed important at the time. They were not.”* [emphasis added] (Rhodes 2017b:35). Regarding efforts to over-specify exact kinds and categorisations of network he writes: *“Networks can vary along several dimensions and any combination of these*

¹⁴ These actors can be individual or collective. So, for example, when making the shift from methodological individualism to relational paradigms, vestiges of a methodological individualism mind-set could provoke the imagination of a Policy Community as an actor whereas in the relational paradigm and within Rhodes' scheme, it is intended as a conceptual tool used for analysing relationships.

¹⁵ A Scopus search on titles, abstracts and key words for the terms “policy community” OR “policy network”, yielded a count of 2,970 documents.

¹⁶ A pre-eminent exponent of the policy network analysis field for the past 30 years,



dimensions; for example, membership, integration, resources. Various authors have constructed continua, typologies, and lists of the characteristics of policy networks and Policy Community-type networks (see, for example, Van Waarden 1992). This lepidopteran approach to policy networks—collecting and classifying the several species—has become a dead end” (Rhodes 2017b:40).

To avoid these kinds of unproductive efforts, and to meet the purposes of the analysis in COP21 RIPPLES WP4.4, we adopt three key terms Rhodes carefully defined in his chapter titled “*Policy Network Analysis*” in the 2006 Oxford Handbook of Public Policy¹⁷, namely Policy Network, Policy Community and Issue Network. See Table 1 - Types of Policy Networks.

“Policy Networks are sets of formal institutional and informal linkages between governmental and other actors structured around shared if endlessly negotiated beliefs and interests in public policymaking and implementation. These actors are interdependent and policy emerges from the interactions between them” (Moran et al. 2006:426).

“[Policy] Networks can vary along a continuum according to the closeness of the relationships in them.

Policy Community-type networks are at one end of the continuum and involve close relationships;

Issue Networks-type networks are at the other end and involve loose relationships.

While the actual terms used for the concepts may vary from researcher to researcher, the research framework of the country case studies establishes the essence of the concepts to be used as a coherent tool for the PNA.

It is important to emphasise that the interpretation of PNA that is used in the analysis in this paper does not view a ‘Policy Network’ as an actor. ‘Policy Network’ is a concept, as is ‘Policy Community’ and ‘Issue Network’. Using these concepts actual networks of actors are assessed as to their position on the spectrum. Actors have relationships in a network involved in influencing a specific policy. These relationships relevant to a specific policy process are assessed in terms of how they position the network along the Policy Network spectrum provided by Rhodes. According to this assessment the network would lean more towards either the Policy Community-type or Issue Network-type on the spectrum. A core research interest then is to discern patterns related to, on the one hand, where the network falls on the spectrum and on the other hand, policy outcomes.

¹⁷ When used to denote these specific concepts we capitalize them throughout the text to indicate we are using the chosen terms for the specifically defined meanings.



There are many kinds of actors involved in networks that are relevant to the analysis. The actors can be institutions, organisations of individuals, or individuals. Examples of actors are: a formal organisation such as a government; a state-owned enterprise such as Eskom; an industry association. Also, relevant actors could be formal sub-sets of these such as a government department, or a department inside Eskom. Other kinds of actors could be an informal groupings such as a grouping inside government or Eskom. Individuals acting with mandates from other actors, or advocating their own interests are also kinds of actors in this interpretation of PNA.

There are very many examples¹⁸ of networks. One (common) example would be an official committee mandated to draft a policy in well-specified definitions and domains of public interest in consultation with a diverse set of groupings and individuals. This kind of network would lean towards the Issue Network-type of network. Another, quite different example, would be a stable, informal (possibly covert), exclusive group, made up of individuals inside government and representing advocating their own interests and also of individuals outside government, working in concert. This network would lean towards the Policy Community-type of network.

Networks are not mutually exclusive. There are overlaps. Actors can be assessed as belonging to networks exhibiting features leaning towards either or both types of Policy Networks, and this changes with time and even the policy issue under analysis. The structures and participation are dynamic. For example, the same actors can be involved in relational processes strengthening a Policy Community-type network while at the same time engaging in a network with relationships largely of the Issue Network-type. There are overlaps and ongoing fluidities in the dominant features, participants and relationships in the networks. Examples of these are presented in the case studies.

Whether these actors or networks work within a legal framework or enjoy more or less legitimacy is not of primary interest in this study. The primary criterion for identifying an actor or network as relevant to the study is whether they appear to have had a significant influence on policy outcomes. This influence is assessed through the qualitative analysis of narratives of policy transitions.

¹⁸ These examples of networks are different from the 'type' of network according to the PNA Policy Network typology.

Dimension	Policy Community	Issue Network
Membership: – No. of participants – Type of interest	Very limited number, some groups consciously excluded Economic and/or professional interests dominate.	Large Encompasses range of affected interests
Integration: – Frequency of interaction – Continuity – Consensus	Frequent, high-quality interaction of all groups on all matters related to policy issues high quality Membership, values, and outcomes persistent over time All participants share basic values and accept the legitimacy of the outcome.	Contacts fluctuate in frequency and intensity. Access fluctuates significantly. A measure of agreement exists, but conflict is ever present.
Resources: – Distribution of resources within network – Distribution of resources within participating organizations	All participants have resources; basic relationship is an exchange relationship. Hierarchical; leaders can deliver members.	Some participants may have resources, but they are limited, and basic relationship is consultative. Varied and variable distribution and capacity to regulate members
Power:	There is a balance of power among members. Although one group may dominate, it must be a positive-sum game if community is to persist.	Unequal powers, reflecting unequal resources and unequal access. It is a zero-sum game.

Table 1 – Types of Policy Networks
 Source: (Rhodes 2017b – cited from Marsh & Rhodes 1992.)

2.5.3 Additional focus on the ‘accumulation of distributional coalitions’

In addition to the main analytical framework of Policy Networks as defined by Rhodes, an overarching framework is used to further contextualise the analysis. This overarching theory from Olsen (1982) is that vested interests entrench themselves over time and that: “The accumulation of distributional coalitions increases the complexity of regulation, the role of government, ...and changes the direction of social evolution’ (Olsen 1982:74). A core interest in our exploration of low carbon transitions is Moe’s conclusion, using Olson and Schumpeter, that: “Only states that are able to prevent vested interests



from becoming powerful enough to block structural change can have hopes of achieving long-term industrial and economic success” (Moe 2009: 203).

2.5.4 Theories of Patronage

The policy-network analysis is sharpened by concepts of political relationships driven by rent-seeking and patronage (Kitschelt & Wilkinson 2007), which is bolstered by the statement in the introduction to the Oxford Handbook of Comparative Politics that one of the six “crucial questions” addressed by comparative politics is: “Why do some parties run on policy programs, others on patronage?” (Boix & Stokes 2007). Initial research on the politics of transitions in South Africa has resulted in the observation of a conflict between, on the one side, public-welfare ‘policy-programs’, developed in open democratic policy processes involving Issue Network-type networks that inform and drive transitions and on the other side, relationships, often involving patronage, between vested interests, closed (covert) policy process and exclusive Policy Community-type networks. This initial research has led to the case study narrowing its focus further because of the special relevance of these phenomena identified in implementation of energy policies in South Africa that are relevant to emissions mitigation.

2.5.5 South African-specific concepts

Since the end of apartheid the emergence of some key new terms with unique meanings in the South African context in public political discourse has been an important feature of South African politics and energy politics. We need to clarify our use and definitions of three terms for our analysis.

The first term is "black economic empowerment" (BEE), which is born of legislation aimed at enhancing the economic participation of black people¹⁹ in the South African economy through various policies and legislation.

The two other terms refer to factions, transparent and covert (or even clandestine or illegal) policy processes, and ideas about political and economic inclusion and exclusion. The terms are "state capture" and "radical economic transformation" (RET). These terms have only recently become common in South African political discourse but have now become so prevalent and important that our analysis could not easily proceed without them (Bracking 2018), (Desai 2018), (Swilling 2019a).

There are no clear dividing lines between or agreed definitions of these terms or the groupings that use them. One way to clarify their meaning would be to assess the different ways various groupings view the same processes, especially those involving how the state and its agencies privilege or support different

¹⁹ Even with the end of apartheid racial classification of South African residents and racial terminology such as Black Economic Empowerment has been officially (and necessarily – author) retained by government, mainly for the purposes of managing redress of apartheid wrongs, including economic exclusion, required by the South African constitution. The terminology is fraught and this paper does not attempt to resolve the complex issues here. It does need mention though because of its extensive appearance in official policy.



grouping of economic actors. For example, the RET-patronage grouping would see a number of state procurement transactions as legitimate and necessary for the radical economic transformation of the economy, while the other alleges that the same transactions are illegal and a central component of 'state capture'. The term "state capture" was first publicized by the Public Protector in her investigation into corruption at Eskom, the title of the report ('the state of capture') being shortened to state capture (Public Protector, 2016). State capture theories rely on allegations that an (ex-President) "Zuma-centred power elite has captured key state institutions to repurpose them in ways that subvert the constitutional and legal framework established after 1994" (Bhorat et al. 2017:4). For the purposes of this study we distinguish the groupings by using the labels "RET-patronage network" for one grouping and identifying the other grouping as operating according to "transparent policy programmes" inspired by Boix and Stokes' observation quoted above about a fundamental difference in motivation of political parties (or groupings). A crucial element of our analysis is the extension of the concept of exclusive, but legally operating actors in Policy Community type networks to the "RET-patronage networks", who are differentiated by allegations of clandestine or corrupt activities being their primary modus operandi.

Beresford (2015), Butler & Southall (2015), Lodge (2014), (Bracking 2018), (Desai 2018), (Warf et al. 2018) and Hyslop (2005) provide useful definitions related to patronage politics and corruption in South Africa more broadly. The authors do not analyse energy politics explicitly although Lodge points to a number of striking similarities between Russia and South Africa in the role of political patronage, tendering, minerals rights and relationships between business and state (Lodge, 2014:19).

2.5.6 Steyn's specific kind of Policy Network with strong Policy Community-type features within Eskom

Steyn (2001) has provided a detailed analysis of an additional relationship of another kind of political exclusion and economic benefits. This involves an element of the industrial policy elite, namely a technocratic elite inside Eskom comprising its executive management, and key technical experts. This element has used its exclusive political positioning to appropriate and allocate economic rents. It has established and maintained a substantial information and expertise asymmetry which it uses to thwart accounting to governance structures outside of Eskom, or even within Eskom to the Eskom Board (Trollip et al. 2014). Government, as Eskom's sole shareholder, has been involved in a continual struggle with this technocratic elite. This also happened under apartheid when government recognized the non-accountability of this corps and its threat to the MEC political-economic project, and reined it in via a commission of enquiry (the 1987 de Villiers Commission) (Steyn, 2001). Steyn's identification of the special interests of this group is important because it assists with explaining Eskom's ongoing ability to resist policy implementation. The link between this internal elite with external interests has been analysed within the conceptual framework of the South African Minerals Energy Complex (Fine and Rustonjee 1996). In essence, the Eskom internal elite is involved in ongoing awarding contracts to external parties to supply Eskom with capital plant, services and primary energy and they also negotiate electricity supply agreements with their large energy intensive customers. As such they are located in a position of extra-ordinary power within a network of cash-flows and flows of commodities (coal and electricity) with huge impacts on the South African economy. Information asymmetry and moral hazard (a substantial differential in material interests between the Eskom technocratic elite and other



stakeholders (Steyn 2006:50-52) play key roles in the relationships between this technocratic elite and these stakeholders.

2.5.7 State Capture – a term (and concept) rising to dominate national political discourse over the period of the project

There has been an increasingly central feature in the national political discourse, emerging since December 2016, about the influence and impacts of what has been dubbed “State Capture²⁰”. This involves a ‘re-purposing of state institutions’ and ‘state capture’ (Public Protector 2016; Bhorat et al 2017; Burton and Steenkamp 2017; Eberhard and Godinho 2017b), (Baker Lucy & Jesse Burton Hilton Trollip 2020). The governance problems have been associated with evidence of the rise, as a major national political power, of a new political network (Bhorat et al 2017, Public Protector 2016; (Swilling 2019a). Covert networks, by their nature, are difficult to research. There have been no successful prosecutions related to state capture but an indication of the extent of the network would be the list of forty-five people and twenty-seven companies named and recommended for criminal investigations in the draft report on the Parliamentary Inquiry into Eskom (Parliament of South Africa 2017:176).

This political network has been widely reported, in a number of official reports and the testimony under oath of very senior officials, to be involved in rent seeking, corruption and patronage involving the coal value chain in general, and Eskom procurement in particular (Eberhard and Godinho 2017); (Parliament of South Africa 2017); Zondo Commission 2019).

A central challenge in analysing this subject is to obtain evidence. Despite an almost overwhelming volume of allegations and accusations of criminal corruption, there has yet to be a criminal conviction: hence identification of networks can be difficult. The absence of criminal convictions has been ascribed to the “capture” of the state investigating and prosecuting agencies described in Pauw (2017) and Hoffman (2019). Nevertheless, owing to its centrality in energy politics, the concept is core in our analysis.

‘Hard evidence’ of the actions of this network was only beginning to emerge at the start of the COP21 RIPPLES project in January 2017, and initial focussing of the case study on the importance and relevance of this network in the politics of implementing GHG mitigation policy was of necessity somewhat tentative. At that stage, initial unpublished analysis indicated a strong reliance of this network on economic rents in the coal value chain. Meanwhile, what we will later in this paper call the RET-Patronage network (below) was ascendant, with then president Zuma as its alleged kingpin and his (alleged) cronies appointed as Energy Minister and CEO and CFO of Eskom. Evidence was mounting of tender irregularities and alleged illegal deals in capital plant supply and coal contracts. But the power

²⁰ Similar to the Policy Network terms, we capitalize this in the paper when it refers to the specific South African version that has dominated the public political discourse since the end of 2016 with the publication of the Public Protector’s report State of Capture (South African Public Protector 2016).



and influence of key RET-patronage network members had managed to suppress evidence, or at least undermine attempts to surface this evidence. The National Prosecuting Authority had been (allegedly) ‘captured’. Despite mounting evidence in the press, and attempts at private legal action, official prosecutions have been stifled (Hoffman 2019; Swilling 2019) and thus evidence relying on official confirmation through, for example, criminal convictions was not available or strongly contested by powerful actors.

In pursuing the central interests of this case study there was sometimes a discomfort that possibly the lines between investigative journalism and the analysis of the politics of implementation were being blurred. As Meadowcroft pointed out earlier, academic policy analysis in the field of sustainability research has been much more comfortable in either the less controversial fields of techno-economic analysis (even this is riven with conflict in the public domain in both energy and climate policy) or in the formulation of potential policies and measurements, than in the hurly-burly of the politics of their implementation.

However, by now, in conducting the COP21 RIPPLES WP4.4 analysis, it has become clear that in South Africa implementation of emissions mitigation policy is deeply entangled with central interests of national politics.

Since the beginning of the research project the identification of patronage relationships has been made more easy by a wave of investigations into patronage and corruption in South Africa, but more difficult because of the bounded time resources of the project, by the sheer volume of new evidence, much collected in hundreds of thousands of pages of records of hundreds of days of testimony under oath in the *Eskom Parliamentary Enquiry*, *Nugent Judicial Commission of Inquiry into ax administration and governance by the South African Revenue Service* (which have both reported) and the ongoing *Zondo Judicial Commission of Inquiry into State Capture*.

The many revelations in the above inquiries and a deluge of front-page newspaper reports, books and analyses have steadily unveiled a pervasive influence of the RET-patronage network on energy policy transitions. The role of economic rents in funding these networks in the coal-electricity value chain, the huge size of these rents in the national economy and the implications for decarbonising electricity generation required in the PA consistent pathways, indicates a major focus of the analysis of the politics of implementation of transitions. The current case study is just part of furthering this kind of research which is largely embryonic, notably the explicit focus on using well-founded political science-based conceptual frameworks. The increase in the severe problems emerging with attempts to implement transitions in South Africa was underlined in a report from the World Economic Forum that placed South Africa at position 113 among 114 countries in its 2019 Energy Transition Index (World Energy Forum 2019).

RET-patronage, as it has emerged in South Africa, is a kind of illegal, or marginally-legal clientelism fuelled by huge economic rents that are extracted from the ZAR 50 billion (~US\$ 3billion) spent annually



on coal by the state-owned electricity generation monopoly Eskom, via secret procurement contracts, from its ZAR 1 trillion (~ US\$6billion) capital expenditure programme and from contracts for provisions of outsourced services (Desai 2018); (Bracking 2018).

2.5.8 The analysis in the paper focuses on nuances of PNA, not on corruption or the economics of rent seeking, even though these are highly relevant

In a country with a history of an economy based on concentrated minerals-extraction with new, weak energy regulatory institutions, a new democracy (after many decades of authoritarian rule) and amongst the highest levels of inequality in the world, it is probably to be expected that economic rents will play a major role in energy politics. Uslaner (2008) “...argues that high inequality leads to low trust and high corruption, and then to more inequality – an inequality trap – and identifies direct linkages between inequality and trust in surveys of the mass public and elites in transition countries.” Heterodox economists such as Khan (2010; 2000) and Kelsall (2012) have studied the concepts of rents and rent seeking and corruption in similar settings and provide useful insights on the links between political networks, institutions and economic rents. One of Khan’s central findings in studying growth trajectories, where countries have experienced sustained growth, is that corruption has not necessarily led to poorer economic performance. Khan has presented a typology of corruption where he has presented compelling empirical data that indicates that corrupt practices are associated with positive economic development outcomes in some key national economic success stories and that in some cases, given specific socio-economic and political conditions, certain types of corruption are associated with maintaining social stability and achieving progressive distributional outcomes (Khan 2004:10).

South Africa experiences one of the highest measures of inequality in the world and is also a new and developing democracy. Given Uslaner and Khan’s analysis and findings the South African country case study explicitly does not aim to follow a main line of investigation that simply attempts to associate challenges with policy implementation with corruption, which would lead to a conclusion for “improved governance” (or central concern) that rooting out corruption is a feasible “solution to the problem”. While there may or may not be elements of validity in this, such a finding would not serve a primary purpose of the case study analysis which is to deepen understanding of South African political economy to inform international climate governance, with the ultimate aim of improving this governance in practicable ways. It is not the position of the case study to condone corruption, or otherwise, but to understand politics relevant to emissions mitigation governance within the constraints of climate policy and the realities of the socio-economic and political context. So, while it may be admirable and necessary to root out corruption this study seeks more nuanced understandings for supporting improvements even over periods where substantial levels of corruption might be present.

Khan has compellingly argued against the kind of conclusion that limiting improved governance to conventional ‘good governance’ based on developing ‘market enhancing governance’ is sufficient, or even a priority in many developing country contexts (Khan 2004). Instead he argues that a number of other governance capacities are also relevant and these policies to improve governance need to consider the specific complexities of the societies and political economies being studied and the explicit purposes



of the governance (Khan 2006). Improving governance would then involve supporting a range of governance capacities and prioritising those related to specific desired governance outcomes.

Accordingly, the case study explores the general idea that the trajectory of policies is associated with different kinds of networks. This idea was stimulated by a highly detailed study of energy policy (Marquard, 2006) over the apartheid transition that demonstrates the utility of network analysis in the South African case. This initial analysis was bolstered by a number of subsequent studies that cite Marquard's work, especially (Baker 2013), (Baker et al. 2014), (Baker et al. 2015), (Baker 2016) and (Froestad et al. 2018).

The analysis investigates the main features of relationships between actors involved in energy policy transitions that are relevant to the political context of emissions mitigation policy. Qualitative assessments are made as to whether these relationships accord more with Issue Network – type Policy Networks or Policy Community-type Policy Networks on Rhode's Policy Network continuum. Other aspects of the relationships are also assessed qualitatively, for example whether the exhibit client-patron or corrupt features. These assessments are problematic because of the often secretive or covert nature inherent in such relationships. Despite this difficulty, because of the importance of these features an attempt is made to identify them. Qualitative assessments are also made on whether the energy policy transition leans more towards progress in general welfare or towards benefitting narrower interests.

2.6 Objective of the study – aims for use of Policy Network analysis (PNA)

The COP21 RIPPLES WP4.4 project does not have sufficient scope to aim to analyse enough cases to yield conclusive causal explanations in the political dimension linking actors activities in types of networks in a deterministic way to policy outcomes. It cannot offer answers to questions such as: *What governance measures can be instituted, internationally, or at the national level, to assure success in mitigation policy implementation?* It cannot even answer the question, for the political dimension: *What governance measures are bound to fail?*

The success of the methodological individualism paradigm and the huge advances made in political science – based policy analysis in the 20th century, and its positivistic underpinnings were based on the contribution economic thinking could and did make in answering some similar questions possible (Victor 2017:2). However, this initial study does not aim for such results.

The aim is not to apply PNA as an explanatory theory but rather as an analytical framework. Thus the uses of Policy Network concepts: *"...guide the empirical perceptions in research on policy making and direct the researchers' perception and attention..."* (Raab & Kenis 2007:189). Policy Networks, Policy Communities and Issue Networks are therefore the three concepts that are primarily used to guide the analysis.



Networks are not necessarily mutually exclusive. There are overlaps. Actors can be assessed as belonging to networks exhibiting features leaning towards either or both types of Policy Networks and this changes with time and even the policy issue under analysis. The structures and participation are dynamic. For example, the same actors can be involved in relational processes strengthening a Policy Community-type network while at the same time engaging in a network with relationships largely of the Issue Network-type. There are overlaps and ongoing fluidities in the dominant features, participants and of the relationships in the networks. Examples of these are presented in the case studies.

The ultimate aim is not to study the relationships but to explore whether networks typified by differing types of relationships are associated with differing policy outcomes. The studies collate empirical data on narratives of policy processes with a focus on data relevant to PNA, ***especially data on the relationships between actors and policy outcomes.*** Narratives are built. The empirical data is drawn from the academic literature, government policy documents and grey literature (reports, consultant studies, ...). Then the narratives are analysed in PNA terms.

For a number of particular policy process narratives, qualitative analysis is used to characterise the Policy Networks that are involved as having features more towards the Policy Community-type or more towards the Issue Network-type on the Policy Network continuum. The analysis also examines features of the associated outcomes of these policy processes. The approach recognises that the institutional context is important but the chosen analytical framework does not emphasise this. Similarly, the approach recognises the explanatory value of analysing actors' attributes and their effects on outcomes but does not emphasise this either. PNA is complimentary to economic type analysis, not an alternative.

This is initial research and has not been designed (or resourced) to cover sufficient policy processes, across a wide enough set of conditions, to aim to come to generalisable conclusions. The aim is to discern patterns that could be relevant to inform governance. The analysis does not aim to reach conclusions on causality between the attributes of relationships and policy outcomes. This is in line, in general, with more modest aims of governance research given limited successes in positivist approaches attempting to apply generalizable rules to understanding policy outcomes. This approach is more in line with an *"enlightenment function of policy analysis instead of neopositivist, technocratic approaches"* (Fischer et al. 2007:xxii).

This notion of the enlightenment function of policy analysis aligns with Thatcher and Braunstein's (2015) conception of the application of Policy Network concepts in that... *"Neither Policy Community[-type] networks nor Issue Networks[-type] offered a free-standing, developed model of policy making (Thatcher, 1998). Rather, they represented enriching metaphors and useful concepts that were empirically applicable, and provided counterbalances to previous well-established views of policy making. They encouraged disaggregated analysis and drew attention to the effects of the fragmentation of government into subsystems, the interdependence of government and interest groups, and increased specialization in policy making"* (Thatcher & Braunstein 2015).



The initial research also aims to provide a foundation for follow-up research that might access sufficient examples of policy processes across a variety of circumstances to build more generalizable conclusions and to begin to offer causal explanations. The design has preferred to make more tentative conclusions than to be over-ambitious, bearing in mind a history of policy failure based on often on under-estimations of the complexities of policy processes starting with (Pressman & Wildavsky 1984) through to (Howlett et al. 2015), (McConnell 2015), (Trollip & Boulle 2017) and evidenced by the large gap between what is required of global mitigation policy and performance of that policy to date (UNEP 2017). It is recognised that advances are needed in policy analysis to address these issues and that relational thinking provides an important area of development.

In any case, the field of network analysis generally is in the initial phase of development and at this stage, even with sufficient resources, aiming at a definitive research result of causal explanations would be over ambitious. As stated by Victor (2017:3):

“In short, we are at a critical moment in the development of a new approach to the study of politics – a moment when new generations of interdisciplinary scholars and graduate students are being exposed to network methods and the new ways of studying politics that they offer.”

2.6.1 Research question

In summary, the aim is to use policy network analysis, as described in Rhodes’ 2006 paper titled Policy Network Analysis to build policy narratives of relevant policy histories. These include data on actors and identify patterns in relationships between actors related to differing types of Policy Networks and to differing policy outcomes. The core research question to be explored is:

What interesting features are there in policy processes outcomes where there is a prevalence of relationships that lean more to the Issue Network-type kind of Policy Network than the Policy Community-type of network? Conversely, the same question phrased differently could be: “What are the features of policy process outcomes where there is a prevalence of relationships that lean more towards the Policy Community-type of Policy Network than towards the Issue Network-type”

3 Subject of the case study – transitions in South African energy policy

From a political perspective, there is a large overlap in the interests and actors that are involved in energy policy and GHG emissions mitigation policy, especially in terms of the ‘targets’ of the policy, namely: energy supply industries and energy users. There are large overlaps in the political context of



transitions required to achieve GHG mitigation goals and the transitions that have been attempted in policy in the electricity sector. Transition pathways place the electricity sector at the centre of energy sector transformations.

In 1995, Eskom generated 95% of South African electricity, 88% of this from coal and was strongly integrated with the coal sector (Trollip 1995:4-45). Thus, Eskom has been central to balancing the interests of the state and business in a minerals extraction and energy-intensive economy for almost one hundred years (Froestad et al. 2018). South Africa's relative isolation under apartheid meant that until the mid-1990s the country avoided the global trend of electricity sector liberalization pushed by the World Bank and other multi-lateral and bilateral donors as part of structural adjustment programmes during the 1980s and 1990s (Gratwick and Eberhard 2008). Since then, Eskom has retained its monopoly despite various failed attempts to liberalize it over the years (Eberhard 2004), (Marquard 2006; Baker 2016), (Baker, Burton and Trollip 2019).

Ever since the announcement of official policy to break up Eskom's monopoly in electricity generation and transmission (Department of Minerals and Energy (DMEA) 1998), factions within Eskom and connected interests have (successfully²¹) resisted the introduction of independent power producers (IPPs) and the creation of an Independent System and Market Operator for the transmission system that would facilitate IPPs and undermine Eskom's monopoly position in electricity generation (Baker et al 2015; Baker and Burton 2018). The history of this resistance to policy transition provides crucial information and analysis to inform the analysis of the political context of policies involving transitions in the South African energy-intensive economy and related processes involved in promoting or resisting these policies (Marquard 2006; Baker 2016; Froestad et al 2017). It is important to note that the analysis in this paper seeks to focus on the political aspects of this resistance to an official policy that had been developed in an extensive and open process, and re-enforced by multiple formal executive decisions, not the economic merit of the policy. We say 'seeks' because of the dominance of economic analyses and the paradigm these are located in and hence the need for a conscious effort to shift the focus of the analysis, as detailed in the conceptual framework.

The struggle to restructure the electricity generation market and remove Eskom from its monopoly control has been further complicated since 2008 by severe internal operational problems in the Eskom generation division evidenced by load-shedding and Eskom now (in 2019) faces a financial crisis and a management crisis (National Treasury South Africa 2019;) It has had 11 CEOs in ten years. Since around 2015, these problems have played a major role in an escalating financial crisis catalysed by runaway costs of new generation projects, operating expenses and primary energy. This has had notable effects on the relationships between key governance actors and the balance of power between them. That is

²¹ The renewable energy independent power producer procurement programme (REI4P) is an important (partial) exception which is an important element of this case study. A central feature in the case study is identifying political elements of this exception.



what we now move on to, the core of this paper, the PNA of the relationship between these actors and the associations of kinds of Policy Networks with energy policy transitions.

4 Policy Network analysis (PNA) of South African energy policy transitions

This section presents empirically based narratives of particular energy policy transitions and applies the PNA conceptual framework to them. It starts by establishing relevant background information to identify and locate key Policy Networks that were established at the core of the South African political economy over the 20th century. It then looks at processes involving Policy Networks and others that have attempted with various degrees of success to implement policy transitions in what could be called the centre-of-the-centre of the South African energy system: the coal-fired electricity generation plants and the coal mines that feed them

4.1.1 1886-1994: Establishment of the modern South African energy system²² – the coming of electricity, establishment of Eskom and the MEC and the establishment of a policy network dubbed the ‘industrial policy elite’ with strong Policy Community-type features

The initial history of the energy sector in South Africa in terms of the key themes of policy networks and the orientation of politics towards economic exclusion, is especially relevant to a general understanding of energy politics in South Africa and the subsequent analysis of energy policy transitions in that follow. We thus set the scene with a very brief account of basic features of energy politics in the colonial and apartheid states. These politics were fundamental in establishing South Africa’s economy based on minerals extraction and energy intensive industrialisation.

Many of these foundational political relationships and structural economic features persist today, decades after the end of apartheid. Thus an understanding of their basic characteristics is useful for the analysis of subsequent developments in these relationships.

The colonial social order of the late nineteenth and early twentieth century, combined with South African minerals resources, particularly diamonds, gold and coal to start with, provided the impetus for the establishment of an extractive industrial economy (Christie 1985) and extractive institutions (Acemoglu 2012).

After the discovery of diamonds and gold in the late 1880s, the colonial government intensified the exclusion of the indigenous black African majority from political institutions. In the industrialising economy, the colonial government, working together with foreign owned and managed diamond and gold mining operations relied on repressing the indigenous population to source cheap labour while simultaneously using coal-based electricity to increase productivity through mechanization. This was

²² See section on defining transition earlier - >100 years might appear an extended period, especially in terms of the transition periods required to reduce risks of catastrophic climate change, but looking back on past transitions 100 years is not particularly long, and fits in with the definitions of energy transition.



deliberately done in a manner of “de-skilling African power and lowering wages” (Christie 1985). The exclusion of Africans from formal political structures was thus associated with their exclusion from participating in the minerals and energy industrial economy except as providers of cheap unskilled labour.

From 1948, under apartheid logic, political and economic exclusion of black South Africans were made explicit and encoded in (even more extreme) racist legislation. The majority of the population was legislated as being “temporarily” in South Africa, denied property rights, excluded from the formal economy and lived in grossly under-serviced housing conditions, maintaining the low cost of labour, and general low costs to the state, and a rapidly growing extractive economy based on gold, coal and cheap electricity.

By 1979, South Africa was the world’s largest gold producer. Large scale, deep-level gold mining was made possible by a combination of cheap labour and cheap electricity fuelling mechanized mines. Eskom provided the electricity to the privately owned mines. The low cost of labour combined with the transfer of investment risk to the state, yielded electricity prices half those of the West German coal-fired fleet (Christie 1985, Steyn 2001).

The Industrial Development Corporation (IDC), a national development finance bank, established in 1940 was a core actor and provided funds to build ‘infrastructure industries’ as parastatals to run without the usual investor-driven requirement for a market based rate of return, and which would thereby be able to make the necessary high-risk, low-return investments needed to drive the industrialization process (Marquard 2006: 151). Eskom, the Iron and Steel Corporation (Iskor) and South African Railways and Harbours were key state-owned players while according to a former long-time Eskom head “the mining industry and other industries did a lot through their pressure to ensure that we performed” (Marquard 2006: 136). “Key policy developments have usually been negotiated through these informal networks, rather than through formal policy structures.” These are all hallmarks of a Policy Community–type Policy Network.

4.1.2 1994-2000: The end of apartheid – transition to an energy policy centered on inclusion

Increasingly intensifying opposition to apartheid, especially from the 1960s onwards, led to widespread civil insurrection. Driven mainly by the problems of an increasingly ungovernable population and associated economic stagnation, the apartheid regime negotiated a political transition with the liberation movements. There were democratic elections in 1994 and a democratic constitution and political structures were set up.

The 1990s was a decade of large-scale multi-stakeholder open political processes including energy policy processes. The previous exclusive, informal ‘behind closed doors’ Policy Network (‘industrial policy elite’)



was, on the surface at least, replaced by policy processes where Policy Networks with Issue Network features flourished.²³

The new government's democratic institutions pursued the formulation of programmatic policies with explicit objectives centred on public welfare and environmental protection. A notable example of this was the highly participative multi-year²⁴ policy process that produced a new energy policy in the form of the 1998 White Paper on Energy Policy (DMEA, 1998). The Energy White Paper provides details on the policy process. Transparency, inclusiveness and accountability, are core principles. The policy document states that: 'the process has ...attempted to make government approach more transparent; to build public confidence; to clarify organizational roles; to communicate policy effectively; and to integrate policy processes' (DME,1998:5)

Two types of policies can be identified in the Energy White Paper policy document. The first type are policy goals: political policy goals including democratic transparency, inclusiveness and accountability in governance, and economic policy goals of economic inclusion and economic redress²⁵. The second type of policies are specific policy²⁶ measures to achieve these goals. These included a national household electrification programme, deregulating the liquid fuels sector, restructuring the electricity sector, and BEE participation through ownership in the supply sectors, specifically electricity generation. Parallel policy processes dealt with BEE ownership of upstream energy assets such as coalmines.

The redress goal addressed two main problem areas, exclusion of black households from connection to the electricity grid and exclusion of black people and business from being involved in electricity supply. Measures to achieve these were, for the former, a national electrification programme that went ahead successfully (Bekker et al. 2008). Electrification connections were an acclaimed success. The latter problem area involved exclusion as employees and also exclusion as owners. To address the first problem, black participation as employees in formal organisations (private and state) was rapidly increased directly through government employment and labour policy and legislation.

²³ We recount in the next section how the emergence of an open issue network does not mean that the closed, behind-the-scenes policy community stops operating or having an influence.

²⁴ See the appendix of the Energy Policy White Paper for details of the extensive, transparent, participatory policy development process and the wide range of stakeholders involved in the DMEA, 1998:107-110).

²⁵ Redress involved going beyond inclusion, which required including those previously systematically excluded from mainstream society and the economy, to measures to make up for the effects of that exclusion.

²⁶ See previous definitions of 'policy' and 'policy measure'



As well as direct government employees in the administration, state owned entities (SOEs) were an important vehicle for redress through employment of black South Africans²⁷. Eskom had been proactive in this area where during apartheid SOEs had excluded black South Africans from supervisory and more senior posts. According to the Official Eskom on-line history²⁸: “An Equal Opportunity Committee was established in 1986 to ‘investigate and remove discrimination’ (Eskom publication: “Five Years On”). ESCOM committed itself to the education and training of black entrants to the workforce and accepted the challenge of substantially increasing the number of black managers. By the end of 1999, almost half of all managerial, supervisory, and professional staff were black, coloured, or Indian.” In 1997 the first ever black chairman of the board was appointed followed by the first black Chief Executive Officer (CEO) in 2001.

For business ownership, very specific measures to achieve inclusion and redress in electricity generation were stated in the 1998 Energy Policy White Paper, namely: *“For future restructuring, government intends to separate the power stations into a number of companies. Such a step will assist the introduction of competition into electricity generation. This will also create the opportunity for private sector and Black Economic Empowerment investment opportunities in the generation sector”* (DMEA, 1998).

However, on the business ownership side, there was little policy analysis to address the linkages between the policy goals of black ownership of power stations and the policy measures that were expected to achieve these goals, nor of the complexities of implementing the measures.

As well as an absence of political analysis, another notable aspect of the electricity re-structuring policy was the absence of supportive economic analysis to explicitly link the design of the policy measures of restructuring and deregulation²⁹ to the policy goals of economic inclusion and redress, essential issues in a context of gross inequality.

In fact, it would appear that insertion of these measures into the policy was the result of the operation of "policy entrepreneurs" taking advantage of a "policy window" as per Kingdon's (1984) highly cited multiple streams approach. Marquard (2006:187) provides evidence that the restructuring policy only entered the 1995-1998 Energy Policy White Paper process at the last stage, and it was proposed to achieve economic efficiency goals, not the overall economic inclusion and redress goals which provided

²⁷ See previous note on this study's adoption of ongoing racial classifications as per official South African government policy and law.

²⁸ <http://www.eskom.co.za/sites/heritage/Documents/ENERGY/Decades.pdf> (accessed 28 January 2020)

²⁹ We limit ourselves to electricity sector re-structuring. Liquid fuels deregulation has disappeared without a trace of political action left, hence is not an actively pursued public concern for current South African energy politics, but an interesting subject for further analysis. Limited political analysis of the sector exists, with Lott (2017) and Burton, Lott, & Rennkamp (in press) examining aspects of liquid fuels sector regulation and rent.



the political context for specific policy measures. Marquard (2006:187) reports that “the electricity section was formulated by [Department of Minerals and Energy] electricity section officials and a small group from the EDRC³⁰, without Eskom's participation, and the second [point of political entry] was in a series of high-level ministerial workshops in 2000 where the same group made a case for restructuring on the basis of Eskom's investment history.” Policy-insider Eberhard wrote that “..there has never been a single, powerful champion for reform, neither in government, nor amongst the stakeholders..” (cited in Marquard, 2006:187). It would appear that despite the extensive and inclusive policy development processes, key aspects of the actual policy as it emerged in the official final policy document was not the product of these processes.

This insertion of fundamental policy at the last stage of the process indicated another problem. (Clark 2000). Also evident when the 1998 policy was published, was the glaringly obvious contradiction between the explicitly stated measures of liberalisation and privatisation of the electricity sector, and the constant, unwavering and in-principle opposition of organised labour to such measures. Accordingly, with hindsight, if key stakeholders Eskom and organised labour had been side-lined in the last stages of the policy development process, it could be seen as almost inevitable now that much of the 1998 energy policy was politically un-implementable. Our analysis here does not question the validity or otherwise of the economic rationale for the re-structuring policy measure. What it does is to provide a political analysis of what happened when government, through exclusion of key stakeholders at a crucial point in the policy process, adopted policies that were politically problematic, leaving political problems of implementation to be dealt with later.

In short, following on decades of radical political exclusion by the apartheid state, the new democratic institutions of the South African parliament had instituted fundamental changes in policy formulation processes, deliberately resourcing and involving a wide variety of political actors. However, in the final stages of the policy drafting, it appears as if there was a somewhat bad faith exclusion of key stakeholders. No matter the merits of the economic rationale that might have been put forward by some of the policy entrepreneurs involved with this, from a political point of view, and with knowledge of what happened next, this exclusion can now be seen as probably contributing to severe problems with implementation.

What might the lessons be for current efforts at mitigation policy formulation, implementation and governance? With hindsight, it is worthwhile to consider what the utility might have been of conducting a politically focussed policy analysis at the time, and imagining if this analysis were effectively deployed, whether both the policy decisions and implementation might have turned out differently. For example, it is worth considering what might have happened if some of the foundational political science concepts about implementation known at the time had been taken heed of. One of these is Pressman and Wildavsky's (1984) prescriptions for implementation, including: *“Implementation should not be divorced*

³⁰ The Energy and Development Research Centre based at the University of Cape Town



from policy and must not be conceived as a process that takes place after, and independent of, the design of policy; Designers of policy must consider direct means for achieving their ends;” There is no evidence of such policy analysis of the electricity sector re-structuring policy in the public domain addressing these issues at the time, nor in subsequent analyses, apart from Marquard (2006) and Baker (2013).

Similarly, application of, or even awareness of Sabatier and Mazmanian’s seminal work on “...conditions conducive to effective implementation” and their suggested strategies (Sabatier & Mazmanian 1979:481) and other relevant theories and their application, are absent from policy analysis of these energy policies. This kind of analysis was not done at the time, and apart from initial work by Marquard which dealt with processes up to 2006, and mentions of its relevance by Baker (see previously) has still not been done.

Having set the scene with these first two transitions, the rest of this paper will explore the links between these themes, especially the influence, on the one hand, of Policy Networks close to a Policy Community-type, and, on the other, actors involved in Issue Network-type Policy Networks in transparent programmatic, policy processes in subsequent episodes of the (mostly failed) implementation of energy transition policies in South Africa. This is not intended to be overly-critical or negative about the sincere attempts by many to support these transitions but rather to provide a critical analysis by applying basic political science concepts to this history. The purpose is to develop an understanding aimed at supporting current policy formulation and implementation of mitigation policy being pursued in a similar political arena. Although as we will see, there are now considerable additional complications compounding in this arena, many possibly partially caused a result of the failed implementations to date.

4.1.3 2001 - 2005: Politics of resisting transition, politics of the incumbent Policy Network

In the 1990s South Africa had a surplus of electricity generation capacity. But demand was increasing steadily as it had for the past >50 years and the 1998 White Paper stated that demand would likely exceed supply by around 2007 (DMEA, 1998:41). If this increased demand was to be met by conventional large coal fired power stations similar to the rest of Eskom’s fleet, a reasonable period from investment decision to commissioning would be five years at minimum, probably longer. Thus prudence required a decision by 2002 at the latest.

Preparation for implementing the restructuring policy started in 2001 with the corporatisation of Eskom. Cabinet also announced in 2001 that Eskom was not permitted to build a new power station. The Minister of Minerals and Energy required Eskom to support efforts to contract, IPPs in time to meet the forecast increases in demand. The policy required that these would be black-owned. When by October 2004 no contracts had been signed, Cabinet reversed its decision and charged Eskom with the urgent task of building Paul stations in time to avoid a supply shortage. Eskom soon gained approval to build



two new power stations totalling 9,600MW. This was part of a 17,000MW³¹ Eskom generation expansion programme. Eskom quickly set about construction, starting on the 4,800MW Medupi station in 2005. But this left only two years until demand had been forecast to exceed supply. A serious supply shortage appeared inevitable and when demand exceeded supply as had been forecast and the new power stations had only been under construction for less than two years load shedding ensued in 2007.

Eskom was 100% state-owned and yet it had not implemented major official policies backed up by Cabinet decisions, specifically to contract the IPP's. Even when it was almost certain that a supply shortage would cost the national economy dearly, Eskom had not contracted these IPPs and thereby retained its monopoly. It has not been possible to ascertain whether Eskom deliberately ran into insurmountable problems in contracting these IPP's. What is known is that at that stage Eskom was an admired utility on the world stage and certainly had the technical and financial capacity to contract with IPPs (Newbery & Eberhard 2008). It is also entirely reasonable to surmise that by contracting these IPP's Eskom would be actively participating in undermining its own historic monopoly. And what is also known is that the Eskom CEO had been vocal in his opposition to this and that the South African Labour unions had gone on a national strike against this policy which it viewed as privatization, and hence against which they had an explicit ideological objection (van der Heijden 2013).

Many of the posts in Eskom had been filled with new people, according to the very effective actions of the Equal Opportunities Committee mentioned earlier. Also, many key positions in government, from the upper echelons down, had been populated with labour union leaders from the anti-apartheid struggle days. But as far as Eskom management being able to protect its monopoly and to form alliances to implement its own policies, despite these contradicting official government policy, it was business as usual. By starting its 'transformation' early, in 1987, the new leadership and staff had been well inducted into the Eskom culture of ensuring its survival as a monopoly on its own terms.

Marquard (2006) found that over this period of collapse of the restructuring and IPP policies, the 'industrial policy elite' had reproduced itself and asserted its power within the context of the new democratic state. A further application of the political network theories Marquard used to more recent event might prove fruitful in explaining this collapse of official policy implementation in more detail. The literature of these theories has also been significantly developed since Marquard applied them (Rhodes 2017; Victor et al. 2017).

Eskom had not yet openly defied government³². Contracting processes had been initiated but 'difficulties had arisen'. It is hard to imagine that with the necessary will, Eskom could not have overcome these

³¹ Total capacity at the time was some 32GW, Eskom moved from a position of being excluded from building new power stations to being authorized, and in fact implored, to increasing capacity by some 50%, quickly.

³² Open defiance will come in a transition we analyse later, in the context of the ascendancy of the an emboldened RET-patronage network, when Eskom refuses to sign power purchase agreements with IPPs.



difficulties and contracted IPPs over the 1998-2004 period. Substantial damage to the national economy would have been avoided but Eskom would have been ‘damaged’ – that would have been the end of its monopoly. The process of contracting IPPs required substantial insider knowledge and specific expertise that Eskom also had a monopoly over in South Africa. Steyn’s (2001) approach using the theory of moral hazard and conflicts in incentives between principals and agents offers considerable explanatory power to a study of how Eskom resisted the control of its sole owner: the principals being government as owner, the agents being the technocratic/managerial elite inside Eskom. While Steyn has applied this to Eskom over-investment in the past, his approach has not yet been applied to Eskom’s later failure to implement the 1998 White Paper policy. This included resisting implementation of instructions from cabinet level to execute actions that were well within Eskom’s capabilities had it wanted to comply. This technocratic elite was accustomed to operating outside of public scrutiny within the Policy Community–type Policy Networks of the apartheid MEC so these kinds of exclusive relationships were largely business as usual for them.

Application of the foundational theories of Sabatier, Wildavsky and others who have investigated failures of implementation using these theories, is largely outstanding in analysis of South African energy politics. Analysis using the kinds of insights of such approaches has not yet been done for the now well-documented policy processes of the 1998-2005 collapse of the restructuring and IPP policies. Despite much failure of policy implementation little serious ‘post mortem’ work has been done on these failed implementations.

There is some other notable work related to energy politics or electricity sector reform in South Africa over this period of collapse of restructuring but which does focus on applying the basic political science concepts chosen for the analysis in this paper. However their analysis or in some cases very rich and detailed empirical narratives are relevant and useful. First and foremost is Baker (2013), which examines the processes in significant detail. Baker provides a detailed narrative. She mentions how ‘vested interests’ resist change but her focus is on socio-technical transitions, technology change and the concepts of ‘regimes’ and ‘niches’ (Geels 2011) not policy networks. Gratwick and Eberhard (2008) provide an almost entirely empirical narrative with little political analysis. Eberhard and Godinho (2017a) (not peer-reviewed but comprehensive) record an initial objective of exploring *“the role of political economy contextualities in driving, constraining or otherwise influencing power sector reform.”* After conducting a comprehensive and systematic review of the literature this study finds that *“political economy research in the area is lacking”* and that *“the theory would require development to serve their stated objective.”* Baker et al. (2014) use Geel’s (2002) multi-level perspective to provide a detailed empirical account of key policy developments from a socio-technical transitions perspective, much of this relevant to both the politics of implementation and transitions. In terms of political theory, the study provides *“reflections on how best to theorize the contested politics of transitions.”* However, the basic



political science concepts of relationships and networks are not applied (Baker et al. 2014:791); (Pickering 2010 – on power sector reform in context of policy proposals for an ISMO³³).

Baker et al. (2015) provide a non-peer-reviewed but comprehensive political economy-orientated empirical narrative of South African recent electricity sector development within a stated context, “the political economy of decarbonization”. While the political science concepts which originated around the 1970s such as Pressman and Wildavsky, Sabatier etc. are mentioned as being relevant, none of these are applied, nor is there extensive examination of the ANC’s political processes and how this impacts whether policy is driven by patronage or public policy (Boix & Stokes, 2007).

4.1.4 2007-2015 Politics of a successful transition – active participation of a wide range of interests and transparent legislative driven policy

Following government’s experiences of being thwarted in attempts to obtain Eskom cooperation to contract IPPs government established a legislative and regulatory programme to establish capacity to control Eskom by other means than through the Eskom Board. Direct governance using state-ownership had not worked. Accordingly, a new National Energy Regulator Act (40 of 2004) and Electricity Regulation Act (4 of 2006) were passed to establish independent transparent regulatory functions with real teeth. These included a new governance institution, the National Energy Regulator of South Africa (NERSA) with powers to approve Eskom’s budget. Also, legislation was passed that empowered the Minister of Energy, in conjunction with NERSA, to decide what power stations would be built, in an open planning process called the Integrated Resource Plan (IRP). Also in terms of the new legislation, if the minister wanted these to be IPPs, Eskom could be compelled to contract to procure the IPP production and to connect the IPPs to the grid. NERSA required Eskom to publish details of its proposed expenditure and subject this to transparent public consultations and subsequent approval (or not) by NERSA. This started addressing the closed-box of Eskom finances that was a significant source of the technocratic-managerial elite’s power mentioned by Steyn earlier.

These new powers were used first, when NERSA, in the middle of the load shedding, implemented a cumulative doubling of Eskom’s tariff in three years. This brought further widespread negative publicity and criticism. Most importantly, the tacit pact between Eskom and favoured energy-intensive customers in the MEC, that these customers would support the monopoly so long as they enjoyed cheap power, began to be put under pressure – a significant political shift.

This progress in the programmatic policy process was followed by the first big success in electricity restructuring policy implementation since the opening up of the White Paper process. South Africa’s first openly developed electricity plan, the Integrated Resource Plan 2010-2030 (IRP 2010) was gazetted in 2011. While the plan’s negotiation was delayed and heavily contested, it was a breakthrough for the

³³ Independent Market and System Operator (ISMO) – This was a central element of the re-structuring proposals.



public process that accompanied its development (Baker et al 2015). The delays were linked to the openness of the public processes and the engagement of a variety of interests including academics, public interest NGO's and well-resourced international renewable energy companies. The open processes included high profile international climate negotiations³⁴ where at COP15 in 2009 South Africa made a conditional 'Copenhagen pledge' to reduce emissions by 42% by 2025. The 2009 pledge can be seen as a flurry of progressive activity around climate mitigation policy and linked energy policy in the 2009-2011 period. The 2009 pledge placed international pressure on South Africa at the COP17 in 2011 in Durban, South Africa (Nhamo 2011).

The IRP was actively consulted through most of 2010 and eventually included much larger allocations to renewable energy than the initial draft. This was motivated by public welfare considerations because it was more much more costly than fossil alternatives and was included to achieve climate change mitigation goals. An emissions constraint, consistent with the Copenhagen pledge which had become enshrined in the Climate Change Response White Paper (CCRWP), was also finalised in the run up to the Durban COP17.

Government followed up on the IRP, published in March 2011, with the announcement six months later of its Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). Announcements about the REIPPPP coincided with the run up to and actual period of the Durban COP17.

Within eighteen months, more than sixty IPP contracts for more than 4,000MW of renewable energy had been contracted by Eskom and by 2015 were built and feeding into the grid.

In another extensive open programmatic policy process, the Independent System and Market Operator (ISMO) Bill, which would extract the transmission system from Eskom, was submitted to parliament. Establishment of the ISMO would enable IPP access to the transmission network and from the late 1990s had been a central plank of re-structuring (Pickering 2010).

These were significant victories for transparent, programmatic government. In the 1990s opened-up, inclusive programmatic policy processes had resulted in policy goals clearly associated with public welfare economic inclusion and redress. Now, once again, transparent inclusive processes had resulted in implementation of policy motivated by public welfare considerations. This was a victory over the closed policy community elites that had been traditionally associated with resisting IPPs. While this does not prove cause-and-effect 'laws' between inclusive politics and inclusive economics, it illustrates an interesting pattern – a link between Issue Network-type networks active in open transparent inclusive policy processes and the successes in formulation and implementation of public welfare orientated policies.

³⁴ This is important for assessing implications of international governance on South African national policy processes.



While this legislative programme was underway, Eskom’s capabilities to organise resistance had been weakened. Eskom was reeling from external pressures linked to load shedding and internal disarray. There were six changes of board chairperson, seven changes of chief executive officer (CEO) and six of chief financial officer over the period 2007-2015³⁵.

There is no compelling evidence or existing analyses linking this weakness to the success of the programmatic policy processes. But the overlap of this period of Eskom disarray and the first substantial successes in implementation of policies to open its internal governance, establishing public planning of future generation capacity investments, undermining its monopoly and introduction of substantial investments in renewable energy electricity generation cannot be ignored. Important features for consideration are the negative consequences of load shedding and the development of previously unheard-of levels of instability in Eskom internal governance and in its relationships with government³⁶. It is likely that these dynamics considerably weakened the relationships within the Policy Community-type network that had predominated in frustrating official government re-structuring policies until this point.

4.1.5 2006-2017 Politics of exclusion revisited – establishment of the radical economic transformation (RET)-patronage network funded by rents extracted from Eskom coal value chain procurement

As mentioned in the conceptual framework, Policy Community and Issue Network-types of Policy Networks are concepts applied to actual (real) relationships within networks of political actors. Thus at the same time as the Issue Network-type of Policy Network relationships are flourishing, some of the actors in those can also be working with other actors, in Policy Community-type relationships to promote competing agendas. In general there is an ongoing struggle. While there was much success in open processes and associated progress in public-welfare and environmental protection kinds of policies over the 2007-2015 period, other actors and agendas were also at play.

While the new transparent IRP public planning process and REIPPPP to implement public-welfare orientated programmatic policies were enjoying their successes, processes undermining these were at play in parallel. A most important one of these was the growth of a patronage network and its involvement with rent-seeking and Eskom procurement: of both capital plant and coal. There was a resurgent exclusive network, reminiscent of the legacy MEC policy community, except, there were elements that exhibited clandestine and alleged illegal activity (Public Protector 2016, Borat 2017, Eberhard and Godinho 2017b, State Capture Judicial Commission 2018). By its covert nature, this network is difficult to research. Membership is neither formal and announced.

³⁵ Update 2020 - 11 CEOs’s in ten years and latest developments.

³⁶ This was originally written for the latest round of Government announcements to restructure Eskom in the February 2019 presidential State of the National Address (SONA). This latest attempt at pushing through reform also appears to be responding to but also taking advantage of Eskom weakness owing to its financial crisis.



The first evidence of substantial patronage deals emerged in 2006. According to reports in the press, and then in court hearings in the USA the procurement of the Medupi coal plant boilers was linked to political patronage. Eskom contracted with Hitachi Power Africa (HPA) to “build the boiler works for the Medupi and Kusile power stations, the combined contracts worth US\$ 5.6 billion.” (United States District Court for the District of Columbia, 2015). Chancellor House, an ANC investment company³⁷, had a 25% stake in HPA at the time, resulting in a dividend, ultimately for the benefit of the ANC. The settlement of an action against Hitachi by the USA Securities and Exchange Commission states that HPA’s “books and records did not reflect that the dividend was, in fact, an amount due for payment to a foreign political party in exchange for its political influence in assisting Hitachi land two government contracts” (US Securities Exchange Commission, 2015:2).

This the beginning, leading to a pattern that would be repeated in other Eskom procurement. For example, the Public Protector has alleged³⁸ that Eskom placed pressure on Glencore by suspending negotiations to renew coal procurement contracts to the extent that Glencore decided to sell its Optimum Mine. Eskom at the same time assisted a RET-patronage beneficiary, Oakbay, to buy the mine by pre-paying for coal to be supplied by the mine. One of the owners of Oakbay was then-President Zuma’s son. These deals were allegedly facilitated by Eskom executives and the Minister of Mineral Resources (Public Protector, 2016; Eberhard and Godinho, 2017b).

While the economic impacts of such procurement practices are serious that is not the prime concern of this analysis. The concern is with the political conditions enabling or preventing implementation of policies aimed at public welfare. This concerns on the one hand, the relationship between transparent inclusive Issue Network-type networks and programmatic public welfare-orientated policies and on the other hand, closed exclusive networks and covert policies benefitting members to the detriment of public welfare. There are parallels between the processes involved in the (alleged) Medupi corruption and the operations of legacy MEC exclusive political and industrial policy elites.³⁹ The most important parallel is that members of an exclusive network, using powers vested in some of them by the state, make arrangements involving public resources among themselves for their own benefit and to the detriment of the public.

³⁷ The African National Congress (ANC) established an investment company which took up ownership stakes in a number of private sector companies, both to earn income to fund party activities, but it would seem from the Hitachi Africa/Medupi scandal this company also interfered in government business both at the operational level (according to the SEC settlement) and, according to the analysis in this paper, in government policy. This paper does not go into some possibly profound questions such as: *What influence did the potential for large rents, and the ANC accessing some of these, have on the decision to build Medupi in the first place?*

³⁸ To date, there have not been any charges or convictions for these transactions in a South African court, despite what has become a compelling amount evidence.

³⁹ There are important differences between the original MEC policy community and the RET-patronage network. The most important difference is (alleged) illegality and corruption



While the immediate financial losses to the public are serious, the concern of this analysis is the connection between the closed network and implementation of energy policy involving transitions. The RET-patronage network received much funding from economic rents extracted from the coal value chain. These rents could be diminished directly by a transition away from coal,⁴⁰ or indirectly through Eskom losing its monopoly because this would reduce the scope for rent extraction.

The first signs of the political ascendancy of the closed policy community and resurgence in success in resisting programmatic policy implementation emerged with the failure of the IRP2013 processes to reach a conclusion⁴¹. This strengthened with the unexplained withdrawal of the ISMO Bill from parliament in 2014. The next possibly more serious sign was when the REIPPPP bid window 4 was brought to a halt in 2015. Eskom would not sign pending, approved IPP contracts. This time it was not the passive resistance of Eskom's initial 2000-2004 failure to contract IPPs. Eskom brazenly stated that it would not sign the IPP power purchase agreements that had been awarded in state-run auctions. It openly defied policy, and the Minister of Energy. The illegality of these actions was confirmed at a later date (High Court of South Africa 2019).

Up until 2016 there had been much speculation in the press of the activities of this network, and in 2015 statements by National Treasury and in 2016 a report by the public protector began to provide more solid evidence. In the meantime, enough evidence has surfaced in the public domain to describe some key features of these networks relevant to the themes that have emerged in this paper, especially political inclusion and exclusion, programmatic policies vs. patronage politics, and their relationships with economic inclusion and exclusion in general and restructuring and redress through BEE IPP opportunities in particular.

In the terms we have adopted during this period some members of Eskom's technocratic managerial elite had become networked with the emerging RET-patronage political elite, which had members in senior government positions, at presidential and national ministerial level. Economic rents appropriated from Eskom's coal value chain⁴² was a central enabler. However, the impacts of patronage procurement

⁴⁰ "Could" is used here because this would not necessarily happen. Modes of investment in renewable energy could be established also with substantial rents. In fact, the high prices for the first round of South African IPPs included an element of rents but these rents are generally accepted as a price to be paid for the R&D development costs and rewards for the risks taken by first-movers in innovative technologies and schemes. However, it is quite conceivable that the control of government over access to the grid could be exploited by IPPs to create ongoing rents, much the same as coal-suppliers to Eskom can.

⁴¹ The Energy Minister had announced that the IRP2013 was a living plan and would be updated every two years. However, the IRP2013 was published for public comment but the process stalled and an updated plan not gazetted.

⁴² Most of the excessive expenditure connected to poor performance at Eskom is on coal contracts and capital plant.



deals similar to those described above proliferated to the extent that they were linked⁴³ to a precipitous decline in Eskom performance.

It is important to distinguish between, a focus on the one hand, on conclusive fact-based arguments about the causes for Eskom's performance decline used to support positions adopted by members of these factions and, on the other, a focus on the fact that these arguments are adopted in rhetoric which is a core identifier of the factions, often flying in the face of fact and reason, and that they have consequential political outcomes. The analysis here focuses on the latter. While it is no doubt important to make efforts to ascertain the techno-economic, managerial, governance and legal evidence related to Eskom's declining performance, even an un-attainable perfect knowledge in these spheres would not necessarily provide the political ammunition for any of these factions to become dominant.

Thus our focus on the politics, and its relationships with which kinds of policies are linked to which kinds of networks, instead of techno-economic or managerial accounts trying to "prove" causes for Eskom's decline. The case here of an analysis of attempts by a transparent programmatic Policy Network to implement policy explicitly and transparently linked to public-good, vs. a clandestine network implementing covert policy linked to personal enrichment speaks directly to Meadowcroft's exhortation also quoted in the Research Framework that "much less attention is devoted to the political circumstances that make the adoption of such policies likely. But behind policy there is always politics ...getting the politics right appears to be a prerequisite to getting the policies right". How to "get the politics right" is a difficult question, which probably accounts for much of the lack of attention to it. This does not mean that answering it is impossible and it would seem that diligent attempts to assess economic models would have some interest in their feasibility in a real world. Extending the dominant debate on ideal economic models with commensurate questions about governance, which must perforce include political questions, given failures in governance is what Meadowcroft is pointing to and is the primary objective of this paper. Given the complexity of this political question, we have started with un-ambitious first steps.

4.1.6 2017 – 2019? Another swing, back to ascendancy of the transparent programmatic 'constitutionalists, (albeit tenuous)

During the course of the COP21 RIPPLES project a dominant storyline that has emerged over the past two years in South African public political discourse involves two factions in the ANC. While membership is not announced the political statements of members easily identifies them. One supports RET-

⁴³ The public debate, fed by social media, includes strong statements being made by RET- patronage protagonists that the major cause of Eskom's poor performance was the REIPPPP. While the RET-patronage faction was still dominant, government did little to debunk these claims. However subsequent to the programmatic policy faction gaining ascendancy, formal statements have been made by the president's and the finance minister and Eskom CEO attributing much of the decline to tender and contracting irregularities at Eskom.



patronage. In energy politics it is associated with resisting re-structuring Eskom and opposes IPPs and (sometimes, but not always) the transition from coal to renewable energy. In national politics members have typically been associated with state capture and supporting ex-President Zuma, although while Zuma was President all ANC members supported him in parliamentary non-confidence votes. The other faction supports re-structuring Eskom, IPPs and renewable energy and President Ramaphosa.

The similarities with the early 1990s are that then, an exclusive policy community had been highly instrumental in building an economy that was grossly socially and economically exclusive, had elicited widespread resistance and been associated with economic stagnation. Once again, in the late 2010s an exclusive policy community was arranging core elements of the MEC for its own economic benefits and economically excluding others.

In December 2017 the Ramaphosa faction cast 179 more votes out of 4776 than the RET-patronage faction in the ANC presidential elections. President Zuma, widely believed to be a central figure in the RET-patronage network, was forced to end his term early.

The close connections between these factions and energy policy implementation became apparent almost immediately after President Ramaphosa became president in February 2017. In April 2018, the 27 IPP contracts that had been delayed since mid-2015 were signed by Eskom. One of the largest South African unions attempted a last-minute court interdict to prevent this.

The very narrow margin of 179 votes at the ANC's elective conference at Nasrec (December 2017) indicates that the election could easily have gone the other way. In that case it is most likely that RET-patronage politics would have intensified, and with it the exclusive patronage politics that have been one of our main themes. Given the important role of inclusive and exclusive politics in crucial policies related to public-good policies vs. enrichment of select private interests and the development and implementation of public policy in general, a much deeper understanding of the related dynamics than is available in the existing peer-reviewed literature is strongly indicated.

The democratic transition, ambitious policies of economic inclusion and redress, and policy measures of restructuring), combined with alternating influences of closed Policy Community-type networks and/or patronage networks and open public policy processes, have generated dynamic energy sector politics. While the intensity of the open conflict between networks supporting transparent programmatic policy implementation and the RET-patronage-network is a recent phenomenon, we have shown in this case study that this conflict is deeply rooted in the apartheid energy system and the energy politics initiated in the democratic transition.

The analysis also showed that some essential political problems from the initial phase of policy development and implementation in the late 1990s remain unresolved, including the extent to which political inclusion has been matched by economic inclusion in the economy. Labour still opposes re-structuring Eskom and despite presidential announcements restructuring being imminent in February



2019 once again it has not met stated timetables and there is no hard evidence of restructuring progressing (January 2020). This time re-structuring has been motivated by an Eskom financial crisis that threatens the national fiscus and national economic stability.

The resulting political conflict around Eskom has grown into a potential threat to the overall democratization project. It is also a threat to the successful transition of the South African energy sector to low-carbon in a time of international sector transition.

For many years, commentators on the left argued that the economic injustice of the post-apartheid era was forged through this 1994 democratic settlement (Terreblanche, 2012). The perceived failure of this process to create institutions of economic inclusion (rather than political inclusion) has become a rallying cry for the new patronage/RET faction.

Many of the patterns of relationship and sector structures set up in the colonial and apartheid eras have persisted, although some have been altered by democratic post-apartheid politics of inclusion and politics of transition. While there have been substantial changes owing to new actors, new relationships and new technological and economic factors, core patterns remain remarkably similar. The ongoing intertwinement between energy politics and national politics continues to play as big a role in national politics and the South African economy in 2019 as it did in the twentieth century.

4.1.7 Notes on economics of rents and motivations and opportunities for rent seeking in South African coal system

While the focus is deliberately on relational thinking and PNA a note on rents is appropriate as it is often mentioned as the motivation and enabler for activities of the actors in the RET-patronage faction and in Policy Community-type networks. Politics involved with patronage networks⁴⁴ is associated with rent-seeking behaviour, significant opportunities for creating and extracting rents and over time establishment of an intertwinement of patronage networks resourced with resultant rents.

There are more accessible and larger rents which are more easily extracted through wealth transfers in existing extractive industries such as coal mining and tightly-coupled large scale coal-fired electricity generation, where large procurement contracts are opaque, and risks more easily shifted to the state, than through rents in new renewable electricity energy generation where price competition is achieved through transparent bidding processes. This is made especially attractive in BEE-based awards of tenders on non-cost competitive bases in confidential tender processes. The (usual) arrangement of sourcing coal from mines next to a electricity generation station means it is difficult to arrange cost-competition.

⁴⁴ Given the requirements for cost reductions, innovation, etc. to transition to renewable energy, it is difficult, or impossible to imagine the quantum of rents that are easily extracted in the coal system being extracted from developing, investing in operating the new renewable energy dominated system. It is a different phase of technology, system and institutional development.



Large single-event procurement for specialised equipment such as the coal mega generation stations such as Medupi and Kusile provide large opportunities for creation and extraction of rents. Eskom has been a central player first in the policy community which is a central political feature of the so called South African minerals-energy complex established over the course of the 20th century, was still at the centre of the policy community that re-established control over the sector after the democratic transition and has allegedly been at the centre of the patronage network (related to much of the reports of ‘state-capture’) centre of monopoly is most unlikely to implement low carbon generation at any large scale.

It is (much more) difficult to extract large rents in IPP’s in the South African REIPPPP programme. RE IPPs have to be cost effective and to be cost effective require a competitive bidding mechanism such as the auction system. Thus, in a system dominated by patronage, in existing coal-system (merely transferring wealth of existing system) it is much easier to extract large rents. The ‘cost’ of rents is much lower, and potential ‘supply’ of rents much higher in the existing system.

5 Conclusion

5.1 Specific summary and conclusions in PNA terms

Using the COP21 RIPPLES WP4.4 research framework presented above which is based on Rhodes’ (2006) policy network analysis (PNA) this paper uses PNA to analyse the politics of six successive and sometimes overlapping phases of South African energy policy transitions to explore the potential association between actors operating in types of Policy Networks and policy outcomes. Empirical narratives of the history of these policy transitions based on existing literature are built and PNA applied to these narratives. These policies are relevant to the political context of transitions in South Africa from a coal-based electricity system to a low-emissions one, a central concern for climate change emissions mitigation policy in South Africa.

The narratives

Over the colonial and apartheid periods, actors in exclusionary Policy Community-type networks, including a group dubbed the ‘industrial policy elite’ (Marquard 2006), established themselves in command of the economy in general and the energy sector in particular. They implemented policies to establish the Eskom vertically integrated monopoly (Roberts et al. 2018) at the centre of an extractive ‘Minerals Energy Complex’ based economy (Fine and Rustomjee 1996) which excluded the majority of the population.

Under a new democratic government, actors in Issue Network-type networks played a crucial role in a transparent policy process in formulating programmatic reform policies with broader social welfare and environmental protection goals. This policy required new power stations to be supplied by independent power producers (IPPs) owned by black South Africans, under a Black Economic Empowerment (BEE)



policy. Efforts were made to implement these policies but the industrial policy elite in a re-constituted Policy Community-type network re-asserted itself. Using their power as incumbents they passively thwarted implementation of the reform policies and no IPPs were built. This led to an electricity supply crisis.

Subsequently, government established the necessary legislation and capacities for a public electricity planning process in which actors in Issue Network-type networks played a crucial role. This yielded a legislatively enforceable electricity plan with >6GW implemented via the renewable energy independent power producer procurement programme (REIPPPP). However, in parallel, actors in Policy Community-type networks also made substantial strides mainly on the back of the power supply crisis, and embarked on a large Eskom-owned coal-fired power station building programme, which had not been the result of a transparent, inclusive planning process. This was a critical set-back for implementation the official policy developed in the initial post-apartheid democratic phase.

In addition to the influence of actors involved in more general and largely legitimate, or at least legal, Policy Community-type networks, evidence of the influence of even more non-transparent and more exclusive and less-legitimate or possibly illegal patronage-type networks emerged in the policy narratives.

Over the course of the research project period evidence of the influence of a phenomenon labeled “State Capture”, which had been weak at the beginning of the research project, was considerably strengthened in a number of official enquiries. ‘State Capture’ was connected to a faction in the ANC centered on the South African President and president of the ANC (South African Public Protector 2016, Bhorat et al. 2017, Eberhard & Godinho 2017, Baker et al. 2020). In defiance of official government policy and the flouting legal contracts, this network implemented its own often covert policies⁴⁵. While the ‘grand corruption’ is a serious problem in its own right, the relevance to climate change emissions mitigation policy is that, in general, rent-seeking and corrupt procurement contracts in the incumbent coal-fired electricity generation system has been a mainstay of the state-capture beneficiaries, hence they have also been a core of the resistance to implementation of energy transition policies and climate change emissions mitigation policy.

The State Capture faction was narrowly defeated in the ANC elective conference in December 2017. The large-scale renewable energy electricity programme that had stalled for three years was partially resuscitated a few months later.

When Policy Community-type networks have dominated, public knowledge of policies has usually emerged only as the policies get implemented and the policies have often been largely for the benefit of

⁴⁵ Note that our definition of ‘policy’ is not limited to official promulgated government policy but also includes the kinds of policies developed in parallel to such policies recognizing a rich history of such parallel policies ultimately becoming the *de facto* policy and then evolving to official state policy.



the Policy Community members and to the detriment of broader society and environmental protection. On the other hand, processes where actors in Issue Network-type networks predominate have usually been associated politics and policies with explicit public welfare and environmental protection orientations, which were openly communicated and promulgated in official policy and legislation.

Findings from the PNA analysis

The main findings of the South African case study are that on the one hand a correlation between stronger involvement and effective influence of a larger number and diversity of actors in Issue Network-type networks and progress in transparent public policies explicitly or officially connected⁴⁶ to general welfare was observed.

On the other hand, a correlation was observed between stronger involvement and influence of a limited number and selected actors and exclusionary Policy Community-type networks and processes ranging from the opaque to covert in development of policies beneficial to those actors and detrimental to general welfare, or the resistance to implementation of public policies explicitly or officially connected⁴⁷ to general welfare.

The number of narratives does not allow for a general causal relationship to be established between Issue Network-type processes and progress in public welfare-type policies or between Policy Community-type policies and lack of progress in these. However, the rich narratives and analysis suggests that domestic and international governance that supports policy processes that are transparent and where a large number and diversity of actors are enabled to engage so that Issue Network-type networks predominate could substantially increase chances of success for policies connected to general welfare. These would include climate change emissions mitigation policies. Such governance

⁴⁶ We use this rather long phrasing to avoid taking a position that these policies were *in fact* supportive of public welfare. This is deliberate. An example would be – There IS still a substantial public debate in South Africa that renewable energy *in fact* has greater overall public welfare benefits than coal-fired power. We avoid taking a position on this so that we can focus on the types of networks involved in energy policies that advocate renewable energy and the types that advocate coal, thus keeping our focus on the object of our study namely **types of relationships** and the types of networks they are involved in and policy outcomes, not the content of the policies.

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arrangements would also benefit from familiarity with the details of the narratives to cater to very specific local conditions.

While there is an essential difference between legal and illegal activities, overlaps between the kinds of relationships between political actors in legal Policy Community-type networks and policies detrimental to general welfare and/or the frustration of implementation of policies connected with public welfare and the kinds of relationships between actors in state capture processes and their detrimental impacts to general welfare are notable.

This is not just peculiar to South Africa or a recent phenomenon. In their 2001 survey of nearly 4,000 firms in 22 transition countries Hellman and Kaufman conclude that the efforts of actors to influence policy is a *“normal and indeed healthy process. ...What distinguishes such interactions in the capture economy is exclusion. Some firms enjoy exclusive privileges to influence decisions of the state while others are systematically excluded, enabling state officials to make choices that concentrate benefits on those with access at a high cost to those who are excluded”* (Hellman & Kaufmann 2001:3). Such exclusion is also a hallmark of legal Policy Community-type networks and the South African energy policy narratives have also found associated *“concentration of benefits”* on Policy Community-type political actors *“at a high cost to those who are excluded.”*

While State Capture poses risks possibly more serious than climate change to South Africa in the short term, the relevance to the specific concerns of the PNA analysis and climate governance is the overlap between key proposed remedies for state capture and the proposed support to increase chances of success in climate change emissions mitigation policies. They are quite similar, namely transparent political processes that are also deliberately non-exclusive and enable (effective) participation of a large number and diversity of political actors (Hellman & Kaufmann 2001:3).

From an overall governance point of view the analysis would suggest that a predominating influence of political actors in exclusive networks ranging from Policy Community-type networks, through patronage networks to state capture networks would be incompatible with, or at least present severe problems to a successful transition to low carbon energy systems in countries with large fossil resources. This is exacerbated by the challenging timeframe. While supporting transparent processes and enabling effective participation of a diversity of political actors so that Issue Network-type networks can predominate might not be sufficient to assure successes in general welfare oriented policies, such as climate change emissions policy, it is suggested that this would greatly enhance the chances of success for these policies. Such support is well within the ambit of international governance, especially the broad functions identified in COP21 RPPLES WP4.1 and WP4.2 (Oberthür et al. 2017, Rayner, et al. 2018)

5.2 General summary and conclusions and pointers to further work

A key observation from the policy transitions analysed is that progress in developing and implementing policies orientated towards public welfare were invariably associated with transparent programmatic



networks and processes and that conversely, when actors in closed Policy Community-type networks were in the ascendancy public welfare came second to the interests of the members of these communities. This pattern had been established in the colonial and apartheid years and has shown that it can become ascendant again after the democratic transition. For the moment (August 2019), the transparent programmatic ‘constitutionalists’ are ascendant, or have at least halted the ascendancy of grand corruption. But this is tenuous. Support for public welfare policies, such as those to implement emissions mitigation policies, is tantamount to support those fighting state capture.

Thus this kind of work focussing on politics is crucial to deepen understanding of political aspects of the dire failures⁴⁸ to implement policy, especially given the severe negative impacts of such failures. Politically orientated policy analysis is at least as important as the techno-economic analysis that receives primacy in research and that is used to drive most climate change policy rhetoric.

The case study in this paper has been carried out over some three years under the H2020 COP21 RIPPLES project beginning in January 2017. Up until around the beginning of 2017 the stories about clandestine patronage-RET vs. transparent programmatic-public-good dichotomy had not yet become mainstream. While the emergence of the mainstream line of analysis supports a mainline of argument of this paper, it also makes it less novel. Even so, merely outing the activities of the clandestine networks, especially in a number of formal processes where corruption is now acknowledged to pose an existential threat to South African democracy, neither prevents these clandestine networks from prospering and neither does it detract from the importance of exploring and building an understanding of how the politics involved in the competition between these networks is relevant to implementation of emissions mitigation policies. On the contrary, the experience so far has been that exposing corruption and formal commitments by the incumbent dominant faction to root it out has yet to lead to a single criminal conviction despite growing mountains of evidence makes building this understanding even more important.

Support for emissions mitigation policies will need to consider how this would be achieved even if, for example, a RET-patronage network gained ascendancy again, unless success in mitigation policy is to be assumed contingent on this not happening. In general, supporting any politics to promote emissions mitigation policies might need to explore whether condition such as strong democratic institutions, transparent policy development and implementation and openly public goods orientated programmatic policy might not be the only environment in which these mitigation policies will be successfully implemented. This leads on to further questions on whether these policies can prosper without the

⁴⁸ These might not be failures according to those that seek to maintain Eskom’s monopoly, or to prevent private sector investment in electricity generation (such as organised labour). ‘Failure’ here means failure of official policy and the negative impacts: the economic one of the electricity supply shortage and the (possibly) unnecessary protracted political conflicts associated with a lack of understanding of implementation that well-established existing theories might ameliorate.



enabling conditions and whether support for these enabling conditions might be a requirement for effective emissions mitigation policies at the scope and scale and time frame required to be consistent with the PA. This paper does not and cannot answer these questions. But they need to be faced because of the possibility of an RET-patronage faction dominated government for a significant proportion, or all, of the time available to develop the next round of NDCs, and even longer.

The analysis of the transitions aimed at limiting itself to basic political science concepts around networks and relationships, especially Rhodes' conceptions of these. However, the socio-technical and sustainability transitions approaches also offer considerable potential for extending understanding of the politics of transitions. The academic disciplines related to sustainability transitions would be a logical area for extension of research on climate change politics.

A quote might sum up much of what the last decades of energy politics in South Africa could have taught us. Acemoglu and Robinson (2013:174) state: *“our argument is that economic analysis needs to identify, theoretically and empirically, conditions under which politics and economics run into conflict, and then evaluate policy proposals taking into account this conflict and the potential backlashes it creates. Our basic argument is straightforward: the extant political equilibrium may not be independent of the market failure; indeed it may critically rest upon it.”*

Steyn's (2001) work had highlighted the problems linked to moral hazard and the managerial elite in Eskom. But this did not necessarily imply the chosen solution of restructuring, particularly from a political point of view, notably given organized labour's principled opposition. Much of the narrative in this chapter is about the direct results of this and tells the story of how relying on economic rationale for restructuring electricity generation, without providing the necessary political rationale for key stakeholders has possibly been the central problem in South African energy politics. Similarly with climate change policy, despite overwhelming scientific evidence of the need for the policy and compelling techno-economic analysis demonstrating that adequate mitigation is possible, without due attention to the political economy within this policy will be implemented in general, and the politics in particular, prospects for implementation remain highly risky.

While policies for restructuring have been in process for decades, repeatedly warranted by ever-refined economic arguments, in depth political analysis remains outstanding, fundamental political challenges persist, and the policies have not been implemented. The structure of the electricity sector is very much the same in 2019 as it was in 1999 and at present there is a stalemate on resuming the official policy of the Renewable Energy Independent Power Producer Procurement Programme in defiance of public assurances by the President.

5.3 Conclusions and information directed at the international governance paper

A key question that emerges from the analysis, and points to further research is whether closed processes (those dominated by Policy Community-type network ones) are compatible with success in



implementation of the kind of transitions analysed – the electricity reform, the (public welfare driven) mitigation targets and their incorporation (through opened up processes) into the IRP2010, or the open transparent REIPPPP auctions?

There are (at least) two competing factions in South African government. One tends to involve actors in networks of the Issue Network-type in transparent programmatic policy processes intended by democratic processes. It would appear that this faction would be more likely to effectively govern a low carbon transition.

The other tends to involve actors in networks of the Policy Community-type in strategic and opportunistic processes ranging from the opaque through to covert and is not envisaged by open constitutional democratic ideals and facilitates evolution of policy to patronage dominated through to grand corruption (state capture) to the extent that the democratic state is threatened (Swilling 2019b). Given the reliance of this faction on rents from a very large, dominant incumbent coal electricity generation sector it would appear that a democratic government that was undermined by this faction would be unlikely to effectively govern a low carbon transition. International governance of climate change mitigation needs to be cognisant that measures or structures that assist with supporting actors in transparent democratic Issue Network-type networks could play an effective role in fostering emissions mitigation policy implementation.

The resistance to climate change emissions policy is part of a larger process of crony capitalism which relies on easy pickings from coal rents from coal procurement contracts and coal capital plant. Much of this is facilitated by an Eskom procurement system highly compromised by patronage networks ranging from 'legitimate' 'radical economic transformation' (Desai 2018); through parasitic capital accumulation (Nattrass 2014: 24) plain corruption (Parliament of South Africa 2017), to state capture (Bhorat et al. 2017), (Baker et al. 2020).

From an overall governance point of view the analysis would suggest that a predominating influence of political actors in exclusive networks ranging from Policy Community-type networks, through patronage networks to state capture networks would be incompatible with a successful transition to low carbon energy systems in countries with large fossil resources. Hitherto, international governance has provided support for Issue Network-type networks in producing issues around which these networks have crystallised, which has mainly been to set up overall policy targets and intentions: agenda setting and the "ambition agenda". While there has been the (partial) exception of the REIPPPP programme in policy implementation, in general local networks of the Policy Community-type have frustrated implementation, even now the REIPPPP. Future governance of implementation, at the national and international levels, will thus need to consider how to support local and international Issue Network-type networks and how this can address challenges to climate policy presented by Policy Community-type networks.



It is out of the scope of this paper, but it is appropriate to mention that climate change has become a core issue in national politics of many countries and deepening the understanding of political aspects of mitigation policy in an era where rapid fundamental transformations in energy systems will be central to developing policies with credible prospects of achieving those transformations. It has become apparent that the ‘bottom-up’ features of the PA require a deep understanding of the nuances of national politics at country level, not just in South Africa but possibly also in many other countries, not just emerging economies. There are number of countries that are experiencing similar challenges with Policy Community-type networks’ influence on mitigation policy. Thus improved understanding of these resulting from the South African study, including development and application of the conceptual framework, would be relevant to studies of these other countries.



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